

# Inconvertible Paper Money, Inflation and Economic Performance in Early Nineteenth Century Argentina\*

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*Abstract.* To date, factor endowments or comparative advantages in the international economy, have been at the centre of explanations for the economic performance of Argentina in the nineteenth century. Historians have focused on the increasing volume of rural exports and the availability of land on the frontier. Yet, the contemporary fiscal and monetary events have been ignored. From the 1820s to the 1860s, the state was mainly financed by issues of inconvertible paper currency. Hence, depreciation and high volatility of the means of payment became a basic feature of the Buenos Aires economy. This article will reassess the expansion of the rural economy in the light of the impact of inflationary finances.

In a recent book, Stephen Haber notes that Latin American countries ‘fell behind’ in comparison with the performance of the North Atlantic economies during the eighteenth and early nineteenth centuries rather than in the twentieth.<sup>1</sup> Previously the roots of Latin American economic backwardness were traced back to the colonial heritage or its dependence on the central economies that developed during this century. Now, it is argued that institutions and governmental policies played a significant role in determining the scope of economic growth.<sup>2</sup> More notably though, Haber’s book is concerned mainly with the cases of Brazil and Mexico

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<sup>1</sup> S. Haber (ed), *How Latin America Fell Behind. Essays on the Economic Histories of Brazil and Mexico, 1800–1914*. (Stanford, 1997) In particular see ‘Introduction. Economic Growth and Latin American Economic Historiography.’ pp. 1–33. For an account of Latin American economic history in terms of the divergence during the twentieth century, see V. Bulmer Thomas, *The Economic History of Latin America since Independence* (Cambridge 1994) esp p. 411.

<sup>2</sup> J. Coatsworth, ‘Economic and Institutional Trajectories in Nineteenth Century Latin America’ in J. Coatsworth and A. Taylor (eds), *Latin America and the World Economy since 1800* (Cambridge MA, 1999) pp. 23–54.

while similar studies on Argentina are absent. So far, explanations of Argentine economic history of this period have focused on factor endowments – land and labour, and their relative scarcity – or the comparative advantages in the international economy.<sup>3</sup> Nevertheless, early nineteenth century Argentina might be a good example to assess how institutions shape economic performance, and to understand the economic foundations of institutional changes.

By the mid-nineteenth century, the state and market had taken a definitive and modern form in Argentina. In the aftermath of independence it proved unfeasible to construct a stable political organisation for the whole of the country, and, until 1852, Argentina was a loose confederation of politically and financially autonomous provinces, often involved in long civil wars. Buenos Aires – the former colonial capital – retained the headship of this confederation and enjoyed the monopoly over customs revenue and foreign trade. In the 1850s the province of Buenos Aires seceded and a decisive military dispute over the political constitution of the country took place. The forces of Buenos Aires prevailed and the definitive political and fiscal constitution of the Argentine republic was adopted in 1862. Another important consequence of Independence was the loss of control over the mining territory that later was to be Bolivia.<sup>4</sup> Yet while bullion became scarce, cattle hide, tallow, salted beef and wool produced in the littoral provinces increasingly set off the initial imbalance in foreign trade.

During this period the state – in the province of Buenos Aires – was financed by the so-called inflationary tax. Inconvertible paper money became an actual fiduciary currency, and the means of payment for domestic transactions in the province. Bullion did not entirely disappear though, as it was the currency standard in neighbouring economies. Meanwhile, in the UK the currency and banking schools debated at length, and without much success, how to operate with convertible money and several banks of issue. Buenos Aires initiated a forty-year process of dealing with inconvertible paper money issued by the government via the only existing bank. This ‘bi-monetary’ (non bi-metallic) system was an extraordinary phenomenon in contemporary monetary history.<sup>5</sup> Yet, the historiography has not properly considered its

<sup>3</sup> For a general assessment see S. Engerman and K. Sokoloff ‘Factor Endowments, Institutions, and Differential Paths of Growth among New World Economies. A View from Economic Historians of the United States’ in Haber, *How Latin America* pp. 261–304.

<sup>4</sup> E. Tandeter, *Coacción y mercado. La Minería de la Plata en el Potosí colonial. 1692–1826* (Buenos Aires, 1992) chap. 5.

<sup>5</sup> Britain returned to the Gold Standard in 1821. The United States progressively moved into it from 1834, although silver was also maintained as legal tender until 1900. Paper

occurrence and impact on the performance of the early nineteenth century Argentine economy.<sup>6</sup>

This article will assess the performance of the economy in the River Plate area from the 1820s to the 1860s, in the light of the issues mentioned above. First, it will appraise the supposed growth of the rural economy, pointing in particular at the availability of capital. Secondly, it will analyse the contemporary financial and monetary circumstances. Thirdly, it will outline some micro- and macroeconomic consequences of inflationary financing.

### *The expansion of the rural economy*

During the last decades of the colony rural goods already accounted for one third of the total value of exports. Salted or dry cow hides were the main item, and successively enlarged their share of the total value of exports so that by 1850 they formed over 60 or 70 per cent of the total.<sup>7</sup> The volume of hide exports, largely due to North Atlantic markets, rose from an estimated 460,000 units in 1792–1796, to 624,000 in the 1820s to the maximum of 2,662,000 in the early 1850s.<sup>8</sup> Despite the volume of River Plate exports, they were never able to set international prices, as steady foreign demand drove the production of those low aggregated-value goods. River Plate economies remained as price takers in the

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standards varied and were not yet fully comparable given the bank of issues' systems. For the US monetary and banking system before the Civil War see J. Attack and P. Pasell, *A New Economic View of American History from Colonial Times to 1940* (New York, 1994) pp. 82–4.

<sup>6</sup> The alternative use of a 'bi-monetary' in the domestic and the export economy was noted for a later period by J. Williams in *Argentine International Trade under Inconvertible Paper Money, 1880–1914* (New York, 1969), A. Ford, *El Patrón oro: 1880–1914. Inglaterra y Argentina* (Buenos Aires (1969) See in particular A. Fishlow, 'Market Forces of Group Interests: Inconvertible Currency in pre- 1914 Latin America' (mimeo 1987) and R. Cortés Conde, *Dinero, deuda y crisis: evolución fiscal y monetaria en la Argentina* (Buenos Aires, 1989).

<sup>7</sup> Other processed goods such as salted meat and tallow increased the proportion up to 90 per cent in the 1840s. T. Halperín Donghi, 'La expansión ganadera en la campaña de Buenos Aires' in T. Halperín Donghi and T. Di Tella, *Los fragmentos del poder* (Buenos Aires, 1969) p. 28. During the 1850s the share of wool rose to a fifth of the total value of exports.

<sup>8</sup> For the evolution of colonial *estancias* and hides, exports from the 1770s to 1850s see S. Amaral, 'Rural Production and Labour in Late Colonial Buenos Aires', *Journal of Latin American Studies* (JLAS hereafter) 19, 2 (1987) pp. 231–278. For annual volumes from 1710 to 1870 see S. Amaral, *The Rise of Capitalism on the Pampas. The Estancias of Buenos Aires, 1785–1850* (Cambridge, 1998). Appendix C table C.1 p. 318.

international market for their export goods throughout the nineteenth century.<sup>9</sup>

It has been argued that, despite low rates of capital and labour investment – leading to technological archaism – such growth was only possible because empty public land was available.<sup>10</sup> Within the limits of capital scarcity, cattle raising obtained high rates of returns. In fact, cattle formed the bulk of initial capital input required given that land was cheap. Production was not labour intensive and entry costs were low. The state further lowered other installation costs. Military campaigns to prevent Indian incursions and seize their lands, the provision of law and order, plus successive leases or sales of public lands for fiscal purposes, all contributed to the profitability of cattle raising. Traditionally, historians have estimated profits at about 20–30 per cent per annum.<sup>11</sup> Although calculations were based on income and expenditure in paper pesos, this equalled the rate that contemporaries observed for the actual reproduction rate of cattle each year.<sup>12</sup> Notwithstanding the success of *estancias* (large cattle ranches) mercantile capital sources apparently financed rural expansion, and, given that this growth was related to foreign trade, the role of merchants in the production of staple exports and their investments in large estates remains a key issue in assessing economic performance at the time.

The attention given to the *estancia* in the literature overshadows the performance of arable farming throughout the first half of the century. Farmers constituted a large share of the rural economy even in the 1850s. The provincial census for the countryside in 1854 recorded nearly 40 per cent of those listed as ‘owners and renters’ as committed to crop farming.<sup>13</sup> Yet, agricultural studies have not gone beyond the demo-

<sup>9</sup> According to Sabato wool was rather exceptional. H. Sabato, ‘Wool Trade and Commercial Networks in Buenos Aires, 1840s to 1880s’ *JLAS* 15,1(1983) pp. 49–81.

<sup>10</sup> See the seminal papers by T. Halperín Donghi, ‘La expansión ganadera...’ and ‘La expansión de la frontera de Buenos Aires (1910–1852)’ in M. G. Zapiola (ed), *El régimen oligárquico. Materiales para el estudio de la realidad argentina* (Buenos Aires, 1975). More recently S. Amaral, *The Rise of Capitalism*.

<sup>11</sup> T. Halperín Donghi, ‘La Expansión Ganadera’ pp. 34–5. J. C. Brown, *A Socioeconomic History of Argentina, 1776–1860* (New York, 1979) pp. 154–5; ‘Extant accounts books reveal that the income exceeded expenditures among the larger ranches and farms by fifteen to 20 per cent in good years, but certainly not each year’. Idem, ‘Revival of the Rural Economy and Society in Buenos Aires’ in M. D. Szucham and J. C. Brown, *Revolution and Restoration. The Rearrangement of Power in Argentina, 1776–1860* (Lincoln NE, 1994) fn. 27 p. 249. Nevertheless Amaral quoted figures in constant prices for 1831 and estimated the rate as 18 per cent. See ‘Rural Production...’ p. 276.

