

# Volatility of International Financial Markets: Regulation and Financial Supervision

By

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Professor Jorge Perez Barbeito, Dean Faculty of Administration and Economics, University of Santiago, Professor Claudia Hormazabal Santibanez, Director, IV International Conference in Finance, Honorable members of the Organizing Committee, other distinguished dignitaries on the dais, members of the this august audience and ladies and gentlemen, it is a matter of great privilege for me to have been invited to deliver the keynote speech on Volatility of International Financial Markets: Regulation and Financial Supervision in this prestigious 4<sup>th</sup> International Conference in Finance, organized by Faculty of Administration & Economics, University of Santiago de Chile. At the outset I must congratulate the organizers for organizing this conference, selecting an extremely timely theme and having representation from almost all over the globe. It reflects the vision of the University and the organizers. Organizing an international conference is very difficult task and tremendous efforts are required by a team of committed and devoted professionals to give it a final shape.

The theme of this 4<sup>th</sup> International Conference in Finance – Volatility of International Financial Markets: Regulation and Financial Supervision - has been rightly chosen by the organizers. Volatility of International Financial Markets is generally characterized by the intensity of fluctuations affecting the price in financial markets. Volatility is generally perceived as a measure of risk and uncertainty, and is also tradable market instrument in itself. In case of high volatility, regulation and financial supervision become paramount.

I wonder as to what extent I would be able to justify this great responsibility of delivering this key note address. It is a very difficult task and a great responsibility. However, it would be my endeavor to be up to the mark as far as possible or to the expectations of the organizers and galaxy of intelligentsia.

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**Acknowledgements** I would like to thank my colleagues at Indian Institute of Finance, Professor Aman Agarwal, Mr. Deepak Bansal, Senior Lecturer, and Ms. Yamini Agarwal, Lecturer, for their assistance in preparation of this paper. I would like to mention that the paper is developed using vast material including World Bank Report, World Investment Report of United Nations, IMF Reports and RIS report on South Asia Development & Cooperation Reports. However, for all errors and omissions, I am solely responsible.

Before I begin sharing my views on the theme of the conference, I consider it utmost necessary to highlight a few characteristics of this great country, with more than 12000 years old history where a more hierarchical society appeared with Tiahuanaco culture between 300 to 1000 AD, to pay my tribute and respect to this great nation and its more than 15.5 million people. Chile is rich in natural resources like copper, iron ore, nitrates, lithium, precious metals, molybdenum, seafood, agriculture, forest, oil natural gas, coal limestone etc. The country has one of the highest rate of literacy at 95.8 percent with life expectancy of 76 years, with a per capita income in nominal terms of US\$ 4400 and at purchasing power parity at US \$ 8840, which is much higher than the world average.

Chile has a highly free-market oriented economic structure open to International trade. During the 1970s the Chilean economy was transformed from a state-led economy to one based on private enterprise and competition. Since then the guiding principles for Chile's economic policy have been macroeconomic and fiscal stability, a consistent policy of liberation and privatization, an aggressive foreign trade policy aiming at diversification of export products and the opening of domestic markets as well as curbing inflation.

The Chile's economy has grown at the rate of 2.1 percent for 2002 and is expected to grow at 3 to 3.5 percent during 2003. The Chile financial sector has grown faster than other areas of the economy over the last few years. Chile broadened the scope of permissible foreign activity for Chilean banks in 1997, further liberalized its capital market in 2001 and introduced new financial tools such as home equity loans, currency futures and options, factoring, leasing and debit cards. The inflation (CPI) is under control at 3.1 percent. Interest rates are following international trends. The nominal exchange rate in July 2003 has shown appreciation by 1.1 %. The trade balance at end of June showed a surplus of US\$292 million. The country's foreign exchange reserves at end July 2003 totaled at US \$ 15,417 million. The liberalization and globalization of Chile's economy has enabled to substantially reduce the poverty level from 40% in 1987 to 26% in 2000.

Over the years Chile's economy is no longer as remote as it once was. It has successfully opened its markets to foreign investors. It is now identified as an

obvious choice for foreign investors seeking to expand in Latin America. It is also deeply committed to free trade since 1990. It has made remarkable progress in the quality of education, health care, unemployment insurance and efforts to deepen democracy and strengthen civil liberties. Chile has shown that it is possible to achieve stable and sustainable progress in today's uncertain international climate.

The relations between Chile and India are of mutual friendship and understanding and have experienced a great leap forward particularly in the last three years. The bilateral trade between Chile and India has increased from US\$ 138 million to US\$ 263 million in the last three years. It is expected to increase to US\$ 320 million in 2003. Today, the Indian presence in the IT industry is well noted in Chile because some of the most important banks, insurance companies and other Chilean companies have established partnerships with Indian IT companies, to get benefits of most advanced technology, cost savings and overall productivity.

### **World Economy: Review & Synthesis**

The Volatility in the International Financial Markets is always a function of world economic and political environment. The present, past and expected changes in the world economy affect the Volatility in the International Financial Markets and their supervision and regulation. It can have wide repercussion on the world economy as a whole, as there is an important link between financial market volatility, public confidence and the world economic & political environment. I would briefly touch upon this aspect before coming to discuss the main issue.

World Economy has witnessed drastic changes in the preceding century particularly after World War II. Two world wars, great depression of thirties, formation of various international agencies to resolve international conflict and help member states in development, like United Nations, UNCTAD, GATT, WHO, IBRD, ILO, World Bank, IMF, IFC etc., reconstruction of war torn and destructed economies like Japan, U.K., erstwhile West Germany and others, fall of British Empire in terms of losing control and administration of many countries and many countries gaining independence from foreign rule, partition of India, large flow of international capital in far eastern economies like Thailand, Taiwan, Hong Kong, Singapore, S. Korea, and Philippines in early 60s etc., discovery of oil in the middle

