



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



50 years after the Agrarian Reform in Chile: reflections and lessons

A. Valdes;

Universidad Catolica de Chile, Agricultural Economics, Chile

Corresponding author email: avaldese@uc.cl

Abstract:

The agrarian reform carried out between 1965 and 1973 was the result of legitimate problems in pre-reform rural society, of which slow agricultural growth was one major determinant. Ultimately the reform failed to achieve its initial objectives in terms of accelerating growth but had a profound social and political impact in rural areas. This text contributes to the literature on the objectives and outcomes of agricultural reform in Chile by raising arguments and evidence regarding various components of the process. The key lessons from this analysis are that the leaders behind the agrarian reform misinterpreted their diagnosis about the causes behind the slow growth of agriculture, attributing this slow growth to farm tenure system at the time, ignoring the adverse impact on the sector of economy-wide policies. Additionally, simply paying attention to similar agricultural reform processes worldwide may have helped the reformers avoid the Asentamientos disappointing performance. These lessons are relevant to continuing debates on the interphase between land tenure structure and agricultural policies.

Acknowledgment: The authors want to thank William Foster for his valuable contribution on a previous study on the Agrarian Reform.

JEL Codes: Q15, N56

#1107



50 years after the Agrarian Reform in Chile: reflections and lessons

Submitted as a Contributed Paper to the IAAE Conference to be held in Vancouver (2018)

Abstract

The agrarian reform carried out between 1965 and 1973 was the result of legitimate problems in pre-reform rural society, of which slow agricultural growth was one major determinant. Ultimately the reform failed to achieve its initial objectives in terms of accelerating growth but had a profound social and political impact in rural areas. This text contributes to the literature on the objectives and outcomes of agricultural reform in Chile by raising arguments and evidence regarding various components of the process. The key lessons from this analysis are that the leaders behind the agrarian reform misinterpreted their diagnosis about the causes behind the slow growth of agriculture, attributing this slow growth to farm tenure system at the time, ignoring the adverse impact on the sector of economy-wide policies. Additionally, simply paying attention to similar agricultural reform processes worldwide may have helped the reformers avoid the Asentamientos disappointing performance. These lessons are relevant to continuing debates on the interphase between land tenure structure and agricultural policies.

1. Introduction

The Agrarian Reform, undertaken by Presidents Frei (1965-70) and Allende (1970-73), was a political hurricane, with profound economic and social repercussions, and provides valuable lessons on the diagnosis and design of public policies. The scope of the reform was broad - over 5,500 commercial farms were expropriated, totaling one half of the country's agricultural area. Despite a broad range of literature on the subject, the historical process of the reform is practically unknown to generations after the 1980s, although the 50th anniversary of the reform in 2017 attracted some debate. However, this ignorance is not attributable to the absence of literature on the subject; As noted in the references in this article, the agrarian reform generated a collection of retrospective studies under a wide range of perspectives and approaches, with disagreements regarding its impact, including several foreign analysts.

Broadly speaking, the land reform process can be divided into four periods, each with a different political focus and implementation program: Presidents Alessandri (1962-1965), Frei (1965-1970), Allende (1971-1973), and the so-called Counter Reform under Pinochet (1974-1978). But the seed of agrarian reform was created in the 1950s.

Given the political circumstances of the mid-sixties, I conclude that, for better or for worse, an agrarian reform in some form was a politically inevitable phenomenon. There was broad political support to do so, both on the left and in the political center of Chile, which was bolstered by positive opinions from among United Nations technocrats, the USA Alliance for Progress initiative, Chilean Catholic Church leaders, numerous academics and even some farmers. For some, it was acceptable to avoid revolutionary changes and the advance of communism, fear of which was certainly influenced by the Cuban revolution.

It is pertinent to identify the national and international socio-political context in the early 1960s. Undoubtedly President Frei achieved remarkable leadership under extremely complex conditions in the socio-political scenario of Chile, in the midst of the Cold War, the Cuban Revolution, the criticism that the Catholic Church under Pope Pius XI raised against capitalist liberalism, the rapid increase in popular voting in the Christian Democrats (DC) and the left after 1958, and the partisan confrontation between the two. It is relevant to highlight the internal ideological debate in the DC in a matrix of commitment to a political democracy, with Christian inspiration influenced by post World War II French thought. A segment of the Christian Democratic ideologues advocated communitarianism, distinct from community socialism promoted by other groups in the same party. Both sides agreed to oppose state ownership as a means of production, but also resisted absolute private property, promoting the direct participation of workers in the management of companies, where the State assumes a planning, guiding and executing role in the economy. The discrepancies and eventual internal ideological rupture in the DC over the “non-capitalist path to development” lead to a division of the party and the creation of MAPU and the Christian Left as independent parties.

A crucial element that drove the desire for agrarian reform in the presidency of Frei was the doctrine that the agricultural property had to fulfill "a social role." Farmers, according to the doctrine, should organize their farms to achieve social goals, as a condition for not being expropriated. This determination, in conjunction with the approval of the "deferred payment" for 90% of the current property valuation of the property (paid in bonds up to 30 years (Act 16.640)) for farms expropriated under the Land Reform Program, represented a fundamental change in the concept of agricultural property rights.

However, despite political support at the outset of the Frei presidency, beyond the central objective of eliminating the “latifundio” and the “inquilinaje” system, there was little clarity about the model of agricultural enterprise to be implemented under the reform, both at the beginning and final goal, as well as its scale, beyond the aspiration to establish one hundred thousand new small farms (announced by Minister Trivelli in 1965), which was not fulfilled. The course of processing the law in Congress (Law 16.640, approved in 1967) established the limits and conditions for expropriating land, authorizing the Land Reform Corporation (CORA)to expropriate farms with more than the equivalent of 80 hectares of basic equivalent irrigated hectares , whatever their form of management and productivity, and also to expropriate lands considered a poorly managed by CORA. It is interesting to note that the original project did not contemplate exempting from expropriation farm land owned by corporations, for example, the case of large-scale wineries. Subsequently, an exception was made because the protest of its leaders for what they anticipated would make unsustainable the survival of an industry with great export potential.

