THE GLOBAL STRUCTURE OF FINANCIAL MARKETS

An overview

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PREFACE

In the University of Reading in the United Kingdom in the summer of *1994*[1] and so we express our gratitude to the Association. We would also like to acknowledge our indebtedness to Shyamasri Ghosh for her editorial comments and professional assistance in the selection and segmentation of various studies. Dee Ghosh and Debbie Ghosh have provided copious assistance in word processing many drafts of several chapters in this book, and for that they deserve our special note of thanks. We recognize that the project would still be in the conceptual state without the active and involved succor from the editorial office of Routledge, and in this context we express our profound gratitude to Alan Jarvis, the then economics editor, who not only took the burden from our shoulders at the right time but treated us with breakfasts and lunches in New York and Washington, DC or wherever and whenever we could meet. We must also thank Ceri McNicol> Joanne Mattmgly, Alison Kirk, Geraldine Lyons, Alan Fidler and many other members of Routledge who made all the contacts, communications and corrections to enable the project to run smoothly in bringing the book to its final form,

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INTRODUCTION

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The global structure of financial markets is a major and yet a topical issue because of its practical importance and theoretical significance. The world economy was born with the dawn of international trade, and foreign exchange has had its own role in that economic activity from that time on. The Gold Standard, however, made the world economy effectively a domestic economy in terms of transaction units of money - the so-called *numéraire*. With the collapse of that system in the early 1930s, the blizzard in currency convertibility forced trading nations to invent and accept the Bretton Woods system. Tranquillity replacing turbulence of the 1930s ruled the international markets until the early 1970s. Anarchy and volatility induced by the breakdown of the Bretton Woods system and the Gold Pool that anchored the value of the dollar in the foreign exchange market devastated financial and trade transactions (Baillie and McMahon 1989). The conditions for the free fall of the American dollar, which was significantly realized in this period, finally gave way to financial stability, and the new global structure of financial markets emerged.

What is the global structure of financial markets? There is no unique answer to this question, and yet there are good answers, which we have tried to provide in this chapter. It is hard, maybe impossible, to identify the birth of the global structure of financial markets as we know it today. It almost always existed as it does now. Yet, on a serious note, one has to recognize the period when cross-listing of securities in different markets such as New York, London, Tokyo, Singapore, and so on, and simultaneous trading of those assets, came into being under floating exchange rates. The beginning of this structure can be identified with the visible forces of market integration or the disappearance of market segmentation. The dynamics of arbitrage make it impossible to derive any yield differential across national markets in a truly structured and integrated market set-up. That means a CDE equity traded both in Tokyo and London should and usually will give the same yield in both markets at the same point of time. Interspacial price

discrimination on cross-Us ted securities are thus ruled out by the forces of competition, given the fundamental uniformity in the national Laws of different countries in regard to market operations or regulations. In fact, in such an integrated market structure, a dollar will bring the same rate of return regardless of its investment in one national market or in another and whether that dollar is put to use in one line of financial product or another.

The follow-up question then is: how well-integrated are these markets across nations? A series of serious studies (see, for example, Ghosh and Khaksari 1993, Koch and Koch 1993, Stansell 1993, to note a few only) examining the degree of market integration, or absence thereof, are already in existence, and the burgeoning literature on this question is never on the wane. All these studies and research notwithstanding, we do not have convincing evidence that we operate under a uniquely defined global market- Most appropriately perhaps, we should characterize our environment as the global structure of financial markets — a network of many markets — in which individuals and institutions, micro agents, and macro players access to any or almost any market independent of its national jurisdiction on a regular basis.

This global structure stands on the terra firma of several building blocks. In the broad sense, it consists of global capital markets, global foreign exchange markets, and a global banking network of institutions. We use the word *global* to highlight the interconnectedness of these markets and institutions, and here that signifies a distinction from the domestic markets *per se.* Originally, most equity markets traded securities of the domestic corporations, and foreign investors or corporations were barred from participating in such markets by laws and traditions. Several such markets still exist in several regions, but many of the markets are open to trade regardless of the traders' citizenship or residency. Exchange rate convertibility and hedging instruments have created climates of covered arbitrage and, as a result, most markets irrespective of their locations have become truly global. Offshore markets, eurocurrency, eurobonds and the like have tied the world together quite neatly, and virtually free capital flows have colored the landscape of financial markets. Although in many respects eurobonds are the replica of domestic bonds in basic features, differences exist underneath the indentures. Domestic bonds issued by domestic borrowers are issued within the jurisdiction of the domestic currency. A US bond (denominated in LIS dollars) is traded in the United States as a British bond (denominated in pounds sterling), is traded in the United Kingdom. A foreign bond is a debt instrument denominated in a foreign currency and issued by a foreign borrower in the country which is not the home of the borrower. If a German firm issues bonds in dollar terms in New York, it should be considered as a foreign bond. A eurobond, by contrast, is a bond issued, say, by a French corporation in the United States in the denomination of French francs. Currently, it is estimated that eurobonds are the