<sup>12</sup> J. C. Brown, ‘A Nineteenth Century Argentine Cattle Empire’, *Agricultural History* 52,1(1976) pp. 162, 176.

<sup>13</sup> Figures for farmers and ranchers respectively: 5785 to 9856. The former represent 15 per cent of the total adult male population (42,816), which is the lowest estimate possible since figures do not include 20,313 day-labourers (47 per cent). It is reasonable

graphic analysis of rural labour.<sup>14</sup> In fact, methods of cultivation were as primitive in the 1850s as they had been during late colonial times. However, early in the century the output of grain farming had been very high. Yields were even higher than in the most productive areas in Europe,<sup>15</sup> or those achieved in late nineteenth century Argentina.<sup>16</sup> But high yields were unsustainable in the long-term. The estimated average yield of wheat in the mid-1850s was still 25 *fanegas* to one sown, which was considered normal in the 1800s.<sup>17</sup> Productivity seems to have been low and so agriculture stagnated. Historians have found reasons for this poor performance in the chronic shortage of labour, high costs of transport and foreign competition.<sup>18</sup> The effects of erratic fiscal policies may well have worsened these hindrances. Fixing prices for bread or imposing differential duties on wheat and flour imports according to the current local political situation sought protection for croppers, albeit not very efficiently.

Similarly, historians have blamed the backwardness of native manufacturing on contemporary fiscal policies. Some argued that the prevalence of free trade policies, which intentionally favoured cattle raisers, were the main obstacle; others saw high tariffs aimed at protecting specific industries, such as hat- or cigar-makers, as the cause of the problem.<sup>19</sup> The

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to expect at least half of them to be engaged in farming. The estimate includes neither female nor child labour that certainly participated in farming. Own estimates from *Registro Estadístico Estado de Buenos Aires* (REBA hereafter) (1854) Table 10.

<sup>14</sup> See J. C. Garavaglia and J. Gelman, 'Rural History of the Rio de la Plata, 1600–1850', *Latin American Research Review*, 30–31 (1995) pp. 75–105.

<sup>15</sup> J. C. Garavaglia, 'Economic Growth and Regional Differentiation. The River Plate Region at the end of the Eighteenth Century' *Hispanic American Historical Review* (HAHR hereafter) 65, 1 (1985) pp. 76–79.

<sup>16</sup> Wheat yields were (on average) between 9.5 to one in 1895–99 and 11.6 in 1905–09. Still the 1800–50s yields were far larger than the US and Canada by the turn of the century. W. P. Rutter, *Wheat Growing in Canada, the United States and the Argentine* (London, 1911) p. 125.

<sup>17</sup> In 1855 local authorities estimated the average yields in Chivilcoy to be 25 to one. The extraordinary yield that year of 55 was recorded for *trigo de pan o colorado* in Junin. In REBA I (1855) p. 10 and pp. 105–6. Similar figures for different types of wheat (23–24 for *Barletta* wheat, 20–22 for *trigo de pan* and 28–30 for *Blanco* and *Candeal*) were estimated in Mercedes. REBA II (1855) pp. 35–7. By 1860s yield was 25–30 for wheat and 70–80 for barley in San Nicolás. Th. Hutchinson, *The Parana with incidents of the Paraguayan War and South American Recollections from 1861–1868*. (London, 1868) p. 136.

<sup>18</sup> M. Burgin, *Economic Aspects of Argentine Federalism, 1820–1852* (New York, 1971) pp. 31–2 and 256–58. J. C. Garavaglia, 'Economic Growth' p. 79. For others, even 'the psychology and habits of the Argentines of the littoral were also powerful deterrents to farming', J. Scobie, *Revolution on the Pampas a Social History of Argentine Wheat, 1860–1910*. (Austin, 1967) p. 12.

<sup>19</sup> J. Mariluz Urquijo, 'Protección y librecambio durante el período 1820–1835' *Boletín de la Academia Nacional de la Historia*, 34 (1964) pp. 697–717 and J. C. Nicolau, *Industria argentina y aduana, 1835–1853* (Buenos Aires, 1975) pp. 45–49 esp. chap II, 'La Industria Porteña'.

lack of domestic savings derived from an export sector ‘not dynamic enough to generate surplus capital for investments’, alongside the weakness of the domestic market, have also been noted. Thus, industry remained at the ‘workshop level’ over the decades.<sup>20</sup> Only with the age of railways in the second half of the century, reducing transport costs and so overcoming market fragmentation, does the outlook for urban artisans improve.

*The capital scarcity and dominance of mercantile credit*

Scholars have noted two features of the lack of finance in the nineteenth-century economy. As contemporaries often assumed that scarcity of money was the same as scarcity of capital, some historians also tended to take them as one and the same thing. They discuss a shortage of capital or a lack of credit as the same phenomenon. Nonetheless, there is agreement about prevailing capital constraints. First, evidence is provided by the high prices of money, although most authors quote nominal interest rates,<sup>21</sup> along with the unavailability of institutional sources of credit.<sup>22</sup> Secondly, the notion that the growth of the rural economy was financed by merchant capital continues to draw the attention of some historians to what one has termed the ‘notorious dominance’ of merchants over producers in the domestic economy.<sup>23</sup> Both, the ‘lack of capital’ and the mercantile nature of credit are said to have been major hindrances to capital formation.

Capital insufficiency is assumed to be an outcome of a dearth of specie due to an unfavourable commercial balance. But this explanation remains incomplete, as existing data on foreign trade does not allow exports to be distinguished according to the place of production, neither is the volume

<sup>20</sup> J. Lynch, *Argentine Dictator, Juan Manuel de Rosas* (Oxford, 1981) pp. 130, 144.

<sup>21</sup> Burgin found that ‘Loanable capital was chronically scarce in Buenos Aires in spite of Rosas’ inflationary policies’, *Economic Aspects*, p. 266. For current discount rates see *ibid.* fn. 41; Halperín Donghi repeated the notion in ‘La expansión ganadera’ pp. 36–7. In the late 1840s the rate for bill discounts in paper pesos was about 18–24 per cent per annum, and a monthly one per cent was charged when borrowing in gold; for estates and urban properties [the rate] was around 6–9 per cent. William MacCann, *Two Thousand Miles’ Ride Through the Argentine Provinces* (London [1853], Buenos Aires, 1969) p. 158.

<sup>22</sup> J. C. Chiamonte, *Mercaderes del litoral: economía y sociedad en la provincia de Corrientes, primera mitad del siglo XIX* (Mexico, 1991) p. 34 and endnote 17 in particular. For a similar conclusion derived from different approach see also R. Cortés Conde, *La economía argentina en el largo plazo (siglos XIX y XX)* (Buenos Aires, 1997) chapter IV, ‘El origen de la banca en la Argentina en el siglo XIX’ in particular pp. 114, 124.

<sup>23</sup> ‘In the conditions of general illiquidity, (this) unequal relationship of exchange (...) typical of precapitalist systems, prioritised commercial profits’, Chiamonte, *Mercaderes* p. 33.

of foreign goods re-exported to the interior specified. Moreover, trade from Buenos Aires is usually assumed as the whole country's commerce and so resultant balances may be misleading.<sup>24</sup> Similarly, exchanges with Britain are taken as proxy of total foreign trade. In the 1820s Great Britain was the main trading partner and enjoyed a surplus with the River Plate. By the middle of the century, continental Europe and the USA displaced Britain.<sup>25</sup> Moreover, while the value of imports from Britain by 1850 varied little from the level of 1825, the value of exports from the River Plate had increased despite sharply falling prices.<sup>26</sup> In other words, an increase in the quantity of hides shipped compensated for the decline in the export values. European markets attracted more of the new export produce – wool – than did the UK, which remained the main customer for salted hides and tallow. Since exchange with other countries appear to have favoured Buenos Aires, it may be expected that the overall trade balance tended to provide surpluses. It is claimed that Buenos Aires' overseas balance of trade with overseas became favourable from 1836 although blockades sometimes interrupted the trend.<sup>27</sup>

Roughly one third of the goods shipped from Buenos Aires were produced outside the province and nearly two thirds of European goods were consumed far beyond the port.<sup>28</sup> Hence the province persistently enjoyed trade surpluses with the interior and with neighbouring countries. Inevitably, this had distinctive consequences for the public finances of each province. The effects of occasional foreign trade deficits in Buenos Aires were transferred to neighbouring provinces while the Buenos Aires

<sup>24</sup> Complete data on foreign trade are known just for 1822, 1825, 1836–39 and 1849–51. For the years 1835, 1836, 1848 and 1848 data are partial. Data for 1829 include trade with other provinces. New data on Buenos Aires trade in particular for the mid-1850s in *Informes de la Comisión de Cuentas presentado a la Asamblea General Legislativa del Estado* (*Informes* hereafter) (Buenos Aires, 1854–55, 1856 and 1858). Recent studies on regional trade show the significance of exports goods produced in the Litoral. See R. Schmit and M. Rosal, 'Las Exportaciones del Litoral Argentino al Puerto de Buenos Aires entre 1783–1850', *Revista de Historia Económica* XIII, 3 (1995) pp. 581–607.

