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Chile's Agriculture: The Food Supply (No.2)

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Dear Mr. Nolte:

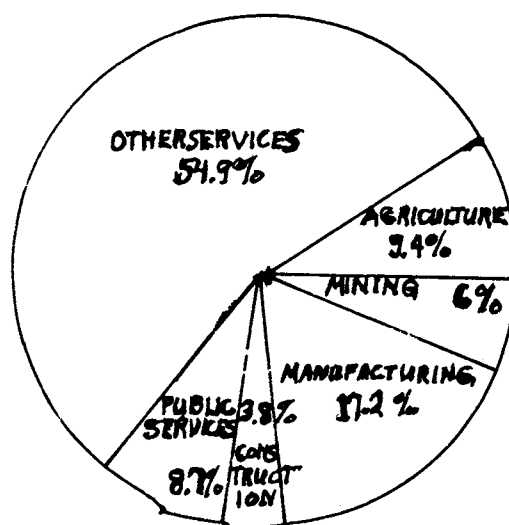
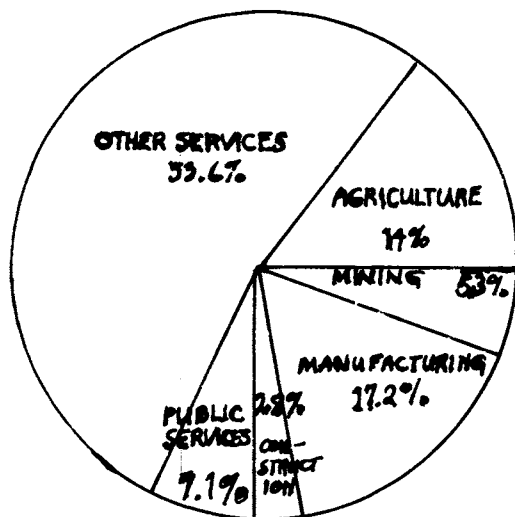
In President Frei's 1965 State of the Nation message, the section dealing with the agricultural situation opens with this sentence:

"It is an undebatable fact that the most critical issue in our economic development resides fundamentally in the backwardness of our agrarian sector."

The ills of the problem are not confined to the inconveniences of the market stall. They compose a complex syndrome, debilitating to the general economy of the country and fomenting the threat of social and political conflict. By not doing its share, agriculture is siphoning off resources from other sectors and imposing additional burdens on its urban counterpart.

Chile is a poor country, largely dependent upon one product, copper, to pay its debts. Thanks to recent high quotations for that mineral, a favorable balance has been maintained between international receipts and payments. However, the copper market is volatile, recently depressed by the Viet Nam peace feelers, and on the other side of the ledger is the big drain: agricultural imports with costs equivalent to 25% of all export earnings.

CHILE: Relative Contribution of the Sectors of the Economy to the GNP
1950 1963



Until the early 1940's, Chile was a net exporter of foodstuffs. In fact, the country's first fame in colonial times was gained as purveyor to the viceroyalty in Peru. Later, the produce of Chile's soils filled the holds of sailing ships to feed the glut of California '49ers. By contrast, in 1967 Chile exported less than \$34 million of agricultural products while importing \$159 million---resulting in a negative sectorial balance of over \$120 million. A projection of agricultural imports for 1970, assuming current trends, foreshadows an expenditure of over \$250 million. Two-thirds of these imports could be produced domestically; only a few items such as cotton, tropical fruits, tea, coffee and rubber are truly exotic to Chilean soil and climate.

The cost of the catastrophic earthquake suffered by Chile in 1960 is equaled every three years by the financial drain caused by food imports. The amount of support given Germany by the Marshall Plan, resulting in that nation's spectacular recovery, is comparable to that spent abroad to feed Chileans in the past 15 years.

These imports do not contribute to the real growth of the country and also deny the acquisition of capital goods which would foster economic development. At the best, agriculture's failure strains the country to stay even with population growth and demands; in fact, it surely occasions a chronic recession.

The rural sector becomes the poor relative which drains the city's pockets. Until 1965, city dwellers paid a disproportionate amount of taxes. Municipal facilities falter before the influx of peasants who are denied a living by antiquated farms. And the urban populace must suffer high food prices because of agriculture's inefficiencies.