In the absence of a public and wide discussion about relevant options, there appears to be no evidence of a structured and public debate about the model of exploitation unit to be implemented under the reform, neither at the outset, nor during the consolidation stage. The debate in the Congress during the passage of the new law does not specify a commitment to any particular exploitation model for implementation. Rather, an internal

debate within the executives of CORA, the Ministry of Agriculture and a small segment of the Christian Democrats likely outlined the exploitation model. It is relevant to point out that at this time there was no internationally recognized model for agrarian reform. , In general, two approaches predominated: that of state property or collectives in countries under socialist regimes, and that of small farmers on private property elsewhere. In Chile, beyond declarations of intentions of Minister Trivelli and President Frei, I interpret the ambiguity about the reform model during the electoral campaign and under his government as a reflection of an ideological division within the DC, particularly regarding the decision of which type of "peasant enterprise" to adopt. This dimension is important, as it was influential in CORA's final strategy with respect to the agrarian reform model, beyond a formal declaration creating the "Asentamiento" as a transitory farm prototype.

2. What were the main foundations that drove an agrarian reform in the 1960s?

Prior to the reform, Public debate during the 1960s, centered on the causes and consequences of low productivity in agriculture. A high dependence on imported food was a key concern. Agrarian reform was a way to increase agricultural production via a productivity boost, thereby reducing imports and dependence on imports. But in the view of various analysts, even today, the deep foundation was broader; the reform sought the ending of the "latifundio" structure. This meant the elimination of a dominant social class, and as Lehman (1971) suggests, a profound change in power relations between social classes. Without detracting from the proposal to carry out an agrarian reform (which I supported), this version of the "latifundio", in my opinion, ignores the fact that the agrarian structure had already undergone significant changes over the previous 3 decades, it was far from a stagnant "latifundio" system.. The concentration of property remained high, but the trend was simple subdivision of farms through inheritance and natural buying and selling – indeed, the "latifundio" (and the hacienda) had practically disappeared. Apart from exceptional anecdotal cases, such as extensive properties in Magallanes, and discounting fields in mountain ranges of low productive and commercial value, most agriculture was done on "commercial" farms, as the farm as a productive, social and cultural structure evolved with a clear tendency towards a commercial enterprise structure during this period. Therefore, the suggestion that agrarian reform was to represent "the deepest transformation of Chilean society" (Colodro, 2017), seems exaggerated. Perhaps this was the case in some rural agricultural areas, but for the majority of the population that already lived in urban areas, their source of work and income did not depend on agriculture.

Still, this argument should not detract from the valid objectives of the agrarian reform beyond the productivity objective. Specific additional motivations included: (a) the elimination of excessive dependence of the salaried worker on the landlord. The landlord-client relationship was long-term, and often hereditary, and included residence on the estate; (b) elimination of political control exerted by landlords over workers via of the public voting system; (c) the development of a means of social redemption for the peasant, in terms of dignity, greater income and social trajectory, and also to help curb potential seeds of revolution; and (d) political objectives. These four socio-political objectives deserve a deep analysis:

- (a) “Inquilino”-landlord dependence: In agriculture, the population was made up of contracted workers - tenants, volunteers, employees, technical staff (including tractor drivers, etc.) - in addition to sharecroppers, and the owners of the farm (employers). Moreover, a high number of independent small family farms operated independently. The Frei land reform focused exclusively on the “inquilinos”, which were permanent farm workers paid partly in monetary wages and partly in benefits that included the house, a garden plot, one fourth of an irrigated hectare for own cultivation, pasture rights, and a food ration (usually lunch and bread for the family). According to a representative survey of farm workers in the Central Valley in 1962, the income from these benefits represented approximately 50% of the total annual income of the worker (Valdés, 1971). In most cases, the tenant lived in a house within the farm and in many cases the school for his children was also on farm land. Poor connectivity due to insufficient public transport, poor roads, and the absence of telephones, isolated workers from the broader labor market. A very underdeveloped schooling system in the area close to its residences, further restricted the opportunities for children and generating excessive employer dependence. There is evidence that the treatment of workers in this system varied widely, from hard, unfair treatment of workers on some farms to expressions of genuine concern for worker well-being on others. In any case, in most of estates it was not feasible for the workers to live outside the farm, considering the lack of infrastructure, roads and transport available between urban and rural areas. From a public policy perspective, the question of why governments did not develop sufficient infrastructure (roads, schools and health centers) in agricultural areas remains open. A government failure?
- (b) Was the farm worker truly free to decide whom to vote for in local and national elections? The 1958 Electoral Law implemented the single voting format “(cedula unica)”, significantly reducing the extent to which a vote could be politically controlled. Indeed, this was reflected in subsequent parliamentary elections by an increase in left-leaning votes, and understandably, a subsequent fall in the price of farm land (Baland and Robinson, 2008).
- (c) Social redemption for the peasant, and a means to prevent revolutionary ideas from taking root. An explicit social objective of Frei’s reform was to promote a “social redemption” of the peasant, a goal that was widely shared by the majority of the population. Still, it is important to note that the agrarian reform focused exclusively on the “inquilinos” (permanent male workers) who represented approximately 25% of the agricultural labor force at the time (CIDA Report). The remaining 75%, including small and medium-plot farmers, part time workers, sharecroppers, foremen and other employees, were excluded from the agrarian reform program and from the preferential attention of the reform. Available statistics show that “inquilinos “ were not the poorest group of workers. Chile was a poor country, and a high proportion of the urban and rural population lived in conditions of poverty. "Extreme" rural poverty reached 27%, as documented by the Poverty Map. It is striking that the main social strategy for the agricultural reform excluded two thirds of the agricultural labor force,

including the segment that concentrated the poorest families. Politically, however, the focus on “inquilinos” which were the key symbol of the "latifundio /hacienda" system, was more understandable. What many agrarian reform analysts do not recognize is that in the mid-1960s the situation of farms and agricultural workers was already evolving, partly thanks to a spontaneous subdivision by inheritance reducing the size of the farms, accompanied by some progress in greater connectivity (especially improved roads and transportation); the hacienda as such was clearly in retreat. The writings at the time seem to reflect the agrarian structure of the 30s or 40s, rather than the existing structure that prevailed during the 1960s.