<sup>25</sup> A. Vaillant, *Apuntes estadísticos y mercantiles sobre la República Oriental del Uruguay* (Montevideo, 1863) pp. 12–5; H. Ferns, *Britain and Argentina in the Nineteenth Century* (Oxford, 1960) pp. 492–3; V. B. Reber, *British Mercantile Houses in Buenos Aires, 1810–1880* (Camb, MA, 1979) table 4.; Brown, *A Socioeconomic* pp. 75–9.

<sup>26</sup> W. Parish, *Buenos Ayres and Provinces of the Rio de la Plata* (London, 1852) pp. 357, 362.

<sup>27</sup> T. Halperín Donghi, *Guerra y finanzas en los orígenes del estado argentino. 1791–1850* (Buenos Aires, 1982) pp. 227, 247. For exchanges with the US see Brown, *A Socioeconomic*, pp. 69, 80–83.

<sup>28</sup> Parish, *Buenos Ayres*, p. 354; Burgin, *Economic Aspects* pp. 271–73 table 44–47. *Informes* (1854–55) Ch. IV, *Informes* (1858). *Estadística de Aduana 1861* (Buenos Aires, 1863). Sparse figures on trade between Buenos Aires and Mendoza for 1828, 1833 and 1834 and between Buenos Aires and Corrientes for 1825–30 confirm this estimate. Severe outflows of the specie from trade deficits may be underpinning the claims for protectionist fiscal policies requested by some provincial governments to Rosas in the 1830s. Nicolau, *Industria argentina*, pp. 28–9.

Treasury seized some fiscal revenue from them. Until 1852, foreign goods re-exported inland paid both duties to the Buenos Aires customs and further provincial taxes once they were conveyed beyond the port. Equally, because specie was in circulation in regional trade while paper money dominated in Buenos Aires, and foreign trade operated with bills in European currencies, multiple exchange rates coexisted. As a result, the diversity of currencies further raised transaction costs already heightened by different flows of trade and internal customs. Finally, the external balance of trade almost certainly turned from negative to positive over this period, and exchange with other provinces was strongly in favour of Buenos Aires. Thus, theoretically there was no constant drain of specie out of the *bonaerense* economy. The alleged outflow of bullion cannot fully explain the constraints to capital formation.

The absence of institutional forms of credit was an impediment, but it did not entirely prevent access to capital. Credit was available from mercantile sources.<sup>29</sup> Current knowledge on merchants is incomplete. Studies on commerce have paid more attention to the nationality of Buenos Aires merchants than to the strategies and practices they actually carried out.<sup>30</sup> The predominance of English houses reflects the fact that Britain had dominated the import trade in the region since Independence. Foreign houses had been established in Buenos Aires by the 1820s, their contacts and capital facilities allowing them some privileged access to European markets. Creoles might have profited from their personal networks in local and regional exchanges, but increasing commerce with other countries, complexities of regional trade and involvement in the cattle-industry make it difficult to ascribe neat specialisation in doing business to a particular national group of merchants.<sup>31</sup> Moreover, the fact that foreign and native export-import traders operated on both sides of the river and that both groups participated in several kinds of business in the domestic economy, suggest that it is worth looking at other factors better to appraise the scope of the mercantile business in the area.

Networks organised around the marketing of export goods framed the connections of merchants in the rural economy.<sup>32</sup> The bulk of foreign trade was done under consignment, and fiscal incentives existed to

<sup>29</sup> As described early by W. P. Robertson in his *Letters on South America* (London, 1843) vol. II, pp. 174–186.

<sup>30</sup> Research on the performance of British merchants remains confined to Reber, *British Mercantile* and C. Lewis, *British Business in Argentina*. (London, 1995).

<sup>31</sup> See Baring intelligence reports on the state of commercial affairs in the River Plate at Baring Brothers Archives (BB hereafter) HC 16/114 for 1843, HC 16/115 for 1844 and HC 16/117 for 1857.

<sup>32</sup> See J. C. Brown, 'Dynamics and Autonomy of a Traditional Marketing System. Buenos Aires 1810–1860' in *HAHR* 56 (4) pp. 605–629; for the case of wool see Sabato, 'Wool Trade'.



promote trade in this manner.<sup>33</sup> Merchants dealt in both exports and imports to balance losses incurred from the immediate payment of heavy fiscal bills from the introduction of foreign goods.<sup>34</sup> Small producers, or those who had no means of easily placing their hides in the port, had to rely on Buenos Aires city merchants for their share in the export economy.<sup>35</sup> Merchants supplied capital to finance production by providing advances in money or goods. They also financed the marketing of exportable goods by controlling the storage, transport and wholesale business. Goods traded with Indians, or supplies to the army yielded far from negligible benefits. Foreign and native merchants themselves invested in urban properties, cattle raising and bought land. In short, they did not specialise in any kind of business.<sup>36</sup> Alternative opportunities such as lending to government soon proved to be disappointing, whereas for some, public purchases and discounting of other merchants' bills seem to have been a risky but regular source of profits.<sup>37</sup> Provisioning the government was an activity far from restricted to native merchants;<sup>38</sup>

<sup>33</sup> Other levies besides Customs like *Contribución Directa* were lower to such merchants (4%) than to those who dealt in their own goods (8%) during most of the period. *Memoria sobre el estado de la Hacienda Pública, escrita por orden del Gobierno* (Buenos Aires, 1834).

<sup>34</sup> Reber, *British Mercantile*, p. 27. Although Reber failed to identify consumers as the final bearers of the tax burden.

<sup>35</sup> Some changes occurred in the late 1860s. European manufacturers started to send their representatives to River Plate to buy wool on the spot. Notably, Sabato found that 'In the late 1880s, when speculation became the most profitable activity in the River Plate, we find several of them investing in land, mortgage, *Cédulas*, government bonds, and shares of private and public companies'. However, being years of high monetary disturbances, Sabato made no relation between such 'speculative' practices with the (not so) new diversification in investments. 'Wool Trade', p. 53 and fn. 29.

<sup>36</sup> Paradoxically, the *anchorenas* – the archetype of the merchants turned into landowners – 'unlike most of the great landowners, who tended to maintain their diverse business ties, appear to have left commerce completely'. Brown, 'An Nineteenth Century Argentine' p. 161.

<sup>37</sup> 'The discount of bills is a monopoly of very well known lenders, of whom a half are foreigners at least, and is satisfactorily to say that Irishmen do this in great proportions'. MacCann, *Two Thousand Miles' Ride*, p. 158.

<sup>38</sup> For instance, in the 1840s Samuel Hale – a known US businessman – acted as unofficial provider of European goods to Indian allies of Governor Rosas. Hale must have benefited from exchanges in rural produce with Indians. See accounting of *Negocio Pacífico* in *Libros Mayores de la Contaduría de Buenos Aires*. Archivo General de la Nación Sala III over several years. The same source shows the deals that a French merchant house, E. Rams y Ruberts, carried out as a main government supplier during 1852. Another Englishman Daniel Gowland acted as the official Confederation Commercial Agent in Buenos Aires during the secession 1852–61 'this gentleman is essentially a *porteño*, by residence and connections [although] his business that of an auctioneer, is a native one'. Quoted by Consul Parish in a letter to Lord Clarendon, Buenos Aires 30 April 1856 in Public Record Office. Foreign Office. 6.192 ms 7 (PRO.FO hereafter).

neither was short-term lending monopolised by foreign merchants.<sup>39</sup> In fact, by the 1850s the River Plate area appears to have been more like an open market; where businessmen acted according to capital availability and individual skills at adapting to current circumstances in different sectors and markets, irrespective of political boundaries. These mercantile ‘all-rounders’ certainly held a lot of capital. But the question remains why did they prefer highly diversified portfolios concentrating on high return, short run investments instead of specialising in one activity with a more intensive use of capital?

*Currency, public deficit and inflationary financing*

In considering credit availability and sources of financing, in particular formal credit through banking channels, it is necessary to reconsider contemporary financial and monetary processes. Buenos Aires initiated banking and a paper currency in the 1820s.<sup>40</sup> A metallic-backed paper currency in the form of bank notes appeared in 1822 as a response to commercial troubles arising from the specie shortage and the coexistence of several currency substitutes. In April 1825, the government deposited funds from the Baring loan with the bank. It hoped to repay the loan with the yield from the spread between the local rate of discount and the rate in London. With this injection of money to the bank, lending capital was enlarged to a dangerous point. Given the rights for emission, its notes were eventually over-issued, and the metallic reserves with which to back them diminished to less than ten per cent.<sup>41</sup> Moreover, by the mid 1820s, extensive public borrowing had severe crowding out effects and damaged the banking sector; the war with Brazil (1825–28) finally crushed the banking and monetary systems. In 1826 the government took over the surviving private bank, suspended the convertibility of notes and transformed them into a paper currency. The inconvertible paper peso

<sup>39</sup> An agent of Baring labelled those heavily involved in the discount of bills as being of ‘dubious credit’ in opposition to the ‘prudence’ of others. For 1843 he listed as such native and foreign merchants like Th. Amstrong, S. Lafone, Parlane & McAllister, Ayres frères, D. Gowland, J. Llavallol, N. A. Martínez de Hoz y Ortíz Basualdo. See BB.HC 16.115.I.

<sup>40</sup> For an account of these reforms see Burgin, *Economic Aspects* (1971) chs. 3 and 4. For monetary events see N. Pinero, *La moneda, el crédito y los bancos en la Argentina* (Buenos Aires, 1921) ch. IV, p. 61.

