

Summer 1971

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# Does “Food for Peace” Assistance Damage the Bolivian Economy?

BY MELVIN BURKE\*

Do commodity surplus shipments in fact “encourage economic development in the developing countries . . . that are determined to improve their own agricultural production . . .”?<sup>1</sup> Or conversely, is it true that “food aid is damaging to the countries which receive it, and they should be helped to increase the productivity of their own farmers”?<sup>2</sup> The former Bolivian Minister of Petroleum, Marcelo Quiroga, who was largely responsible for the nationalization of the Gulf Oil subsidiary in his country, apparently believes “Food for Peace” aid is damaging to the Bolivian economy. In a recent interview with Selden Rodman, he had this to say on the subject:

Your government must realize that other countries want to decide on their own manner of growth. Let me give you an example. Every year Bolivia lays out \$30 million for U.S. food—half of this for wheat and flour, though we could grow our own and have the milling facilities. In order to keep the price of wheat high, you subsidize your wheat farmers. This expensive product is then shipped to Bolivia *already milled*. So there is no work for our millers, and our peasants don't grow wheat . . . Why?<sup>3</sup>

This paper will attempt to answer Señor Quiroga's indictment

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<sup>1</sup> U.S. Congress, *Food for Peace Act of 1966*, Public Law 808, 89 Cong., 2nd Sess., 1966, Sec. 2A an amendment to the *Agricultural Trade Development and Assistance Act of 1954*, Public Law 480, 83 Cong., 2nd Sess., 1954.

<sup>2</sup> “Don't Feed the Starving Millions,” *The Economist*, CCXXVIII (Sept.-Oct., 1968), 60-61.

<sup>3</sup> Selden Rodman, “Bolivia: Friend or Foe?”, *National Review*, XXII, No. 45 (Nov. 17, 1970), 1211 and 1227.

of the U.S. "Food for Peace" foreign aid since it is under this program that Bolivia spends most of the \$15 million for flour imports referred to in his statement above.

To begin with, my major disagreement with ex-minister Quiroga and other Bolivian nationalists on this subject is that they do not acknowledge the historic need of Bolivia for these flour imports or their many benefits to Bolivia before 1968. A brief historical sketch of the transition from domestic production to importation of flour in Bolivia over the last two decades will reveal the basis for my disagreement.

Since 1952 the Bolivian consumption of flour, the major wheat product, increased at the rate of approximately five percent per year. This exceeds the two percent rate of population growth and approximates the four percent growth in urbanization.<sup>4</sup> On the other hand, domestic wheat and flour production never was adequate to meet this demand. Thus, Bolivia has traditionally been an importer of both wheat and flour. However, as can be seen by an examination of the data in table 1, Bolivia has increasingly substituted flour imports for domestic production of wheat and flour.

It would be incorrect to attribute this fundamental change in the Bolivian economy to any one institution, historic event, or body politic. Bolivia's traditional dual economy, 1952 social revolution, post revolutionary governments as well as the PL 480 (Food for Peace) program share responsibility for this change from domestic production to flour importation.

Between 1930 and 1951 the Bolivian wheat mills produced sufficient flour to supply the entire nation with the exception of the large mines which traditionally relied upon imports. However, due largely to the inability of the *latifundio* land tenure system<sup>5</sup> to provide the domestic mills with wheat of acceptable quality in sufficient quantity, increasing portions

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<sup>4</sup> The demand for wheat flour is a derived demand for bread and is more responsive to changes in urbanization than to changes in either total population, national income, or prices.

<sup>5</sup> A *latifundio* land tenure system is one which is dominated by large landed estates. These enterprises are usually absentee-owned and run on traditional (customary) rather than profit maximizing principles. A *latifundio* (large estate) is not a plantation. The latter is typically highly capitalized and foreign owned.

