# Fostering Agriculture under the Industrializing State: The Caja de Crédito Agrario and Agricultural Credit in Post-Depression Chile, 1926-53

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KEYWORDS: agricultural credit, Caja de Crédito Agrario, Chile, small farmers.

JEL CODES: G21, N26, N56, Q14.

 $\P$ his paper analyzes the role of the Caja de Crédito Agrario (CCA) in the development of the agricultural credit market in post-depression Chile. Employing its official annual reports, reports from the Superintendency of Banks, and Chile's Statistical Yearbooks, we constructed the first series of CCA's credit operations, and established trends in the number, the average amount, and the social, geographic, and specific economic activity distribution of all loans. From 1927 to 1952, CCA loans represented 11.5% of all commercial bank loans, and in the latter year the CCA lent more money to agriculture than any other bank. The CCA became Chile's largest agricultural bank, right before being merged with other institutions to create the State Bank of Chile. The CCA's credit was decentralized: its operations evolved towards a fairly balanced distribution of loans among Chile's main agricultural provinces. This was a micro-credit institution that allocated the vast majority of its loans to small farmers, who otherwise would not have access to formal credit. The CCA was a public policy tool for helping small farmers produce food for domestic consumption. Contrary to conventional views, in Chile the industrialization-promoting state did also foster agricultural growth through CCA public credit.

Fomentando la agricultura en el Estado industrializador: La Caja de Crédito Agrario y el crédito agrícola en el Chile postdepresión, 1926-53

PALABRAS CLAVE: crédito agrícola, Caja de Crédito Agrario, Chile, pequeños agricultores.

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ste trabajo analiza el papel de la Caja de Crédito Agrario (CCA) en el desarrollo del mercado de crédito agrícola en Chile después de la Gran Depresión. Empleando sus memorias anuales, los reportes de la Superintendencia de Bancos y el anuario estadístico de la República de Chile, construimos la primera serie de operaciones de la CCA y establecemos las tendencias en el número, valor promedio, y la distribución social, geográfica y por actividad económica específica de todos los préstamos. Desde 1927 a 1952, los préstamos de la CCA representaron el 11,5% de los préstamos de los bancos comerciales, y en ese último año prestó a la agricultura más dinero que cualquier otro banco. La CCA se convirtió en el principal banco agrícola de Chile, justo antes de ser fusionado con otras instituciones para formar el Banco del Estado de Chile. El crédito de la CCA estaba descentralizado: sus operaciones evolucionaron hacia una equilibrada distribución de los préstamos entre las principales provincias agrícolas de Chile. Esta fue una institución de microcrédito que asignó la vasta mayoría de sus préstamos a pequeños agricultores, quienes de lo contrario no habrían tenido acceso al crédito formal. La CCA fue un instrumento de política pública para ayudar a pequeños agricultores a producir alimentos para el mercado interno. Al contrario de nociones convencionales, en Chile el Estado promotor de la industrialización también fomentó el crecimiento agrícola a través del crédito público de la CCA.

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#### 1. INTRODUCTION

The so-called *stagnation* that the agricultural sector experienced through the 1960s was one of the main problems in Chile's economy after 1930. Agriculture's lower growth and incapacity to meet demand from an increasing urban population and the expanding industrial sector, became a crucial issue in national politics. Although the unequal agrarian structure was far from conducive to economic growth, the accepted interpretation is that sector was negatively affected by economic policies aimed at promoting industrialization. In particular, price controls and over-valuation of the peso ultimately "prevented an increase in the rate of return in agriculture, lowered the rate of growth, and invited imports" (Mamalakis, 1965: 148; Díaz, 2006). Agriculture was a "neglected sector" in terms of access to public credit, since in the 1950s it received less than 4% of credits from the State Bank of Chile and the main state agency for fostering economic development, Corporación de Fomento de la Producción (CORFO, established in 1939). In sum, according to this view, the state subordinated agriculture to the needs of a "largely artificial industrial expansion" (Mamalakis, 1965: 138).

However, as this article demonstrates, until the creation of the State Bank in 1953, the main source of agricultural credit in Chile was a public institution: the Caja de Crédito Agrario (CCA), established in 1926<sup>1</sup>. Analyzing why and how the CCA become Chile's largest agricultural bank is relevant not only to better understand the development of the under-studied agricultural credit market, but also to shed new light on the role of the state in fostering recovery of the Chilean economy after the Great Depression, especially considering the debate on the performance of the agricultural sector. In order to examine the growth and role of the CCA, this paper focuses on the following questions: Why and how did the CCA came to be a leading institution in Chile's agricultural credit market? What were the main trends in the CCA's credit from 1926 to 1953? For what kind of farmers was the CCA's credit primarily intended and why?

In response to those questions, we argue that the CCA was a public policy tool that, especially after 1938, when Law No. 6290 established the "social function" of its credit operations, post-depression governments employed to allocate credit to small farmers, who could not meet the restrictive requirements set by private banks. As such, the CCA provided subsidized credit, even at negative real interest rates, which, how-

<sup>1.</sup> Although providing credit was its main function, the CCA also promoted agricultural growth through a number of different programs. These included the sale and distribution of seeds, fertilizers, machinery, and agricultural extension books; the preparation of technical studies and livestock trading.

ever, was compensated by its growing and diversified commercial operations. Its sociallydefined role was strengthened as it branched out, becoming a nation-wide institution. This expansion gradually corrected information asymmetries that resulted in the concentration of credit operations in Central Chile and allowed the CCA to provide credit to borrowers in the main agricultural provinces throughout the country. Thus, the CCA contributed to reduce long-term inequalities that characterized the Chilean credit market. Market imperfections and the need of economic recovery after the Great Depression justified providing subsidized state credit for agriculture. The CCA could offer lower interest rates because of its supervision of collaterals and other ways to deal with information asymmetries (through its General Inspectorate department), which reduced both selection adverse and moral hazard. Small farmers, for their part, had incentive to repay their loans because of the risk of being expelled from the financial system by default. For example, in the early forties, credit amount recoveries were over 75%<sup>2</sup>. Moreover, information asymmetries were reduced, as local CCA offices created a relation with customers in rural areas excluded from the main banking system. This dynamic would explain why credit would be increasingly allocated to agricultural provinces in the south, as the CCA gained a better understanding of farmers' behavior and assets in those areas.

The agricultural credit market has been under-studied in Chilean economic history. The early studies focused on the Caja de Crédito Hipotecario (CCH), the National Mortgage Bank established in 1855, depicting it as an institution that large landowners controlled to syphon money off the state (Bauer, 1975). Among agricultural economics studies, Nisbet (1967) discussed the informal agricultural credit market for small farmers on the eve of the agrarian reform, concluding that most of those in his sample were not able to reach the formal credit sector. In turn, in a comprehensive study on the stagnation of the agricultural sector after 1930, Lundahl (1985) contended that the agricultural credit market did not undergo any significant changes from 1930 to 1955, but he did not consider the role of the Caja de Crédito Agrario, which, as we argue, focused on small farmers. More recently, several works by Brock (2009, 2016, 2017) have revitalized the study of the credit system, by examining the CCH from a financial perspective. Despite its importance, the CCA has not been thoroughly studied in Chilean economic history literature. The earliest study of note was a report by a joint commission of the International Bank for Reconstruction and Development (IBRD) and the Food and Agriculture Organization (FAO), which first pointed out the change in the CCA's policy after 1933, from making large loans to the livestock sector to small loans for middle-seized farms (IBRD-FAO, 1952). A general mention is found in the comprehensive work by Drake (1989),

<sup>2.</sup> Memoria anual de la Caja de Crédito Agrario (MCCA), 1944: 57.

which characterized this institution as an extension of the highly criticized CCH, that is, an instrument to secure large landowners' access to inexpensive credit. In the most relevant work among previous studies, Bernedo (1989) argued that the CCA played a significant role in fostering economic growth, as its operations tripled during its first five years, and in 1931 its loans came to represent 10.9% of the total value of all loans made in the whole banking system. Similarly, an institutional study of the State Bank of Chile positively assessed the CCA's role in its first ten years of activity, as credit operations multiplied to the point of reaching small farmers, who became its main borrowers. In addition, this work established that the CCA credit was geographically directed towards Chile's most important agricultural provinces (Friedmann, 1993). This article is part of new research on the CCA, which also includes (González-Correa & Llorca-Jaña, 2021), a study of this institution from the perspective of business history.

