

## FOREIGN INVESTMENTS IN THE PHILIPPINES

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This paper presents a concise summary of the study on investment in firms that engaged in foreign exchange transactions during 1956. This study formed a part of "A Statistical Inquiry Into Postwar Foreign Investments in the Philippines" which was conducted by this student of statistics in collaboration with the Central Bank of the Philippines.

The primary purpose of the study was to collect and assemble key information relating to non-Filipino or alien investments in the Philippines.

The significance of foreign investments to the Philippines stems from a characteristic of developing economies: the marked tendency of imports to exceed exports. During the five-year period 1954-58, the Philippines incurred a deficit in the current account of its balance of international payments aggregating close of \$250 million. Under this situation, foreign investments play an important role in augmenting the economy's capacity to import, bridging the gap in the current accounts of the balance of payments.

The study was directed towards the collection of information on (1) net worth value of investments; (2) total assets; (3) inventories; (4) net sales; (5) number employed; and (6) net earnings. The study was designed to obtain this information on all firms with non-Filipino investors — hereinafter designated as alien firms — which engaged in foreign exchange transactions during fiscal year 1956. The actual coverage depended finally on the cooperation of the firms.

The firms were grouped in accordance with the availability of the desired information from the files of the Central

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## THE ROLE OF STATISTICS IN DECISION-MAKING

In bringing economic decision-making to higher professional levels, we shall be doing a signal service to the country as a whole. Often in the past, we have tended to confuse slogans with courses of action, good intentions and pious principles with decisive economic leadership. But this unfortunate tendency to substitute platitudes for coherent programs is a dying creed. Already a growing number of our people are beginning to achieve a sophistication towards economic proposals they decidedly were not capable of a decade ago. Our mass media are devoting keener attention to the economy. "Miracle" economic cures that used to sweep the public some years back get scantier and scantier adherence from the ordinary citizen. Much of course still remains to be done, but at least we have traveled some length of the road toward public enlightenment. Many have helped in bringing about this upward swing in the public's perception of the economy. The government itself, political and business leaders, the mass media, popularizers — all have shared, contributed. But by all means, as large a share of the credit for this work must go to the Filipino statistician whose professional skill and objectivity produced the mountain of facts on the basis of which our leaders have been able to point out clearer economic directions for our country.

Through you, distinguished trainees, allow me to salute him.

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Bank. Producer firms had submitted financial and operational statistics which were available to the study. Complete data on importers, exporters, and remitters of profits were not available in the files of the Central Bank. The information on the non-producer firms was collected by means of mailed questionnaires. Of the 2,290 non-producer firms listed in the Central Bank firms — made up of alien as well as Filipino firms — that were sent questionnaires, only 1,496 responded. Of these respondent firms, 521 were reportedly alien firms. However, 18 of the alien firms failed to accomplish the forms properly. The study covered 1,054 alien firms altogether.

### I

The net worth value of the equity of non-Filipino investors in this group of firms aggregated P918 million by the end of FY 1956, of which resident and non-resident investors had claims on 34 per cent and 66 per cent, respectively.

American investors owned a full six-tenths of the total alien equity reported. The bulk, 86 per cent, of these American investments belonged to non-residents. In contrast, 93 per cent of Chinese investments characteristically belonged to residents in this country. Chinese investments accounted for a good 19 per cent of the total alien equity.

Although corporations constituted less than half the number of alien non-financial firms, three-fourths of alien investments were held in the form of corporate equity. In the case of non-resident aliens' equity, the major portion were invested in corporations (76 per cent), and a significant block (of over 23 per cent) were located in local branches of foreign companies.

Alien investments were largely held in the equity of firms the aliens controlled. Their investment in firms wherein they constituted minority equity holders accounted for less than 22 per cent of the total. Non-resident aliens concentrated their

investments even more (86 per cent) in firms where they exercised majority control.

