THE FINANCING OF FOREIGN DIRECT INVESTMENT

A Study of the Determinants of Capital Flows in Multinational Enterprises

Martin Gilman

Preface by CHARLES P. KINDLEBERGER

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In Memory of

Harry G. Johnson

whose encouragement during my graduate studies and advice in the early stages of this research inspired the direction, the form and whatever contribution that this study makes to our understanding of international capital movements.

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PREFACE

Intellectual progress is made by successive generations climbing over and standing upon the shoulders of the earlier. This is somewhat uncomfortable for those who form the base of these structures, but they welcome it in the interest of scientific advance as well as being reminded that they have done likewise to their predecessors.

In 1960 Stephen Hymer wrote a thesis at M.I.T. in which he suggested that the multinational corporation was nothing more than a domestic firm with foreign operations. Trying to push beyond this, I argued that there were three stages of sophistication with respect to foreign-exchange problems: (1) national firms with foreign operations who felt uncomfortable outside their own currency, and like a fish in water, unconscious of any exchange risk inside; (2) multinational corporations, that tried to be a good citizen of every country and were reluctant to take a short or long position in any currency of a country in which it operated; and (3) international corporations, which sought to maximize the world value of their assets wherever located and thus were prepared to go short of weak currencies, long of the strong, without regard to the location of assets or operations. The distinctions, which never caught on, were extensible to other functional aspects of a firm's operations, such as hiring, research, location of new plants, and the like.

Now comes Martin Gilman, an official of the OECD working on multinational enterprises, writing in his own capacity, to extend the analysis of international finance in the multinational corporation and to penetrate more deeply into it. His book, which began as a thesis at the London School of Economics, makes a notable addition to the growing literature on exchange risk in the multinational corporation, a subject, moreover, that has grown in importance since the adoption of floating exchange rates in 1973. His analysis and insights are strongly recommended to scholars and to practitioners alike. Both markets are expanding, along with the numbers of the scholars who will one day stand on Dr. Gilman's shoulders.

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I INTRODUCTION

When asked to explain what determines the choice of currencies used to finance the overseas operations of domestic firms, it would appear that businessmen and international economists have been speaking almost two different languages. The communication gap has remained large – with economists assuming that exchange markets work costlessly and with businessmen viewing market costs as being prohibitively high. Economists have, in any case, applied relatively little research effort to the question and have generally relied on simplifying assumptions employed elsewhere in the literature on the optimization of financial portfolios. Businessmen, aware of the complexities of accounting rules, the impact of various fiscal regimes and the costs of hedging on their profits valued in home currency, in general have viewed foreign exchange risks as being very expensive to reduce and so have devised 'rules of thumb' in many cases to minimize their exposure. This book attempts to explain these two different perceptions and to provide a plausible explanation of the determinants of capital flows financing foreign direct investment that incorporates the main elements of both approaches.

In the course of financing their foreign operations, multinational enterprises[1] are involved in a decision-making process which determines the directions and magnitude of substantial flows of financial capital. These international capital movements by direct investors have not been adequately explained by portfolio adjustment theories which have been successfully applied to other aspects of the capital accounts of the balance of payments in recent years, nor by

[1] A multinational enterprise (MNE) is by definition a direct investor. Herein it is defined as a non-financial company which owns and controls assets in more than one country.

most empirical studies of the determinants of direct investment. To a large degree, many of the difficulties in explaining the determinants of direct investment as a capital flow result from a certain confusion in the treatment of direct investment as a real and as a financial phenomenon.[2] Even where this distinction is made, the previous research in this area, as well as more management-oriented optimization models, has generally assumed a greater degree of perfection in international capital markets than appears to be warranted, at least in the case of capital flows generated by non-financial companies.

By examining the effects of existing market segmentation on the formation of subjective risk perceptions of non-financial investors, the present study seeks to explain the determinants of certain international capital movements associated with the multinational enterprise (MNE), i.e. those flows financing foreign direct investment. It analyses the various ways in which those firms (who have operations abroad and so can be considered multinational) finance their additional foreign-asset acquisitions through the use of three alternative liability flows: home-currency sources, foreign-currency borrowing, and the foreign-generated cash flow of foreign affiliates.

The present study can help to provide clarifications to some issues related to the study of direct investment in three areas: first, from the point of view of capital movement theory, it provides a theoretical basis for explaining important real-world constraints on the otherwise, portfolio-maximizing behaviour of direct investors. Secondly, it provides strong empirical support for the theoretical model and examines the financial behaviour of an important group of multinational enterprises during the transition from fixed to floating exchange-rate regimes (1966–76). Thirdly, the study

[2] In much of the previous empirical work, there tends to be a lack of rigour in delineating carefully between balance-sheet relationships so that, often, financial data have been used implicitly to measure changes in the stock of real assets without specifying a behavioural relation between the two. Similar problems arise in specifying the currency denomination of balance-sheet items even in some studies which purport to measure the impact of direct investment flows on the balance of payments.

can shed light on some of the policy concerns in many countries with the balance of payments or resource allocation implications of direct investment flows as capital movements.