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largest and least-restrioted sources of long-term debt capital for public corporations. Still, a large percentage of this market is populated by fixed-rate straight issues that characterize the traditional domestic and foreign bond markets, but the growing number of these assets, approximately 25 percent of the issues, are floating-rate notes, and around 20 percent of the total issues are linked with equity. International equity markets, another component of the global capital market, consist mostly of the world' g major stock markets and the emerging stock markets. Table 1.1 and Table 1.2 give the overview of these markets. As already noted at the outset, all these stock markets are primarily national exchanges as most of the turnover stems from intra-country trading. But, in the changing economic environment conditioned by speed of transaction and financial technologies, it has become as simple for an Australian mutual fund to buy and sell AT&T stock in New York as it is for a Chicago investment company. Different currencies, time zones, and different national regulations create some barriers in such transaction structures, but overall frictions or impediments are so minor that essentially markets appear closely linked and integrated. The British "Big Bang" of reforms and the introduction of Stock Exchange Automated Quotations (SEAQ) have removed many restrictions on trading rules and facilitated flows of securities exchange in London. Cross-listing of many securities in New York, London, Tokyo, Paris, Singapore, and so on has globalized the equity market significantly. In the academic literature, it has been repeatedly pointed out that global diversification yields better returns and lower risk for a portfolio compared to a domestic portfolio, and investment houses have recognized this academic research result through their regular practices. International capital asset pricing models have become common jargon in the global marketplace.

Along with global capital markets one can easily notice global commodity markets. We find that Chicago, London, New York, Tokyo, Johannesburg, and others markets trade commodities like gold, silver, soybeans, oilseeds, wheats, etc. in spot, forward, futures, and options markets. The cost-of-carry theory attempts to set up the basic relationship between the futures and the spot price as follows:

$$F_t = So(1 + r_t + c_t)^t$$

where F= futures price of the commodity for delivery at time t from now; So = spot price of the commodity now; r_t = interest rate for the time t; and c_t=non-lilterest cost of cany, expressed as a percentage rate. In the global market context, arbitrage involving capital issues and commodities is a powerful investment strategy.

A second major building block is the well-linked foreign exchange market, which has most effectively helped the growth of the global financial markets. Foreign exchange markets are the vehicles for currency trade — the

Table 1.1 Characteristics of major stock markets

	Exchanges (volume)	Execution	Settlement	Regulation
United States	New York (80%), American (15%), Boston, Cincinnati, Midwest, Pacific, Philadelphia, NASDAQ (over-the-counter, screen-based).	Open outcry on exchanges; telephone for OTC. All share in registered form. Commissions negotiable.	Fifth business day after trade date. NYSE trades clear through National Stock Clearing Corporation. Depository Trust Company holds securities for its members.	SEC
United Kingdom	International Stock Exchange (London: includes Birmingham, Manchester, Liverpool, Glasgow, Dublin); Unlisted Securities Market.	Telephone/screen market (SEAQ). Must be through Stock Exchange member. Commissions negotiable. Most shares in registered form; physical delivery is normal.	2–3 week account period. Central clearing system, Talisman, operated by Stock Exchange.	Dept. of Trade
Japan	Tokyo (83%), Osaka, Nagoya, five others. Exchange has three sections: first is large shares (96% of capitalization); second is new or unlisted shares; third is unlisted shares trading over the counter.	By the Zareba (open outcry) method. Must be through member of Japan Securities Dealers Association. All equity is in registered form. Fixed commissions.	Fourth business day after trade. Clearing through Japan Securities Co., subsidiary of Tokyo Stock Exchange.	Ministry of Finance
Germany	Frankfurt (60%), Düsseldorf (20%), Munich, Hamburg, Stuttgart, Hanover, Berlin, Bremen. Official market supplemented by semi-official market with less stringent listing rules. Also OTC market.	Large stocks trade continuously. Smaller stocks dealt at a price set daily.	Two business days (five days by arrangement). Delivery through German banks. Settlement via regional clearing agencies (Wertpapiersammelbanken) or the Auslandskassenverein for foreign securities.	Stock Exchange Board