Alien investors' share in the profits realized by this group of firms, net of business income tax, amounted to ₱156 million during the year. These firms yielded a higher rate of return to investments of non-resident aliens (18.3 per cent of year end net worth) than of resident aliens (14.7 per cent). These comparative rates of return on resident and non-resident aliens' investment resulted from the performance on American investments. Among the five nationality groups of investors, only non-resident Americans realized a rate of return higher than that of resident Americans (19.6 per cent vs. 15.7 per cent).

Firms controlled by aliens realized a higher (18.7 per cent) return on equity of non-resident alien investors relative to the 17.1 per cent yield from firms wherein they constituted minority holders.

This group of alien firms was able to sell products, both goods and services, for ₱2.44 billion during the year. Net sales of non-financial firms accounted for over 98 per cent of the total sales; the remaining 2 per cent consisted of gross earnings of the eight financial institutions.

The ₱2.40 billion sales of non-financial firms represented a (year-beginning) assets turnover of once every 8 1/2 months. Combined with an 8.1 per cent profit margin on sales, these non-financial firms realized a post-business income tax return of ₱11 per ₱100 of assets held at the beginning of the year. The post-tax profits represented a yield on investors' equity, which financed over six-tenths of total assets, of 18.7 per cent.

Although the financial institutions' return on assets appeared very low at 2.4 per cent, the yield on investors' equity was higher (21.6 per cent vs. 18.7 per cent) than the yield realized by the nonfinancial firms. The wide difference between rates of return on assets and on equity arose from the special

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characteristic of banking institutions as expressed by the very low proportion (11 per cent) of equity to assets.

The alien firms accumulated assets over the year valued at almost P290 million, a 12.6 per cent increment on assets held at the beginning of the year. Acquisition of these incremental assets was made possible by increases in the firms' equity and liability, in the proportion of 52 per cent and 48 per cent, respectively. Non-financial firms accumulated assets at a higher rate than that of financial firms (13.1 per cent vs. 10.9 per cent). A greater proportion of the acquired incremental non-financial firms' assets, was financed by additions in equity. The reverse was true in the case of the newly-acquired financial assets, almost two-thirds of which were financed by additional liabilities.

Allocation of the incremental equity of P150 million or 20 per cent to undistributed profits or inflow of capital was not feasible with the collected statistics. Additional information would be necessary to establish the source of origin; information of the profit disposition policy of business or (alternatively) the volume of new capital entering these firms. The significance of the latter source of financing was evident in an analysis of the financial operations of the eight banks. Equity of these banks increased by P24 million over the year, an amount equal to 271 per cent of net profits realized.

Of the total increase in non-financial firm's assets over the year, over a fifth was used to increase inventory volume by 11 per cent. The year-beginning value of inventory was equivalent to 19 per cent of sales during the year; or net sales represented an inventory turnover period of 3 1/2 months.

Of the total net receipts from sales, these alien firms reportedly used 12 1/2 per cent for purchases of labor services during the year. The firm's operations gave rise to the employment of 134,400 persons during the year. The majority of the employees in the non-financial firms were Filipino citizens; alien employees constituted only 5 per cent of the total number employed.

Annual payroll-employment ratio averaged P2,230 for all the alien firms. The financial firms reportedly paid a higher average compensation to employces, higher by 130 per cent of the non-financial firms' average rate of labor compensation.

The economy invested an average P17,100 worth of year-beginning assets in these alien firms for each person employed, and supported their employment with sales receipts of P18,100 per person. In view of the special nature of their business operations, the average assets-employment ratio of the financial firms was a high P361,000 per person or 28 times the corresponding average ratio of the non-financial firms. Gross earnings of financial firms were equivalent to P24,400 per person employed, on the average, while sales receipts of the non-financial firms averaged P18,000 per person employed.

## II

The fastest turnover among non-financial firms was characteristically achieved by trading firms, with sales volume of P188 per P100 of assets held at the beginning of the year. Public utility companies reported the slowest turnover of assets of about two years. However, mining firms reported the highest net return on assets, exceeding 20 per cent and far above the 11.4 per cent average return on total non-financial firm's assets. This was accomplished by a relatively high 22.1 per cent profit margin on sales.