This article makes a contribution to the study of agricultural credit in Chile by focusing on the main institution that provided funds to small farmers. Specifically, we provide the first systematic data series on the CCA's credit operations for the entire period it remained in activity. Using information from its official annual reports (memorias anuales), reports from the Superintendencia de Bancos (Superintendency of Banks), and Chile's main Statistical Yearbook (Anuario Estadístico de la República de Chile), we established trends in terms of the number of operations, the average amount of loans, and the social, geographic, and specific economic activity distribution of CCA credits from 1927 to 1952. According to the series that we constructed, we found that, on average for that period, loans made by the CCA represented 11.5% of all loans by commercial banks, and that by 1952 this institution had become Chile's largest agricultural bank, which was even pointed out by a IBRD-FAO report<sup>3</sup>. The CCA loaned farmers 89% more money than the amount involved in all agricultural loans issued by the main private bank, the Banco de Chile, and five times more than that loaned by the third-largest agricultural credit institution, the Banco Español-Chile. As a micro-credit institution, the CCA gave small farmers state credit at very low or, because of inflation, even negative real interest rates. CCA credit operations were also decentralized because they were directed primarily at Chile's main agricultural provinces, which were located not only in Central Chile, but also in the Frontier and Llanquihue regions. In addition, the CCA was a public policy tool for the government to encourage farmers to produce goods for domestic consumption, namely, meat, milk, and cereals. In sum, the important contribution of the CCA to the development of the agricultural credit market shows that, contrary to long-held views, in

<sup>3. &</sup>quot;In the past few years, the ratio of farm credit outstanding to national income derived from agriculture has been above 35 percent. Compared to other countries, this is a very high percentage; we may conclude that there is no real lack of credit facilities" (IBRD-FAO, 1952: 122).

post-depression Chile the industrialization-promoting state did foster agricultural growth through credit geared for small farmers.

This article, therefore, contributes a case study of public agricultural micro-credit in an understudied country to a scholarship that has dealt primarily with banks and credit for other economic sectors, such as those on state-owned developing banks (Lazzarini et al., 2015; López, 2012; Arés, 2007; Doctor, 2015), or the relationship between banks and Latin America's economic performance (Haber, 1991; Hanley, 2005; Triner, 2000; Zegarra, 2014, 2018a). Among the latter, Haber (1991) concluded that the lack of banks had a negative impact on the industrial development of Brazil and Mexico during the 19th century, which was shared by Hanley (2005) and Triner (2000) regarding the economic growth of Brazil and the financial sector between the middle of the nineteenth century and the Great Depression. Yet, Zegarra (2014) found that the export sector's expansion contributed to the growth of banking in Latin America between 1840-1920, and that from 1870 to 1920 the bank output had a positive long-term impact on GDP per capita in five Latin American countries (Zegarra, 2018a). In turn, studies of agricultural credit have received less attention despite the economic importance of the agriculture sector. Among the few recent studies, Aguilar and Grijalva (2011) shows that in Mexico an alliance between farmers and the state led to the creation, in 1933, of both the Banco de Sinaloa and the Banco Agrícola de Sonora, to give loans to small farmers and ejidatarios. Likewise, the Banco Nacional de Crédito Ejidal c. 1936-46 has been thoroughly analyzed (Mottier, 2017, 2019), as well as its role in promoting agriculture during the Cárdenas administration (Castaño, 2014). For Peru, Zegarra (2017) demonstrated that mortgage credit at the end of the 19th century allowed large farmers to access long-term credit and facilitated interregional financial mediation, but did not lead to greater access to credit. Indeed, the beneficiaries were the owners of large coastal plantations of sugar and cotton (Zegarra, 2015). Also, the role of notaries in reducing information asymmetries has been examined in the pre-banking era (Zegarra, 2018b). In the case of Argentina, studies have analyzed agricultural credit in general aspect (Tulchin & Seibert, 1987) and also the commercial networks and credit for agriculture in the pampas of the early 20th century (Lluch, 2006). Furthermore, the pioneering work by Adelman (1990) showed that in the province of Buenos Aires formal financial services for agriculture were scarce between 1890 and 1914, despite the presence of three large banks. Most of the credit for agriculture was obtained through informal channels, that is, merchants and suppliers involved in agricultural markets. More recently, the role of large merchants as credit providers for Argentine farmers has been underscored by Barcos and Martirén (2020). In contrast, the study of agricultural credit in Spain has been more relevant, as important works have dealt with pósitos or village grain banks, and other forms of credit in rural society (Cuevas, 2001; Martínez, 2007; Carmona & Simpson, 2019).

This paper is composed of the following three sections. The first section explains the rather peculiar origins of the CCA in 1926 out of an unremarkable parliamentary debate on Chile's economic problems which, nonetheless, took place in a context of growing consensus on the need to redefine the role of the state in the economy. This section also discusses the CCA's organization and the changes it underwent as a result of political intervention. The second section examines the trends in the CCA's credit operations, in order to establish this public institution's importance in the agricultural credit market. To that effect, we determined the trends in the total number of operations, the real value from loans, and the average loan amount. The third section deals with the geographic, social, and productive allocation of loans, demonstrating that the CCA focused on small farmers and evolved towards a balanced allocation of credit among Chile's agricultural provinces. Finally, the Conclusion interprets the CCA's leading role in the agricultural credit market as an expression of the industrializing state's policy for promoting agriculture in the post-depression Chile.

#### 2. A PUBLIC FARM CREDIT BANK FOR CHILEAN AGRICULTURE

In the early 1920s, the limited agricultural credit market was a reflection of the oligarchic character of Chilean rural society. Land ownership was the basis of large landowners' social status and political power, while the hacienda system, the main unit of production, was the result of persistent inequality and land concentration. Along with a small rural middle class, a poor peasantry was comprised of precarious smallholders (called minifundistas in official statistics), sharecroppers, resident tenant laborers (inquilinos) on large estates, and a growing rural proletariat of landless laborers. Inequality notwithstanding, the growth and modernization of Chile's export economy stimulated the development of agriculture, and rural society was transformed by the agrarian expansion that took place from the 1870s to the Great Depression. Indeed, the demand for agricultural products in the domestic market increased and diversified significantly because of demographic growth, urbanization, and industrialization (Cariola & Sunkel, 1982). Simultaneously, the territorial scale of agriculture grew drastically with the colonization of the Llanquihue Territory in southern Chile, the occupation and subsequent development of capitalist agriculture of the Frontier region (Robles-Ortiz, 2020a), and the "internal expansion" of Central Chile's hacienda system (Bauer, 1972). In response, agriculture underwent unprecedented growth in all sectors and crops. The area under cultivation and output of the main crops (cereals) doubled, even though population grew from 2.5 to 4.2 million inhabitants, and despite massive rural-urban migration, which reduced the size of the agricultural labor force. Moreover, growth of the agricultural sector rested on the gradual, but uneven, adoption of technological innovations, namely irrigation, mechanization and, right before First World War, the beginnings of tractorization (Robles-Ortiz, 2020b). Agricultural modernization, however, concentrated on large and medium-sized estates, and had scarce, if any, diffusion among the vast majority of small farmers. Lack of access to formal credit was one of the many factors that prevented the development of small farmers' agriculture.

The formal financial sector was geographically concentrated and comprised institutions in which small farmers had hardly any access to credit. The main national and foreign banks had offices virtually only in Santiago and Valparaíso, except for a few branch offices in provincial capitals. Thus, in the vast majority of small cities located in the agricultural provinces, there were no formal financial institutions. In 1931, 74 of the 114 comunas surveyed in a study by the Statistical Office, which included the most important agricultural towns of Central Chile, La Frontera and Llanquihue, did not have a single commercial bank office<sup>4</sup>. In addition, credit offered by the banking system was drastically restricted in 1925 because of regulations introduced following the Kemmerer mission's policy recommendations. Along with the creation of the Central Bank, terms for commercial loans were reduced to only three months and, exceptionally, to six months with agricultural goods as collateral; significantly, even large landowners protested what they found to be quite unfair conditions (Drake, 1989). Not having the privileges of the upper-class, the medium-sized and small farmers had to resort to informal lenders, that is, the large landowners themselves and local merchants or commercial houses in rural towns. The so-called *venta en verde*, the advancement of capital and the imposition of prices for the crops yet to be harvested, was common practice for landowners and merchants, who could easily squeeze the small producer. In both cases, this informal credit mechanism implied not only short terms, but also usurious rates (Matthei, 1939; Bauer, 1975). In sum, given the political economy of the financial market in Chile, only the state could provide credit to small farmers; that was to be role of the Caja de Crédito Agrario (CCA).