<sup>41</sup> It is difficult to say whether the crisis was indirectly provoked by fiscal consequences of the war with Brazil or by the collapse of the exports following the blockade. Some real problems arose from high speculation from over optimistic expectations about pastoral exports potential at the time. See S. Amaral, ‘El descubrimiento de la financiación inflacionaria, Buenos Aires. 1790–1830’, *Investigaciones y Ensayos* 37. (1988) p. 414.

became the domestic means of payment in Buenos Aires but was rejected elsewhere. Given the monopoly that Buenos Aires had on the customs-house, paper money lasted successfully until the 1860s.

The reasons why the Buenos Aires inconvertible paper peso remained in circulation for forty years, despite the size of the issues, are related to the fiscal constitution of the state. Receiving paper in return for taxes was the mechanism conceived by the government to enforce acceptance of the peso as legal tender. Although the other provinces also taxed commerce and equally suffered shortage of specie, none succeeded in creating their own fiduciary instruments. For instance, in 1840, the ruling Northern League in Tucumán tried to acquire resources to battle with Rosas by issuing paper money, but it had to impose capital punishment for those who would refuse to accept the notes.<sup>42</sup> Other provinces operated with metallic currencies and used specie for regional trade. Provinces such as La Rioja and Córdoba, or Salta and occasionally Mendoza, which had adequate mineral resources, minted coins. As a result of favourable exchange with neighbouring countries specie prevailed in the regional trade.<sup>43</sup> From the 1840s, Bolivian silver coins were legal tender in Córdoba. In Tucumán they had a different rate of exchange to those in Rosario or Córdoba. Chilean gold circulated in Mendoza, Brazilian coin also circulated in Corrientes and Entre Ríos.<sup>44</sup> Given provincial commercial deficits with Buenos Aires, metallic coins poured into the River Plate. Ultimately, given the domestic balance of trade and commercial networks, specie was siphoned off from the interior provinces and converged on the port to pay for imports.

The customs house was the overwhelming source of ordinary income for the Buenos Aires treasury, with import duties forming the bulk of its revenue. Imported goods were charged *ad valorem* while exports paid

<sup>42</sup> Quoted by T. Halperín Donghi *Revolución y guerra. Formación de una elite dirigente en la Argentina criolla* (Mexico, 1979) p. 91. Corrientes unsuccessfully issued paper money in 1826, 1827 and 1841. Chiaramonte *Mercaderes*, p. 161. Santa Fe did in 1823 and Córdoba in 1829. J. Alvarez, *Temas de Historia Económica Argentina* (Buenos Aires, 1921) p. 97. Finally, between 1854 and 1856 while Buenos Aires was a seceding state, the Confederation issued notes – the *papel Fraguero*. The issue amounted to 1.6 millions and resulted in a complete fiasco. *Temas*, pp. 100–1. The same fate befell bank notes issued by Banco Maua established in the Confederation by 1858. R. Cárcano, *De Caseros al 11 de setiembre* (Buenos Aires, 1921) vol. 2 p. 470.

<sup>43</sup> Until 1879, for instance, Chilean paper money was ‘preferred to Argentine provinces’ paper currencies’ in Mendoza. Monetary anarchy lasted until 1881 when the ‘gold peso’ was adopted as a national monetary unit. For currency diversity within the country see Alvarez, *Temas*, pp. 97, 100 ff.

<sup>44</sup> For 1863, an expert estimated the amount of Bolivian and *cordobesa* silver coins in circulation as ‘one million pesos fuertes at the rate of 22 pesos per gold ounce’. A. Brougues, *Cuestiones financieras y económicas de la República Argentina. Deuda exigible, su consolidación y sistema monetario* (Buenos Aires, 1863) p. 61.

specific (fixed) duties. The tariff on imports was a proportion of the current market value of the goods, the so-called *aforo*. The latter constituted the primary base for the tax value, and the duty was added the final price of commodities.<sup>45</sup> Furthermore, before 1854 export taxes were only levied on cattle hides. Other items such as wool, tallow and salted meat were exported free of duty until 1858, when export taxes were imposed at 4 per cent *ad valorem*, gradually making a significant contribution to treasury receipts.<sup>46</sup> Other sources of revenue were strictly limited, and the sale of land realised poor returns.<sup>47</sup> From 1826 taxes were paid in paper money, and their collection was extremely inefficient given the contemporary administrative disorder and political strife. Other financial measures were designed to consolidate liabilities from the War of Independence into a long-term debt and standardise the means of payment. Early in the 1820s long-term bonds were issued for the first time and a one million-pound loan contracted with Baring Brothers.

The war with Brazil ignited the first external shock that the Buenos Aires (and Argentine) economy recorded and, as a result, all the financial devices set up by the 1820s reform failed. The war had devastating consequences on exports, revenues and financial and political institutions. Public deficits followed and Buenos Aires defaulted on the Baring loan. Until the 1860s, near-continuous military conflict kept army expenditure well above revenues. Further external borrowing was prevented, and advances from the bank were required to finance the resulting deficit, until its virtual bankruptcy in 1836, when it became the Casa de Moneda, a mere printing press in government hands.<sup>48</sup> Curtailment of revenues aggravated this unsound fiscal situation during blockades of the port, which occurred in 1826–28, 1838–40, 1845–48 and in 1853. During these incidents, the treasury suffered particularly but exports were not affected to the same extent: rural goods continued to be shipped via Montevideo and other small provincial wharves.<sup>49</sup> Moreover, some cattle raisers benefited from

<sup>45</sup> For the setting up of the tariff see *Informe sobre el comercio exterior de Buenos Aires durante el gobierno de Martín Rodríguez* (Buenos Aires, 1978) appendix I and J pp. 63–65. ‘When the tariff is based on current prices (*precios de consumo de plaza*) it is assumed that the duty is already included in the price. In consequence the contribution is added to the price already after taxes’, *Informes*, (1854–55).

<sup>46</sup> By 1866 taxes on exports yielded around a third of total Custom revenues. Under Mitre’s presidency (1862–68) the tariff rose to ten per cent. J Alvarez, *Las guerras civiles argentinas* (Buenos Aires, 1983) p. 93, fn. 8.

<sup>47</sup> For Buenos Aires public finances in the period 1820–1850 see Burgin, *Economic Aspects and Halperín Donghi, Guerra y finanzas*.

<sup>48</sup> The establishment offered to receive deposit in specie but without bearing interests. It also offered some discounting of bills at 1 per cent monthly. Although the rate in the market was roughly 1.5 per cent ‘few people obtained any benefit of such privilege’. Noted by MacCann, *Two Thousand Miles’ Ride*, p. 159.

<sup>49</sup> Parish, *Buenos Ayres*, p. 352; Halperín Donghi, *Guerra y finanzas*, Table XIV p. 283.

Table 1. *Issues and Currency Depreciation in Buenos Aires, 1822–1862. Public Bonds, Bank and Paper notes in \$ thousand. Exchange rate in pesos (average)*

Year	Bonds	Notes	Bonds cum	Notes cum	Total	Exchange rate
1821	5,000					17
1823	2,100		7,100	7,100		17
1827			7,360			17
1826	6,000	2,695 <sup>a</sup>	13,360	2,695 <sup>a</sup>	16,055	50
1831	6,000		19,360		22,055	117.93
1834	8,000		27,360		30,055	118.42
1836		12,588 <sup>b</sup>	27,360	15,283 <sup>b</sup>	42,463	120.51
1837	17,000	4,200	44,360	19,483	63,843	130.90
1838		16,575	44,360	36,058	80,418	147.00
1839		3,605	44,360	39,663	84,023	253.95
1840	10,000	12,000	54,360	51,663	106,023	371.00
1846		23,000 <sup>c</sup>	54,360	74,663	129,023	248.75
1847		25,300 <sup>c</sup>	54,360	99,943	154,323	350.82
1848		9,200 <sup>c</sup>	54,360	109,163	163,523	353.00
1851		16,100 <sup>c</sup>	54,360	125,263	179,623	294.00
1852		23,800	54,360	149,063	203,423	273.00
1853		67,000	54,360	216,063	270,423	315.00
1856	10,000		64,360	216,063	280,423	347.00
1858	12,000		76,360	216,063	292,693	363.75
1859	20,000	75,000	96,360	291,063	387,693	352.58
1860		10,000 <sup>d</sup>	96,360	301,063	397,693	341.62
1861	24,000 <sup>e</sup>	100,000	130,360	401,063	531,693	385.79
1862	50,000 <sup>e</sup>		180,360	401,063	581,693	408.80

<sup>a</sup> Total issued by Banco de Descuentos; <sup>b</sup> total issued by Banco Nacional; <sup>c</sup> Law of 16 Jan 1846, invoked again for issues in 1851; <sup>d</sup> law of Nov 1859; <sup>e</sup> issued on behalf of the National Treasury.

*Sources:* Own estimates from Archivo General de la Nación Archivo Lamas. Folder 82; V. Quesada, *Historia de los bancos modernos. Banco de Descuentos, La Moneda y el Crédito* (Buenos Aires 1901) p. 153. REBA (1859), p. 164, REBA (1860), p. 115 and J. Alvarez, *Temas de Historia Económica*. (Buenos Aires 1929), pp. 99–100.

the liquidation of stocks of smaller ranchers. The former enlarged their herds according to the availability of empty land or means to finance short-run troubles.

The public deficit became chronic and the treasury initially sought to finance it with bonds. Large issues were offered successively during the 1830s to pay for purchases as well as being exchanged in land sales.<sup>50</sup> As a consequence, bonds started to be employed as currency.<sup>51</sup> But the scope for domestic borrowing was exhausted by 1840 and the government finally resorted to paper note emission. Currency expansion continued

<sup>50</sup> *Ibid.* p. 219 and pp. 251–75.

