"Trade, conflict, institutional reform and economic growth: the long 18th century expansion of world trade and the Iberian-American frontier."

Pastore, Mario

Latin American Studies Program, Cornell University, Ithaca, NY, Academia Paraguaya de la Historia, Asuncion, Paraguay

1998

"Trade, Conflict, Institutional Reform, and Economic Growth: The Long Eighteenth Century Expansion and the Iberian-American Frontier"[1]

by Mario H. Pastore[2]

The basic theorems of international trade lead economists to expect secular world trade expansions and contractions to directly affect domestic economic performance in the same direction. These theorems, however, assume that trade leaves unaffected the institutional framework assumed at the outset. Yet, the record abounds with cases which suggest that trade expansion may eventually lead to institutional changes that will in turn reinforce the domestic effects of the original trade expansion, and conversely. In addition, from the recent theoretical political economy literature on changing trade exposure and coalitions, as well as on trade and conflict, one can hypothesize that trade expansion and contraction may also affect economic performance indirectly, by way of their effects on coalitions and international conflicts, which may induce institutional changes from below and above that may reinforce the direct effects of expanding or contracting trade. Both available evidence and economic theory suggest, then, that trade and institutions may, much as aggregate demad and suply do in Keynesian income determination models, lead to a simultaneous economic and institutional equilibrium.[1]

However, to support the contention that the theoretically specified relationship between changing trade exposure and coalitions has in fact

---

[1] Address to the Academia Paraguaya de la Historia, Asunción, given in Spanish on induction as Académico de Número, on 23rd March 2000. Text published in Spanish, in Historia Paraguaya, Anuario de la Academia Paraguaya de la Historia, Volume XLII, 2002, pps 123-158, but for the tables, graphs, and maps included here.

[2]For reading and commenting on an early draft I thank Jerry W. Cooney and Stanley Engerman, and for discussing certain issues in the paper, Pedro Vives Azancot.

obtained its proponents have offered evidence from the nineteenth century world trade expansion to the end of WWI and the subsequent contraction to the end of WWII. They have advanced little if any evidence from the previous secular expansion and contraction of world trade, that of the long eighteenth century and the early decades of the nineteenth, more important in some respects. Similarly, though a recent study has found the notion that trade may exacerbate conflict between countries with similar endowments and tastes that compete for the same export markets to be consistent with the evidence for major South American wars of the nineteenth and twentieth centuries, little has been said about the influence that the long eighteenth century expansion and the early nineteenth century contraction of world trade may have had in unleashing international conflicts and, through them, bringing about institutional changes that may have reinforced the domestic economic effects of the original expansion and contraction.

I will focus here on the long eighteenth century expansion of world trade and its effects on a paradigmatic Spanish American frontier colony, distant and isolated Paraguay, on both the Indian and Portuguese frontiers. Here, the long eighteenth century world trade expansion led to a domestic expansion which in turn resulted in attempts to effect institutional change from below. Thus arose the first serious expression of creole nationalism in the Spanish American colonies, the so-called "Comuneros Revolts" of 1720-1735. However, these revolts were repressed by the Bourbons, who, after their defeat in the Seven Years' war, recentralized political power. The so-called Bourbonic Reforms of the late eighteenth century ensued, and have recently been credited with bringing about an economic boom in frontier Paraguay.[2]

I will argue here, therefore, that the long 18th century world trade

expansion, in addition to inducing a domestic economic expansion through channels that the staples growth model would lead one to expect, also led in Paraguay to changes in domestic political cleavages and to opposing attitudes regarding protection and liberalization that led to internal conflict in a manner consistent with Rogowski's analysis of changing trade exposure on domestic political coalitions. I will also contend that the early 18th century rise of anti-colonial creole nationalism had military origins, consistent with North's view that the state requires physical and ideological coercion to curtail the free rider problem and assure compliance.[3] I will furthermore argue that the long eighteenth century expansion of world trade, by encouraging more rapid growth in the British than in the Spanish empire, led by way of a Gerschenkronian, game-like challenge-response mechanism to Britain and Spain's entry into the Seven Years War, which ended with the defeat of Spain. This is consistent with the notion I have elsewhere suggested with Carlos Seiglie, that though competitive trade according to comparative advantage may be expected to lessen international conflict, imperfectly competition in international trade will lead to strategic behavior that may encourage international conflict. In turn, international conflict can lead, as Olson has shown, to changes in domestic political institutions and in economic policy that by altering incentive systems for private agents and establishing a more proper sphere for public sector activities may reinforce the positive direct effects of trade expansion on economic performance.[4] Spain's defeat in the Seven Years' war directly resulted in the Bourbonic Reforms of the 1770s and 1780s, which recentralized political power after the Comuneros revolts. Even so, many of the reforms proposed by the Comuneros were later incorporated into the late colonial Bourbonic Reforms.

Following the Reforms, Paraguay's domestic economic expansion appears to have turned into a veritable economic boom that lasted until the first decade of the nineteenth century. However, shortly after the Napoleonic wars caused world trade to begin to contract and the French invasion of Spain in 1808 led to the collapse of the Spanish empire, creole political entrepreneurs in Paraguay seized political power in what eventually became a new Latin American "province-state." The world trade contraction of the first half of that century induced a domestic contraction that together with the coalitional change that ensued turned the contraction into a depression that ushered in that country's 19th century experiment with "state-socialism" so called, which really was a creole version of Bourbonic mercantilism.[5] The peak that the late colonial economy reached in the late eighteenth century was not attained again in the national period for another century.

The portait I will offer here of the eighteenth century economic performance of this isolated backwater of the Spanish American empire will differ substantially from those the best known historians of Paraguay -armed with a different conception of what role colonies generally fulfill in an imperial system- have preferred.[6] I will also suggest that nationalism had military origins in early 18th Century Spanish America, even though the consensus is that it originated in nineteenth century Europe and that -contrary to what most economists raised on the traditional/modern dichotomy of economic development textbooks would not expect- institutional innovation did take place in a Spanish American frontier colony in the early eighteenth century. This paper and my earlier one on the effects of the trade contraction of the first half of the nineteenth century -if taken together- offer a view of the effects of changing trade exposure during the late eighteenth century

expansion and the contraction of the first half of the nineteenth century.

In the following sections I will examine in detail the record of the long eighteenth century, which I define as extending from 1680 to 1808. The neoinstitutionalist staples growth model within which the analysis is conducted will be developed in the process. Section One will discuss the segment stretching from 1680 to 1750 that is, from the first signs of trade revival late in the seventeenth century to the end of the Comuneros Revolts and the middle of the eighteenth century. Section Two will consider the last six decades of the late colonial period, and will focus in particular on the military, administrative, and commercial policy aspects of the post Seven Years war Borbonic Reforms. Section Three gathers the conclusions and draws some contrasts with the British American continental colonies.[7]

Section One.

Trade Expansion, Internal Conflict, Institutional Reform from Below, and Imperial Repression: Late Seventeenth to Mid Eighteenth Century Paraguay.

Economic activity quickened in Western Europe as the seventeenth century crisis lifted, earliest of all in Holland and England, where momentous institutional innovations obtained. Particularly important among these innovations was the exchange of revenue for rule-making power between sovereign and Parliament, central to the transition from absolute to constitutional rule that first appeared in England in the late seventeenth century. Parliamentary rule raised the costs of seeking mercantilist regulations and consequently led to a more competitive economy. It also led to greater stability of tax rates that increased the ability of individuals to commit and encouraged the development of capital markets, and in those and

other ways helped the Industrial Revolution eventually get under way.[8]

Dutch and British contraband trade with the peripheral Spanish colonies of the southern cone of South America increased since late in the seventeenth and early in the eighteenth centuries, and helped to erode the generalized economic depression that had characterized that region for much of the seventeenth century. The vitality of contraband trade is suggested by the 1680 founding of the Portuguese colony Sacramento on the so-called eastern bank of Spanish South America. As Lynch puts it: "Sacramento became a huge entrepot for English contraband: what Jamaica was to the Caribbean, Sacramento was for the Rio de la Plata."[9] In addition, discoveries of gold and its mining in Brazil in the late seventeenth and early eighteenth centuries and the recovery of silver mining production in Potosí after the 1730's increased demand for mules, cattle, and cattle by-products from the grazing lands centered on the mesopotamia of the Parana, Paraguay and Uruguay rivers, which include parts of today's Southern Brazil and Paraguay, Uruguay, and eastern Argentina, as well as for yerba mate from the area north of the mesopotamia straddling the current borders of Argentina, Brazil and Paraguay.[10] Increased exports of yerba mate led to rising demand for cattle -which yielded the hides in which the yerba mate was packed and the meat with which the crews that gathered it were fed- and land. The center of gravity of the colonial economy began to shift from the inland mines of Potosí to Buenos Aires, the port through which the resource intensive silver and other output of the region could most easily be traded for comparatively more capital and labour intensive European manufactures.[11]

In Paraguay, increased regional demand led in the first half of the eighteenth century to the construction of forts that improved security against equestrian Indian attacks from the west. Greater security facilitated navigation

downriver towards the River Plate and generally encouraged economic activity.[12] Paraguay had a comparative advantage in resource-intensive goods produced by using abundant resources like yerba mate forests and grazing land. Higher exports of these goods led to increased demand for the natural resource inputs needed for their production, which were extracted under different property rights regimes. Yerba mate was extracted from royal forests by private entrepreneurs licensed by the crown, but the yerba mate forests themselves remained state property, that is, private property rights were not defined over them. On the other hand, prospective cattle ranchers could obtain royal grants of lands on which to graze their heards. The grantees could become private proprietors of the lands they initially received in usufruct by fulfilling certain conditions. The first royal grants of land for private cattle raising made in Paraguay coincidentally date from the 1670's. Recipients of these land grants subdivided them and rented them out to owners of cattle stocks. That is, a form of share tenancy arose. Finally, the commonly-owned lands of Paraguay's pueblos de indios were also sought after by non-Indians. These "forasteros" so-called married into the indigenous communities to obtain access to their lands [13]