Firms engaged in "other activities," which was the only group that incurred a loss, was the only group that had insufficient equity coverage on liabilities. The five other industry groups were all financially capable to meet their liabilities: their proprietary ratios (net worth/assets) ranged from the high 84 per cent in mining to the low 56 per cent in trading.

The rate of asset accumulation over the year was highest in the mining group (36 per cent) and lowest in the public utilities group (9 per cent). However, most of the increase

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in public utility assets was significantly financed internally. Manufacturing firms invested the highest (31 per cent) proportion of incremental assets into inventory stock; about twice as big as the proportion invested by agricultural, mining, and trading firms (around 15 per cent).

Of total sales receipts, trading firms paid the least proportion to labor services — labor costs averaging 7.2 per cent of sales. This was the only industry group with a payroll-sales ratio below the 12.4 per cent average reported by all the non-financial firms. However, trading firms paid the highest average annual payroll per person employed (P3,390) among the non-financial industry groups.

The average 5.1 per cent margin on sales of the 474 commercial firms stood between the high 8.9 per cent realized by machinery and equipment dealers and the low 0.6 per cent of exporters. There was a marked inverse relationship between the profit margins and assets-turnover of the different lines of business. All the five lines of business with above trading-average profit margins reported slower than average assets turnover.

This inverse relationship between profit margin and assets turnover among the ten classified trading groups of firms narrowed down the very wide gap between the highest and the lowest profit margin groups. While the profit margin of traders in machinery and equipment was almost 15 times the margin reported by export-dealers, its realized return on assets was only four times as high. The gap narrowed down further when net profits were translated in terms of returns on the investors' equity. By having financed proportionately twice as much of year-beginning assets with credits, returns on investors' equity of export firms came up to within 44 per cent of the rate of return on the equity invested in machinery and equipment trading firms.

The 525 "alien" manufacturing firms covered by the study not only realized an average profit margin higher than the commercial firms, but more significantly, the rate of earn-

ings of the lowest-margin group was also nine times higher than the corresponding lowest margin trading group. On the other hand, manufacturers reported a slower assets turnover relative to the turnover of trading assets. The 3.3 points difference between average manufacturing and trading profit margins on sales thus narrowed down in the subsequent stages to 1.6 points in returns on assets, and then to 1.4 points in return on equity.

The over-all manufacturers' inventory volume increased in pace with the average increase in their assets. The proportion of assets invested in stocks of inventory ranged from a high 38 per cent of chemical and pharmaceutical manufacturing assets to a low 21 per cent of leather, rubber and plastic manufacturing assets.

### III

A comparative analysis of variable characteristics of studied subjects requires a common datum with which to identify the validity of the conclusions drawn. An analysis of the comparative structure and operations of the alien firms by controlling nationality would be deficient in this respect because non-Filipino controlled firms include partially as well fully-owned firms, whereas Filipino controlled firms include only partially-owned companies.

This deficiency was corrected by estimating the Filipino fully-owned firm's characteristics through stratified random sampling. Statistically, the sampling procedure was used to examine the efficiency of a sample in providing estimators of characteristics other than the statistics with which it was designed.

The scope of the study was reduced, however, by the unavailability of the information sheets of producer firms which were being used daily in the management of import control. Consequently, estimates for the Filipino fully-owned firms were limited to 926 trading firms and 429 garment-manufacturing firms.



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The estimation procedure was broken down into two operations to improve the efficiency of estimates: First, the bigger firms — 46 manufacturing firms with equity of P100 thousand and above, and 34 trading firms with assets of P1 million or more — were segregated for complete count. Characteristics of these firms possessed a very high degree of variability.

The remaining 892 trading firms and 383 manufacturing firms constituted the two separate populations from which samples were drawn. Sampling of the trading firms was based on total assets since this constitutes the basic characteristics which is most rationally associated with all the other characteristics to be estimated. Sampling from the manufacturing firms, however, was based on the only available characteristic — net worth — with which a sample can be drawn.