east and part of Africa and development of various middle east countries on modern lines of living, discovery of gold and copper and other minerals in different parts of world particularly in Africa, beginning the process of economic liberalization, privatization and globalization world over beginning in eighties, fall of Berlin wall resulting in the union of two Germanys, Formation of European Union – having a European parliament, Garbachov Perestroika resulting in the fall of erstwhile USSR from its dominant position and formation of 12 CIS states, Emergence of Euro as a common currency of various European countries, Replacement of the old hat of socialism and communism with Market driven economic system, China a communist state opening its flood gates to the world economy particularly inviting Foreign Direct Investment resulting in double digit growth rate, The world has also witnessed fastest ever technological innovations in almost every sphere of activity be it science, education, social sector, agriculture, industry, and services. The man landing on moon, launching of satellites, U.S. investment in star wars, have attracted major financial investments. The formation of WTO to provide newer opportunities making the world as one integrated market through multilateral trade agreements is another land mark in the world economic order. The box type computer developed immediately after World War II has witnessed fastest growth, shrinking the world to be accessible in seconds merely with note book size machine with excellent power with precision. The advancements in telecommunications and war fare have attained newer heights. The mobile phone/internet and e-mail has made the world easily reachable at low cost. The world has seen faster human and economic development during the past half century than during any previous comparable period in history. Almost everywhere, literacy rates are up, infant mortality is down, and people are living longer lives. The world trade has grown tremendously. Each day financial transactions of more than 500 billion dollars take place in the world. There has been unparallel growth in Banking, Insurance and Financial Services sectors of the world economy despite the shocks in the first half of the last century.

However, the world has seen several odds in the last century some of which are overflowing in the new millennium. The inequalities of incomes and consumption pattern amongst people and between nations have widened. A part of the world unfortunately, suffered from extreme, hunger, poverty, deprivation,

underdevelopment, illiteracy, lack of most basic necessities of life despite the efforts of international agencies like world bank, while other part of world were engaged in indulging in extravaganza. There has been excessive dominance of United States in the world economy in almost all spheres of activities because of its military, political and financial strength. The financial crisis in the Far East including Japan, Mexico, Brazil, Russia and few other countries has reflected the weaknesses of the World Financial System. Four wars in Indian subcontinent (Chinese aggression in 1962, Pakistani intrusion and aggression in 1965, 1971 and again in 1999), Strife in Sri Lanka and continuous terrorist activities launched by foreign power, in India, gulf war has adversely affected the developmental process of this region. Terrorism, militancy, gorilla warfare, drug trafficking, activities have assumed gigantic proportion threatening the world peace. In some of the countries democratic governments have been replaced by military regime through military coup. Natural disasters, diseases such as HIV/aids, and man made greed for money and power has led the corruption and money laundering to assume immeasurable proportions. Major earth quakes in the last century killed people more than the people killed in the entire civilization since AD era began. For instance earth quakes toll of people being killed in Japan 70,000 in 1923, in China 200,000 in 1920, 200,000 in 1927, 70,000 in 1932, 256,000 in 1976 , in Iran 50,000 in 1990 and about 20,000 in 2003.

The change in the world economic order witnessed in the last century would get accelerated at a much faster rate in the new millennium. In just three years of the new millennium there has been terrorist attack on World Trade Centre, Afghanistan episode and fall of Iraq and Saddam Hussein. Estimates indicate that China, U.S. Japan and India would emerge as the most economically powerful economies of the world by 2025. But some very real challenges remain.

In this millennium, the world is faced with new challenges. One of the greatest is to fight against both natural and man made disasters and seek solutions to provide necessary relief. Over a fifth of the world's population still lives in abject poverty (under \$1 a day), and about one-half lives below the barely more generous standard of \$2 a day. One-quarter of the population of developing countries are still illiterate. The 2.5 billion people who live in the world's low-income countries still have an infant mortality rate of over 100 for every 1,000 live births, compared with just 6 per

1,000 among the 900 million people in the high-income countries. Illiteracy still averages 40 per cent in low-income countries. Population growth, although slowing, remains high. The Finance would be required not only for construction but also reconstruction of economies affected by natural or man made disasters.

In September 2000, the meeting of the U.N. General Assembly concluded with the adoption of the Millennium Declaration. This Declaration collectively committed their governments to work to free the world of extreme poverty. Towards that end, it endorsed the following International Development Goals for 2015: to cut in half the proportion of people living in extreme poverty, of those who are hungry, and of those who lack access to safe drinking water; to achieve universal primary education and gender equality in education; to accomplish a three-fourths decline in maternal mortality and a two-thirds decline in mortality among children under five; to halt and reverse the spread of HIV/AIDS and to provide special assistance to AIDS orphans; and to improve the lives of 100 million slum dwellers.

The Millennium Declaration also highlighted the task of mobilizing the financial resources needed—to achieve the International Development Goals and, more generally, to finance the development process of developing countries. All these changes and future objectives have impacted the Volatility in the International Financial Markets.

### **World Economy at the Turn of the Century**

I would also like to touch upon how the events in the world economy at the turn of the century affected the Volatility in the International Financial Markets.

The world economy recovered smartly in 2000 from the East Asian crisis of 1997- 99. The estimated world output growth of 4.7 per cent registered in 2000 is the highest since 1988 while the estimate of world trade at 12.4 per cent is the highest in the past 25 years. World real GDP growth is estimated to have declined to 2.3% in 2001 (before increasing to 3% in 2002). However, the recovery has proved to be fragile. The world economy grew at the highest average rate in the late 1990s, despite the marked slow down on account of the crisis in some countries. Similarly, the average rate of growth of world trade at 7.18 per cent achieved during 1996-2000 is higher than that registered during any sub-period over the past two decades. In large

part, the robust performance of the world economy during the last five years of the last century reflects the strong performance of the US economy in the past several years. The continued expansion in the US economy has been considerably fuelled by the productivity improvement in the US industries resulting from IT applications. The impressive recovery of the world economy and world trade in the early part of 2000 generated all around optimism as countries expected to benefit from the favorable spillovers in the form of rise in demand for their exports. However, the optimism has proved to be short lived for various reasons.

The slow down of the US economy has a compound effect on the growth of the world economy by adversely affecting the demand for the products of partner countries as well. The effect of the impending slow down will be more severe on the growth rate of world trade which is likely to reduce to nearly a fifth of the rate achieved in 2000 to around 2.7 and 5.2 per cent in 2001 and 2002, respectively.

