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The California Gold Rush and the Creation of Chile's National Mortgage Bank: the Caja de Crédito Hipotecario

Philip L. Brock

Philip L. Brock [<https://orcid.org/0000-0001-5551-6221>], Associate Professor of Economics, Department of Economics, University of Washington, United States of America. E-mail: plbrock@uw.edu

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Abstract

The decade of the 1850s was a transformative period for Chile's economy tied to the California Gold Rush as well as to mineral booms in Australia and northern Chile. The Gold Rush produced a windfall gain for Chile's landowners in Central Chile who supplied wheat and other agricultural products for the newly opened export markets. By 1855 landowners were wealthy based on the value of their estates but were unable to obtain mortgage credit to make investments in irrigation. In August 1855 the Chilean Congress passed legislation to create a state-sponsored mortgage bank, the Caja de Crédito Hipotecario. Five years after the Caja made its first loans the country experienced a devastating mortgage crisis. The Caja was forced to seize and liquidate properties of many landowners. In the succeeding years mortgage credit recovered. Over 160 years later BancoEstado, the direct successor of the Caja, is the third largest and only public bank, the largest mortgage lender, and the oldest financial institution in Chile.

Keywords: Chilean financial institutions, mortgage banks, Latin American agrarian history, California Gold Rush

La fiebre del oro en California y la creación del banco hipotecario de Chile: la Caja de Crédito Hipotecario

Resumen

La década de 1850 fue un período de transformación para la economía de Chile asociado a la Fiebre del Oro de California y los *booms* mineros en Australia y el norte chileno. La Fiebre del Oro produjo enormes ganancias para los terratenientes de Chile Central que proveían de trigo y otros productos agrícolas a los recientemente abiertos mercados de exportación. Hacia 1855 los grandes terratenientes eran ricos de acuerdo al valor de sus propiedades, pero no podían obtener crédito hipotecario para hacer inversiones en regadío. En agosto de 1855, el Congreso aprobó la legislación para crear un banco hipotecario estatal, la Caja de Crédito Hipotecario. Cinco años después de que la Caja hiciera sus primeros préstamos, el país experimentó una devastadora crisis hipotecaria. La Caja se vio forzada a tomar posesión y liquidar las propiedades de muchos terratenientes. En los años subsiguientes el crédito hipotecario se recuperó. Más de 160 años después, BancoEstado, el sucesor directo de la Caja, es el tercer banco más grande y el único público, el más importante banco hipotecario y la institución financiera más antigua de Chile.

Palabras clave: Instituciones financieras chilenas, bancos hipotecarios, historia agraria de América Latina, Fiebre del Oro de California

Introduction

“By the Decree of 28 February 1852, a grand institution of a *Crédit Foncier* [mortgage bank] was established in France. Brought to the Government’s attention by agricultural authorities, studied by eminent economists, and experimented with in neighboring countries, the matter of the *Crédit Foncier* has acquired a sense of urgency.”

-J.-B. Jousseau, *Traité du Crédit Foncier*, Paris (1853)

“Since the present sessions are considering the establishment of an agricultural development bank, I have the honor to present to this Chamber a new project that is also directed to agricultural development.... It concerns a new institution [*Crédit Foncier*] that few among us have seriously considered, an institution of the utmost importance that I have the deep conviction will lend outstanding services to the country.”

-Antonio Varas, *Cámara de Diputados*, Chilean Congress, June 11, 1855)

In 1855 the Chilean economy was in the sixth year of rapid economic growth driven by the demand for agricultural goods for the newly opened export market of California after the discovery of gold in the Sierra Nevada foothills in 1848. On the heels of the California Gold Rush came the opening of an additional export market following the discovery of gold in Australia in 1851. Chilean landowners had expanded the production of wheat for export as they shared in the economic bonanza of the two gold rushes. But further increases in production required investment in irrigation to expand arable land. Funding for these projects was limited by the lack of well-developed financial institutions that could make long-term loans.

In June 1855 Antonio Varas de la Barra, who was the politically powerful Minister of the Interior, introduced a bill to the Chilean Congress for a mortgage bank that would be modeled after the *Crédit Foncier de France*, a national mortgage bank that had been created by legislation in 1852 as a state-sponsored corporation to spur the development of French agriculture. Between the end of June and the middle of August 1855 both Chambers of Congress (*Cámara de Diputados* and *Senado*) carefully considered and debated the articles of the proposal, making some changes, but in the end approving the legislation that was signed into law on August 29, 1855. The *Caja de Crédito Hipotecario* (often referred to as the *Caja Hipotecaria*) was installed on December 27, 1855 and made its first loans on January 2, 1856.

Prior to Varas’s proposed legislation for the *Caja Hipotecaria*, the Chilean Congress had been considering the creation of a National Agricultural Development Bank that would have relied upon surplus funds from the Treasury to make loans to landowners on a limited scale. The proposal for the *Caja Hipotecaria* was on a far grander scale than the proposed Agricultural Development Bank and came only three years after the establishment of the *Crédit Foncier de France*. Whereas the *Crédit Foncier de France* was a government-sponsored corporation, the Chilean counterpart was a public bank that would issue long-term mortgage loans to landholders

under the direction of a Board of Governors appointed by the President of the Republic and Congress.

In this article, Section 2 describes the political and economic setting of Chile in 1855 as the backdrop to Varas's proposal for the Caja Hipotecaria. Section 3 turns to the reasons for the lack of formal mortgage credit prior to 1855. Section 4 compares the legislation of the Caja Hipotecaria with that of the *Crédit Foncier de France*, highlighting the similarities and differences, and analyzing the important Congressional debates that took place prior to the passage of the legislation. Section 5 details the immediate years after 1855 in which a devastating mortgage crisis forced many landowners into bankruptcy. Section 6 considers the legacy of the Caja Hipotecaria as it evolved into today's Banco del Estado de Chile—Chile's third largest and only public bank, largest mortgage lender, and Chile's oldest financial institution. Section 7 concludes.

The Political and Economic Setting in 1855

The year 1855 began with the March Congressional elections that solidified Manuel Montt's presidency. Montt had been come to power in 1851 in a disputed election that had led to a civil war in which the government defeated a coalition of northern and southern rebels. This was followed by a period of martial law and repression of civil liberties. The results of the 1855 Congressional election conferred political legitimacy on the government and permitted a liberalization of the political climate. The new Congress embarked on an ambitious agenda that transformed Chile's financial system within two years' time. Three months following passage of legislation for the Caja Hipotecaria in August, Congress approved Chile's new civil code.¹ On March 1, 1856 the government approved the statutes for the country's first commercial bank, the Banco de Valparaíso de Depósitos i Descuentos.

In terms of the economic setting in 1855, the California Gold Rush had created a large maritime trade around Cape Horn. Valparaíso, the major port city of Chile, was the first destination on the Pacific Ocean for vessels on their way to California. According to figures supplied by Gilliss (1855: 231) the number of foreign merchant vessels arriving in Chilean ports increased from 1,397 in 1848 to 2,351 by 1851.² Gilliss wrote that during his July 1851 visit to Valparaíso, "the bay was crowded with ships from every port of the world, numbers of which, en route to California, had come in only for refreshments; and the sight from the overhanging hills...was grand and majestic beyond description".

Chileans were among the first gold seekers to arrive in California, bringing with them their mining skills and foodstuffs. According to Encina (1948: 508) about 20,000 Chileans emigrated to California during the peak of the Gold Rush. During the first years of the Gold Rush

¹The Civil Code of 1855 was a twenty-year undertaking that, among other things, overhauled the inherited colonial laws regarding property ownership rights and legal contracts. The most detailed analysis of the reform of creditor rights in legal contracts is by Bravo Lira (1983).

² Gilliss directed the 1849-1852 US Naval Observatory expedition to the Southern Hemisphere. See Valdés et. al. (2019) for a history of the expedition and its impact on scientific investigation in Chile.

California was almost entirely dependent on imports of wheat, flour, and other agricultural goods. Chile had been an important exporter of wheat to Peru since the Colonial Era and was well-prepared to expand production for the California market. Besides wheat, Chile exported significant amounts of barley and beans.³ By 1854 California had become close to self-sufficient in wheat production but increased demand for wheat from Australia following its own gold rush kept total wheat exports high through 1856.

