

COSTS TO LESS DEVELOPED COUNTRIES OF FOREIGN EXCHANGE RISK-AVERSION BY MULTINATIONAL CORPORATIONS

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INTRODUCTION

SEVERAL studies have appeared recently on the exposure of transactions, cash flows and incomes, assets and liabilities of multinational corporations (MNCs) to foreign exchange (FX) risks under floating exchange rates. Various models are available for evaluating, hedging against, or covering MNCs' FX risks at zero or minimum net cost to them for specified levels of risk or for minimizing risk at given cost.¹ The possibility remains largely unacknowledged that legitimate and permissible avoidance by MNCs of their FX risks may involve host countries, particularly less developed countries (LDCs), in significant financial and real costs.² This article examines the identity, nature, and range of costs to LDCs rather than possibilities for measuring them. While certain specific costs

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¹ Aggarwal [2] provides perhaps the most comprehensive treatment in a single volume, and a substantial and useful bibliography. The following references may be reviewed with profit: D. S. Gull, "Composite Foreign Exchange Risk," *Columbia Journal of World Business*, Fall 1975; J. S. Barnett, "Corporate Foreign Exposure Strategy Formulation," *ibid.*, Winter 1976; A. Teck, "International Business under Floating Rates," *ibid.*, Fall 1976; D. R. Ravencroft, "Foreign Investment, Exchange Rates, Taxable Incomes, and Real Values," *ibid.*, Summer 1975; R. B. Schulman, "Are Foreign Exchange Risks Measurable?" *ibid.*, June 1970; T. Abdel-Malek [1]; B. A. Lietaer, "Managing Risks in Foreign Exchange," *Harvard Business Review*, Vol. 48, No. 2 (March-April 1970); A. Teck, "Control Your Exposure to Foreign Exchange Risk," *ibid.*, January-February 1974; A. Prindl, "Guidelines for MNC Money Managers," *ibid.*, January-February 1976; R. Ankrom, "Top-level Approach to the Foreign Exchange Problem," *ibid.*, July-August 1974; J. Chown and M. Finney, *Foreign Currency Debt Management* (London: J. F. Chown & Co., 1977); M. Crawford [4], particularly chapters 7-10; D. Gehrman et al., "Currency Risk Cover-Enquiry among German Firms," *Intereconomics*, No. 3/4 (1978).

² I. H. Giddy recognizes the problem of perspective in approaching risk evaluation and hedging possibilities, in "Exchange Risk: Whose View," University of Chicago, Center for Mathematical Studies in Business and Economics Report No. 7647 (1976). As regards the LDC problem, see R. Triffin, "A Proposal to Shelter Europe from Currency Shocks," *Times* (London), November 1977; G. Kramer, "Avoiding Foreign Exchange Risks," *American Export/Import Bulletin*, October 1976.

relating to particular MNCs and LDCs are readily quantifiable, even with available data, most others are not.

Rapid advances in analyzing FX exposure patterns and in developing matching routines accessible even to run-of-the-mill treasurers have vastly expanded possibilities for maximizing corporate risk aversion. They vary from rudimentary simulation models and sensitivity analysis through more complex simulation, such as Chemical Bank's STRATSIM and ALTDET models, to elaborate computer programs. An example of the latter consolidates by currencies the balance sheets of over a hundred affiliates, involves more than twenty-five currencies, and generates various alternative exposure statements. Computer modelling of FX exposure patterns is being complemented by global and sectoral trade models, similarly readily available, and increasingly usable, and by improvements in FX forecasting techniques.³

LDCs are fast realizing that, probably more than in conventional transfer pricing, they effectively finance much of MNCs' hedging and covering (H & C) costs under generalized floating. They know that they lag behind MNCs in defining and measuring their own direct FX exposure and the backwash effects of MNC risk aversion, and in evolving appropriate intervention strategies, particularly against the latter.

This widening gap between MNCs and LDCs could prove no less disruptive of relations between rich and poor than other more familiar gaps. It is essential to identify systematically and quantify costs to host countries and to elaborate bases for choosing appropriate minimization strategies. These should not compromise potential gains to LDCs from the free movement of international private investment, the benefits of international specialization in resource use, and the strengthening of economic interdependence through cooperation for mutual gain. More incisive management of social cost to LDCs of MNC risk avoidance would offer a credible even if partial alternative to indiscriminate nationalization and self-defeating restriction on corporate exchange transactions, payments and dividends remittances, etc., imposed by some LDCs. Where considerations of ideology and sovereignty are secondary, many LDCs have used semi-nationalization and exchange controls as multi-role combat weapons to reorder the distribution of gains from foreign private investment.

Given the limited data publicly available, we (a) briefly analyze exposure patterns of principal categories of firms/institutions, including MNC subsidiaries, in trade finance and industry in LDCs, (b) identify dominant H & C measures followed by MNCs and associated costs, (c) determine cost implications for LDCs, and (d) outline a strategy for constructive accommodation of interests among host and investing country governments and MNCs. The strategy comprises autonomous intervention by monetary and fiscal authorities in LDCs; more explicit cost-sharing between MNCs and host and investing countries; greater

³ The more publicly well-known trade and exchange rate forecasting models include the Project Link Model, models prepared by the University of Pennsylvania's Wharton Econometric Forecasting Associates, and the IMF's Multilateral Exchange Rate Model (MERM). There are several other commercially available models.

transparency in corporate disclosure; the negotiation of international guidelines for good corporate and host country behavior; and the provision of technical assistance to LDCs by money and capital market institutions in industrialized countries, international organizations, and MNCs.

Is the transfer cost problem facing LDCs as a result of FX risk aversion by MNCs a non-problem, as was claimed for transfer pricing? Does the effective incidence of MNCs' FX risks and of their H & C costs involve significantly more than conventional transfer pricing, and thus warrant autonomous investigation?

