

required balance sheet and income statement data from respondent firms. No attempt will be made to explain these data except in direct relation to adjustments which have to be made for purposes of this study. The exception to this statement concerns foreign exchange conversion rates.

Exchange conversion rates. The foreign exchange conversion problem is important, and it will be helpful to describe what the US Department of Commerce did to handle it. Ordinarily the firm reports of balance sheets and income statements were submitted in US dollars and in foreign currencies, with the conversion mechanics described. These reports yielded average rates of exchange of the foreign currencies which were then applied in converting those reports submitted only in terms of foreign currencies. The average exchange rates used for selected countries in 1957 is reported as Appendix Table A1 for those interested. The US Department of Commerce recognized that exchange rate conversion practices were not identical for all companies in the same country. However, "the method used would produce a result consistent with the conversion practices followed in a majority of cases...." (p. 79).

The income statement. It has been stressed that the quantifications of the domestic factor gain index are fundamentally dependent on the income statement. A consolidated

income statement showing the allocation of receipts for all US foreign investments in different regions and countries is presented as Appendix Table A2. The data are already adjusted to take into account the requirements of this study. The allocation of current expenditures (as reported in Table 28 of the source) contains only the following items: (a) materials and services, (2) wages and salaries, (3) depreciation and depletion, (4) interest, (5) other taxes (indirect), (6) income taxes, and (7) other unallocated.

The last item is of immediate importance, because it consists of net profits after taxes. This item, however, is not fully consistent with reports of net earnings, both total net and undistributed accruing to US citizens. Thus, there were two problems involved in accounting for the last column. The first was to determine the dividend pay-out ratios of the corporations, by country and region. Letting  $\beta_j$  as the dividend pay-out ratio of direct investments in j, we have

$$\beta_j = (p_j - p_j^r) / p_j$$

where  $p_j$  is total net earnings,  $p_j^r$  is the total net distributed earnings. Since  $\beta_j$  is indistinguishable as to the ownership of the equity, it is computed from  $p_j$  and  $p_j^r$  accruing to the US (as shown in Tables 38 and 46 of the data

source). The values of  $\beta_j$  and the ratio of profits reinvested ( $= 1-\beta_j$ ) by regions and countries are shown in our Table 3.

The second problem is that of getting the correct value of the profit components in contrast with the "other unallocated" already reported. Data on total net earnings, on the unallocated portions of the income statements which correspond to net profits, and on net earnings accruing to American factors are not consistent. The differences appear too large to be ignored in some cases. Therefore, a decision was made to replace the unallocated costs from the aggregated income statement and replace them with actual net profits after taxes. These net earnings were divided into distributed and undistributed profits by using the ratios  $\beta_j$  and  $(1-\beta_j)$  for each region  $j$ .

Net profits after taxes were arrived at as follows. The net profits going to foreigners and to Americans were added, and the proportion of each nationality earnings claim to the total of the equity ratio. Thus, the ratio of equity owned by host country nationals per region is

$$\lambda_j = \frac{\text{non-US shares of net earnings}}{\text{US + non-US shares of net earnings}}$$

and the ratio of equity owned by US national is  $(1-\lambda_j)$ .

Table 3. AVERAGE DIVIDEND PAY-OUT RATIOS ( $\beta_j$ )  
AND UNDISTRIBUTED PROFITS RATIOS ( $1-\beta_j$ ),  
BY COUNTRY/REGIONS FOR US FOREIGN INVESTMENTS