Table 1 gives figures on exports to California and Australia between 1848 and 1857. The first three columns are the total peso value of Chile's exports to California and Australia, while the last three are quantity measures of wheat and flour shipped to California, Australia, and the rest of the Pacific (primarily Peru). Both peso and quantity measures tell a similar story of a rapid and sustained rise in exports through 1855, the year in which the Caja Hipotecaria was created. The quantity measures show that wheat exports to California and Australia exceeded exports to traditional Pacific markets during the period 1850-1856.

Table 1. Chilean Exports to California and Australia

	Total Exports (thousands of pesos)			Wheat and Flour Exports (thousands of metric quintales)*		
	California	Australia	Combined	California	Australia	Other Pacific**
1848	250	-	250	3	-	118
1849	1,835	-	1,835	87	-	140
1850	2,446	-	2,446	277	-	175
1851	2,068	-	2,068	175	-	93
1852	2,204	24	2,228	145	-	181
1853	1,174	269	1,444	166	11	91
1854	706	878	1,584	63	126	116
1855	276	2,699	2,975	15	324	156
1856	211	1,153	1,364	-	155	138
1857	138	229	367	-	15	165

Sources: Miquel (1863: 253) for columns 2-4; Sepulveda (1959) for columns 5-7.

Sepulveda added wheat and flour together by adjusting 1 kg flour = 1.25 kg wheat

*1 metric quintal = 100 kg

**Peru accounted for about 80 percent of other Pacific

In addition to the growth of agricultural exports toward California and Australia, rapid expansion of silver and copper mining in the Atacama region of Chile (to the north of Santiago)

³ See Miquel (1863: 56). Honeysett and Schulz (1990: 100) also report that "The primary source of peaches for gold rush California was Chile, whence both fresh and dried supplies were obtained, though in far from equal numbers. Dried Chilean peaches were a standard item on the market, wholesaling from 30-35 cents per lb."

fueled the booming economy. Silver mining expanded rapidly with the discovery of new ores at Chañarcillo. Between 1850 and 1860 Chile's copper production rose from 25 percent to 50 percent of world output (Culver and Reinhart, 1989). The rapidly increasing population in this area provided an additional market for Chilean wheat producers.

In sum, during the first half of the 1850s the confluence of the gold discoveries in California and Australia, in combination with the expansion of silver and copper mining in northern Chile created the economic conditions that propelled Valparaíso merchants, landholders in the Central Valley, and northern miners to sudden wealth.

The increased wealth associated with mining, agriculture, and the commercial activity of Valparaíso created a rapid increase in exports that was accompanied by a rapid rise in imports. Table 2 breaks down the exports by category of mineral, agricultural, and other, as well as total exports and imports. Between 1850 and 1855 total exports and imports increased by over half. Agricultural exports increased by over two thirds.⁴ Among the important imports were textiles (calicoes, unbleached and white cotton cloth, handkerchiefs, and shawls) as well as sugar and tobacco. A large amount of quicksilver (mercury) was imported for use in mining operations (Gillis, 1852: 238-239).

Table 2. Chilean Exports by Sector (thousands of pesos)

	Mineral Exports	Agricultural Exports	Other Exports	Total Exports	Total Imports	Trade Balance
1850	7,838	3,097	1,491	12,426	11,778	648
1851	6,249	2,941	2,956	12,146	15,885	-3,379
1852	7,807	3,933	2,348	14,088	15,347	-1,259
1853	6,472	3,352	2,315	12,139	11,554	585
1854	9,611	3,336	1,68	14,627	17,428	-2,801
1855	10,513	5,219	3,45	19,18	18,433	747
1856	12,799	3,778	1,583	18,16	19,804	-1,644
1857	13,726	3,725	2,327	19,778	20,197	-419

Source: Oppenheimer (1976, Appendixes V and VII).

The increased trade also created customs revenue for the government that permitted a rapid increase in government expenditure. Total revenue rose by over 75 percent from 1848 to 1855,

⁴ These figures are shown to give a rough measure of the strength of the economic boom in the first half of the 1850s. As noted by Leon (1982, Appendix 4), data on exports and imports in the 1850s are somewhat unreliable. For example, imports were often over invoiced; that is, the declared value of an import at customs was greater than the amount charged by the shipper. In addition, exports to other countries were often recorded as coastal trade to the mining regions of Chile or vice versa. Consequently, the recorded trade balance (exports minus imports) is subject to large errors. It may be that the drop in exports and imports in 1853 was linked to the severe drought that year. Meteorological records show that only 210 mm of rain (about 8 inches) fell in Santiago that year, in comparison with an average of 482 mm between 1854 and 1858 (Bustos Navarrete, 1942).

of which two thirds of the increase came from customs revenue. Government spending similarly increased. Between 1848 and 1855 spending by the Department of the Interior (such as for roads and port facilities) and on railroads increased by over 1.4 million pesos, which was almost as much as the increase in customs revenues: 1.8 million pesos (Mamalakis, 1989).

The initial response of agriculture in the southern Central Valley to the high price of wheat beginning in 1849 was described in 1853 by a British consul in Santiago: “the high price of grain during the past three years, consequent upon the demand from California, has given a great stimulus to agriculture, and the erection of mills. It is estimated that for three years past, there has been sown each succeeding year, one third more grain than on the year previous.” (as cited in Llorca-Jaña et. al., 2018a: 121). The southern Central Valley had good access to rivers for the transport of flour and grain to the coast as well as extensive landholdings that could be cleared, leveled, and put into wheat production. It was in this area that foreign capitalists erected the first modern mechanical flour mills in Chile.

Central Valley landholders in the Santiago area similarly responded by increasing wheat production. Between 1849 and 1851 most of the increased flour shipped internationally or by coastal trade to the northern mining region came from Valparaíso, as shown in Table 3. But beginning in 1852 Valparaíso became a net importer of flour from southern Chile (column 5). This was due to three primary reasons. First, the transport costs over the coastal range to Valparaíso were high, and the cost of flour shipped from the southern Chile to Valparaíso was substantially less.⁵ Second, the flour mills around Santiago were old and produced lower quality flour than that produced by the newly constructed modern flour mills in the South.⁶ Third, the rapidly growing population of Valparaíso became a major source of demand for flour.

All of this suggests that most of the flour produced in the Central Valley around Santiago was consumed domestically, either in the Santiago area or in Valparaíso. The high-quality flour from southern Chile was either exported internationally (primarily to California, Australia, and Peru) or by coastal trade to the northern mining region.

⁵ Regarding transport costs, Gay (1865) wrote “Each wagon needed seven pairs of oxen, that is, three pairs for the trip [from Santiago to Valparaíso], another animal to always follow behind the wagon, and the others to stay in the paddock to use for the return trip. The round trip took about 14 to 15 days.” Bauer calculates that the market price of a quintal (46 kg) of flour in 1852 in Santiago was 3.40 pesos and 1.88 pesos in the Southern city of Talca (which had river access to the port city of Constitución).

⁶ Garcia (1989: 84) writes “According to the census of 1843, 1,271 mills existed in the country, predominantly old mills with circular stones which were turned by animals, people, or water. The product obtained after the extraction of the husk was a thick flour, with a high humidity content which made it prone to rapid decomposition.”

Table 3. Net International and Domestic Shipments of Flour from Valparaíso (thousands of metric quintales)

	Coastal Trade from South to Valparaíso (1)	Coastal Trade from Valparaíso to North (2)	International Exports from Valparaíso (3)	Net Shipments from Valparaíso (2)+(3)-(1)
1848	53	19	36	2
1849	37	3	143	109
1850	105	54	149	98
1851	63	25	90	53
1852	218	61	126	-32
1853	157	41	119	3
1854	255	66	125	-64
1855	206	38	169	1
1856	164	67	121	24
1857	178	72	62	-43

Source: Oppenheimier (1976, Appendix XXXI).