Country	Markets	Trading	Settlement	Regulator
France	Paris (95%), Lyons (4%), Bordeaux, Lille, Marseilles, Nancy, Nantes. Three markets: Cote Officielle: large and foreign companies; Second Marche: small and medium-size; Marche Hors-Cote: over-the-counter market.	Forward market, some trades cash. Automated execution system replacing system of placing orders in pigeonholes. Price movement restrictions: 5% cash, 8% forward.	Forward: last working day of month. Cash: immediately after trading session.	COB
Switzerland	Zurich (60%), Geneva (20%), Basle (10%), Bern, St. Gallen, Lausanne, Neuchâtel. Three markets: Official: on floor of exchanges between members; Semi-official: on floor, in unlisted companies; Unofficial: telephone, interbank trading in unlisted companies and new issues. Registered, bearer, and participation certificates exist.	Open outcry for official/semi-official markets. 70% of trades are for spot settlement, but forward trades up to nine months possible.	Spot: within three days. Forward: last day of month. Stocks deposited in SEGA (centralized clearing house) and book-entry transfers made.	Swiss National Bank
Canada	Toronto (75%), Montreal (20%), Vancouver (5%), Alberta, Winnipeg. Over-the-counter market trades unlisted shares.	On the floor of the exchanges, through member firms. Automated execution for certain trades. Negotiable commissions. Equity is in registered form.	Five business days. Canadian Depository for Securities provides automated clearing and custody services.	Provincial Securities Commission
Australia	Australian Stock Exchange (includes Sydney, Melbourne, Adelaide, Brisbane, Hobart, and Perth). Main Board Market handles large and foreign shares; Second Board, small and unlisted companies.	Between brokers at trading posts on exchanges. Automated trading system in Sydney and Melbourne for actively traded shares. Commissions negotiable. Equity is in registered form. Physical delivery.	Five business days, normally. No official settlement period.	AASE

Table 1.2 Overview of emerging stock markets
(Third Quarter, 1990)

	Market capitalization (US$ millions)	Number of listed companies	Average daily value traded for quarter (US$ millions)	Price-earnings ratio
Latin America				
Argentina	3,438	174	3.16	−4.35
Brazil	24,907	584	17.56	7.18
Chile	11,216	216	2.82	6.17
Colombia	1,335	80	0.25	11.06
Mexico	27,998	205	52.65	10.27
Venezuela	5,219	66	2.70	19.33
East Asia				
Korea	93,886	669	233.53	19.12
Philippines	6,634	151	4.59	24.32
Taiwan, China	64,958	193	2,834.79	21.96
South Asia				
India[a]	46,412	2,471	86.36	27.04
Indonesia	7,109	116	17.97	30.48
Malaysia	38,143	266	49.56	19.93
Pakistan	2,832	473	1.03	10.35
Thailand	22,582	204	101.77	12.24
Europe/Mideast/Africa				
Greece	16,475	129	18.08	26.69
Jordan	2,009	105	2.67	7.76
Nigeria	1,400	126	0.04	5.96
Portugal	8,875	181	7.14	15.54
Turkey	26,342	100	21.74	40.10
Zimbabwe	1,853	56	0.19	10.09

[a] Bombay only.

swap of one national money for another money – through informal interbank connections or formal exchanges such as the International Monetary Market (IMM) of the Chicago Mercantile Exchange (CME),, the London International Financial Futures Exchange (LIFFE), and so on. Like commodities, currencies are traded in spot markets, forward markets, futures markets, options markets, and swap markets. Forward contracts, futures contracts, options contracts, and swap contracts form what is more popularly known as currency derivatives, which have grown enormously over the past quarter of a century. Hedging, arbitrage and speculation have become the regular means to grow in the financial markets.