TABLE I  
Wheat and Flour:  
Bolivia 1950-1968  
(thousands of metric tons)

	Wheat		Flour Production <sup>a</sup>		Flour
	Production	Imports	Domestic	Imported	Imports
1950	46	34	10	27	17
1951	31	32	6	33	33
1952	24	74	4	25	16
1953	21	72	3	53	11
1954	17	59	5	38	19
1955	17	34	13	37	22
1956	40	13	2	50	15
1957	45	55	1	32	63
1958	62	3	5	14	65
1959	62	14	3	13	72
1960	40	—	3	4	78
1961	40	5	1	4	102
1962	50	21	3	4	94
1963	55	19	4	5	103
1964	58	5	6	4	96
1965	42	16	4	11	109
1966	36	15	3	14	108
1967	39	27	5	14	128
1968	45	47	12*	16	98

<sup>a</sup> Based upon a 75% extraction yield

\* AID estimate.

Source: Bolivia, Dirección General de Estadísticas y Censos.

of Bolivian flour were milled from imported wheat. Thus, one finds in Bolivia's historic dual economy and traditional agricultural sector a beginning of wheat and flour imports substituting for domestic production.

The revolution of 1952 and the agrarian reform of 1953 undoubtedly disrupted traditional producing and marketing channels giving rise to a decrease in domestic production of wheat for the market.<sup>6</sup> Concurrent with these revolutionary effects, the hyperinflation of 1952-1956 and the existent multiple exchange rate favored imports, making it increasingly lucrative to substitute wheat—and to a lesser extent flour—

<sup>6</sup> In August (1953, less than one year after the revolution, the Movimiento Nacionalista Revolucionario (MNR) Government of Bolivia passed the Decreto de la Reforma Agraria and proceeded to redistribute the lands of the *latifundios* to the former Indian peasants. In addition, the MNR government nationalized the large tin mines, decreed universal suffrage, and instituted other economic and social reforms.

imports for domestic output.<sup>7</sup> The MNR revolution, land reform, and inflation were, therefore, events contributing to increased importation of wheat and flour.

Shortly after the monetary stabilization program was successfully implemented in 1957, flour imports increasingly replaced wheat imports. One plausible explanation for this change is that the Bolivian millers found it unprofitable to mill imported wheat from 1952 to 1957 because of their inability to dispose of the wheat bran by-products at a high enough price. At the same time they apparently began to realize that flour importation, unlike wheat importation, posed no by-product disposal problem.

There can be little doubt that the U.S. Point IV and Food for Peace programs encouraged these flour imports by offering surplus flour to the Bolivian government at below world market prices. Indeed, these surplus commodity shipments more nearly resembled grants than sales. This is especially true between 1960 and 1968 when Bolivia purchased large quantities of U. S. flour with domestic currency under Title I of PL 480.<sup>8</sup> From that date to the present, PL 480 flour imports have had a greater influence upon the Bolivian wheat and flour industries than any other single factor. Table 2 below clearly shows the overwhelming dominance of these flour imports from the United States since 1960.

In sum, PL 480 surplus food assistance to Bolivia which began in 1961 was not the first or only influence in the transition from domestic production to importation of flour in Bolivia over the last twenty years. Bolivian nationalists, like Marcelo Quiroga, are, however, correct in pointing out that once on the scene, these "free" PL 480 surplus commodity imports not only accelerated the process of importation, but

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<sup>7</sup> The overvalued official rate applied to wheat and flour imports since these were considered "basic food necessities." Combined with the rise in domestic prices, this gave a windfall profit to wheat and flour importers thereby encouraging the substitution of imports for domestic production.

<sup>8</sup> Title I of Public Law 480 (The Agricultural Trade Development and Assistance Act of 1954) authorized the President of the United States to "negotiate and carry out agreements with friendly nations or organizations of friendly nations to provide for the sale of surplus agricultural commodities for foreign currencies."