The population at the beginning of the period was made up -at one end of the ethnic spectrum- of the indigenous people who had survived the drastic population decrease of the sixteenth and early seventeenth centuries, the African and black slaves reexported to Paraguay from Brazil, and the manumitted free blacks and mulattoes. At the opposite end were the Spaniards, the Spanish American "criollos" (American-born children of Spaniards), and the mestizo offspring of Spanish and Indian unions. Many mestizos in effect became "criollos" during the seventeenth century, because Spanish migration to Paraguay was very small. Spaniards, Spanish-American criollos, and mestizos could hold *encomiendas*,

restricted grants of indigenous labor made by the crown to private Spaniards in exchange for the payment of taxes and for military service contributions, but these *encomenderos* were now a distinct minority. Those who did not hold encomiendas largely made up the peasantry, which was now the majority of the population.[14]

Most of the indigenous people were confined to towns of their own ("pueblos de indios") for collective taxation and other purposes. Those entrusted to Spaniards and confined to towns founded by Franciscan friars early on were relatively fewer now than those living in the Jesuit missions that were founded beginning in the early seventeenth century. Neither the privately owned African and black slaves nor the balck freedmen were to be confined to towns, but by the end of the colonial period three towns of black freedmen ("pueblos de negros") had arisen, for public finance reasons similar to those that gave rise to the "pueblos de indios."[15]

The population of the province rose as a result of both natural increase and immigration. Surveys for 1682 and 1782-1792 allow us to closely approximate the provinces' total population as well as its ethnic composition at the beginning and the end of the period under consideration. The 1682 survey puts the total population at 38,666. The administrative jurisdiction of Paraguay included the Spanish towns, their towns of Indians subject to encomiendas, and the Jesuit mission towns, most of which were not subject to the encomiendas.[16] According to the late eighteenth century surveys, after the expulsion of the Jesuits the population approached 100,000, reaching 96,630 in 1782 and 97,480 in 1792.[17] Roughly speaking, therefore, the population of the province increased 2.5 times over the course of 12 decades.

The indigenous population -as well as the population of the province

in general- rose in the late seventeenth and early eighteenth centuries, largely because the indigenous population of the Jesuit missions increased by more than that of the Franciscan misions decreased. The Jesuit mission population increased rapidly following the commutation of their encomienda labor services for money payments and military service between 1660 and 1680. On the other hand, the Franciscan mission population -which was still subject to rendering labor servicies to some Spaniards and mestizos in lieu of the tribute they owed the crown but was not required to render military services- continued to decline until the 1730s.[18] The mestizo population in particular and, therefore, the mestizo peasantry, continued to grow.[19] Spanish-American immigration from adjoining provinces was also attracted to the province as demand for exports and imported inputs increased.[20]

Figure 1 Goes About Here

Table 1 Goes About Here

Figure 2 Goes About Here

Figure 3 Goes About Here

Table 2 Goes About Here

Graph 1 Goes About Here

Table 3 Goes About Here

Table 4 Goes About Here

Table 5 Goes About Here

Table 6 Goes About Here

The military power of Paraguayan settlers was also relatively high and comparatively diffused, because Paraguay was located on the empire's Portuguese and Indian frontiers and because the absence of silver in Paraguay had led the crown to delegate the provision of defense services onto the settlers, respectively.[21] In addition, from its very inception the province of Paraguay had enjoyed a "special dispensation," that of electing its own governor when the office was left vacant by the individual the crown had designated, subject only to eventual royal confirmation.[22] This most unusual expansion of the rights to

self government in Spanish America is attributed to the fact that great distances separated Spain from Paraguay and transportation and communication difficulties kept local officials from consulting with the crown before making pressing decisions. Having both the legal right to a measure of participation in government and the means to enforce it, settlers of Paraguay frequently exercised the special dispensation in the sixteenth and seventeenth centuries. On occasion, settlers would forcefully depose sitting governors in order to exercise their special dispensation. Settlers of Paraguay, therefore, earned a well deserved reputation as an unruly lot.

Confrontations between governors and settlers arose as a result of frictions traceable to a number of sources. Particularly relevant in the case at hand were the sale of gubernatorial and municipal offices as well as the conflict between recentralizing Bourbon viceroys eager to assert their authority over regional courts of appeal (the Audiencias) and municipal councils. The purchase of offices gave governors an incentive to recover the investment they made in acquiring the office by using their rule-making power for personal gain. Municipal office holders found a way of bequeathing the offices they had purchased through the simple subterfuge of letting outgoing members of the municpal councils elect the incoming members. While the governor's commercial excesses sparked the Comuneros revolts in the 1720s, the conflict between Bourbon viceroys and governors on the one hand and the Audiencias and municipal councils on the other led to the spread and radicalization of the revolts in the 1730s.

The Comuneros revolts were in fact sparked by the actions of a governor who was seeking to recoup the investment he had made to purchase the office and whom the settlers contended favored the Jesuits at the settlers' expense.[11] When he sought Jesuit support the settlers' revolt turned into a conflict with the

Jesuits as well. These had become a military power of consequence after Jesuit mission Indians were exempted from the encomienda and were allowed to carry firearms. The Jesuits became, to the settlers, a state within a state.

Settlers and Jesuits had struggled before. In the seventeenth century, however, they had fought over control of indigenous people. Now they fought over land rather than labor, and what they regarded as unjust tax exemptions that the crown had granted the Jesuits and which diminished the competitiveness of Paraguayan products in the regional market. A similar revolt arose in the neighboring province of Corrientes.[14]

Relatively larger landowners led the first phase of the Comuneros revolt, consistent with Rogowski's framework. The settlers primarily demanded the expulsion of the Jesuits from the cattle raising lands between the Parana and the Tebicuary rivers, liberalization of trade restrictions with the Jesuit missions that the colonial administration had imposed, and the curtailment of preferential tax treatment granted to the Jesuit missions. During the second phase, however, leadership of the movement passed onto the hands of the lower rank leaders of the militia of poor and landless peasants laden with military duties, and the revolt changed aims. It ceased to primarily seek liberalization, and began advocating wealth redistribution towards smaller landowners, who had become more numerous as a result of population growth and made up the bulk of the militia.[15] It also demanded that the sale of provincial offices be ended, and that these offices be reserved for natives of the province who would be elected to their posts by residents of the province, a demand that would be echoed by the independence movement of the early nineteenth century. In the process, the settlers asserted the supremacy of the common folk over the king, challenging the authority of the crown to the point of appointing a Junta Gubernativa and executing the governor

the crown sent to dissolve it.

Significantly, this is the first time that lower rank leaders of the militia took independent action of this kind.[16] Though the settlers earned a military victory over the colonial administration and the supporting Indian armies from the Jesuit missions, the colonial administration eventually defeated the revolt and exemplarily punished its leaders.[17]

Local militia leaders furnished the defense services whose provision the crown had shirked for unprofitable. In effect, then, the settlers were alternative providers of these services and, in a sense, competitors of the crown. Creole public entrepreneurship in Paraguay, therefore, may be said to be military in origin. Conversely, the military origins of Paraguayan public entrepreneurship has a lot to do with the formation of Paraguay's sense of nationhood and the development of a separatist conscience there. This observation may also be applicable to other Spanish American frontier colonies.[18]

Theoretical reasons would lead one to expect just such a connection between providers of public goods like defense and ideologies of nationalism. National defense providers must have a comparative advantage in the supply of coercion, which is also a required input to enforce property rights and curtail the free rider problem that arises when governments tax individuals to finance the provision of defense and other services. However, physical coercion alone does not suffice to curtail the free rider problem and has to be supplemented by ideological means. Collective action entrepreneurs, therefore, are likely to seek to persuade the individuals they defend of the desirability of the defense services they provide and of the need to comply with the taxes levied to finance their provision. To that end, they may stress an us-versus-them attitude. That is, they are likely to give rise to an ideology of nationalism, and to use that

ideology as an ingredient in the formation of a nation out of the different groups that settle the area defended and taxed. The ideology of nationalism, therefore, may be expected to precede the nation rather than to follow it.[29]

Were the Comuneros a modern phenomenon similar to other eighteenth century rebellions or should we conclude from the fact that they had an antecedent in the sixteen fourties that they were an anachronism? To the extent that the Comuneros Revolts were a consequence of increased exposure to world trade during the long eighteenth century they belong with other similar phenomena of the eighteenth century and are a modern phenomenon. The fact that settlers and Jesuits also fought during the seventeenth century crisis should not lead to the conclusion that they were an anachronism, for the earlier confrontation was over indigenous labor and its protection, i.e., was of a different nature. Under conditions of world trade contraction we would expect owners of scarce factors to actively seek greater protection. The crown owned indigenous labor in the sense that it had a claim to collecting part of its earnings as tribute, and the colonial administration actively sought the spread of Jesuit missions.

Following the province's ill-fated "Comuneros Revolt," however, the crown did away with the special dispensation and otherwise recentralized political power. From then on, only the colonial administration named and removed governors. The practice of selling both gubernatorial and municipal offices appears to have ended. Furthermore, the colonial administration began enforcing a seventeenth century policy to grant no new encomiendas and force vacant ones to revert to the crown. Coincidentally, the population of the Franciscan missions began to increase, albeit slowly, just as it had happened with the indigenous population of Jesuit mission after it was exempted from encomienda services between 1660 and 1680.[30] In the absence of a standing army, the policy not to

grant new encomiendas and to force vacant ones to revert to the crown would necessarily mean that the population of the province would be forced to bear a greater military burden.