Another parameter of agriculture's drag upon the economy is its effect on the internal market as a whole. No industry, commerce or national economy can long afford to operate at 50% of capacity---particularly in a country whose population is no larger than that of New York City. But such is the case of Chile. A fourth of the country's population are peasants, practically outside the economy due to low wages and payment in kind. Chile ranks third among Latin American nations in its rate of migration into the cities; rather than "urbanization", this phenomenon should more accurately be called "ruralization of the cities" in that the mores, poverty and primitive living habits of the countryside are merely transferred into the slums. About a fourth of the migrants are unemployed and another fourth earn less than \$120 per year.

Therefore, about half of Chile's population is marginal, be they urban or rural residents, hardly partaking of the nation's production and wealth. After spending 70-80% of their earnings on food and most of the rest on rent and transportation, very little is left to buy the goods manufactured by Chilean industry. The government's planning agency (CORFO) and the manufacturers' association (Sociedad de Fomento Fabril) have both determined, in separate studies, that Chilean industry

has been operating at 50% capacity recently. The inevitable result: rising unit costs, inferior quality, low profits.

Expansion of the industrial sector is, therefore, stymied. Employment opportunities lag as the labor market swells. Since the primary sector fails to support its own—sloughing them off on the city—and the secondary sector is stagnant, the burgeoning excess distends the services-trades sector. Almost half of Chile's active population is employed in commerce, transport, communications and services. An affluent society can adequately support such activity, but in a poor and developing economy, it means merely spreading the small wealth thinner, to the point of penury. Furthermore, it represents a disproportionate bulk of the active population which is not contributing directly to production. Yet their demands upon the country's resources are considerable. The two factors combined—low production and excessive demands—aggravate the inflationary pressures.

Because private enterprise is not capable of meeting the society's needs of employment and security, the national government is continuously pressed to expand its ranks of public servants and enlarge its budget to finance comprehensive social services. The Frei administration has increased public expenditures over 13% annually, not purely for traditional social services, but for expansions in education, housing and agrarian reform.

About a fourth of the national budget is dedicated to health and social services, Chile second only to Uruguay in all Latin America in regard to the scope of its welfare system. In what is sometimes called a "sick welfare state", 80% of the labor force enjoys extensive coverage; and permissiveness in regard to pensions results in one retired employee for every two active public servants. Regardless of eligibility, many of those paid to be idle have been released from civil service jobs with generous retirements because a new government replaced personnel in order to reorient an agency.

The relationship of sectors within an economy is circular, and Chile's is vicious. According to a government publication, "our country is dying of asphyxia...there are immense human zones which are totally passive in regard to their economic capacity...enterprise, industry and commerce are capable of expanding and attending a greater market demand, but the problem is that this demand does not exist because there is no expansion in the consumer purchases."

The stagnation of industry and commerce in turn affects the agricultural sector. According to Peter Dorner ("Open Letter to Chilean Landowners", 1964):

"If the Chilean economy were growing rapidly and industrial employers were searching for laborers, the economic state and condition of the agricultural labor force would be altogether different—workers would have more alternatives, they would have greater opportunity for

education and development of skills, they would have more bargaining power. You, as employers, would have to respond to them quite differently. As a consequence, the nature of the agrarian problem would be changed. Unfortunately, an active labor market and a rapid growing economy does not now exist, and has not been characteristic of Chile for some years."

Growth of the urban population challenges agriculture to supply a market expanding at twice the rate of demographic growth. City-dwellers are totally dependent upon others to grow their foods and, in addition, the logistics of field to urban market multiply the intermediary costs, result in inevitable physical losses and necessitate an ample infrastructure for transport, storage and processing.

The Frei administration has opted to play an active role in trying to redirect the downward trend of the national economy and has chosen to combat agriculture's ills with a multifaceted program of stimuli, controls and structural reforms. The aims often conflict in the simultaneous attempts to slow the inflationary process, accelerate the growth rate, redistribute the wealth to benefit the lower strata, increase agricultural prices to foster production, and expropriate land to multiply the number of farmers.