Most of the previous work has focused on the question of why firms invest abroad, postulating various theories of direct investment. This research, in the main, has considered direct investment from the perspective of real capital transfers (the selection of foreign assets) rather than as financial phenomena (the choice of liabilities). There has been considerable progress in this area of research in recent years.[3] On the other hand, probably in part due to serious data constraints, there has been relatively little research effort devoted to explanations of how these asset acquisitions, which are the basis of the direct investment process, are financed. In the few studies on the financing question,[4] a traditional corporate finance model has normally been employed, distinguishing between internal (to the firm) and external funds or debt and equity to explain how foreign investment is financed. By concentrating instead on the currency denomination of the sources of financing, the present study can be viewed in the context of this economic literature as contributing to an understanding of the balance-of-payments impact of foreign direct investment. It also can be said to advance our understanding of the political economy of MNEs by developing a coherent and simple theory of their financial behaviour.

The theoretical model and empirical results which are presented below do not aspire to develop a new theoretical approach to the question of international capital movements. Rather, it is contended that the assumptions generally made in most of the previous studies on the determinants of international capital movements as applied to direct investment

[3] See, in particular, Raymond Vernon, 'International Investment and International Trade in the Product Cycle', *Quarterly Journal of Economics*, vol. 80, May 1966, pp. 190–207; Richard Caves, 'International Corporations: the Industrial Economics of Foreign Investments', *Economica*, February 1971, pp. 1–27; John Dunning, 'The Determinants of International Production', *Oxford Economic Papers*, November 1973, pp. 289–336; and Peter Buckley and Mark Casson, *The Future of Multinational Enterprise*, London: Macmillan, 1976.

[4] See the survey of the relevant economic and business literature in Chapter IV.

(or to the flows of direct investment from a balance of payments view-point) are mis-specified. This mis-specification stems from simplifying assumptions made concerning the relative perfection of international capital markets. Based upon this theoretical construction, a high degree of capital market integration has been assumed with direct investors acting rationally on full information available in these markets to minimize the cost (or risk) of financing asset acquisitions.

In the present study, these restrictive assumptions are relaxed and the resulting consequences for re-assessing the economic significance of the determinants of the financing decision are then developed and analysed. In other words, while still assuming that direct investors are rational, there may be important real-world constraints on their portfolio maximization behaviour.

The basic premise underlying the hypothesis elaborated below is that direct investors are subject to an 'exchange-rate illusion' in determining the sources of financing their foreign investments.[5] That is, the parent company views foreign-currency assets, at least in the earlier stages of international expansion, as *inherently* riskier in terms of the home-country currency denominated balance sheet and income statement. This is due to the fact that, for a firm maximizing its net worth in home-currency terms, the income stream produced by foreign assets is subject to a random variable, the exchange rate, introducing an extra risk factor for foreign assets and liabilities. The firm's primary reaction is to concentrate on the currency denomination of the components of its consolidated balance sheet. As a consequence, the management of MNE will endeavour to minimize its risk in terms of home currency for financing foreign-currency denominated assets. This behaviour can be seen as being rational on the part of direct investors where the cost to the firm of acceptin the illusion that real wealth is maximized by maximizing home-currency profits will vary with the volatility of exchange

[5] Not to be confused with 'money illusion' in which investors use nominal currency rates, unadjusted for purchasing power equivalents during periods of inflation, in deciding upon asset financing.

rates in terms of home currency. Where this cost is relatively low, say under a regime of fixed exchange rates, or unperceived, due in part to accounting conventions, then firms will have little incentive to try to overcome these costs which would necessitate additional expenditure and management attention.[6]

This contention holds that international capital market integration and perfection may not exist nearly to the extent assumed in an increasingly abundant body of economic literature which maintains that international capital flows are a stock-adjustment phenomenon resulting from changes in interest-rate differentials and exchange-rate expectations.[7] This economic literature ignores the considerable costs to non-financial companies of overcoming market imperfections. In this respect, the present study can be viewed as an extension to direct investment as a financial phenomenon of the 'market imperfections' approach which has been successfully applied to explain direct investment as a real phenomenon in recent years.[8]

The main hypothesis suggested in this study argues that it is not the expectations of changes in exchange rates in themselves that primarily determine capital flows, but rather, for direct investors, the fact that *all* foreign currency denominated assets involve a perceived risk for companies maximizing their consolidated profits in terms of home-country currency.