In 1857 the noted French economist Jean-Gustave Courcelle-Seneuil summarized the impact of the Gold Rush on Chilean agriculture as follows:⁷

No one can disregard that the discovery of the California mines in 1848, and those of Australia in 1851, produced a true economic revolution....From the impulse given to trade by this great event, Chile found itself geographically closer to shipping routes than other grain producers....Trade consequently came to ask Chile for the necessary grains for the maintenance of the gold miners; and since the auriferous lands did not yet possess mills, the Chileans hastened to exploit the large number of watercourses in the country to construct flour mills for the export of flour—a foodstuff ready for immediate consumption. The sudden and sustained increase in the price of grain in the markets of Valparaíso and Concepción was sizeable enough to produce a vast increase in the area of cultivated land and a rapid development of the flour industry.

After describing the windfall gains of the large landholders brought on by the sudden increased demand for wheat and flour, Courcelle-Seneuil (1857: 509) then observed:

In this increase in wealth, the grower and the peasant both shared their part. There was a shortage of workers for projects in mining and agriculture—each day greater

⁷ Courcelle-Seneuil was hired in 1855 by Antonio Varas, the Interior Minister, to advise the government on economic matters and to teach a course in economics at the Universidad de Chile. See Hirschman (1963) and Couyoumdjian (2008).

in scope. Wages increased to the point of doubling the level prior to 1848.... The wealth acquired so unexpectedly by the landowners and miners has [also] increased the demand for artisans and shopkeepers, as well as for foreign merchandise.

There is an analytical framework used by economists that is helpful in interpreting the macroeconomic adjustment of the Chilean economy to the California Gold Rush, Australian Gold Rush, and increased mineral production in northern Chile. The framework's roots go back to Cairnes's (1859) description of the Australian economy following the gold rush during 1852-1856. In Australia, workers left agriculture for the gold fields, causing a labor scarcity in agriculture. Wages for common laborers rose from 3-5 shillings per day to 20 shillings, which then raised the cost of producing many goods and services. The higher cost of production was then passed on in the form of higher prices.

In the modern economics literature, the impact of mineral discoveries on the rest of the economy is frequently referred to as the "Dutch Disease" in reference to the rise in wages and contraction of agricultural and manufacturing sectors following the discovery of natural gas fields in the waters off the coast of the Netherlands in the 1960s. The first set of papers to provide an analytical framework for explaining these impacts was written in the early 1980s.⁸ The framework has been applied to Chile by Jeftanovic (1992) to describe the macroeconomic impact of the nitrate boom of the early twentieth century and by Larraín, Sachs, and Warner (2000) to analyze the 1994-1995 copper boom.

As applied to Chile in the early 1850s, the Dutch Disease framework highlights the impact of the mineral booms (gold in California and Australia, silver and copper in Chile) on the Central Valley landholders between 1849 and 1855. The initial impact was a windfall gain for the landholders from the high price of wheat. Even given the high cost of transporting wheat over the coastal range to Valparaíso, the landholders saw enormous increases in income.⁹

Agricultural production was initially raised by using surplus labor to sow more land. In the next stage, expansion of wheat cultivation in the south of Chile provided a better-quality flour at a cheaper cost, thereby reducing the demand for wheat grown around Santiago. In addition, labor was drawn off from agriculture to the mining regions of California and northern Chile as well as to the growing cities of Santiago and Valparaíso. The infrastructure spending by the government on roads and the railroads also drew workers out agriculture. As in Australia in 1853, the resulting higher wages arising from labor scarcity reduced the profits of the landholders.¹⁰

⁸ The survey article by Corden (1984) gives a good overview of the modeling framework developed up to that point. Much further work has been done, including papers by Corbo and Ossa (1982), Brock (1988), Edwards and van Wijnbergen (1989), McNelis and Schmidt-Hebbel (1993), and Brock and Turnovsky (1994). A modern textbook treatment can be found in Uribe and Schmitt (2017).

⁹ Llorca-Jaña et. al. (2018a: 119) calculate that between the 1837-1838 agricultural census (catastro) and the 1852 census the share of income of landowners in the top one percent rose from 23 percent to 37 percent.

¹⁰ In terms of the terminology of the Dutch Disease analysis, that framework emphasizes that countries produce some goods that are tradable on international markets and other goods that are nontradable. In the context of Chile in the 1850s, tradable goods exports included wheat and minerals—commodities that could be

Land prices rose sharply higher around Santiago in the first half of the 1850s. In addition to impact of the increased foreign and domestic demand for wheat combined with the reduced supply of unskilled labor for agricultural production, the increase in land prices was probably due to two additional reasons. First, construction that began in 1852 on the Santiago-Valparaíso Railroad was initially expected to be completed by 1857. The railroad would dramatically lower the cost of shipping flour for export.¹¹ Second, ownership of a landed estate carried a prestige value in Chilean society. By 1853 Valparaíso merchants and northern mine owners sought to purchase these estates with their newly found wealth.

By 1855 landowners were wealthy in terms of the value of their estates, but were facing labor shortages, increased costs of production, and competition from southern farmers. Their access to credit was primarily limited to short-term trade credit extended by the Valparaíso merchants against future harvests and cattle roundups (Bauer, 1975: 88). Mortgaging land was almost impossible due to lack of judicial enforcement of mortgage contracts. Creating an institution that would open up access to mortgage credit carried the possibility of funding investments in agriculture in anticipation of the completion of the Santiago-Valparaíso Railroad.

Access to Mortgage Credit

Prior to 1855 there was very little institutional mortgage credit. The origin of weak creditor protection for mortgage lenders can be traced back to the Spanish Civil Code (known as the *Siete Partidas*). Mortgage priority in bankruptcy proceedings was based on the date of inscription, and earlier inscription by the signature of the debtor in the presence of three witnesses had priority to later inscription on public mortgage registries.¹² The Real Pragmática of 1768 superseded that rule and gave mortgages inscribed in public registries priority claim over other mortgages. Chilean jurisprudence continued to use the Spanish legal code after Independence, and it was assumed that the creditor priority established by the Real Pragmática governed bankruptcy proceedings.

However, in the early 1840s there were many defaults on mortgages where the judges reverted to the *Siete Partidas* prior to the Real Pragmática. Phantom mortgages based on three witnesses which pre-dated mortgages recorded on public registries were produced by debtors.

shipped internationally. Tradables also included commodities that could be imported. In the context of Chile, the primary imports in the 1850s were textiles from Britain. The category of nontradable goods produced in Chile included almost everything else—the construction of roads, the provision of port facilities at Valparaíso, the building of factories and houses, the clearing of land for the expansion of wheat production, and most government spending. Much food consumption was nontradable as were the services provided by shopkeepers and artisans. Most nontraded production is labor intensive, so that increased production of nontradables raises the wages of unskilled labor and shifts labor out of agriculture and other tradable activities.

¹¹ In the end, construction of the railway over the coastal range proved far more difficult than anticipated and the line was not completed until 1863 (Nuñez Olaechea, 1910). After the completion of the railroad, Valparaíso eclipsed the southern ports in flour exports (Bauer, 1975: 65)

¹² See *Los Códigos Españoles concordados y anotados, Código de las Siete Partidas; Partido 5, Título 13, Ley XXXI*. Madrid, Imprenta de la Publicidad, 1848.

Formal creditors lost their claims over the estates of the borrowers (Palma, 1866). The actions taken by the Chilean government and the court system to come to the aid of borrowers placed the financial burden of the bankruptcies on the Valparaíso merchants. Mortgage-based lending became risky and mortgage credit dried up.

In 1841 a group of prominent Valparaíso merchants petitioned Congress to change the laws regarding bankruptcy proceedings involving mortgage credit (*Sesiones Legislativas*, 1844: 256). Between 1842 and 1854 mortgage legislation was progressively reformed to provide formal creditors with stronger legal priority in bankruptcy proceedings. The 1854 legislation established a special class of mortgages (*hipoteca especial*) that was recorded in a public registry and had priority claim over other types of mortgages in bankruptcy proceedings.

By 1855 mortgage legislation had been reformed to eliminate the abuses of clandestine mortgages that had accompanied the bankruptcy proceedings of the early 1840s. Even so, there were significant obstacles to mortgaging land. First, debtors faced the prospect of bankruptcy proceedings being initiated by creditors if a mortgage payment or repayment was missed for any reason. Since merchants did not extend long-term credit, this meant in practice that debtors would need to refinance on a regular basis. If refinancing was not granted, the borrowers had little other recourse to repay the mortgage debt, and so could easily be forced to default. Second, creditors continued to face the uncertainty that the courts might fail to enforce mortgage proceedings in a timely manner. Such a prospect would have a similar effect on creditors as the re-interpretation of mortgage contracts by many judges in the early 1840s.