The CCA was created by Law No. 4074, known as the "Ley sobre Crédito Agrario" (Agrarian Credit Law), which allowed the CCH to set up a subsidiary agricultural credit institution. As debate on the "agricultural credit bill" shows, there was consensus in Congress in order to provide the agricultural sector with a type of special credit, that is, loans at low interest rates and in terms that would better meet the requirements of the agricultural production cycle. In particular, the congressional committee charged with studying the matter stated that agricultural credit should facilitate investment in machinery and livestock-raising modern methods. The committee also asserted that banks offered loans on checking accounts for only 90 days, making access to credit very difficult since agriculturalists would not make any profits for several months, until they could harvest

<sup>4.</sup> Anuario Estadístico de la República de Chile, vol. Finanzas, Bancos y Cajas Sociales, 1931: 30.

and market their crops. More generally, interest rates were higher than the typical rate of return in agriculture. Until the creation of the CCA, the credit market was characterized by large landowners' dominant position as informal moneylenders, and by high interest rates for agricultural loans. Typical profits for large estates ranged from 5 to 8%, while mortgage credits varied from 6 to 8% (Bauer, 1994: 136). The situation was dramatically different for medium-sized and small farmers, who paid very high interest rates. In Central Chile, in the late 19<sup>th</sup> century, the interest rate of agricultural credits for those types of farmers usually started at 12% but could reach up to 24% per year (Bauer, 1994: 123).

In addition, there was strong criticism of the existing mortgage credit system; the CCH did not have a loan surveillance system, and like other critics one senator complained that its loans were used to build "palaces for the aristocracy"<sup>5</sup>. In short, the committee concluded, the lack of credit was the main cause of insufficient agricultural growth in Chile. As a result of favorable opinion in Congress, the "agricultural credit bill" was approved almost in its entire original terms just five months after being submitted, certainly not a bad record in Chile's discredited "Parliamentary Republic". The only contested matter was the role that the CCH was to play, as several congressmen were against setting a limit to the funding it should provide to the CCA<sup>6</sup>. Although the CCA law was quickly passed, it took several more months for the executive to approve the statutes of the new institution, which finally took place in November 1926 by means of supreme Decree No. 1261.

The creation of the CCA was part of a broader, emerging interest in redefining the role of the state in economic development. At a time when a Chilean school of "economic nationalism" was contesting the prevailing liberalism, the idea of a leading, enterprising state gathered wide support in public opinion. In Congress, for example, one senator argued in favor of the "agricultural credit bill" by asserting that the agriculture was an essential industry that should be supported as was the case in the United States and Britain<sup>7</sup>. Others demanded active state intervention in the economy based on economic theory, holding that the state should promote private initiative in line with the public interest. As for credit, some called for the state to establish a public banking system to foster national economic development<sup>8</sup>. These new ideas were certainly related to important institutional developments underlying the creation of the CCA.

<sup>5.</sup> Boletín de Sesiones de la Cámara de Senadores (hereafter BSCS), Sesión Extraordinaria No. 7, 03/16/1926: 203.

<sup>6.</sup> Boletín de Sesiones de la Cámara de Diputados (hereafter BSCD), Sesión Ordinaria No. 40, 07/23/1926: 1641-42.

<sup>7.</sup> BSCS, Sesión Extraordinaria No. 7, 03/16/1926: 204-05.

<sup>8.</sup> BSCS, Sesión Ordinaria No. 8, 06/07/1926: 195.

Indeed, the CCA was one of the many institutional consequences of the rise of the authoritarian regime led by Col. Carlos Ibáñez del Campo, first as minister of War (1925-27), and then president (May 1927-July 1931). This turbulent period in Chilean politics began with a military coup (September 10, 1924) that forced Arturo Alessandri out of office, closed Congress, and was followed by the imposition of a military junta which, among other important decisions, called for the assistance of an economic mission led by Princeton professor Edwin Kemmerer, known as "the Money Doctor". Working in Chile from July to October 1925, the Kemmerer Mission recommended a set of measures including the creation of the Central Bank and the adoption of the gold standard (Drake, 1989). Alessandri was reinstated in March 1925, but by then his long-time rival, Ibáñez, had seized power. Backed by the military and various political groups, Ibáñez was able to pressure Congress to apply his corporative vision of the state, and "[t]aking inspiration from the European fascists", as Wright notes, "fostered the corporate organization of the society and government as a means of offsetting the growing political power of the masses" (Wright, 1982: 90). As a result, the emerging corporatist state was characterized by the creation of fostering institutions, such as the Caja de Crédito Agrario (1926), the Mining Credit Bank (1927), and the Industrial Credit Bank (1928). The state's funding for the CCA, in particular, was a response by the Ibáñez government to the impact of the new economic policies set in accordance to the Kemmerer Mission. Significantly in this realm, Drake observed, "the Chilean central bank adopted policies mainly favorable to urban interests", which in terms of credit meant offering short-term loans only, and for a maximum of six months to agriculturalists with collaterals. According to Drake, as agriculturalists complained that "this system was not furnishing enough low-interest, long term credit to producers", the Central Bank "extended short-term credits to newly established government lending agencies" such as the CCA (Drake, 1989: 97-8)9.

The CCA was a rather complex institution. As a public firm, it was permanently subjected to political intervention primarily on its board of directors, the body responsible for determining policies on credit, investment, and assistance to farmers. The board's composition was first drastically changed in 1928 under the dictatorship of Col. Carlos Ibáñez del Campo (1927-31). It was decided that the president of the Republic would designate the CCA's president from a list submitted by Congress, and would also choose which of Chile's various agricultural societies could appoint the two directors that represented those organizations; the remaining three directors would be CCA shareholders, and the last one

<sup>9.</sup> In addition, as the president of the National Agricultural Society (SNA), Luis Correa Vergara, explained in retrospect, the *prenda agraria* law passed in Argentina in 1914 served as a learning case for Chilean legislators to adopt similar legislation, thus allowing agriculturalists, especially small farmers, to use agricultural implements and inputs as collaterals, instead of exclusively land (CORREA, 1938).

would be one of the members of the Central Bank's Board of Directors. Two years later, as the Great Depression severely hit Chile's economy, through Law No. 4806 the Ibáñez dictatorship determined that all ten directors would be directly appointed by the President of the Republic (CCA, 1941: 15). After the fall of Ibáñez's dictatorship (July 1931), a short-lived Socialist Republic that remained in power from June to September 1932 dissolved the CCA's Board, seeking to make the institution fulfill its mission, namely, helping small farmers. Later that year, another reform was carried out, and a completely new board of directors was appointed. Thereafter, directors were elected every three years. Yet, in 1942 the Juan Antonio Ríos administration (1942-46) determined that the president of the Republic would appoint four directors, while the other six would be the representatives of Chile's various agricultural societies. Thus, although government intervention was reduced in the last years of the institution, the composition of the CCA's Board remained determined by political considerations.

The CCA underwent a number of institutional changes while its presence extended throughout the country. It was created as a subsidiary anonymous society of the Caja de Crédito Hipotecario as part of the Ministry of Development without a legal provision. In 1931, on account of the nature of its role, it was transferred to the Ministry of Agriculture (CCA, 1932: 146). A year later, it was granted institutional and financial autonomy. which allowed it to get into debt on its own with the guarantee of the state 10. In 1945, its Organic Law<sup>11</sup> confirmed its financial autonomy and established that it could obtain capital from private firms, not only from other state institutions. Yet the CCA remained closely related to the Ministry of Agriculture; indeed, in 1945 by law the minister of Agriculture was made also president of the CCA Board. At the same time, as its credit and complementary agricultural development operations increased, the institutional structure of the CCA became more complex with the creation of new departments and a number of local branches. In 1933, it comprised the following sections: Prosecution, General Inspectorate, Procedures, Livestock, Commercial, Discounts, Reports, Monitoring and Single Debtor, Insurance, Propaganda, Promissory Notes, and Materials. Subsequently, the Statistics, Guarantee Liquidation, and Personnel sections were added between 1934 and 1937. At the same time, the CCA reached all of Chile's agricultural provinces. Along its headquarters in Santiago, it had branch offices in all major cities from north to south, namely, La Serena, Talca, Chillán, Concepción, Los Ángeles, Temuco, Valdivia, and Osorno. In addition, the CCA had an agreement with the Caja Nacional de Ahorros that allowed farmers to apply for credit at any of the latter's more than 100 offices (Correa, 1938: 388; Matthei, 1939: 235). In the late 1940s, it opened offices in Ovalle, San

<sup>10.</sup> Decree-Law No. 221 of July 19, 1932.

