Certified International Finance Analyst Sample Material

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1. INTRODUCTION

1.1. The Challenge of International Finance

The 1990s can be characterized as the "Globalization Decade". Around the world, barriers to international trade and capital flows were being dismantled. The process had begun in the early 1980s, accelerated in the 1990s and reached its culmination during the closing years of the last decade of this century. Even developing countries like India, which for a long time followed an inward -looking development strategy, concentrating on import substitution, have recognized the vital necessity of participating vigorously in the international exchange of goods, services arid capital. The 1980s witnessed a significant shift in policy towards a more open economy, considerable liberalization of imports and a concerted effort to boost exports. Starting in 1991, the 1990s ushered in further policy initiatives aimed at integrating the Indian economy with the international economy. The policy stance in the new millennium also stresses more openness and networking with the global economy. Quantitative restrictions on imports are being phased out as part of World Trade. Organization (WTO) commitments, and import duties are being lowered. Foreign direct and portfolio investments are on the rise. A unified market-determined exchange rate, rent account convertibility and a slow but definite trend in the direction of liberalizing the capital account have opened up the Indian economy to a great extent.

In keeping with the commitments made to the WTO, all quantitative restrictions on ports were abolished at the end of March 2001. Restrictions on accessing foreign capital markets have been considerably liberalized. Further lowering of tariff barriers, greater access to foreign capital, and relaxation of rules governing foreign portfolio and direct investment and finally, capital account convertibility are certainly on the reform agenda of the Indian government.

Freedom from controls has meant enormous widening of opportunities. For the finance manager, it means a much wider menu of funding options, investment vehicles, cost reduction and return enhancement through innovative structured financing and investment vehicles and many other exciting prospects to exercise his or her ingenuity However, freedom and maturity also imply loss of innocence and simplicity. There is a time when most finance managers in India did not have to worry about gyrations in exchange rates, ups and down in interest rates, twists and shifts of the yield curve, whether bulls or bears were on the rampage on Wall Street, whether Russia was being buried under a mountain of debt and what Standard & Poor thought of the Indian economy. Today, such complacency would be a sure recipe for disaster.

As we will discover in the rest of the book, almost every firm today is exposed to fluctuations in the financial markets not only at home but also abroad. For some firms, exposure is direct and obvious; for others it is indirect via effects on their customers, suppliers and competitors. Integration of financial markets and mind-boggling advances in communications and information technology means that no economy is an island unto itself. Economic events, government actions and investor sentiments in any part of the world spread throughout the global financial markets rapidly. The fallout of Asian crisis and the upheavals following the Russian collapse have brought home this lesson. In fact, it has led many experts and policymakers to question the desirability a lassez faire global financial system. Thus, with increasing opportunities has come a quantum leap in financial risks.

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1.2. Finance Function in a Global Context

The finance function in a typical non-financial firm consists of two main tasks, treasury on one hand and accounting and control on the other; needless to say, the treasurer and the controller do not function in watertight compartments. There is a continuous exchange of information and mutual consultations. In many firms a single person without any formal separation of two responsibilities may in fact, heads both the tasks.

In what way is the finance function different in a multinational context? The basic task of both the treasurer and the controller remain the same as in the case of a purely domestic firm, the difference is in terms of available choices and the attendant risks.

These are the key differences:

- ✓ The firm must deal with multiple currencies. It must make or receive payments for goods and services in currencies other than its 'home currency', raise financing in foreign currencies, carry financial assets and liabilities denominated in foreign currencies and so forth. Thus, it must acquire the expertise to deal in the forex market and learn to manage the uncertainty created by fluctuations in exchange rates.

- ✓ A Treasurer looking for long- or short-term funding has a much richer menu of options to choose from when he or she is operating in a multinational context. -Different markets, national or offshore, different instruments, different currencies and a much wider base of investors to tap. Thus, the funding decision -acquires additional dimensions, which market, which currency, which form of funding, etc. that are absent when the orientation is purely domestic.