Agricultural production and inflation control represent two major economic concerns of the Government. To cope with both, a modest but real increase in prices to the producer has been the goal: 2% per year during the presidential term ending 1970. Though such has been the intention, prices have tended to fall behind the unanticipated inflationary rate. To compensate, this April the Government announced a 1968 goal of 17% increase in the real value of many agricultural products, observing that "when this government assumed power (1964), agricultural prices were at the lowest level ever recorded". In conceding this advance, "The Government is obliged to emphasize once more the sacrifice which this decision entails at a time when the country is exerting all its forces to detain the rhythm of the inflation."

With an eye toward import substitution, three products receive special attention: wheat, sugar beets and meat. In the April announcement only one crop received individual mention: "...wheat will receive preferential treatment. This cereal between 1964 and 1968 has had an increase in price, in real terms, of 16%; it is the decision of the Government to increase this gain in 1969 to 20% over the price of 1964."

Attention to sugar beet cultivation serves two major purposes: 1) import substitution for sugar from cane, a crop with limited possibilities in Chile, and 2) agricultural extension by encouraging small-holders to practice rotation, maximize on fertilizers, and appreciate the advantages of intensive cultivation of high-value crops. A separate government agency, IANSA (Industria Azucareira Nacional S.A.), is exclusively dedicated to encouraging the cultivation of sugar beets by means



Inspecting the sugar beet crop

of technical assistance, credit and industrialization. Production under its auspices realized 150,000 tons in 1967, representing 57% of the national consumption, from an area of 32,000 has.

Critics attack the program on several scores. Some charge that it diminishes production of other crops, such as wheat, by diverting land to the lucrative root crop; however, government acreage controls attempt to hold this tendency to a minimum. Others point out that beet sugar is a high-cost product, now subsidized by the Government at an expenditure exceeding the purchase cost of imported cane sugar; looking to the future, the current investment in physical plant and technology would become extraneous with the establishment of a trade union among the Latin American nations. Obviously, the possibility of such a damaging competition would depend upon world market prices.

However, it is likely the Government has in mind advantages other than the end product. Although the crop demands intensive application of fertilizers, a 65% residue benefits the rotation crops following the beet cultivation; since Chile's production of nitrate and lime exceeds demand, any increase in consumption helps those industries. In addition a valuable by-product is derived from leaves and crowns

which serve as a nutritious forage for cattle, accelerating milk and beef production. Due to the congruence of conditions favorable to both livestock and beets in the area south from Malleco, the two operate as complements.

Always sensitive to the social aspect of the agricultural sector, the Government appreciates that sugar beet cultivation is labor-intensive. Some 100 man-days are required per hectare, the current cultivation sufficient to employ 12,000 men.

It would seem that Chileans would rather have tough, tasteless beef rather than tender, juicy chicken. Beef is the sine qua non of the national diet, although the source may often be an angular Holstein which has outlived its milk-producing days. This Government has set out to curb this preference, since beef is a major import item.

A popular magazine editorialized: "Although it may seem lacking in respect, the country is experiencing two appetizing and beardless revolutions: that of chicken and that of pork. The first, from the exalted position of the 'coq au vin', has been converted into the common man's dish, not only because of its price---inferior to beef---but also due to its abundance. Even the most modest pensions now serve the famous 'chicken every Sunday'. Pork has undergone a similar surge in popularity. And the song 'Pork Today, Pork Tomorrow' is in a leading place in the listing of the disc jockeys."

Observing that the volume of pork entering the Santiago market had increased 35.6% in 1966-67, the article concludes:

"Very soon we will be in the full era of the 'suckling pig' with savings for the domestic purse and also for the much larger purse of the national treasury."

While importing breeding stock, particularly Herefords, to try to improve both the quantity and quality of the national herd, the Government must cope with the reality of current production. Beef is in short supply, pork and chicken about equal with demand, and lamb in excess. But the campaign to increase lamb consumption has not been successful, one reason being that Chileans suffer from the Latin malaise of the liver and avoid lamb because of the deleterious effect of its tallow content. In any case, according to the government newspaper, presumably reflecting official thinking, "(The lamb production of Punta Arenas) does not have a sufficient market...therefore, most surely, during the current winter there will be weeks in which we will eat only lamb, and beef will be prohibited, as a method of avoiding foreign purchases and of giving a hand to the province of Magallanes."