Some analysts trace basic FX risk aversion of MNCs to floating rates, by analyzing observed differences in risk aversion behavior under fixed and fluctuating rates. To such differences are imputed certain new management strategies, their effects, and the more intensive use of some existing approaches. Thus, Baron [3] examines impacts on prices and export levels of exporters' choices of currencies of denomination in invoicing their exports under fixed and fluctuating exchange rates. Abdel-Malek, Ethier, Clark, Grassman,⁴ and others have likewise investigated other invoicing decisions. While these writers, and those who have reported on other aspects of exposure management, do underline the increasing use of transfer pricing mechanisms, a few stress "new" forms of transfer pricing designed to cover specific FX exposed positions. A FX exposure problem did exist under fixed exchange rates, even though there was greater overall certainty regarding directions and timing of change in particular currencies. Interestingly, FX exposure management has become increasingly practicable under floating rates as a nominally more market-determined, less "managed" structure of international exchange rates has emerged. Rather less significance should, accordingly, be given to differences in H & C behavior under alternative exchange rate regimes, and more attention given to actual behavior under floating rate conditions which involve often substantial price level changes.

Although MNCs' pricing practices under fluctuating rates are fundamental to their avoiding FX losses, motivations underlying price adjustment and accounting treatment have often differed markedly from those behind "regular" transfer pricing even when corporate objectives, including maximizing consolidated after tax earnings or growth in management-controlled MNCs, remain unchanged. Under fixed exchange rates, profits were moved to low net effective tax jurisdictions or tax havens and recycled usually through interfirm lending or the Eurocurrency markets to finance investment outside an MNC's home country. Under flexible exchange rates, defensive pricing of several intracorporate transactions serves to move more of profits, cash and liquidity into strong currencies, creating, through interaffiliate lending and borrowing or via Euromarkets, structures of credits and liabilities which minimized the MNC's overall net exposure. Significantly, MNCs' intragroup currency management affects both their tax liabilities and liquidity positions. Additional impacts on LDCs are thus occasioned by

⁴ Abdel-Malek [1]; W. Ethier, "International Trade and the Forward Exchange Market," *American Economic Review*, Vol. 63, No. 3 (June 1973); S. Grassman, *Exchange Reserves and the Financial Structure of Foreign Trade* (Farnborough: Saxon House, 1973).

the more comprehensive strategies of FX risk aversion by MNCs. Some familiar issues in transfer pricing have become more strident while certain new issues have acquired greater immediacy.

One of the few "empirical" attempts to assess "statistical effects of action (by MNCs in industrialized countries) in relation to par value changes" represents them as movements in net aggregate financial flows resulting from H & C operations by MNCs. These are measured as changes in bank credit, MNCs long-term borrowing in a host country's money and capital markets, movements of equity and loan funds from parents to subsidiaries, dividend payments to parent companies, net cash flows, and net impacts on host countries' balance of payments. Aggregate net impacts thus measured—the cost to host countries of MNC risk avoidance—were judged probably marginal [7]. Besides conceptual and analytical limitations in Manser's study, it seemed to require more comprehensive cross-country data, generally not publicly available, which would permit movements of funds between MNCs and their subsidiaries abroad to be related more systematically to their actual or perceived risks of loss from actual or anticipated changes in relevant real exchange rates.

Even less data are available on flows of intracorporate funds among MNC subsidiaries in LDCs and between them and their parent companies in investing countries.⁵ However, for most LDCs, notably those in which one or a few MNCs, usually in extractive industries or importing and distribution, dominate domestic and foreign financial resource flows, their allocation and use, it would be reasonable to expect quantitatively more significant impacts both of the type specified by Manser and others, and a rather more diversified structure of measurable and qualitative costs to LDCs.

I. FX EXPOSURE PATTERNS OF MNC SUBSIDIARIES IN LDCs

The characteristics of FX exposure of MNC subsidiaries and affiliates analyzed below are derived mainly from interviews of corporate officials, governors and senior officials of central banks, commercial bank chiefs, finance and tax officials, and chambers of commerce, in a few African countries, banking officials in some European capitals, and from the literature on FX risk and MNC management of exposure.⁶ The more explicit of MNCs' exposure patterns are set against brief representations of those of uninationaI foreign firms and of domestic firms and institutions, to provide a broad framework for evaluating relative FX exposure,

⁵ R. H. Green discusses the general problems of availability to LDCs of statistics on MNC operations and certain analytical and operational uses which could be made of available statistics, in "Statistics on the Multinational Corporation as a Means to Exercise Sovereignty," *IDS Bulletin*, Vol. 7, No. 3 (Brighton: University of Sussex, 1975), pp. 11-15. There are fragments of unpublished data from a variety of official, banking, and corporate sources which cannot be cited for reasons of confidentiality. Also, see Aggarwal and Baker, "Using Foreign Subsidiary Accounting Data: A Dilemma for the Multinational Corporation," *Columbia Journal of World Business*, Fall 1975, pp. 83-92.

⁶ See Dixon-Fyle [5]. Aggarwal [2, pp. 98-99] lists several empirical studies of MNC management of exchange risk.

covering possibilities and costs. Further, often more complex exposed positions are considered later. It is not intended to provide an exhaustive inventory. We focus mainly, it must be noted, on exposure and covering with implications for cost shifting to LDCs.⁷

Buyers and sellers of foreign exchange in Africa, as elsewhere, vary greatly in functional and enterprise characteristics, and in the dimensions of actual or anticipated FX holdings and requirements. Accordingly, FX exposure patterns vary, as do choices of H & C measures. Nevertheless, three core categories of firms/institutions are distinguishable.

Category 1 transactors are mainly small firms and proprietary importers, and include some exporters of secondary products in intraregional trade. Their FX transactions are usually small and rather irregular—perhaps even incidental to their main activity, usually the selling locally of imported products at the lower end of the distributive trades. Like other firms, some of their transactions are FX exposed directly and indirectly but they can seldom secure formal cover through organized exchange markets, being at the tail end of conventional market covering. Category 1 firms are generally unable to estimate in advance their FX requirements over the importing and sale cycle, or perceive trends in exchange rates of the several currencies in which their importing transactions are denominated. Many, normally, accept exchange rates existing when transactions and/or settlements are concluded, even though realizing that rates in general and those relating to their transactions may change, possibly at their expense. They often can secure partial cover for profit margins by shifting, usually direct to consumers, imputed covering costs, whether or not perceived as such.

Category II comprises, mainly, medium to large exporters of secondary products, most large-scale importers and importers' agents holding sole agencies for several manufactured staples imported under periodic fixed-term purchasing contracts and involving substantial amounts which are normally financed by commercial export credits, bank overdrafts, and letters of credit. Also included are wholesalers purchasing on extended credit terms from importers in this category, and who occasionally import directly themselves. Immediately exposed positions here are essentially of a financing nature. Importers pay more local currency following revaluation of their transactions currency, plus an uncertainty premium charged as additional interest on foreign export credit. Further premia are normally chargeable on financing liabilities to domestic credit institutions having to cover their own FX liabilities. Ultimately, exposure is of profit margins, transfers, amortization and loan repayments, and of dividend remittances by foreign-owned firms. Category II firms seldom cover through forward markets, even if one exists, or by precautionary spot buying and selling of currencies. Some do follow spot and forward rates closely, occasionally buying a depreciating currency and making limited sales when rates rise. They fairly consistently exploit possibilities for protecting transactions remaining uncovered usually by adjusting financial policies or through other non-market forms.

⁷ Manser [7] remains one of the best descriptive accounts of exposure patterns and hedging and covering possibilities, in spite of deficiencies in his concept of host country costs.

The larger Category II firms use local forward markets rather sparingly, notably when critical exchange rates are volatile, provided covering costs adjusted for forward discounts are not unacceptably high. If they are, these firms, not unlike others similarly placed, seek cover by subjectively determined markups involving full or partial cost shifting to distributors or directly to consumers.

MNC subsidiaries and affiliates, and parent companies, comprising Category III have the widest range of transactions, intracorporate as well as with extra-group entities, that are FX exposed. Regulatory constraints in LDCs, notably credit and exchange control legislation and practice, have combined with unstable product and exchange markets to force MNCs into treating cash management, utilization of other liquid assets, and overall management of FX risk as an integrated global function. These developments have aided the restructuring of exposure, covering possibilities and cost, and affected the effective incidence of cost shifting.

An MNC subsidiary's exposure derives, essentially, from movements in exchange rates of its trading/transactions currencies relative to the MNC's reference currency and from relative domestic/foreign price level changes which alter adversely net real reference currency values of the MNC's income, flows of funds, assets and liabilities, and transactions. Such changes may be in the LDC currency only, in its "pegging" currency, in one or more other third currencies, or simultaneously in all of these, and in corresponding price levels.⁸

Under floating rates, continuing, possibly reversible though not necessarily symmetrical, devaluation/revaluation in third currencies relative to an MNC's reference currency have often markedly affected corporate exposure, particularly where relevant LDC currencies are maintained narrowly against third currencies which are themselves floating, held within widened margins or crawling on pegs. Devaluation of a "hard" third currency against an MNC's reference currency normally produces larger potential loss than revaluation. However, simultaneous revaluation of third currencies may not necessarily produce net gains.

For most subsidiaries, FX exposure is largely and increasingly a balance sheet problem. Certain income or cash flow statement items are variously exposed, notably local currency income after local taxes; translated into reference currency, this declines following devaluation/depreciation in the host currency—particularly where precautionary or compensatory increases in critical prices are unsustainable. Current assets valued in local currency are exposed; as are local receivables not subject to escalator or devaluation hedge clauses, cash and bank deposits, and near-cash including marketable securities. Book and replacement values of locally held inventories, mainly imported inventories awaiting payment, which are recorded in a soft host currency and are not price adjustable, all fall if expressed in the reference currency. Noncurrent assets recorded at historical exchange rates and usually more than adequately depreciated or depleted, though not normally exposed, may be "covered" by revaluing and further depreciation.

⁸ See D. Heckerman, "The Exchange Risk of Foreign Operations," *Journal of Business*, Vol. 45, No. 1 (January 1972) for an analysis of effects of price changes on the value of foreign exchange operations.

Current and long-term local liabilities are normally unexposed. Where unexposed hard currency funds are available from parents or other subsidiaries, and local payments deferrable until after a devaluation, liabilities may partially cover exposed assets. However, liabilities would remain exposed if neither is possible or profitable, and where interest rate differentials and trade discounts foregone are substantial. Local financial market considerations and capital outflow regulations may restrict predevaluation borrowing and transfers abroad destined to be reversed after devaluation of a host country.

When relevant third currencies and an MNC's reference currency are revalued, repatriations of capital and income, repayments of foreign loans and of intercompany and extragroup interest charges become exposed. Other liabilities denominated in hard third currencies, payments of management fees, and the subsidiary's share of headquarter's costs are also exposed. Third currencies becoming more valuable relative to a reference currency may savagely erode values of current and fixed direct investment assets, relative to unexposed liabilities, in adjusted net worth terms. An American MNC recorded a \$55 million FX loss in 1971 mainly from exchange rate realignments and revaluations against the dollar. Several other examples can be cited.

FX losses in income statement or balance sheet items are, evidently, differentiated according to firms' structural and operational characteristics, the direction, degree and timing of changes in specific exchange rate relationships, and the resulting incidence of exposure and covering possibilities. Exporting subsidiaries selling mainly on arm's length markets and delivering partly to parents or group entities may have their receivables exposed following anticipated or actual devaluation in a "hard" third currency in which exports are denominated and settlements due—whether or not, but notably when, the LDC currency is not narrowly "pegged" to the currency of denomination. FX exposure in importing subsidiaries could differ markedly even though risk avoidance objectives were broadly similar, notably the concern of enterprises to sustain the reference currency values of total net assets, present and future income flows appropriately discounted, and of related transactions. Net exposure is normally minimized by balancing losses (gains) on devalued assets against gains (losses) on revalued liabilities. Smaller firms, with simpler exposure patterns, often requiring less complex H & C action, generally focus on preserving real values of trading assets and incomes when effective exchange rates and internal and external price structures change or seem likely to.

II. MNC COVERING OF EXCHANGE RISKS

The brief review above of exposure mechanisms underlined the need for appreciating critical relationships between corporate transactions, translation and economic exposure, and LDCs' exchange rate regimes, local and foreign interest rate differentials and practices, borrowing possibilities, and taxation conditions. This framework is useful both for analyzing H & C behavior and associated costs, and resulting cost shifting possibilities.

Evidently, MNCs do not all cover every perceived exposed position or use all H & C measures. They cover some exposure, "not at all costs," and choose H & C measures. Limits on acceptable costs are generally specified, from rudimentary ceilings on assets or liabilities in each currency to complex relationships between various financial ratios and operating indices. Many consistently cover sensitive positions, avoid unacceptable risks, and may forgo ephemeral exchange gains. However, MNCs operating in weak currency countries and whose reference currencies are themselves rather weak (sterling, lira, or French franc against Swiss francs) are often urged aggressively to seek currency gains.⁹

Although we focus more on H & C of individual exposed positions rather than on strategic combinations for particular groupings of them, composite covering of composite exchange risk is fast becoming the norm. Ultimately, of course, an MNC's risk minimization options are structured by its basic risk preference and perception of its "unsystematic risk" situation relative to operational objectives, immediate requirements, and its approach to what to cover and at what nominal cost.

Common to many exposed positions under flexible exchange rates is the mechanical mismatching of assets and liabilities, and inflows and outflows of cash denominated in different currencies. The simultaneous mismatching of maturities, interest rates, and currencies, particularly where maturities are widely spread and finely graded, and profits, and dividend remittances and exchange rates are unpredictable, has intensified pressures on MNCs to cover their main FX risks. Outlined below are the more typical cases of matching exposure with H & C measures involving potentially shiftable costs to LDC governments, other firms / institutions, and consumers.

Typically, MNCs may halt or cut back drastically flows of capital from parents to subsidiaries in devaluation-prone LDCs, and accelerate subsidiaries' repayments of outstanding group loan or equity capital and other intercompany settlements. In the process, subsidiaries may run up trade and other credits owed to parents, run down local cash holdings, expand borrowing in local funds markets and exploit other supplementary short-term local credit lines. Borrowing would be specifically against local receivables to provide an offset to exposed assets. Discounting or factoring local bills or promissory notes accelerate their conversion into potentially remittable cash. Some subsidiaries use financial swaps which eliminate or minimize conversion losses. In an "arbi-loan," equal amounts of an MNC's reference currency and a local currency are swapped for an agreed period following which both parties return the original amount of each currency. Furthermore, an MNC could borrow an amount in the risk currency equal to its anticipated receipts in it for a period equivalent to that in which exposed receipts become due, and/or enter into an import contract with payments becoming due after an identical period. The loan is repaid when the importer pays up (normally after devaluation), or is discounted into cash.

⁹ See Abdel-Malek [1] and Crawford [4]. Crawford warmly urges MNCs to go for currency profits. Several other empirical studies testify to the prevalence of selectivity in covering behavior.

An exporting subsidiary having large foreign currency expenses and anticipating devaluation/depreciation in its transactions currency may use other H & C possibilities, depending on its risk aversion, its invoicing strategies, and actual invoicing possibilities. MNCs cannot freely choose currencies of denomination, or forecast accurately probable effects of specific choices on optimal pricing policy. When not denominated in its home currency, which allegedly offers both exporting and importing firms "costless" cover, particularly in sellers' markets, an MNC may try denominating both receivables invoices and import payments in its reference currency. If arm's length buyers would wear it, export sales receivables may profitably be denominated in currencies standing at a premium over an MNC's reference currency. Attractive covering and FX gains are also available through multiple currency billing; American MNCs might soon catch up on others in developing multiple currency contracts only recently legalized in the United States. Arm's length purchase and sales contracts would, where practicable, incorporate FX fluctuation adjustment clauses, and intragroup transactions priced partly using appropriate internal accounting exchange rates.

The larger MNCs, where permitted and facilities exist, utilize discrete forward market cover and/or rolled-over short cover to hedge long-term risks. They and a few smaller MNCs occasionally regard forward covering as a supplementary facility. For a British exporter, say, the cost of forward cover would be the difference between the three-month Euro-sterling deposit rate and the three-month Euro-dollar deposit rate, and would be the more expensive, normally, as sterling depreciated relative to the dollar.

While MNCs increasingly centralize the covering of group exposure, subsidiaries facing restrictions on their direct H & C operations cover forward only a limited range of payments in nonlocal currencies—dividends, goods purchased, funds borrowed, and interest charges. From rather fragmentary evidence, covering costs are, and are widely reckoned by subsidiaries and commercial banks to be, high relative to probable devaluation losses. Covering forward may nevertheless be sought when market uncertainty is pronounced, and then perhaps almost regardless of cost.

Intersubsidiary sales, loans, royalties, and service and contract fees, etc., are defensively priced to minimize exposure, as are other income, and balance sheet, items. Where they can raise prices easily, subsidiaries have consistently increased local values of inventories, particularly items denominated in hard currencies, and market prices of products and services in anticipation of or following devaluation / depreciation in a host country currency. Furthermore, pricing with free-market or shadow exchange rates helps sustain constant asset values in hard or reference currencies or to maintain the reference value of profits.

The larger importing subsidiaries in certain West African countries typically marked up invoice values by no less than 2 per cent when exchange rate margins under IMF rules were 2 per cent. Larger loadings of invoices are being made to cope with less stable exchange cross rates under generalized floating.

H & C costs for specific exposed positions inevitably vary. Some recorded accounting exposure is notionally "cost free": the exposure of ongoing assets or

liabilities of subsidiaries consolidated at different closing rates and which are not converted may have no real impact or tax effect when restated in terms of an MNC's balance sheet. However, most forms of exposure and H & C involve MNCs in positive costs, some potentially shiftable wholly or in part, immediately or ultimately. Potentially shiftable costs include: (a) direct hedging costs, including forward premiums or discounts in currency markets, differentials in interest rates on cash assets utilized in intracorporate transactions designed to limit exposure, and certain tax effects of dividends, foreign exchange fees, etc.; (b) actual borrowing costs and commitment fees on advance credit requirements or costs of future lines of credit; and (c) the change in an operating currency relative to the MNC's reference currency.

Developments in corporate structure and management arrangements originating in exposure pressures include the establishment of intermediary companies by some MNCs specifically for coordinating exchange risks and cash and liquidity flows. Newly established parent country based and/or offshore confirming houses, such as Imperial Chemicals' ICI Finance Company, offer additional flexibility and consistency in limiting group trading exposure through hedging for all or some group entities, for example, by buying and paying for export receivables of the whole group without explicitly having to match maturities or currencies.