TABLE II  
Bolivian Flour Imports  
(thousands of metric tons)

	U.S.A. <sup>a</sup>	Argentina	Others <sup>b</sup>
1950	6	5	6
1951	21	12	—
1952	9	7	—
1953	8	2	1
1954	15	4	1
1955	—	5	17
1956	3	10	2
1957	35	28	—
1958	24	41	—
1959	13	57	1
1960	46	15	16
1961	63	23	15
1962	66	16	12
1963	82	7	15
1964	93	3	—
1965	91	7	10
1966	92	10	6
1967	119	5	4
1968	84	13	1

<sup>a</sup> No reliable data exist on quantity of flour imported from U.S. per calendar year under PL 480 agreements. An estimate can be made using fiscal year shipments as a guide. About 95% of all flour imports from U.S. over the years 1961-68 were PL 480 imports and roughly 75% of these flour imports fell under Title I.

<sup>b</sup> Major other exporters include Canada, Chile and West Germany. These figures are residuals.

Source: Bolivia, Dirección General de Estadísticas y Censos.

rendered it virtually irreversible. Nevertheless, the benefits to the Bolivians from this program before 1968 were numerous and impressive. First of all, Bolivia could not have imported these large quantities of flour on more favorable terms than those obtained under Title I, PL 480. Before 1968 Bolivia paid for these flour imports with local currency generated from their domestic sales. Because nearly 75 percent of these counterpart funds were spent in Bolivia on developmental projects, they, in fact, constituted a grant in kind to the Bolivian government and people. Consequently, Bolivia was able to import high quality flour in quantities sufficient to satisfy increasing portions of her domestic demand paid for with grants from the supplier. The urban population, miners, and other consumers of flour were, in the process, subsidized. The *campesinos* (peasants) benefited from land titling, colonization, community development, and other rural programs fi-

nanced with counterpart funds. The miller-importers were apparently content with the profits received from importing flour to let their mills lie idle or underutilized.<sup>9</sup> The Bolivian government used significant amounts of the local currency generated from PL 480 flour sales for, among other things, general budget support. In short, these enormous flour grants apparently averted a food crisis without draining Bolivia's scarce foreign exchange while simultaneously creating large stocks of local currency to be utilized for developmental investments, central government budget support, and other uses.

The Bolivians were not the only ones who benefited from this program, however. PL 480 flour shipments to Bolivia were also beneficial to the United States. They not only disposed of part of the wheat and flour surpluses resulting from the Commodity Credit Corporation Farm Price Support Program, but, in addition, generated the local currency to help finance the U.S. Embassy and AID Mission in Bolivia. What better way to dispose of surplus commodities than to use them to pay for one's overseas activities!

Or perhaps one should say, who benefits least from the "Food for Peace" program since all available evidence indicates that the net effect of this program is now "damaging" to Bolivia's economy as well as to the U.S. foreign aid program. While most Bolivians, including Marcelo Quiroga, intuitively know this to be true, their interpretation of why these flour imports are detrimental to their nation's developmental efforts is often misleading or incorrect. Because a nation can grow and mill its own wheat is no economic justification for doing so. "Food for Peace" flour shipments are not *per se* "damaging" to the Bolivian economy. Rather, it is the manner in which the program was handled in the past and the recent changes in finance which have rendered it so. From the beginning PL 480 flour shipments supplanted rather than supplemented domestic output. Very little of the funds obtained from the sale of these imports were utilized to increase the domestic output of wheat and flour.<sup>10</sup> Subsequently, by 1968

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<sup>9</sup> See Appendix A, for a brief account of the transformation of Bolivian millers into importers.

<sup>10</sup> Since 1961, AID has provided over \$200 million in loans and grants to Bolivia. Approximately \$70 million of this amount was road loans.

These commodity imports no longer constituted a grant to Bolivia as they did in the past for PL 808 (amendment to PL 80) which stipulated that Bolivia pay for Title I flour shipments with long term dollar credits rather than *Pesos*.<sup>11</sup>

As the situation now stands, Bolivia is paying dollars, on extremely favorable credit terms, to import flour for consumption while rural underemployment and excess capacity exists in the domestic wheat flour mills, transportation, and related industries. Bolivia is obligating and spending foreign exchange to purchase flour, a consumption good which is apparently capable of being efficiently produced domestically, instead of purchasing capital goods which she is unable to produce, but which are indispensable to economic development.<sup>12</sup> Consequently, had this change in finance not occurred, it would be extremely difficult to state categorically whether the overall net effect of these flour shipments was detrimental or beneficial to the economic development of Bolivia.

In summary, "Food for Peace" flour shipments to Bolivia contributed to the rapid increase in domestic consumption, did nothing to increase the domestic production of wheat, and had an adverse effect upon the Bolivian milling industry leading to a decline in domestic flour production. In this way the program was partially responsible for widening the gap between domestic production and consumption of wheat flour necessitating increased importation. Finally, in 1968 when Bolivia was dependent upon flour imports to satisfy almost the entire effective domestic demand, the U.S. government changed the program from one of grants to long-term dollar

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agriculture has always received low priority from both the Bolivian government and the AID mission. Even then, rice production was encouraged with loans and grants totaling \$1,750,000 since 1962. Sugar and other agricultural products received comparable assistance. Wheat, on the other hand, received its first loan of \$200,000 in 1967 and another \$200,000 loan in 1969. As of this date, less than half of the first wheat loan of \$200,000 has been dispersed.

Section 103(b), Title I of PL 808 reads "take steps to assure a progressive transition from sales for foreign currencies to sales for dollars at a rate whereby the transition can be completed by December 31, 1971."

It could be argued that any increases in resources such as PL 480 imports are capital imports, but they are not physical capital goods imports. *Pesos* cannot buy needed capital goods produced abroad.



loans. At least with respect to Bolivia's experience with the PL 480 (and later PL 808) food aid program, it would appear that the overall net effect was "damaging" to her economy. Thus, while I may disagree with Señor Quiroga and other brilliant young Bolivians on a number of significant details, I agree with them that the present "Food for Peace" program is detrimental to their economy and that the policy must be changed.

Bolivia should, therefore, begin to implement a policy of flour imports substitution as soon as possible and the United States should cooperate in this endeavor. Recent technological advances in wheat production have, for the first time in Bolivian history, made such a policy both technically and economically feasible. This fact is all too often ignored by Bolivian nationalists who advocate a policy of flour import substitution. Perhaps, however, they are simply not aware of the important role improved seed such as Corpuso or Mexican Jaral plays in this national decision. In any event, they will find a great deal of support for their position in what follows. To begin with, the argument against flour import substitution will be briefly considered and then dismissed. It has been argued that Bolivia should import flour since she suffers a comparative disadvantage in growing wheat and milling flour. Therefore, Bolivia would do well to allocate her scarce resources to the production of other goods in which she has a relative advantage. The Bolivian economy was not, is not, nor will be in the foreseeable future, a fully employed economy. It is virtually impossible to argue comparative advantage when such conditions exist. In addition, all infant industries, such as Bolivian wheat and milling using traditional methods of production, dated technology, and possibly less than optimum size plant, are initially at a competitive disadvantage with respect to similar established industries abroad. This is especially true if wheat and flour are imported at below commercial world market prices as they are under the "Food for Peace" program. Therefore, the problem cannot be viewed as one of allocating scarce resources among alternative productions within a static economic framework to achieve some ideal efficiency optimum. The real issue is not whether Bolivia should be self-sufficient in wheat and flour or that these Bolivian products should compete in the world market, but

rather whether domestic production can be increased by employing existing idle resources to conserve foreign exchange for ultimate use in the importation of capital goods not capable of domestic production. In sum, when viewed in a dynamic growth setting one arrives at the conclusion that not only can Bolivia substitute domestic production of wheat and flour for imports, but she must.

If Bolivia does not immediately begin a crash program to increase domestic output, she can look forward to continued stagnation of her wheat and flour industries as well as continued drain on her foreign exchange. The adverse effect of these on economic development, the central government budget, the balance of payments, and the external debt are obvious. In table III below is provided an estimate of the additional expenditure of foreign exchange over the ten year period 1969-1978, for wheat and flour imports, assuming a four percent per year increase in consumption and no change in domestic production.

Thus, even if Bolivia obtained all her wheat and flour imports under PL 808 with favorable terms of 2½ percent interest with 20 years to pay, by 1978 she will have spent the equivalent of \$72,643,500 and incurred a foreign exchange debt of \$211,288,600 for these same imports. It is, however, only fair to add that an equivalent value of local currency would be generated in the process, nearly all of which would be invested in Bolivia. But taking into consideration the fact that these *pesos* would be purchased with dollars, the benefit to Bolivia would be substantially lessened.

If, on the other hand, a policy of promoting domestic production of wheat and flour to substitute for imports of the same were implemented, the gains to the Bolivian economy could be both immediate and substantial. Initially, top priority would be assigned to increasing the quality and quantity of Bolivian wheat. Widespread introduction of such non-traditional inputs as improved seed and fertilizer into Bolivian wheat production over the same ten-year period could result in substantial increase in domestic wheat production. Improved seed, such as Corpuso or Mexican Jaral, has been estimated to increase yield between 50 percent and 100 percent

TABLE III  
ESTIMATES OF PRODUCTION AND IMPORTATION OF WHEAT  
WITHOUT A SUCCESSFUL WHEAT PROGRAM: BOLIVIA 1969-1978<sup>a</sup>

	Consumption (000 M.T.)	Domestic Production (000 M.T.)	Imports (000 M.T.)	Foreign Exchange Spent on Imports <sup>c</sup> (\$000)
1969	233.0	45.0	188.0	1,136.9
1970	242.4	45.0	197.4	2,330.6
1971	252.1	45.0	207.1	3,583.0
1972	262.2	45.0	217.2	4,896.5
1973	272.7	45.0	227.7	6,273.5
1974	283.6	45.0	238.6	7,716.4
1975	294.9	45.0	249.9	9,227.6
1976	306.7	45.0	261.7	10,810.2
1977	319.0	45.0	274.0	12,467.2
1978	331.8	45.0	286.8	14,201.6
1969-1978		450.0	2,348.4	72,643.5
1969-1997				284,032.1

<sup>a</sup> Based upon projections of B. Delworth Gardner, *Prospects for a Successful Wheat Program* (unpublished report, 1968), pp. 26 and 28.

<sup>b</sup> Assuming each metric ton of imported wheat equivalent costs, on the average, \$95.80.

<sup>c</sup> Assuming all imported wheat equivalents paid for in U. S. dollars at 2½ percent interest over 20 years with no grace period.

(from .6 to .9 or 1.2 metric tons per hectare).<sup>13</sup> This wheat is of the hard variety demanded by Bolivian millers and consumers. Consequently, it commands a higher price, and the expected returns to the farmer are significant.<sup>14</sup> Thus a "new seed for old seed" program for Bolivia is the first step. Among the merits of this program is the fact that it is a low cost program requiring little if any foreign exchange outlay. Also, if fertilizer is introduced in conjunction with improved seed, the anticipated increase in output is much greater. It is not unrealistic to expect an output of 234,000 metric tons of improved domestic wheat by the year 1978, equal to 70 percent of Bolivia's projected needs if a national wheat program were rigorously and promptly carried out. Table IV reveals estimates of expected increases in domestic output for the years

<sup>13</sup> B. Delworth Gardner, *Prospects for a Successful Program in Bolivia*, (unpublished report, June, 1968), pp. 14-18.

<sup>14</sup> B. Delworth Gardner estimates that a Bolivian *campesino* can expect to realize a net profit per hectare of \$47.20 by substituting improved seed for *criollo* (unimproved domestic) seed. *Ibid.*

TABLE IV  
ESTIMATES OF PRODUCTION AND IMPORTATION OF WHEAT  
WITH A SUCCESSFUL WHEAT PROGRAM: BOLIVIA 1969-1978<sup>a</sup>

	Consumption (000 M.T.)	Domestic Production (000 M.T.)	Imports <sup>b</sup> (000 M.T.)	Foreign Exchange Spent on Imports <sup>c</sup> (\$ U.S. 000)
1969	233.0	52.2	180.8	1,093.3
1970	242.4	64.2	178.2	2,170.9
1971	252.1	77.7	174.4	3,125.6
1972	262.2	92.9	169.3	4,249.4
1973	272.7	110.3	162.4	5,231.4
1974	283.6	129.7	153.9	6,162.1
1975	294.9	151.4	143.5	7,030.0
1976	306.7	176.0	130.7	7,820.3
1977	319.0	203.3	115.7	8,520.0
1978	331.8	234.0	97.8	9,111.4
1969-1978		1,291.0	1,506.7	54,614.4
1969-1997				182,228.9

<sup>a</sup> Based upon projections of B. Delworth Gardner, *Prospects for a Successful Wheat Program* (unpublished report, 1968), pp. 26 and 28.

<sup>b</sup> Assuming each metric ton of imported wheat equivalent costs, on the average, \$95.80.

<sup>c</sup> Assuming all imported wheat equivalents paid for in U. S. dollars at 2½ percent interest over 20 years with no grace period.

1969-1978 assuming an eight percent increase in acreage planted with Corpuso seed each year, half of which is fertilized.

The projections in table IV are based on the assumption that the increased domestic wheat production would be milled into flour. In light of what has been said about the Bolivian milling industry, it is unrealistic to expect increases in domestic wheat output to be automatically milled into flour. However, there are no problems related to the milling processes which are insurmountable. As domestic wheat production is augmented over the years, the Bolivian government would have to restrict wheat and flour imports to that portion of national needs not satisfied by domestic supply. The government would also be required to time such imports so as not to conflict with the harvest and milling of domestic wheat. Above all, the government should adopt new tax, import, and pricing policies which could enable the miller-importers to obtain a greater profit in milling wheat than in importing flour. Another appropriate

policy change would be to eliminate or reduce the five percent above cost profit guarantee presently granted to importers of flour.

Fortunately, the abundant excess capacity in the Bolivian milling industry could immediately be put into productive use. As the mills expand the production of flour using improved domestic wheat, they would realize some economies inasmuch as wages, electrical, water, and other overhead costs decrease per unit of output with greater utilization of existing excess capacity. In addition, studies have shown that it is those mills located in the producing areas milling domestic wheat that presently make the greatest profits.<sup>15</sup> All of this augurs well for the future profitability of the Bolivian milling industry.

However, new investments would be required for retooling, modernization, and expansion.<sup>16</sup> In addition, since all reports on the Bolivian milling industry single out by-product disposal as the number one problem of the industry today, there is every reason to expect this situation to become critical once production begins its rapid increase.<sup>17</sup> However, this area needs further investigation in depth, and until the mills do operate at near capacity using relatively inexpensive domestic wheat any prediction as to the future profitability of Bolivian milling is pure conjecture. Even if by-product disposal was a problem for the future, the cost of subsidizing by-product sales would probably be more than offset by the benefits, not only to the wheat and flour industries, but also the poultry, livestock, and other industrial users of wheat bran.

Indeed, the potential benefit to Bolivia of such a successful wheat and flour program appear to be so great as to overwhelm any costs incurred. In spite of the fact that Bolivia would probably still not be self-sufficient in flour after 1978,

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<sup>15</sup> Jan Boomkamp, *Diagnostico Sobre La Economia Triguera de Bolivia* (unpublished report, April, 1966), *passim*.

<sup>16</sup> The Bolivian Millers Association claims that the industry is presently expanding its capacity to approximately 215,000 metric tons of wheat per year.

<sup>17</sup> The Boomkamp report points out that no profits can be made in the Bolivian mills unless these by-products are disposed of at some remunerative price since they constitute about eight percent of the mills' total revenue.

a comparison of tables 3 and 4 show that a savings of over \$100,000,000 of foreign exchange could be realized by the successful accomplishment of such a program.

TABLE V  
ESTIMATES OF PRODUCTION AND IMPORTS OF WHEAT  
WITH AND WITHOUT A SUCCESSFUL WHEAT  
PROGRAM: BOLIVIA 1969-1978  
(a comparison of Tables 3 and 4 above)

	(000 M.T.) <i>Total Domestic Wheat Production</i>	<i>Imports of Wheat Equivalents (000 M.T.)</i>	<i>Foreign Exchange Spent on Imports (\$ U.S.)</i>	<i>Exchange Debts Total Foreign Accumulated as a Result of Importation (\$ U.S.)</i>
Without a Successful Wheat Program	450,000	2,348,000	72,643,500	284,032,100
With a Successful Wheat Program	1,291,000	1,506,700	54,614,400	182,228,900
Difference Due to Program	+841,000	-841,700	-18,029,100	-101,803,200

In addition, these increases in domestic flour production would have ramifications throughout the entire Bolivian economy. The large increases in national income and employment generated each year by the wheat farms, flour mills, transportation industries, by-products industries, and others would be increased many times over as the income flows multiplied through the economy.

While it is extremely difficult to estimate the costs of this national wheat and flour program, an approximation of money costs for the wheat program only would be about \$2 million for new seed, \$9 million for fertilizer, and some undetermined amount for agricultural extension services. To this must be added the money costs of mill investment and subsidy by-product disposal. However, most of these are local currency costs whereas a large portion of the benefits is in dollar savings. Many of the local currency costs could be paid for with the \$20 million of counterpart funds presently available from past sales of "Food for Peace" flour imports.

Perhaps all these calculations are misleading since the real costs of the program are opportunity costs such as foregone income, employment, and foreign exchange savings from domestic production of wheat and flour. That is to say, the real costs of a Bolivian wheat and flour program as outlined in this paper are continued stagnation of the rural sector, perpetuation of the dual economy, and future monetary difficulties.<sup>18</sup> Inasmuch as the United States is concerned with these problems, they also become opportunity costs to the U. S. Mission in Bolivia and the U. S. government and people at home. These costs would exceed any conceivable benefit to either the United States or Bolivia if continuation of the present program of importing flour under PL 808 at the expense of domestic production is continued.

In sum, there are no major technical or economic obstacles to instituting a new policy of flour import substitution, and the potential benefits many. The problem, as ex-minister Quiroga points out is a political one. When asked by Mr. Rodman, "Why don't you grow your own wheat and grind it?", he replied:

Because our government makes a profit on the sale of your wheat. . . . I tried to reverse this policy when I was in the cabinet but the commercial interests were too strong.<sup>19</sup>

### *Conclusion*

Bolivia's experience with aid in the form of commodity surplus shipments should provide some guidelines for the continued or future use of this unique type of foreign aid. While "Food for Peace" assistance is not inherently detrimental to the agricultural economies of the lesser developed countries, they can easily become so as the Bolivian experience has shown. When this occurs, explanations are necessary and a change of policy is imperative. Whether or not this type of foreign aid program should be continued is less important than the manner in which it is carried out. The timing, size, and finance of commodity surplus shipments as well as the expenditure of the counterpart funds will ultimately determine

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<sup>18</sup> These could include budget, balance of payments and/or foreign debt servicing difficulties.

<sup>19</sup> Seldom Rodman, p. 1227.

its failure or success. Unless greater care is taken in the future with "Food for Peace," this ostensibly low cost assistance may become the most costly program this country has yet undertaken.