<sup>11.</sup> Law No. 8143, published in the *Diario Oficial* on August 11, 1945.

Felipe, Linares, Angol, La Unión, Puerto Montt, Castro, and Punta Arenas<sup>12</sup>. By the time it was merged with other institutions to form the State Bank of Chile, the CCA had 16 branch offices and 30 inspectorates. As a result, it had become "the most decentralized state entity in the country", a point made by a major newspaper that the CCA proudly quoted in its annual report<sup>13</sup>. Indeed, its institutional structure and wide geographical presence allowed the CCA achieve a great deal of success in Chile's expanding agricultural credit market. This success, however, did not come easily.

According to its statutes, the CCA did not receive deposits from the public nor seek to make profits for its shareholders, and the state was its main source of capital. Yet securing funding from different state institutions was often difficult and contingent upon political factors. Moreover, devaluation of the Chilean currency and the growing demand for agricultural credit made the CCA dependent on state capital increases. As the annual reports suggest, this relationship was established through a series of decisions adopted in the late 1920s and early 1930s, precisely under Ibáñez's corporatist regime. In 1927, when the CCA capital was only \$2,000,000 pesos, state funding came from the CCH, which in turn had to seek financing abroad, issuing bonds that were acquired by the US firm Kuhn, Loeb and Company & Guaranty Company of New York. This operation made it possible to obtain an agricultural loan for US\$10 million, signed by the Chilean ambassador himself on behalf of the government and the Caja de Crédito Hipotecario (CCH, 1927: 27-8). Although this was the minimum operational capital, it was insufficient to run the business, and the Ibáñez regime stepped in again. In 1928, capital was increased to \$20,000,000 by Law No. 4423, which authorized the Caja Nacional de Ahorros (National Savings Bank), another public financial institution, to buy all the new shares of the CCA. Yet, the participation of the Caja Nacional de Ahorros was ended two years later with Law No. 4806, which allowed the Treasury to acquire the former's 450,000 CCA shares, pay with internal debt bonds, and thus control CCA's capital<sup>14</sup>.

After the fall of Ibáñez, the second Alessandri administration (1932-38) maintained the CCA's state financing. The government authorized the CCA to secure several loans for substantial amounts from the Central Bank in the late 1930s, when the bank became a lender of the Treasury and several semi-fiscal institutions. Then, in October 1938, Law No. 6290 had a major effect on the CCA. Mainly the work of Socialist Deputy Emilio Zapata, this law defined the CCA's credit as having a "social function" and allocated \$30 million for credit to small farmers, in loans for amounts below \$10,000 and \$5,000, at

<sup>12.</sup> Memoria anual de la Caja de Crédito Agrario, 1950: 25.

<sup>13.</sup> Memoria anual de la Caja de Crédito Agrario, 1952: 9.

<sup>14.</sup> Memoria anual de la Caja de Crédito Agrario, 1952: 14.

an interest rate of just 5%, for a term of seven years, and with no processing fees. The small farmer was defined as one who owned or rented a property of up to 50 hectares, and this definition applied to small owners, sharecroppers, and inquilinos (tenant laborers on large estates). Moreover, the law also allowed for loans without collaterals for those individuals known to be "industrious and honorable persons" 15. Nonetheless, further funding requests suggest that capital injections may have not be enough for the CCA to keep pace with the growing demand for agricultural credit. In 1940 the CCA Board petitioned the president of the Republic to send to Congress a bill that would increase its funding; as a result, Law No. 6820 (1941) allowed the CCA to take more loans from the Central Bank, this time for \$150 million<sup>16</sup>. Still, recurring inflationary outbreaks, growing demand for credit, and shortage of agricultural products caused a crisis in CCA's finances in 1943. There were no resources to solve this problem because the government had not increased the institution's own capital since 1928 and borrowing from the international financial markets was not an option because of the Second World War. The CCA's internal financing problems were brought to an end only in 1945, with its Organic Law, which established its definitive capital structure. It comprised \$18 million in CCA shares owned by the National Treasury, \$128 million in debt to the CCH, \$37 million in CCA's reserve funds, and \$370 million in a credit from the Central Bank, which the Treasury took over. The CCA was allocated a total capital of \$520 million. Following this reform, in terms of agricultural credit the CCA became far more relevant even than CORFO, Chile's main economic development agency. Interestingly, since most credit from CORFO went to manufacturing and mining, agriculture seemed to be a "neglected sector" (Mamalakis, 1965). In reality, however, the CCA also channeled CORFO credit to agriculture for more than \$100 million between 1939-44<sup>17</sup>.

# 3. CCA'S AGRICULTURAL CREDIT TRENDS

The impressive number and value of its operations show the CCA's relevance in the credit market in Chile. During the period 1927-53, it performed an average of 17,640 transactions per year, the total nominal value of which was \$15,075,941,414 pesos, while the average amount per transaction was \$44,045. However, given the inflationary context in which the CCA operated, real values are more appropriate to assess its contribution to

<sup>15.</sup> Boletín de la Liga Nacional de Defensa de los Campesinos Pobres, No. 2, December 1938: 1.

<sup>16.</sup> Memoria anual de la Caja de Crédito Agrario, 1941: 26.

<sup>17.</sup> Memoria anual de la Caja de Crédito Agrario, 1952: 46. Nonetheless, as we show below, that amount represented only 6% of the total credit the CCA provided between 1939 and 1944 (see Appendix).

the development of the credit market. It must also be considered that CCA credit was not indexed and it was supposed to be used only in agriculture; indeed, it was primarily geared for small farmers, that is, the poorest of agriculturalists, which were also those most affected by inflation. Chilean inflation was very high *c*. 1930s-1950s: the annual growth rate of CPI in the years 1932, 1946 and 1953 reached 23, 30 and 56%, respectively (see Appendix). Since the macroeconomic context affects the purchasing power of money, it is necessary to deflate the credit series by CPI to determine the effectiveness of the CCA credit for farmers. The real value of the CCA operations, which is obtained by deflating their nominal value by CPI<sup>18</sup>, makes it evident that this public institution was a major source of agricultural credit. Indeed, from 1927 to 1953 the CCA carried out 476,288 credit operations for a total real value of \$2,388,696,690 *pesos*, with an annual average of \$88,470,248 (Fig. 1).

\$180 50.000 Real value of the Credit (millon pesos) 45.000 \$160 40.000 \$140 35.000 \$120 30.000 \$100 25.000 \$80 20.000 \$60 15.000 \$40 10.000 \$20 5.000 1933 1934 1935 1937 1938 1939 1940 1941 1942 944 Number of Operations — Real value of the Credit

FIGURE 1
Number and real value of CCA Operations, 1927-1953

Note: In September 1953 the CCA was transformed into the Agricultural Department of the Banco del Estado de Chile (State Bank of Chile), therefore, the value for 1953 has been completed with its latter operations from September to December 1953.

Source: Estimated with data from Memoria 25 años: 1927-1951: Caja de Crédito Agrario. Memoria 1950-1951 y de sus 25 años de labor (1952: 52), Anuario Estadístico de la República de Chile. Finanzas, bancos y cajas sociales (1954: 27) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

The operations series shows that three distinct periods can be distinguished in the activity of the CCA. In the first period (1927-31), when the CCA had yet to make itself known

<sup>18.</sup> All real series in this paper were deflated by CPI from DíAZ, LÜDERS and WAGNER (2016: 358-60) using 1927 CPI as base year.

among farmers, the number of operations was low and the average amount per operation was high. Then, the Great Depression hit the Chilean economy harder than any other country in Latin America (Bulmer-Thomas, 2014). The crisis was felt not only in the main export sector, the nitrate industry located in northern Chile, but also in the agricultural sector, whose growth was fundamentally related to the domestic market. The demand for agricultural products decreased; agricultural laborers' wages abruptly fell from 1929 to 1935, reaching a level as low as that of 1906 (Robles-Ortiz *et al.*, 2021); and farmers fell into default because of plummeting agricultural prices, just like in many other parts of the world. This situation had a significant impact on the CCA's activity. There was a big drop in the number of loans in 1931 and 1932, and profits were reduced from \$1.29 million in 1930 to merely \$258,000 in 1931. In addition, in December 1931, the Superintendency of Banks demanded from the CCA a global provision of \$4 million, which caused a loss of 20% of its capital. Both the nitrate crisis and drop in agricultural prices triggered the default of farmers which caused the CCA losses for \$804,000 in 1932<sup>19</sup>.