As a result of these concerns by debtors and creditors, mortgage credit remained difficult to obtain. Landowners had a desire to mortgage properties, but no access to credit at reasonable terms. An institutional mechanism was required to intermediate between creditors and borrowers so that each would be protected against abuses of mortgage contracts in bankruptcy courts, either by creditors' actions not to roll over mortgage contracts or by judges who failed to enforce bankruptcy proceedings in a timely manner.

One proposal to overcome these difficulties of credit rationing to agriculture was to involve the government directly in the lending process. In early June 1855 the President of the Senate, José Diego Benavente, introduced a bill to create an agricultural development bank (*Banco para Fomento a la Agricultura*).¹³ The legislation would have created an institution authorizing the Treasury to deposit surplus operating funds with the bank as well as to issue fiscal bills to the bank backed by gold bars and silver. These funds would have formed the backing for the bank's lending operations. Landowners would have access to credit, but the amount would be limited by the fiscal resources committed to the bank.

This was the context in which Antonio Varas, the powerful Minister of the Interior and member of the Chamber of Deputies, introduced legislation on June 11, 1855 for a national

¹³ Benavente was born in 1790 and fought on the side of the patriots in the War of Independence from Spain. He was appointed Minister of Finance in 1823 and remained active in public life in the government—serving in ministerial positions and as president of the Senate ten times—until his death in 1867 (*Biblioteca del Congreso de Chile*, www.bcn.cl).

mortgage bank, the Caja de Crédito Hipotecario (Sesiones del Congreso Nacional, 1855).¹⁴ He apologized for the delay in submitting his proposal to the Congress, and asked the Deputies for understanding that in his duties as Minister of the Interior he had been occupied with many matters. Benavente's proposal in the Senate for an agricultural development bank pushed Varas to bring forward his proposal for a mortgage bank (Caja Hipotecaria) to the Chamber of Deputies on June 11, 1855. The mortgage bank would issue mortgage bonds (letras de crédito) backed by the portfolio of long-term mortgage loans made by the Caja Hipotecaria to landowners. Varas emphasized the advantages that the institution would provide for borrowers:

A long-term [mortgage] loan made by the Caja, which is payable in installments that do not exceed the regular output of an estate [fundo], will benefit a landowner, who in the present system is threatened by a demand for an immediate repayment of a large loan that would force the sale of his property.¹⁵

In the Congressional debate on the legislation the president of the Senate (José Diego Benavente) referred to its resemblance to European mortgage banks, expressing his strong reservations (July 25 and 27, 1855):

The honorable Minister of the Interior, not in his role as Minister, but rather as a Congressman has presented us with draft legislation concerning an enterprise resembling one of the European Banks, which I believe is unsuitable for us.... Do not suppose that I am saying this because I believe our country to be poor, and for this reason cannot support these companies among us. No, perhaps never has the country been wealthier, and perhaps never have our incomes been greater than now. But, all in all, I am strongly of the opinion that this will be an experiment and that we will judge by the outcome whether it is possible to undertake such a great enterprise.¹⁶

¹⁴ Antonio Varas de la Barra was born in 1817 to a family whose property was expropriated by the government after the Revolution because his father had been a Royalist supporter. After his father's death, Varas's older brother brought him to Santiago and enrolled him in the Instituto Nacional, a school which was established during the War for Independence from Spain to educate Chileans as citizens of the newly formed republic. Varas was taken under the wing by Manuel Montt (eight years older and about to become rector of the Instituto). Varas showed an aptitude in mathematics, became a professor of the Instituto when he was twenty, followed Montt as rector of the Instituto Nacional in 1842, and became Montt's most important minister during his presidency. He earned his law degree in 1842. Except for a brief period in 1879 during the War of the Pacific, when he served both as Minister of Finance and Deputy of War and the Navy, Varas directed the Caja Hipotecaria from 1857 until his death in 1886 (Varas Herrera, 1890).

¹⁵ "La ventaja del préstamo reembolsable a largos plaza que la Caja ofrece sin exigir anualidades que excedan de la producción ordinaria de un fundo, pueden gozarla los propietarios que, según el sistema actual de préstamos sobre hipoteca, estuvieren amenazados del reembolso inmediato de una fuerte suma que los ponga en peligro de enajenar su propiedad."

¹⁶ "El señor Ministro del Interior, no como Ministro, sino como Diputado, presentó el que ahora va a ocuparnos, el que ha sido redactado a semejanza de uno de los Bancos de Europa, el que en la actualidad, creo, no es conveniente adoptarlo tal como se nos presenta.... Por lo espuesto, no vaya a creerse que yo parto del principio que el país se halle pobre, i que por esto suponga que no puedan sostenerse estas empresas entre nosotros; no,

Benavente, along with both houses of Congress, was eventually persuaded to approve the legislation in August 1855, after making some minor changes during the debates. The next section analyzes this legislative process.¹⁷

Legislation for the Caja de Crédito Hipotecario

The exact link between the European mortgage banks and the Caja Hipotecaria has always been obscure. Other than Santelices (1893: 418) and Barros Borgoño (1910) historical research that refers to the Caja Hipotecaria does not even mention its European origins. This section documents that the Caja Hipotecaria was closely modeled after the legislation creating the *Crédit Foncier de France*.¹⁸

The *Crédit Foncier de France* was created in 1852 by the Decree of Emperor Louis Napoleon. This was the culmination of thirty years of efforts to create a credit market for land in France. In October 1853, Jean-Baptiste Josseau—a noted French legal scholar who had been part of these efforts—published a 600-page treatise entitled *Traité du Crédit Foncier* (Treatise on Mortgage Banks) containing the historical background of the development of European mortgage banks along with a detailed analysis of the 1852 French legislation.¹⁹

talvez nunca ha estado mas rico, i talvez tambien jamas se han visto caudales mas crecidos que ahora. Pero, con todo, siempre soi de opinion que primeramente se haga, por decirlo así, un ensayo, i por el resultado que obtengamos de él, juzguemos si se pueden acometer grandes empresas.”

¹⁷Because my focus is on the origins of the Caja Hipotecaria, I have not discussed other important issues related to property rights in agriculture that had been the subject of legislative debate during the 1840s, and whose resolution was critical for the judicial enforcement of mortgage claims. Among the most important of these was the restitution or monetary compensation for landowners (or their heirs) whose property had been sequestered by the revolutionary government during the War for Independence; this was the basis for the 1853 *Ley de Secuestros* (Bocksang Hola, 2014). A second was the elimination (referred to as *ex-vinculation*) of entailed estates, known as *mayorazgos*; this resulted in the 1852 *Ley de Ex-vinculación de Bienes*. The elimination of entails enabled landowners of *mayorazgos* to mortgage their properties (see Donoso, 1946 for the most comprehensive history of the legislative process). Another obstacle to pledging land was the uncertainty regarding water supply easements, especially those related to irrigation. The 1855 Civil Code devoted Title XI, *De las Servidumbres* (easements), to the creation of the legal framework for water rights that made the expansion of irrigation of the Central Valley possible (see Barrientos Grandón, 2015 for a history of the antecedents to the legislation). Finally, the valuation of land was aided with information provided by the government’s 1852 national land registry (*catastro*). See Alvarez Correa (2014) and Llorca Jaña et. al. (2018b).

¹⁸Santelices wrote “In 1852 a law was established to enable the formation of *La Banque Foncière de Paris*.... Shortly afterward, in 1855, a law was enacted in our country that created the *Caja de Crédito Hipotecario* and authorized the establishment of analogous enterprises. And if we have intentionally placed these two dates together, it is because we consider it honorable for our country to have the first mortgage institution in South America.” *La Banque Foncière de Paris* was renamed in November 1852 as the *Crédit Foncier de France*.