Let us now turn to the consequences of the Comuneros revolts on the Jesuit missions. The two major Comunero onslaughts against the Jesuit misions are clearly corrrelated with two episodes of drastic population decline in the missions, the precipitous one observable in the 1730s from nearly 150,000 to close to 75,000 in particular. The Jesuit mission population recovered in the 1740s, but exceeded the 100,000 mark only slightly, and very briefly.

Section Two.

The Seven Year's War, Institutional Reform from Above, and the Late Colonial Boom, 1775-1810.

In the second half of the eighteenth century the British economy grew more rapidly and the Industrial Revolution got underway, which led to greater imperial competition and to the Seven Year's War. Maria Therese of Austria joined France and Russia against Frederick the Great of Prussia, whom Britain then supported. Although the French were defeated by the British at Quebec in 1759, suggesting what the war's final outcome would be (i.e. that the French would be out of the New World and India), Spain belatedly entered the war on France's side, in 1761. In 1762 Britain took Havana and Manila. Spain lost Florida to Britain but in compensation received Louisiana from France. Britain encouraged emancipation of the Spanish American colonies. To the British challenge Spain responded with the Bourbonic Reforms, which were both military, administrative, and economic.[31]

The fall of the indigenous population of the Jesuit missions decreased the missions' usefulness to the crown as a source of tax revenues and military

services. Perhaps for that reason the crown made a serious effort to solve eastern boundary problems with the Portuguese. The settlement of these boundary questions, however, required dividing administrative jurisdiction over the Jesuit missions between the Spanish and the Portuguese, which provoked the so-called Guaraní wars. As a consequence of these wars, the population of the jesuit missions declined again.

The indigenous populaton decreases resulting from Comuneros revolts and the Guaraní wars, as well as the prospective settlement of the eastern boundaries contributed to the Jesuit's expulsion in 1767. It is perhaps no accident that few years separated the expulsion of the Jesuits from the signing of the 1777 Treaty of San Ildefonso between Spain and Portugal, by which the frontiers in the area under consideration were agreed.[32]

Administered after the expulsion by the colonial government, the former mission system began progressively to disintegrate, as can be seen from Table 1. "Mission Indians" did not return to the forests, as some argued, but spread all over. Many former mission Indians became free artisans and peasants.[33] Though large numbers of indigenous people then became potentially available for entrustment, privately held encomiendas did not regain their past importance. The Jesuit ranches devolved to the care of the state as well.[34]

As more indigenous people left the former Jesuit missions, monitoring their adherence to social restrictions imposed on them to enforce racial distinctions and privileges became more difficult. By simply wearing Spanish clothing, for example, indigenous people could evade a number of obligations. This contributed to the continued decrease of the proportion of people considered indigenous, which Table 1 shows fell considerably. Some of these former Jesuit mission Indians, who had become skilled artisans in Mission workshops, migrated to the

urban areas, but many settled on the land, because demand for land intensive products, yerba and tobacco most prominently among them, was high. The post Comuneros recentralization of political power, therefore, had numerous implications much before the reforms of the late 1770s and 1780s.[35]

The Bourbonic reforms created the Viceroyalty of the River Plate out of part of the Viceroyalty of Perú, with Buenos Aires as its seat. The Buenos Aires garrisons were reinforced by larger silver subsidies from the Potosí treasury and men from the outlying provinces, Paraguay among them. The Edict of Free Trade (1778) lifted some of the inter-provincial trade hindrances imposed by the Habsburgs in the seventeenth century and further encouraged economic activity in Paraguay. Also, government by Intendants improved tax collections and the delivery of government services, defense included; to that effect the military structure was reformed, which in turn implied the reform of the encomienda system. As the encomiendas progressively disappeared, the self-financed encomendero-led militias gave way to a semi-professional, salaried officer corps largely paid out of royal revenues. In Paraguay, the old "urbano" system was strengthened by the "filiado" system, a corps of semi-professional, salaried officers drawn from among the scions of old land-owning families that took over the leadership of the militias in 1801.[36] As already noted, the encomiendas were outlawed shortly thereafter, in 1803.[37]

In addition, to defend the northern frontier against perceived Portuguese territorial expansion, the two largest fortresses of the colonial period were built in Paraguay during the last decade of the eighteenth century.[38] There were also twenty guard posts in 1806,[39] River patrols complemented forts and guardposts.[40] The secured area expanded considerably, and allowed the settlement of the entire littoral of the Paraguay river.[41] Command of the peasant militias

was now in the hands of a salaried semi-professional officer corps paid from revenues derived from increased interprovincial and foreign trade as well as from land rent. From among these military officers arose most of the leaders of the movement that seized political power when Spanish rule collapsed in 1811.[42]

The Reforms centralized political power in the colonial bureaucracy and reorganised the military structure so that it more closely resembled a standing army. Absolutism increased and coercive power became more concentrated in the hands of the state. As a result, no revolt comparable to that of the "Comuneros" again arose during the remainder of colonial rule. Only after the British invasions of Buenos Aires and Napoleon's invasion of Spain undermined Spanish imperial power did grumbling against trade restrictions similar to those that had surfaced during the Comuneros revolts arise, but there is no evidence that anything remotely like the second phase of the Comuneros revolt again obtained.

The liberalization of trade of the late 1770's, by eliciting greater regional trade, called forth still greater production of yerba mate in the north, of tobacco in the east and, in the south and southeast, of cattle, used as an input in the yerba industry.[43] Exports of yerba mate, Paraguay's main staple, increased particularly rapidly; those of hardwoods and tobacco increased as well, but more slowly. Asunción yerba mate exports were only 26,429 arrobas in 1776 but averaged 195,102 arrobas per year from 1792 to 1796 and 271,322 arrobas per year from 1803 to 1807. Foreign demand for exports of hardwoods was also high due to the fact that the rising regional trade increased demand for riverain as well as overland transportation, and the population of Buenos Aires was growing rapidly. Imports also increased but they remained substantially below exports.[44]

Increased production and exports attracted capital from outside the province and raised the demand for financial services. The Church had previously

played a role as a financial intermediary, even though it was never very strong in this poor frontier colony, but in the wake of the Reforms the state itself strove to furnish several types of financial services, among them the so-called "libranzas." The resulting competition between Church and state suggests that frictions between them may have developed.[45]

Paraguay was the main source of yerba mate, hardwoods, and tobacco for the viceroyalty; both yerba mate gathering and logging thus increased at several points along the Paraguay river, as did shipbuilding and cartbuilding. Costs to the government of enforcing the terms of the licenses it issued to private entrepreneurs who exploited yerba mate and hardwood forests were high. These, therefore, were exploited much as a commonly owned resource, which led to deforestation, in a manner consistent with expectations based on the economic theory of common property resource use.[46] On the other hand, tobacco was the main cash crop of mestizo, guaraní-speaking small peasants, who grew it alongside subsistence crops on farms that in effect were privately owned, even though few peasants had clear title to the lands they cultivated.

Yerba production and hard-wood logging also required large inputs of cattle and, therefore, grazing lands, which were still available in the south east and were now availabe in the north as well. Privately owned ranches were formed, in the south from lands and cattle abandoned by the Jesuits. The state also sought to establish royal cattle ranches, to help defray the costs of defense arising from the expansion of the yerba and cattle frontiers; two "estancias del Rey" (royal ranches) thus emerged where troops could raise horses and cattle and grow crops, to help equip and feed themselves, one on the "Lower Coast," the other on the "Upper Coast" of the Paraguay river.[47] The colonial administration remunerated military commanders in land, granted according to rank. For this reason, as well as because of their access to indigenous labor, military commanders became relatively prominent among northern cattle

ranchers.[48] Azara observed that "ranches in Paraguay were smaller than in Argentina, and the cows tamer and fatter." However, the absence of surface salt ("barreros") and the climate itself made cattle raising relatively more difficult in Paraguay than in more southern provinces of the viceroyalty. Thus, late colonial Paraguay was a net importer of cattle.[49]

The greater domestic and foreign demand and the greater derived demand for land and labor helped expand the land frontier. Voluntary migration to the more rapidly growing yerba mate and cattle ranching areas of the north from within and without the province accelerated as well. A comparatively large intra-provincial migration is observed, of landless peasants from the southern mission towns abandoned by the recently expelled Jesuits to the yerba area in particular. Immigration from other provinces of the Viceroyalty and from Spain is also evident. New towns were formed, the land frontier was pushed farther out.[50] More free peasants tended to devote a greater part of their time to working for wages in the yerba trade and progressively abandoned the old custom of growing two crops per year.[51]

Involuntary migration also increased. Table 4 suggests that as the supply of coerced indigenous labor available to private agents declined African slaves were resorted to in greater quantities. The expansion of cattle production also increased demand for chattel slaves, who were used predominantly as overseers of cattle crews.[52] Vértiz, second viceroy of the River Plate, first authorized the import of African slaves and complete freedom to import black slaves into the River Plate was granted in 1791.[53] African slaves predominated in the private sector. The colonial administration also owned black slaves. After the Jesuits were expelled, the substantial number of slaves they owned -along with their other assests- became state property and were assigned to the Colegio Seminario de San Carlos. However, state enterprises still relied more heavily on coerced indigenous labour.[54] The state had made use of indigenous corveé labor for a

variety of purposes before it began to encourage public enterprises in the eighteenth century, which according to Hamilton was the main difference between Spanish mercantilism before and after 1700, and it was only natural that it should resort to coerced labor to staff these enterprises. Wages rose as well, partly because the late colonial trade expansion had raised the demand for labor, and the government sought to stimulate state-enterprise production of goods it deemed important for military or public finance reasons. The holding of encomiendas by individuals, though much diminished, was not abolished until 1803, and use of coerced indigenous labor continued in state enterprises after abolition of the private encomiendas.