However, the Terrorist Attacks of 11 September, 2001, the recent financial reporting scandals in U.S., The Afghan Air Strikes, and The U.S. Intervention in Iraq in 2003 have serious economic effects on World Economy and also on the volatility of international financial markets. Some of the worst affected sectors were: Textiles and garments exports, IT, air travel and tourism, hospitality and insurance; financial services and the insurance industry. The implications for developing countries are apparent in the form of reduced inflows of foreign investments especially of those from foreign institutional investors. The uncertainty coupled with the slow down also tends to affect foreign direct investment inflows to the different regions as investors hold back the investment decisions and affect volatility in international financial markets.

The volatility of oil prices is a highly destabilizing factor for the world economy. It is more devastating for oil importing developing countries than for other countries. Given the strong cartel in the form of OPEC operating in this market, it is not possible to rule out oil price shocks of the type faced in the early 1970s, early 1980s, early 1990s and 2000 or even in the future. It is imperative for international community to create a mechanism to regulate and stabilize oil prices at a certain reasonable and sustainable level. The intervention should bring the OPEC and other oil producers to observe some international discipline. Further, there should be some

special fund to moderate the impact of volatility in oil prices for the poorer developing countries. The OPEC decision to cut output whenever oil prices tend to fall as witnessed in early 2001 indicates that oil prices will fluctuate around \$ 30-35 per. barrel. Therefore, oil importing countries will have to adjust their economies to the new level of oil prices in the coming years.

Transition from GATT to WTO in 1995 constitutes one of the most important developments in the world economy of the twentieth century. It has wide-ranging implications for the global economy. The emerging WTO regime is important for the national development, trade, investment and technology policies of member countries. But by far the main beneficiaries of trade liberalization have been the industrial countries. The developing countries would face another set of challenges with further liberalization of insurance, banking and services sectors. The recent developments in Cancun WTO meeting is an eye opener and a major set back to multilateral trade regime. The member developing countries need to prepare themselves to take part in the ensuing negotiations effectively to safeguard their interests. Issues of preparedness on their part require them to jointly take advantage of the emerging multilateral regime rather than passively implementing their commitments. This requires for an appropriate strategic thinking and concerted action on their part.

One of the important events for the future of world trade is the entry of China into the WTO regime. The accession of China to the WTO and the consequent MFN status that it will receive from other WTO member countries may have some implications for the competitiveness of the some of the developing countries.

It is clear, however, that the challenges of globalization today and the resultant volatility in the international financial markets cannot be adequately handled by a system that was largely designed for the world 50 years ago. Changes in international economic governance have to keep pace with the growth of international interdependence.

## **World Economy: Regional Outlook**

**1. United States:** The slow down of the US economy is threatening to affect the growth prospects for many parts of the world economy. America's GDP growth has directly accounted for about one-third of global growth. If the indirect benefits of American imports are added in, then America has accounted for no less than half of the increase in global output. If that engine stalls, everybody will be hurt. America's booming economy has sucked in imports from abroad. As its economy slows, import growth will fall more sharply than GDP. Canada and Mexico are the most dependent on the United States: their exports across the border account for 33 per cent and 21 per cent, respectively of their GDPs. Several East Asian economies, such as Malaysia, the Philippines and Thailand, also export at least 10 per cent of their GDPs to America. In Japan and Western Europe, the proportion is around 3 per cent only. So the impact of a fall in exports to America will be more modest. A second reason is the exchange rate. If a hard landing brings a short fall in the dollar against the euro and the yen, it would further squeeze exports from Japan and Europe. On the other hand, it would assist countries such as Argentina that have pegged their currencies to the dollar. Last, but not least, financial turmoil in America would drag down stock markets worldwide. And it would also make it harder for emerging markets to attract funds, as panicky investors would seek safer havens. The average risk premium on emerging-market government debt over American Treasury bonds has increased from 6.3 percentage points in early September to 8.1 points now.

Emerging economies have more to lose from a hard landing in America, as the recoveries in Latin America and Asia have been driven largely by exports to the United States. Turkey is suffering a banking and currency crisis; Argentina is struggling to service its debts; South Korea is being shaken by massive corporate bankruptcies; and the Philippines and Indonesia are in the grip of political tensions. The rate of growth of output in the US during the second half of the 1990s has averaged at 4.4 per cent per annum compared to 3.1 during the 1992-95. The other notable factors that have contributed to the strong economic expansion in the US include the low oil prices since 1991 and the Gulf War. The declining prices of Information Communication Technology equipment has also spurred a faster diffusion of the technology leading to labor productivity improvements through

increased automation and capital deepening. Finally, returns to investment in Internet have increased. ICT industry is estimated to have contributed a 35 per cent share in US economic growth over the 1995-98.

The emerging trends in the US economy in the fourth quarter of 2000 suggest that the economy had reached its peak in 2000, with the growth rate of output crossing the 5 per cent mark before starting to slow down. To some extent this is owing to US industry reaching a plateau in terms of diffusion of Information Communication Technologies, as indicated by a sharp decline in the market capitalization of IT stocks at NASDAQ in 2000. The rising crude prices in late 2000 have also compounded the process of a slow down. The Terrorist Attacks of 11 September, 2001 have further worsened the outlook. The growth rate of the US economy for 2001 has been scaled down to just over 1 per cent from the 5 per cent achieved in 2000. In an effort to revive the economy and to contain recession, interest rates have been lowered. Since September 2000 it has already cut interest rates eight times.

**2. European Union:** The European countries have shown signs of an upswing at the turn of the century. The growth rate of output of 3.4 per cent is a nearly full one percentage point higher than that recorded in 1999. The recovery of the European economies from the recession of the late 1990s has also led to a strengthening of the euro against dollar and other major currencies. The Information and Communication Technology revolution which has helped the US in boosting its growth rates in the second half of the 1990s is now occurring in the countries of European Union. The weakening of dollar against major currencies of the world in 2003 is also helping European Union.