III. COSTS TO HOST COUNTRIES

Which H & C costs are shifted and the proportion becoming social costs depend mainly on structures of corporate equity holding, managements' perceptions of probable impacts of translation or economic losses, ceilings on H & C costs, etc., and on the regulatory impacts of fiscal, monetary and banking, and exchange regimes of host countries, and of investing countries. The FX risk absorbing capacity of MNCs is not unlimited. Some may themselves nominally carry part of their H & C costs, for example, where permissible, through setting off reserves accumulated from FX accounting profits against possible future FX losses. This may itself nevertheless imply some de facto cost shifting. However, by using certain accounting definitions of exposure which are linked with translation procedures, an MNC may overhedge and shift larger absolute costs to host countries. Whether costs are shifted and the degree to which they are depend on the accounting and taxation treatment of specific exposed items. Both successful and unsuccessful risk aversion efforts involve MNCs in costs which are potentially shiftable. The claim that "firms which have managed foreign exposure successfully have laid accounting rules and concepts aside..." [4, p. 98] would be largely irrelevant in determining the de facto incidence of H & C costs. Furthermore, that MNCs show foreign currency losses in financial statements hardly implies that no H & C costs have been shifted. Both direct costs and the opportunity costs of FX profits foregone would have been shifted in some measure.

Being generally more strategically placed than other firms/institutions in limiting their effective exposure, and having more feasible H & C possibilities, and considerable economic and organizational, and often political, endowments

of power and influence, MNCs do shift larger chunks of H & C costs backwards to host government and forwards to consumers. Predictably, some costs are more easily passed on than others, and accordingly more socially costly. Generally, risk avoidance costs borne ultimately by consumers are more burdensome than costs absorbed mainly by MNCs, other business units, banks and financial institutions, and governments. (Circumstances exist, though, when consumers might reasonably bear all or part of some H & C costs.)

Social costs to LDCs are measurable, initially, as outflows of funds resulting from net changes in MNCs' short-term liabilities and long-term debt to banks and financial institutions in host countries, as movements in equity and loan funds from parent or group companies, and in dividends, trade credit, and cash flow. However to this primary resource cost must be added the impacts of funds outflows on LDCs' balance of payments and on the stability of their exchange rates.

To determine orders of magnitude of resource losses through MNC risk aversion, detailed data are needed on operations of individual MNCs and subsidiaries, and on LDCs' flow of funds patterns, which could be systematically associated with corporate assessments of the sensitivity of their main exposed positions, actual and potential FX losses, H & C measures employed, their cost, and its nominal and effective financing. Inevitably, rather little publicly quotable data are readily available. Though no substitute for this, there are no a priori or institutional and empirical grounds to suggest that, during period of uncertain exchange rates, of LDCs' and their "pegging" currencies, movements of funds do not take place within MNCs and between unrelated foreign corporations. Conventional H & C measures of MNCs appear to generate proportionately large outflows of funds from LDCs than might be the case elsewhere.

Central bank, taxation, and corporations data available to the writer regarding mainly foreign-owned subsidiaries in mining in Sierra Leone, together with fragmentary information on patterns of intercompany trade credits and of leading and lagging by MNCs and their subsidiaries there and in other African countries, and our interviews in some African countries and of a few banking officials in Europe suggest some broad, tentative conclusions. Host LDCs face substantial additional social costs that are not normally immediately reflected in or manifested as direct or indirect outflows of resources. Several MNC risk avoidance measures usually articulated through adjustments in corporate pricing policies have direct impacts on internal costs and prices in host LDCs—both when specific MNC or subsidiary positions are exposed and when they are not. In the former case, for example, the increasing use of sales or purchase contracts embodying escalator clauses or dollar equivalency provisions (which could augment ultimate funds outflows) has had the effect of directly and immediately increasing certain internal costs and prices following devaluation/depreciation in a host country currency. So have specific choices of currency for denominating exports, say, which have had direct impacts on their pricing and values.

The rudimentary state and excessive degree of regulation of financial markets in Africa, comprehensive exchange and payments controls, and restrictions on forward market activity encourage possibly greater use by MNCs (and the larger

domestic companies) of anticipatory price adjustments to cover more exposed positions. Discretionary pricing by MNCs of intracorporate transfers, anticipatory marking-up of inventories and import values, adjustments in credit terms, all result in higher costs in import-using sectors and higher market prices. The minimal capacity of African administrations to influence domestic costs and prices, with much of industry heavily protected and monopolized, and constrained competition in marketing imported and locally manufactured goods, enable firms easily to pass on their H & C costs. Imbalances in power and authority between exporting subsidiaries of large MNCs and weak fiscal administration in small LDCs erode governments' tax base and yields.¹⁰

Our interviews and examination of central bank and taxation data strongly indicate that charges against MNC's transfer price mechanisms were probably at least as important as charges against income (interest, royalties, management fees, etc.), after tax payments, and intracompany lending, as means of transferring funds and profits. Moreover, it seemed evident that H & C through price adjustments outweighed domestic or offshore forward market covering, and were possibly no less important than more conspicuous forms of exporting funds. The extensive use of host country financing, encouraged in certain cases by exchange control regulations in investing countries, served increasingly to minimize MNCs' conversion losses and upgrade exposure patterns.¹¹

The ability of subsidiaries rather easily to cover exposure through pricing adjustments, widely regarded as cheaper and less uncertain than forward covering, largely explained the indifferent demand for forward cover through organized markets testified to by commercial and central bank officials and company managements. The possibility exists, though, that some large buyers and sellers of FX and certain commercial banks might have understated the volume of forward transactions, particularly where local or offshore forward dealing was discouraged or prohibited, and MNCs kept a low profile on their forward activity which could be interpreted as speculation against host country currencies. That non-market cover seemed generally preferred to buying forward cover is evidently not due entirely to the absence of forward facilities or to official restrictions on their use.

Some analysts who have interviewed corporate treasurers of U.S. and Canadian firms having foreign transactions, including some with foreign subsidiaries, have, like Abdel-Malek, observed "a wide gap between current practices and normative behavior as advocated by many."¹² It would be dangerous to infer from this that some social costs to LDCs are only potential costs. The larger MNCs do have well developed H & C policies and procedures. The identity and size of social costs are nevertheless a matter of empirical fact.

Which MNCs cover which FX risks, how and at what nominal cost to them?

¹⁰ See Dixon-Fyle [6] for an assessment of the impact of MNCs and other non-indigenous institutions on public decision-making.