A spot contract is a contract for undelayed delivery of one currency in exchange for another currency. If $2 are exchanged now for £1, we say that the spot rate of exchange is 2. A forward rate is the price of, say, I pound sterling in terms of US dollars agreed upon now for the settlement of

the exchange at a later date. Lf the 30-day forward rate is 2.15, it means that today two traders agree that 30 days from today they will exchange dollars for pounds at the rate of $2,15 - £1. The futures price is a forward price with some institutional attachments, most significant of which is a daily market-to-market feature that mandates the end-of-the-day cash settlement via a tripartite structure involving the buyer, the seller, and the clearing house each day from the beginning of the contract through its final maturity unless the contract is closed out before the maturity date. Options on a currency are contingent claims, traded in markets for prices (called premiums), which can provide hedge and the means to speculate for the expectation of higher profits. However, options have spread their tentacles in all areas — capital markets, commodity markets, money markets. So options on interest rates, options on futures, options on options, options on swaps (swapsions) are widely available in financial markets. As we have inadvertently mentioned the term 'swap', it should be explained first.

A swap is a deal of exchange for one set of cashflows for another when the flows are denominated in different currencies or the exchange of a fixed rate of interest for a variable interest rate. When cashflows in dollars are exchanged for cashflows in pounds, for instance, it is a case of simple currency swap. When a fixed interest rate is traded for a variable interest rate, it is an interest rate swap, often called 'plain vanilla swap'. A mixture of these swaps is known as 'circus swap'. A more complex circus swap involving several parties, interest structures and currencies creates a 'cocktail swap' that eliminates the risk exposure of the bank or (he swap dealer. Most of the swap deals that came into existence in the early 1980s onward are virtually the extensions of back-to-back loans and parallel loans, which became popular in the United Kingdom in the 1970s as a device to circumvent foreign exchange controls to stem the British capital outflows. Swaps are a design to hedge in global markets with different positions.

The current network of banking institutions across nations with vibrant corresponding systems provides another pillar in the edifice of the global structure financial markets. Originally, in a country like the United States, banks were in a unit banking system in which even cross-state border business was not allowed. Now, in the changing financial framework, colored and conditioned by the competition of offshore centers and forces of market integration, major banks are engaged in global business as multinational corporations like IBM, Coca-Cola, and others. Citibank, Barclays, and others are doing almost as much banking business overseas as they are doing in their home economies. Some estimates indicate that Japanese banks had increased their international Loan portfolio by 300 percent before even the current decade stated. With Edge Act

and Agreement Corporations, International Banking Facilities (IBFs), and the ever-increasing presence and growth of eurocenters, the Single European Act, and other developments have made globalization of the financial services industry a near-perfect entity.

In the worldwide web of international finance all the building blocks have created one unique edifice, and that edifice is the structure of financial markets. Individuals and institutions as borrowers, lenders, and regulators, and some of these participants playing more than one role at the same time, make this structure evolve more and more minute by minute. Let us illustrate one mixed bag of operations undertaken in this global structure of financial markets involving almost all three constituent blocks of the structure. Consider an investor who can borrow $M from Citibank in New York at r = 10 percent for a year (or for a month). If he finds that international investment may bring him some fortune, he may exchange that borrowed amount of %M for, say, pound sterling at the spot rate of exchange, S =2.00, and get £(M/S), which then he will invest in the UK at a British bank at R*= 9.5 percent (or in an immunized bond portfolio or some investment), and thus make $£(M/S)(1 + r.)$ at the end of the year (or the period chosen), which amount he should sell in the initial period at the forward rate, say, F =2.15, and reconvert his £(M/S)(1 + r*) into the dollar amount of $(M/S)(1 + r*)F. Subtracting the initial amount borrowed and the accrued interest, he now makes the net amount of $M\{(F/S)\{1+ r*) — (1 + r)\}$. If the amount is positive, he will do that, and if the amount turns out to be negative, he will borrow initially from a British bank, convert the pound amount into dollars, invest in the US, reconvert the dollar amount by a forward position, and pay off the borrowed funds and interest. If, however, the amount $M\{(F/S)(1 + r*\} - (1 + r)\}$ is zero, he has no opportunity in risk-free global investment. In the simple illustration, only the risk-free situation has been considered. If the investor does not wish to cover his position that will emerge at the end of the year, he will not take the forward or similar contract. The example is a ease of covered interest arbitrage. If the investor wants to sell the amount that will emerge at the end of the year, it will be a case of spot speculation. More complex scenarios involving portfolios of assets with different maturities and variable interest rates or rates of return are usually handled in the global markets, and hedging or speculative devices are complex and numerous. International diversification in a pure form, and in its complex format, is often the project of our financial experts.