**3. Japan:** The Japanese economy, has not only stagnated over the past several years but suffered from recession, despite fastest ever technological innovations in some of the sectors of world economy. The East Asian crisis of 1997 has also adversely affected the Japanese economy in 1998 and 1999. The Japanese economy has not shown signs of a recovery either in terms of a pick up of consumer confidence or in bank lending, despite the November 2000 fiscal stimulus package as well as the depreciation of the yen in late 2000, . The US slow down has also hit the economy negatively.

**4. East and Southeast Asia:** Indonesia, South Korea, Malaysia, the Philippines and Thailand, the five Southeast and East Asian countries most severely affected by the crisis of 1997 seem to have recovered smartly with the growth of GDP averaging 6.7 per cent in 1999, compared to an 8.2 per cent decline in the previous year. The recovery has been further consolidated in 2000 with the average growth rate approaching 7 per cent. However, there are variations in the extent of recovery across the countries Korea and Malaysia showed a positive recovery from the crisis in 1999 while Indonesia had still not emerged from this, with recovery in the Philippines and Thailand being moderate. The recovery of the region's economies from the 1997 crisis was assisted by the expansion of the global economy and world trade over the past few years, led by the rapid expansion of the US economy. However, concerns remain as the recovery has been accompanied by only limited corporate restructuring and the health of the financial system continues to rely on public intervention in the credit mechanism. The US slow down has created fresh problems for these economies, particularly for electronics and IT hardware industry which account for a considerable proportion of the manufactured exports of most of these countries, especially Korea and Malaysia, Furthermore, the rising oil prices are also expected to strain the growth prospects of East Asian countries as most of them, except for Indonesia and Malaysia, are oil importing countries.

**5. India:** India, the largest democracy of the world, is all set to become major economic power. India faced its worst ever financial crisis in 1991 when its foreign exchange reserves fell below one billion dollars, inflation rate was as high as 16.7 percent, suffering from high fiscal deficit, high unemployment rate and several other economic weaknesses and other odds. India has successfully launched and handled its economic reforms process of privatization and liberalization to bring about macro economic stabilization despite the US sanctions. Its foreign exchange reserves have crossed 100 billion dollars; fiscal deficit is within tolerable limits, growth rate of 7 percent expected for the current year; the rupee is gaining strength despite RBIs intervention, banking and financial institutions have improved, BSE Sensex has crossed over 5900 points from a low level of 3000 six months ago. The overall outlook of the economy is encouraging.

**6. Middle East:** One region that has benefited from the recent rise in oil prices is the Middle East which comprises some of the prominent oil exporting countries. The growth rate of the region spurred from a marginal 0.8 per cent in 1999 to a healthy 5.4 percent in 2000. Middle East countries are significant trade partners of the South Asian countries. The economic expansion may increase the demand for labor in these countries as has been the case with the previous oil price shocks. Since the South Asian countries, especially India, Bangladesh, Pakistan, and Sri Lanka, are important sources of manpower for these countries, there may be an upswing in the demand for labor consequent to the rise in oil prices. However, the recent gulf crisis has adversely affected a rise in demand for workers in the Middle East and also the growth prospects.

**7. Latin America:** There have been mixed results in most of countries of Latin America, of reform agenda popularly known as “Washington Consensus”. Economic liberalization was expected to generate rapid economic expansion, but growth rates since 1990 have been half of what Latin America achieved during the period of state-led industrialization. The strong recession than began in 2001 deepened in 2002, when GDP fell by 0.5 percent. Open unemployment reached 9.1 percent – a record figure in Latin American history. The poor population has swollen by 20 million in Latin America. There are two prominent characteristics of Latin American financial systems i.e. financial assets have short maturities and that funds flows through these systems are highly volatile. In such situations even small shocks often become large crisis. For instance, if there emerges some problems in the banking system, there are large withdrawals of private funds from banks due to lack of investors lack of confidence, making it difficult to resolve crisis quickly. Latin American financial markets are highly volatile. Investors hold short-term assets and withdraw their funds from the market at the first sign of economic problems magnifying the volatility and also the economic crisis. It has also been observed that the investors withdraw their funds quickly because of legal and accounting frameworks governing financial markets provide less protection than those in developed countries. An analysis of the composition of capital markets instruments traded in Latin America i.e. Argentina, Brazil, Chile, Colombia, Mexico and Peru indicate that although wide variety of capital markets instruments are already available in Latin America yet with the

exception of Chile, all fixed income and money market instruments traded are government and government related paper.

### **International Financial Markets: An Overview**

Volatility of International Financial Markets to a great extent depends upon on the financial developments in the world economy. Financial development played a critical role in promoting industrialization in countries such as England by facilitating the mobilization of capital for large investments. Financial development contributes significantly to growth. It is central to poverty reduction. Some of the researches have shown that financial development directly benefits the poorer segments of society and also income redistribution. Strong financial systems are the key factor for proper financial developments. One of the important functions of Financial Systems is to shift risk to those who are willing to bear it. Financial derivatives can help diversify risk. For strong financial system, one requires supporting financial institutions and well developed financial markets to reduce the information costs of borrowing and lending and making financial transactions. Financial Institutions include banks, insurance companies, provident and pension funds, mutual funds, compulsory savings schemes, cooperative banks, credit unions, informal financial intermediaries and securities markets. Financial systems vary across countries and varying economic outcomes. Generally, banks and financial institutions dominate most formal financial systems, but lately stock markets are gaining importance particularly with international capital flows through the entry of foreign investment institutions in the stock markets and are playing an important role in the financial markets.

However, in the current era of liberalization and globalization of financial markets, the economies of developing countries have become highly vulnerable to speculative capital movements in and out of the country. The economic crisis in Mexico in 1994, more recently the currency crisis in the East and South East Asian countries in 1997, the Russian crisis in 1998, the Brazilian crisis of 1999 and the Argentinean crisis of 2001 have highlighted the role played by speculative capital movements in triggering-off the crisis situations. The financial crisis of July 1997 that has affected some of the best performing Asian economies has been a subject of intense concern. It has provoked rethinking world over on the risks and benefits of

liberalization of financial and capital markets and of global integration, especially in the developing countries. It has also highlighted the importance of the prudent regulation of the domestic financial and banking sectors. Finally, it has exposed some of the weaknesses of the existing approaches in handling the crises such as those enforced by the IMF. Given the increasingly interdependent nature of the world economy, the fortunes of all the countries are highly inter-linked.