¹⁹The full title of the book is “*Traité du Crédit Foncier ou Explication théorique et pratique de la législation relative au Crédit foncier en France, avec le texte des décrets, loi, rapports, circulaires, statuts, instructions pour l’examen des titres et la vérification de la valeur des biens, formules d’actes, modèles de demande d’emprunt et d’obligations foncières, tarifs d’annuité et tables d’amortissement, suivi d’un exposé de l’organisation des institutions de crédit foncier dans les divers états de l’Europe*”. See Allinne (1983) for a history of the *Crédit Foncier de France*.

This book was likely Varas's primer for his proposed legislation for a Chilean mortgage bank.²⁰ The introduction to the legislation for the Caja Hipotecaria contains numerous passages that echo those found in Jousseau's exposition. For example, the following is a translation of a passage from Jousseau (1853: 4):

One can imagine the creation, between landowners and capitalists, [of] an intermediary that could simultaneously obtain for some, based on mortgage collateral, funds that are reimbursable by amortization, and for others issuing securities [lettres de gage] in exchange for cash, that offer the triple advantage of a perfect financial soundness, of an exact service of interest payments, and ready negotiability.²¹

Varas makes the same point in his introduction of the proposed legislation on June 11, 1855:

The [proposed] law creates a centralized and permanent administration...that acts as an intermediary between landowners and capitalists, that lends its credit [letras de crédito] to landowners, and that guarantees and pays interest and amortization [on the letras] to the lenders.²²

The Appendix makes a detailed comparison of the articles of the 1855 legislation for the Caja Hipotecaria with the articles of the 1852 legislation for the Crédit Foncier de France. Almost every article for the Caja has a counterpart with the Crédit Foncier de France. The following is a summary of the most important similarities and differences.

Each piece of legislation creates a financial intermediary that can pool the cash flows on mortgages from many borrowers to create mortgage bonds (securities known as lettres de gages in the Crédit Foncier de France legislation and letras in the Caja Hipotecaria legislation) with low credit (default) risk. This ability to create safe mortgage bonds comes from holding a portfolio of mortgages that is diversified with respect to individual default risk by borrowers.

In addition, in their role as financial intermediaries both the Crédit Foncier and the Caja Hipotecaria could monitor the use of funds by landowners. Varas refers in detail to this crucial function of the Caja in his introduction of the legislation to the Chilean Congress:

²⁰ Varas undoubtedly had access to this book. It is among the books on mortgage credit found in the museum of the Banco del Estado de Chile, the institution created in 1953 by fusing the Caja Hipotecaria with other subsidiary institutions that invested in the Caja's mortgage bonds (the most important were the Caja de Ahorros and the Caja de Crédito Agrícola). Other books in the museum are Persil (1833), Troplong (1844), and Wolowski (1844).

²¹ "On a imaginé de créer, entre les propriétaires et les capitalistes, un intermédiaire qui soit à même de procurer aux uns, sur hypothèque, des fonds remboursables par amortissement, et de faire accepter aux autres, en échange de numéraire, des titres leur offrant le triple avantage d'une solidité parfaite, d'un service exact d'intérêts et d'une négociation facile."

²² "La lei crea una administración central i permanente...que sirva de intermediario entre los propietarios i los capitalistas, i que ejecute i dirija todas las operaciones, que preste a los propietarios su crédito, que dé garantía a los prestamos i les sirva para pagar intereses i amortización."

The Caja offers investments [letras] that are completely safe, so that purchasers of the letras do not have to investigate the personal situation of the borrower or his moral character, as is indispensable to establishing trust when relying on personal credit. In addition, purchasers do not have to investigate the quality of the collateral that is offered or the true valuation of the mortgaged estate. Purchasers [of letras] have the certainty of regular interest payments without disruptive and cumbersome judicial or out-of-court proceedings, and without suffering losses from bankruptcies. Finally, purchasers can invest part of their capital in letras and lend out the rest, as they see fit, without any difficulty.²³

To ensure the quality of the collateral backing the mortgage bonds, each piece of legislation requires that loans must be for first mortgages that cannot exceed fifty percent of the assessed value of the estates (Article 9 of the Caja and Articles 6 and 7 of the *Crédit Foncier*). If the debtors fail to make timely payments on the mortgages, the *Crédit Foncier de France* is authorized to impound the property fifteen days after the missed payment, whereas the time period for impoundment by the *Caja Hipotecaria* is thirty days. The Appendix gives a more detailed comparison of the provisions of both pieces of legislation for the bankruptcy procedures, including the auction proceedings.

In terms of institutional structure, both the *Crédit Foncier de France* and the *Caja Hipotecaria* have a governing board of five members. In the case of the *Crédit Foncier de France* the director and the other four members are appointed by the Emperor. In the case of the *Caja Hipotecaria*, the director is appointed by the President of the Republic, and each chamber of Congress designates two other members of the governing board. In each piece of legislation, the government was authorized to purchase mortgage bonds to support the value of the bonds and operations of the banks. In the case of Chile, the Treasury was directed to purchase 20 percent of the bonds issued in the first year of operations, 15 percent in the second year, 10 percent in the third year, and 5 percent in the fourth year. In the case of France, the Treasury was given discretion to determine the amount of bonds to purchase.

There are important differences between the legislation for the *Crédit Foncier de France* and the *Caja Hipotecaria*. The *Crédit Foncier de France* made mortgages at a fixed interest rate whose cost was covered by the mortgage bonds that it issued. The *Caja Hipotecaria* issued

²³ “La Caja ofrece en sus letras medios de colocar fondos con la mas completa seguridad, sin que el prestamista tenga que ocuparse en indagar ni cuál sea la situacion personal del deudor, ni su responsabilidad, ni su carácter moral, como es indispensable para librar la confianza cuando se fia en el crédito personal; tambien se ahorra la misma investigacion respecto del fiador que se le ofrece, i no necesita entrar en la apreciacion siempre difícil de la verdadera importancia del fundo propuesta en hipoteca; tiene la certeza de percibir con regularidad los intereses en épocas determinadas, sin ninguna jestion judicial ni estrajudicial de su parte, i de ser cubierto gradualmente de su capital sin verse precisado a sujetarse a los molestos i embarazosos procedimientos judiciales de ejecuciones o consursos, ni sufrir pérdidas por quiebras, i por último puede entrar en posesion de parte de su capital i dejar colocado el resto segun le convenga, sin ninguna dificultad.”

mortgage bonds with a coupon rate of 8 percent directly to the landholders for their mortgages. The landholders then sold the bonds to purchasers for cash.²⁴

Another important difference between the *Crédit Foncier* and the *Caja Hipotecaria* was the provision that was made in the *Caja*'s legislation for a framework that would allow the creation of private-sector mortgage banks that could compete with the *Caja* (Articles 33-36). The mortgage banks were subject to the same regulations as the *Caja* but were to be created as limited liability corporations, with the directors appointed by the President of the Republic. There was no provision for mortgage banks other than the *Crédit Foncier* in the French legislation.

A final difference was that the *Crédit Foncier de France* was created as a state-sponsored corporation. The *Caja Hipotecaria* was created as a state bank and can lay claim as the world's oldest national public mortgage bank.²⁵

One notable similarity is that the legislation for both the *Crédit Foncier de France* and the *Caja Hipotecaria* were each the projects of a single author. In France, under the auspices of the French President Louis Napoleon between 1848 and 1851, the noted economist Louis Wolowski put forward a project for mortgage banks (*crédit fonciers*). After the December 1851 self-coup in which Louis Napoleon declared himself Emperor, a decree was published in February 1852 authorizing such establishments. In July 1852 Wolowski founded the *Banque Foncière de Paris*, whose name was changed to *Crédit Foncier de France* in December 1852.

As noted above, the legislation proposed to Congress in June 1855 for the *Caja Hipotecaria* was written by Antonio Varas. As Minister of the Interior Varas had been involved in the process of reforming mortgage legislation on creditor bankruptcy priority in the laws of 1845 and 1854. Presumably, between the end of 1853 (the earliest date that Jousseau's book could have arrived in Chile) and June 1855 (when Varas presented the proposed legislation to Congress) Varas wrote the statutes for the *Caja Hipotecaria*.