Region and Country	$\beta_j$	$1 - \beta_j$
All areas, total	0.52	0.38
Canada	0.45	0.55
Latin American Republics, total	0.69	0.31
Mexico, Central America & West Indies	0.59	0.41
Cuba	0.59	0.41
Dominican Republic	0.89	0.11
Guatemala	0	1.00
Honduras	0.80	0.20
Mexico	0.72	0.28
Panama	0.30	0.70
Other countries	0.88	0.12
South America, total	0.83	0.17
Argentina	0.40	0.60
Brazil	0.52	0.48
Chile	0.89	0.11
Colombia	0	0
Peru	0.64	0.36
Venezuela	0.87	0.13
Other countries	0.60	0.40
Western Hemisphere dependencies, total	0.26	0.74
British dependencies	0.16	0.84
Other European dependencies	0	0
Europe, total	0.49	0.51
Common Market, total	0.44	0.56
Belgium and Luxembourg	0.34	0.66
France	0.42	0.58
Germany	0.40	0.60
Italy	0.50	0.50
Netherlands	0.61	0.39
Other Europe, total	0.53	0.47
Denmark	0.75	0.25
Norway	0.50	0.50
Spain	0*	1.00*
Sweden	0.75	0.25
Switzerland	0.77	0.23
United Kingdom	0.52	0.48
Other countries	0.53	0.47

Region and Country	$\beta_j$	$1 - \beta_j$
Africa, total	0.50	0.50
North Africa, total	0.96	0.04
Egypt, U.A.R.	0.71	0.29
Other countries	0*	-0.06*
East Africa	0*	1.00*
West Africa	0.41	0.59
Central and South Africa, total	0.69	0.31
Rhodesia and Nyasaland	0.93	0.07
Union of South Africa	0.62	0.38
Other countries	0.50	0.50
Asia, total	0.84	0.16
Middle East	0.36	0.64
Far East, total	0.42	0.58
India	0.46	0.54
Japan	0.64	0.36
Philippine Republic	0.50	0.50
Other countries	0.30	0.70
Oceania, total	0.45	0.55
Australia	0.42	0.58
New Zealand	0.88	0.12
Other countries	0	1.00
International	0.04	0.96

\*Inconsistent data. We use average for sub-region to apply for the country whenever we encountered these problems.

Derived from tables 38 and 40, data source.

These equity ratios were derived only by regions as shown in Table 4a. But they were used in estimating total net earnings after profits per country. With the use of these average equity ratios, it was easy to derived the total earnings per country since net earnings are reported in the data source.<sup>6</sup>

There is still another point. In the case of countries in which the net earnings figures recorded (in Table 40, source) are negative and the unallocated portion of the income statements positive, we chose the positive figures. This occurred only in the case of the African countries, largely Egypt (most probably due to the effects of the Middle East crisis of 1956).

#### Host Country and US Factor Shares

The above discussion gives clues as to how the factor shares were split between the host country and US nationals.

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<sup>6</sup>It was possible to derive equity ratios in many countries by combining the data from Tables 36 and 40 from the data source. But there were results in which the US share of equity was found to exceed unity when this is impossible, since net earnings accruing to US citizens cannot exceed the total earnings of the enterprise. However, for the benefit of those pursuing this line of investigation, Table 4b shows all the  $\lambda_j$ 's by country and region. For the average regional figures, it is clear that the equity ratios for the regions in Tables 4a and 4b are almost identical. In view of the inconsistencies arising from individual country figures, the estimates of total net earnings based on the average equity ratio, which were the ones utilized, leave us relatively more comfortable.

Table 4a. US AND NON-US SHARES IN NET EARNINGS OF US  
INVESTMENT OVERSEAS AND AVERAGE EQUITY RATIO  
(Million \$)

R e g i o n	Non-US Share	US Share	$\lambda_j$
All Areas	409	3,561	0.10
Canada	219	653	0.25
Latin America	50	1,096	0.04
Europe	66	582	0.10
Africa	36	94	0.28
Asia	22	751	0.03
Oceania	12	91	0.12
International	5	170	0.03

Derived from Tables 38 and 40, data source.

$$\lambda_j = \frac{\text{Non-US Share of Net Earnings in Region } j}{\text{US + Non-US Shares of net earnings in region } j}$$

Table 4b. APPARENT EQUITY RATIOS FOR AMERICANS  
( $1-\lambda_j$ ) AND HOST COUNTRY NATIONALS ( $\lambda_j$ )