¹¹ Such restrictions include those imposed on British MNCs to limit financing of third country trade in sterling.

¹² Abdel-Malek and Crawford are among those who take this position.

How much of aggregate direct and indirect H & C cost is actually shifted, in which manner and under what circumstances? Costs to LDCs of MNCs' risk aversion are affected not only by the greater diversity of subsidiaries' exposed positions compared with subsidiaries operating in industrial economies. They depend also on the peculiarities of dependence in LDCs' currency arrangements and of underdevelopment in their banking and financial infrastructure. These institutional questions are taken up in the final section.

IV. HOW BEST TO MINIMIZE H & C COSTS TO LDCs

A. *Role of Central Banks*

Although difficult in practice, a distinction should, in principle, be made between (a) general costs to LDCs occasioned by unstable exchange cross-rates between their currencies and the effectively floating primary units of account, trading and intervention in terms of which they are normally narrowly maintained, and (b) specific costs resulting from MNCs passing on all or part of their H & C costs. In practice, LDCs often regard both categories of costs as comprising a single problem. (Currency arrangements and exchange rate structures in some LDCs have, indeed, not always been totally uninfluenced by MNCs!)

The ultimate responsibility for mediating general and specific costs must lie with national central banks rather than fiscal authorities or executive governments. In many LDCs, central banks enjoy substantial autonomy within the system of government; more so in managing flows of funds and foreign currency denominated assets and liabilities than, for example, money supply and the financing of public sector deficits. Moreover, central banks are generally more technically expert than other agencies in evaluating sectoral and economy-wide impacts of resource movements, private sector pricing, output and sales decisions, etc., on the balance of payments, domestic cost/price relations, and development possibilities. They are thus natural allies of MNCs in securing enlightened inter-mediation of social costs of FX risk avoidance.

Deliberate coordination is desirable between central banks, fiscal authorities and finance ministries, and more informed cooperation between them and MNCs. Unfortunately, many MNCs request of LDC governments excessively generous FX privileges involving substantial, continuing net foreign exchange losses to LDCs and conspicuous discrimination against other foreign, and domestic, corporations. Where such losses threaten balances of payments and external reserves, they weaken relations between central banks and MNCs.

LDC central banks should employ conventional exchange controls and restrictions on corporate movements of funds, borrowing, etc., rather less mechanically, as measures for conserving a scarce resource and regulating its use. They could seek instead the minimization of net overall exposure of official assets and liabilities and all transactions, official and private, normal and risk-averting, involving FX use, taking into account H & C possibilities, cost and cost shifting. For example, in cutting official FX losses, the emphasis would be on limiting

direct and indirect exposure in the national FX balance, including exposure resulting from MNC risk aversion, rather than on mechanically limiting conversion losses by restricting the crossing of exchange frontiers.

Through more explicit cooperation among central banks, fiscal authorities, MNCs and commercial banks, exposure and covering costs and cost shifting may be significantly reduced by systematically covering future FX receipts by future obligations, at least in critical currencies, through coordinating export sales and FX receipts with import purchases, payments and other FX expenditures. It should, for example, be possible to manage for mutual gain the size and timing of repatriations of private capital and remittances of profits, as well as other outflows of private and official capital, relative to anticipated movements in certain "strategic" exchange rates, including that of the LDC itself. A basis could thus be established for more systematic policies for domestic borrowing by international corporations, exchange earnings surrender requirements, and import financing, invoicing and pricing. Such cooperation would reduce the incidence of unilateral measures of exchange restriction which often complicate unduly both official and private management of FX risks.

Cooperation toward ends indicated above underlines the need for central banks to manage their own exposure more actively, including "their" external assets and the amortization and servicing of external liabilities of governments and quasi-governmental agencies, other expenditures involving reserves and exchange receipts. Where they have failed to provide adequate overall cover, some central banks have cranked up restrictions on economic and business units, notably on those least able to resist them.¹³ Informed surveillance and management are also indicated of commercial banks' FX positions, both through self-imposed disciplines and central bank limits on banks' currency exposure, maturity mismatching, and credit risks. Such surveillance and regulation are now accepted as desirable even by banks in developed countries.¹⁴

B. *Forward Markets and Cost Sharing*

LDC central banks should actively strive to shift H & C by the larger MNCs and other foreign and domestic firms away from precautionary movement of funds, anticipatory costing of inventories and defensive adjustment of factor and product prices, and towards covering a larger proportion of primary risks within organized forward markets. Fortunately, some MNCs are reportedly preferring the buying of forward cover to less determinate practices, including "exposure netting," extensive leading and lagging, and the mechanical minimization of

¹³ LDC central banks need to shake off the disdain of purists for any kind of "speculation," by understanding the distinction between speculative activity and systematic management of exposure through monetary and fiscal intervention and intermediation.

¹⁴ Central banks in these countries impose very real, if seemingly indirect, controls on MNCs through controls over foreign lending and borrowing activities of commercial banks. Two aspects of this are discussed in J. Morse, "Control of Multinational Banking Operations," and G. R. Thomas, "How to Serve the MNC Market," both in *Banker* (London), August 1977. Also, see "Limits on UK Banks' Foreign Exchange Positions," *Bank of England Quarterly Review Bulletin*, Vol. 15, No. 4 (1977).

transactions costs. MNCs should be induced, not exhorted, to cover export receipts, capital and dividend remittances, intersubsidiary loan repayments, etc. at full commercial rates in offshore or domestic forward markets. Generous tax treatment would be required of resulting foreign exchange losses or gains. Several LDCs need new or improved facilities for local forward cover, perhaps initially in one or two relevant currencies, with judicious regulation of access to markets, delimitation of categories of transactions, terms of trading, permissible covering periods, and the minimization of open-ended currency speculation. It is to covering imports that "administered" local forward markets should be geared, so as to limit cost shifting, through non-market H & C measures, to consumers and governments. Some African monetary authorities have taken a precisely opposite course, providing organized forward cover only or mainly for exports.

To facilitate more comprehensive sharing of FX covering costs through markets, MNCs and the larger foreign and domestic firms would initially make greater disclosure to the monetary and fiscal authorities of designated categories of immediately anticipated financial transactions affecting the availability and use of host country FX resources. Furthermore, information could be provided on actual and potential exposure patterns deriving directly from trends in host country exchange rates relative to those in their "pegging" currencies and corporations' reference currencies. Internal reporting systems of many MNCs increasingly include rolling forecasts of future intragroup cash flows, anticipated FX exposed positions, and assessments of probable exposure impacts for individual group entities as well as a consolidation effect—none of which are directly identifiable in accounting/consolidation reports. Through negotiation with monetary authorities, mutually beneficial trade-offs could be established between more corporate disclosure in confidence and the letting in of MNCs on official discussions on exchange rate possibilities and official financial and fiscal intermediation. Risks and alternative covering possibilities would be jointly reviewed. Such reviews might offer the authorities valuable insights into exchange rate and exchange control options and more well-founded criteria for choice and implementation. They might also facilitate greater official coordination between exchange rate policy, financial intermediation and the management of overall FX positions.

Some LDCs have been aided by international organizations, notably the IMF, in instituting appropriate forward market formats and corresponding operational and dealing mechanisms and procedures, including rate fixing, permissible dealing margins and cost-sharing, instructions to authorized dealers, etc. [8]. This effort could be extended and supplemented by market-oriented expertise from money and capital market institutions in industrial countries, and more consistent co-operation with local, mainly expatriate-owned commercial banks and regional capital market institutions.

C. *Other Possibilities for Cost-sharing*

Where a subsidiary's effective profit rates are low, its capacity to absorb its own FX risks and its share of group risks would be nominally limited. It may

however be augmented through negotiated trade-offs between long-term official commitments—on dividend remittances, differential effective tax rates related to profits, etc.—and the subsidiary's agreement to absorb higher proportions of its H & C costs.

FX risk covering costs may be included in some industrial country schemes for sharing cost escalation on exports and large foreign investment and construction projects which offer more than disguised export subsidies. Schemes operated by Britain (through its Export Credit Guarantee Department), France, and Finland share designated cost increases on a variable but not open-ended basis among exporters, exporting country agencies, and importers. Explicit FX guarantee arrangements funded by public agencies in France, Japan, Germany, Belgium, Netherlands, and Switzerland, for example, may be adapted to provide limited cover for costs of designated categories of forward covering through organized markets. Provisions should be incorporated to limit passing on to host countries of the cost of covering positions remaining exposed. Some schemes, including the British ECGD, by encouraging exporters to invoice in foreign currencies and use foreign financing—to reduce public sector borrowing requirements and domestic credit expansion—shift effective burdens to host countries.

D. *International Guidelines and a Code of Conduct*

Voluntary cost-sharing needs a negotiated framework, multilateral guidelines or a code, for surveillance and regulation of MNC covering behavior and cost shifting, and accountability by governments in respect of their countervailing measures. It would be counterproductive merely to proscribe all H & C measures which MNCs deemed rational. Many subsidiaries, for example, have replaced current account debt to parents by increasing credits to parents and overseas subsidiaries in anticipation of devaluation in a host country currency, nominally or through multiple exchange rates, or of semi-nationalization. Clearer specifications are vital of mutually balanced rights and obligations, and of agreed bases of mutual commercial and economic advantage, of MNCs, LDC and parent country governments. These would limit the indiscriminate use by governments of restrictions on corporate transactions and financing possibilities and wholesale shifting of currency losses by MNCs to LDCs, and by foreign tax jurisdictions which, like the U.K.'s, do not treat them as tax deductible.

A few, usually the larger, developed countries actively regulate certain financial and accounting practices of their MNCs operating abroad, in order to protect their national tax base or balance of payments. The U.S. guidelines on dividend repatriations by foreign subsidiaries of MNCs instituted in the late 1960s may be recalled here. Central banks also impose real, if seemingly indirect, controls on MNCs through limitations on foreign lending and borrowing by commercial banks.

The accounting and taxation treatment of specific exposed items varies greatly, even though tax administrations generally seek to regulate their impacts on corporations' net taxable incomes and national tax yields. In the United Kingdom, for example, currency gains or losses on long-term loans from subsidiaries and

foreign banks are neither taxable nor tax deductible. MNCs borrowing "cheap" foreign currency abroad carry a nondeductible premium on repayments, yet profits from revaluing assets in sterling are taxable. The U.S. Financial Accounting Standards Board's Statement No. 8 of October 1975 specified significantly different principles relating to foreign currency transactions, overseas subsidiaries, and forward exchange contracts. On the other hand, the U.S. Accounting Standards Steering Committee has issued definitive recommendations on treating gains / losses on several exchange transactions in income and balance sheet statements.

Differences among industrial countries in tax and accounting treatment of MNCs' foreign operations, which parents and subsidiaries anticipate in their decisions on pricing, resource flows, and the location of investment, and which accordingly affect relative competitiveness and financial practice among MNCs of different nationalities, are often compensated by MNCs with higher effective domestic tax burdens at the expense of LDCs. Thus, British firms claim that their competitive position in third markets is worsened by "a [domestic] tax treatment markedly less rational than that in most countries," including Germany and Japan. Their exposure problems were particularly "exacerbated by an arbitrary and asymmetrical tax treatment of [exchange] losses and profits."¹⁵

While some intercountry differences in tax and accounting treatment of overseas subsidiaries may cancel others out, with possibly neutral effects on prices, competitiveness and relative profitability, and on tax liability to LDCs, major differences remain which suggest that greater standardization in treating critical FX exposed items would variously benefit host and parent countries, and MNCs. For example, differences between German and U.S. arm's length standards on interfirm interest charges, etc. or in permissible profit allocation practices may offset differences in tax treatment of foreign exchange profits, local withholding taxes, and deferred income. Yet, while U.S. MNCs must consolidate financial statements, some countries' MNCs may not. Whether or not intercountry differences cancel out, some subsidiaries, in addition to taking autonomous measures inspired by perceived differences, have sought "relief" from LDC tax administrations, often under antiquated double taxation agreements, with serious effects on LDCs' tax base and revenue yields. Where profits are recorded as resulting from revaluing currency assets in an MNC's reference currency, some LDCs, notably

¹⁵ See submissions by the Consultative Committee of U.K. Accounting Bodies briefly reported in M. Blanden, "Currency Borrowing Review Urged," *Financial Times*, December 18, 1976. These problems are not easily resolved. Complicated relationships are involved, notably those between parent country tax practice, MNC's profit objectives, patterns of exchange exposure of critical items, covering costs and their effective incidence. Thus, certain exposure problems and the hedging strategy of a U.S. firm are affected by U.S. practice of basing taxable income on foreign-source income gross of foreign taxes plus a tax credit for foreign tax payments, and according to whether the MNC's profit objective is to (a) maximize consolidated after tax earnings or (b) maximize non-repatriated earnings less the anticipated tax cost of dividend remittances. A U.S. foreign subsidiary's situation and reaction could differ from firms incorporated in host countries which tax foreign investment income net of foreign income and withholding taxes, and having (a) and (b) as their profit objective.

those without capital gains taxes, treat them as nontaxable, nonoperational, and non-investment income. Yet many LDCs treat currency losses on liabilities in domestic or foreign currency or on subsidiary loans as deductible.