Kindleberger has attributed such behaviour to 'exchange-rate illusion'.[9] In the present case, this would imply that companies with foreign operations (MNEs) regard *all* assets outside the home country, denominated in foreign-currency

[6] Under floating exchange rates, the costs of accepting exchange rate illusion may have risen considerably, so encouraging a learning process for MNEs in which efforts are made to reduce such costs. This may in turn help to explain the ascendancy of financial managers to the control of many MNEs in recent years compared to the predominant role of marketing managers in the 1960s.

[7] See Chapter IV.

[8] See the recent survey in A. M. Rugman, 'Internalisation as a General Theory of Foreign Direct Investment: A Re-appraisal of the Literature', *Weltwirtschaftliches Archiv*, vol. 116, no. 2, 1980.

[9] C. P. Kindleberger, *Europe and the Dollar*, Cambridge, Mass.: MIT Press, 1966. Also see pp. 57–8.

terms, as subject to risk, but not those in the home country.

The following theory of the financing of foreign direct investment could be called a theory of risk-reduction in which the 'exchange-rate illusion' is rational on the part of the direct investor who wishes to minimize the risk to the parent company of using home-currency funds to finance foreign assets *even* where interest-rate differentials or exchange-rate expectations would dictate a portfolio shift in favour of such parent-company financing, were such firms to have perfect, costless information available.

The advantage of the present approach is essentially one of greater realism. By focusing on the actual behaviour of an important group of transactors, this study hopes to clarify a contentious issue in the application of recent advances in the theories of capital movements to direct investors. Empirically, not only is an important distinction drawn between direct investment as a real and as a financial phenomenon, but the actual behaviour of a significant group of MNEs in several OECD countries is examined during the transition from fixed to floating exchange rates. The issues involved are significant from a policy point of view as well. Because of their concerns with the impact of direct investment on the balance of payments, many governments, including those of OECD countries, have policies designed to deter or to prevent the financing of foreign direct investment by their residents with home currency.[10] The question arises as to the theoretical and empirical foundations upon which these policies are based.

The present study, while narrowly focused, intends to illuminate some of these issues.

[10] See the description of these policies for the countries in the empirical sample in Chapter VII and the OECD report on *International Direct Investment: Policies, Procedures and Practices*, Paris: OECD, 1979.

II METHODOLOGY

The financing of foreign direct investment can be viewed from different perspectives – debt vs. equity, internal funds or external funds, parent-company funds or affiliate funds, and funds denominated in different currencies. The latter distinction in terms of currencies is used here. This stems from a desire to understand direct investment financing as a capital movement phenomenon with balance-of-payments implications.

Capital movements always involve the use of, or the substitution for, foreign exchange. Debt and equity, internal and external sources, and parent and affiliate funds can all be denominated in both home or foreign currencies. Therefore, a differentiation along those lines would not be very useful for understanding the financing of direct investment as a capital flow. The relevant criterion is between home-country currency or foreign currency to finance foreign assets. The question from a balance of payments perspective is: what determines the currency denomination of liabilities with which a company finances its foreign investment?

This question is addressed in what follows below. No attempt is made to carry out an exhaustive treatment of all aspects of the question. To try to explain all factors involved in the determination of the financing process, no matter how insignificant, would be empirically inconclusive, given the present data constraints, and intellectually unproductive due to the complexity of the process in a dynamic context. Rather, the study focuses on the main determinants, attempting to explore the basic causal relationships involved, supported by some empirical evidence. Greater clarity and realism result. Perhaps this methodological approach can best be summed up as follows:

> It is easy enough to make models on stated assumptions. The difficulty is to find the assumptions that are relevant to reality. The art is to set up a scheme that simplifies the problem so as to make it manageable without eliminating the essential characteristics of the actual situation on which it is intended to throw light.[1]

With this limited objective in mind, the study seeks to explain the respective roles of net home-currency funds, of foreign-currency borrowing and of the internal cash flow of foreign affiliates in the financing of foreign direct investment. The choice of these variables is explained in Chapter V.

The study is divided into three parts:

1. The background and economic significance of the phenomena to be explained, how the relevant economic literature has handled these questions in the past, and the choice of the dependant variables, respectively in Chapters III, IV and V.
2. A theoretical model of risk minimization, consistent with the maximization of the market value of the parent company in its home currency, in order to explain some important capital flows associated with foreign direct investment by multinational enterprise (MNE) – those net home-currency flows financing asset acquisitions abroad, as well as foreign-currency denominated borrowing and cash flow of foreign affiliates, in Chapter VI.
3. An empirical chapter to test the model against aggregate time-series data (sources and uses) for a sample of US direct investors in manufacturing in eight countries from 1966 to 1976, in Chapter VII. The results are assessed and conclusions are drawn in Chapter VIII.

[1] Joan Robinson, *Economic Heresies*, London: Macmillan, 1971, p. 141.