- (d) Political perspective: the agrarian reform was complemented by a strong promotion of farm workers unionization. It would be naive to ignore the expectation of how policies promoting unionization - which have their own merits - would help to capture the peasant vote, especially in the political context of growing competition between the DC and left-leaning parties. Indeed, it was part of the political background of the reform, though not an explicit theme of public debate at the time. The DC promoted peasant unionization, significantly increasing the number of legal agricultural trade unions. Still, in subsequent elections a high proportion of the peasant vote aligned politically with the left, rather than the DC, as reflected in parliamentary elections.

3. Scale and evolution of expropriations, the fiscal cost and the transfer of assets associated with the reform

Between 1965 and 1973, approximately 5,500 farms were expropriated (see Table 1). The principle grounds for expropriation was excessive size (over 80 hectares of basic irrigated hectares¹, BIH), although Table 2 shows that inefficient management was also a significant reason given for expropriation.

The high number of farms preemptively offered to CORA by the owner, is notable but understandable in the face of the inevitable expectation of expropriation. Land owners who voluntarily subjected farms to CORA reforms could often keep a small unit (called the “Reserva”) and received economic compensation.

¹ A Basic Irrigated Hectare (BIH) is an abstract land unit that standardized farms' quality originally intended to for land tax purposes and used by CORA to determine the susceptibility to expropriation based on the productive capacity of the farm and not on its sheer size.

Table 1: Evolution of expropriations 1962 - 1973

Item	1962-1964	1964-1967	1967-1970	1970-1973
Expropriated agricultural units	17	495	797	4.207
Physical hectares expropriated	154.853	1.136.025	2.909.050	5.477.514
% of total expropriated physical hectares	1,56%	11,47%	29,37%	55,31%

Source: Acemoglu, Gallego y Robinson (2009), using CORA data..

Table 2: Legal justifications for expropriations 1964 - 1973

Legal Justification	1964-1967	1967-1970	1970-1973
Extensive units	2	306	1.917
Inefficient management	1	11	918
Offered by owner before involuntary expropriation	7	354	930

Source: Acemoglu, Gallego y Robinson (2009) using CORA data. .

How can we evaluate the cost of land reform and who assumed most of this cost? I distinguish three components of the cost of the reform: (a) the patrimonial loss of the expropriated owners, (b) the fiscal cost (expropriation and operating costs of CORA), and (c) the net social cost in terms of production and productivity in the short and long term. And who were the main reform beneficiaries?

Under the land expropriation process during the Frei presidency, CORA paid the expropriated owners an initial amount between 1 and 10% of the value of the land, assessed on the tax assessment (less than its commercial value). The rest of the compensation was paid in 5 to 30 year government bonds with a nominal value, with an interest rate of 3%, which, guaranteed a negative real rate accounting for inflation. Additional compensation included livestock, machinery and equipment, all assessed by CORA. Expropriated owners clearly "paid" for a high proportion of the agrarian reform. Using the commercial value of the expropriated land and based on the present value of the compensation received by the expropriated owners, the detailed study of R. Yrarrázaval (1979) concludes that the agrarian reform implied a owner net wealth loss of approximately USD800 million (1979 dollars). In other words, expropriated farmers "financed" a considerable proportion of the reform process.

The main beneficiaries of the reform (beneficiaries of distributed land) were permanent farm workers in the "Asentamientos". Until the mid-1970's CORA did not distribute land in individual plots, instead expropriated farms were kept as a cooperative farm ("Asentamiento"), under collective management. The land was owned by CORA. The subdivision and of land into small individual farms and private ownership began in 1974

during the period called the “Counter Reform”, under the military government. The transfer of land ownership generated an enormous transfer of wealth to the beneficiaries, the “Asentados” (former permanent farm workers). In the aggregate, the net wealth transfer to reform beneficiaries was estimated at approximately USD500 million in (1979 dollars) worth of CORA plots.

The fiscal cost of the reform was also considerable. Specifically, CORA’s operating budget and investment in “Asentamientos” was significant. Fiscal cost per beneficiary family was approximately USD10,000-13,000 at the time (Echenique, 1970, cited in Lehman), excluding the value of land. CORA expenses increased around 40-50% annually during the Frei government and by 60% during the Allende government (Cortázar and Downey, 1977). Still, any precise estimation of fiscal costs is complicated significantly by the different net repayment flows of the subsidized credit programs of the Banco del Estado (the State Bank) and other government agencies to the reformed sector. Including CORA expenditures, estimated at approximately USD380 million (1970 dollars), the transfer efficiency of an additional dollar of wealth to the beneficiaries of the agrarian reform demanded government expenditures of 46-75 cents per dollar of transfer, excluding the value of land, which represented a net wealth loss for owners but not a fiscal cost (Yrarrázaval, 1979).

Assessing the social costs and benefits of the agrarian reform goes beyond the scope of this study. The evolution of agricultural production between 1947 and 2010, however, is presented in Figure 1 which show agricultural value added in real terms. Coeymans and Mundlak (1993) conclude that although the reform had a slight positive productive impact during 1965-68, its net impact was negative during the 1969-73 periods.

