India and Global Interface

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1. Introduction

In the globalized open economy governed by the World Trade Organization, we will make only what we are good at. That means goods and services where we have a comparative and competitive advantage - and we will import the rest. Fortunately, we Indians are competitive in many areas. We will, for example, make aluminum, cement and pharmaceuticals - but we will import steel and fertilizers. We are also low-cost producers of at least 12 agricultural commodities. Once we reform our agriculture and the world opens its agricultural markets, we should be able to rapidly gain significant world market share in this field. It is also worth remembering that the new economy is largely a service economy - and creates many more jobs. Meanwhile, the old economy is increasingly cutting jobs, downsizing, mechanizing - and becoming even more capital-intensive.

India, with its vast intellectual capital - more than two million low-cost English-speaking College graduates each year - is in an excellent position to provide "knowledge workers" to the global economy and to benefit from the knowledge revolution. With competitive advantages in agriculture and the new knowledge economy, it may in the end be all right for India to skip much of the industrial revolution. And yet, keen observers of modern India have this grave worry: -

Many are rightly skeptical about the new economy's ability to spread to the masses. They can only see the "digital divide." It is true that people will benefit only if they have education. It is also true that four out of ten children in India are illiterate. It is worse for girls and in many states, where teachers are often absent and schools lack even the basic facilities. Children are not motivated to learn and drop out. But there is a hopeful sign. There is a new-found thirst and enormous pressure from below for education. In the past six years, India's literacy rate has risen from 52% to 62%. This is a huge improvement. And if this trend continues, universal literacy is not far behind. The happiest news comes from India's most underdeveloped states, where growth has accelerated the most. So perhaps there is hope. In the end, if there is one thing that could secure our future, it is vigorous attention to building human capabilities. In addition for 57 years, India has been a political democracy, which has given voice to the lower castes through the ballot box and shown the world how political democracy can translate into social democracy. It has now become one of the fastest-growing economies in the world. And it wants to disseminate information technology tools to the common people.

The government's goal of "IT for All by 2008" reflects an understanding that the spread of information technology is an opportunity. Many are rightly skeptical about the new economy's ability to spread to India's masses. It is true that people will benefit only if they have education. It is an opportunity for all to overcome historical disabilities and compress the time needed to reach comprehensive development goals. There is a broader significance in all of this. If India succeeds in its path of liberal market-based democracy - as it has every right to expect -it will shed new light on the future of liberalism in the world.

Globalization is hardly a new force affecting India. To think so is to ignore a diverse and pluralistic long-standing civilization that was shaped by a long list of "invading" (globalizing) cultures that became what we now know as India. The previous globalizes of India include the Aryans, Hindus, Dravidians, Greeks, Buddhists, Turks, Afghans, Scythians, Muslims and most recently, the Europeans, