Langhammer, Rolf J.

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Rolf J. Langhammer

Institut für Weltwirtschaft an der Universität Kiel

Kiel Institute of World Economic

Department I

D-23 Kiel, Düsternbrooker Weg 120

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I. Previous Estimates of Amount and Structure of Foreign Direct Investments (FDI)

The problem to explain and evaluate the amount and structure of FDI in francophone African countries[1] begins with the measurement of FDI itself. Though this concerns all developing countries there are peculiar obstacles to the statistical documentation of FDI in the case of francophone African countries. Since most of them belong to the Franc-Zone or at least maintain special monetary connections to the former metropolitan country, capital flows from France to the African countries remain mostly uncontrolled even today[2] so that the balance of payments approach to measurement provides highly incomplete figures mainly restricted to private investments in connection with public aid[3]. On the other hand French firms are likely to hold the lion's share of private investments in francophone countries. In addition to incompleteness balance of payments figures are disaggregated neither sectorally nor regionally. It therefore seems indispensable to rely more on capital stock data than on capital flow data, if the measurement of FDI in francophone African countries should be the basis of sectorally disaggregated analysis.

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1 This group of countries includes Benin (the former Dahomey), Cameroon, the Central African Empire (the former Central African Republic), Chad, the People's Republic of Congo, Gabon, Ivory Coast, Mali, the Malagasy Republic, Mauretania, Niger, Senegal, Togo and Upper Volta. Two other francophone countries, Zaire and Guinea, are excluded either because of not being member of the French influenced area (Zaire) or because of being isolated concerning the FDI in manufacturing industries due to a socialist policy.

2 Up to 1967 there were no data on capital flows within the Franc-Zone at all.

3 This is underlined by the "Comité Monetaire de la Zone Franc" publishing balance of payments figures of French private investments annually: "Etabli à partir d'informations recueillis auprès d'organismes publics ou privès ce chiffre (the investments of French private enterprises in 1969; the author) ne retient en fait que les operations en capital les plus importantes: investissements pétroliers et investissements auxquels la Caisse Centrale a apporté son concours financier". Comité Monetaire de la Zone Franc, La Zone Franc en 1969, Paris 1971, p. 100.

Till today the only information on the stock of FDI is provided by the estimates of the OECD for FDI in all developing countries at the end of 1967[1]. The stock is defined as the net book value to the direct investor of affiliates (subsidiaries, branches and associates) in developing countries).
In the case of the francophone African countries the OECD-data are based primarily on an investigation on behalf of the French Secretariat d'Etat of the Ministry of Foreign Affairs[2]. The FDI, estimated by this investigation, are disaggregated by ten sectors and were adjusted by the OECD to account for investments in petroleum producting and refining which were not covered by the "Conseil" report. Table 1 shows that according to these adjustments the <u>total</u> figures of the OECD and the Conseil differ substantially from each other, but not the data for the manufacturing sector. The differences of the latter are mainly due to the statistical procedure for wood and wood processing industries in the "Conseil" report including investments in the primary sector (logging) as well as in the secondary sector (plywood and veneer). Therefore the "Conseil" data - particularly for the coastal countries of the wood belt (Ivory Coast, Cameroon, Gabon, and Malagasy Republic) overestimate the amount of FDI in the manufacturing sector.

Although the "Conseil" report gives some hints concerning the sectoral structure of FDI in manufacturing industries, the overall conclusion of the OECD is valid that "... information on French investment is insufficient and estimates in the present study must be considered rather rough"[3]. This conclusion probably reflects the lacking knowledge on the methodology used in the "Conseil" report.

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[1] <u>OECD, DAC,</u> Stock of Private Direct Investments by DAC Countries in Developing Countries, End 1967, Paris 1972.

[2] See <u>J. de Précigout</u>, Les Investissements Francais à l'Etranger, Avis et Rapports du Conseil Economique et Social, Journal Officiel de la République Francaise, 1970, No 10, 5.11.1970, pp. 614-15. In the following this investigation will be called the "Conseil" report.

[3] OECD, op. cit., p. 147.

Table 1 - OECD and "Conseil Economique et Social" Estimates of French FDI in Francophone African Countries 1967 in Mill. US-$

Country	OECD-Estimates		Conseil-Estimates[a]	
	Total[b]	Manufacturing	Total	Manufacturing[c]
Benin	9.2	2.8	5.3	2.8
Cameroon	103.6	45.0	98.4	44.7
CAE	28.5	12.9	28.4	15.4
Chad	13.8	10.0	12.8	10.0
Congo	72.1	2.8	129.6	5.3
Gabon	265.4	3.2	95.8	19.4
Ivory Coast	139.4	38.1	136.3	56.7
Mali	4.0	2.0	n.d.a.	n.d.a.
Malagasy Republic	46.9	12.3	27.3	18.8
Mauretania	68.7	0.4	115.4	0.4
Niger	18.9	7.9	45.8	7.5
Senegal	126.9	39.7	118.9	40.7
Togo	21.0	0.3	18.9	0.3
Upper Volta	8.5	4.3	9.3	2.8
Total	926.9	181.7	842.2	224.8

[a] The original figures given in CFA-Francs, were converted into US-$, by the rate: 1000 CFA-Francs = 4.051 US-$.
[b] Excluding investments in trade, public utilities, transport, banking and tourism.
[c] The following sectors of the "Conseil" report were included in the total manufacturing sector: wood and wood processing; chemicals; textiles and footwear, mechanic and electric industries; construction materials; basis metals; others.

Source: OECD, Stock of Private Direct Investments by DAC Countries, in Developing Countries End 1967, Paris 1972. - Journal Officiel de la République Francaise, Avis et Rapports du Conseil Economique et Social, 1970, No 10 (5.11.1970), p. 638.

Further details on the structure of assets and liabilities of foreign owned manufacturing industries in francophone countries could throw some light on this methodology. Since 1969 the Cameroonian "Syndicat des Industriels au Cameroun" (Syndustricam) undertakes corresponding investigations on the level of firms[1]. Comparing these figures with those of the "Conseil" report in specific manufacturing sectors may be helpful to identify its statistical basis. The most useful information provided by the firms in this case is indicated by the "investissements cumulés (avant amortissement) "that means the book value of investments (non-current assets) at a certain date. Unfortunately the Cameroonian figures are only available since 1969 so that a comparison with the 1967 figures of the "Conseil" report seems problematic.

Table 2 presents both estimates which are comparable though the estimates of the "Conseil" report cover only French investments. French parent firms, however, participate substantially in each firm included in the "Syndustricam" survey. The divergences between the two sources of information are considerable only in two sectors which were either at the beginning of activity (textiles)[2] or expanded during 1967 and 1969[3].

In the two other sectors the estimates differ negligibly.

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1 Syndicat des Industriels au Cameroun, l'Industrie Camerounaise au 1 Janvier 1970 (Douala 1971). - L'Industrie Camerounaise au 1 Janvier 1974 (Douala 1975). - The members of "Syndustricam" providing the information are nearly exclusively foreign direct investments.

2 The only cotton manufacturing firm in Cameroon was founded in 1965 and began its production in 1966. Between 1967 and 1971 investments of 2761 Mill. CFA-Francs (11.2 Mill. US-$) were launched.

3 This can be clearly demonstrated by the only firm operation within the sector "basic metal manufacturing"; the aluminium plant of Edéa. The "Conseil" estimates of its stock of FDI amounted to 7329 Mill. CFA-Frs at the end of 1967, whereas the figure of accumulated investments at mid-1969 presented by the plant to "Syndustricam" amounted to 8898 Mill. CFA-Frs.

Table 2 - Book Value of Investments in Various Cameroonian Manufacturing Sectors According to "Conseil" and "Syndustricam" Estimates in Mill. CFA-Francs

	"Conseil"estimates as at the end of 1967	"Syndustricam"estimates as at 30 June, 1969
Wood and wood processing	914	904
Textiles and footwear	1017	3200
Chemicals and construction materials	1257	1215
Basic metals and metal manufacturing	7787	11077

Sources: Calculated from: J. de Précigout, op. cit. and Syndicat des Industriels au Cameroun, op. cit.

What can be concluded from this example? It seems that investigations on the level of firms such as the "Conseil" or "Syndustricam" reports offer the best source of information on FDI. Since in most cases firms operating in the manufacturing sector in francophone countries can be attached satisfactorily to one sector defined as a two-digit ISIC figure, the aggregation of firms up to industries or sectors is possible. The number of relevant firms is limited because FDI in francophone countries can mostly be separated from local investments by size and quality of information. Even in the industrial "leader" countries Ivory Coast, Senegal, and Cameroon one sector is often represented only by few firms mentioned by name in the national account statistics.

Therefore the latter can be used as source of control.

The main problem of estimating the stock of FDI apart from separating foreign and local investors consists in the fact that data on accumulated investment figures being available within the public domain are the exception and not the rule. The usual figure stored at the company registry is the equity capital so that it has to be analysed whether there is a ratio between equity capital and the stock of investments being stable over time. If this would be the case, then the development of equity capital could be taken as a proxy for the development of the investment stock.

Such a method has been applied by Herman[1]. He estimated the amount (not the sectoral structure) of FDI in Kenya by using the legal figures of equity and registered long term debt - excluding loans and advances from parents to subsidiaries - as a proxy for FDI. This method has been recently critisized by a World Bank Country Report on Kenya because of providing "legal" and not "actual" figures of investment and therefore of not being "accurate"[2]. In spite of this criticism, however, these legal figures may be used if the stability test of the ratio between legal and actual figures is passed.

II. Equity Capital as a Proxy for FDI Stock in Francophone African Countries

There are plausible apriori considerations in favour of the assumption that the ratio between equity capital and accumulated investments is stable over time within a narrow margin. Theoretically a firm being a subsidiary of a foreign parent firm has to choose between equity capital, long term debt, short term debt (overdrafts at banks, supplier's credits), transfers (advances or loans) from the parent firm and profits as sources of finance. In practice this

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[1] B. Herman, Some Basic Data for Analysing the Political Economy of Foreign Investment in Kenya, Institute for Development Studies, University of Nairobi, Discussion Paper No. 112, July 1971.

[2] IBRD, Kenya: Into the Second Decade, World Bank Country Economic Report (Baltimore and London: The John Hopkins University Press, 1975), pp. 307-8.

choice is restricted by keeping attention to certain types of financial ratios, either ratios between assets and liabilities or ratios between equity capital and debt financing, the so-called "leverage ratios"[1].

If financial ratios are used as guidelines for an evaluation of the liquidity status and the risk degree by bank analysts, insurance companies etc., then it may be plausible that the firm management keeps in mind the stability of certain ratios over time. The hypothesis made in this context says that there is a stable ratio between the value of non-current assets[2] and the non-current owned capital. That means that new investments are financed not only by long term of short term debts or profits but also by an increase of equity capital.

The data being available for 27 Cameroonian manufacturing firms in 1969 and 1973 enable us to test this assumption.
The measure shall be the ratio between the value of accumulated investments and the equity capital in 1969 resp. 1973, weighted with the turnover of the firms to take account of their different size. In addition the weighting prevents that small firms which may be local investments of non-national minorities, such as Greeks and Lebaneses[3] living in Cameroon, distort the result. The large firms, however, are exclusively FDI so that the average weighted ratio is likely to reflect the structure of assets and liabilities of FDI.

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1 See for example G.N. Engler, Business Financial Management (Dallas: Business Publications, Inc., 1975), pp. 41-54. G.A. Christy and P.F. Roden, Finance: Environment and Devisions (San Francisco: Harper International Edition, 1973), pp. 198-211.

2 The value of non-current assets closely approaches to the value of "accumulated investments" provided by the Cameroonian manufacturing firms and used as the test figure here.

3 These minorities are particularly concentrated as investors in the clothing industry.

Although the period of the test example covers only four years the results are not insignificant since the years fell into a period a rapid expansion of investments in mainly import substitution industries financed by debts as well as by an increase of equity capital. Table 3 presenting the whole set of data for the Cameroonian sample indicates that the book values of investments increased by an average annual rate of 13.4 percent, the turnover by 11.9 percent and the equity capital by 8.4 percent. That means that the financing of investments by an increase of equity capital decreased in importance compared with other sources of finance. Consequently the ratio increased. Nevertheless the difference between the ratios both at 1969 (2.22) and 1973 (2.59) is statistically insignificant at the 5 percent level[1] so that a relatively stable ratio over time can still be presumed. Before extending the use of equity capital as a proxy for the stock of FDI in manufacturing firms to all francophone countries, however, it must be discussed whether the Cameroonian sample is representative for the other countries.

In contrast to the anglophone African countries differing substantially in resource endowment, size and particularly economic policies, the francophone countries seem much more homogenous. The maintenance of strong cultural and economic ties to the former metropolitan country in connection with traditional interdependencies between coastal and hinterland countries[2]

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1 Tested by the t-distribution:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{(n_1-1)\, s_1^2 + (n_2-1)\, s_2^2}} \cdot \sqrt{\frac{h_1 \cdot n_2\, (n_1 + n_2 - 2)}{n_1 + n_2}}$$

where $\bar{x}$, s and n are the arithmetic average, the standard deviation and the number of observations. The indices 1 and 2 refer to the corresponding samples.

2 One may think of Senegal's position as supplier of industrial goods ar as the transit country vis-à-vis Mauretania and Mali; the same role of Ivory Coast vis-à-vis Upper Volta and Niger, that of Cameroon vis-à-vis Chad and Congo vis-à-vis the CAE.

Table 3 - Ratios between Investments and Equity Capital for Cameroonian Manufacturing Firms 1969 and 1973

Number of Firm	Book Value of Investments as of June 30, 1969 in Mill.CFA-Frs	Equity Capital as of June 30, 1969 in Mill.CFA-Frs	Ratio	Turnover 1968/69 including taxes in Mill.CFA-Frs	Book Value of Investments as of June 30, 1973 in Mill.CFA-Frs	Equity Capital as of June 30, 1973 in Mill.CFA-Frs	Ratio	Turnover 1972/73 including taxes in Mill. CFA-Frs
	(1)	(2)	(3) = (1):(2)	(4)	(5)	(6)	(7) = (5):(6)	(8)
1	67	90	0.74	322	1 144	90	12.71	441
2	8 898	4 500	1.98	3 134	10 295	4 500	2.29	3 850
3	810	711,25	1,14	1 756	1 296	959	1.35	2 959
4	705	420	1,68	1 339	1 081	700	1.54	2 319
5	267	80	3.34	375	555	160	3.47	832
6	3 165	1 350	2.34	6 005	7 839	2 940	2.67	9 995
7	500	210	2.38	740	1 080	420	2.57	1 760
8	98,1	43,4	2.26	177	98	56	1.75	435
9	260	150	1.73	1 600	533	250	2.13	2 100
10	1 555	325	4.78	1 333	4 214	975	4.32	3 977
11	195	100	1.95	335	193	100	1.93	454
12	84	30	2.80	257	151	90	1.68	589
13	324	125	2.59	1 073	355	125	2.84	1 695
14	1 000	500	2.00	3 100	1 018	500	2.04	3 100
15	295	150	1.97	1 101	429	200	2.15	922
16	100	50	2.00	350	100	50	2.00	474
17	1 019	340	3.00	1 771	1 686	510	3.31	3 450
18	273	270,4	1.00	296	333	270	1.23	374
19	282	180	1.57	379	641	325	1.97	597
20	55	60	0.92	126	53	60	0.88	496
21	34	30	1.13	150	67	50	1.34	190
22	68	51	1.33	125	131	120	1.09	382
23	15	30	0.50	144	65,5	30	2.18	65,5
24	161	103,5	1.56	814	245	103	2.38	556
25	48	30	1,60	47	54	30	1.80	114
26	43	30	1,43	83	33	30	1.10	118
27	201	50	4.02	570	300	195	1.54	925
Total	20 522,1	10 009,55	2.05	27 502	33 989.5	13 838	2.46	43 169.5
weighted average ratio $\frac{(1)\ .\ (4)}{(2)}$ resp. $\frac{(5)\ .\ (8)}{(6)}$			2.22				2.59	
standard deviation			0.82				1.32	

Sources: Derived from: Syndicat des Industriels au Cameroun, l'Industrie Camerounaise au 1 Janvier 1970, (Douala 1971). - l'Industrie Camerounaise au 1 Janvier 1974, (Douala 1975).

may has led to the picture of francophone countries as a "block"[1]. Within this "block" the Cameroonian economy occupies a position slightly above the average since it is more developed and diversified in the industrial structure than the hinterland countries and those with small population and mineral resources (Mauretania, Gabon) but less developed and diversified than Ivory Coast and Senegal.

Import substitution strategies dominated in all countries since the independence. Therefore the same - mainly French - parent firms have been attracted by similar investment policies in all countries following the familiar path of development in the early stage of industrialisation via light consumer industries[2]. Since Cameroon - with the notable exception of its aluminium plant - chose the same strategy, we may regard the performance of its foreign owned industries as typical for the set of manufacturing industries in francophone countries.

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1 Today it seems that the converging forces represented by integration efforts are still more dominant than the diverging forces indicated by different attitudes towards the "socialist" (Congo, Benin) or the "capitalist" path of development. The similarities of policies towards foreign investments facilitate corresponding investigations regarding the francophone countries as a "block" named "Afrique Noire francophone". See G. Ngango, Les Investissements d'Origine Extérieure en Afrique Noire Francophone: Statut et Incidence sur le Développement (Paris: Présence Africaine, 1973).

2 The first countries trying to manage the "spillover" from import substitution to export orientation in agroindustries or assembly plants are the Ivory Coast (mainly in textiles and food) and Senegal. The latter imitates the successful instrument of export stimulation in South East Asian countries, i.e. free duty industrial estates for export industries.

III. The Statistical Basis

The sources of the following computations are the annual directories of Ediafric[1] which enclose most of the enterprises operating in francophone countries. They provide data on legal status, equity capital, participation of shareholders by percentages, activities and foundation.

To be classified as a FDI in our survey a firm had to fulfil the following conditions:

a) The direct or indirect[2] participation of foreign shareholders had to exceed 10 percent.

b) The equity capital had to exceed 1 Mill. CFA-Frs or an equivalent in other currencies.

c) The legal status had to be either a public company limited by shares (Societé Anonyme) or a private company limited by shares (Societé à Responsabilité Limitée) or a joint venture (Societé à Economie Mixte), each with location in the host country.

Whereas the three conditions were relatively easy to check in connection with large firms, the distinction between local investors, non-African minorities and foreigners from overseas in small firms of the manufacturing sector is hampered by lack of reliable information. If the doubts could not be

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1 Ediafric, Societés et Représentations Industrielles et Commerciales, (Paris: La Documentation Africaine, 1963).
Ibid, Societés et Fournisseurs d'Afrique Noire et de Madagascar, Guide Economique Noria, 19e Edition, (Paris: La Documentation Africaine, 1969).
Ibid, Societés et Fournisseurs d'Afrique Noire, Guide Economique Noria, 25e Edition, (Paris: La Documentation Africaine, 1975.

2 An indirect participation is defined as a shareholder being a national registered firm which is itself majority owned by non-national companies or individuals.

eliminated by using the reports and registers of national chambers of commerce and other national publications[1], these firms were not included. Considering the fact that the contribution of small firms to the industrial value added rests unchecked even in highly disaggregated national statistics[2] and that FDI are likely to concentrate on large firms, the loss of information seems to be not unduely high. A further problem relates to the sectoral disaggregation. Using the two-digit ISIC figures the activities of the firms could be attached satisfactorily to the ISIC roster except in few cases of conglomerates and wood processing industries. The former include service activities such as commerce and trade, whereas in the latter case primary (ISIC 02) and secondary activities (ISIC 25) are merged. The following solution seemed appropriate: if the industries produced veneer and plywood besides the logging activities they were grouped in ISIC 25, if the statistical sources, however, indicated logging as the only activity they were attached to ISIC 02. Due to these estimates and perhaps to omissions in the directory the list of FDI in manufacturing sectors may be not quite complete and the classification sometimes arbitrary. It was therefore compared with the/
/control data of national statistics in the relevant countries (namely Ivory Coast, Cameroon, Gabon, and Congo) which mostly absorbed the doubts because the differences were rather small. The samples were taken for 1963, 1969, and 1975[3] and include the following numbers of firms engaged in primary[4] and secondary activities and classified as FDI:

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1 They are listed in the appendix.
2 See for instance Chambre d'Industrie de Côte d'Ivoire, Principales Industries Ivoiriennes, annual or the already cited "Syndustricam" statistics of Cameroon.
3 There were no data available for the Malagasy Republic in 1975.
4 FDI operating in the primary sector (ISIC 01-09) were included to compare the development of the ratio between primary and secondary FDI.

	1963	1969	1975
Benin	9	12	26
Cameroon	41	107	139
CAE	11	22	32
Chad	11	15	17
Congo	56	42	42
Gabon	64	34	59
Ivory Coast	177	141	236
Mali	6	6	12
Malagasy Republic	72	93	n.d.a.
Mauretania	4	9	9
Niger	7	17	15
Senegal	86	80	96
Togo	7	7	16
Upper Volta	4	11	15
Total	555	596	713

IV. The Results of Estimates

Tables 4-6 present the patterns of FDI 1963-75 measured by the development of equity capital.

In discussing them it seems useful to separate the sectoral structure from the regional one.

Sectorally five groups of sectors dominate: food (including beverages and tobacco), textiles (including clothing), wood processing, chemicals and metal manufacturing (including electrical and transport equipment).

The importance of these groups as indicated by the percentage share to total manufacturing has developed as follows:

Table 4 - Sectoral and Regional Distribution of Equity Capital in FDI, 1963 in Mill. CFA-Frs

ISIC-Group \ Country	Benin	Cameroon	CAE	Chad	Congo	Gabon	Ivory Coast	Mali[a]	Malagasy Republic	Maure-tania	Niger	Senegal	Togo	Upper Volta	Total
20 (Food)	1	190		2	2 023	1	639		821	175	3	1 481	1		5 337
21 (Beverages)	432	486	150	3	126	21	962		159		2	430	12	200	2 983
22 (Tobacco)		350			360		380		317			360			1 767
23 (Textiles)		3	300		120		680		500			836			2 439
24 (Clothing, Footwear Made-up Textiles)	2	115	20		29		255	1	28			95			545
25 (Wood Manufacturing)					5	463	128		5					1	602
26 (Furniture and Fixtures)	12	21			3		11					8		10	65
27 (Pulp and Paper)							7					70			77
28 (Printing and Publishing)		51		4			65	9	59		20	63			271
29 (Tannery and Leather)															-
30 (Rubber Industries)							15					525			540
31 (Chemicals)	10	27	1	60	15	5	764		99		59	2 410	30		3 480
32 (Petroleum)							20					1 000			1 020
33 (Non-Metallic Mineral Products)		31		23			15		14		1	401			485
34 (Basic Metal Industries)		5 000													5 000
35 (Metal Manufacturing)		365	12	10	217		677		275			155			1 711
36 (Machinery Manufacturing)							10					20			30
37 (Electrical Equipment)							100					21			121
38 (Vehicle Manufacturing)		114	34	15	100	50	100		20			70			503
Sub-Total	457	6 753	517	117	2 998	540	4 828	10	2 297	175	85	7 945	43	211	26 976
in Mill. US-$[b]	1.851	27.356	2.094	0.473	12.145	2.188	19.558	0.041	9.305	0.709	0.344	32.185	0.174	0.855	109.278
Primary Sector (ISIC 01-19)	15	2 322	680	743	598	19 314	3 966	-	1 929	13 708	24	2 970	1 750	400	48 419
Total	472	9 075	1 197	860	3 596	19 854	8 794	10	4 226	13 883	109	10 915	1 793	611	75 395

[a] 1 Franc Malien = 1 CFA-Fr. - [b] 1000 CFA-Frs = 4.051 US-$.

Source: Computed from: Ediafric, Sociétés et Représentations Industrielles et Commerciales (La Documentation Africaine: Paris 1963).

Table 5 - Sectoral and Regional Distribution of Equity Capital in FDI, 1969 in Mill. CFA-Frs

ISIC-Group / Country	Benin	Cameroon	CAE	Chad	Congo	Gabon	Ivory Coast	Mali[a]	Malagasy Republic	Mauretania	Niger	Senegal	Togo	Upper Volta	Total
20 (Food)	40	1 341		371	3 508	155	5 022		4 334	708	59	2 892	150		18 580
21 (Beverages)	571	1 164	300	317	485	250	997	66	265		180	656	233	400	5 884
22 (Tobacco)		600			500		456		433			477		100	2 566
23 (Textiles)	150	325	799	300		130	1 560		1 601		600	2 171	240	300	8 176
24 (Clothing, Footwear, Made-up Textiles)	368	715	66		25	11	852	54	664			1 584	25	38	4 402
25 (Wood Manufacturing)	3	288			377	424	1 667					30			2 789
26 (Furniture and Fixtures)		26					45							20	91
27 (Pulp and Paper)									773			120			893
28 (Printing and Publishing)		117			46		100	4	106	3	20	88			484
29 (Tannery and Leather)		20							302	52					374
30 (Rubber Industries)							79		49						128
31 (Chemicals)	30	440	230	70	104	190	2 445	50	395	40	208	4 318	30	175	8 725
32 (Petroleum)						1 200	1 045		750			1 000			3 995
33 (Non-Metallic Mineral Products)	80	846	42	35		120	517		952		672	858		30	4 152
34 (Basic Metal Industries)		4 500													4 500
35 (Metal Manufacturing)		826	87	8	42	11	876		260		39	392			2 541
36 (Machinery Manufacturing)															
37 (Electrical Equipment)	10	60		6			100	80	65			21			342
38 (Vehicle Manufacturing)	160	161	6	15			229		50			324		60	1 005
Sub-Total	1 412	11 429	1 530	1 122	5 087	2 491	15 990	254	10 999	803	1 778	14 931	678	1 123	69 627
in Mill. US-$[b]	5.720	46.299	6.198	4.545	20.607	10.091	64.775	1.029	44.557	3.253	7.203	60.485	2.747	4.549	282.058
Primary Sector (ISIC 01-19)	-	3 785	418	743	3 250	20 062	6 654	-	3 227	13 341	2 724	2 673	2 939	-	59 816
Total	1 412	15 214	1 948	1 865	8 337	22 553	22 644	254	14 226	14 441	4 502	17 604	3 617	1 123	129 443

[a] Converted from the original FDI-data into CFA-Frs by the rate: 2 FM = 1 CFA-Fr. - [b] Although the exchange rate changed in 1969 due to the devaluation of the French Franc, the same rate as 1963 was used to enable a comparison over time without exchange rate effects.

Source: Computed from: Ediafric, Sociétés et Fournisseurs d'Afrique Noire et de Madagascar, Guide Economique Noria. (La Documentation Africaine: Paris 1969)

Table 6 - Sectoral and Regional Distribution of Equity Capital in FDI, 1975, in Mill. CFA-Frs

ISIC-Group / Country	Benin	Cameroon	CAE	Chad	Congo	Gabon	Ivory Coast	Mali[a]	Malagasy Republic[b]	Mauretania[c]	Niger	Senegal	Togo	Upper Volta	Total
20 (Food)	42	3 347	6	386	77	454	8 367	60		705		5 044	450	2 099	21 037
21 (Beverages)	681	3 240	500	400	485	650	2 053	66		30	450	1 016	650	660	10 881
22 (Tobacco)	4	959	150	180	500	100	760					801		150	3 604
23 (Textiles)	803	1 313	611	1 000	410	130	10 707	1 250			725	3 722	1 060	400	22 131
24 (Clothing, Footwear, Made-up Textiles)	423	1 769	286			122	1 272	1 054				1 838	50	75	6 889
25 (Wood Manufacturing)		1 770	460		513	1 062	3 273					86			7 164
26 (Furniture and Fixtures)		67					71					40		1	179
27 (Pulp and Paper)							158					260		40	458
28 (Printing and Publishing)	10	528		39	30	171	312				40	161			1 291
29 (Tannery and Leather)		40		20						50	20				130
30 (Rubber Industries)		200					200								400
31 (Chemicals)	119	4 769	245	42	270	234	10 698	238		110	1 080	6 844	227	390	25 266
32 (Petroleum)		3 075				1 200	1 115					1 050			6 440
33 (Non-Metallic Mineral Products)	90	1 004	42		20	446	1 070				650	1 183	533	42	5 080
34 (Basic Metal Industries)		4 500													4 500
35 (Metal Manufacturing)	20	1 735	20		123	78	1 783	50				867		30	4 706
36 (Machinery Manufacturing)															
37 (Electrical Equipment)		355		17		90	1 280	80				21		40	1 883
38 (Vehicle Manufacturing)	135	278	12	35	25	150	1 304	360				365	50	75	2 789
Sub-Total	2 327	28 949	2 332	2 119	2 453	4 887	44 423	3 158		895	2 965	23 298	3 020	4 002	124 828
in Mill. US-$[d]	9.427	117.272	9.447	8.584	9.937	19.797	179.958	12.793		3.626	12.011	94.380	12.234	16.212	505.678
Primary Sector (ISIC 01-19)	40	4 178	1 102	753	3 942	24 921	9 361	24		2 110	7 024	5 470	-	-	58 925
Total	2 367	33 127	3 434	2 872	6 395	29 808	53 784	3 182		3 005	9 989	28 768	3 020	4 002	183 753

[a] Converted from Franc Malien into Franc-CFA by the rate 2 FM = 1 CFA-Fr. - [b] No data available for 1975. - [c] Converted from Ouguiya into Franc CFA by the rate 1 UM = 5 CFA-Frs. - [d] Although the exchange rate changed in 1969 due to the devaluation of the French Franc, the same rate as 1963 was used to enable a comparison over time without exchange rate effects.

Source: Computed from: Ediafric, Sociétés et Fournisseurs d'Afrique Noire, Guide Economique Noria. (La Documentation Africaine: Paris 1969).

ISIC	1963	1969	1975
20-22[a]	29.0	32.7	28.2
23-24[b]	10.0	17.6	23.2
25[b]	2.4	4.8	5.7
31[b]	13.7	14.2	20.2
35-38[b]	8.4	5.6	7.5

The table reveals the textile and wood processing industries as the major "growth sectors" of FDI followed by chemicals[1] which, however, started from a much higher level than the wood processing sector. On the other hand the food sector although still the most important one and also the metal manufacturing sector declined by share.

Two other sectors are worth mentioning as being important for more than only one country[2]: the non-metallic mineral products and petroleum refining. Whereas the refining activities were restricted to Senegal in 1963, four other countries attracted FDI in this sector til 1975: Gabon, the Ivory Coast, the Malagasy Republic, and finally Cameroon. The other sector is much more

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[a] Excluding the Malagasy Republic and Congo. The former remained unconsidered because of incompatibility with the 1975 figures of all countries, whereas the latter nationalised the major food industry (sugar refining) in 1970 so that an unadjusted intertemporal comparison could encourage misleading interpretations.

[b] Excluding the Malagasy Republic.

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[1] Vegetable oil milling included.

[2] The basis metal sector, only represented by the aluminium plant in Cameroon, is left out of consideration here.

common to all countries because its raw materials can be mostly regarded as ubiquitous. Nevertheless the figures given here in ISIC 33 underestimate the importance of this sector in import substitution strategies, because the percentage of state firms is essential particularly in this sector.

The outstanding result of regional disaggragation seems to be the concentration of FDI on Ivory Coast, Senegal and Cameroon fluctuating only insignificantly during the covered period[1]. Among these countries, however, the distribution of FDI changed in the way that the Ivory Coast surpassed Senegal and Cameroon if the participation of the corresponding country in the total of FDI in francophone countries is taken as the indicator:

	Cameroon	Ivory Coast	Senegal
1963	27.4	19.6	32.3
1969	16.4	27.3	25.5
1975	23.2	35.7	18.7

This result however, cannot be explained by differences in the diversification pattern of the production structure. Using the Gini concentration coefficient[2] the following table reveals that these differences are mainly small between the former colonial and industrial centre of francophone West Africa, Senegal, and the Ivory Coast:

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1 The rates changed from 79.1 percent in 1963 to 72.1 percent in 1969 to 77.1 percent in 1975 measured as the percentage of FDI in the three countries to FDI in all francophone countries excluding the Malagasy Republic.

2 $G = \sqrt{\sum\left(\frac{x_i}{x}\right)^2} \cdot 100$, where x_i are the FDI in the specific ISIC sectors ($i = 1 \ldots 19$) and x the total FDI in the manufacturing sector.

	Cameroon	Ivory Coast	Senegal
1963	0.75	0.36	0.41
1969	0.45	0.40	0.41
1975	0.32	0.41	0.42

Merging structural and regional results it seems remarkable that the FDI in textiles and chemicals, identified above as the leading "growth" sectors, expanded far beyond the average in the Ivory Coast especially between 1969 and 1975, whereas the FDI in the traditional sectors (food, beverages, and tobacco) maintained a relatively strong position in Senegal and Cameroon til 1975, compared with the Ivory Coast. Whether this is due to more rapid changes in the market orientation of FDI in the Ivory Coast (export orientation) than in Senegal and Cameroon (domestic market orientation) is one of the questions open to further analysis. That this question cannot be answered by a simple comparison of ISIC figure growth rates is shown by high FDI in food products in a country with a negligible domestic market, that is Mauretania. These investments are to a large extend concentrated on fish canning determined exclusively for exports. In other cases investments in food products can be regarded as mostly oriented to the domestic market, for example grain mill products.

Another interesting point of discussion seems to be the ratio between FDI in the manufacturing and the primary sector. Apart from the already mentioned countries being rich in mineral resources but lacking in domestic markets (Gabon, Mauretania) and apart form the uranium producer country Niger FDI in primary activities mainly relate to the agricultural sector. The possibility of stimulating FDI in agroindustries is there given.

Table 4-6 indicate that generally the ratio changed in favour of the manufacturing sector in the three leading countries, but with fluctuating rates especially in Senegal[1].

Whether this can be explained either by nationalisation policies in the primary sector and/or by rapid expansion of FDI in manufacturing industries can only be proved by further analysis. Preliminary observations, however, indicate that nationalisation policies have a much stronger impetus on the mineral sector than on agricultural or manufacturing activities in francophone countries where the enforced participation of public institutions of host countries in the equity capital of FDI is more obvious[2]. But even in the mineral sector the complete nationalisation of a former FDI is the exception - demonstrated by Mauretania and its copper and iron ore mines - and not the rule[3].

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1 Senegal is the only country in which FDI in capital intensive fertilizer mineral mining (ISIC 19) are essential. Therefore the exploitation of a new mine rapidly changes the figures of equity capital in the primary sector and the ratio between the manufacturing and the primary sector too.

2 The term "nationalisation" is sometimes vaguely defined by including also the enforced participation of nationals below the 51 percent line. Using this definition there are an increasing number of firms even in the manufacturing sector of francophone countries being "nationalised". This tendency will be strenghtened by "indigenisation" policies, i.e. the limiting of participation to nationals of the host country and therefore by forcing foreign investors to sell. Today the tendency towards "nationalisation" or "indigenisation" is much more notable in anglophone than in francophone countries with the exception of Zaire. Within the francohpne group being analysed in this paper Gabon is the first country which pursued "indigenisation" on a broad scale by obliging foreign investors to transfer 10 percent of equity capital to the state.

3 This is valid even for a country following the "socialist" path of development like Guinea. Both the exploitation of its bauxite mines and its alumina plant are majority owned by international companies. See for an investigation which supports the observation that "nationalisation" of manufacturing industries in francophone countries is not notable compared with anglophone countries L.L. Rood, Nationalisation and Indigenisation in Africa, The Journal of Modern African Studies, London, Vol. 14 (1976), pp. 427-447.

V. Some Conclusions and Questions

The results of measuring FDI by the development of equity capital show strong parallels with the overall economic performance of francophone countries during the first decade of political independence[1].
It would be premature, however, to derive from these parallels a causal relationship between FDI in manufacturing industries and the economic growth because the contribution of manufacturing industries to the total domestic value added in francophone countries is still small. Nevertheless a connection of this kind can be supposed. It can also be derived from other investigations demonstrating a high positive correlation between the per capita stock of FDI and the per capita GNP for all developing countries, including the Subsaharian countries[2]. However, this correlation deals with absolute figures at a certain date and not with growth rates, and cannot be applied directly to our question of correlations between GNP per capita and FDI in manufacturing industries, since it includes the considerable amount of FDI in primary activities too.