In this volume we study various aspects and environments of this network of connected markets. Developed and developing (often called 'emerging') markets are exhibited, and issues as old as diversification, risk assessment, deregulation, correlation and co-movements arc the legitimate elements of our investigation. Often the question is asked: why would a market player move out of one market and move into another? Is it to avoid all the player's eggs being in one basket, or must something else be examined? Edgar Ortiz (Chapter 2) has studied the globalization of business

in the context of emerging markets and shows why and how this nascent economic ambiance is meaningful for a profit-seeking enterprise. Beta has been with us formally as a measure of risk since its debut in the hands of Nobel laureate, William Sharpe. Numerous uses and interpretations of this concept have been noted in the received literature on financial economics. International capital asset pricing models — an obvious extension of CAPM - have enriched our understanding of risk and return in the wider market context. In an earlier and yet quite recent piece, Prakash, Reside, and Smyser <1993) have provided a simple procedure to derive the best linear unbiased estimator of global beta under the wide-sense stationarity of random stochastic error term for the market model. Ghai, deBoyrie, and Prakash (Chapter 3) move further by designing methods to estimate global beta when some of the wide-sense stationary assumptions arc not satisfied. Here they provide an alternative measure of global beta when the rates of return on the security and market index are not measured from their respective means. This work thus modifies the Gauss—Markov measure of Prakash, Reside and Smyser.

It has already been noted that globalization offers more and more benefits with the world becoming a global village. Even though that happens to be the case, there may exist some perverse effects of globalization. The theory of second best is probably the reason for such a perverse effect when some deregulation and economic liberalization occurs. Rollinat outlines those perverse effects in the Latin American financial markets in Chapter 4. Most markets are regulated, and debate has always been touched off on the merits and drawbacks of regulatory constraints. Some regulations are lifted, and others are put in, and that appears to be the common experience in the financial world in particular. Interest Equalization Tax (LET, 18 July 1963), the Foreign Credit Restraint Program (FCRP, first instituted as a voluntary measure in February of 1965), which became legally binding later (on 1 January 1968), and other regulatory conditions were governing the markets and flows of funds. In the early 1980s, winds of deregulation started blowing in the United States. The Depository institutions Deregulations and Monetary Control Act (31 March 1980), and the creation of International Banking Facilities (3 December 1981) came as two major deregulatory measures in the American financial network, and globalization got a new lease of life. How does deregulation affect market operations and efficiency? Cabello's study of deregulation and the Mexican stock market (Chapter 5) offers an insight on the issue, and, since it is research on a small country which was trapped under many pre-existing constraints, it has a special importance in this evolving new global order.

How much hedging opportunity does one get in less-developed soft- currency countries must also be a question of high importance from both the practical and theoretical points of view. Of significance too is the question as to the merits of diversification and the derived end results.

Luc Scene [i and Steve Schrepferman deal with both the issues in Chapter 6. The turnaround of Latin American economies has been led by privatization and economic liberalization. Taking the viewpoint of investors in six Latin American countries and the United States, they show that five Latin American equity markets outperformed the US stock market from 1989 through 1993- The results show that diversifying in equities across Latin American markets was beneficial for US investors, but not vice versa. Currency hedging is favorable and thus useful for investors from Latin America, but not vice versa. Meric and Meric contend in Chapter 7 that low correlation among national stock markets is recognized as evidence in support of the benefits of international portfolio diversification. Their findings show that correlation coefficients between stock markets on a global scale (18 such markets being considered) have increased considerably - implying thereupon that benefits from diversification have decreased substantially — in the post-1987 crash period. It is further shown that the co-movement patterns of the world stock markets have changed significantly after the crash. In their Chapter 8 study, Urrutia and Malliaria investigate the relationship between S&P 500 Spot, S&P 500 Futures, Oil Spot and Oil Futures in the wake of the Gulf War — another external shock effect like the 1987 crash. Making use of the event-study methodology and Granger causality tests they confirm two hypotheses: (i) that the impact of the Gulf War was stronger on the oil market than on the equity markets (Standard and Poor's Spot and Futures): (u) that there was an increase in the causal relationship between stock and oil prices during this war situation. They show that the high degree of diversification of the S&P 500 index lessened the impact of higher oil prices.