- ✓ Similarly, a treasurer looking for outlets to park surplus funds has a wider menu- of options in terms of markets, instruments and currencies.

- ✓ Each cross-border funding and investment decision exposes the firm to two new risks, viz. exchange rate risk and political risk. The latter denotes the unforeseen impact on the firm, of events such as changes in foreign tax laws, laws pertaining to interest, dividend and other payments to non-residents, risks of nationalization -and expropriation. These are over and above all the other risks associated with -these decisions like interest rate risks and credit risks.

- ✓ Cross-border financing and investment also obliges a firm to acquire relevant expertise pertaining to accounting practices, standards and tax laws applicable in -foreign jurisdictions.

To summarize managing the finance function in a multinational context involves wider, opportunities; more varied risks, multiplicity of regulatory environments and, as a Consequence, increased complexity in decision-making.

1.3. Global Financial Markets

Are Financial Markets Globally Integrated?

It is often said that starting around the mid 1980s, there began a process of integration of world's major financial markets, so that by now there is a single, vast 'global' financial market. How much of this is true and how much of it is journalistic hype?

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- ✓ The presence of legal barriers which prevent borrowers in one country from accessing markets in another and investors in one country from acquiring foreign assets Non-resident entities may be totally denied access to a country's financial markets or may be permitted controlled access. Similarly, a country may totally or partially prevent its residents from borrowing in foreign markets and investing in foreign assets. Also, there may be restrictions, which keep foreign banks and financial institutions out of some or all segments of the domestic financial markets. Lastly, local tax law may discriminate between domestic and foreign investors, e.g. by withholding taxes on interest paid to non-residents.

- ✓ A second less obvious factor causing segmentation even in the absence of any formal restrictions on cross-border capital flows is differences in generally accepted accounting principles, disclosure norms, regulatory structure, market practices, etc. which create informational asymmetries between resident and non-resident investors. Thus, non- resident investors may find it difficult to acquire and interpret information about potential issuers in a country even though the local government places no restrictions on foreign investors

- ✓ Finally, an even more subtle consideration involves the exchange risk factor. As we will see in coming lesson, exchange rate movements do not compensate for differences in inflation rates across countries. In a globally integrated market, all investors who have identical expectations should put an identical value on a given asset, e.g. the stock of General Motors. However, in the presence of real exchange rate risk, this will not hold. Consider the following hypothetical case:

Three investors, an American, a German and a Britisher are valuing the stock of ABC Inc, an American firm currently priced at say USD 100. All the three agree that in US dollar terms, the stock will fetch a return of 10% p.a. (ignoring dividends). The expected inflation rates are 5%, 3% and 7% p.a. in the US, Germany and UK respectively. The exchange rates are EUR 1.0850/USD and USD 1.5000/GBP at the start of the year. The German investor expects the exchange rate to be EUR 1.0500/ USD and the British investor expects the rate to go to USD 1.40/GBP by the year-end.

What are their expected real, i.e. inflation-adjusted returns measured in their respective home currencies?

You can easily work out that these would be 4.76%, 3.35% and 10.14% respectively for the American, the German and the British investor.

Let us look at one sample calculation. To acquire the US asset priced at USD 100 the German investor must spend 108.50 euros today; at the end of the year, the asset is expected to be worth USD 110, with the exchange rate expected to be 1.05 euros per dollar, resulting in year-end value of 115.50 euros. This implies a return of:

(115.5/108.5) - 1 = 0.0645 or 6.45%

But note that this is nominal return i.e. it has not been corrected for inflation. When you account for 3% inflation in Germany the real or inflation-adjusted return is:

[(115.5/108.5)/1.03] -1 = 0.0335 or 3.35%

You can also convince yourself that the expected returns would have been identical if expected movements in exchange rates had exactly compensated for the differences in expected inflation rates i.e. if the EUR was expected to appreciate to:

EUR [1.0850(1.03/1.05)] = EUR 1.0643 per USD and the GBP to depreciate to USD [1.50(1.05/1.07)] = USD 1.4720 per GBP.