<sup>51</sup> Lack of information on the subject prevents further speculation on the scope of a secondary market for bonds. Nevertheless, such bonds have not been considered in the expansion of currency in recent studies on inflationary finances. See footnote 52.

until the 1860s because inflationary financing was the quickest way to solve public deficits.<sup>52</sup> Issues made ready funds available without a further burden on revenues. Of course, it made external debt more onerous over time as it diluted domestic liabilities on paper. Inevitably, inflationary policies had severe consequences for the overall economy.<sup>53</sup>

*The economic consequences of inflationary financing*

The immediate effect was the depreciation of paper money (see graph 1). Ultimately, given the structure of the domestic market, it also resulted in acute changes in relative prices.<sup>54</sup> As paper was the means of paying for massive public purchases – mainly local goods for the army – distortions in domestic prices necessarily occurred. By receiving depreciated paper bonds or pesos, suppliers charged higher prices and affected pricing for private transactions. Furthermore, the general disarray in the management of purchases promoted political favours and a good deal of corruption.<sup>55</sup> In some cases, doing business with a government engaged in massive public expenditure ‘stimulated prosperity’.<sup>56</sup>

Long-lasting currency depreciation was, then, a constituent feature of this economy. However, there are two other outcomes of inflationary financing worthy of discussion. First, the effects of the so-called Gresham law<sup>57</sup> fostered the endurance of Buenos Aires’ inconvertible paper money and aggravated the drain of specie from the interior provinces. Secondly, the paper peso became remarkably volatile and provoked further distortions in prices. Wide fluctuations in the exchange rate in the short

<sup>52</sup> Amaral, ‘*El Descubrimiento*’ and, more recently M. Bordo and C. Vegh, ‘What if Alexander Hamilton had been Argentinean? A Comparison of the Early Monetary Experiences of Argentina and the United States’, *National Bureau of Economic Research*, Working Paper Series No. 6862 Nov. 1998.

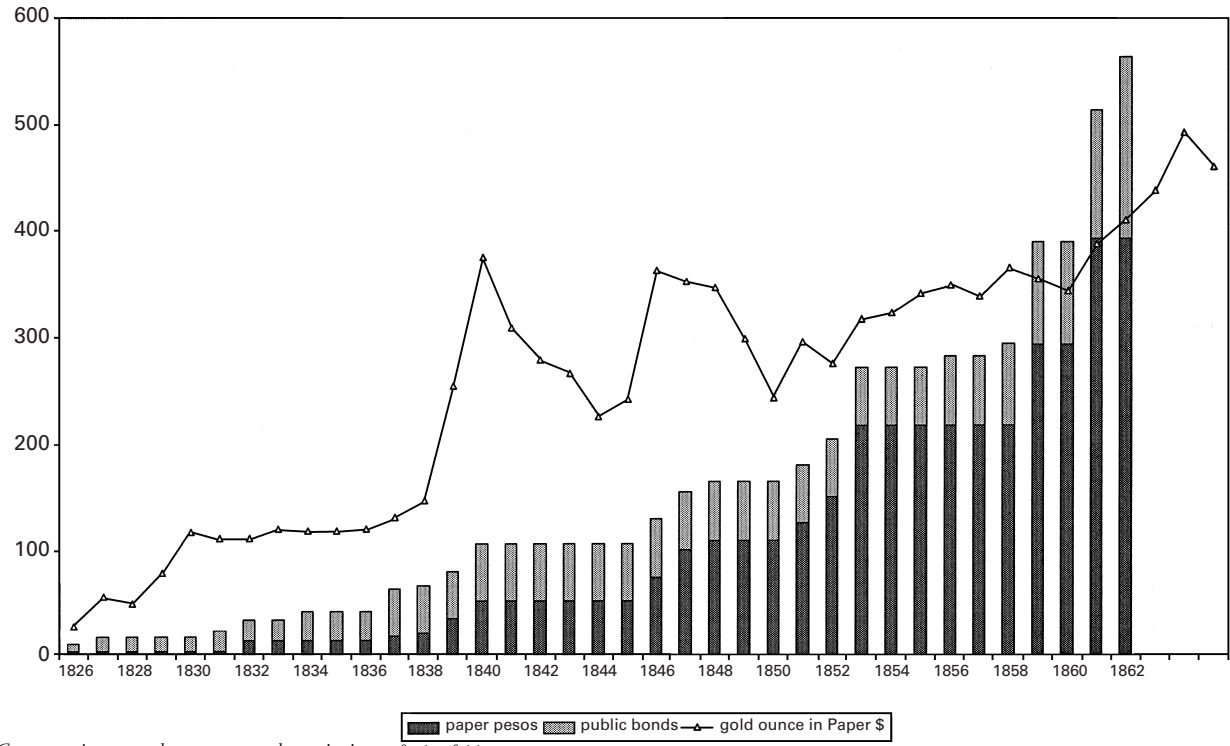
<sup>53</sup> Burgin, *Economic Aspects* pp. 68–9, 74, 160, 165, 169 and 206–13. Halperín Donghi, *Guerra y finanzas*, pp. 215ff and 244.

<sup>54</sup> T. Halperín Donghi, ‘Bloqueos, emisiones monetarias y precios en el Buenos Aires rosista (1838–1850)’ in *Historia, Problema y Promesa. Homenaje a J. Basadre* (Lima, 1978) remains the single study on the subject. See esp. pp. 307–41; S. Amaral, ‘Alta inflación y precios relativos. El Pago de las obligaciones en Buenos Aires, 1790–1830.’ *El Trimestre Económico*, 221 (1989) pp. 163–221.

<sup>55</sup> Probably the most conspicuous case is Simon Pereyra, another supplier to the army during the Rosas regime who had failed in his business in the 1840s. However, by the time of his death in 1852, he had gathered an enormous fortune and several hundred thousand acres of land. Pereyra’s bankruptcy is quoted in Reber, *British Mercantile*, pp. 108–9; Halperín Donghi, *Guerra y finanzas*, p. 231; For a biography of the Pereyra-Iraola family see D. Hernando, ‘Casa y Familia. Spatial Biographies in Nineteenth Century Buenos Aires’ (unpubl. PhD. Diss. UCLA 1973) pp. 421–88.

<sup>56</sup> Reber, *British Mercantile*, p. 16 and notes 16, 17.

<sup>57</sup> To summarise, the law holds that two monies are unstable over time since the weak (paper pesos) drives the stronger (specie) into hoarding.



Graph 1: *Currency issues and paper peso depreciation. 1826–1866.*

– and very short – run also occurred, as a result of political instability, which generated great uncertainty for economic actors.

Near-permanent warfare enlarged fiscal deficits and the currency expansion used to finance them induced paper money depreciation. Repeated recourse to inflationary policies strongly influenced public perceptions of monetary affairs, particularly the widespread assumption that government would continue to print money. Gold started to be used as ‘hard currency’ and was hoarded to prevent depreciation over liquid assets, adding further pressure on the exchange rate to that derived from the international economy.<sup>58</sup>

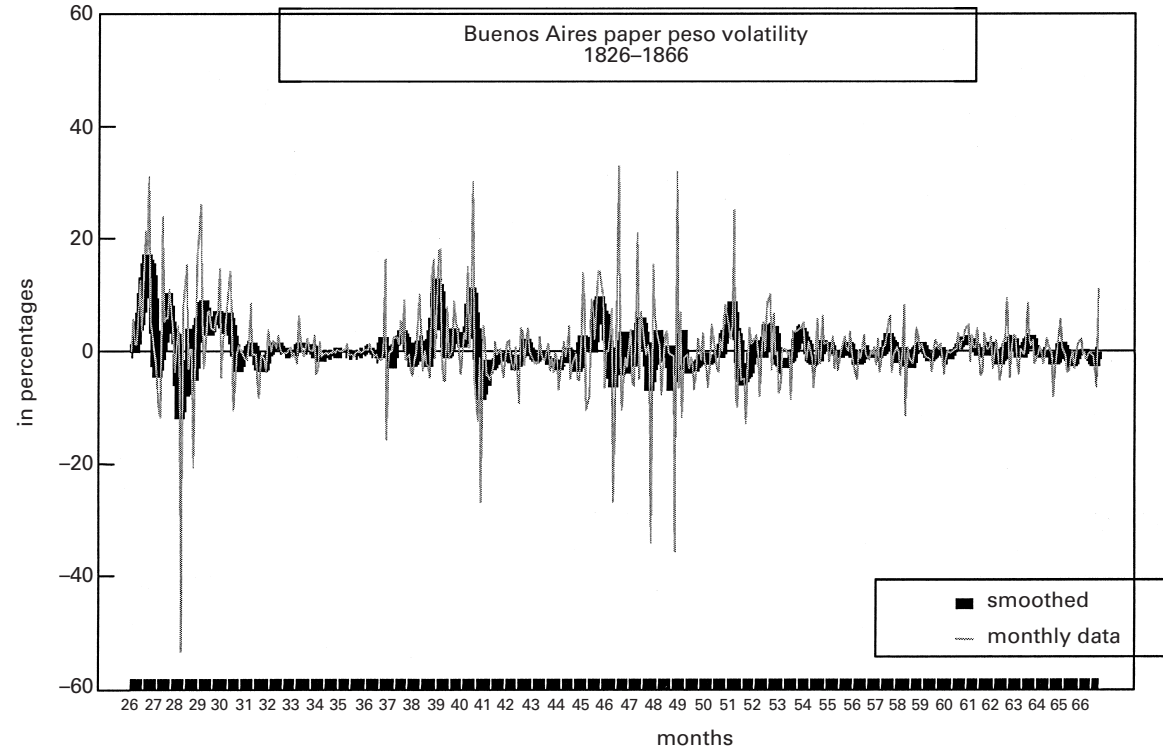
Paper currency was actually a fiduciary means of payment. It was ultimately a contract the price, or purchasing power, of which was permanently bargained between the government and the public. But the public would dispose of paper money whenever further emissions threatened the value of the peso. Hence, an examination of very short run variations in the exchange rate of gold should shed some light on the mutual bargaining between government and the public in this respect.<sup>59</sup> Public expectations regarding political conditions, confidence in government, and the acceptance of policies can be appraised from the movements on the price of gold, and exchange rate volatility can be regarded as mirroring market appraisal of the outcome of current political events. In other words, the fluctuations in the paper peso rate to gold may reflect coexisting uncertainty caused by political incidents and policy-making, inflationary expectations aggravating sudden accelerations in the rate followed by short-lived recoveries that added further distortions to relative prices. (See graph 2)