Region and Country	$\lambda_j$	$1 - \lambda_j$
All areas, total	0.08	0.92
Canada	0.21	0.79
Latin American Republics, total	0.01	0.99
Mexico, Central America & West Indies	0.06	0.94
Cuba	0.05	0.95
Dominican Republic	0	1.00
Guatemala	0	1.00
Honduras	0.17	0.83
Mexico	0.14	0.86
Panama	0	1.00
Other countries	0*	1.06*
South America, total	0	1.00
Argentina	0.26	0.74
Brazil	0.13	0.87
Chile	0.04	0.96
Colombia	0*	1.05*
Peru	0*	1.06*
Venezuela	0*	1.01*
Other countries	0.38	0.62
Western Hemisphere dependencies, total	0	1.00
British dependencies	0.01	0.99
Other European dependencies	0*	1.08*
Europe, total	0.10	0.90
Common Market, total	0.08	0.92
Belgium and Luxembourg	0	1.00
France	0.08	0.92
Germany	0.10	0.90
Italy	0.05	0.95
Netherlands	0.16	0.84
Other Europe, total	0.09	0.91
Denmark	0.20	0.80
Norway	0.33	0.67
Spain	0.60	0.40
Sweden	0.11	0.89
Switzerland	0.07	0.93
United Kingdom	0*	1.14*
Other countries	0*	3.00*
Africa, total	0.27	0.73
North Africa, total	0*	1.20*

Region and Country	$\lambda_j$	$1 - \lambda_j$
Egypt, U.A.R.	0*	1.17*
Other countries	0*	1.13*
East Africa	0	1.00
West Africa	0.14	0.86
Central & South Africa, total	0.31	0.69
Rhodesia and Nyasaland	0.44	0.56
Union of South Africa	0.18	0.82
Other countries	0	1.00
Asia, total	0.02	0.98
Middle East	0	1.00
Far East, total	0.11	0.89
India	0.13	0.87
Japan	0.24	0.76
Philippine Republic	0.14	0.86
Other countries	0.02	0.98
Oceania, total	0.12	0.88
Australia	0.12	0.88
New Zealand	0	1.00
Other countries	0.33	0.67
International	0.01	0.99

Derived from Tables 36 and 40, data source.

(a) Profits. We used the equity ratios between Americans and host country factors in dividing distributed and undistributed profits as already described. In view of lack of information of third country, non-host, non-US investments, we regarded all non-US equity shares to be equivalent to host country shares. This assumption appears reasonable since the dominant equity share is by US nationals for all regions and countries studied.

(b) Wages. This allocation between US and non-US wage earnings is done indirectly. The Department of Commerce gave figures of employees directly sent from the US. We assumed that each man-year cost the firm an average of \$15,000 on the average in 1957. The US man-years multiplied by the average labor costs represented the wage bill accruing to American factors. The residual from the total reported bill constituted the host country labor shares in the wage bill. Table 5 shows how these estimates were made. Ratios showing the US wage bill to the total ( $\eta$ ) were then derived, and consequently also the host country wage bill ratio ( $1-\eta$ ).

(c) Interest. All interest payments were assumed as paid to US lenders. Most of the financing would be done by borrowing from either parent company sources or American banks. This assumption may not be valid for all countries. Perhaps the more developed the host country capital market,

Table 5. ESTIMATE OF LABOR SHARES BETWEEN  
HOST COUNTRY & US FACTORS

Region	'Employed' 'sent 'from US <sup>a</sup> (million \$)	W <sub>US</sub> at '\$15,000 <sup>b</sup> 'per year (million \$)	'W-Wages' 'Total <sup>c</sup> (million \$)	$\frac{W_{US}}{W} = \eta$	$1-\eta = \frac{W_D}{W}$
All areas	19	285	6,878	0.04	0.96
Canada*	2	30	2,654	0.01	0.99
Latin American Republics, total	9	135	1,374	0.10	0.90
Mexico, Central America, and West Indies, total	2	30	472	0.06	0.94
South America, total	7	105	902	0.13	0.87
Brazil	1	15	184	0.08	0.92
Colombia	1	15	79	0.19	0.81
Venezuela	5	75	382	0.20	0.80
Other countries	1	15	25	0.60	0.40
Western Hemisphere	1	15	99	0.15	0.85
Europe, total	1	15	1,950	0.01	0.99
Asia, total	4	60	425	0.14	0.86
Middle East	3	45	125	0.36	0.64
Far East	1	15	300	0.05	0.95