#### APPENDIX A: THE BOLIVIAN MILLER-IMPORTERS

In 1963 the Bolivian government fixed the wholesale price of all flour at \$6.58 per hundredweight in La Paz, Oruro, and Potosi, and slightly higher prices in the other cities depending upon transportation costs. Not only was the price of flour fixed, but the government also guaranteed importers of PL 480 flour a five percent above cost net revenue return. Consequently, the Bolivian miller-importers elected to import flour rather than mill domestic or imported wheat. To begin with, the poor quality and erratic supply of domestic wheat accounted for the millers' reluctance to mill more than a small fraction of the nation's output. The apparent inability of the millers to dispose of their bran by-product explains why they were not eager to mill large quantities of imported wheat. Most important, however, is the fact that the uncertainties of flour production included the possibility of encountering economic losses whereas importation of flour was a guaranteed profitable undertaking. For example, a well documented study of the Bolivian milling industry for the years 1963-1965 by Jan Boomkamp, shows that the Simsa Mill (Oruro) obtained net revenues of \$6.16 per metric ton of flour produced while Molinera Boliviana (La Paz) earned \$3.22 per metric ton. The owners of both these mills were also importers who over the same time period earned net revenues of \$6.63 metric ton of imported flour.<sup>20</sup> Bedoya and Grace, accounting for approximately 65 percent of the nation's total milling capacity, changed their primary function from flour production to flour importation. In table 6 below, both are shown to be underutilizing their flour mills and importing greater quantities of flour than they produce.

The Bolivian millers also extracted 75 percent flour from a given quantity of wheat instead of the usual 72 percent in order to obtain a greater portion of high value flour as well as to minimize the output of low value by-product which is, as stated above, difficult to sell. In so doing, however, they low-

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<sup>20</sup> Jan Boomkamp, Tables 11 and 21.



TABLE VI  
MILLER-IMPORTERS, BEDOYA AND GRACE

	<i>Grace</i>	<i>Bedoya</i>
Mill Capacity (M.T. flour per year) <sup>a</sup>	17,280	37,800
Mill Capacity as Percent of National Total	21	45
Flour Production (M.T. average 1961-1967)	2,967	7,719
Flour Production as Percent of Capacity (average 1961-1967)	17	20
Wheat Imports (M.T.)	3,793 <sup>b</sup>	10,472 <sup>c</sup>
Flour Imports (M.T.)	38,842 <sup>b</sup>	10,075 <sup>c</sup>

<sup>a</sup> Assuming a 75 percent extraction rate of flour from wheat.

<sup>b</sup> Average for 1961-1967. The 38,842 M.T. average includes imports by Grace for other companies.

<sup>c</sup> Average for years 1965-1967 only.

ered the quality of domestic flour making it even more non-competitive with imported flour. In an attempt to prevent the complete collapse of the Bolivian milling industry, the government decreed that one out of every four parts of flour sold in Bolivia must be of national origin. In light of what has been said above, it is not surprising that as a result of these actions, the Bolivian milling industry only utilized between 25 percent 25 percent and 30 percent of total capacity in 1968 as seen below. The reader will note that once again Señor Quiroga is only partially correct when he says that Bolivia has sufficient milling facilities. From table 6 above, one can see that were Bolivia to cease importing flour tomorrow, she would not have adequate plant and equipment to mill over 100,000 additional metric tons of flour.

TABLE VII  
WHEAT MILLED AS A PERCENTAGE OF CAPACITY  
ESTIMATES: BOLIVIA 1950-1968

	<i>Minister of Agriculture Estimate<sup>a</sup></i>	<i>Bolivian Millers' Association Estimate<sup>a</sup></i>
1950	56	45
1951	60	48
1952	44	35
1953	84	67
1954	66	53
1955	76	61
1956	78	63
1957	51	41
1958	29	23
1959	24	19
1960	11	09

1961	08	06
1962	11	08
1963	15	12
1964	16	12
1965	24	19
1966	26	21
1967	28	23
1968	32	26

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<sup>a</sup> Absolute estimated capacities: Ministry of Agriculture = 88,000 metric tons and Bolivian Millers' Association = 110,000 metric tons.  
Source: Dirección General de Estadísticas y Censos.