

# GLOBALIZATION OF INTERNATIONAL FINANCIAL MARKETS

Causes and Consequences

Hak-Min Kim



# Globalization of International Financial Markets

Causes and Consequences

HAK-MIN KIM
College of Social Sciences
Soonchunhyang University

**Ashgate** 

Aldershot • Brookfield USA • Singapore • Sydney

#### © Hak-Min Kim 1999

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.

Published by Ashgate Publishing Ltd Gower House Croft Road Aldershot Hants GU11 3HR England

Ashgate Publishing Company Old Post Road Brookfield Vermont 05036 USA

### **British Library Cataloguing in Publication Data**

Kim, Hak-Min

Globalization of international financial markets: causes and consequences. - (The Bruton Center for Development Studies series)

1. International finance

I. Title II. Bruton Center for Development Studies 332'.042

**Library of Congress Catalog Card Number: 99-72239** 

ISBN 1859723659

Printed in Great Britain

# GLOBALIZATION OF INTERNATIONAL FINANCIAL MARKETS

## Acknowledgments

I would like to express my gratitude to my teachers, Dr Brian J.L. Berry, Dr Edward J. Harpham, Dr Euel W. Elliott, and Dr James C. Murdoch for their inspirations on my study at the University of Texas at Dallas. I owe special thanks to the Washington DC economists, Dr Neil Patterson (Deputy Division Chief at the IMF's Statistics Department), Dr Peter J. Wall (Senior Market Analyst at the IFC's Emerging Market Division) and Dr Kwang W. Jr (Senior Financial Economist at the World Bank's Debt and International Finance Division) for sharing their knowledge of international capital flows. Appreciation is also extended to my friends, Dr David S. Kelleher (Hoseo University, Korea) and Dr Chung-Ron Pi (City of Dallas) for their encouragement on this research. My deepest appreciation goes to my parents, Mr Eun-Kyoung Kim and Mrs Soon-Ja Baek for their love and patience.

## **Preface**

This study investigates the causes and consequences of globalization of international financial markets, including all types of private sector capital (portfolio investment, bank capital, FDI, and other private sector capital) for 121 countries for the period 1980–1990. Globalization of international financial markets, a crucial component of the secular process of increasing functional integration of the global economy, while widely recognized and discussed, has not been subject to thorough empirical analysis. In this study, globalization institutions and technologies that lower national financial boundaries, provide improved information and reduce transaction costs are assessed in terms of their qualitative and quantitative impacts on financial globalization. This assessment proceeds within an integrated theoretical framework which draws from the principal theoretical approaches in international finance – flow, portfolio and monetary theories.

Globalization of international financial markets has been accelerated by such specific factors as increasingly open financial markets, participation in international tax treaties, financial instrument innovation and telecommunication network development. The portfolio market has been the greatest beneficiary of these globalization factors and it represents the most rapidly growing financial market during the period studied.

Portfolio and monetary theories appear to be effective in explaining inflows and outflows of most financial items, while the explanatory power of flow theory is limited to bank capital outflow. Portfolio and FDI outflows are driven by investment capacity (national wealth and current account surplus), while bank capital outflows are promoted by domestic financial market performance (lower creditworthiness and lower rate of return). These capital outflows represent capital inflows to countries where higher creditworthiness and more financial instrument options are provided. These processes are accelerated by the globalization institutions and technologies. As a result of globalization of international financial markets, countries with inflow of a certain financial item also promote outflow of that financial item (synchronized intra-item movement); countries with one type of capital inflow also induce inflows of other types of capital (synchronized inflow movement); countries with one

type of capital outflow also induce outflows of other types of capital (synchronized outflow movement); and countries with one type of capital inflow reduce outflows of other types of capital or vice-versa (counteractive movement). These synchronized and counteractive movements imply an improvement in the efficiency of capital resource allocation and a phenomenon of agglomeration of international capital among countries with globalization facilities. This pattern is especially pronounced in short-term capital flows.

As a consequence of greater globalization among more developed countries, the external financial resource gap between the capital-rich countries and capital-poor countries has widened. In globalized financial markets, monetary policy plays a limited role in inducing foreign capital; more effective means of stimulating capital inflow include the provision of new financial instruments, advanced telecommunication networks, and improved country risk management. Collective efforts of international organizations to develop underdeveloped countries' financial markets in order to improve global equity of access to international capital are therefore indicated.