Real exchange rate changes consist of changes in exchange rates corrected for inflation differences. When exchange rate changes do not reflect inflation differences, real exchange rates vary over time. Thus, there is ample empirical evidence to assert that except over very long horizons, exchange rate movements do not reflect changes in purchasing powers of various currencies. Hence, different investors would value a given asset differently depending upon their currency habitat. This makes for the third factor, which prevents complete integration of national financial markets.

Looked at from these three angles, one can say that restrictions on cross-border capital flows are being progressively removed in most major financial market. Similarly, there is a significant in increase in the presence of non-resident financial institutions in the markets of OECD countries and, to some extent even in developing countries. Informational disadvantages faced by non-resident investors are easily overcome with time. However, there still remain significant differences across countries in accounting and reporting practices as well as regulatory policies.

Finally, valuation Divergences caused by real exchange rate uncertainties will probably continue to segment the world's financial markets, for a long time to come.

1.4. Taxonomy of Financial Markets

Financial markets can be classified in various ways. The main division we will follow here is that between domestic or on shore markets on the one hand and off shore markets on the other. Domestic markets are the traditional national markets subject to regulatory jurisdiction of the countries monetary and securities markets authorities trading assets denominated in the country's currency. Thus, the market for government and corporate debt, bank loans, the stock market etc. in India is the Indian domestic market. Similar markets exist in most countries though many of them in developing and emerging market economies are quite underdeveloped. In many countries, non- resident entities are allowed to raise funds in the country's domestic market which gives the market an 'international' character. Thus, an Indian company (e.g. Reliance Industries) can issue bonds in the US bond market and a Japanese company can list itself on the London stock exchange.

The main feature of these markets is that they are generally very closely monitored and regulated by the country's central bank, finance ministry and securities authority like the Securities Exchange Commission in the US. Offshore or external markets are in which assets denominated in a particular currency are traded, but markets are located outside the geographical boundaries of the country of that currency. Thus, a bank located in London or Paris can accept a time deposit denominated in US dollars from another bank or corporation-an 'offshore' dollar deposit. A bank located in Paris might extend a loan denominated in British pound sterling to an Australian firm-an 'offshore' sterling loan. An Indian company might in London, bonds denominated in US dollars-an' offshore' US dollar

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The main characteristic of these offshore markets is that they are not subject to many of the monitoring and regulatory provisions of the authorities of their country neither of residence nor of the country of the currency in which the asset is denominated. For instance, a bank in the US accepting a deposit would have to meet the reserve requirements laid down by the Federal Reserve and also meet the cost of deposit insurance. However, the London branch of the same bank accepting a dollar deposit is not subject to these requirements. An Indian company making a US dollar bond issue in the US would be subject to a number of disclosures, registration and other regulations laid down by the SEC; dollar bonds issued in London face no such restrictions and the firm may find this market more accessible.

Since both investors and issuers are generally free to access both the domestic and offshore markets in a currency, it is to be expected that the two segments must be closely -tied together. In particular, interest rates in the two segments cannot differ significantly. There will be some differences due to the fact that one segment is more rigorously regulated (as also protected against systemic disasters), but unless the authorities impose restrictions on funds flow across the two segments, the differences will be very small.

The euro currency market or simply the euro market was the first truly offshore market to emerge during the early post-war years. It blossomed into a global financial marketplace by the end of the 1980s. A brief look at its evolution and structure will enable us to understand how offshore markets function. With the spread of such markets to locations outside Europe, and the arrival of the pan-European currency named 'euro', the designation 'Eurocurrency markets' became inappropriate and inconvenient. A US dollar deposit with a bank in London used to be called a 'Eurodollar' deposit. What do you call a deposit denominated in euro with a bank in Singapore? The designation 'euro Euro' deposit would be rather cumbersome. A more appropriate and comprehensive designation is 'offshore' markets. '

Some offshore banking markets are located in the so-called tax havens such as Bahamas, Cayman Islands and so forth, which provide a stable political environment, excellent communications infrastructure, minimal regulation and above all low taxes.