4. Promote greater productive growth

Since the 1930s, Chilean agriculture experienced slow growth. Table 3 presents the average annual growth rate of agriculture (value added) per presidential period. As expected there are large fluctuations in the annual GDP rate of the sector between 1957 and 1964, prior to the reform. The growth rate is very low during the González Videla administration, and is negative during the Alessandri presidency, in part explained by the devastating earthquake in 1960 with major damages in infrastructure (roads, warehouses irrigation canals). Interestingly, growth was quite high during the Ibáñez years, with an annual rate of 4.1%. The reform period (1965-73) began under Frei and showed an initially a positive response in farm output, coming primarily from the not-yet-expropriated farmers who responded with an intensification of production (hoping to avoid expropriation by showing increased productivity (Ringlien 1971)). Agricultural growth reached an average of 3.8% under Frei, which is lower than the Ibáñez period, but high compared to the poor performance of Alessandri and González Videla. During the presidency of Salvador Allende the drop in production was resounding, reflected in an average annual decrease of -6.5%, under a virtual paralysis of investment in the not-yet-expropriated sector and production drop in the reformed sector.

When did the sector achieve a dynamic and sustained productive expansion? Figure 1 shows the evolution of long-term production, between 1947 and 2010, in constant-value pesos. The results are clear - the dynamic expansion of agriculture began at the end of the

1970s and became more pronounced in the early 1980s, long after the agrarian reform period (1965-73). In general, the 1980s were a period of high growth due to modernized and expansion of agro-exports. During the agrarian reform years, the expected productive expansion was not achieved. The statement by CORA's General Director General under Frei that "today's modern agriculture would not have been possible without Frei's agrarian reform, since a land market had been created" (Moreno, 2013), seems a bold assertion. Average productivity growth was low during Frei, and negative during Allende. Furthermore, the agrarian reform did not create a land market - the land was not distributed as private property and thus there were no transactions beyond the expropriation of farms. Under the regime of "Asentamientos" (Frei) and Agrarian Reform Centers (CERA, under Allende), farm land was owned by CORA, and during the Frei administration "Asentamientos" did not change farm size, but rather maintained the existing boundaries of the expropriated farm.

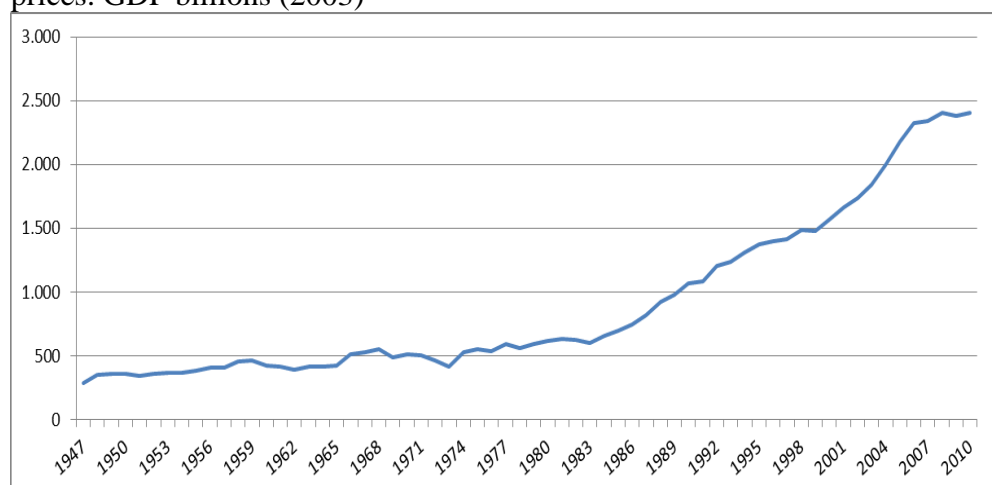
The great productivity take-off starts at the beginning of the 1980s. I highlight three principal determinants of this dramatic improvement in productivity: the restoration of the property rights of farmland in the mid-1970s, the process of subdivision and parceling of settlements into private property that began around 1975 (50,000 plots were distributed), and the implementation of the economic reforms of the late 1970s. Professor L. Jarvis suggests a line of reasoning that is more convincing than the Moreno hypothesis: ex post, the productive take off resulted from a virtuous synergy between the opening of the land market by agrarian reform and the economic reforms of the late 1970s and early 1980s.

Table 3: Evolution of aggregate agricultural production (Agr. GDP at constant prices)

President	Period	Average annual growth rates
González Videla	1947-1952	0,6%
Ibáñez	1953-1958	4,1%
Alessandri	1959-1964	-1,3%
Frei Montalva	1965-1970	3,8%
Allende	1971-1973	-6,5%
Pinochet	1974-1980	6,2%
Pinochet	1981-1985	2,7%
Pinochet	1986-1989	8,6%
Aylwin	1990-1994	6,1%
Frei Ruiz-Tagle	1995-2000	3,1%
Lagos	2001-2006	6,8%
Bachelet 1°	2007-2010	0,9%

Source: prepared by the author based on time series from the EH Clio Lab, Economía Universidad Católica.

Figure 1: Evolution of agricultural GDP in MM \$ of 2003, 1947-2010 at constant prices. GDP billions (2003)



Source: prepared by the author based on time series from the EH Clio Lab, Economía, Universidad Católica.

