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Export Growth and Diversification: The Peruvian Case

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Export Growth and Diversification: The Peruvian Case

Peru's export experience and its excellent growth record provide clear and convincing evidence that liberal economic policies can be successfully employed in less developed countries. Today, many of the developing countries, discouraged by what they considered to be a slow expansion of world demand for their traditional exports, and despairing of their chances of penetrating world markets with new products, have turned inward. They argue that growth is not possible without the capacity to produce goods which substitute for imports. They believe that orthodox policies cannot help and are sure to be painful.

Peru's traditional exports have not shown the perversity which is supposed to be so characteristic of primary producing countries. The country's exports have even managed to survive the occasional protectionist and dumping tactics of some of its trading partners. They have demonstrated that it is quite possible to develop important new exports to compete in world markets with developed and developing countries alike. In short, the Peruvian case should provide a valuable object lesson to those countries where unorthodox policies have yielded disappointing results.

Exports and growth

The Peruvian economy has demonstrated an outstanding capacity for growth. Over the period 1950-63, real GNP grew at an average annual rate of 5.4 per cent (Table I). Real GNP per capita increased at an annual rate of 2.8 per cent over the same period. This was accomplished with relatively little inflation (the cost of living increase averaged about 7 per cent over the period). The export-oriented sectors led in the gains. The ratio of exports to GNP averaged 19 per cent for the period and tended to increase (it averaged 23 per cent in the last three years).

Table I

Real Gross National Product, 1950-63
(at 1960 prices)

	<u>GNP</u> <u>(Millions of soles)</u>	<u>Annual</u> <u>changes %</u>
1950	31,346	
1957	44,233	+ 5.0 a/
1958	46,778	+ 5.8
1959	46,401	- 0.8
1960	51,183	+10.3
1961 (prel.)	56,212	+ 9.8
1962 (prel.)	59,060	+ 5.1
1963 (prel.)	62,240	+ 5.4

a/ Annual average, 1950-57.

SOURCE: IMF and Banco Central de Reserva del Perú.

Peru ranked ninth in export growth among the less developed countries over the period 1953-62. Exports increased at an annual rate of 9.7 per cent during that time. Furthermore, the increase has shown few interruptions, with only four years of the fourteen-year period 1948-62 showing declines over the previous year. Only during 1952-53 did the decline exceed one year, and the loss was fully recouped in 1954. (See Table II). Preliminary figures for 1963, revised down from earlier estimates, indicate a small increase.

Table II

Year-to-Year Percentage Fluctuations
in Dollar Value of Total Exports, 1949-62

1949	- 6
1950	+ 27
1951	+ 31
1952	- 6
1953	- 6
1954	+ 12
1955	+ 9
1956	+ 15
1957	+ 4
1958	- 12
1959	+ 11
1960	+ 39
1961	+ 15
1962	+ 9

SOURCE: IMF, International Financial Statistics

The ups and downs of exports since 1949

Exports in the year 1950 showed a marked recovery from the slack 1949. Part of the gain can be attributed to higher prices, related to the outbreak of the Korean War in June 1950. But also of consequence was the devaluation of 1949, the elimination of exchange restrictions during 1949-50, and liberalized foreign investment laws. The expansion extended into 1952. However, the end of the Korean export boom in early 1952 was felt by Peru in the form of sharp drops in cotton and sugar prices. It is nonetheless interesting to note that much of the decreases in price was offset by increases in quantum, thus containing the decline in total value of exports to 6 per cent in each of the years 1952 and 1953.

In 1954, exports resumed their rise and continued to increase until late 1957. This expansion was due in part to the Government's stabilization policies. These policies consisted first, in early 1953, of supplementary commercial bank reserve requirements and selective credit controls (on certain types of consumer credit and on building construction). These steps, which proved insufficient to stem the increase in the money supply, were followed in late 1953 by measures to control the expansion of central bank credit to the government and by

increases in basic legal reserve requirements. Finally, in early 1954 speculative attacks on the sol were stopped by the announcement of 30 million dollars in stabilization credits from the IMF, the U.S. Treasury, and a private New York bank.