Among state enterprises established as part of the Bourbonic Reforms was the Royal Tobacco Monopoly. In the Viceroyalty of the River Plate tobacco cultivation was allowed only in the province of Paraguay. The other provinces of the Viceroyalty could only buy Paraguayan tobacco. The Real Renta del Tabaco then established itself as the single buyer of export quality tobacco in Paraguay and the single seller of this tobacco in the other provinces of the Viceroyalty. That is, the Real Renta established a monopsony on export-quality tobacco as well as a state tobacco factory to produce "black twist" with Indian labor from the encomiendas that had reverted to the crown after the Comuneros revolts. Other state enterprises were also established that used coerced indigenous labor, the cable factory for one.[55] The colonial administration also assigned coerced indigenous laborers to certain private firms it wished to encourage, shipbuilders in particular.[56] Thus, the use of coerced labor in state enterprises, therefore, was simply a logical extension of a well established practice rationalized on public finance grounds. That the colonial administration should have retrieved the remaining encomiendas and used them in state enterprises like the "Fábrica de cables" and the "Estanco del Tabaco" is consistent with the notion that the the colonial administration did not forfeit its right to collect tribute from

Indians merely because it retrieved private encomiendas.

Consider now military implications of the interplay between tobacco, the small peasantry, and the colonial administration. The Real Renta del Tabaco prohibited the cultivation of tobacco everywhere in the Viceroyalty of the River Plate except in Paraguay. All other provinces of the Viceroyalty would be forced to buy Paraguayan tobacco. The Real Renta the established a monoposony of the vile weed inside Paraguay and a monopoly on the sale of Paraguayan tobaco in the other provinces. Expecting a large volume of tobacco sales, the RR contracted with Paraguayan producers to buy tobacco from them at a price that was not much higher than that these producers had previously been able to get for their output but that had the virtue of being fixed. In addition, the Renta did not initally restrict the quantity of tobaco that its Paraguayan suppliers could produce. That is, the Renta absorved some of the risk tobacco growers previously faced. This led peasants to overproduce tobacco and forced the Renta to overstock it. When the Renta could not sell its accumulated inventories it reneged on its previous commitment to buy all output. Subsequent royal attempts to induce peasants to furnish the Real Renta with tobacco succeeded only in 1800, when the Real Renta offered those who would commit themselves to supplying it with a certain amount of tobacco exemption from militia service.[57] Predictably, numerous prospective tobacco suppliers registered themselves with the Renta as prospective suppliers, and were exempted from military service. However, they tended not to fulfill their contracts. The game was to register oneself as a Real Renta tobacco supplier, obtain exemption for militia service and then claim that the weather destroyed the crop. The decreased reliability on the militia for provincial defense purposes increased the relative importance of the filiado corps.

The greater demand for staples and the fixed price for tobacco together with the concomitant exemption from militia service led to an increase of the small peasantry and, therefore, of the land frontier, and increased the relative

importance of small peasant proprietors even if it introduced a certain concentration of land and greater social differentiation. Correspondingly, the land market became more active: land prices rose, land rents, tenant-farming, and landless laborers appeared, and the frontier was pushed farther out. During this period, the lands of the pueblos de indios were increasingly encroached upon by strangers ("forasteros"), but Indian towns continued to be formally segregated until 1846, when they were formally dissolved.[58]

Rapidly rising exports led to a surplus in the balance of trade, which was reflected in a net inflow of specie, and a consequent increase in the money supply, to which cash payments to the new provincial bureaucrats and semiprofessional officer corps contributed. These increases in the money supply were absorbed partly by the greater volume of trade and partly by a price level increase. To the extent that yerba mate and other commodity moneys did not function efficiently as media of exchange by comparison to silver coin, the surplus in the balance of trade may have led to an increase in the volume of final goods transactions. However, it is clear that increased economic activity predates the reforms of the late 1770s and that the market was fairly extensive despite the relative absence of silver coin, which suggests that commodity moneys served fairly efficiently as media of exchange.[59]

That a considerable inflation may have been observed is suggested by the fact that landowning families appear to have held significant hoards of silver plate. Conversely, such hoarding -by decreasing the stock of money- may have kept inflation below levels it might otherwise have reached.[60]

The old land-owning families and the newly arrived immigrants entered into a mutually beneficial division of labour and intermarried. The landowners raised cattle in the countryside while the immigrants concentrated on the yerba mate trade and urban commercial activities, though neither appears to have specialised completely. However, the immigrants' influence on the Asunción cabildo tended to

increase at the expense of the landowners who had formerly dominated it, which resulted in some conflicts between them. The colonial economy continued to boom until the European wars disrupted trade.[61]

Clearly, economic conditions had improved substantially in Paraguay in the first decade of the nineteenth century relative to the late 1770's, when a royal inspector reported that the Province "needed redemption." It can also be affirmed withou hesitation that late colonial economic activity far outstripped that of the early national period.[62]

The nature of provincial political intercourse changed as a result of the late colonial economic expansion. The expansion of foreign trade altered traditional political cleavages. Increased yerba harvesting and cattle ranching improved the fortunes of pursuers of those activities, but had deleterious effects on agriculture, that of tobacco in particular. Rising wages in the yerba industry bid some labourers away from tobacco growers while the royal tobacco monopoly lowered domestic tobacco prices. Also, expanding cattle herds could not but have negative externalities on peasant plantings in the era before barbed wire.[63] Furthermore, by reforming the military system, the Bourbons helped to create a simiprofessional military that relied on government revenues for its support.

Section Three. Conclusions.

The long eighteenth century world trade expansion, therefore, had positive economic and institutional effects even in distant, isolated Paraguay, leading to both institutional reform movements from below and from above. Most of the characteristics of the movements for institutional innovation from below observed towards the end of the first third of the eighteenth century can be accounted for by changing exposure to world trade and relative factor proportions, but a part was also played by conflicts that arose from attempts to

redefine rights over resources that were accruing rising rent, and by public finance policies. However, the Bourbons quashed the Comuneros uprising and recentralized political power. They were not again similarly challenged until the Spanish American empire collapsed.

The Bourbonic recentralization, however, did have some positive economic and even institutional effects. The sales of offices ended. The expulsion of the Jesuits essentially opened the missions to commerce with outsiders and allowed the settlers to penetrate the lands between the Parana and the Tebicuary. This fulfilled two of the main demands of the Comuneros: it increased the supply of land to the settlers and liberalized the markets for goods of the Mission towns.

The Bourbonic reforms properly speaking also had liberalizing aspects. For example, the abolition of the repartimiento de mercancias in Indian towns eliminated the monopolistic and monopsonistic control that Spaniards previously exercised on those markets. In addition, the military reform did away with the encomienda and freed numerous non-Indians from the requirements of military service, even if at the same time it set up the basis for what would become the first early national standing army that buttressed the dictatorship of Jose Gaspar Rodriguez de Francia. Although the Indians freed from the encomienda continued to owe tribute to the state, which could therefore compell them to work in state enterprises the Bourbons encouraged, the 1803 abolition of the encomienda liberalized the labor market. State enterprises like the Royal Tobacco Factory actually helped decrease the burden of military services on the population. The military reform also helped increase security against Indian attacks and policing against cattle rustlers in the country side. Rural dwellers benefited from law and order. The military reform and state enterprises, together with the military reform helped increased the supply of labor.

The export-led economic expansion in turn benefitted owners and intensive users of abundant resource whose demands for further liberalization are clearly

evident in the beginning of the transition to the early national period. But as I have suggested elsewhere, this progressive coalition collapsed in short order, because the world contraction world trade gave political impetus to conservative social sectors that benefitted from protection and led the transition to the early national state socialism, which further accentuated the recession and must be regarded as an institutional regression.[4]

Whether the Comuneros could have been successful or would have followed a political path similar to that the thirteen colonies British Continental colonies did is difficult to say. It is, however, clear that contrary to what was the case in British America, the Bourbonic recentralization reimposed political absolutism in Paraguay. It is also clear that after a brief interlude following the collapse of the Spanish empire Bourbonic absolutism and mercantilism reappeared in early national Paraguay as the country's "state socialism" so-called. This neoborbonic early national regime contributed to the collapse of regional federative attempts, which together with the contraction of world trade of the first half of the nineteenth century brought about the Paraguayan Great Depression of the 19th Century.

Endnotes

1.This is true, for one, of the comparative advantage theorem in either its Ricardian or Heckscher-Olin version. Among the cases I am referring are most Latin American countries from the 1840s to the 1930s. See Cortés Conde's Export Economies. For the effects of changing trade exposure on coalitions see Ronald Rogowski, Commerce and Coalitions. The theoretical literature on conflict and defense dates to Kenneth Boulding's Conflict and Defense and Solomon Polachek's "Trade and Conflict."

2.The consensus among students of nationalism is that it arose in nineteenth century Europe. Benedict Anderson, however, suggests that nationalism originated in the eighteenth century New World and observes that "Paraguay forms a case of exceptional interest." However, his reference in this connection is to the early national regime of Francia in the first half of the nineteenth century, not to the Comuneros Revolts of the first third of the eighteenth century. See Imagined Communities especially p. 64. footnote 52.