If we accept the Jarvis hypothesis, the productive expansion of the 1980s cannot be attributed to the design of the agrarian reform. The parceling during the Counter Reform under the military government and the economic reforms starting at the end of the 1970s could not be anticipated in the 1960s, and during the presidencies of Frei and Allende no land was subdivided or assigned in private ownership, except for a few settlements. By the end of the Frei administration, of 862 settlements (Asentamientos), 254 had completed their transition period (as stated by CORA), but only 77 had been divided (Valdés and Foster, 2015, p.25). It is reasonable to speculate that this limited subdivision process was due to ideological pressure within the Christian Democratic Party (DC). A significant segment of the party opposed the establishment of a structure of *Kulaks* of small capitalist farmers, and were clearly against the opinion of the majority of the members of the “Asentamientos”, who had already expressed their preference for individual plots.

Beginning in 1971, the Allende government accelerated the expropriation process. Without being able to modify the Agrarian Reform Law due to the lack of a majority in Congress, CORA modified the organizational form of the collective properties or settlements. Contiguous farms were expropriated, the legal reserve was reduced from 80 to 40 hectares, and CERA and Production Centers (CEPRO) were created, grouping settlements and expanding the membership beyond the tenants, and incorporating farm workers who had been excluded from settlement under CORA until 1971, as documented by the then Minister of Agriculture (J. Chonchol).

Prior to the 1960s land reform there was an active market for farm land, including purchases, sales and land rentals. Still, transaction activity was far slower, in terms of the share of land that changed hands, than property exchange that took place after economic reforms.

The re-establishment of secure property rights for farm land and fixed assets in the mid-1970s was a sine qua non condition for productive growth after 1973. Without clear

rules and judicial procedures it, the significant increase in private investment in fixed assets to the land would have been unthinkable. These investments include planting fruit trees, minor irrigation and drainage work, sheds and investment in dairy operation, and all require at least 4 years to mature (as investments). Still, it is relevant to stress the complementarity between the security of land ownership and broader economic reforms. Indeed, profit expectations in agriculture benefitted from the elimination of price controls, reduction and elimination of the exchange rate misalignment, profound trade policy reform and trade liberalization, commercial opening, access to inputs and machinery at international prices, freedom to export without controls beyond compliance with sanitary and phytosanitary norms, the reduction of inflation and a credible exchange rate policy. These factors undoubtedly contributed to competitiveness improvements in a highly internationally "tradable" sector, and Chilean agriculture proved to be a vital export in subsequent decades.

5. Two important weaknesses in the preparation, design and initial diagnosis of land reform

Two factors stand out as weaknesses in the ex-ante diagnosis of the agrarian reform during the 1960s. One is the assumption of the inherent inefficiency of agriculture caused by the land tenure structure, a view influenced by the so-called "structuralist school" developed by the UN –Economic Commission for Latin America (ECLAC) led by Raúl Prebisch during the 1950s and 1960s. The second is the choice of the "Asentamiento" settlement type as the reform farm model.

The "structuralist school" adopted by the Frei administration suggested that agriculture was inherently inefficient, not only in Chile, but throughout Latin America, as a consequence of the land tenure structure in which large commercial farms controlled a high proportion of the farm land. But the issue was not the (lack of) land distribution per se, but rather that large farms owned by wealthy farmers were practically unresponsive to economic incentives (according to the Prebisch school of thought). Large farm supply response was thought to be inherently "inelastic", or unresponsive to incentives. It is worth noting that this condition applied to farming but curiously not did not extend to other economic sectors, according to Prebisch. It was a rushed conclusion to a complicated problem - the slow agricultural growth rate observed at the time. A more thorough (and modern) analysis, such as Nerlove's distributed lags approach to describing trends in US agriculture, might have pointed to different bottlenecks, although Nerlove's approach did not incorporate relative incentives, that is agriculture relative to prices in manufacturing and home goods sectors .

The Frei government's agricultural team failed to note the fact that since the 1930s, several countries Latin American countries, including Chile, showed a profound shift in economy-wide policies. These policies likely had a major adverse impact on incentives for investment in agriculture. After decades of open economy policies, (the absence of price control on food and quantitative restrictions on agricultural trade, after the Depression of the 1930s and reinforced by economic restrictions during WWII), Chile shifted towards an inward oriented strategy by promoting import substitution through high border protection

for tradable goods, foreign exchange controls and official food prices. This policy was accompanied by an expansion of fiscal spending which contributed to inflationary pressures. The net effect of the applied policies generated incentives that significantly reduced farmer income.

This is not a simple hypothesis. As co-author of a World Bank team (Schiff and Valdes) led by Anne Krueger, we estimated incentives in agriculture measured by the sum of "direct and indirect" nominal rates of protection (NRP), calculated by direct price comparison between farm gate and border (adjusting for quality differences and marketing margins) for the period 1960-1985 for 19 developing countries worldwide, including eight in Latin America (Schiff and Valdés, 1992). Direct NRP captures sector-specific policy interventions, while indirect NRPs capture the effect of exchange rate misalignment and industrial protection. The empirical analysis concludes that for Chile, the combined effect of industrial protection, the management of the exchange rate, and the controls of food prices and tariffs on agricultural trade, resulted in an "implicit" (and unintended) tax equivalent to approximately 30% of agricultural GDP at the time (versus parallel situation with under the existing open economy incentive structure). It is hard to believe that a cumulative effect extracting about 30% of the net potential agricultural income (at world prices) across thirty to forty years agriculture would not have significantly slowed down agricultural growth, relative to its potential, by inhibiting private investment, and reducing natural business turnover in farm and agribusiness activities postponed by expectations of low profitability.