In the second period, from 1932 to 1938, which coincided with the second administration of Arturo Alessandri, the number of operations grew slowly, and the pre-crisis real value of the company's credit was restored in 1936, just as Chile's GDP recovered from the Great Depression. More importantly, the government reorganized the CCA to redirect its credit towards small farmers. The result was a sharp drop in the average amount per operation, from \$37,993 between 1927-31 to \$6,847 between 1932-38 (Fig. 2). Although there was not a new agrarian development program, the CCA reform was part of a growing concern for stimulating agricultural growth, even considering setting domestic prices for key agricultural products, such as wheat, higher than the international prices (Millar & Fernández, 2008: 414, 417). Finally, from 1939 to 1953, as the agricultural credit market expanded, the CCA reached its maximum activity in terms of the number of operations and real value of credit: the CCA lent 2.8 million pesos (real value) in the entire period it remained in activity, but between 1939-53 alone it made loans of 1.7 million pesos, reaching its maximum loans per year in 1952 when the public credit institution lent around \$175 million pesos (Fig. 1). The expansion of CCA operations was related to several policies aimed at helping small farmers that the three Popular Front governments of that period implemented. Those policies included an agricultural education program, a land colonization project and, certainly, the extension of credit programs for farmers (Millar & Fernández, 2008: 419). The CCA had become a leading actor in the agricultural credit market when the government merged it with other public institutions to create the State Bank of Chile.

<sup>19.</sup> Memoria anual de la Caja de Crédito Agrario, 1937: 17.

50.000
45.000
40.000
35.000
25.000
10.000
5.000
0

10.000
5.000

FIGURE 2
Real value of Loans per Operation, 1927-1953

■ Real average value per Operation

Source: Estimated with data from Memoria 25 años: 1927-1951: Caja de Crédito Agrario. Memoria 1950-1951 y de sus 25 años de labor (1952: 52), Anuario Estadístico de la República de Chile. Finanzas, bancos y cajas sociales (1954: 27) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

In addition to its growing importance in Chile's credit market, the most distinctive aspect of the CCA was its focus on microcredit operations. In its early years, however, most of the CCA loans were for rather large amounts; indeed, from 1927 to 1931 the average amount per operation was \$38,000 pesos, which suggests that its main borrowers were large landowners (Figure 2). It seemed that the CCA was going to be just like Chile's highly criticized National Mortgage Bank. Yet, in the aftermath of Great Depression growing dissatisfaction with the CCA led the government to reorganize it, seeking to end what was considered the "abandonment" of the small farmer. At the same time, the CCA became an instrument for economic recovery, which was the main economic policy goal of the post-depression administrations, especially that of Arturo Alessandri (1932-38) (Marfán, 1984; Duarte, 2019). Therefore, the CCA implemented a policy primarily aimed at providing inexpensive credit for small farmers in the form of loans for small amounts of money. As a result, from 1932 to 1953, the average amount per operation in every year was less than \$10,000 and it fell below \$5,000 in 11 years. Interestingly, then, although it was a microcredit institution, the CCA did have a significant share of the highly competitive Chilean credit market.

The CCA was not the only institution that provided credit to agriculture, but it was one of the most important financial institutions in Chile, as it came to be the largest agricultural bank in the country. Before the creation of the CCA, mortgage banks and com-

mercial banks were the main formal sources of credit for farmers, but the requirement of a mortgage or a bank account meant that access to credit was restricted to large landowners. Moreover, unlike the CCA, private banks had no legal obligation to promote agriculture. There were also other financial institutions, such as agricultural credit cooperatives and the Caja Nacional de Ahorros. Credit cooperatives were not relevant in the credit market, as they depended on the CCA to obtain funding and the credit they provided was negligible compared to that of public credit institutions<sup>20</sup>. The Caja Nacional de Ahorros was a public savings institution for the poor, but it also provided small credit to farmers. Thus, to assess the CCA's place in the credit market, its share of the market has to be compared with that of commercial banks. In the 1927-52 period, there were an average of 20 private banks with national and foreign ownership.

A comparison of the outstanding loans of the commercial bank sector with the outstanding loans of the CCA (Fig. 3) shows that the latter's performance was exceptional<sup>21</sup>. It managed to keep its market share through the 1927-53 period despite macroeconomic problems and lack of capital. In its first two years the CCA had a ratio of less than 5% of all outstanding loans of commercial banks, but in 1931 it was 10% and it reached its highest point (15.6%) the next year. For the 22 years that we found data, the outstanding loans of the CCA represented on average of 11.5% of all commercial banks loans. That is, the CCA made loans equivalent to 11% of the total amount lent by all twenty of Chile's commercial banks. Moreover, in 1952, the CCA lent more money to agriculture than any private bank, and 89% more than the amount of all agricultural loans issued by the Banco de Chile, the country's largest private bank. Specifically, the CCA made \$2,841 million of agricultural loans while the Banco de Chile loaned \$1,515 million, followed by the Banco Español-Chile with \$554 million. The remaining 17 banks lent \$1,718 million combined (Superintendencia de Bancos, 1953: 36). As the most important agricultural bank in the country, the CCA was so relevant in the credit market that in 1953 the government merged it with other three public financial firms to create the state's bank: Banco del Estado de Chile.

<sup>20.</sup> This is shown by the annual reports of the CCA during the 1940s. For example, in 1940, the CCA lent to agricultural credit cooperatives \$1,5 million pesos while the total amount lent of CCA in the same year was \$192 million pesos, that is, not even 1% (Memoria anual de la Caja de Crédito Agrario, 1941, pp. 70-1). In 1941, the percentage was the same (Memoria anual de la Caja de Crédito Agrario, 1943: 35). In 1943 there are some mentions of agricultural credit cooperatives, then they disappear until 1947 and then disappear again until 1951 when these cooperatives lost relevance as it is evidenced that there were only two cooperatives that continued with CCA credits for agricultural credit cooperatives (Memoria anual de la Caja de Crédito Agrario, 1952: 16).

<sup>21.</sup> Outstanding loans are the portion of total loans that has yet to be repaid. In this case, outstanding loans are the part of the current loans from the CCA that have not yet been paid at December 31 of each year.

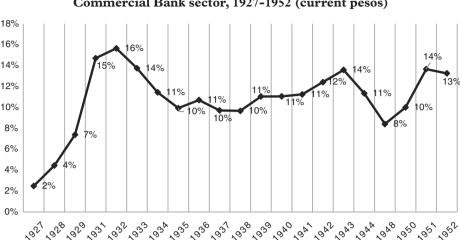


FIGURE 3

Outstanding loans of the CCA as share of outstanding loans of the whole

Commercial Bank sector, 1927-1952 (current pesos)

Source: Estimated with data from *Anuario Estadístico de la Républica de Chile* (1929-1954). Finanzas, bancos y cajas sociales and *Memoria of Superintendency of Banks* (1930-1953).

The credit that the CCA provided had three special characteristics that contributed to its successful development as the largest agricultural bank in Chile. The first one was that its loans were given for longer terms than loans taken from private banks, which allowed farmers to carry out the production cycle from seeding to harvests, and thus have time to sell their crops to obtain income for repayment. The second one was that the CCA allowed farmers to take loans using their seeds, cattle, tools, or movable property as loan collaterals (prenda agraria) allowing the CCA to reach farmers who otherwise had no access to the formal capital market and even those who did not own land at all. Credits with a prenda agraria as collateral could not exceed five years, but the CCA also accepted other assets as collaterals. In addition, the CCA offered loans for terms of up to seven months with a mortgage or a fianza (surety note), and for up to twelve months if the guarantee was a pagaré agrario (promissory note) (CCA, 1928: 32). Indeed, all these types of collaterals allowed farmers to obtain funding for longer terms than those available in the commercial bank system. These terms changed over time to fit better the needs of agriculture and give more flexibility to farmers. The third distinctive aspect to CCA credit was its loans' moderate interest rates, which, in addition to "special rates," attracted large numbers of small farmers. Indeed, the CCA's interest rate was not only lower than that of the whole banking system (Fig. 4), but also remained very low even in inflationary contexts, which at times led to a negative "real interest rate" for farmers, that is, the farmers had to repay less money in purchasing terms than what they took in loans<sup>22</sup>. From the beginning of its operations in 1927 until March 1932, the CCA charged 9% annual on loans in a context where, until the crisis of 1929, there was a relative abundance of capital in Chile. This rate was equal to that of the banking system because of the high financing costs of the CCA, as it obtained funding from the CCH, which in turn got capital from the international financial market by issuing bonds<sup>23</sup>. However, during the following years the interest rate declined. In 1932, amidst Chile's economic and political crisis, Law No. 5076 (1932) determined that the CCA interest rate could not exceed 5.5%; then Decree-Law No. 221 set the annual interest rate at 5%, which remained in place until 1953, when the CCA was integrated into the State Bank of Chile<sup>24</sup>. In contrast, the bank system's interest rate was never less than 7%.