The export expansion was interrupted in 1958. The decline stemmed from a fall in commodity prices which began in 1957, and from U.S. export-import policies with respect to cotton, lead, and zinc, which reduced the volume of these commodities sold by Peru. Since the affected industries accounted for about 40 per cent of the GNP, a recession resulted. The Government, which had embarked upon inflationary deficit spending in the election year of 1956, found itself unable to curtail those activities in the face of recession. Inflation and a balance of payments crisis followed. Eventually the exchange rate was allowed to depreciate, and this at least prevented a further deterioration of exports.

In 1958, the central bank set out upon a course of general tightening of credit, but its efforts were largely negated by (1) continued treasury borrowing from the central bank, and (2) crippling six- and eight-week bank strikes in 1958 and 1959, respectively, which seriously undermined enforcement of legal reserve requirements.

It was not until 1959 that Peru's exports regained the strength of earlier years. In part, this was due to higher prices, especially of copper and cotton. But, more important, there was a change in domestic policies following the appointment of Pedro Beltran as premier and minister of finance in July 1959. Government spending was cut and taxes were raised. Treasury borrowing from the central bank was halted. A 100 per cent marginal reserve requirement was imposed and the penalty rate on legal reserve deficiencies was increased from 12 to 18 per cent and enforced. In addition, rediscount rates were increased sharply. Finally, the Government made an important move in rescinding legislation restrictive of the fishmeal industry. The combined effect of these factors was a sustained expansion of exports together with a rapidly growing economy and relative price stability.

Preliminary figures indicate that exports in 1963 were only about one-half of one per cent above the 1962 level. It may be that special conditions surrounding the evolution of the fishmeal industry, discussed in some detail below, explain at least part of the disappointing performance.

The changing composition of Peruvian exports

Peruvian exports are characterized by a diversity which has tended to increase over time. Table III shows this clearly for the fifteen-year period 1949-63. The traditional exports, going even as far back as 1915, consist mainly of cotton, sugar, copper and petroleum. In 1963, these commodities accounted for almost one-half of total exports. However, in 1915, these same four commodities earned over three-quarters of total trade receipts. Since that time, coffee, lead, zinc, iron ore, and fish products, notably fishmeal, have greatly affected both the composition and the level of exports. The table shows that lead and zinc had already become important by 1949 (14 per cent of the total in that year), and those commodities have become relatively less important by the early sixties (6 per cent in 1962). The most dramatic increases have been registered by fishmeal and iron ore

Peru: Commodity Composition of Exports (stated as percentages of total exports)

	1949	1950	1951	1952	1954	1956	1958	1960	1961	1962	1963 p.
Cotton	30	35	34	33	26	28	26	17	16	18	17
Sugar	17	15	13	14	13	11	12	11	13	10	12
Lead	9	6	9	10	10	10	8	5	4	3	3
Copper	9	5	6	7	8	11	8	22	21	17	16
Petroleum	15	13	8	7	7	8	6	4	3	2	2
Silver	4	4	4	5	6	6	7	6	6	6	7
Iron Ore	0	0	0	0	5	5	6	8	7	6	7
Zinc	5	5	6	6	4	5	4	4	4	3	3
Fishmeal and other Fish products	3	3	2	3	5	5	7	12	14	22	23
Coffee	1/	1	2	1	3	3	5	4	5	4	5
Other	8	13	16	14	13	8	11	7	7	9	5
	100	100	100	100	100	100	100	100	100	100	100

1/ Less than 1/2 of 1 per cent.

p. Preliminary.

Note: Items may not add to totals due to rounding.

SOURCE: Banco Central de Reserve del Peru, Boletín, Enero de 1964, pp. 34, 39.

(22 per cent and 6 per cent, respectively, of total exports in 1962). Indeed, the former commodity became Peru's most important export in 1962 and appears to have retained that position in 1963. Nevertheless, it is important to note that the traditional commodities have continued to increase in absolute value. Without their continued expansion, total exports would not have shown the growth already mentioned.

Copper is an especially noteworthy illustration of a traditional export which continues to show great strength. The explanation lies with the Toquepala mine of the Southern Peru Copper Corporation (owned by U.S. interests and financed in part with a \$100 million credit from the Export-Import Bank) in the impoverished, indigenous region of southern Peru (Department of Tacna). Prior to the Toquepala development, copper was extracted principally from the central Andean region (notably the Cerro de Pasco works). The new mine commenced exporting in 1959 and had its first major impact on the country's trade account in 1960.