The outstanding Coeymans and Mundlak (1993) study for IFPRI shows results consistent with the above vis-à-vis the impact of economic policies on agricultural production in Chile. Using a general equilibrium framework with four sectors (agriculture, mining, industry and services), the authors apply dynamic simulations to an econometric model covering 1960-1983. The study estimates the response of agricultural aggregate supply to changes in prices, real exchange rate, external shocks (terms of trade and exogenous movements of capital) and agrarian reform. It remains the most solid empirical analysis of the factors that influence agricultural production in Chile to date. According to the model, the response of agriculture is explained by the endogenous response of inter-sectoral migration (which responds to inter-sectoral differences in the expected average income and average salaries), the reallocation of investment (which responds to profitability differentials between sectors) and by the evolution and endogeneity of total productivity of the agricultural sector. Among the results, the response of aggregate agricultural supply in Chile stands out. Contrary to Prebisch's thesis, they conclude that the "elasticity of aggregate agricultural supply", given changes in incentives, was clearly positive (if slow) during the first three to five years (0.58) after the policy change –and the elasticity increased to a value of 1.0 within a decade. The key lesson from this study is that expectations, especially expectations for sustainable, credible and persistent economic policies can have lasting positive consequences.

With respect to the impact of the agrarian reform, the analysis by Coeymans and Mundlak (1993) concludes that in its beginning, under Frei (1965-68) the agrarian reform had a slight positive impact on aggregate production. This is consistent with the results of Ringlien (1971). Coeymans and Mundlak also find a negative net effect from 1969 until the

end of the land reform in 1973. The results regarding the impact of economic policies on incentives to agriculture are consistent with what is seen in Figure 1, which shows a strong and solid acceleration of production from about 1984 onwards. It is also consistent with the results from Schiff and Valdés (1992) for the period 1960-1984, who study the levels of "protection" to agriculture and its effects, adjusting, through the indirect effect of variations in the real exchange rate, agricultural price policies and levels of industrial protection.

In my opinion, the second condition that stands out in the diagnosis was the election of the collective settlement (Asentamiento) as a productive unit. This decision was implemented by the CORA during the presidency of Frei, and also applies to CERA during Allende's term. The settlement was very similar to the Soviet model of *kolkhozes* that existed in the former Soviet Union. At the end of the '50s, several specialists from the United States and Europe already raised the alert about the *kolkhozes*. There was an inherent problem of inefficiency due to cross-incentives to work their small plot versus the collective, and a lack of clear direction in the commercial and technical management of the collective. Concerns about the possible inefficiency of the "Asentamiento" systems in Chile began to emerge shortly. Indeed, such criticism appears in several preliminary reports in 1973 and ICIRA, FAO and UNDP reports in 1972. Globally, implementing collective or associative forms in agricultural production has not been a success story; however, there are successful experiences of cooperative systems oriented to marketing of inputs and products, access to credit and extension, under an individual production model, as in the case of *Moshav Ovdim* in Israel. The dream of a communitarian model proposed by the Christian Democratic Party (DC) run CORA during the 1960s was attractive, and could have been functional during a short transition, from two to three years. Although at the beginning of the agrarian reform it was formally presented as a transitory model, by the end of the Frei government in 1970, 254 settlements had completed the pre-announced transition stage, but only 77 were distributed (Valdés and Foster, 2015). Indirect evidence indicates that the DC was engaged in a deep internal debate about the choice of the permanent production model, between individual private properties or an associative unit of production, where the motto of "a non-capitalist path to development" was influential.

During the presidency of Salvador Allende, the choice was simpler. On the one hand, the magnitude and speed of the process of expropriation, consistent with what J. Chonchol had stated years before in that "the Agrarian Reform must be massive, rapid and drastic." And consistent with Marxist ideology, the Allende government did not intend to establish private property. The administration was critical of the Asentamiento model, and developed CERA and CEPRO in order to group the Asentamientos, but ultimately maintained the internal operation as it worked under Frei. But unlike the Frei government, whereby only "inquilinos", (the permanent (male and married) workers) were incorporated as partners, during the Allende administration CORA experimented with the incorporation of "non-inquilinos" (permanent) farm as members of the collective farm unit. To its merit, the administration also began an effort to respond to the demands for land restitution by local indigenous Mapuche communities in the Araucanía region in the south of the country as a component of the agrarian reform program.

It is pertinent to highlight the evaluation of a sharp foreign observer, Lovenson (1976), who concludes that like the Christian Democrats, the Allende government came to power with the commitment to eliminate the hacienda system, but without a specific program that offered an alternative system of land tenure. While in agreement regarding criticism of the settlement system, and the resulting agrarian reform cooperatives, the intellectuals and leaders of Allende's ruling coalition could not agree on the structural foundation of a "socialist" agriculture for Chile.

6. Alternatively, what could have been done differently?

Perhaps the main ex post regret about the reform process in my mind is the development of the "Asentamiento" farm model. Even before it was implemented, this model was already recognized as not being an efficient model of production, given the experience of the Soviet *Koljhoz* applied in Russia, Ukraine, Romania and other countries of Eastern Europe. The executives of the reform in Chile were either uninformed or unaware of that experience. A synthesis of modern literature advocates an alternative system, based on individual management of the farm under a local cooperative scheme for marketing, credit and technical assistance. Such a model was in line with what the Catholic Church applied on a small scale in the early 1960s and similar to the *Moshav Ovdim* model in Israel. From what I observed at the time and in later writings, this type of unit of production option should have been considered, but was not.

A great political dilemma was the rapidity and scale of reform implementation. I believe that during the 1960s the Frei government had a sufficiently strong degree of political support to adopt a more gradual implementation process. Even as political pressure for a massive and rapid process of expropriations of private farms mounted, a more cautious approach might have proved beneficial.

Another fundamental question was whether to expropriate farms by compensating the owner for the commercial value of the property. This was an established model, per the Chilean Constitution before the agrarian reform, and such policy was implemented, for example, in South Africa after *apartheid* in northern Brazil (the so-called *Market Based Land Reform*), Deininger 2001. The financing of the market-based land reform approach would have been a major limiting factor for the government. Fiscally, this is quite an expensive approach. As Jacques Chonchol put it in the 1960s, the payment of commercial value implied a process of expropriation on a smaller and slower scale.