### **1. Capital Flows to Developing Countries :**

International capital flows and trends affect the volatility in the international financial markets. The volatility of financial flows may undermine the economic policy objectives of an economy, such as the achievement of inflation rate, exchange rate targets and balance of payments. Volatility and short-term financial assets also affect long-run policy objectives of an economy. They make it difficult to finance long-term investment projects. The developing economies require gigantic funds for building up infrastructure and undertake other investment projects.

The decade of the 1990s has seen major transformations in the magnitude and composition of external resource flows to developing countries. The magnitude of the external resource inflows to developing countries nearly trebled between 1991- 97. The inflows, however, declined during 1997-99, as the world was reeling under the shock of the economic crisis in Mexico in 1994, East and South East Asian countries in 1997, the Russian crisis in 1998, the Brazilian crisis of 1999 and the Argentinean crisis of 2001. The most striking trend of the 1990s with respect to the external resource flows has been their changing composition. The official flows comprising of ODA and other official flows have gradually dried up: from US\$ 61 billion in 1991 to \$ 39 billion by the end of the decade. As a result, their share in the total resource flows has come down from 50 per cent in 1991 to just 13 per cent in 2000. The bulk of the resources received by developing countries now comprise of private capital flows.

The composition of the private capital flows has also undergone change over the 1990s. Flows from International Financial Markets, viz. portfolio equity investments and bank lending and bonds, have grown rapidly between 1991 and 96. Since then they have declined, especially in the wake of crisis in some countries. The

private debt flows (bank lending and bonds) turned negative in 1999 before recovering somewhat in 2000. Portfolio equity investments have also shrunk between 1996 and 98 but have staged a smart recovery during 1999-2000. The private capital flows, therefore, are highly volatile. They tend to aggravate a crisis situation by suddenly leaving the host country, making the financial markets highly volatile.

The rising magnitude of external resources over the 1990s has to be evaluated in terms of resource requirements. It is a matter of interest to ascertain whether the resource availability has been growing more rapidly than the growth of the economies. It is evident that resource flows to developing countries had been growing faster than their GNP up to 1998, when it reached the level of 5.56 per cent. The proportion of resource flows to GNP came down sharply in 1999, but it started to recover in 2000, with the proportion in 2000 at 4.36 per cent being slightly higher than 4.31 in 1994.

One striking feature of resource transfers to low income countries is that the net transfers, after providing for total debt service, have been declining and constitute a small proportion of the total disbursements. This leads to the building up of the debt trap and an eventual collapse. It is obvious that some way has to be found by the international community to prevent such situations of negative net transfers from occurring by monitoring the debt levels and net transfers and to take corrective steps (e.g. restructuring of debt) at appropriate time.

## **2. FDI Inflows in Developing Countries**

The volatility in the International financial markets is also affected by the FDI flows. FDI has emerged as the most important channel of external resource transfers to developing countries in the 1990s. FDI is also an agent of integration of economic activities across the countries in the 1990s. Compared to the average annual growth of trade in goods and services of about 6-7 per cent over the 1990s, FDI inflows have grown at an average annual rate of 20 per cent over 1991-95 and at 32 per cent during 1996- 99 despite the economic crisis in some important regions of the world. As a result, the magnitude of global FDI inflows has increased from US\$ 159 billion in 1991 to \$ 1.27 trillion in 2000. FDI inflows are expected to be less volatile and non-debt creating. They are also expected to be accompanied by a number of other assets

that are valuable for development, such as technology, organizational skills, and sometimes even market access, among others. Hence, most countries – developed as well as developing – compete among themselves in attracting FDI inflows with increasingly liberal policy regimes and incentive packages. However, the expansion of the magnitude of FDI over the 1990s has benefited only a handful of developing countries.

The recent growth of FDI flows has been fuelled by cross-border mergers and acquisitions (M&As) in North America and Europe as a part of ongoing wave of industrial restructuring and consolidation. The value of cross-border M&As sales has grown from US\$ 81 billion to \$ 720 billion over 1991-99. The bulk of these M&As (\$645 billion of the \$720 billion) are concentrated in the industrialized countries. The industrial restructuring and consolidation in the industrialized world, in turn, has been provoked by regional economic integration.

FDI inflows received by developing countries have expanded from under US\$42 billion in 1991 to \$ 240 billion in 2000. The growth of FDI inflows in developing countries seem to have been slower than that of global inflows, especially in the late 1990s. The share of developing countries in FDI inflows rose sharply during the early 1990s from 26 per cent in 1991 to over 40 per cent in 1994. Since then it has steadily declined to below 24 per cent in 2000. The sharp rise in the share of developing countries in the early 1990s was largely owing to the emergence of China as the most important host of FDI in the developing world.

There has also been a shift in the relative importance of different regions as hosts of FDI inflows received by the developing countries since 1993. Developing Asia has been the most important host region of FDI inflows accounting for over half of FDI inflows to developing countries. Initially, developing Asia's share showed a rising trend peaking at 70 per cent in 1993. However, its importance has declined steadily since then. Latin American countries have steadily improved their share since 1993 with their share converging to the Asian level towards the end of the decade. The strong trend towards regional economic integration has helped Latin American countries to improve their share in FDI inflows while the East Asian crisis has taken a toll on the share of Asian developing countries.

Within Asia also the relative importance of sub-regions is changing. China dramatically improved her share in the inflows to developing countries from 10 per cent in 1991 to 38 per cent in 1993. Since then, however, China has not been able to keep its share in the inflows into Asia.

Share of some of Asian countries, viz. Hong Kong, Taiwan, and South Korea has fluctuated around 14 per cent up to 1997. It has risen sharply over 1998-99 largely owing to cross-border M&A activity in post-crisis South Korea. ASEAN countries, particularly, Singapore, Malaysia, Thailand, Indonesia, Philippines, have been popular hosts of FDI in the region. Vietnam has also become an increasingly important host following its integration with ASEAN.