# Contents

Li	List of Figures			
Li	st of Tables	viii		
Ac	Acknowledgments			
Pı	reface	Х		
1	Introduction	i		
	Issues on Globalization	1		
	Statement of Research Problem	6		
	Purposes of the Study	7		
	Research Questions	7		
2	Review of Literature	9		
	A Brief Review of the Conceptual Approaches	9		
	Modern Theories of Determinants of International Capital Flows	13		
	Flow Theory	14		
	Portfolio Theory	17		
	The Monetary Approach to the Balance of Payments	23		
	Previous Empirical Analyses	30		
	Overview of Literature	39		
3	Research Methodology	51		
	Theoretical Framework	51		
	Data Selection	58		
	Research Hypotheses and Exogenous Variable Selection	63		
	Model Specifications	82		
4	Empirical Findings	101		
	Causes of Globalization of International Financial Markets	101		
	Consequences of Globalization for Capital Flows	116		
	Four Types of Short-term Capital Flows	162		

### vi Globalization of International Financial Markets

5 Overview	182
Appendices	191
A Variable Creation and Identification	191
B Statistical Tests	203
C Descriptive Statistics for 121 Countries	217
D Models with Country and Time Dummy Coefficients	235
Bibliography	258

# List of Figures

Figure 1	Global capital transactions by financial item	
	(121 countries in 1980–1990)	2
Figure 2	Global capital transactions by level of income	
	(high income countries vs rest of the world in 1980–1990)	3
Figure 3	Global capital transactions by region and major countries:	
	sum of 11 years (1980–1990)	5
Figure 4	Determinants of international capital flows	59
Figure 5	Components of international capital transactions	61
Figure 6	Source of capital inflows by level of income in	
	1980–1990	118
Figure 7	Source of capital outflows by level of income in	
	1980–1990	119
Figure 8	In-outflows of total capital by level of income in	
	1980–1990	132
Figure 9	In-outflows of portfolio by level of income in	
	1980–1990	135
Figure 10	In-outflows of bank capital by level of income in	
	1980–1990	138
Figure 11	In-outflows of other-sector capital by level of income	
	in 1980–1990	142
Figure 12	In-outflows of FDI by level of income in 1980–1990	146
Figure 13		160
Figure 14	Four types of short-term capital flows by level of income	
_	in 1980–1990	169
Figure 15	Determinants of four types of short-term capital flows	176

# List of Tables

Table 1	Summary of theoretical literature	40
Table 2	Summary of major empirical findings	41
Table 3	Countries covered in the study	62
Table 4	Definition of endogenous variables	64
Table 5	Data source of endogenous variables	66
Table 6	Definition of exogenous variables	96
Table 7	Data source and calculation method for exogenous variables	98
Table 8	Gross capital flows by level of income in 86 countries	102
Table 9	Gross flows of total capital with OLS and WLS fixed	
	effects estimations	110
Table 10	Gross flows of four financial items with OLS fixed	
	effects estimation	112
Table 11	Capital inflows by level of income in 86 countries	121
Table 12	Capital outflows by level of income in 86 countries	126
Table 13	In-outflows of total capital with 3SLS simultaneous	
	estimation	133
Table 14	In-outflows of portfolio with 3SLS simultaneous estimation	136
Table 15	In-outflows of bank capital with 3SLS simultaneous	
	estimation	139
Table 16	In-outflows of other-sector capital with 3SLS	
	simultaneous estimation	143
Table 17	In-outflows of FDI with 3SLS simultaneous estimation	147
Table 18	In-outflows of four financial items in one system with	
	3SLS simultaneous estimation	152
Table 19	Four types of short-term capital flows by level of income	
	in 86 countries	164
Table 20	Four types of short-term capital flows with 3SLS	
	simultaneous estimation	170
Table 21	Causes of globalization by financial market	184
Table 22	Capital inflow factors by financial item	184
Table 23	Capital outflow factors by financial item	187
Table 24	Synchronized and counteractive movements by capital type	189