In addition, the CCA had even lower "special interest rates" for specific circumstances, such as years of bad harvests, or to promote the cultivation of key agricultural crops. In 1935, for example, Law No. 5558 allowed the CCA to make loans to farmers severely affected by frost at only 3% of annual interest<sup>25</sup>. Then, in 1936, due to shortage of basic food items in the previous year and pursuant to the government's indications, the CCA Board offered credit at only 2% to farmers who needed seeds for growing crops geared for the domestic market, such as potatoes and beans<sup>26</sup>. Finally, as Chile faced a shortage of wheat, by far the most important crop in the country, in 1942 the CCA made loans at an annual interest of 4%, provided that farmers invested in soil preparation, seeds, sacks and fertilizers for wheat production. The special interest rate for wheat cultivation remained in place at least until 1947<sup>27</sup>. Accordingly, loans from the CCA could be up to three times less expensive than loans from the private credit institutions and, in several years, they were made at a real interest rate that was less than zero. Even though it had to deal with screening and monitoring costs, as its healthy finances show, the CCA provided loans to farmers who were able to repay them but could not get fair terms in the

<sup>22.</sup> The real interest rate, following Fisher's equation, can be understood as the approximate difference between the nominal interest rate and inflation. From an economic approach, the real interest rate is the most appropriate tool to decide whether to lend or apply for a loan because it considers the purchasing power over the return of the loan and the real cost to the customer. However, in practice the rationally economic decision to make/take a loan is made *ex ante*, with the expected inflation due to the lag in official inflation data. The real interest rate series are from DiAZ, LÜDERS and WAGNER (2016).

<sup>23.</sup> Memoria anual de la Caja de Crédito Agrario, 1950: 14-5.

<sup>24.</sup> Memoria anual de la Caja de Crédito Agrario, 1952: 15.

<sup>25.</sup> Memoria anual de la Caja de Crédito Agrario, 1935: 53.

<sup>26.</sup> Memoria anual de la Caja de Crédito Agrario, 1937: 63.

<sup>27.</sup> Memoria anual de la Caja de Crédito Agrario, 1948: 29.

informal credit sector. In fact, the only year that the CCA faced losses was the year 1932 because the impact of the Great Depression.

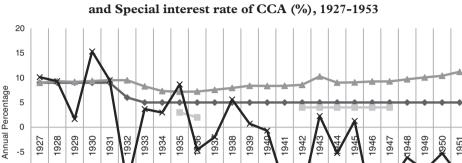


FIGURE 4
Real and Nominal interest rate of Banking System and Regular and Special interest rate of CCA (%), 1927-1953

Source: Estimated with data from Memoria Anual CCA (1934-1952) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

Nominal market interest rate Real market interest rate

CCA interest rate Special CCA interest rate

The CCA used other mechanisms to ensure the repayment of loans. As Hoff and Stiglitz pointed out, in rural credit markets merchants-lenders or landowners-lenders may interlink the terms of transactions with transactions in the product or rental markets to affect the probability of default. For example, lenders may offer a borrower-farmer lower prices on fertilizers (Hoff & Stiglitz, 1990: 240). The CCA did this: it sold seeds, fertilizers, pesticides, among inputs through its Commercial Department, at lower prices than those in regular markets. This strategy reduced the default risk of small farmers but also produced profits that allowed the CCA to extend cheap credits. The average income from the Commercial Department in the form of rights, utilities, and commissions was more than 10 million *pesos* per year between 1933 and 1943. Moreover, rights, utilities, and commissions earnings reached over 40% of the gross earnings in the same period<sup>28</sup>. In sum, the CCA not only helped small farmers through inexpensive loans, but also by selling inputs at lower prices.

-10 -15 -20

<sup>28.</sup> Memoria anual de la Caja de Crédito Agrario, 1944: 78-9.

#### 4. GEOGRAPHIC AND SOCIAL DISTRIBUTION OF CCA CREDIT

The geographic distribution of CCA operations among Chile's different agrarian regions and provinces is a relevant aspect to assess its role in the agricultural credit market<sup>29</sup>. Initially, from 1928 to 1933, the CCA adopted a quota system to allocate the available credit according to the needs of each province, which were estimated considering agricultural and economics factors as the area under cultivation, livestock density, and crop productivity, among other variables. In practical terms, the CCA Board's made a proposal that determined quotas for each province, which then had to be approved by the government through the Superintendency of Banks (CCA, 1928: 40, 92). As a result, credit concentrated in Central Chile, by far the most important agricultural region, the 11 provinces of which received over 60% of the available funds. In turn, the provinces in La Frontera, Llanquihue and Sur Austral regions received approximately 30% of the total funds, while less than 10% went to Norte Chico. Norte Grande, a predominantly mining region, was allocated a negligible share. Credit balances show that farmers did not make use of all the available credit, and that Chile Central and Llanquihue were the agrarian regions with the highest levels of borrowing (Table 1). Some provinces in Central Chile, such as Santiago and Aconcagua, significantly exceeded their assigned quotas in four and three years, respectively; and in 1930 all the provinces of Central Chile exceeded their quotas, most likely as farmers were seeking credit to cope with the effects of the Great Depression.

The unbalanced distribution of CCA credit among regions and provinces persisted until the late 1930s. Thus, between 1928 and 1938 Central Chile concentrated 64.3% of the total credit, that is, much more than La Frontera (15.5), Llanquihue (10.6) Norte Chico (6.9) (Fig. 5). The provinces that received the most CCA credit were Santiago (22.3%), Valdivia (10.3%), Talca (10.2%), Colchagua (9%) and Cautín (8%). This credit concentration was related to economic differences among Chile's agricultural regions and provinces. The CCA, it appears, allocated more credit to provinces with larger areas under cultivation, higher land productivity, and a higher number of tenant farmers. That was clearly the case of Santiago province, which had the highest average yields for barley, potatoes, beans and corn, and the third-highest of wheat. Likewise, Valdivia province had the second highest productivity in wheat. Another factor related to credit concentration was CCA's emphasis on livestock raising; provinces with the highest livestock density were among those that received more credit from the CCA. By 1935, that was the case for

<sup>29.</sup> Chile's agrarian regions and the provinces they comprised are as follows: Norte Grande (provinces of Tarapacá and Antofagasta); Norte Chico (Atacama and Coquimbo); Central Chile (Aconcagua, Valparaíso, Santiago, O'Higgins, Colchagua, Curicó, Talca, Maule, Linares, Ñuble and Concepción); La Frontera (Arauco, Bio Bío, Malleco and Cautín); Llanquihue (Valdivia, Osorno and Llanquihue); and Sur Austral (Chiloé, Aysén and Magallanes).

Valdivia (20.7 head per km² of cultivated land), Colchagua (18.9), Concepción (16.3), Santiago (15.8) and Cautín (15.6) (DGE, 1931, vol. III: 40; DGE, 1933: 8-16; DGE, 1936: XIX)<sup>30</sup>. Therefore, geographic concentration of CCA credit seems more related to economic reality than being the result of discrimination against any region or province, as Matthei (1939) suggested with reference to agricultural provinces in southern Chile.

TABLE 1
Effective use of Credit Allocated by CCA, 1928-1933

Agrarian Region	1928	1929	1930	1931	1932	1933
Norte Grande	_	_	33%	31%	31%	43%
Norte Chico	86%	79%	95%	89%	86%	67%
Chile Central	89%	75%	98%	97%	91%	89%
Frontera	85%	74%	92%	85%	76%	59%
Llanquihue	79%	70%	83%	89%	86%	67%
Sur Austral	88%	63%	68%	74%	73%	53%

Source: Estimated with data from AnuarioEstadístico de la Républica de Chile. Finanzas, bancos y cajas sociales (1929-1934).