The region initially lost its share largely owing to the emergence of China. During the 1994-96 periods, ASEAN countries actually improved their share in Asian inflows. Since 1997, they have lost their share owing to the crisis of 1997. In particular, there has been disinvestment in Indonesia for the past two years in a row. South Asia, comprising some of the poorest countries in the region, has been a marginal host of FDI inflows. The region is facing a further marginalization as a host of FDI inflows since 1998, even though it was spared from the direct effect of the currency crisis.

There are sharp inter-country variations in FDI flows to different countries. FDI inflows are highly concentrated in a handful of high and middle income countries. Low income and least developed countries remain marginalized in the distribution of FDI inflows. The share of 45 least developed countries as a group in global FDI inflows is negligible at half a per cent and it shows a declining trend over the 1991-99 periods. Just ten most important hosts of FDI among developing countries account for over 80 per cent of all inflows received by developing countries in 1999. The concentration in the top ten recipients has increased from 66 per cent in the mid-1980s to over 80 per cent in late 1990s. The expanding magnitudes of FDI inflows tend to create optimism among poorer countries regarding the potential of these inflows for expediting the process of their development.

Global FDI inflows declined in 2002 for the second consecutive year, falling by a fifth to \$651 billion – the lowest level since 1998. Flows declined in 108 of 195

economies. The main factor behind the decline was slow economic growth in more parts of the world and dim prospects for recovery at least in the short term. Besides there has been falling stock market valuations, lower corporate profitability, a slow down in pace of corporate restructuring in some industries and winding down of privatization in some countries. A big drop in the value of cross-border mergers and acquisitions figured heavily in the overall decline. The number of mergers and acquisitions fell from a high of 7894 cases in 2000 to 4493 cases in 2002. Their average value fell from \$145 million in 2000 to \$82 million in 2002. The number of deals of mergers and acquisitions worth more than \$ one billion i.e. from 175 in 2000 to only 81 in 2002 – the lowest since 1998.

The decline in FDI in 2002 was uneven across regions and countries. It was also uneven across sectorally: flows into manufacturing and services declined, while those into the primary sector rose by 70%. Services are the single largest sector for FDI inflows. The equity and intra-company loan components of FDI declined more than reinvested earnings. Geographically, flows to developed and developing countries each fell by 22% (to \$460 billion and \$162 billion respectively). Two countries – the United States and UK accounted for half of the decline in the countries with reduced inflows. Among developing regions, Latin America and Caribbean was hit hard, suffering its third consecutive annual decline in FDI with a fall in inflows of 33% in 2002. Africa registered a decline of 41%. FDI in Asia and the Pacific declined the least in the developing world because of China which with a record inflow of \$53 billion became the world's largest host country. CEE did the best of all regions, increasing its FDI inflows to a record \$29 billion.

There was a sizable decline of FDI inflows in 16 of the 26 of the developed countries. Australia, Germany, Finland and Japan were among the countries with higher FDI inflows in 2002. FDI outflows from developed countries also decline in 2002 to \$600 billion. The fall was concentrated in France, Netherlands and U.K. While FDI outflows from Austria, Finland, Greece, Norway, Sweden and US increased.

## **Financial Markets: Regulation & Financial Supervision.**

The financial crisis in East Asian countries and subsequent crises in Brazil, Russia, Turkey, and Argentina have highlighted the long-standing need for the reform of international financial reengineering to prevent the re-occurrence of the crisis and the resultant volatility in financial markets. It is generally been seen that we awake after the crisis has occurred and suggest measures to seek solutions to cure such financial crisis. Signals for the possible financial crisis are generally depicted through the financial statistics and overall economic outlook of the economy. Steps are required to be taken to deal with issues of financial crisis prevention. Prevention is always better than cure. Some of the issues that merit the attention of Developing countries are:

**1. International Development Co-operation :** International Development Cooperation is urgently required to initiate development in countries and sectors that do not attract much private investment and particularly those who cannot afford to borrow extensively from commercial sources; to confronting and accelerating recovery from financial crises and the resultant volatility in the financial markets; to providing or preserving the supply of global public goods: such as peacekeeping; prevention of contagious diseases; the prevention of CFC emissions; limitation of carbon emissions; and preservation of biodiversity; and Coping with humanitarian crises. It is to be appreciated that great strides have been made in trade liberalization, domestic policy reform, and capital inflows into developing countries. The international community needs to consider whether the common interest would be furthered by providing stable and contractual resources for these purposes.

While developing countries should do every thing to mobilize the domestic resources, the importance of external resources in supplementing the domestic resources cannot be minimized. The official sources of development resource transfers to developing countries have declined sharply even in nominal terms. For instance, net long-term official resource flows to developing countries have steadily declined from \$ 60.9 billion in 1991 to \$38.6 billion in 2000. It has often been argued that since the private flows have been expanding at a dramatic pace, the declining levels of official resources would not affect the development process of developing

countries in a significant manner. This is primarily because FDI inflows have expanded considerably over the 1990s. Hence, developing countries have been advised by the Bretton woods institutions to liberalize their policy framework to allow greater inflows of FDI which are expected to take care of their resource requirements. Furthermore, it is generally argued that FDI inflows are non-debt creating; they help host countries to integrate with the global economy, and bring technology and market access to their host countries. Although private capital flows, including foreign direct and portfolio investments as well as bonds and bank borrowing, have expanded a great deal during the 1990s, they are no substitutes of declining levels of ODA. This is because the poorest, hence the most needy, countries are least likely to receive the private capital flows.