<sup>a</sup>Table 34, source.

<sup>b</sup>By assumption, see text.

<sup>c</sup>Table 28, source.

\*Canada probably has a substantial amount of US migrant labor and therefore this ratio may be too low. But if the US migrant labor is resident labor in Canada, then it may be considered Canadian labor.

the greater is the access of the American company to host country financing. Moreover in some joint ventures, host country financial institutions also provide some lending. But lacking any information this is the most reasonable assumption.

(d) Taxes. All the reported taxes are paid to the host countries, so these tax payments accrue to the host country.

(f) Depreciation and depletion. This is harder to account for. Although equity participation would probably be one way of splitting the depreciation costs, depreciation of land, depletion of reserves, and other items which are specific only to the host country represent host country factors. When the investments are made initially, land purchases or leases and royalties for mineral exploitations in the case of mining concessions represent the contribution of the host country to the capital. Since these items represent the utilization of host country factors, we used an arbitrary ratio of 50-50 to split the shares of depreciation and depletion. This assumption is invalid for many countries, but only specific investigation of this topic can be of significance.

#### Host Country Factor Gains Indexes

Preliminary. It will be helpful to specify our notation, since only seven major payments are involved in the aggregated country or regional income statements for all US foreign invest-

ments. Moreover only one time period is involved, so we may refer to equation (9) the disaggregated index of factor gain as shown in the second section of this paper. We try to disaggregate the different host country factor gains. Two indexes of R were used. The first involves the ratio of current host country payments to its factors to the current payments for foreign factors. The second corrects for the role of undistributed profits by excluding it from the denominator.<sup>7</sup>

The simple host country factor gain index is written as

$$(19) \quad R = w/f + t_1/f + t_2/f + p_1/f + p_2/f + d'/f,$$

where

R = host country factor gain ratio

w = wage payments to domestic factors

t<sub>1</sub> = indirect taxes to host government

t<sub>2</sub> = income taxes paid to government

p<sub>1</sub> = undistributed profits accruing to host country nationals

p<sub>2</sub> = distributed profits accruing to host country nationals

d' = total value added accruing to host country nationals minus w + t<sub>1</sub> + t<sub>2</sub> + p<sub>1</sub> + p<sub>2</sub> = the residual value added claimed by host country nationals

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<sup>7</sup>For the reasons to this, see page 16, above.

$f$  = all current payments accruing to US nationals, including interest, wage, profits, depreciation, etc.<sup>8</sup>

The other host country factor gain ratio takes out the value of undistributed profits accruing to the American corporation from the denominator on grounds already discussed. Following the notation of equation (18) we have

$$(20) \quad R^{**} = w^{**}/f^{**} + t_1^{**}/f^{**} + t_2^{**}/f^{**} + p_1^{**}/f^{**} \\ + p_2^{**}/f^{**} + d'^{**}/f^{**},$$

where each of the numerators are exactly the same quantities as in (19) and

$$f^{**} = f - \text{undistributed profits accruing to US citizens.}$$

It is obvious that  $R^{**} \geq R$ . They will be equal only in the case of undistributed profits being zero.

Results. The results are reported in detail in Tables 6 and 7. We have identified all regions below the average observation for all US foreign investments with asterisks for contrast. All the discussions that will follow

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<sup>8</sup>Alternatively, all these payments can be taken as fractions of value added as required in the formulas given in the previous sections.