As a response to the competitive threat posed by euro banks, the US government permitted US banks to create International Banking Facilities, which are a kind of 'onshore--off-shore' market. They are subsidiaries of US banks, located within the region but doing business exclusively with non-resident entities and not subject to domestic regulations. Thus, they are also a part of the offshore US dollar market. Such 'onshore-offshore' banking markets also exist in other countries e.g. Japan.

The Growing Importance of International Finance

While we shall emphasize the managerial issues of international finance in this book, it is important to reemphasize that the international flows of goods and capital that are behind the subject of international finance are fundamental to our well- being. Let us therefore pause to consider the evidence of the growth of the international movement of goods and capital. We shall also take a look at the sources of gains from the flows of goods and capital. We shall see that international finance is a subject of immense and growing importance.

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Growth of International Trade versus Domestic Trade

International trade has a pervasive importance for our standard of living and our daily lives. In the department store we find cameras and electrical equipment from Japan and clothing from China and Hong Kong. On the street we find automobile from Germany, Japan, Britain, Sweden, and France using gasoline from Nigeria Saudi Arabia, Great Britain, Mexico, and Kuwait. At home we drink tea from India coffee from Brazil, whiskey from Scotland, beer from Germany, and wine from France. We have become so used to enjoying these products from distant lands that it is easy to forget they are the result of the complex international trading and financial linkages

Peoples and nations have been trading from time immemorial. During the period since records have been kept the amount of this trade between nations has typically grown at a faster rate than has domestic commerce. For example, sine 1950, world trade has grown by about 6 percent per annum, roughly twice the rate of growth of world output over the same period.

During the last century, international trade grew at an even more astounding rate, increasing by a factor of 25 times in, the century leading up to World War I. Even in the period since 1970, a mere moment in the long history of international trade, the proportion of trade occurring between nations relative to total trade has almost doubled. This is seen in below Table, which shows that global exports have risen from 9.9 percent of the global gross domestic product in 1970 to 15.8 percent by 1992. Indeed, if anything, the export figures and hence the percentages shown in Table are understated.

This suggested by the fact that when the world's combined reported exports are compared to imports, global imports exceed exports. In the absence of extraterrestrial trade, this suggests reporting errors: properly calculated, global imports must equal glob exports. The mechanisms for reporting imports are generally better than those for reporting exports-tax authorities keep track of imports for collection of duties--and therefore it is likely that exports are being understated rather than imports being overstated. Clearly, more and more economic activity is trade-related.

The growing importance of international trade is reflected in the trade statistics

Year	World Exports, Billion U.S.$	Exports/GDP, %
1992	3632.3	15.8
1990	3416.6	15.1
1985	1935.6	15.4
1980	1998.6	17.2
1975	875.5	14.1
1970	315.1	9.9

Of most industrialized nations. For example, Figure A shows that in the United States, the proportion of consumption consisting of imported goods and services has increased by almost 250 percent since 1962; it has increased from only 6.8 percent in 1962 to 16.28 percent in 1992. Figure A, which shows the fraction of consumption consisting of imports, and Figure B, which shows the fraction of gross domestic product (GDP) that is exported, reveal clearly that international trade is a matter of growing importance in the United States, Britain, Canada, Germany, France, and just about every leading country, whether we measure trade by imports or exports. It is worth pausing

to consider why international trade and the international financial activity associated with that trade have grown relatively rapidly in recent decades.

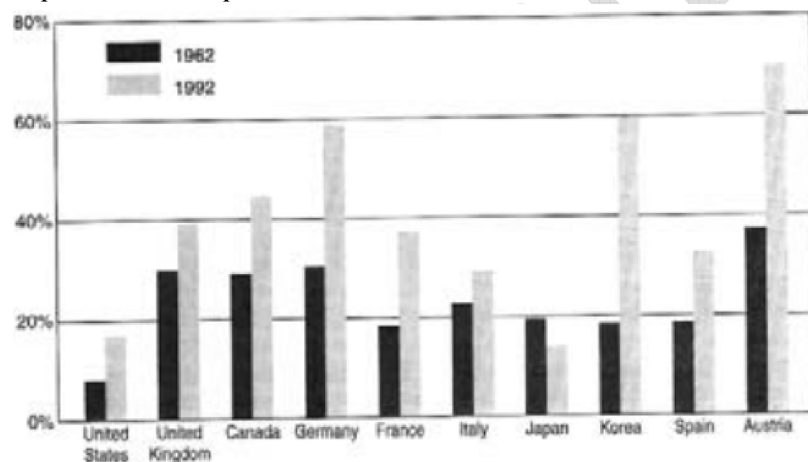
Reasons for the Growing Importance of International Trade

There are two principal reasons why international trade has grown rapidly vis a vis overall economic activity:

- ✓ A liberalization of trade and investment has occurred via reductions in tariffs, quotas, currency controls, and other impediments to the international flow of goods and capital.
- ✓ An unprecedented shrinkage of "economic space" has occurred via rapid improvements in communication and transportation technologies and consequent reductions in costs.

Figure A Percentage of Consumption Consisting of Imports

In almost every country there has been a substantial increase in the dependence on imports, with a number of countries today importing more than half of what people consume. In the case of Japan, imports have declined, but this is because of a decline in prices of imported commodities, not a reduction in quantities of imports.



1.5. Percentage of GDP Arising from Exports

Much of the trade liberalization has come from the development of free-trade areas, such as that containing the European Union (EU), formally called the European Economic Community (EEC), consisting of 17 countries from Iceland to Greece, and that of the United States, Canada, and Mexico, which signed the North America Free Trade Agreement (NAFTA) in 1993. Similarly, rapid growth of trade has occurred among the members of the Association of South East Asian nations (ASEAN). Indeed, more and more of international trade is occurring within regions. For example, Table B shows between 1982 and 1992 the proportion of U.S. trade with countries in North, Central, and South America increased from 29.3 percent to 37.1 percent, while Japan's trade with other Asian nations increased from 19.7 percent to 34.6 percent. This trend toward regionalization of trade has Source: International Financial Statistics, International Monetary Fund, Washington, D.C., 1993.

Important currency implications, making it of paramount importance to international finance The Japanese yen is likely to become more dominant as the settlement currency in Asia, with the same

being true for the Deutschemark in Europe. The role of the U.S. dollar, which has been the dominant global currency for price quotation and settlement of payments, may in the future be diminished outside the Americas.

The second factor contributing to growing trade, namely, the shrinkage of "economic space", caused by a lower cost of communication and transportation, has had a profound effect. For example, in real terms, long-distance telephone costs have been reduced by more than 80 percent since the 1920s. Connection times have been reduced even more dramatically. The cost of international business travel by air has dropped so substantially that it can cost little more for a U.S. executive to meet with a European client than to meet with another U.S. executive at the other side of the country. Air freight and ocean tanker costs for transporting goods have also fallen rapidly. This has resulted in a globalization of markets and consequent rapid growth in international financial activity.

Given the growing importance of international trade, it is worth briefly considering the rewards and risks that accompany it.

1.6. Getting a Grip on Globalization

After asking the question "What does 'globalization' mean?" The Economist, in its 1992 survey of the world economy, provides an answer which motivates a substantial part of the topic selection for this book: "The term can happily accommodate all manner of things: expanding international trade, the growth of multinational business, the rise in international joint ventures and increasing interdependence through cap-ital flows- to name but a few."

When focusing on the last of these, increasing capital flows, The Economist provide a variety of measures of the dramatic rate at which globalization has occurred? Consider the following, including the caveat at the outset, taken directly from the survey in The Economist.

All the estimates that follow must be treated with caution. But even allowing for that, the story they tell is startling.

- ✓ In 1980 the stock of "international" bank lending (i.e., cross- border lending plus domestic lending denominated in foreign currency) was $324 billion. By 1991 it had risen to $7.5 trillion. To put these figures in perspective, the combined GDP of the 24 OECD [Organization for Economic Cooperation and Development] industrial countries in 1980 was $7.6 trillion; in 1991 it was $17.1 trillion. So during the past decade the stock of international bank lending has risen from 4% of the OECD's GDP to 44%. (See Figure)

- ✓ In 1982 the total of international bonds outstanding was $259 billion; by 1991 it was $1.65 trillion. (See Figure)

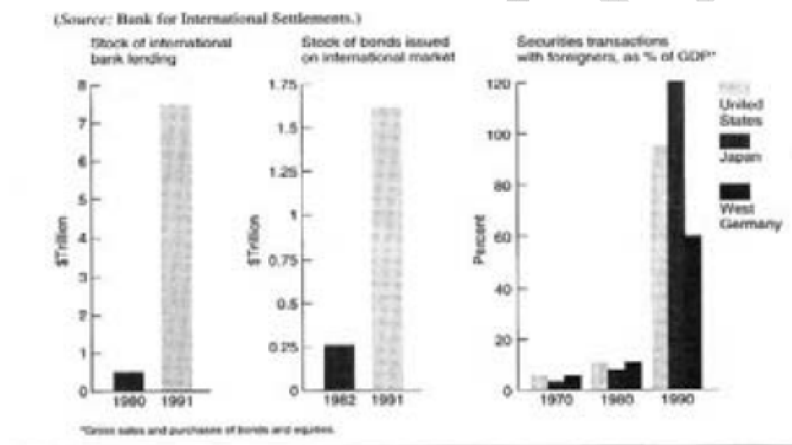
- ✓ Domestic bond markets have also been invaded by foreigners. Between 1970 and 1988 the proportion of American government bonds owned by foreigners went up from 7% to 17%-a growing share of a massively rising total. Between 1974 and 1988 the proportion of West Germany's official debt held by foreigners went up from 5% to 34%.

- ✓ As recently as 1986 the global stock of the principal derivatives (i.e., options, futures and swaps involving interest rates and/or currencies) was \$1.1 trillion. In 1991 it was \$6.9 trillion.

- ✓ Turnover in foreign exchange, including derivatives, is now put at roughly \$900 billion each day. Yes, each day. Currency trading has grown by more than a third since April 1989, when a central-bank survey estimated net daily turnover at \$650 billion-and that was double the previous survey's estimate for 1986.

- ✓ In 1970 America's securities transactions with foreigners (i.e., gross sales and purchases of bonds and equities involving resident and a nonresident) amounted to the equivalent of 3% of the country's GDP; in 1980 the figure was 9%; in 1990 it was 93%. The corresponding figures for West Germany are 3%, 8% and 58%; and for Japan, 2% (in 1975), 7% and 119%. (See Figure E1.2.) Thanks to the City of London, Britain's cross-border securities transactions were equivalent to no less than 368% of GDP even in 1985. Five years later the figure had nearly doubled, to 690%.

Figure Getting a Grip on Globalization



- ✓ Between 1980 and 1990 the volume of worldwide cross- border transactions in equities alone grew at a compound rate of28% a year, from \$120 billion to \$1.4 trillion a year. . Between 1986 and 1990 outflows of foreign direct investment (FDI) from America, Japan, West Germany, France and Britain increased from \$61 billion a year to \$156 billion, an annual growth rate of 27%. The global stock of FDI is now estimated to be \$1.7 trillion. At the last count, for 1990, there were roughly 35,000 "transnational corporations," with 147,000 foreign affiliates.

In short, during the 1980s finance really did go global. How does this new world economy work? Will the integration of capital markets affect interest rates, government budgets and other aspects of economic policy? Might the power of global finance destabilize national economies? Financial regulators found their job enough of a struggle even in simpler times: can they ever cope with the new regime? If not, should the clock be turned back-supposing it can be?