Looking to the future, what are the major trends in agrarian structure? As it is historically documented, with respect to the evolution of the distribution of farms by scale of operation a systematic distinction emerges between poor countries on the one hand and middle and high income countries on the other. In poor countries (in Asia and Africa) where very small-scale units now predominate, the trend is towards a growing subdivision (by inheritance), which worries some analysts. It is not a question of inefficiency, considering that given their access to assets resources they can be small and efficient – the "poor but efficient" dictum by TW Schultz –, but the main constraint is their lack of land, human and physical capital, and flawed infrastructure This mix condemns farmers to low

incomes, unless they have access to rural non-farm employment to supplement family income.

On the contrary, in middle and high-income countries, the trend toward farm enlargement is strong. As per capita income rises, the average size and per farm level of assets also increases, accompanied by greater flexibility to adjust the scale of operation with respect to various business organization models, including rentals and leasing. In Chile, this tendency towards farm consolidation is observed since the so-called Counter Reform after 1973, which distributed the “Asentamientos” in small privately owned parcels to its members. There are various reasons that explain why many beneficiaries started selling their plots of land during the late 1970s and early 1980s, but it is paradoxical that after a massive land reform process the current agrarian structure is not very distant from what was before the agrarian reform (Valdés and Foster, 2015).

The history of the Chilean agrarian reform process provides relevant lessons for the analysis of present public policy debates. From a socio-political perspective, I share the decision under the Frei government to initiate a reform, despite not sharing its diagnosis about the causes of the slow previous agricultural growth. Agricultural productivity per se may have not have been the central objective of Frei's reform, and clearly it was not during the Allende government. Given the decision to implement it, the diagnosis that motivated the type and scale in the 1960s and the tenure design under the reform was dominated by sociopolitical and ideological objectives, understandable and valid given the circumstances of the time, but at the expense of a deep technical diagnosis.

This text contributes to the vast literature on the objectives and outcomes of agricultural reform in Chile by raising arguments and evidence regarding various components of the process. Rigorous empirical evaluation is obviously one route for further analysis, but conclusive evidence on such a broad set of goals, objectives and policy changes is difficult if not impossible. Here, I use narrative to argue that the agrarian reform certainly did not have a positive productive impact during 1965 and 1973, and in fact it was clearly negative during 1970-73. I cannot provide solid evidence to conclude that it had a productive impact after 1973 on the development of the sector. The design and implementation of land reform responded to other objectives, not just productive ones. Their goals were so broad, and so diverse, within the governments of Frei and Allende, that I do not perceive a conceptual and empirically rigorous criterion to offer a convincing evaluation on its global impact; rather, the text is a contribution in raising arguments and evidence regarding various components of the process.

References

- Acemoglu, D., F. Gallego, y J. Robinson**, 2009. “Agrarian Reform in Chile”. Documento Trabajo. Santiago, Chile, Instituto de Economía, Universidad Católica de Chile.
- Anderson, K. y A. Valdés**, eds. 2008, *Distortions to Agricultural Incentive in Latin America*. The World Bank, Washington, D. C.
- Baland, J. M. y J. A. Robinson**, 2008. “Land and Power: Theory and Evidence from Chile”. *American Economic Review* 98 (5): 1737-1765.
- Barraclough, S.** 1972. “Agrarian Reform and Structural Change in Latin America: The Chilean Case”. *Journal of Development Studies* 8 (2): 163-181.
- . 1999. “Land Reform in Developing Countries: The Role of the State and Other Actors”. *UNRISD Discussion Paper 101*. Ginebra, UN Research Institute for Social Development.
- Barraclough, S y X. Fernández**, 1974. “*Diagnóstico de la Reforma Agraria Chilena*”. Siglo XXI Editores, México.
- Bellisario, A.** 2006. “The Chilean Agrarian Transformation: The Pre-Agrarian Reform Period (1955-1965)”. *Journal of Agrarian Change* 6: 167-204.
- CEPAL** (Comisión Económica para Latinoamérica y el Caribe), 2012. *Statistical Yearbook for Latin America and the Caribbean 2012*. Santiago, Chile.
- Chonchol, J.** 1972. “La Reforma Agraria en Chile 1964-1973”. *El Trimestre Económico* 3 (171): 599-623.
- Coeymans, J. E. y Y. Mundlak**, 1993,. “Sectorial Growth in Chile: 1962-1982”. *Research Report N° 95*. International Food Policy Research Institute (IFPRI), Washington D. C. Síntesis en capítulo 9 “Chilean Agriculture in a Changing Economic Environment”, Bautista, R. y Valdés, A., eds. 1993. “*The Bias Against Agriculture*”, International Center for Economic Growth, en colaboración con IFPRI, San Francisco.
- Colodro, M.** 2017. “Que significa Reforma Agraria para Chile”, *El Libero*, 14/07/2017.
- Cortázar, R. y Downey, R.** “Efectos distributivos de la Reforma Agraria”. *El Trimestre Económico* (México) XLIV (3).1977.
- Cousiño Vicuña, A. y Ovalle Gana, M. A.** 2013. *Reforma Agraria Chilena: Testimonios de sus protagonistas*. Editorial Memoriter, Santiago.
- Deininger, K.** 2001. “Negotiating Land Reform as One Way of Land Access: Experience from Colombia, Brazil, and South Africa”, en *Access to Land, Rural Poverty and Public Action*, editado por De Janvry, A., G. Gordillo, G., J.P.Platteau, y E. Sadoulet E. Oxford University Press, United Nations University, World Institute for Development Economics Research (UNU/WIDER), Cambridge.
- De Janvry, A.** 1981. *The Agrarian Question and Reformism in Latin America*. Johns Hopkins University Press, Baltimore, MD.

De Janvry, A. y L. Ground, 1978. "Types and Consequences of Land Reform in Latin America". *Latin American Perspectives* 5 (4): 90-112.