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1 The annual average growth in GNP per capita 1960-72 amounted to 4.2 percent in the Ivory Coast against 4.0 percent in Cameroon and - 0.8 percent in Senegal. Within the francophone group only Gabon - due to its activities in the primary sector (manganese, oil, and timber) - scored a better result (7.0 percent).

2 See G.L. Reuber with H. Crookell, M. Emerson and G. Gallais-Hamonno, Private Foreign Investment in Development, OECD-Development Centre, (Oxford: Clarendon Press, 1973), Appendix A, Table A 5, p. 257.

Another preliminary observation relating to the structure of shareholdership in FDI points at the relatively high importance of parastatal development institutions of the investor's countries[1]. This observation supports the above cited statement of the "Comité de la Zone Franc" that private capital flows are sometimes connected with official aid and that only these capital flows are recorded in the balance of payments statistics. A high positive correlation between official aid and per capita stock of FDI seems to be unique for Subsaharian countries[2].

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[1] A concrete example of a cotton manufacturing industry in one francophone country may illustrate this link between private and public capital flows: The industry is majority owned by a private French group (35 percent) and by a public German development institution (35 percent). In 1974 the stock of investments (non-current assets) amounted to 5 348 Mill. CFA-Frs. The liabilities were structured as follows:

1. Equity capital:	975 Mill. CFA-Frs
2. Two special long-term credits provided by the French official aid:	475 Mill. CFA-Frs
3. Three long-term credits provided by the national development bank	612.5 Mill. CFA-Frs
4. Three long-term credits provided by the European Investment bank	1080 Mill. CFA-Frs
5. One long-term credit provided by the German official aid	185 Mill. CFA-Frs
6. One medium-term credit provided by the national development bank	62.5 Mill. CFA-Frs
7. Four medium-term credits provided by local banks	800 Mill. CFA-Frs
8. Several suppliers credits	180 Mill. CFA-Frs

The example also indicates that the ratio between the stock of FDI and the equity capital tends to be the higher the more public official aid can be attracted weakening both the demand for private foreign capital and the necessity to increase the equity capital.

[2] The correlation coefficient between per capita stock of FDI and official capital flows amounts to 0.75 for all Subsaharian countries compared with 0.25 for Latin America, 0.20 for North Africa and the Middle East, and 0.44 for Asia and Oceania. See G.L. Reuber, op.cit., p. 457.

Whether this is symptomatic particularly for "backward" countries with insufficient incentives to attract private capital or whether it is a usual method of risk sharing attitudes common to foreign investors in all African countries or whether there are differences between anglophone and francophone countries due to different development aid policies of the former metropolitan countries remains to be investigated. The questions are not answered by Reuber's analysis because of its high sectoral and regional aggregation level.

Furthermore it does not consider systematically the impact of demand and supply factors as explanatory variables of the amount and structure of FDI in Subsaharian African countries. The demand factors would include the per capita income, population size, urbanisation the percentage of wage earners to total active population etc. whereas the supply factors can be described by wage costs, skill factors, productivity and infrastructure endowment.
An additional question with regard to the results of tables 4-6 is why specific industries, in which foreign investors participate, spread over the whole set of countries whereas the development of FDI in other sectors is restricted to few countries. Parallel to this question the contributionsof import substitution, domestic demand and export demand to the growth of domestic production haveto be explored in order to distinguish between FDI oriented either towards domestic markets or export markets. Another set of questions refers to the investment policy and the priorities of the countries accompanied by incentive policies which differ sectorally and could be followed by corresponding FDI.

Appendix

List of publications used for counterchecking the EDIAFRIC figures

Chambre d'Industrie de Côte d'Ivoire, Bulletin Mensuel, Abidjan, No 22 (Mars 1967)

Chambre d'Industrie de Côte d'Ivoire, Principales Industries Ivoiriennes au 1 Janvier, annuel, Abidjan, 1970-1974

Edition INF, Afrique, Caraibes, Pacifique 1976/77, Repertoire International de Pays Associés à la Communauté Economique Européenne (Paris: Edition INF, 1976).

Memento de l'Industrie Africaine, 1966, Numéro Spécial du Bulletin de l'Afrique Noire, No 413, (Paris: La Documentation Africaine, 1966)

Memento Statistique de l'Econômie Africaine, Numéro Spécial du Bulletin de l'Afrique Noire, No 557 (Paris: La Documentation Africaine, 1969)

Les Réalisations du Secteur Industriel du Sénégal, Industries et Travaux d'Outre-Mer, Paris, Août 1976, pp. 567-569

République du Côte d'Ivoire, Ministère du Plan, Les Comptes de la Nation 1966-1967, Tome II (Les Entreprises), Abidjan, Avril 1969.

République du Mali, Service de la Statistique, Comptes Economique du Mali 1964-1965, Paris, Juin 1967

République du Sénégal, Ministère du Commerce, de l'Industrie et de l'Artisanat, Rapport Annuel de la Direction de l'Industrie, Année 1966 Dakar, Juin 1967, Année 1967, Dakar, Juillet 1968

République du Sénégal, Ministère du Plan et de l'Industrie, Récensement des Activités Industrielles 1966-1967 (Dakar 1969)

P. Sirven, Les Industries de Brazzaville, Les Cahiers d'Outre-Mer, Bordeaux, Vol. 25 (1972), pp. 277-306

Syndicat des Industriel au Cameroun, l'Industrie Camerounaise au 1 Janvier, annuel, Douala, 1970-1974