Government programs go far beyond price controls and import substitution. INDAP (Instituto de Desarrollo Agropecuario) is providing credits to small- and medium-sized farms. These loans are aimed at



Livestock is the major activity of Chile's southern-most province, Magallanes. Above, a herd of Herefords. Below, sheep.



improving dairy and beef herds and pastures; building supplementary facilities such as stables, fences and poultry sheds; establishing and developing fruit orchards and vineyards; building irrigation, drainage and soil reclamation works; undertaking small-scale craft industries; and purchasing farm machinery and equipment. As a more efficient manner of financing the small farmers, INDAP has organized 2500 cooperatives and has given credit to 80,000 individuals through the coops, which underwrite the loans.

Though so far little exploited, the reverse of seasons gives Chile a potential advantage in providing the United States and Europe with garden and orchard products. A tentative experiment with asparagus shipped to mid-winter New York this year stimulated considerable optimism due to the high prices received. But it was also learned that the standards and preferences of the market must be researched and heeded to realize sales abroad. Chilean growers will be switching varieties to the "Mary Washington 500W" because the U.S. housewife wants a long, tender stem with a green tip—characteristics not common to the European varieties now being cultivated. Furthermore, they learned they must cut, clean and package with greater care. With the export market in view, fruits and melons are also being groomed and pampered on both private estates and land-reform projects.

A coordinated plan of construction of slaughterhouses, storage facilities and refrigeration plants is underway. As a result of these and other programs, the percentage of total public expenditures allotted to agriculture increased from less than 7% to nearly 11% annually over the past five years.

The land tax system was modernized as a result of an extensive aerophotogrammetric survey in the early 1960's. The rate of 2% (20 per thousand) is exacted on the basis of assessments which average about 50% of commercial farm value and are adjusted annually to changing price levels. As a result, Chile has the highest effective land tax in Latin America.

Fundamental in the government's agricultural program is agrarian reform. To date, 645 landholdings, totaling 1,248,919 hectares have been expropriated. Because of the complexity and controversy of the reform, it will be treated in separate newsletters.

The Frei administration is attacking the problem of the inadequate food supply on all fronts. Through its campaign it has aroused the interest and concern of both public and private sectors. Certainly many mistakes are being made, and the differences of opinions extend from one pole to the other. But human resources and capital are being invested in agriculture at a relatively more intensive rate than in any other South American country. Coupled with this fervor is the country's continuing success in holding down its birth rate, one of the lowest of the region: from 2.17% in 1966, population growth slowed to 1.96% in 1967. If these two trends can be continued, there is reason for optimism regarding Chile's potential to feed her people;

in fact, it should be pointed out that, regardless of the many failings of the agricultural sector, it is still far superior on all scores to that of most other lesser developed countries.

The continental situation is less sanguine. With a 1965 population of 244 million, Latin America will have 361 million in 1980 and 700 million in 2000; Brazil, for example, will experience an 80% increase by 1980 over its 1960 population—reaching 127 million. Figures suggesting the essential expansion in food production to feed this number are staggering.

Supposing that the miserable nutritional level of the present is only maintained, production of the five basic staples will have to increase by 1980 as follows: wheat, 116%; corn, 160%; rice, 150%; beans, 104%; beef, 158%. If yields continue at the present level, crop land would have to be doubled to meet the minimal needs. Currently, the cattle herd of the continent numbers some 186 million head—this would have to be expanded to 387 million.

These projections—to repeat—are based upon quantity and quality of the current Latin American diet, at present some two-thirds of the continent is suffering malnutrition, depending upon starches and sugar for 70% of their nourishment and upon a caloric intake which falls as low as 1800-1900 in some areas (U.S. and Europe exceed 3000).

In addition to the human aspect of malnutrition, the region's agricultural problem encompasses all the ramifications exhibited by the Chilean microcosm:

The drag on the economy: nearly 50% of the regional labor force in in farming, but this sector contributes only 20% of the GNP. Output per rural worker is but a third of his industrial counterpart.

The drain on the trade balance: about \$600 million in agricultural products are imported annually, representing some 20% of total purchases abroad.

The decline in agricultural export earnings: major economic surveys for 1967 found Latin America losing out in the international market. Whereas 1962 sales to Europe, U.S.A. and Japan amounted to 9.6% of the total imports of those countries, by last year the share fell to 7.7%.