Shortly after the CCA was reorganized, the geographic distribution of its operations began to change. Starting in 1935, a trend towards decentralization began developing, which resulted in a convergence in the credit allocated to, on the one hand, Central Chile and, on the other hand, La Frontera and Llanquihue regions. From 1936 to 1953, Central Chile lost the same credit market share that both southern regions gained (Fig. 5). A critical point in that process of convergence was reached in 1948, when the provinces comprising both La Frontera and Llanquihue started to receive more credit than the 11 provinces comprising Central Chile. By 1953, when the CCA ceased to operate, there was a fairly balanced distribution of agricultural credit in Chile. Between 1928 and 1953, Santiago province still received the largest share of CCA credit (15.6%), but it was followed by Valdivia (9.8%) and Cautín (8%), the main agricultural provinces in southern Chile, while Bío-Bío came close (6.8%) (Fig. 6). The decentralization of the CCA credit business is better shown by looking at the average credit share per province in the whole period from 1928 to 1953. Contrary to estimates presented in previous works, Llanquihue, in southern Chile, was allocated more average credit per province than any agrarian region: 5.9% per province, meanwhile, Chile Central obtained 4.9%, La Frontera 4.7%, Norte Chico 2.9%, Sur Austral 1% and Norte Grande 0.1%. In sum, there is evidence of credit decentralization due to the significant participation of Llanquihue and La Frontera regions in the last years of the enterprise and its high average credit by province.

<sup>30.</sup> Coquimbo was the first province with the largest number of hectares operated by tenants.

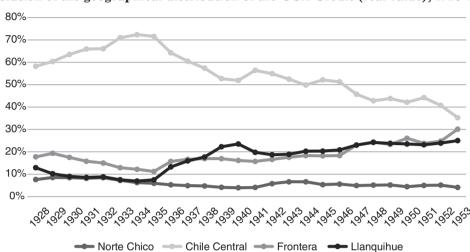


FIGURE 5
Evolution of the geographical distribution of the CCA Credit (real value), 1928-1953

Source: Estimated with data from Anuario Estadístico de la Républica de Chile. Finanzas, bancos y cajas sociales (1929-1954) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

Interestingly, the increasing share of credit received by the southern provinces was related not only to the opening of more branch offices, but also to political developments that changed the CCA's Board and policies. In the late 1930s, southern landowners affiliated with the Radical Party, the main government party under the three Popular Front administrations (1938-52), were appointed to the CCA Board of Directors. At the same time, southern landowners who were members of the Radical Party gained importance in the National Agricultural Society (SNA), especially those from La Frontera and Llanquihue (Wright, 1982: 81-2). That was the case of the four Möller Bordeu brothers and the Buschmann family, which were influential large landowners in Concepción and Llanquihue, respectively. Julio Buschmann, for instance, senator for Llanquihue province, was a member of the SNA, but also one of the founders of the Sociedad Agrícola y Ganadera de Osorno (SAGO), a new association of large landowners in the south. Edmundo Möller became a member of the CCA Board from 1941 to 1943, while his brother Fernando was minister of Agriculture in 1942, the same year that the geographical distribution of CCA credit shifted towards the southern provinces<sup>31</sup>.

<sup>31.</sup> Memoria anual de la Caja de Crédito Agrario, 1951: 88.

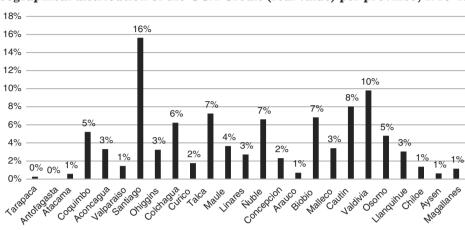


FIGURE 6
Geographical distribution of the CCA Credit (real value) per province, 1928-1953

Source: Estimated with data from Anuario Estadístico de la Républica de Chile. Finanzas, bancos y cajas sociales (1929-1954) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

Along with moving towards an increasing decentralization of its operations, the CCA definitely became the Chilean small farmer's fundamental source of credit. Most of the small farmers who borrowed from it had previously no access to the formal capital market, and many did not even own the land they farmed, so most of them could borrow only modest amounts of money in loans from the CCA. In 1933, Law No. 5185 defined "small farmers" as those who received loans for amounts not exceeding \$20,000, but in the early fifties the CCA Board defined the small farmer as "low-income peasants who are ordinarily outside the bank credit," had no other economic activity than "agricultural exploitation" and whose capital, according to CCA estimate, "does not exceed \$500,000 pesos". Based on that definition, the CCA determined that "the maximum individual loan to small farmers is \$50,000"32. Therefore, in our estimates of trends through the 1934-52 period we considered all loans for up to that sum as indicative of credit allocated to small farmers. Since the CCA was a microcredit institution, to better examine the social distribution of its credit, we divided all the loans in the same categories used in its annual reports and in Chile's main statistical. The data we have collected conclusively demonstrate that the CCA's main beneficiaries were small farmers: between 1934 and 1952, 89% of credit operations were for amounts equal to or less than \$50,000, while the number of operations for the largest category (\$100,001-\$500,000) were negligible, only 3% (Fig. 7). In addition, the reduction in the number of operations in the lowest category was almost equal to the increase in the number of loans for amounts in the second and third

<sup>32.</sup> Memoria anual de la Caja de Crédito Agrario, 1952: 20.

categories, that is, loans still lower than \$50,000<sup>33</sup>. Further, the number of operations in 1953 would have been sufficient to reach 70% of the 55,761 owners of small properties of less than 5 hectares recorded in the 1955 agricultural census<sup>34</sup>.

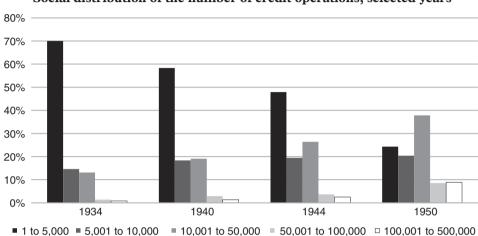


FIGURE 7
Social distribution of the number of credit operations, selected years

Source: Estimated with data from Anuario Estadístico de la Républica de Chile. Finanzas, bancos y cajas sociales (1934-1945) and Memoria Anual CCA (1946-1951).

But what could small farmers afford with a loan for \$50,000? It is very difficult to know the answer, because in this period there were price controls of many agricultural products, multiple exchange rates for those products, and agricultural prices increased (Valdés, 1972). However, some prices can be indicated to have a notion of the possible uses of CCA credit geared for small farmers. In 1934 the CCA sold metal plows for \$220 pesos<sup>35</sup>; at the beginning of the 1940s, through the Agricultural Export Board (Junta de Exportación

<sup>33.</sup> However, it is necessary to point out that keeping the tranches fixed during years of inflationary outbreaks implies that the participation of the lower tranches will tend to decrease over time because rational agriculturalists will increasingly get larger nominal amount of credits in order to maintain purchasing power of the loans. For instance, following the CPI from Diaz, Lüders and Wagner (2016), we estimate that \$48,834 pesos from year 1951 are equivalent to \$5,000 pesos from year 1934 (in purchasing power terms), therefore, a farmer in 1951 would need a \$48,834 pesos loan to purchase the same things that the farmer did back in 1934. In other words, a loan of \$5,000 pesos taken in 1934 could only buy a tenth of its value in 1951.

<sup>34.</sup> This is assuming that each operation is a loan, and that each small farmer received one loan only per year. In fact, the ratio of loans outstanding to new loans in 1950 was 1.07, which is a measure of the average term of the loans (IBRD/FAO, 1952: 119).

<sup>35.</sup> Memoria anual de la Caja de Crédito Agrario, 1935: 115.

Agrícola) the government set the wholesale price of wheat at \$85 per 100 kilograms (Millar & Fernández, 2008: 422); in 1945 the CCA Board granted loans for \$100,000 specifically for the acquisition of breeding bulls, to be allocated in individual loans each of which could not exceed \$16,000, while the value of each animal could not exceed \$6,000<sup>36</sup>. In sum, the distribution of the number of credit operations, the average amount per operation, and prices for relevant items demonstrate that the CCA was a microcredit institution.