3.See Richard Caves, "Vent For Surplus Models of Trade and Growth," in R.E. Baldwin et al (editors) Trade, Growth and the Balance of Payments (Chicago: 1965) and, for a good review of the subsequent literature on the staples growth to the early 1990s, see John McCusker and Russel Menard, The Economics of British America, 1608-1789 (Chapel Hill, NC: University of North Carolina Press, 1991), pp. 17-34. For the effects of trade on domestic coalitions and the use of ideology to curtail the free rider problem, respectively, see Ronald Rogowski, Commerce and Coalitions. How Trade Affects Domestic Political Alignments (Princeton, New Jersey: Princeton University Prss, 1989) and Douglass C. North, Structure and Change in Econmic History (New York: Norton, 1981), chapter 5.

4.See Mançur Olson, The Rise and Fall of Nations: Economic Growth, Stagflation, and Social Rigidities (New Haven, Conn.: Yale University Press, 1982). On trade and conflict see Mario Pastore and Carlos Seiglie, Trade, Rent, Revenues, and War: Analysis and Implications of Major Latin American Conflicts," an early version of which was presented at the panel on "War-Making States, State Breaking Wars, and Economic Development," XIX International Congress of the Latin American Studies Association, Washington, D.C., September 28-30, 1995, and Seiglie and Pastore, "The Effects of Trade on Military Spending," presented at the Peace Science Society Meetings, Houston, TX, October 24-26, 1996.

5.The main aspects of Paraguay's early national experiment with state socialism -the social revolution, agrarian reform, and state-led industrialization attempts of which it supposedly consisted- are discussed in my "Trade Contraction and Economic Decline: The Paraguayan Economy Under Francia, 1810-1840," Journal of Latin American Studies Vol 26, Part III (October 1994) and "State-led Industrialization: The Evidence on Paraguay, 1852-1870," Journal of Latin American Studies Vol 26, Part II (May 1994). This experiment led to - and was destroyed by- the Triple Alliance War, analyzed in Pastore and Seiglie, "Trade, Rent, Revenue, and War."

6.For example, White observes that "..Paraguay's political economy was not designed to benefit the province; its political and ecoomic structures existed to promote the interests of American and European metropolises." See Richard Alan White, Paraguay's Autonomous Revolution, 1810-1840 (Albuquerque: University of New Mexico Press, 1978), p. 17, which also epitomizes the case for Paraguay's early national "state-socialism."

7.For economic conditions at the end of the seventeenth century see Mario Pastore, "Coercion, Taxation, Trade and Development in Early and Mid Colonial

Paraguay," Journal of Latin American Studies Vol 29, Part 1 (January 1997) or the earlier version published in Tom Brass and Marcel van der Linden, Free and Unfree Labor (Berne and New York: Peter Lange, 1997).

8.On institutional innovation in Holland see Douglass C. North and Robert P. Thomas, The Rise of the Western World (New York, 1973), in England, Douglass C. North and Barry Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth Century England," Journal of Economic History vol 49, nº 4 (December 1989):808-832. On the effects of parliamentary rule on the costs of seeking regulation see Baysinger, Ekelund, and Tollison, "Mercantilism as a Rent-Seeking Society," in J.M.Buchanan et al (editros) Towards a Theory of the Rent Seeking Society (Texas A&M University Press: College Station, TX, 1981).

9.See John Lynch, Spanish Colonial Administration 1782-1810; The Intendent in the Viceroyalty of the Rio de la Plata (London, 1958), pp.32-33.

10.Yerba mate (Ilex Paraguayensis) grows spontaneously between 25 and 32 degrees latitude south. See Adalberto López, "The Economics of Yerba Mate in Seventeenth Century South America," Agricultural History Vol. 48 (1974), p. 493. The leaves are toasted and crumbled. The higher quality tea powder is known in Guaraní as "caá mirí, the lower quality tea as "caá virá" or "yerba de palos." Either one yields a hot or cold infusion (mate cocido o tereré, respectively) that is sipped with a straw.

11.The renewed economic expansion of the River Plate region in the first half of the eighteenth century is discussed by Magnus Mörner in "Panorama de la sociedad del Río de la Plata durante la primera mitad del siglo XVIII," Estudios Americanos Revista de la Escuela de Estudios Hispanoamericanos, Sevilla, Vol. XVII, nº 92-93 (Mayo-Junio 1959):203-216. Economic conditions in Paraguay in the same period may be discerned from Rafael Eladio Velázquez,

"Navegación paraguaya de los siglos XVII y XVIII," Estudios Paraguayos Vol. I (November 1973): 45-84, Juan Bautista Rivarola Paoli, La economía colonial (Asunción, 1986), and Branislava Susnik Una visión socio-antropológica del Paraguay del siglo XVIII (Asunción, 1991), pp.7-59.

12.In 1706 there were eleven forts and garrisons, nine spread over fifty kilometers along the Paraguay river and the other two in mountain range known as "Cordillera," in the Indian towns of Altos and Tobatí. In the decade of 1710 the Castle of Arecutacuá was founded and, in that of the 1740's, three more forts were founded in the eastern region, and four more in the Chaco. These, together with the presidio at Angostura and the guard at Remolinos on the left margin of the Paraguay river, secured navigation towards the River Plate. From about the same time is the guard post at San Fernando del Tebicuary. See Rafaél Eladio Velázquez, "Organización militar de la Gobernación y Capitanía General del Paraguay," Estudios Paraguayos Vol. V, nº 1 (Junio 1977), p. 45.

13.On the royal grant lands for cattle raising of the 1670s, the so-called "mercedes de Riquelme," see Regina Gadelha, As missões jesuíticas do Itatim: um estudo das estruturas socioeconómicas coloniais do Paraguai (seculos XVI e XVII (Rio de Janeiro: Paz e Terra, 1980); on the subdivision of these lands and their subletting see Branislava Susnik, "Visión socio-antropológica." The latest essay on pueblos de indios is Thomas Whigham's "Paraguay's *Pueblos de Indios*, Echoes of a Missionary Past," in Eric Langer and Robert H. Jackson (editors), The New Latin American Mission History (University of Nebraska Press: Lincoln and London, 1995):157-188.

14.The small peasantry's family-sized farms sprung up in the sixteenth century alongside the relatively larger, privately-owned estates worked mostly by Spaniards with encomienda labor, the commonly owned lands of the towns of

Spaniards and of Indians, and the lands owned by the state. The peasantry became progressively more important after the 1630's. See Pastore, "Coercion, Taxation, Trade, and Development."

15.On the "pueblos de negros" see Carlos Pastore, La lucha por la tierra en el Paraguay (Montevideo, 1972).

16.See Rafaél Eladio Velázquez, "La población del Paraguay en 1682," Revista Paraguaya de Sociología Año 9, nº 24 (Mayo-Agosto 1972):128-143.

17.See Anneliese Kegler Krug, "La población del Paraguay a traves de los censos de Azara y Aguirre (1782-1792)," Revista Paraguaya de Sociología Vol 11, nº30 (Mayo-Agosto 1974):179-213.

18.On the behavior of the indigenous population of the Franciscan missions see Garavaglia, Mercado interno y economía colonial (Mexico: Grijalbo, 1983), on that of the Jesuit missions see the recent study by Rafael Carbonell, Estrategias de desarrollo rural en los pueblos guaraníes (1609-1767) (Barcelona: Antoni Bosch, 1992), Ch. 12.

19.See Garavaglia Mercado interno pp. 353-379), and "Campesinos y soldados: dos siglos en la historia rural del Paraguay," in Juan Carlos Garavaglia, Economía, sociedad y regiones (Buenos Aires, Ediciones de la Flor, 1987), pp. 193-260).

20.In the late eighteenth century Spanish immigration is observed as well. See Cooney, "Foreigners in the Intendencia of Paraguay," The Americas Vol 39 (1982-83), pop. 333-358.

21.The crown had -for budgetary reasons- delegated its defense responsibilities onto the settlers in exchange for "encomiendas de indios," which were relatively small and numerous as compared to those of Mexico, for example. In provinces on other Indian frontiers such as Chile the crown stationed a large standing army and military power was therefore more

concentrated, and in the hands of the colonial administration. For the encomienda in Mexico see Charles Gibson, The Aztec Under Spanish Rule. A History of the Indians of the Valley of Mexico, 1519-1810 (Stanford, CA: Stanford University Press, 1964. Chilean military organization is discussed by Günther Khale, "La encomienda como institución militar en la América hispánica colonial." in Anuario Colombiano de Historia Social y de la Cultura nº 9 (1979):5-16.

22.For the "special dispensation" see Efraím Cardozo, Efemérides de la historia del Paraguay (Asunción: 1967).

23.The governor was Diego de los Reyes Balmaceda. See James Schofield Saeger, "Origins of the Rebellion of Paraguay," Hispanic American Historical Review Vol. 52 (May 1972):215-229.

24.On the Comuneros revolts, see Saeger, "Origins," Adalberto López, The Revolt of the Comuneros, 1721-1735: A Study in Colonial History of Paraguay (Cambridge, MA, 1976), and Juan Carlos Garavaglia Economía, Sociedad y Regiones (Buenos Aires: 1987), pp. 193-260; On the Comuneros Revolt in Corrientes, an easily accessible source is David Rock, Argentina, 1516-1980: From Colonization to the Falklands' War (Berkeley, 1985).

25.In this sense it should perhaps not be referred to as a revolt but as a revolution. As such, the Comuneros revolt or revolution belongs in a class with other eighteenth century upheavals in the New World that could conceivably be accounted for in similar theoretical terms. Whether it may be compared with other movements involving land redistribution -like that in led by Artigas in early nineteenth century Uruguay, or with the Mexican or Bolivian revolutions of the twentieth century is a question that will not be considered here.