Cotton and sugar are also examples of traditional exports which have continued to show substantial absolute growth. In 1950, these two commodities earned \$98 million, while in 1962 their combined earnings rose to \$151 million. Adding lead, zinc, silver, and coffee, 1962 dollar earnings for long-time exports reached \$247 million, as compared with \$132 million in 1950. In fact, petroleum is one of the few traditional exports which has declined in absolute value in recent years.

Iron ore, on the other hand, is an example of a relatively new export. This mineral made its first appearance in 1953, in which year it accounted for 3 per cent of total exports. The site of the first mine is at Marcona on the coast of Southern Peru in the department of Ica. The company is jointly owned by two U.S. steel concerns. Later in 1959, a new mine went into production at Acari, in Arequipa department, just south of Marcona. The exploitation of Peru's iron ore reserves commenced about the same time as did those in Venezuela and Brazil, in response especially to the increased needs of the U.S., which was faced with declining reserves in the Mesabi range. Peru's iron ore exports rose rapidly until they accounted for 8 per cent of total exports in 1960. They have since continued to increase in absolute value, keeping pace with the rapid growth of total exports, even though increasing amounts of ore have been diverted to an integrated steel mill located in Chimbote. This mill began operations in 1958 and is now being expanded to provide sufficient capacity to meet Peru's current needs.

However, Peru's most dramatic new export is fishmeal. The story of fishmeal is worth telling in some detail because, in spite of the perhaps prosaic sound and uninviting air of the subject, it does in fact convey very important lessons in the development and propagation of exports, which are so essential to the economic growth of developing nations.

The case of fishmeal

Fishmeal is the industrial by-product of the anchovy. It is used mainly as the protein base for animal feed. Not since the guano age of the last century had the anchovy played an important role in the country's economy.

In 1940, aggregate fish exports (mainly bonito and tuna) accounted for less than 1 per cent of total exports. By 1950, the ratio had increased to 3 per cent and in 1955 to 4 per cent. During this time, the relative importance of anchovy increased from less than one-half of the total fish catch in 1940 to two-thirds by 1957. It kept on rising and reached 90 per cent in 1959; in 1962 it was 97.7 per cent. Less than one per cent of the total catch is consumed domestically.

As Table IV shows, a sustained secular increase in total fish exports began about 1949, accelerated in 1958 and, between 1959-62, virtually exploded. By 1962, fish ranked first among Peru's total exports, with fishmeal and its derivative, fish oil, accounting for almost all of the total. Between 1960 and 1962, fishmeal export earnings rose from about \$40 million to \$100 million. Including fish oil, total earnings rose from about \$49 million in 1960 to \$120 million in 1962. Equally interesting, Peru is now the world's leading supplier of both these products, providing over two-thirds of total world exports of fishmeal and one-quarter of world exports of fish oils.

Table IV
Fish Exports, 1940-62

<u>Year</u>	<u>Volume (MT)</u>	<u>Value (\$/.000)</u>	<u>Value/total exports</u>
1940	95	18	.00004
1945	6,587	6,560	.01
1946	10,509	12,560	.01
1947	6,232	16,663	.02
1948	6,439	18,418	.02
1949	11,549	52,335	.02
1950	21,571	85,529	.03
1951	23,529	91,387	.02
1952	29,967	120,449	.03
1953	31,631	127,492	.03
1954	46,499	234,937	.05
1955	53,267	241,195	.05
1956	66,449	299,461	.05
1957	103,876	374,879	.06
1958	146,526	482,702	.07
1959	367,944	1,244,888	.14
1960	592,230	1,416,816	.12
1961	865,049	1,917,566	.14
1962	1,232,782	3,256,459	.22

SOURCE: Banco Central de Reserva del Perú, Boletín, Noviembre de 1963, pp. 47 and 52.