Foreign exchange markets are the most important ingredients in the weaving of the global structure of financial markets. These markets exist in organized exchanges such as the International Monetary Market (IMM) in the Chicago Mercantile Exchange, the London International Financial Futures Exchange (LIFFE), the Tokyo International Financial Futures Exchange (TIFFE), the Singapore International Monetary Exchange (SIMEX), in each of the major banks, in each international airport, and in many other cities of the world. Transmission speed, telecommunication technology and information superhighway provide the instant data transfer and real-time on-line data screen, and thus smooth out market misalignments quite significantly. Yet perfect synchronization is a virtual impossibility. The resultant effect is diverse and complex plays in agiotage. Recently, a series of studies have explored the feasibility of currency market arbitrage. Although numerous works on speculation arc available in the literature, works on the practical design on speculative strategies are relatively scant. Ghosh fills up the niche in Chapter 9. First, the menu on speculative strategies in the absence of transaction costs and hedging are presented. Then transaction costs are introduced in the way these costs

surface to an investor, and finally strategies on covered speculation with currency derivatives, simple and synthetic, are spelled out within the framework of theoretical analysis of a micro agent's rational behavior. Casseli and Cividini (Chapter 10) then move to the macro framework against the backdrop of the puzzling changes of the US current account deficit in response to a large depreciation of the dollar, and discuss to what extent exchange rate movements are reflected in price level in both the short-run and in the long-run time horizon. They produce empirical evidence on the pass-through phenomenon for the leading European countries by using the OECD data.

Foreign exchange rates are significant catalysts in global markets, and so an understanding of their movements in the marketplace is of major importance. In Chapter 11 Parhizgari and deBoyrie attempt to forecast foreign exchange rates. A further understanding of foreign exchange rates should come from existing and evolving theories on exchange rates. Several approaches to the determination of exchange rates are known to date, and in Chapter 12 Koundinya revisits some of those theories - the asset market approach, the monetary approach and so on — and studies the record since the inception of the Bretton Woods system. One must remember that the foreign exchange rate has many types of quotations in the marketplace. Spot rate, forward rates, and currency future are often used and much discussed in both theoretical literature and trading rooms. Forward and futures contracts arc often used to hedge and to speculate in currency markets. In what respects are these contracts different? Malliaris (Chapter 13) develops the essential elements of the conceptual differences between forward and futures prices and offers several computational illustrations. The conceptual differences are expressed precisely in mathematical equations which specially demonstrate the similarities and differences in these two concepts.

It has been noted already that risk is a big issue in the global economy. In our illustrative scenario we innocuously mentioned the concept of immunized portfolio without explaining it at that point. Dandapani, Pra- kash, and Duhlia pick up the issue of immunization in Chapter 14 and relate it to currency risk. By introducing Special Drawing Rights Futures they attempt to deal with currency risk in the field of international trade and financial transactions- In international markets where commodities and currencies are traded side by side, it should, under ideal conditions, establish the law of one price. This law was first stated by Cassel as the 'purchasing power parity'. Simply put, if a troy ounce of fine gold sells for $380 in the US, and 1,140 pesos in Mexico, then, barring transport cost and other trade impediments, one should be able to ascertain that $1 = 3 pesos. In technical expression, $E - PiP$, where E is the exchange rate between the US dollar and the Mexican peso, P

the price of the international commodity (here, gold) in the United States in dollars, and P the price of the same commodity in Mexico in pesos. Upon the logarithmic differentiation one then finds that E - P - P^*, where the hat over the variable represents the percentage change in the variable. This is the relative purchasing power parity. It means that exchange rate appreciation or depreciation is equal to the difference between the rates of change in the price level (that is, inflation rates) in the two countries. If the inflation rate in the US is 4 percent and that in Mexico is *24* percent, then the Mexican peso depreciates by 20 percent. In economies fall of many internationally traded goods and many non-traded goods, this relation is not expected to hold in precise terms. Many studies have focused on the validity of the purchasing power parity, and it appears that there is a sense that in the long ran this parity holds. Vincent Dropsy examines this parity in the peso/ dollar case in Chapter 15, Peso devaluation (and depreciation) has been attributed to several factors, and here Dropsy's study probes into this relationship by applying modified unit root tests and attempts to find out if deviations from the equilibrium relationship can be explained by exogenous shocks.