26.This observation is credited to Juan Carlos Garavaglia, Economía, sociedad,

y regiones (Buenos Aires: Editorial de la Flor, 1987).

27.On the punishments, see López, The Revolt of the Comuneros.

28.See Eduardo Saguier, "La crisis revolucionaria en el Paraguay y el comportamiento de la milicia. La Real Renta del Tabaco como motor de la crisis agraria colonial," Folia histórica del Nordeste vol 11 (1995):65-91.

29.This account is consistent with Ben Anderson's notion in Imagined Communities that the ideology of nationalism tends to precede the formation of the nation, captured by the title of the book.

30.This observation suggests that the removal of compulsory labor requirements on indigenous people is positively associated with its recovery or, conversely, that the imposition of coerced labor obligations was a major contributing cause of depopulation, which implies that the widespread notion that the indigenous population declined largely because of lack of resistance to pathogens may be in need of revision.

31.On the Seven Years War see George Brown Tindall, America. A Narrative History (W.W.Norton and Co.: New York, 1988), ch 4, pp. 171-176. On Britain encouraging Spanish American emancipation and the military and other reforms with which the bourbons responded see Lynch, Spanish Colonial Administration.

32.However, it would be unwise to conclude that decreased defense needs were alone responsible, or even principally responsible, for the crown's decision to expel the Jesuits.

33.See Mariluz Urquijo.

34.See Benigno Riquelme García, "El Colegio Seminario Conciliar de San Carlos de Asunción, 1785-1822," in Cuadernos Republicanos nº 10 (n.d), p. 74 and Juan Bautista Rivarola Paoli, "La Administracion de Temporalidades en la Provincia del Paraguay," Historia Paraguaya vol 25 (1988), p.200.

35.For suggestions on the political effects of the Reforms see Carlos Pastore,

"Introduccion a una Historia Económica del Paraguay en el Siglo XIX," Historia Paraguaya vol. XVI (1978), pp.103-126 and Cooney, "Serving the Hinterland," p. 91, ftnt. 58.

36.For the Bourbonic Reforms see John Lynch, Spanish Colonial Administration 1782-1810; The Intendent in the Viceroyalty of the Rio de la Plata (London, 1958). For an analysis of the late colonial economic performance and regional specialization in Juan Carlos Garavaglia, "Economic Growth and Regional Differentiation: The River Plate Region at the End of the Eighteenth Century," Hispanic American Historical Review vol 65, nº 1 (1985):51-89. Garavaglia does not, however, discuss Paraguay. Conditions in pre-Edict Paraguay were described in Governor Pinedo's 1773 and 1777 reports to the king, excerpted in White, Paraguay's Autonomous Revolution, pp.17-21. For a summary of conditions in Paraguay after the Edict see Jerry W. Cooney, "An Ignored Aspect of the Viceroyalty of the River Plate," Intercambio Internacional Vol. 2, nº1 (January 1977):10-13. For detailed elaboration see Jerry W. Cooney, Economía y sociedad en la Intendencia del Paraguay (Asunción, 1990). For insightful comments and further sources on the military reorganization in the Province of Buenos Aires see Rock, Argentina, in Paraguay, John Hoyt Williams, "From the Barrel of a Gun: Some Notes on Dr. Francia and Paraguayan Militarism," Proceedings of the American Philosophical Society Vol. 119, nº 1 (February 1975):73-86, and Jerry W. Cooney, "The Paraguayan Independence Movement, 1806-1814," (Ph.D. dissertation, University of New Mexico, Albuquerque, NM, 1971).

37.See Plá, Hermano Negro and Oscar Creydt, Formación Histórica de la Nación Paraguaya for reports that the encomienda was abolished in 1803. That both private encomiendas and the use of coerced laborers in state enterprises may actually have continued past the encomiendas' abolition is suggested by the fact that, after Independence, an early national government took pains to

reiterate, in 1812, that the encomiendas were illegal.

38.Forts Borbón and San Carlos, the first on a hill on the right bank of the Paraguay River, the second, on the River Apa, See Velázquez, "Organización militar," p. 45.

39.Twelve under the so-called Down-River Regiment, eight under the Up-River Regiment, with a total 235 men. "Las guardias de Costa Abajo, que cubrían hasta cerca de la confluencia con el Paraná, eran, a partir de Asunción, Lambaré, San antonio, Villeta, Angostura y Macaipiram, cada una de ellas con 8 hombres de efectivo; Ibiaca y Lobato con 6; Remolinos con 20; Herradura, cerca de la boca del Tebicuary, con 18; Fortín (San Fernando?), posiblemente en la isma boca, con 6; Tacuaras, con 15; su Fortí (de Tacuaras?) con 5; Ñeembucú, con 20 y el Boquerón, con 12; lo que arroja un total de 156 hombres. Las de costa Arriba alcazaban hasta la población de San Pedro de Ycuá-mandiyú, lo que indica que Villa Real se hallaba servida pro sus propias milicias, en tanto que Borbón y San Carlos constituían guarniciones aparte. Eran las referidas guardias las del Castillo (antes, San Ildefonso) y del Peñón (hoy, Piquete-cué) con 6 hombres cada una; Arecutacuá, con 8; Manduvirá, ya mencionada, tierra adentro, con 15; Ypytá, con 20; Cuarepotí, con 6; Pedernal con 12; Ycuá-mandiyu con 6; totalizando 79 (68)." See Velázquez, Organización militar, p. 46-47.

40.Governor Díez de Andino, between 1664 and 1771 ordered the building of 140 war canoes, a ship called "San José" and a *barco longo*. Local industry continued to provide river vessels to improve vigilance and security of river navigation, and in the eighteenth century, "de sumacas artillas, balandras y hasta de una fragata." See Velázquez, "Organización militar," p. 47.

41.See Velázquez, "Organización militar," p. 47.

42.See Pastore, "Trade Contraction and Economic Decline."

43.See Jerry W. Cooney, "North to the Yerbales. The Exploitation of the Paraguayan Frontier, 1776-1810," in Donnay Guy (editor) Contested Ground (forthcoming). For the late eighteenth century boom see Cooney, "An Ignored Aspect."

44.One arroba equals twenty five pounds. For the 1776 figure see Efraím Cardozo, El Paraguay colonial: las raíces de la nacionalidad (Buenos Aires, 1959), p.106; for the 1792-1796 averages see "Tabla de Comercio," in Félix de Azara, Descripción e historia del Paraguay y del Río de la Plata in Biblioteca Indiana. Viajes por la América del Sur Vol. 2 (Madrid: 1847, 1962), pp. 313-314), and for the 1803-1807 averages see "Razón de los Tercios de yerva que salieron de esta Provincia en el último quinquenio," Ministros de R.l Hacienda Pedro de Oscariz and José de Elizalde, Asunción, November 28, 1898, in ANA-NE 1790, both cited in Jerry W. Cooney, "Serving the Hinterland: The Commercial Rise of Asuncion, 1776-1810," SECOLAS Annals vol. XVIII (March 1987), p. 90, footnote 46 and p. 91, footnote 48, respectively. Cooney also provides figures on total exports and imports.

45.For the financial activities of the Church see White, Paraguay's Autonomous Revolution. Asunción merchants could pay for their purchases in Buenos Aires with "libranzas," drafts drawn against their balances at the Royal Tobacco monopoly in Asunción which could be presented for payment at the Renta's offices in Buenos Aires.

46.For the expansion of hardwood and tobacco production see Jerry W. Cooney,"A Colonial Naval Industry: The Fabricas de Cables of Paraguay", Revista de Historia de America vol. 87, (Enero - Junio 1979) and "Forest Industries and Trade in Late Colonial Paraguay," Journal of Forest Industries Vol.23, nº4 (October 1979):186-197. The modern economic theory of common property resource use originates with H. Scott Gordon, "The Economic Theory of a Common Pool

Resource: The Fishery," Journal of Political Economy Vol. LXII (1954).

47.That is, "Costa Abajo" and Costa Arriba".

48.See Rafael Eladio Velázquez, "Organización militar de la Gobernación y Capitanía General del Paraguay," Estudios Paraguayos Vol. V, nº1 (Junio 1977):25-68 for the expansion of forts and Ferrer de Arréllaga, Expansión colonizadora for military status and land ownership in Concepción.

49.See Thomas Whigham, "Cattle Raising in the Argentine Northeast: Corrientes, c. 1750-1870," Journal of Latin American Studies, Vol. 20.

50.On immigration, Jerry W. Cooney, "Foreigners in the Intendencia of Paraguay", The Americas vol XXXIX (1982-83):333-358; on internal migration, René Ferrer de Arréllaga, Un siglo de expansión colonizadora: los orígenes de Concepción (Asunción, 1985); Juan Francisco de Aguirre, "Diario.." Revista de la Biblioteca Nacional de Buenos Aires nº. 17-20, 1949-51.

On the new towns, Rafael Eladio Velázquez El Paraguay en 1811 (Asunción, 1965); José Luis Mora Mérida, "La demografía colonial paraguaya," Jahrbuch für Geschichte von Staat, Wirtschaft, und Gessellschaft Lateinamerikas, Band II (1974), p. 76; Ferrer de Arréllaga, Expansión colonizadora; Alfredo Viola, Orígen de Pueblos del Paraguay (Asunción, 1986). See also Jerry W. Cooney, "The Yerba Mate and Cattle Frontier of Paraguay 1776-1811: Social, Economic, and Political Impact." Paper presented at the XIV Int'l Congress of the Latin American Studies Association, New Orleans, LA, 17-19 March 1988.