Graph 2 shows that: sudden variations were higher at the beginning of the inconvertibility period until 1830 than later during blockades. Secondly, these recurrent intervals of instability, although becoming less violent, lasted longer over the years, a feature that could be seen as an adaptation process on the part of the public from the cumulative experience regarding financial troubles and subsequent monetary policies. Remarkably, the Buenos Aires peso was very firm during the first half of the 1830s until 1837. It was also rather stable in the last fifteen years of the period prior to 1866 despite continuing warfare and further large

<sup>58</sup> Halperín Donghi, *Guerra y finanzas*, p. 220. The peso exchange rate was far more volatile than gold in the international economy. Neither changes in time nor the effects of international crisis be effectively appraised. My own estimates and J. Klovland, ‘Zooming in Sauerbeck. Monthly wholesale prices in Britain 1845–1890’, *Explorations in Economic History*, 30 (1993) pp. 195–228.

<sup>59</sup> M. A. Irigoin and E. Salazar, ‘Linking Political Events and Economic Uncertainty: an econometric examination of the volatility in the Buenos Aires paper peso’s rate of exchange, 1826–1866’ (mimeo 1997).





Graph 2: *Volatility of Buenos Aires paper pesos exchange rate against gold. 1826-1866.*

emissions of currency. Examination of monetary stability (or lower instability) in both periods may shed some light on the performance of the economy at the time. Unfortunately, no research on the economy for both the 1830s and 1850s has been undertaken. Instead, the literature on economic history has preferred an explanatory path merely driven by political events. Scholars have traditionally considered the 1820s as a benchmark in the expansion of the rural economy without having satisfactory estimates for measuring subsequent economic growth. Indeed, after the war with Brazil, domestic political instability eased by late 1829. However, fiscal deficits still persisted from 1831 to 1835 with a rare surplus in 1830. The government had already borrowed heavily in short-term obligations at the time. Two thirds of the deficit were covered with bond sales. Treasury bills and other short-term obligations met the remainder, but financing by means of these bills turned out to be too expensive.<sup>60</sup> In addition, the market for treasury bills was rapidly satiated, the public showed increasing resistance to a new issues. So, the government took recourse again to long-term borrowing. In February 1831 the legislature authorised an issue of a further six million pesos in public bonds, representing half of the existing debt of 12.6 million launched in 1821–27. At this time, the price of such 6 per cent bonds was 75.50 per cent of its nominal price. After the issue, prices plummeted to 57 per cent in the following month and remained below 60 per cent for the rest of the year. When in February of 1832, the government allocated an extra four million in bonds – at 50 per cent par among merchants, landowners and cattle breeders – bond prices fell further to 47.50 per cent in March. They floated between 40 and 45 per cent during the remainder of the year.

The government underwrote these bonds to settle debts or to secure money advances. In both cases the public was forced to accept the bonds and so had to put them rapidly into circulation. Between March and October 1834 the legislature authorised additional loans of \$8 million total to use their proceeds for the retirement of Treasury bills. This was a consolidating operation to substitute bills with long term bonds. The prices of public bonds did not fall further, and quotations maintained around 50 per cent of face value.<sup>61</sup> This somewhat surprising outcome has yet to be explained. Significantly, at the same time discount rates rose and

<sup>60</sup> For instance, the cumulative treasury deficit rose from \$15 million to \$17 million in 1833. In 1831 alone, the deficit was \$4 million. At the end of 1831, treasury bills amounted to \$2,848,595 compared to a debt of \$199,611 in 1830. Burgin indicates that they bore a rate of 3.5 per cent a month at a time when discount rate in the market was 2.250. *Economic Aspects* p. 57 and 173, fn. 31.

<sup>61</sup> Prices of Bonds from 'Actual Prices of the 6 per cent Internal bonds quoted on the Buenos Aires Stock of Exchange' cited in Burgin, *Economic Aspects* p. 175, table 32.

paper currency was rather stable, as shown in graphs 1 and 2. Given the relative appreciation of both bonds and money, together with high interest rates and a relative stabilisation of domestic prices after the inflationary shock of 1826–28, one might speculate that the Buenos Aires economy was going through a short lived process of real economic growth at the beginning of the 1830s.<sup>62</sup> This particular process in the early 1830s deserves further research.

After the inflationary shocks in the 1840s, diminishing volatility during the 1850s suggests that the peso was gradually stabilising towards the end of the period of inconvertibility. This poses a puzzle. As shown in Table 1, massive currency expansion continued in the decade to fund the war between Buenos Aires and the Confederation. Military spending further enlarged the permanent fiscal deficit. The trade balance showed no extraordinary change in favour of Buenos Aires in these years.

At one point since 1826 sudden expansion of currency or trade deficits had been the driving force in exchange rate depreciation. The economy did not experience any major sectorial shift in the short run and yet paper money depreciation and volatility abated. Here an examination of institutional explanations may be fruitful, because the 1850s were years of major institutional reform. If fluctuations were driven by political instability their decline prior to the restoration of convertibility might be related to institutional changes that would have provided more certainty for economic agents. As previously stated, the public had developed a long cumulative experience on monetary affairs with expectations about inconvertible paper currency that proved to be accurate and prompt. Monetary instability was lessening towards the restoration of convertibility. Indeed, public confidence appears to have been a key factor in this process.<sup>63</sup> Uncertainty driven by political incidents was diminishing over the decade. Convertibility was finally restored in 1867 (at 1864's actual prices) and lasted until 1876.

Currency depreciation and exchange rate volatility became constituent elements in the development of the Buenos Aires economy in the first half of the nineteenth century. The highly volatile exchange rate strongly framed the outlook of economic activity resulting in severe distortions of

<sup>62</sup> For rates of discount see 'Yearly averages of Buenos Aires discount rates per month quoted in the British Packet and Argentine News', *ibid.* fn. 41 p. 266. For the Buenos Aires paper pesos exchange rate to gold see Alvarez, *Temas* p 99. For the performance of relative prices of goods and services in the early 1830s see Amaral, 'El Descubrimiento' p. 414 and J. Broide, *La evolución de los precios pecuarios en Argentina en el período 1830–1850* (Buenos Aires, 1951) p.71.

<sup>63</sup> For an analysis of the process of public confidence building see M. A. Irigoin, 'Finance, Politics and Economics in Buenos Aires 1820s–1860s: The Political Economy of Currency Stabilisation' (Unpubl PhD diss., University of London 1999).

relative prices. For instance, the British consul observed at the time during one of the many monetary crises that

Prices become merely nominal if payment is not instantaneously done, no man knows what he owes, *and yet everything is done on credit*. On the late rumours of war with Brazil the value of the dollar varied nearly one third, quite a 30 per cent in few days.<sup>64</sup>

On this occasion, rumours proved to be groundless, but the public reacted promptly to unpromising events. In early 1854, for instance, unconfirmed news about the assassination of the Entre Ríos governor fostered a ten peso drop in the price of gold, but once the news was known not to be true, the ounce immediately jumped \$15. The event created the considerable fluctuation in the current exchange rate of \$273.<sup>65</sup> As one businessman wisely recommended in 1855 that, '[the exchange rate to gold] is a barometer that always must be observed'.<sup>66</sup> An observation that had been accurate since very soon after the breakdown of convertibility.

Over time the price of gold in Buenos Aires suffered the additional pressure from hoarding since it developed functions as 'hard currency'. For example, when peace was settled with Brazil in March 1828 the peso's value suddenly leapt 60 per cent beyond the previous month's level, it remained stable until December and then plunged 30 per cent within a month. General Lavalle staged a revolt that ended with the execution of Governor Dorrego. Political turmoil increased and, within the lapse of a year, the Buenos Aires peso lost 207 per cent of its value. Stability temporarily returned when provincial politics settled in late 1829.<sup>67</sup> Notoriously high rates of volatility were not infrequent, occurring over a few days.<sup>68</sup> A similar episode of soaring depreciation occurred in 1851 when the provincial alliance which sustained the *rosista* Confederation, started to shatter.<sup>69</sup> After a relatively stable year in 1850, the quotation of

<sup>64</sup> H. Southern to Baring Bros, Buenos Aires, 9 March 1852 in BB.HC.4.1.24.4. (Emphasis added.) See also *idem* on 27 May 1851.

<sup>65</sup> B. Victorica to J. J. Urquiza, Gualeguaychu, 1 Feb 1854 in Archivo Elizalde. Vol. 4 ms. 441.

<sup>66</sup> The author calls General Paunero's attention to the fact that 'as soon as rumours about appointing a commission to arbitrate (the reunification of the country) the ounces have declined 3 or 4 pesos; and the dismissal of such news in the newspaper *La Tribuna* made them rise again'. C. Oyuela to W. Paunero, Buenos Aires 1 Oct 1855, Archivo Mitre. Colección Paunero ms. 1931.