The paradox of the "drain" and the "decline" of the last two items: Most Latin American nations have been incapable of producing sufficient basic foodstuffs to supply their own people and, yet, many countries struggle with a backlog of unmarketable surpluses intended for export—sugar, coffee, etc. Its agriculture is plagued by a "cash crop psychosis".

The limitation on development: 100 million Latin American peasants—over one-third of the total population—are largely outside of the money economy, thereby blocking the expansion of the internal market.

The loss in manpower: "The cost to any society of underfeeding a woman during pregnancy, and underfeeding a child during his growing years, is not recovered when a malnourished adult lives to work five or ten or fifteen years; the same man could, if he had been properly nourished from conception, have worked and produced at far higher efficiency for thirty to sixty years." (FAO)

The glut of the cities: while population increases range from 1.8% to 3.5%, migration into the city averages 4.5%. Some of the major magnets are inundated by 8% a year.

During the past two decades, the fetish of Latin American politicians and planners and of most international technicians and bankers abetting them has been industrialization. Agriculture was given little heed: its capital/output ratio was too slow for countries pursuing rapid development, an illiterate and inarticulate peasantry could not bring its demands to bear, and it was presumed that the advances achieved in the city would in some way filter out to the countryside.

Now, the glitter of industrialization has tarnished a bit. The post-war boom is terminating a phase emphasizing import substitution and the construction of light industries; these have now reached a plateau and must await some significant infusion in consumer demand, be it via the internal market or via regional integration. The next phase, heavy industry, will require massive capital investments and advanced technology. However, a number of factors impede such a step. Negative balances of payment threaten most Latin American nations, and, even without an upsurge in import of capital goods, the strains resulting from food needs and consumer demands will worsen.

The burden of payments on foreign loans has become so onerous as to dictate considerable caution in assuming additional debts. Amortization on the external public debt amounted to \$1.95 billion in 1966, equivalent to 75% of that year's gross capital inflow of aid from all major public sources: Food for Peace, World Bank, International Monetary Fund, the Export-Import Bank, AID and the Inter-American Development Bank. According to the latter agency's 1967 report, "It is estimated that the service on the external debt is consuming 75% of the gross capital flow and it tends to increase. This means that Latin America is arriving at a bottleneck because an increased transfer of funds to assist its development is becoming impossible."

One of the major disappointments attendant upon industrialization has been its failure to resolve the unemployment onus. Optimism reigned that the abracadabra of factory and machine could somehow exorcise this social ill. Instead, it has to a certain degree aggravated it by implanting false hopes among the commonalty and luring them into the city slums. Automation is also diminishing the employment promises of this sector.

A multitude of considerations, therefore, oblige the Latin American

nations to look inward to solve their own problems with their own resources. In such a process agriculture's role is increasingly appreciated for its various capabilities:

- 1) to help balance international trade payments by reducing food imports,
- 2) to expand the internal market by raising the standard of living of the rural population, thus increasing demands for consumer items,
- 3) concomitantly, via higher production and resultant savings, to stimulate a more rapid capital formation contributing to domestic investments,
- 4) to decrease inflationary pressures resulting from food shortages and thereby improve urban conditions,
- 5) to encourage the growth of agro-industries (food processing, fertilizers, tools and machinery, etc.) and assist in providing employment opportunities,
- 6) to retain manpower in the primary sector rather than forcing it into the over-inflated services and trades.

At this time, Chile is a continental leader in waging a campaign on many fronts in order to reverse the course of the agricultural sector. The country combines a number of advantages relative to most Latin American nations: a temperate climate, a considerable supply of good soils, a favorable ratio of arable land to population, a rural population comparably small, a high degree of ethnic homogeneity, a high literacy rate, a supply of technicians, a fair road system, a diversified agriculture free from the monoculture fixation, a going agrarian reform program, an awareness of the sector's role in economic development. Looking at the region as a whole, Chile would seem to have the best possibility of solving her rural problems. Concern for the country's progress is, therefore, particularly critical among national and international planners; as some say, "If Chile can't do it, what can we expect for the others?" In addition, it is hoped that experiments, failures and successes here will serve many countries which now realize agriculture's importance as a full-fledged member of the national economy.

Sincerely yours,



Frances M. Foland

Photos courtesy El Mercurio

Graph from CIDA (Inter-American Committee for Agricultural Development)

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