51.Peasants devoted themselves to agriculture during the fall and winter. They sowed tobacco in May or June and by September they were usually finished transplanting the seedlings, "though the operation sometimes continued for two more months." They labored in the yerba trade during the hottest months of the year, October through May. For the timing of tobacco activities, see Thomas L. Whigham, "The Politics of River Commerce in the Upper Plata, 1760-1865,"

(Ph.D. Dissertation, Stanford University, 1986), p. 175, for that of yerba harvesting, see Reber, "Commerce and Industry," p. 33.

52.This use of slaves was fairly common in cattle ranches throughout the grazing lands of the mesopotamia and the pampas. See Samuel Amaral, "Rural Production and Labour in Late Colonial Buenos Aires," Journal of Latin American Studies, Vol 19, Part II, pp. 235-278. Contrast with John Hoyt Williams, The Rise and Fall of the Paraguayan Republic, 1800-1870 (Austin: University of Texas Press, 1979).

53.See Lynch, Spanish Colonial Administration, p.49.

54.That some private encomiendas may have persisted after they were legally abolished is suggested by the fact that after Spanish rule ended, an early national government reiterated the encomiendas' evolution, in 1812. African slavery remained in force as well, both de jure and de facto. For state enterprises, see Jerry W. Cooney, "A Colonial Naval Industry: The Fabricas de Cables of Paraguay", Revista de Historia de America vol. 87, (Enero - Junio 1979); "Paraguayan Astilleros and the Platine Merchant Marine, 1796-1806," The Historian (1980):55-74; and "La Dirección General de la Renta de Tabacos and the Decline of the Royal Trade Monopoly in Paraguay. 1779-1800," Colonial Latin American Historical Review Vol 1, nº1 (1992):101-116; for a hint that state enterprises relied on indigenous coerced labor see James Schofield Saeger, "Survival and Abolition: The Eighteenth Century Paraguayan Encomienda." The Americas Vol 28, (July), pp.59-85. For the private sector's use of African slaves see Josefina Plá, Hermano Negro. La Esclavitud en el Paraguay (Madrid: 1972).

55.For some of the state enterprises see Cooney, "A Colonial Naval Industry," and for the escheating of the encomienda to the crown see Saeger, "Survival and Abolition, p. 77.

56.See Cooney, "Paraguayan Astilleros," for labor subsidies to shipyards.

57.See Cooney, "La Dirección General."

58.For an analysis of the causes and significance of the dissolution of Indian towns see Mario Pastore, "Trade, Wars, Institutional Innovation, and Economic Development: From State Socialism to Liberalism in Paraguay, 1845-1920," Chapter 6 in Mario Pastore, Trade, Endowments, Institutions and Development in Paraguay (ms).

59.See El Monedero de los Andes. Those who identified the relative scarcity of silver coin with the absence of a market may have overstated the degree of self sufficiency of this economy.

60.For silver hoarding, see Jerry W. Cooney, "The Carrera del Paraguay, 1770-1810: Lifeline of the Platine Littoral," paper presented at the Southern Historical Association Meetings, 1988. For statements on price inflation see Aguirre, "Diario.." cited in Cooney, "Serving the Hinterland: p.91, footnote 56.

61.See Jerry W. Cooney, "Criollos and Peninsulares in the Intendencia of Paraguay: Elite Accomodation in Place of Conflict." Dpt. of History, University of Louisville, (n.d.).

62.Product estimates like those proposed for the United States by Gallman and David have been put forth for Mexico by Coatsworth as well as by Richard and Linda Salvucci for Mexico, for El Salvador by Lindo Fuentes. However, I am aware of no such series for the Viceroyalty of the River Plate or any of countries that emerged in the region after its dissolution, though Coria has made an attempt for Mendoza in the first decade of the nineteenth century. See Robert Gallman, "The Pace and Pattern of American Economic Growth," in Lance Davis and et al, American Economic Growth (1972):33--39; Paul David, "The Growth of Real Product in the United States Before 1840: New Evidence,

Controlled Conjectures," Journal of Economic History vol. XXVI, nº 2, (June 1967); John Coatsworth, "Obstacles to Change in Nineteenth Century Mexico," American Historical Review (1978); Richard and Linda Salvucci, "Las consecuencias económicas de la independencia mexicana," in Prados and Amaral, La independencia americana (Madrid, 1993):31-53; Héctor Lindo Fuentes, "Nineteenth Century Economomic History of El Salvador," (Ph.D. dissertation, University of Chicago, 1984); and Luis A. Coria, "Determinación del P.B.I de Mendoza para 1807," in Anales del A.A.E.P, XXIII Reunión Anual Vol. I., 1988.

63.The Real Renta also had military implications. Tobacco growers who agreed to sell it their tobacco could be exempted of militia duties. See Cooney, "La Dirección General."

64.See Mario Pastore, "Trade Contraction and Economic Decline," pp. 539-540.

Figure 1
Main Settlement Areas North and East of Asunción, ca. 1628
Source: Garavaglia (1983, p. 123)

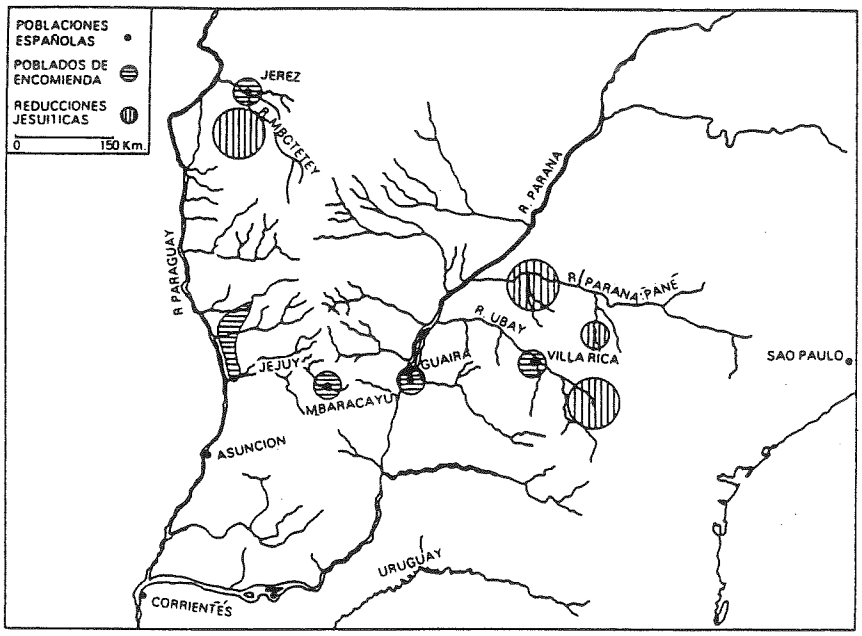


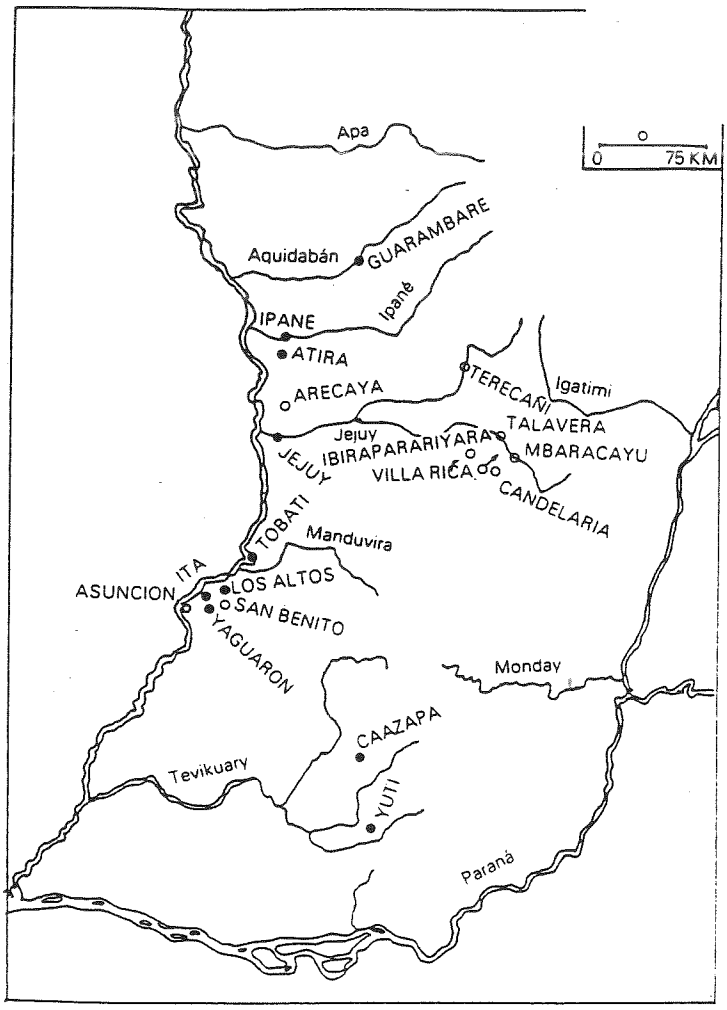
Table 1

Paraguay's Population, Indigenous and Non-Indigenous: 1682-18

	1682	1761	1799	1846
Population considered indigenous	30323	52647	32018	1200
Population considered non-indigenous	8943	32531	76052	237662
Total population	39266	85178	108070	238862

Source: Garavaglia (1983, p.201).

Figure 2
Indian Towns and Franciscan Reductions, 1635-1670.
Source: Garavaglia (1983, p. 137)



Legend: solid circles = towns whose location is fairly well known
blank circles = towns whose location is uncertain.