Echenique, J. 2011. "Dinámicas en el mercado de tierras de América Latina: El caso de Chile", en Soto Baquero y Gómez, eds., *Dinámicas del mercado de tierra: Concentración y extranjerización*. FAO Oficina Regional América Latina, Santiago.

FAO-ICIRA, Food and Agriculture Organization of the United Nations e Instituto de Capacitación e Investigación en Reforma Agraria 1967. "Evaluación preliminar de los Asentamientos de la Reforma Agraria de Chile", Informe Ediciones ICIRA, Santiago.

Fontaine, A. 2001. *La tierra y el poder: Reforma Agraria en Chile (1964-1973)*. Zig-Zag, Maval, Santiago.

Jameson, K. P. 1985. "Latin American Structuralism: A Methodological Perspective". . *Working Paper N.º 43*, The Helen Kellogg Institute for International Studies, Notre Dame.

Jarvis, L., J. Cancino, y E. Vera-Toscano, 2004. "*The Agricultural Effects of Land and Economic Reforms in Chile, 1965-2000*". Department of Agricultural Economics, University of California, Davis.

Gomez, S. y Echenique, J. 1988. *La agricultura chilena: Las dos caras de la modernización*. Facultad Latinoamericana de Ciencias Sociales (FLACSO) y Agraria, Santiago.

Hurtado, H., J.M. Bustos, y A. Gálmez, 1979. "Precio de la tierra en Chile durante el período 1917-1978". *Ciencias e Investigación Agraria*, 6(2): 285-94.

ICIRA, UNDP y FAO, 1972. "Diagnóstico de la Reforma Agraria Chilena". Coordinado y editado por S. Barraclough. Informe al Ministerio de Agricultura, Santiago, Chile.

———. 1979. "Análisis de la situación de los asignatarios de la tierra, tercer diagnóstico". ICIRA-FAO, Santiago, Chile.

Krueger, A., M. Schiff. y A. Valdés. 1991. "The Political Economy of Agricultural Pricing Policy", en *Latin America*, vol. 1, editado por A. Valdés, H. Hurtado y E. Muchnik. John Hopkins University Press, Baltimore, MD.

Lehman, D. 1971. "Political Incorporation versus Political Stability: The Case of the Chilean Agrarian Reform, 1965-1970", *Journal of Development Studies* 7 (4): 365-395.

Loveman, B. 1976. *Struggle in the Countryside: Politics and Rural Labor in Chile 1919-1973*. Indiana University Press, Bloomington, Indiana.

Moreno, R., 2013. Sin Reforma Agraria no habría sido posible: memorias de la Reforma Agraria Chilena 1958-1970. Ediciones Monograph, Santiago, Chile..

Panorama Económico de la Agricultura. 1978. "¿Cómo están los asignatarios de tierra?", N.º 7, noviembre. Departamento de Economía Agraria, Universidad Católica de Chile.

———. 1979. "15 años de Reforma Agraria en Chile", N.º 2, enero. Departamento de Economía Agraria, Universidad Católica de Chile.

- Prebisch, R.** 1950. *El desarrollo de América Latina y sus problemas principales*. United Nations, Nueva York.
- Prebisch, R.** 1959. "Commercial Policy in the Underdeveloped Countries. *American Economic Review* 49 (sup): 251-273.
- Quiroz, J., P. Barahona, y A. Valdés,** 1988. "Reformas económicas en la agricultura y respuesta de la producción agregada: Chile 1960-1987", *Cuadernos de Economía*, Instituto de Economía, Pontificia Universidad Católica de Chile, diciembre 1988, N° 76.
- Ricker, C.,** 1976. "Las modificaciones de la tenencia de la tierra realizadas por el régimen militar chileno, 1973-1976". Mimeo FAO, Santiago, Chile.
- Ringlien, W.** 1971. "Economic Effects of Chilean National Expropriation Policy on the Private Commercial Farm Sector, 1964-1969". PhD Thesis, University of Maryland, College Park, Maryland,.
- Schiff, M. y A. Valdés,** 1992. *The Political Economy of Agricultural Pricing Policies*, vol. 4. Johns Hopkins University Press, Baltimore, MD.
- Thiesenhusen, W.** 1966. "Cooperative Farming Project in Chile: A Case Study". *Journal of Farm Economics* 48 (2): 295-308.
- . 1974. "Chile's Experiment in Agrarian Reform". *American Journal of Agricultural Economics* 56 (2): 323-30.
- Valdés, A. y W. Foster,** 2015. "La Reforma Agraria en Chile, historia, efectos y lecciones", Ediciones Universidad Católica y IFPRI, Santiago.
- Valdés, A.** 1971. "Wages and Schooling of Agricultural Workers in Chile". *Economic Development and Cultural Change* 19 (2): 313-329.
- . 1973. "Trade and Exchange Rate Policy and Its Effect on External Agricultural Trade of Chile: 1945-1965". *American Journal of Agricultural Economics* 55 (1): 154-163.
- . 1974. "The Transition to Socialism, Observations on the Chilean Agrarian Reform". *Employment in Developing Nations*, editado por E. O. Edwards. Nueva York: Columbia University Press. (Versión en español: Valdés, A. 1973. "La transición al socialismo: Observaciones sobre la agricultura chilena". *Latin American Journal of Economics* 10 (29): 31-50)..
- Villela, H.,** 1979. "Autoritarismo y tenencia de la tierra: Chile 1973-1976". *Revista Mexicana de Sociología* 41 (1): 205-241.
- World Bank.** 2007. *World Development Report 2008: Agriculture for Development*. Washington, D. C.
- Yrarrazaval, R.** 1979. "Reforma Agraria en Chile". *Ciencia e Investigación Agraria* 6(1): 3-13., Universidad Católica, Santiago.