After 1930, Chilean governments, from Arturo Alessandri's second term (1932-38) to the González Videla administration (1946-52), sought to increase agricultural production. These administrations resorted to a variety of strategies, including propaganda campaigns appealing to farmers' patriotism, inexpensive credit programs, special purchase prices, the purchase of surplus production, and price controls set by the Junta de Exportación Agrícola (Millar & Fernández, 2008). Following such policies, through loans at low interest rates, the CCA encouraged farmers to produce goods for domestic consumption that were important components of the urban population's diet, namely, meat, milk, and cereals, especially wheat (Bernedo, 1989). Thus, for instance, in 1935 Law No. 5157 allowed the CCA to provide special credits for farmers that needed to purchase seeds and fertilizers for wheat cultivation<sup>37</sup>. These policies clearly were reflected in the purposes of the loans that the CCA made through the 1927-51 period. In fact, 55% of the total credit was directed to the production of cereals, meat and dairy; in addition, other important purposes declared in CCA loans were livestock raising and dairy production (31%) (Fig. 8). Indeed, between 1927-51, livestock and dairy received 31% of the total credit, while crop seeds and final processing of cereals obtained 24% of the credit, 4.5% of the credit was used for vineyards and wine-making, and 8.5% was for vegetables. Moreover, in terms of inputs, 21% of the funds from the CCA was used for fertilizers, disinfectants, machinery and work tools.

Given the limitations of the statistical sources, the impact of credit on the agricultural sector can be estimated by looking at general trends in those crops that were primarily the business of small farmers, namely, legumes and potatoes. The area under cultivation saw a modest increase from 82,144 ha in 1909-10 to 111,479 ha in 1925-26; thereafter it grew significantly, reaching 275,000 ha in 1934-35, that is, it more than doubled in the ten years following the creation of the CCA. From the thirties to fifties, there was an increase in vegetable production compared to that of other crops. While cereals, legumes, and wines, saw a decrease, fruit crops and vegetables increased (Díaz, 2006). Despite the

<sup>36.</sup> Memoria anual de la Caja de Crédito Agrario, 1946: 39.

<sup>37.</sup> Memoria anual de la Caja de Crédito Agrario, 1935: 61.

drop in the five-year period between 1935-39, in the long term (25-years period) the share of vegetables increased by 50%, from a 6.3% share in 1930-34 to 9.6% in 1955-59 (Díaz, 2006: 60). Even though the outcomes of agricultural production are multifactorial (climate, prices, availability of labor, use of fertilizers, capital and credit, machinery, etc.), it is reasonable to assume that a part of this growth was due to agricultural credit from the CCA given to small farmers.

Purpose of CCA Loans (real value in million pesos), 1927-1951 1.200 1.000 800 600 400 200 Livestock Seeds and cereals Fertilizers, Other (fruit and forest Vegetables disinfectants, plantations and vines machinery and wines) and supplies

FIGURE 8
Purpose of CCA Loans (real value in million pesos), 1927-1951

Source: Estimated with data from Memoria 25 años: 1927-1951: Caja de Crédito Agrario. Memoria 1950-1951 y de sus 25 años de labor (1952: 50) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics.

### 5. CONCLUSIONS

Our findings dispute long-held views on the apparent neglect of agriculture in the economic policies that Chilean governments implemented during the period of "inward-oriented growth". The CCA's leading role in the expansion of the agricultural credit market in Chile from 1926 to 1953 attest to the developmentalist state's interest in stimulating agriculture's recovery after the Great Depression. Indeed, the industrialization-promoting state did foster agricultural growth by means of inexpensive, public credit primarily geared for small farmers located in all agricultural provinces. The series of CCA credit operations from 1927 to 1953, that we constructed with data from virtually untapped sources, demonstrate that this public institution became the main formal source of agri-

cultural credit just prior to its integration into the State Bank of Chile (1953), which is still in business as one of the major banks in the country. Although large commercial banks, the state's economic development agency (CORFO), the National Savings Bank, several commercial houses, and a number of small agricultural credit cooperatives participated in the formal agricultural credit market, due to the magnitude of its operations, the CCA was the main institution responsible for the maturation of agricultural credit market.

We also found relevant information that is not regularly available for private banks, such as the geographic, social, and productive allocation of CCA credit. The main beneficiaries of CCA loans were small farmers who received almost the entire funds that this institution put into the agricultural credit market. Initially, its operations concentrated in Central Chile, but starting in 1936 a process of convergence led to a fairly balanced distribution of CCA credits among the agricultural provinces of La Frontera, Llanquihue and Central Chile regions. Consequently, the CCA evolved into a decentralized credit-supplying institution. The CCA also became an organization with an extensive geographic coverage, despite the obstacles posed by Chile's longitudinal extension, and it remained an entirely public institution.

The CCA became a leading institution in Chile's credit market because its particular type of agricultural credit was substantially different from other forms of credit. First, the CCA extended loans for longer terms than those offered by the banking system, which enabled farmers to meet the agricultural production cycles. Second, the CCA had offices in rural locations that had no access to other financial institutions. Third, its lower requirements for collaterals allowed small farmers to obtain loans in the formal credit market, and made it possible for the CCA to reach farmers without financial records outside Central Chile provinces, where information asymmetries prevailed. Fourth, the CCA offered loans at lower interest rates than private banks.

Considering the CCA's leading position in the agricultural credit market by 1952, the fact that this institution has been neglected in the specialized literature is a surprising lacuna in the study of the state's role in promoting economic recovery in post-depression Chile. This omission is related to the persistence of conventional notions uncritically adopted to explain the so-called "agricultural stagnation" that Chile witnessed in the 1940s and 1950s, such as the supposed lack of public policies to promote agriculture. Insufficient research on the CCA is related to its over-simplification, supposedly as a mere extension of the ill-famed Caja de Crédito Hipotecario. Another notion held to illustrate the lack of state support to the agricultural sector, namely, the fact that CORFO provided scant credit to farmers, is also highly questionable. That function was performed by the CCA, while CORFO focused on other activities, especially manufacturing. The increas-

ing agricultural credit provided by CCA may thus be one of the explanations for the low amount of credit that CORFO allocated to agriculture. In light of this, the findings in this paper invite further research on public policies aimed at promoting agriculture under the industrializing state and their impact on agricultural productivity.

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# **APPENDIX**

TABLE 2 Chilean Inflation (%), 1927-1953

Year	Inflation	Year	Inflation	Year	Inflation	Year	Inflation
1927	-1,0	1934	4,2	1941	23,1	1948	16,8
1928	0	1935	-1,4	1942	25,5	1949	20,6
1929	7,4	1936	12,3	1943	7,8	1950	16,5
1930	-5,2	1937	9,8	1944	15,0	1951	23,4
1931	0	1938	2,2	1945	7,7	1952	12,0
1932	23,6	1939	7,6	1946	30,1	1953	56,2
1933	4,4	1940	9,1	1947	23,1		

Source: Díaz et al (2016: 358-360). Chile 1810-2010. La república en cifras. Historical Statistics. Data available: http://cliolab.economia.uc.cl/BD.html

TABLE 3
Number and Amount of Credit Operations of the CCA, 1927-1953

Year	Number of	Nominal amount	Real value	Year	Number of	Nominal amount	Real value
	Operations	of credit	amount of credit		Operations	of credit	amount of credit
1927	922	41,768,525	41,768,525	1941	15,152	240,999,979	97,852,248
1928	1,443	49,155,040	49,155,040	1942	19,226	312,615,791	101,123,926
1929	1,936	79,457,826	73,985,138	1943	23,27	397,340,843	119,202,462
1930	1,832	86,461,269	84,901,178	1944	21,184	352,082,206	91,844,892
1931	1,057	28,028,854	27,523,106	1945	21,608	448,728,748	108,680,919
1932	3,559	20,229,812	16,066,504	1946	24,316	534,990,264	99,606,994
1933	11,228	49,721,346	37,818,836	1947	29,994	700,119,175	105,904,842
1934	7,54	67,476,537	49,241,477	1948	28,048	748,063,803	96,865,349
1935	7,285	89,012,250	65,851,722	1949	30,078	1,010,435,633	108,488,210
1936	8,527	113,691,035	74,871,041	1950	36,141	1.354.689,46	124,840,685
1937	8,836	114,302,375	68,581,545	1951	41,605	2,332,991.049	174,244,954
1938	10,521	142,212,814	83,475,322	1952	44,392	2,623,294,000	174,900,054
1939	14,954	170,257,871	92,873,883	1953	45,702	2,875,256,000	122,748,177
1940	15,932	192,558,907	96,279,664	Total	476,288	15,175,941,414	2,388,696,690

Source: Estimated with data from Memoria 25 años: 1927-1951: Caja de Crédito Agrario. Memoria 1950-1951 y de sus 25 años de labor (1952: 52), Anuario Estadístico de la República de Chile. Finanzas, bancos y cajas sociales (1954: 27) and Díaz et al (2016). Chile 1810-2010. La república en cifras. Historical Statistics. Memoria anual de la Superintendencia de Bancos, 1929-1954. Biblioteca del Congreso Nacional. Chilean laws: www.leychile.cl