Table 2

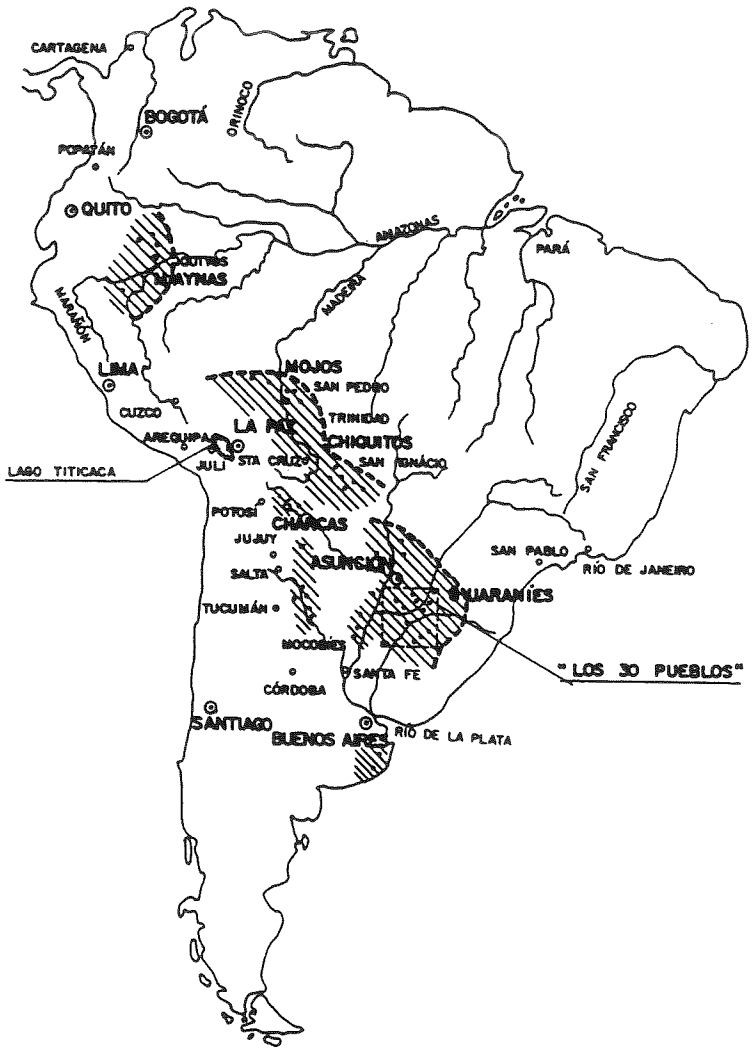
Paraguay: Population Considered Indigenous (1652/1799)

Years	1648.1652	1682	1724.1726	1761	1799
Originarios	3381	2517	1057	756	n.d.
Indian towns managed by clerics	5836	3429	2522	3024	5516
Franciscan reductions	5143	5307	3259	2304	2619
Subtotal	14360	11253	6838	6084	8135
Jesuit reductions	15000	19070	48130	46563	19143
Total	29360	30323	54968	52647	32018

Source: Garavaglia (1983, p. 186).

Figure 3

p.45



Las misiones jesuíticas en Sudamérica fueron principalmente de frontera. A las relacionadas con el territorio de Brasil cabe agregar las del Orinoco. (Cfr. Bruno, *o. cit.*, pág. 254.)

Graph 1

Evolución del total de almas de los 30 pueblos guaraníes

Graph 1

Evolución del total de almas de los 30 pueblos guaraníes

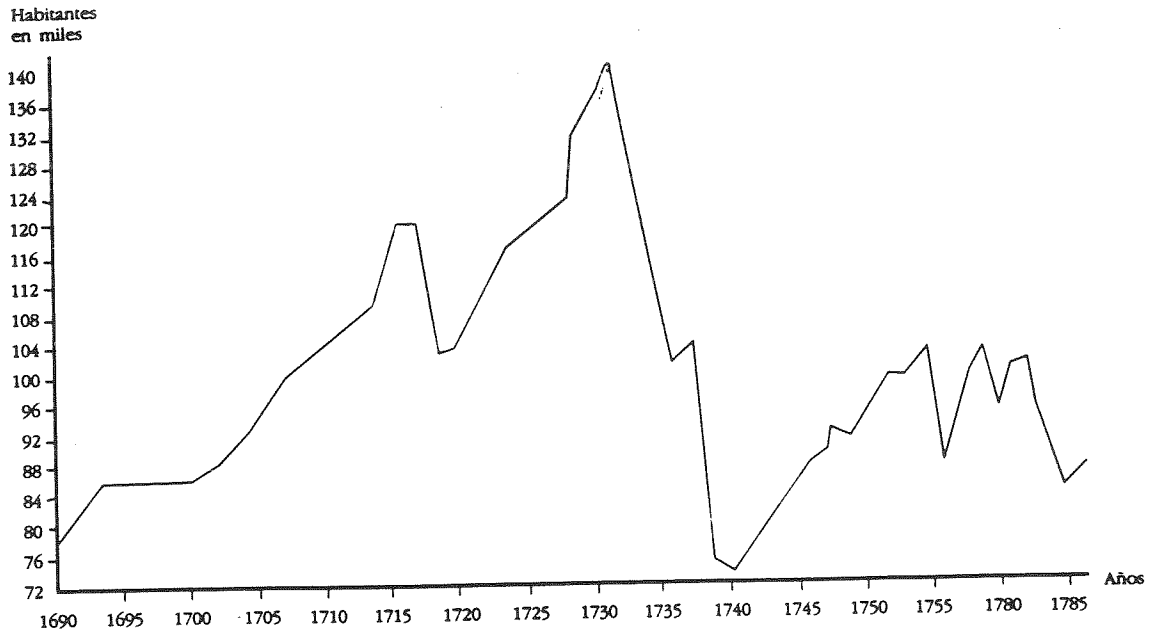


Table 3

Slave and Free Colored Population, 1682-1846

(totals and percentages of the total population)

	1682		1799		1846	
	Total	%	Total	%	Total	%
Slaves	1734	4.4	4598	4.2	7693	3.3
Free Clds	n.d.	n.d.	7948	7.3	9319	3.9
Total			12546	11.6	17212	7.2

Table 4

Towns Founded in Paraguay in the Late Colonial Period (1750-1800).

Name of Town	Year of Founding	Population
Lambare	1766	825
Limpio	1785	1769
Concepcion	1773	1551
Icuamandiyu	1786	979
Hiaty	1773	1232
Yacaguazu	1785	886
Boby	1789	427
Arroyos	1781	1227
Cariy	1770	654
Ibitymiri	1783	620
Caacupe	1770	733
Cuarepoty	1783	540
Paraguari	1775	507
San Lorenzo	1775	1720
Remolinos	1777	458
Quiquiho	1777	1136
Acaay	1783	858
Caapucu	1787	659
Neembucu (Pilar	1779	1730
Laureles	1790	621
Tacuaras	1791	520

Source: Azara (1961), cited in Mora Merida (1974), p.76

Table 5

Yerba mate entering Santa Fe
from Asuncion and the Jesuit Missions
in arrobas, 1 arroba=25 lbs.

Year	Paraguay	JHS Missions	Total
1675	26942	2495	29437
1676	30716	1846	32562
1677	n.d.	1729	n.d.
1678	n.d.	1115	n.d.
1679	15606	8590	24196
1680	18924	5464	24388
1681	9779	5341	15120
1682	28941	1330	30271

Source: Gravaglia (1983, p. 70).

Table 6

Asuncion Average Yearly Exports. 1788-1792

P. 50

Item	Quantity	Price		Value (pesos)
Yerba (arrobas)	195102	12	r/arroba	292653
Tie Beams (varas)	17590	7	r/vara	15653
Beams (varas)	1746	12	r/vara	2619
Logs (varas)	7229	21	r/vara	20927
Mast logs (units)	30	10	r/unit	37
Yards for Masts (un	1	11.5	p	11
Large Planks (varas)				
lapacho	187	6	r/vara	140
cedar	1829	4	r/vara	914
yvyraro	93	3	r/vara	93
Small Planks (varas	37	3	r/vara	93
Cross Timbers	23	6.5	r	20
Ship futtocks	34	4	p	136
Carts	9	40	p	360
Cartwheel hubs	300	5	p	1500
Cartwheel axles	164	2	p	328
Cartwheel pieces	25	2	p	50
Cartwheel spokes	30	1	p	30
Palm logs	4137	6	r	3140
Bamboo	882	3	r	325
Canoe paddles	2	4	r	1
TAbles	2	20	p	40
Chairs and stools	36	10	p	360
Desks	2	40	p	80
Fine needlework bo	2	10		20
Towropes	2	40		40
Sugar (arrobas)	441	4	p/arroba	1764
Honey (arrobas)	1397	12	r/arroba	2095
Sweets (arrobas)	157	3	p/arroba	471
Starch (arrobas)	39			
Salt (arrobas)	1282	8	r/arroba	1282
Clay jars	184	2	p	368
Linen	1534	8	r/vara	472
Cotton	3328	12	r/arroba	4992
Hides	201	12	r each	301
Aguardiente (barrel	2	22	p/barrel	44
Wax (arrobas)	3	6	p/arroba	18
Whetstones	3	3	p	9
Tobacco (royal mon	n a	n	a	47773
Total				395018
Costs (commissions (11%). alcabalas. mermas.				
and import fees from Las Conchas to Buenos Aires				43761
Handling				24000
Total Costs				67461
Net Value of Exports				327648
Value of Imports				155903
Difference				171743

Source: Azara. Descripcion e historia del Paraguay. vol 1. pp313-14

Cited in Whigham. The Politics of River Trade. pp17-18.