<sup>67</sup> For political incidents see T. Halperín Donghi, *De la revolución de independencia a la Confederación rosista* (Buenos Aires, 1980) pp. 260–68. J. Lynch, *Argentine Dictator*, pp. 37–9.

<sup>68</sup> Only during Aug 1851, the exchange rate to gold was at \$300 on the 1<sup>st</sup>, increased to 327 on the 16<sup>th</sup> and reached \$380 by the 28<sup>th</sup>.

<sup>69</sup> For monthly accounts of the financial and economic situation during 1850–51 see *Revista Comercial y Precios Corrientes. Suelto del Comercio del Plata*, Montevideo, no. 72 30 Nov. 1849 – No. 109 6 March 1853.

the ounce rose from an average of \$230 in January and February 1851 to \$283 in May. Depreciation continued as rumours of a war with Brazil spread. Gold reached \$296 in July and rocketed to \$380 in August resulting in 65 per cent depreciation over six months. As the threat of war dissipated, so the paper pesos recovered to \$300 in December 1851. Ultimately, paper currency continued to appreciate after Rosas' deposition in February 1852, reaching \$258 per ounce the next month. These were extreme rate changes, but – in the long run – depreciation and monetary instability were the trend rather than the exception. They became features in the performance of the economy and the utility function of individuals. Such rates of monthly depreciation in the means of payment made meaningless any estimate of profit rates in current pesos.<sup>70</sup>

When the first outbreak of inflation occurred in the late 1820s sudden changes in prices acutely affected those who held liquid assets. In 1827, the British Consul reported that:

It is curious to remark that while the operation of these two great effects of the war [with Brazil] – the suspension of foreign trade and the depreciation in the paper currency – has been ruinous to individuals and chiefly to neutral parties ... It has suspended no internal branch of trade, nor checked any of the resources of national industry. It has drawn a large amount of native and foreign capital, partly on account of there being no other means of employing it; but chiefly to avoid the dangers of the paper currency into the improvements and extension of cattle establishments – the great source of wealth of Buenos Ayres – and in that respect the province has never been so flourishing a state as now.<sup>71</sup>

We have seen that merchants found cattle-raising and land a more secure investment, and there is a good deal of evidence that foreign businessmen shifted part of their capital to these activities to hedge against price changes.<sup>72</sup> In 1829, a British merchant based in Buenos Aires reported to Baring Brothers that:

[Wars] have shaken public credit to its centre, and have materially affected the security of private property and fortune. [They] have one common prejudice on the interest of all those whose previous operations brought them into *manutations* of large sums of money in as much as the surrounding *viscitudes* in which they found themselves obliged then to vary the direction and form of their property dividing it between public funds, *Estancias* or real estates in the country and such ephemeral speculations as offered the best hope for security against total losses.<sup>73</sup>

<sup>70</sup> This warning was noted by Amaral ' [they] hinder any estimate of profit rates since rates are high or low in relation to the prices of goods and money.' in *Rural Production*, pp. 238. See also footnotes 11 and 12.

<sup>71</sup> PRO.FO.6.20: Report on British merchants enclosed in W. Parish to Bidwell, Buenos Aires 31 Dec. 1827.

<sup>72</sup> Ferns mentioned this for the aftermath of the war with Brazil. See *Britain and Argentina*, pp. 165–67.

<sup>73</sup> See W. Forbes to J. Bates, Buenos Aires, 6 Oct 1829 in BB.HC.4.1.13.3.1.

However, very few of them seemed to have moved to raising cattle entirely.<sup>74</sup> The pattern was repeated throughout the period, but it was not an exclusive feature of foreign merchants' investment strategies. A local businessman recalled the situation for 1831 as comparable to:

The hasty course taken by capitalists in 1825 and 1826 of converting their holdings into real estate and livestock was the result of the disproportionate abundance of bank notes in circulation as the medium of exchange in place of gold coins (given that silver pesos were not in circulation). Since [paper] notes could not flow out of the province, they were all converted into land and livestock.<sup>75</sup>

Similarly, insurance against depreciation seems to have caused the increase in land prices that occurred in the 1840s. For a (naïve) foreign observer:

It [was] surprising that the people of Buenos Aires apparently, did not realise that in their monetary transactions the value had shifted. Although the exchange rate of the peso was of three to six pence, the price of a league of land did not exceed 60,000 pesos; so that as long as the exchange rate remained low, people purchasing land could feel secure that they had made an excellent investment, since it was certain that the exchange rate would gradually rise again afterwards.<sup>76</sup>

Public lands were massively privatised in the late 1830s and early 1840s for fiscal purposes and so further fostered the expansion of livestock. Between 1823 and 1840 a total of 4,646 squared leagues – or 125,251 square kilometres – went into private hands with fully recognised property rights.<sup>77</sup> Transactions in land were overwhelmingly realised in paper currency or equivalent means of payment and, most often, in instalments.<sup>78</sup> Therefore, depreciation resulted in huge subsidies to land purchases; between 1838 and 1840 the paper peso lost more than half of its value, when the exchange rate fell from an average of \$147 to \$374. By far the greater part of the acreage sold – representing a similar 70 per cent of the transactions between 1836 and 1840 – was acquired after the inflationary peak of 1838.<sup>79</sup> More significantly though, 63 per cent of the titles were

<sup>74</sup> See footnote 36.

<sup>75</sup> Matías de Oliden quoted by J. C. Garavaglia, 'Precios de los Productos Rurales y Precios de la Tierra en la Campaña de Buenos Aires: 1750–1826'. *Boletín del Instituto de Historia Argentina y Americana Dr E Ravignani*. 3ra Serie. No 11 (1995) p. 100.

<sup>76</sup> MacCann, *Two Thousand Miles' Ride*, p. 30. Strikingly, Amaral interprets the same observation as 'a lack of reaction to changes in the exchange rates' after 20 years of experience with depreciation, *The Rise of Capitalism* p. 298 fn. 5.

<sup>77</sup> According to M. E. Infesta, 'La Enfiteusis de Buenos Aires, 1820–1850' in M. Bonaudo and A. Pucciarelli, *La problemática agraria*. Vol. I (Buenos Aires, 1993) pp. 93–120 table 1.

<sup>78</sup> The lowest estimate amounts to 51 per cent of the land acquired in paper currency, the remainder was realised with some compound of notes, treasury bills and advances in cattle to the government all denominated in paper pesos.

<sup>79</sup> Own estimates from M. E. Infesta, 'El Negocio de la Tierra Pública. Las ventas en Buenos Aires entre 1833 y 1840' table 2 (mimeo 1998).

subsequently re-sold up to four times within the period. According to research currently in progress, a process of concentration of ownership of land and cattle among provincial producers followed the blockades during the 1840s.<sup>80</sup> However, the acceleration recorded on estates' prices (in constant values) might explain the proportional appreciation of these assets, given that the 1840s were times of high inflation and so the demand was pushed by those who eagerly sought to hedge against it.

Uncertainty about future prices and exchange rates must have severely reduced the provision of formal credit, particularly in domestic currency. High interest rates certainly show the high price of money, but also the risk of not knowing what would be the purchasing power of such money in the future. In the late 1840s, William MacCann noted that:

*In times of disturbances, all merchants feel obliged to conduct their transactions on the principle of barter, and so when they sell their goods, they are not able to foresee the price they will get for their bills. Therefore, they compare the prices of their goods in Europe with the ones they would obtain in their own market, so they can have an exact idea of the exchange rate they can obtain in the remittance of their goods. By doing so, most of them feel obliged by necessity to receive their return in kind, particularly if any further depreciation of the exchange rate occurs.*<sup>81</sup>

In Buenos Aires, high nominal interest rates represented insurance against risk from currency depreciation rather than scarcity of capital. It may be said that the outcome is the same – the persistence of mercantile credit – but that confuses causes and consequences. The unavailability of formal sources of credit was largely due to the persistent monetary instability rather than a hindrance stemming from a 'colonial inheritance' or any alleged 'archaism' of the banking system. Even in the late nineteenth century, merchants and 'informal' moneylenders still played a large role in agricultural finance on the 'pampas'. However, the conclusion that 'the credit system merely reflected the structure of production' although adequate, inverts causality. The same credit system after all had financed the 'extensive' cattle raising in the province sixty years earlier.<sup>82</sup> Here we agree more with the views of Sarmiento, who justified borrowing abroad for the building of the railways in 1859 as follows; 'It is said that there is no capital in Buenos Aires, there are fortunes!!!, But the money is worth annually 18 per cent and there will not be capital to engage in public

<sup>80</sup> See J. Garavaglia, 'Un siglo de Estancias en la Campaña de Buenos Aires: 1751–1853' (mimeo, 1997).

<sup>81</sup> MacCann, *Two Thousand Miles' Ride*, p. 161 (Emphasis added.)