Whereas the Emperor could decree the legislation for the establishment of *crédit fonciers*, in Chile Varas's proposed legislation was subject to Congressional review. One week after Varas's introduction on June 11, 1855 Congress took up consideration of the proposed legislation. It was the subject of lengthy debate in the Chamber of Deputies on June 19, July 5, 10, 12, 14, 17,

²⁴ Each method posed significant difficulties in the early years of operation of the two mortgage banks. For the *Crédit Foncier de France*, the annuity on the bonds (coupon rate) was initially set by legislation at 5 percent. With little interest by purchasers of bonds (at par value) with that low rate, the *Crédit Foncier de France* had very little cash to make loans during its first two years. The annuity was progressively raised to 6.06 percent between 1852 and the middle of 1854 before the *Crédit Foncier de France* was given discretion to raise the rate sufficiently to attract purchasers for the bonds (Liesse, 1909, pp. 244-246). For the borrowers from the *Caja Hipotecaria*, the price at which the 8 percent mortgage bonds could be sold on the market was typically about 80-85 percent of their nominal value. This meant, in practice, that the borrowers were only able to obtain funds at an interest rate of over 10 percent. See Tocornal (1861) for data on the sale prices of the mortgage bonds and his calculations of the implied cost of credit.

²⁵ Jousseau (1853, pp. 455-534) discusses all of the European mortgage banks founded since the first cooperative bank was established in Silesia with the support of Frederick the Great. Most of the institutions were either created as cooperatives of landowners under the supervision of the state or as corporations. As of 1853 the only mortgage banks founded by the state and under its control were in Hanover, Saxony, Hesse-Electorale, Nassau, and Bremen. These banks were later nationalized by Prussia (Schmitt, 1975).

and August 14. The Senate debate took place on July 25, 27, and 30 (Sesiones del Congreso Nacional, 1855).

The Appendix contains annotations on specific discussions regarding several articles of the legislation. The most important debates concerned the powers that were to be given to the Caja and the courts for taking control of estates in the case of missed payments on the mortgages.²⁶ The following narrative summarizes four of the important interchanges between the Deputies and Varas on this matter.

On July 5, 1855 Señor (don Federico) Errázuriz indicated his wish to modify article 16 of the proposed legislation.²⁷ Instead of a period of 15 days between a missed payment and the beginning of judicial proceedings against a landowner (as was stipulated in Article 29 of the *Crédit Foncier* legislation), he proposed a period of two months. Varas responded as follows:

All of the restrictions [on borrowers] that redound to the benefit of the Caja, do nothing more than to enhance its credit standing and to inspire confidence. This is the paramount object of the proposed legislation; to secure this [confidence] it is necessary to realize expeditious means to collect the payments that are owed. Investor confidence that this type of institution requires must be provided for in one way or another. [Article 16] indicates one of these means, shortening the judicial period for taking possession of the mortgaged estate and making payments with the proceeds. The authorized measures would rarely be employed and their use, if necessary, would confer a great advantage that would build momentum for the institution, raising its credit standing and inspiring confidence in its ability to make payments [on the mortgage bonds].²⁸

In the end, Congress changed the number of days between a missed payment and the seizure of the property from 15 to 30.

²⁶ In the economics literature these are known as residual control rights that are associated with debt default (Aghion and Bolton, 1992). The main idea in this setting is that landowners who wished to have access to long-term mortgage credit were effectively credit rationed after the mortgage defaults of the early 1840s. To get access to formal mortgage credit, it was necessary for landowners to make concessions that made pledging their estates as collateral enforceable by the court system. See Tirole (2006) for an extended treatment of various concessions that borrowers must make in order to gain access to credit. A related literature discusses the problems that lack of enforcement of contracts poses for credit access (Acemoglu and Johnson, 2003; Bolton and Rosenthal, 2002).

²⁷ Errázuriz, who was thirty years old at the time, was a politician in the Liberal Party who later served as Chile's seventh president between 1871 and 1876 (Biblioteca del Congreso Nacional de Chile, www.bcn.cl).

²⁸ "Que todas las restricciones que redundasen en provecho de la caja, no harian mas que aumentar su crédito e inspirar confianza; i que este era el objeto primordial del proyecto: que era preciso para conseguirlo darle medios espeditos para capitales que se le adeudaban; pues que de otro modo se esponia esa confianza que se necesitaba en institucion de esta naturaleza: que el articulo indicaba uno de estos medios, abreviando el término judicial para tomar posesion del fundo hipotecado i pagarse con sus productos: que los hechos acreditaban que rara vez se llegaba a hacer uso de él, i que sucediese, se lograria una gran ventaja que daria impulso a la institucion, estentiendo su crédito e inspirando confianza por medio de sus pagos."

On July 14, 1855 Deputy Errázuriz also presented his objection to the provision in Article 16 that gave the Caja the power either to seize (and retain) the property or to put it up for auction. Varas responded that Article 16 also gave the debtor the power to reclaim the property at any time once the missed payments were made.²⁹ This provision gave the debtor more control over the disposition of the property than the *Crédit Foncier* legislation (Article 32), which only permitted the auctioning of the property.

Another debate took place in the Chamber of Deputies (July 5 and 14, 1855) regarding the court setting in which disputes between the debtors and the Caja would be decided. Previously, disputes regarding mortgage contracts had been settled in commercial courts, which were run by merchants with little legal training. The proceedings of these courts were subject to long delays and somewhat arbitrary rulings. Article 22 (like Article 36 of the *Crédit Foncier* legislation) placed the resolution of these disputes in the hands of *jueces de letras*, legally trained lawyers operating in the civil courts, who could issue summary judgments that were not subject to appeal.

When Deputy Vergara suggested that there should be some compromise between the use of the commercial courts and the civil courts, Varas responded:

I would think that, if one could count on an expeditious and rapid court process, I would not have any worries in eliminating the article [22], but when one takes into account the delays and setbacks that can occur, and that exceed those that are observed in mandatory arbitrations, I decided for the latter, because between two evils one must always choose the lesser.³⁰

Perhaps the most contentious debate in Congress concerned Article 11, which like Article 32 of the *Crédit Foncier* legislation, gave the Caja the power to require the repayment of a mortgage whenever the property's value no longer provided sufficient collateral for the loan. If the losses or decline in value were not the fault of the owner, the Caja would allow additional collateral to be added to back up the loan. This allocation of power to the Caja was broad enough to concern several members of Congress since it could allow the Caja to arbitrarily call in a mortgage loan if the Board of Directors decided to downgrade the value of the collateral. Deputies Errázuriz and de Borja Solar strongly objected to granting the Caja this power. In one exchange (July 12, 1855) Deputy de Borja Solar warned that:³¹

²⁹ Article 16: "Whenever the debtor agrees to pay back the amount owed to the Caja and payment is executed, the estate will be returned to the debtor."

³⁰ "Que creia que, si se contase con un espidito i rápido procedimiento en los tribunales, no habria temor en suprimir el artículo; pero que cuando se tomaba en cuenta las demoras i retardos que se espermentaban, i que eran superiores a las que se observaban entre los árbitros forzados, se decidia por estos últimos; porque de dos males siempre se debe elijir el menor."

³¹Francisco de Borja Solar was 48 at the time. He had been Rector of the Instituto Nacional between 1845 and 1852 (following Antonio Varas) and was Minister of Finance in 1857 (Biblioteca Nacional de Chile, www.bcn.cl).

The individuals who make up the board of directors are like any men, subject to the influence of passions, and it might transpire that because of political party affiliation, revenge, hatred, or even because of administrative zeal, a landowner who is blameless could be completely ruined and disgraced.³²

Varas responded that

I cannot agree, sir, with the fear of abuse that lies behind your objection to the article, because I do not believe it to be well founded, since the board of directors is composed of individuals appointed by the Senate and others by the Chamber of Deputies. I do not understand what kind of interest could influence these individuals to harm their own colleagues, since they are also landowners. For all these considerations, I believe that it is necessary to retain the article.³³

The Congressional minutes record that after a prolonged debate Article 11 was approved as written by a vote of 34 to 7.

The Senate debates of July 27 and 30 were relatively perfunctory. On August 14 concern was expressed regarding the stipulation of Article 22 that the civil courts rather than the commercial courts would be used to settle bankruptcy disputes (similar to the debate that took place in the Chamber of Deputies on July 5 and 14). After Varas explained the reasons for preferring the civil courts the Senate unanimously approved the article.