Banks are the most active financial intermediaries, and through these institutions a flow of funds takes place from the surplus economic units to deficit spending units. The Society for Worldwide International Financial Telecommunication (SWIFT), the Clearing House for Interbank Payments Systems (CHIPS), the Bank for International Settlements (BIS), and many such institutions and facilities, along with banks, their correspondents, affiliates, subsidiaries and offshore banking centers constitute the global banking sector. This sector get involved with and facilitates global transactions in all types of trade and finance. How do these institutions fare in the maze of complex operations occurring all the time? How does a nation's central bank perform in its regulatory role? Edgar Ortiz (Chapter 16) examines contestable markets and the activities of Mexican banks in the wake of the new tri-country trading bloc, popularly known as NAFTA.. Mariano Rojas (Chapter 17) then takes up and re-examines the evolutionary structure of another Latin American nation - Costa Rica. Next, in Chapter 18, Chatrath, Ramchander and Song investigate the transmissions and interdependences in bank lending and borrowing markets across 11 developed countries. Monthly time-series of prime and three-month negotiable CD rates spanning the interval January of 1972 to December 1992 are fitted to a vector autoregressive model. Their empirical results are indicative of significant bilateral interaction among the bank lending and borrowing markets. The German rates are found to have a significant influence on the European bank lending and borrowing markets, but are themselves Granger-caused by the US rates- Interestingly, the Japanese rates are found to be relatively insulated from the changes in the external rates. In the new environment of the European integration process, it is often believed that the Bundesbank serves more or less as the central bank

of the European community. In Chapter 19, Etebari and Kaen try to determine if the Bundesbank's announcement on interest rates affected ERM equity markets. They show that German interest rate policy affected not only the German stock market, but the policy had its imprints on the ERM equity markets as well. In this changing environment it is worth examining the evolution of the multinational banking of the leading economy of the world. It has been noted many times in the recent past that the American banks have lost their leading position, their worldwide hegemony, in competition with other foreign banks. In the top ten list US banks once dominated overwhelmingly. But that dominance has disappeared in the 1990s. Hine and Oïïenyk, in Chapter 20, provide an explanation of the rise and fall of US banks in the global set-up.

Two things have contributed to the growth of globalization. International trade first, and capital flows next, or, more correctly, one feeding the other almost simultaneously has given us the global village we now live in. From the study of international economics, and in the comprehension of the balance of payments account of any nation, one may note that trade surplus (deficit) of a country *vis-à-vis* another dictates a capital account deficit (surplus) as an accommodating adjustment. If Japan has an $80 billion trade surplus with the US, Japan will have about that much capital inflow into the US (capital outflow from Japan). Is this the only scenario for capital flows? How these outflows or inflows work their way through the economy, and how meaningful this issue of capital flows is, should be areas worth investigating. Ramcharran leads the discussion on capital flows in Chapter 21. The rapid increase in private capital flows in recent years to the developing countries, he finds, has been due to market-oriented reform policies, debt reduction and rescheduling strategies, liberalization of capital markets, and privatization. It is argued that if such flows are to continue, then those policies should continue. The developing countries that are not attracting foreign investors should introduce such reform policies. The Zaman and Fahri study (Chapter 22) by contrast examines the determinants of foreign direct investment outflows of selected OECD countries and gives another perspective on capital flows.

Some thoughts have been presented already on how to attract investment funds into the developing countries. In Chapter 23, Avgustinous, Lonie, Power and Sinclair advance the argument for increased investment for a British investor in a portfolio comprising British and emerging market assets, and contend that this cocktail yields an advantage for the investor. Fausto Hernandez-Trilio explores financial diversification in the case of Mexico in Chapter 24. Zdanowicz, Welch and Pak look at the issue of capital flight taking place from India to the United States under invoicing impropriety in. Chapter 25. Next, Benu Varman-Schneider follows up the issue, and explains capital flows more as capital flight from some Latin American countries into the United States in consideration of economic

efficiency and political and social stability by way of data analytic technique that captures the influence of political and social variables through efficiency terms. The book is concluded by a theoretical analysis of capital flows and offshore markets, in which Ghosh discusses the factors that influence capital flows in the macroeconomic structure and ties up the issue in the context of offshore deposits, liquidity, exchange and interest rate changes and the incipient effects on capital flows.

The global structure of financial markets is always in the growth mode, and to capture this evolving set-up is an impossibility. We have tried to present some aspects of this changing structure. Many issues remain under- explored. and many areas even untouched. A number of issues and important facets of the subject are covered in this volume, and it is hoped that this will enable others to pick up the remaining issues and/or to polish the ones discussed. It is in this sense we think our effort is a contribution to the growing literature.

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