viii

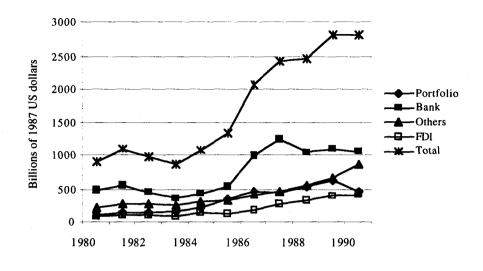
## 1 Introduction

### Issues on Globalization

The most significant development in the world economy in recent decades is the increasing globalization<sup>1</sup> of economic activities. The capitalist system now should be understood as global rather than national since the major forces that are restructuring both domestic and international economic systems are globalization processes. The integration<sup>2</sup> of global financial markets, facilitated by regulatory changes and by technological innovations in the information economy is one of the most important factors contributing to this globalization (Ross, 1983; Obstfeld, 1986; Kane, 1988; Walter, 1989; Honeygold, 1989; O'Brien, 1992).

As a result of the globalization process in financial markets, global transactions of total private capital tripled during 1980–1990.<sup>3</sup> The integration of global financial markets has been primarily promoted by increased financial market activities as well as multinational enterprises. Arguing that information technology and regulatory revolution have resulted in the integration of global financial markets, O'Brien (1992) maintains that we have reached the 'end of geography'. This pattern is most marked in the portfolio and non-bank capital markets. Portfolio and non-bank financial institutions' capital transactions increased by approximately five times and four times respectively during 1980– 1990. Efficiency-seeking multinational enterprises transfer capital, technology and managerial skills to the most profitable places (Hood and Young, 1979, pp. 2–3) and thus integrate the global economy (Casson, 1986; Dunning, 1988, pp. 43, 258-61). During the same period, the global transactions of foreign direct investment increased more than four times. These three financial products became more important global financial resources, increasing their proportion to total capital transactions from 46 per cent in 1980 to 62 per cent in 1990. Although the traditional bank capital doubled its global transactions, the proportion to total capital transactions decreased.

In this integrated world economy, the developed countries and a small number of developing countries have experienced substantial industrial growth, but other countries have experienced deep financial difficulty, widening the



Year

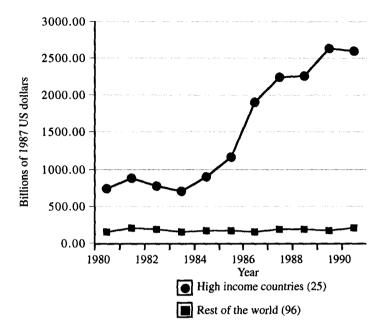
Proportion of total capital (%)

诸多闪	
Pzzy	,

Year	Portfolio	Bank K	Other K	FDI	
1980	11.66	54.13	(24.55)	9.65	- 45.86
1981	13.01	51.13	25.26	10.60	
1982	15.30	45.82	28.06	10.82	
1983	17.82	42.27	28.98	10.94	
1984	19.36	39.48	28.17	12.99	
1985	25.60	40.81	24.16	9.44	
1986	22.69	48.23	20.13	8.95	
1987	18.69	51.07	19.23	11.02	
1988	21.70	42.62	22.44	13.24	
1989	22.40	39.63	23,93	14.04	,
1990	16.64	37.82	<u>(30.68)</u>	(4.86)	-62.18
Sum	19.41	44.05	24.53	12.00	100,00

Figure 1 Global capital transactions by financial item (121 countries in 1980–1990)

Source: Balance of Payments Statistics Yearbook (IMF).



### Share of world total (%)

Year	High income	Rest of the world
1980	81.76	18.24
1981	80.42	19.58
1982	80.44	19.56
1983	80.74	19.26
1984	83.68	16.32
1985	86.59	13.41
1986	92.12	7.88
1987	92.28	7.72
1988	92.02	7.98
1989	93.96	6.04
1990	92.60	7.40
Sum	89.28	10.72

Figure 2 Global capital transactions by level of income (high income countries vs rest of the world in 1980–1990)

Source: Balance of Payments Statistics Yearbook (IMF).