Intercountry differences in permissible translation and consolidation procedures are striking. Though translation at current exchange rates combined with general price level accounting is allowed in some countries, U.S. authorities, for example, insist on restatements for general price level changes only after translation and on using an index of U.S. prices. Moreover, practices for translation and for consolidating subsidiary accounts differ markedly among companies in a single country and among countries, offering MNCs considerable latitude, utilized sometimes injudiciously, to produce different incomes, costs and sales allocations between host country and foreign markets, ROI budgets and other operating indices.¹⁶ Being largely geared to MNCs' own needs for internal reporting and control, and based on historical rather than replacement cost in valuing assets and liabilities, the resulting statements often lack objectivity, given the varied requirements for control of host and parent country governments and fiscal agencies, and stockholders. In particular, international comparisons become more hazardous, and underline the need for common procedures, practices, and standards.

Complete standardization of tax policies and practices in developed countries is neither practicable nor desirable. However, possibilities exist for progressively harmonizing overall biases in tax systems and in treating strategic exposed items, covering possibilities and cost-sharing. It would be the objective to seek relatively standardized tax and accounting procedures having more or less neutral effects on ex ante pricing policies of MNCs, and on relative competitiveness and after tax profitability. Among other things, this could intensify pressures to compete among MNCs operating in several countries and currencies and possibly improve overall resource allocation patterns.

Foreign tax systems are the more beneficial, particularly to LDCs, which, like the United States to a degree, encourage using equity capital from parents rather than intrafirm debt. Possibilities also exist for streamlining the treatment of tax deferrals, of foreign tax credits, head office, R & D and other intrafirm service charges, and double taxation, all of which affect the distribution of foreign investment gains between investing and host countries and underline problems of FX risk aversion and cost-sharing. Tax deferrals, for example, affect the location of borrowing and of investment. Eliminating them in the United States, for example, may encourage more MNC borrowing from overseas markets, including LDCs', rather than equity and parent company financing of foreign affiliates.

¹⁶ Anthony Rowley, quoting estimates by Phillips and Drew, noted that if Shell had treated currencies in the same way as did BP in 1975 its earnings would have been 20 per cent greater than those reported and the group's price/earnings ratio would have been one point lower, in "Problems for Companies Living with a Depreciating Currency," *Times* (London), November 10, 1976. See Crawford [4, Chapter 7]. The U.S. position is much tidier following FASB 8. Also, "Covering Yourself from Sterling's Fall," *Economist*, May 22, 1976.

For example, the guidelines for Sections 861–864 of the Internal Revenue Code obliges MNCs to charge a larger proportion of their R & D to foreign subsidiaries.

E. *Other International Action*

Binding guidelines or codes could be reinforced by complementary arrangements for a constructive accommodation of interests. Formal revenue-sharing among LDCs, foreign tax jurisdictions, and MNCs and foreign tax havens is rarely espoused fervently by treasuries intuitively concerned with enlarging their national tax base and yields. Collaboration to its end is clearly indicated.

A more effective, broadly based initiative is required of international institutions towards evolving standard forms of currency and price level accounting. The perspectives of the International Accounting Standards Committee could be more decisively oriented to include an explicit distributional dimension, with greater efforts directed towards continuing surveillance and evaluation of impacts of recommended practices on the economic performance and prospects of LDCs. National standards must also be given similar orientation. The U.S. FASB Statement 8, though focussing mainly on U.S. problems, contains elements nominally beneficial to LDCs, which could be reinforced. By restricting “speculation” on certain categories of forward contracts, such as through requiring the passing of gains/losses on them through the income statement, FASB 8 may have such effect. Similarly, by requiring that long term foreign currency denominated debt be carried at current exchange rates with any fixed assets thus financed being carried at historical rates, FASB 8 could, and should, be adapted, to induce MNCs further to use rather less foreign financing.¹⁷

It would help even if only short initial steps can be taken. A proposal recently aired in the European Parliament would oblige European MNCs to greatly clarify their balance sheets and provide breakdowns of financial statements on the basis of geographical areas. This could be required of all MNCs.

Some LDCs have utilized spin-offs from the regulatory activities of professional accounting bodies in industrial countries, the United States and Britain mainly, and recommendations or directives of tax authorities or quasi-governmental regulatory agencies. Insistence on standardized national procedures and practices has often eliminated the more glaring abuses. Furthermore, the larger LDCs, including India, Argentina, and Andean Pact countries, have developed more sophisticated tax and accounting regimes modelled, usually, on U.S. practice, and more discriminating yardsticks for surveillance of MNC subsidiaries’ pricing and financial practices. Since this effort has been directed mainly to conventional or regular transfer pricing, basic issues relating to FX exposure and covering remain unresolved. So are the possibly larger problems facing smaller LDCs

¹⁷ Unfortunately, features of FASB 8 nominally attractive to LDCs are being widely criticized. See, for example, “FASB Statement 8,” *International Currency Review*, Vol. 9, No. 2 (1977), pp. 56–59; and T. Ring, “Coping with Currency Losses,” *Times* (London), December 2, 1975. For a survey of more general reactions to FASB, see M. T. Stanley and S. B. Block, “Response by United States Financial Managers to Financial Accounting Standard No. 8,” *Journal of International Business*, Fall 1978.

depending on one or two MNC owned extractive industries and lacking the technical and administrative expertise for effective financial and fiscal intermediation. They, including some of the least developed, evidently bear the brunt of corporate exchange risk aversion.

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