**2. Restructuring of IMF:** There is an urgent need for restructuring the IMF to handle the financial crisis faced by various nations in a more meaningful way. First, there is a need for considering in a systematic fashion, not only the role of world institutions, but also of regional arrangements. Accordingly, regional monetary funds to monitor, regulate and suggest measures to countries of the region may be set up. Regional Monetary funds should be set up to assist developing countries in different regions for meeting their temporary liquidity problems and to help them avert default which may perpetuate the crisis by shaking the confidence in these economies. An attempt was made in this regard in 1997. The Japanese government had proposed to set up an Asian Monetary Fund (AMF) first in 1997 to monitor the region's economies and provide early warning to the respective governments on the impending crisis. It could also provide speedy assistance to deal with the crises in their early stages so as to prevent them from spreading. AMF could also be a significant step towards decentralization of international monetary and financial decision making that is presently concentrated in the Washington, DC. Regional Monetary Fund could understand region specific issues better than IMF. However, despite strong support within the region, the proposal for an AMF did not get far. It was opposed by the United States and IMF, as it posed a threat to the monopoly of IMF. However, in 1998, Japan proposed the Miyazawa Plan at the Annual IMF-World Bank meeting, which is a more modest proposal. It seeks to provide a \$ 30 billion package for the region for short-term trade financing as well as recovery

through long-term projects. It was suggested that the Japan Export-Import Bank, the World Bank and the Asian Development Bank could jointly take part in the initiative. As a part of this initiative, Japan established short-term swap arrangements with South Korea (\$5.0 billion) and Malaysia (\$2.5 billion). Other regions of the world need to set up regional monetary funds. For instance India can take initiative to form a regional IMF- SAARC Monetary Fund to assess and help the member countries of this region. Secondly, there is an urgent need to review the working of IMF as IMF package of reviving economies is often counter productive for most of the countries approaching IMF. Often IMF prescribes the same set of conditionalities to every economy irrespective of its requirements. For instance, the IMF package uniformly insists on belt tightening, devaluation and demand compression measures that affect growth adversely and hence make recovery even more difficult and aggravates volatility in financial markets. Furthermore, despite a widespread recognition of the role played by the capital account liberalization in accentuating the crisis, the IMF has been pushing the affected countries towards accelerated capital market liberalization in the wake of the crisis. IMF often adopts a short sighted and rather inflexible approach to crisis management. Malaysia decided to withdraw from the IMF Program soon after it was initiated to the program after the crisis. Instead, Malaysia adopted an unorthodox approach to dealing with the crisis that included imposition of capital controls although temporarily and the adoption of a fixed exchange rate regime. More importantly, Malaysia's approach also included lower interest rates and fiscal expansion or pump priming by the government as against belt tightening measures and balancing of budget included in the IMF package. As a result, Malaysia did not suffer the kind of social consequences that other affected countries did and the recovery was rather quick with a 5.8 per cent growth of GDP in 1999 and 8.5 per cent in 2000, compared to much lower rates of growth achieved by Thailand, Indonesia and the Philippines under the IMF program. Thirdly, there is also need for revival of SDRs Allocation. Special Drawing Rights (SDRs) were established by the IMF at the end of the 1960s to supplement international liquidity. SDRs were supposed to become the principle reserve asset. However, the allocation of SDRs has been abruptly halted since 1981, thus adversely affecting the ability of developing countries to supplement their reserves and making them vulnerable to the

liquidity crisis. They have been forced to borrow on onerous terms to augment their international reserves. The institution of SDRs continues to be relevant, especially for developing countries and it should be restored as soon as possible by the IMF. There is, therefore, need for a thorough reform of the IMF's working and bringing flexibility into the package that keeps in mind the specific needs of the affected countries.

IMF is currently viewed as a single global institution with no alternatives. It should rather become an apex institution with a network of regional or sub-regional monetary funds.

**3. International Borrowing and Lending:** There is an important need for transparency, monitoring and surveillance of international borrowing by enterprises particularly because of the crisis by some economies, exposing the international borrowing and lending mechanism. The US alone had created an exposure of more than a trillion dollars before its crash, with a capital base of only about \$ 5 billion. The movements of capital are affected to a considerable extent by the credit ratings assigned to individual countries. The credit rating at times may suffer from some inherent weaknesses to objectively assess the economic situation in the affected countries. For instance, the credit ratings of the Southeast and East Asian (Indonesia, Korea, Malaysia and Thailand) countries in June 1997 were exactly the same as in June 1996. They were down-graded only after the crisis in these economies was in full swing. The Government of Thailand was able to borrow in the Euro-bond market at a spread of only 90 basis points over US Treasury Bills just a few months before the crisis erupted. The other economic fundamentals of the economy need to be stated together with credit rating for international lending and borrowing. Bonds and bank loans are largely governed by the sovereign credit ratings of the concerned countries and are increasingly for shorter terms while being highly volatile in nature. The recent economic crisis has also exposed the weaknesses of the existing system of evaluating the credit rating of countries which affect the movements of speculative capital to a considerable extent. Poor credit ratings not only make it more difficult to borrow in the international markets, the terms at which the funds are available also become more onerous.

**4. Private Capital Flows.** Foreign capital can provide a valuable supplement to the resources a country can generate at home and provide stability in the financial markets. Nowadays, large sums of capital cross national borders in the form of foreign direct investment (FDI), and the international capital markets constitute a further vast pool of funds on which countries can draw. Industrial countries need to remove artificial constraints on investment in emerging markets, and refrain from imposing severe restrictions on access to credit. While private capital cannot alleviate poverty by itself, it can play a significant role in promoting growth, but its provision needs to be organized in a way that reduces vulnerability to crises. In the last one and half decade it has been observed that large amount of funds flown by non-residents to their country of origin such as in China and India.

**5. Portfolio Equity Flows:** Foreign portfolio equity flows could either take the form of equity investments in a receiving country's stock markets by foreign institutional investors (FIIs) like the pension funds, or GDR issues by domestic companies on the Western capital markets. An important prerequisite for FII investments to flow in is the existence of well-developed capital markets giving a good return. Most of the low-income countries have capital markets that are in their infancy or underdeveloped. The capital markets in some of the developing countries at the turn of century have even been subdued for various reasons. Hence, the prospects of these inflows in providing considerable financing arise in only select emerging markets. Also these inflows are highly volatile in nature popularly known as Hot Money. It is also difficult to raise GDR/ADR inflows for enterprises from low-income countries. The enterprises must, in the first place, be able to demonstrate their competitiveness, follow international norms of disclosure, and be in a position to bear substantial launching expenses before they can hope to raise resources at international equity markets. These factors act as formidable entry barriers. Although these inflows are more stable, very few low-income countries can tap these resources.