Historically, the Peruvian fishing industry has been constrained by the guano interests and especially by the official monopoly *Compañía Administradora de Guano*. Guano, the droppings of Guanay birds, is used as plant fertilizer. The *Compañía* has based its position on the assumption that free exploitation of the anchovy, by depriving the guanay bird of its chief source of food, would destroy the guano industry. However, this assumption has been seriously questioned. It is now recognized that El Niño, the rather unpredictable warm-water current flowing in from the north over the cool water of the Humboldt current, drives the anchovy to lower depths and presses them closer to the coast, and so accounts for the occasional decimation of the bird population, which abandons its nests on the guano islands. Furthermore, recent estimates of the anchovy population of the Humboldt current run about 20 million metric tons and the guanay at normal population of 30 million are estimated to consume approximately 4 million metric tons. The question is whether such relationships permit an ecological balance satisfactory to guano and fishmeal interests as well as the interests of conservation. The question does not yet seem to be resolved, but a combination of oceanographic, economic, and political factors have at least for the present resolved the issue to the benefit of fishing interests--and the Peruvian balance of payments.

Some experts associate the present fishmeal boom with a combination of adverse oceanographic conditions off Norway and favorable conditions off the Peruvian coast which, in effect, provided the basis for a stronger Peruvian comparative advantage. In fact, Peruvian costs of reducing anchovy to fishmeal proved extremely favorable relative to the world prices. The average cost of producing a ton of fishmeal in 1958 has been estimated at about \$70; the average price FOB Peruvian ports was \$140 in that year. On October 9, 1959, the government of Peru issued a supreme decree reversing Supreme Resolution No. 217 of December 1, 1956 which prohibited the establishment of fishmeal plants. It is reported that there were 170 pending applications to establish new factories at the time of the 1959 decree.

There resulted what has been referred to as a "gold rush" into the industry by private capital, mainly domestic but also foreign. Total investment in the fishing sector, estimated at around \$15 million as late as 1957, has now increased to \$190 million.^{1/} A national fisheries census taken in July 1961 reported 121 fishing enterprises consisting of 297 plants. Ninety-seven of the enterprises (130 plants) produced fishmeal and 79 produced fish oil (a derivative of the fishmeal reduction process used both in food fats and for industrial purposes). However, a 1962 report by an official of a joint government-FAO project (*Instituto de Investigación de los Recursos Marinos*) indicated that there were a total of 146 operating plants in that year, 118 producing fishmeal and fish oil. These plants are concentrated in the major ports from Callao north to Chimbote. To indicate the extent of concentration, industry sources early in 1963 reported that 12 enterprises account for 53.46 per cent of Peru's total fishmeal production.

The industry has undergone considerable change since its incipient boom, partly as a result of growing pains. Its first crisis occurred in 1960 when the price of fishmeal took a steep dip from \$140 per ton FOB Peruvian ports in 1958, hitting a low of \$63 in January 1961. The large spread between cost of production

^{1/} As reported by a fisheries industry review, *Pesca*, issues of June and September 1963.

and price served as a short-run buffer. Evidently there were bankruptcies, resulting in some concentration in the industry. But many firms were able to reduce costs even further, mainly by reducing what are reported to have been very high prices and wages to fishermen.

In the meanwhile, leading producers initiated plans for stabilizing the industry. Months of negotiations resulted in a conference of international fishmeal producers in Paris at the end of September 1960. Export quotas were established with Peru initially receiving 60 per cent (600,000 tons) of the total. The National Fisheries Society of Peru was made responsible for administration of the country's quota. In each year since 1960, Peru's share of the quota has been increased, exceeding 1,000,000 tons in 1963.

The next important step taken by Peruvian producers to stabilize the industry was the establishment of a marketing organization called the Consorcio Pesquero del Peru, S.A., which started operations in February 1961. The record of the organization has been impressive. Producers with over 80 per cent of the country's output have joined, and many of the non-members have loosely organized as "independents," in fact adhering closely to the policies and practices of the Consorcio. The principal objective, market stabilization, was realized within three months of the start of operations: the price rose to \$95 per ton C & F European ports (freight charges were about \$21 per ton). The organization estimates that the average price per ton since it began operations has been about \$100 FOB Peruvian ports. It seems that the principal control instrument involves a sales policy strictly enforcing quotas on future and current sales. It is reported that compliance has been excellent and that major members have signed an irrevocable agreement to cooperate with the Consorcio at least through 1965.

Another crisis has recently confronted the industry. Early optimism resulted in very thin equity financing, such that, of a total investment of \$190 million, some 80 per cent represents credits from banks, national and foreign suppliers, and national financing firms. There are indications of excess capacity. Failures appear imminent. However, barring a repetition of the type of labor difficulties occurring in early 1963, and assuming the continued effectiveness of the Consorcio in stabilizing the export market, it is generally believed that the problem is more of a short run nature which will probably result in further concentration in the industry.