After some minor modifications (see the Appendix), Congress passed the legislation for the Caja Hipotecaria. President Manuel Montt enacted it into law on August 29, 1855.³⁴ To allay any fears regarding the government's support for the Caja, Manuel Montt in his opening address to the 1856 Congressional Session on June 1st stated (Discursos de Apertura, 1859):

The Caja de Crédito Hipotecario was established at the beginning of the year, and in the short period of time that it has operated, has issued more than half a million pesos [of mortgage bonds]. This outcome was not to be expected of an institution so little known and when there had not been time for the true value of the mortgage bonds to be determined in the markets. The evident usefulness of the Caja, above all with

³² “Los individuos que componen el consejo de administracion son hombres como todos, accequibles al influjo de las pasiones; i pudiera suceder que por espíritu de partido, por venganza, por odiosidad, o bien por su excesivo celo administrativo, ocasionase la ruina i total desgracia de algun propietario sin culpa.”

³³ “No me hago cargo, señor, del temor del abuso con que se ha objetado el artículo, porque no lo creo realizable, por cuanto en el consejo de administracion deben intervenir individuos nombrados por el Senado i otros por la Cámara de Diputados; i no comprendo qué clase de interes pueda influir en estos individuos para perjudicar a sus mismos compañeros, pues aquellos son tambien propietarios: i por todas estas consideraciones creo necesario la permanencia del artículo.”

³⁴ Barros Borgoño (1912) gives a detailed analysis of the 1855 legislation.

respect to the agricultural sector of the country, has made me decide to lend support and protection, principally in its first stage.³⁵

The Mortgage Credit Crisis of 1861-1862

The Caja Hipotecaria made its first loans on January 2, 1856. In its first year of operations the Caja issued mortgage bonds (*letras de crédito*) for the amount of 1,971,300 pesos. In 1857 it issued another 1,057,100 pesos of mortgage bonds, followed by 487,500 pesos in 1858. Between 1856 and 1858 the Caja issued 200 loans, of which 156 were for rural estates and 44 for urban estates (41 in Santiago). The geographic allocation of loans was concentrated in the area of the Central Valley close to Santiago.³⁶

In late 1857 several factors contributed to a sharp decrease in the value of land and increasing arrears on mortgage payments. The first was the 1857 global financial crisis, which led to an abrupt decline in external finance to commerce.³⁷ The second was the decline in the export markets of California and Australia, which had become self-sufficient in wheat production. The third was the depletion of silver ores in the mining region of the North. A fourth factor may have been the unexpected obstacles that caused the interruption of construction of the railroad between Santiago and Valparaíso.³⁸ By 1860 arrears on mortgage payments were over 20 percent of mortgage payments due. In 1861 arrears fell to 5.6 percent of mortgage payments due, with most of the arrears replaced by liquidations of property amounting to 29 percent of mortgage payments due as shown in Table 4 (Brock, 2009).

³⁵ “La caja de crédito hipotecario se instaló a principios del año, i en el poco tiempo de ejercicio que lleva, ha emitido letras por mas de medio millon de pesos. Este resultado no era de esperarse de un institucion poco conocida i cuando aun no ha habido tiempo de que las letras de crédito adquieran su verdadera estimacion en el mercado. La evidente utilidad de la caja, sobre todo respecto de la agricultura del pais, me ha decidido a prestarle apoyo i proteccion, principalmente en su primera época.”

³⁶ See the 1859 Informe of the Caja Hipotecaria for details. Of the 200 loans, 90 were in the Santiago area, 47 in Colchagua (just south of Santiago), 14 in Aconcagua (just north of Santiago), and 8 in Valparaíso. Another 29 were made in Talca and Maule, south of Colchagua.

³⁷ Between July and December 1857, the Bank of England’s bank rate was raised from 5½ percent to 10 percent. By the middle of 1858 the rate was lowered to 3 percent. Between the beginning of 1860 and 1861 the bank rate was successively raised to 8 percent. (Clapham, 1966: 429)

³⁸ To the extent that the anticipated reduction in the cost of transport of wheat and flour was capitalized in the value of land, the delay would have contributed to the decline in land values. A final proximate factor may have been the passage of the 1860 Banks of Issue Law. That law provided for the establishment of note-issuing banks (Brock, 2017).

Table 4. The 1861-1862 Mortgage Crisis

	Mortgage Bonds In Circulation	Caja Hipotecaria's Reserve Fund	Arrears as a % of mortgage payments due	Liquidations as a % of mortgage payments due
1856	1,945,500	10,254	1.47	--
1857	2,949,800	26,896	2	--
1858	3,356,700	52,288	6.23	--
1859	4,282,000	81,335	11.41	--
1860	5,002,600	100,24	13	--
1861	5,579,400	134,737	21.4	--
1862	5,627,100	16,75	5.60	29.00
1863	5,333,300	-7,398	6.39	11.42
1864	5,131,400	-196	8.46	7.30

Source: Caja de Crédito Hipotecario, Informes Anuales, 1857-1865.

Although the global financial crisis of 1857 and the decline in export markets for wheat were the external drivers of the crisis, the use of the loans is undoubtedly important for understanding the depth of the crisis. According to Courcelle-Seneuil (1857) some part of the loans was used for investment and another part was used for the construction of mansions and conspicuous consumption. In the 1860 Informe of the Caja Hipotecaria, Varas referred to what he regarded as a misuse of funds by some borrowers:

When a loan is used for cultivating the land and improving farming operations, it cannot help but to produce unsurpassed benefits. By contrast, investing without restraint and for purposes other than the Caja intended, will give the opposite results. The same money employed in superficial spending can cause the ruin of families and the country. Does it follow that money is harmful?³⁹

By 1861 the Caja Hipotecaria had begun legal proceedings against property owners who were in arrears on their mortgage payments. The Caja Hipotecaria's action to foreclose on properties harkens back to the discussion in Section 4 of the Congressional debate of July 12, 1855 on Article 11 (regarding the powers given to the Caja to require additional collateral for a loan when it judged that the existing collateral had become impaired) in which Deputy de Borja Solar warned that "because of administrative zeal, a landowner who is blameless could be completely ruined and disgraced." At the same time the Caja's actions reflected the position that Varas took

³⁹ "Destinado el préstamo que se obtenga, al cultivo i mejora de los fundos rústicos, no puede dejar de producir ventajas incontestables. Por el contrario, invertido sin discrecion i en objetos distintos a los que el banco tiene in mira, dará resultados inversos. El dinero mismo empleado en gastos superfluos puede causar la ruina de las familias i del país. ¿Deberá deducirse de ahí que el dinero es perjudicial?"

in his discussion of Article 16 (regarding the judicial powers given to the Caja for foreclosure on properties).⁴⁰ In the 1861 Informe of the Caja Hipotecario, Varas (in his role as director) wrote:

The economic crisis has affected principally the value of real estate and that counsels a circumspect conduct on its part. Operating in this manner has undoubtedly gone against the opinion of those who believe that the Caja cannot refuse to make loans for up to half of the assessed value of the property offered as mortgage collateral; but this will not change its conduct. The Caja, like any private lender, cannot make loans without satisfactory guarantees and even less so when it is not confident that that the contracted payments will be made as required. The Board of Governors is not only within its rights to deny loans in these cases but must do so.⁴¹

As prescribed in Article 17, following the ruling by a juez letrado (judge in the civil court), the Caja published three notifications of an impending auction of a foreclosed property in a newspaper. The following example is taken from the May 27, 1862 issue of the newspaper *El Ferrocarril*:

Caja Hipotecaria: At the request of the said Caja and by decree of the juez letrado don Enrique Tocornal, the fourth of this coming June will be the last public notice and auction of the estate mortgaged by don Juan Polanco, located in the Department of la Ligua, in the Aconcagua Province, and that comprises eight cuerdas of land [about 32 acres] with a vineyard of eight thousand plants and more than one hundred hawthorn, cherimoya, lucuma, etc., trees. Whoever is interested in this lovely estate can view the background information in the secretary of don José María Guzman. Terms and conditions for the auction will be provided by the treasurer of the Caja. –Leandro Becerra, solicitor of the Caja.⁴²

⁴⁰ The potential problems arising from the diversion of funds from their intended use has formed the basis for a large literature in corporate economics on credit contracts, e.g., Bolton (2016) and Brunnermeier and Krishnamurthy (2020). Two important concessions that borrowers can make to get access to credit are to put up collateral for a loan and to agree to be monitored by a financial institution for creditworthiness. Diamond, Hu, and Rajan (2022) build a model based on these two characteristics that captures some aspects of the Caja Hipotecaria's differing treatment of collateral in 1861 relative to 1856 as a basis for making loans.