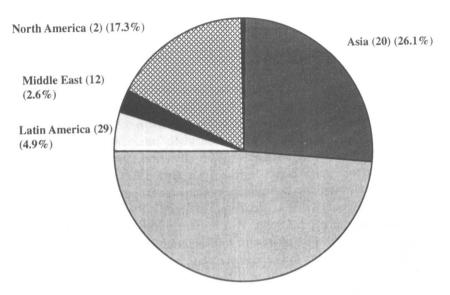
development gaps between the rich and poor. During 1980–1990, almost 90 per cent of global capital transactions were carried by 25 high income countries out of 121 countries.<sup>4</sup> The low income countries' share of global capital transactions was less than 1 per cent. As more information technologies and financial instruments were provided by the high income countries in recent years, the gap between the high income countries and the rest of the world became wider; the high income countries' share of global capital transactions increased from 82 per cent to 93 per cent during 1980–1990. Gill and Law (1988, p. 127) see this pattern as the 'transnational stage' in the development of capitalism. Since the capitalist system in the transnational stage separates the production process over space and national boundaries, capital moves in the most efficient way seeking more profits.

The parallel integration of finance and economies, O'Brien (1992, pp. 90–7) argues, is followed by the process of integration at the political level. Persson and Tabellini (1992, pp. 696–700) show that flexible capital mobility creates more competition, which results in similar monetary policy among countries. As a result, the government type, Persson and Tabellini argue, becomes similar as voters react to international competition. Indicative of financial market integration, about half of the global capital transactions were conducted by the European countries during 1980–1990. What has happened in Europe in recent decades is the future of the rest of the world as further globalization of international financial markets occur.

Omae (1985) sees the resultant global economy consisting of the 'triad of economic powers' of three regional blocs: North America, the European Community, and a Japan-dominated Asian bloc. These three regional leaders together contributed 43 per cent to global capital transactions and 56 per cent to global portfolio transactions during 1980–1990. The US and Japan were leaders in their regions while the UK was accompanied by neighbours as the European countries moved to the stage of regional integration. The same process is now under way in North America and Asia.

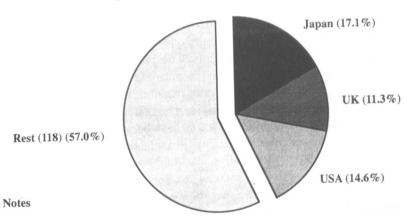
What has happened in the world economy in the last decade is a revolutionary change – a change in fundamental ways. It raises many research questions about the causes and consequences of globalization. Effects of ideological and environmental changes in world politics and institutional and technological innovations in the world economy should be analyzed, as should the impacts of the integrated world economy on political and economic activities. Social scientists and policy makers need to understand this new stage of transnational capitalism to prepare for a new global order. As a first step to providing this understanding, this study explores global capital flows,

#### Africa (35) (0.7%)



Europe (23) (48.5%)

Major three countries vs rest of the world



First (): number of countries

Second (): % share of the world total

Figure 3 Global capital transactions by region and major countries: sum of 11 years (1980–1990)

Source: Balance of Payments Statistics Yearbook (IMF).

one of the key contributors to the integration of global financial markets and thus to the integration of global economic activities.

#### **Statement of Research Problem**

Despite the fact that the theoretical literature on the globalization of international financial markets has grown rapidly in recent years, it has not properly answered what has caused this globalization. It is also important to investigate what the consequences of this globalization are for international capital flows. Since the first question has not been properly answered, neither has the second.

International capital flows have been analyzed from three theoretical perspectives: flow theory, portfolio theory, and the monetary approach to the balance of payments. Flow theory postulates that a given interest rate differential induces capital flows. Portfolio theory asserts that capital flows are dependent not only on interest rate differentials but also on risk estimates and capacity of investors. The monetary approach claims that a monetary policy based on the condition of balance of payments and the control of domestic credit determines international capital flows. The portfolio balance model incorporates portfolio theory and the monetary approach.

Since flow theory tries to measure the degree of integration of international financial markets by comparing real interest rates across countries, it cannot address the determinants of international capital flows. Portfolio theory and the monetary approach partly answer the question by examining portfolio factors and monetary factors separately. The portfolio balance model is effective in explaining both financial and monetary factors together. However, most studies have neglected the impact of recent developments in financial markets such as technological innovations and regulatory changes. In addition, the impacts of international political factors have been ignored in explaining international capital flows. It is necessary to investigate not only the traditional financial and monetary factors but also technological and regulatory developments in international financial markets along with international political environments, if we are to see the whole picture of globalization of international financial markets.

Most empirical studies have focused at best on small groups of countries, with the result that the determinants of international capital flows at a global level have not been illuminated. It is necessary to include a large number of countries to understand the globalization process. In addition, each empirical study has analyzed one financial product, focusing on portfolio flows, foreign