<sup>82</sup> As shown by J. Adelman, *Frontier Development. Land, Labour and Capital on the Wheatlands of Argentina and Canada, 1890–1914*. (Oxford, 1994) pp. 200–5. As occurs with most historians of nineteenth century Argentina, Adelman does not consider prevailing monetary conditions at the time.

works which returns seven per cent. It is much better to put money in the bank'.<sup>83</sup>

If the whole financial environment was highly volatile, there was also little prospect for undertaking long term ventures. Hence, technology languished. Native industry or manufacture never prospered but remained in the hands of petty urban artisans. Mainly organised in small workshops, machinery was primitive and production was low quality. Moreover, inflation depressed incomes, depriving manufacturers of customers for their efforts and squeezing savings that might have fostered capital growth. On the other hand, 'industrialists' persistently sought protective tariffs, which vis-à-vis the permanent penury of the treasury never went beyond a particular privilege granted to few branches of industry.<sup>84</sup> The *saladeros* – salted meat plants – and later few flourmills were exceptions in their success. Both were related to the fate of the rural economy. However, *saladeros* benefited additionally from almost negligible fiscal levies on its produce and further subsidies via protective duties on its main imported input, salt.<sup>85</sup> In fact, almost no industrial endeavour in the period was undertaken without requesting privileges, 'exclusive rights', protection, tax exemptions, or simply subsidies from the government.<sup>86</sup>

As for agriculture, currency instability added further constraints. As in the 1810s and 1820s, Buenos Aires continued to export maize, wheat and flour in the mid-1830s, when stability was greater.<sup>87</sup> However, grain had disappeared from exports after the crisis of high inflation that followed the blockades in the 1840s. Bearing a longer term return for their investment, more intensive use of labour, in addition to high costs of transport to the markets, imported tools, crops storage and climate adversities, the farmers' demand for credit increased together with the risk. Nor would farmers dare to risk any long-term technological improvements: the opportunity cost from being involved in more profitable (or less risky) cattle raising was certainly lower. No wonder, then, that a Chilean

<sup>83</sup> This was Sarmiento's argument to guarantee returns on investments from foreign companies. See Bicameral Committee, in *Diario de Sesiones Cámara de Diputados del Estado de Buenos Aires*, 1859. Legislative Assembly, Session of 21 June 1859.

<sup>84</sup> Lynch, *Argentine Dictator*, pp. 129–34.

<sup>85</sup> Nicolau, *Industria argentina*, pp. 76–8.

<sup>86</sup> Legislation is abundant in cases of special laws in this respect. For example, the Public Lighting Company or all proposed construction of railways by local entrepreneurs in the 1850s – e.g. Del Oeste, San Fernando or up to Arroyo del Medio – demanded these sort of privileges; as did those committed to other minor ventures as a plant to produce meat stock, to mill grain or process tallow. See *Indice de la Sala de Representantes de la Provincia (1821–1852)* (La Plata, 1970) and *Indice de la Cámara de Diputados* (La Plata 1970).

<sup>87</sup> According to figures from Burgin, *Economic Aspects* Table 44. For the 1810s and the early 1820s exports of wheat see PRO.FO. 354-8.847 reproduced in *Informe sobre el Comercio Exterior*, appendix f.



traveller in 1855 ‘bemoaned’ the fact that fertile plain was only devoted to livestock instead of the ‘demanding and less remunerative occupation of farming’.<sup>88</sup> As a whole, troubles in relative prices arising from currency instability and monetary policies led to a sub-optimal economic performance which preferred lower risk investments in extensive cattle raising and sheep grazing than crop farming.

Nor did an inflationary environment benefit ‘pure’ merchants. There was no way to avoid some involvement with depreciated paper money dealings. A degree of insurance against monetary disturbances was available to ‘privileged’ recipients of public bonds, and payers of custom duties. However, troubles in pricing produce sent in returns for imports, and the lag in shipping time plus time to stock them in warehouses to match favourable local market conditions provided incentive for merchants to diversify their assets. As noted in 1850 in Buenos Aires:

Fluctuations in exchange rates are an evil. Particularly in the case of imports, which are sold commonly on long term credits six months and sometimes more. It is equally inconvenient as regards the execution of orders for produce, requiring bills of landing to accompany the drafts, in the interval the exchange rate fluctuates between the purchase and the completion of the shipment. Some remedy is now obtaining by making bargains in specie on what amount to something fixing the exchange rate at which the payment is to be made when due, and by doing so is lowering a fatal remedy. *While fluctuations are wild there are no prices possible to set.*<sup>89</sup>

Not even traders, then, were insured against monetary instability. In times of crisis no merchant would dare to claim unpaid bills from others for fears of starting a rush in the city. In the late 1840s a Baring’s agent found that the discounting of bills among merchants was so extensive that creditors would discourage bankruptcies for fears of a series of failures that could threaten their own business.<sup>90</sup> Inflationary policies and gambling on the exchange around the end of the blockades resulted in waves of commercial failures. Forced sales in auctions yielded an additional flow of goods in glutted markets, causing further problems for

<sup>88</sup> ‘The sad truth is that so long as the pastoral economy provides a return of 30 per cent on capital with virtually no effort on the part of the owner [the farming] has little chance of success’. These observations by Vicuña Mackenna’s became a favourite source for subsequent authors, like Scobie, who added, ‘Easy profits, however, were not the sole determinants of the pastoral economy on the pampas at mid century’, *Revolution on the Pampas*, p. 9.

<sup>89</sup> Notes on the State of Buenos Aires 1852. BB.HC.4.1.24.4. (Emphasis added.)

<sup>90</sup> ‘It took a great deal to make a house fail in this city, the practice of deferring payments being so common that it has no serious effect on the credit of the parties’. See BB.HC 16.117 part. 1 & 2.

surviving merchants.<sup>91</sup> Permanent disruptions and uncertainty determined commercial practices in a world of business conducted overwhelmingly at a personal level. It seems that a failure in Buenos Aires did not mean that a businessman had much trouble recovering commercial faith, either because of constant new opportunities in a very unstable environment or because the enforcement of property rights was quite feeble in early nineteenth century Buenos Aires.<sup>92</sup> Indeed, there was no particular sector of the economy that was safe from monetary instability and general economic uncertainty.

### *Conclusions*

The aggregate effects of inflationary financing were huge income transfers from the private to the public sector. Most contemporary European accounts interpreted the poor and precarious facilities in Buenos Aires (city and countryside) as an outcome of corrupted ambitions, improvidence and shiftlessness of the natives. However, if public income was massively spent in funding permanent warfare, it is no wonder that public buildings – and even churches – looked so abandoned while some private mansions displayed luxury and splendour to a foreign visitor in the late 1840s.<sup>93</sup>

In fact, the same income transference effects occurred within the private sector of the economy. As stated above, import duties were effectively indexed to the exchange rate – via the *aforo* – sheltering the treasury from the effects of depreciation. At the same time, the fiscal bill of exporters denominated in paper pesos, was constantly falling. On the one hand, depreciation diminished the real value of the tax and, on the other, any increase in the price of export goods – merely due to demand supply conditions – did not translate into higher duties either. In the end, index-linked duties on imports were borne by the mass of consumers and affected the scope of domestic savings, in particular for wage labourers or those with fixed earnings. Yet, the same monetary policy constituted heavy fiscal subsidies for those who were engaged in rural export activities. Overall, as for buying public lands, initial prices lagged greatly because of depreciation and finally purchases were funded in several instalments, so prices became worth of little consideration and promoted speculation. Similarly, the exporter repeated the mechanism when covering purchases and wages in paper but received gold or gold prices for goods sent abroad.

Given the structure of production and marketing for rural produce,

<sup>91</sup> Reber, *British Mercantile*, pp. 108–9. For cases of merchants gone bust and their peculiar proposals to settle defaults see *Revista Comercial*... No. 50 and 51, 5 and 11 July 1848; No. 83, 21 Sept 1850, No. 84, 23 Nov 1850, No. 87, 18 Feb 1851.

<sup>92</sup> For the fast financial recovery of Simon Pereyra see footnote 55.

<sup>93</sup> MacCann, *Two Thousand Miles' Ride*, p. 127.

virtually no fiscal charge on its exports yielded an additional source of accumulation for those who enjoyed a diverse stake, through backward and forward linkages in the whole business. These strategies distributed the risk differentially among producers from peculiar circumstances in the international market or adverse weather conditions. Depreciation did not favour small cattle raisers or farmers who sold or consigned their goods to wholesalers in the port. Their relative bargaining power on prices to be received in the future from bigger holders of capital was small. In short, the inflationary policies ultimately subsidised the expansion of rural exports. Therefore, those among the moneyed classes who invested in landed cattle-raising profited distinctively.

Similarly, the high volatility of the exchange rate was a result of uncertainty caused by particular political events and was at the root of any economic decision making for the public. The highly volatile means of payment, dramatically increased transaction costs for the whole economy and public finances in the long run. Uncertainty further troubled the setting of prices in the domestic economy and distorted relative prices. Theoretically, with lower uncertainty and lower transaction costs, the Buenos Aires economy would have performed more efficiently, and growth rates would have been higher. In particular, credit would have been greater and easily accessible, fostering a better allocation of labour and capital and overcoming the occasional depletion of external demand for local goods or adverse climate conditions. These hindrances to economic growth were driven by political instability, and the latter lasted for at least forty years after Independence. Hence, there were major economic incentives and motives for the institutional reorganisation of the country in the 1860s, as well as for full convertibility of paper currency, which was restored finally in 1867 after several fruitless attempts in the previous decade.

In sum, in spite of scholarly disregard, public financing and monetary policies directly shaped the performance of the rural economy. Financial and currency matters were intimately related to the economics of the frontier expansion and the outlook of private cattle-businesses. As an outcome, a propertied class developed on a very diverse economic basis and pursuits. Their success depended on the variety and complementary nature of their investments. They are said to have preferred to maintain some liquidity on their capital that, in a highly unstable environment, would allow them to profit from any favourable conjuncture by shifting from one activity to another. However, liquidity was highly risky. They responded to it by buying land and cattle, hoarding gold and providing mercantile forms of credit to producers that would repay in kind rather than in depreciated currency.