There is no question but that Peru has developed a strong comparative advantage in the export of fishmeal. This is of course due in part to natural, oceanographic and climatic factors (the fishing season, extending from October to May, is extraordinarily long). But one need only note the retarded or at least belated development of the fishmeal industry in hyper- and repressed-inflationary Chile, 2/ where natural advantages emanating from the Humboldt current compare favorably with those enjoyed by Peru, to recognize that additional important factors are necessary to explain the remarkable progress in the latter country.

2/ Actually, Chile began encouraging the industry in the fifties, by the use of preferential exchange rate. This special treatment was removed in 1958. Subsequently, export bonuses were initiated, as were tax concessions. At the end of 1962, Chile's fishmeal exports earned \$7.9 million, up from \$1.7 million in 1960 but still far below Peru's 1962 earnings of \$100 million. (Including fish oil, Peru earned \$120 million in 1962 as compared with Chile's \$9 million.)

The conclusion would appear unavoidable that it is private initiative operating within a favorable politico-economic environment which has provided essential ingredients in the form of entrepreneurship, capital and labor. Both Peruvian and foreign capital have taken maximum advantage of the stable, free-economy conditions which are so characteristic of modern Peru. ^{3/} Direct investments from such experienced fishmeal-producing countries as the U.S., Japan and Norway are growing in importance. In 1963, foreign investment constituted about 15 per cent of total investment in the industry. In January 1964, it was announced that Van Camp of California expects to invest about \$3 million in the expansion of its present facilities in Peru.

The fishmeal industry has had a measurably important impact on employment, industry, and government finance. It has been estimated that more than 40,000 people gain employment in fishing, fishmeal, and directly related industries in the country. An additional 350,000 are said to be indirectly dependent on the industry for their livelihood. These are significant figures indeed for a country with a total work force of about 4 million. It is also interesting that, except for marine engines, the industry is now largely supplied from within the nation. Of further importance to the economy are the taxes levied on the industry, estimated in excess of 600 million soles (\$22.4 million), over 5 per cent of total public revenues.

From a technical, if speculative, standpoint, the future of the industry also appears sound. An official of the FAO's fisheries mission has estimated that Peru should be able to sustain a catch of 9 million metric tons of anchovy per year "plus or minus 2-3 million tons." Given the prevailing fishmeal/anchovy reduction ratio (which is probably low due to the reportedly large number of marginal-to-submarginal producers still in existence) a catch of 9 million tons would make possible a fishmeal output about 50 per cent above that of 1963. However, it should be emphasized that any such estimates, be they of future anchovy population, catch, or quality, or of the reduction ratio, are extremely rough and subject to change over time.

Conclusion

In the foregoing, a rather glowing picture has been painted of the Peruvian economy, at least by implication deriving from its very successful export sector. The tremendously complex and pressing problems of the Andean Indian as well as the potentials of the Amazon region have been relegated to a footnote. But the dynamism of the export sector as a growth pole or center for the diffusion of benefits throughout the country should not be under-estimated, especially in view of the potential impact of such industries as fishmeal. Indeed, the actions of the Peruvian Government appear to corroborate this view inasmuch as its program for 1964 seeks to apply the rewards reaped from the export sector to the amelioration of the Andean problem and the future exploitation of the Amazon region.

^{3/} This is not to suggest that the Peruvian economy has attained a state of integration comparable to "advanced" economies such as, for example, Norway. The problems of the Andean Indians and the relatively unexploited Amazon region are still very real. However, even with respect to these problems, rapid change, generally equatable with material human progress, is occurring. In this sense, one might view the more advanced "money economy" of the coast as a growth pole within which such labor-intensive industries as fishmeal are making an important contribution to the rest of the nation.

In fact, Peru's recent export record is largely responsible for its very enviable growth record. The lesson to be derived is simply the crucial importance of maintaining the dynamism of the export sector. Without being dogmatic it is possible to observe simply that Peru's experience warrants the continuation of those public policies which have enabled the country's rapid progress. There ought also to be some valuable policy lessons which other developing countries can derive from the Peruvian experience.