**6. Short-term Capital Movements:** Short term capital movements need to be regulated by the host countries depending upon its own needs and requirements. A number of countries have imposed regulations to curb short-term capital movements with great success. For instance, Chile introduced restrictions on capital inflows in 1991 by imposing unremunerated reserve requirements. These reserves have to be

maintained for one year irrespective of the maturity of the loan. Thus, they constitute an implicit tax on foreign borrowing that varies inversely with the holding period. The reserve requirements were extended to all types of foreign financial investments, including ADRs in 1995. Colombia also introduced similar reserve requirements in 1993 which were tightened subsequently to apply to all external borrowings with a maturity of less than five years.

**7 Capital Account Convertibility:** Capital market liberalizations in Latin America, Eastern Europe, and Asia have been followed by extreme macroeconomic crises and the resultant volatility in the financial markets. There is now almost a general consensus that developing countries should adopt a cautious approach towards liberalization of the capital account, keeping in mind the vulnerability that it brings with it. Prudent norms of behavior and an effective mechanism for regulation of the banking and financial sector needs to be in place before the country could move towards liberalization of the capital account. Besides the country suggested, introducing capital account convertibility should adhere to other conditions such as: low fiscal deficit, stable inflation, appropriate foreign exchange reserves, stability of its currency, stable GDP growth rate. There is no evidence that capital controls lower growth.

**8 Strengthening Banking and Financial System.** The primary responsibility for achieving growth and equitable development lies with the developing countries themselves. This responsibility includes creating the conditions that make it possible to secure the needed financial resources for investment. Almost all countries have initiated steps to mobilize savings, regulate interest rates, strengthening stock and capital markets, improving banking institutions, and offering tax incentives to accelerate savings and investments. Imposing reserve requirements for banks can also help reduce volatility in the financial markets where banking system is weak, and supervisory procedures are not appropriately in place. It is also of utmost necessity to build investors confidence in the banking sector, financial systems and capital markets. The Chilean experience of adopting various measures, such as building investors confidence through pension system reforms, relieving borrowers of foreign exchange risk by converting loans into Chilean pesos, central bank encouraging indexation, is worth mentioning. Chile suffered banking crisis in 1980s during the

process of restructuring of banking in Chile when the banking system required aid equal to over 20% of GDP. The success of the program was witnessed by the early 1990s. But the same program followed by Mexico had a limited success particularly because of lack of indexation followed by Chile.

The financial system of a developing country should be segmented appropriately to bear the sector specific shocks. The universal banking adopted in some of the developed countries is not quite suitable for developing countries where financial systems are not fully developed. Many countries have also initiated the process of disinvestments, and private public partnerships to involve the polity. Macroeconomic financial stability is must for appropriate domestic resource mobilization efforts and stability in financial markets. The present complacency which exists in the capital markets needs to be handled carefully. India is one country which remained unaffected from the financial crisis faced by a large number of countries because of segmented financial system, although there has been volatility in the financial markets yet it could absorb the shocks. It has also strong supervision and regulatory framework. India is fortunate to have buoyancy in the stock markets when its sensex has crossed more than 5900 points recently.

**9. Forecasting Volatility in Financial Markets:** There is an urgent need in developing countries to resort to volatility forecasting in financial markets. An extensive literature is available on forecasting volatility in financial markets. Forecasting can facilitate necessary symptoms for possible volatility and help the countries to take necessary steps before the crisis deepens.

## **Conclusions**

Volatility in the International Financial Markets is a natural and inherent phenomenon. Too much volatility is bad. No Volatility is equally bad too. The volatility can be managed and handled well with suitable regulation and supervision and developing appropriate financial systems. Financial systems play an important role in developing financial markets and in turn in promoting industrialization and growth. Strong Financial systems with strong financial institutional framework: internationally, regionally and in the home countries, is the key factor for proper financial development and managing volatility in the financial markets. The financial

development in the world economy with the emergence of e- finance will make the world economy grow at a faster rate, if handled, properly and may help meet the challenges that lie ahead in the new millennium. All financial developments are subject to high degree of risk of varying nature. Financial Developments with emergence of e-finance has its own risks different from the risks generally associated with financial systems. For instance, Money laundering, IT based frauds might pose newer problems. Some of the smaller countries (less developed) countries might find it difficult to handle such problems. There is also an urgent need to devise a mechanism to unearth the swindled money, by politicians, corrupt bureaucrats, drug traffickers, industry through capital flight, and militancy outfits, which is deposited in international banks, denying the use of such money in the developmental process of such countries where from it is being swindled.

The world community need to consider the issues involving International Development Cooperation, Restructuring IMF, International Borrowing and Lending, Private Capital Flows, Portfolio Equity Flows, Short-term capital movements, Capital Account Convertibility and Domestic Resource Management, Strengthening banking and financial systems, more seriously to match them with the needs and requirements of home countries, regions and the world economy. Of course the financial systems as enumerated above need to be regulated controlled and developed to reap the fruits of financial developments in the world economy to provide stability in the financial markets and to make the world a better place for living. Finance would be required not only for construction and development of economies but also for reconstruction and rebuilding economies.

There is need to improve the institutional framework in which financial markets operate i.e. improving supervision and accounting practices of financial systems world wide, adoption of codes of conduct of fiscal, monetary and financial policies, introducing transparency, forecasting volatility in the financial markets, introducing sound principles of corporate governance as well as governance, improving information related to financial markets, Strengthening prudential regulation, and adopting minimum international standards in these areas. Self regulation and respect of law (domestic and international) should be the factor while adhering to principles outlined here above. The standards adopted in the industrialized countries and

developing countries may vary according to the conditions prevailing in those countries. There should be adequate representation of developing countries in evolving the international standards and codes of conduct. However, special focus needs to be given to risk management, intended non-performing assets of banks, and capital adequacy issues of banks and financial institutions. Excessive portfolio investment of banks either in foreign exchange or in stock markets needs to be viewed seriously to avoid serious nature of scams which shake the investor's confidence.

**Once again I must thank the organizers to have given me an opportunity to share my views on the subject. I must also thank you ladies and gentlemen for your kind patience.**