Stratified random samples, with optimum allocation of sample units among the strata, were drawn for each of the two populations. Within the stratum, sample units were selected proportional to size and without replacement. The sample designs were tested for sufficiency of size under the specification that the estimator will not deviate from the population mean by more than 15 per cent in nineteen out of twenty drawings.

Two stratification schemes were tested on the manufacturing firms, from which the more efficient sample was chosen for adoption in the final samples: The first stratification scheme was made by arranging the firms by the size of paid-up capital. Four strata were formed by dividing the ordered firms such that the aggregate capital of the firms in each stratum were as nearly equal as possible. The second stratification scheme also divided the ordered firms into four strata by making the standard deviations of the firms' capital in each stratum as nearly equal as possible. The groupings of firms into four strata were subject to the restraint that firms having the same amount of capital belong to the same stratum.

A comparison of the coefficients of variation of the two samples drawn from the group of manufacturing firms indicated that the first stratification schema was more efficient, registering a gain of 12 per cent over the second schema. On this basis, the stratification scheme used for the sample of trading firms was patterned after the design of the first and more efficient schema.

The acceptable limit of variation indicated sample sizes of 30 manufacturing firms (out of 383) and 29 trading firms (out of 892). For operational purposes, the size of the sample of manufacturing firms was increased to 10 per cent. Although a 5 per cent sample size was indicated for the trading firms, a 10 per cent sample was drawn to provide for the estimation of characteristics other than the one used in the design. The sample on manufacturing firms showed that while it was efficient in estimating the equity, it failed to satisfy the acceptable specification when used to estimate two of the other nine characteristics.

Final estimates were then given by the sum of the values collected from the complete count of bigger firms to the estimates obtained from the samples.

The information, when combined with the data of the completely enumerated firms, showed that Filipino-controlled trading firms accounted for 35 per cent of year-end assets of all the firms. This was smaller than the assets of American controlled firms. However, Filipino controlled trading firms chalked up the biggest volume of sales, and employed the largest number of employees among the firms classified by control of other nationals.

Filipino-controlled trading firms earned a return of 13.4 per cent on year-beginning equity which was lower than the 16.5 average for the entire trading firms. American-controlled trading firms reportedly earned the highest (21.9 per cent) return on year-beginning equity.

Filipino-controlled firms reportedly ran the bigger part of the textiles and garment manufacturing activity in 1956, hold-

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ing more than sixtenths of the industry group's assets, receiving more than 60 per cent of its sales volume, and employing over seven-tenths of the industry group's work force. Filipino-controlled firms in this industry group reported returns on year-beginning equity of 19.8 per cent, higher than the average return for the group as a whole (16.6 per cent).

Chinese-controlled firms held the second and only other significant block of the industry group's assets (28 per cent), sales volume (34 per cent) and employment (25 per cent). These Chinese-controlled firms reportedly earned only 7.3 per cent return on year-beginning equity.

### IV

Sampling techniques can be used to advantage in providing estimates of a number of characteristics of a population of firms. There is, however, a need for closely examining the firms' characteristics before a sample is designed, particularly the tendency of big firms to disperse widely. The varying efficiencies of the sample estimates, differentiated only by the stratification scheme adopted, suggest also a carefully thought-out selection of the characteristic used as basis for the design.

Alien capitalists showed a strong preference for firms wherein they exercise majority control. This preference was very marked in the distribution of non-resident aliens' investments, particularly of non-resident American investments.

This pattern was advantageous to American non-resident investors because firms they controlled yielded a higher rate of return on net worth than firms wherein they constituted minority equity holders. However, firms controlled by Chinese, British and Spanish investors returned less on alien investments than firms not under these alien investors' control.

#### Editor's Note:

\* Anybody interested in the complete data of the study may request the author for these data at the Central Bank.