⁴¹ “La crisis económica ha afectado principalmente el valor de la propiedad raíz y ella aconsejaba un conducta muy circunspecta. Al obrar de esa manera ha contrariado sin duda la opinión de los que creen que la Caja no puede rehusar la concesión de préstamos en proporción de la mitad del valor de tasación del inmueble ofrecido en hipoteca; mas no por eso variará de conducta. La Caja, como cualquier particular al dispensar su crédito, no debe hacerlo sin garantías que le satisfagan y todavía menos cuando no tiene confianza en que se cumplirán con regularidad y exactitud las obligaciones que con ella se contraen, y el Consejo como administrador no sólo está en sus derecho al negar préstamos en esos casos, sino que llena un deber.”

⁴² “Caja Hipotecaria: A petición de dicha Caja i por decreto del señor juez letrado don Enrique Tocornal, se ha señalado el 4 del entrante junio para el último pregon i remate del fundo hipotecado por don Juan Polanco, ubicado en el departamento de la Ligua, provincia de Aconcagua, i que consta de ocho cuerdas de terreno con

Following the liquidations of the mortgages the Caja Hipotecaria retrenched its operations, so that the amount of its mortgage bonds in circulation fell from 5.6 million pesos in 1862 to 3.7 million in 1869.

The Legacy of the Caja Hipotecaria

The *Crédit Foncier de France* was created as a state-sponsored corporation in 1852. The legislation written by Antonio Varas and approved by the Chilean Congress in 1855 was patterned after the *Crédit Foncier de France* with some significant changes. That the *Caja de Crédito Hipotecario de Chile* was the first public state mortgage bank has been overlooked by historians. For example, according to Cameron (1961: 129):

Sweden was the first nation to adopt the French idea of a central mortgage institution.... After a thorough investigation, the Swedish government in 1861 set up the *Sveriges Allmänna Hypoteksbank* (Swedish General Mortgage Bank) as a wholly state-owned institution. Although owned by the government, the bank was in other respects patterned after the *Crédit Foncier*.... The *crédit foncier* idea spread rapidly in the 1860's, and by 1875 virtually all European countries and several outside Europe had similar institutions.

The spread of *crédit fonciers* outside of Europe was limited. Canada established the *Crédit Foncier Franco-Canadien* in 1880 as a corporation, modeled on the *Crédit Foncier de France* (Samir, 1986). Argentina legislated the *Banco Hipotecario Nacional* in 1886 as a public institution, similar to the *Caja Hipotecaria de Chile* (Currarino, 2019).

In addition to the *Caja Hipotecaria*, the 1855 law provided for the establishment of private mortgage banks and for commercial banks to set up mortgage sections. The *Caja Hipotecaria* was always the largest mortgage bank but was at its smallest in relative terms between 1886 and 1892. During the financial crisis of the 1890s a consolidation on the mortgage industry left just the *Caja Hipotecaria* and three private mortgage banks, with the *Caja* having about a two-thirds share of the mortgage market from 1899 to 1930 (Brock, 2009).

The onset of the Great Depression hit the *Caja Hipotecaria* particularly hard. By 1933 virtually all of the *Caja's* borrowers had stopped servicing their mortgages. In 1934 the government initiated a rescue plan that enabled borrowers to refinance their mortgages at lower interest rates by substituting tax exempt mortgage bonds for the original bonds. The refinancing measures permitted the resumption of operations by the *Caja Hipotecaria*, although mortgage credit never regained more than half of its 1930 level. In 1953 the *Caja Hipotecaria* stopped

ocho mil plantas de viña i ciento i mas árboles de espina, chirimoyos, lúcumos, etc. El que se interese por este lindo fundo puede ver los antecedentes en la secretaria de don José María Guzman, i condiciones para el remate puede suministrarlas el tesorero de la Caja. –Leandro Becerra, procurador de la Caja.”

issuing new mortgage bonds prior to merging with three other state credit entities to form the Banco del Estado (Brock, 2009). For the next thirty years the long-term mortgage credit market in Chile was moribund, with mortgage credit almost eliminated by 1965 (Mamalakis, 1985: 205-206). In the early 1980s financial legislation authorized the renewed issue of mortgage bonds (*letras de crédito hipotecario*) that had the same characteristics as the pre-1953 bonds but with the feature of being indexed to inflation.

Conclusion

The decade of the 1850s was a transformative period for Chile that was linked to the growth of California in the aftermath of the Gold Rush. Valparaíso was the first major port on the Pacific Ocean for vessels sailing for California from Europe and the East Coast of the United States. It provided supplies (including mining equipment) and great amounts of wheat and flour grown in the Central Valley for voyagers on their way to San Francisco. By 1851 remittances of gold from the approximately 20,000 Chileans who went to California provided additional wealth to the economy. In 1853 Australia became an important market for Chilean wheat following its own gold rush. Chile, too, had a mining bonanza with discoveries of silver and copper in the Atacama region in the early 1850s. In the ten-year period 1837-1847 exports grew at an annual rate of 2.9 percent, while during the succeeding ten-year period 1847-1857 exports grew at an annual rate of 9.2 percent (Díaz, Lüders, and Wagner, 2016).

There is a large literature on the politics of Chile in the 1850s. Manuel Montt's two terms as president of Chile were bookended by civil wars in 1851 and 1859. The decade also saw increasing tensions between church and state as well as a realignment of political parties.⁴³ In contrast to the literature on politics, little in the economics literature has changed since Cariola and Sunkel (1982: 34) wrote, referring to the financial crisis years of 1857-1862, that "As has been the case with respect to other economic phenomena of the period, the different partial sources regarding this crisis and its resolution do not enable a big picture of the whole process."

This paper fills in some of the missing aspects of the creation of Chile's modern financial system, especially the origins of long-term mortgage lending. The analysis emphasizes the importance of the California Gold Rush (followed by the Australian Gold Rush) as a triggering event for legislation that created the Caja de Crédito Hipotecario in 1855. The initial impact of the California and Australian gold rushes, as well as the mineral boom in the Chile's Atacama region, was a windfall gain for the Central Valley landowners from the increase in the price of wheat and other exportable crops. By 1855 landowners were wealthy based on the value of their estates but were unable to borrow against those estates for the purpose of making investments or for increasing their own consumption.

It was in this setting that Antonio Varas, the powerful Minister of the Interior, introduced legislation in 1855 for the Caja Hipotecaria. This legislation was modeled on the 1852 French

⁴³ Vicuña Mackenna (1862) was the first historical account of the administration of Montt. Edwards Vives (1932) is another notable account. Zeitlin (1984) analyzes the Civil Wars from the perspective of class struggle over control of the state's role in society and economic development.

legislation for the Crédit Foncier de France, but with significant adaptations that were the subject of Congressional debate during June through August of that year. The most important debates centered on the control rights that were being given to the Caja for the seizure and auctioning of property if borrowers were unable to service their mortgages.

Five years after the Caja made its first loans the country entered a severe mortgage crisis. The Caja was forced to liquidate properties and retrench its operations for the next eight years. By the early 1870s the Caja Hipotecaria resumed its growth and became the single most important lender in the economy. Following the Great Depression mortgage lending contracted in real terms for thirty years until becoming almost nonexistent between 1965 and 1980. In 1980 the mortgage market was revived with mortgage bonds indexed to inflation in an institutional setting that supported the mortgage market. The Caja Hipotecaria's name was changed to the Banco del Estado de Chile in 1953. Today the Banco del Estado, operating under the brand name BancoEstado, is Chile's third largest and only public bank, largest mortgage lender, and oldest financial institution in Chile.

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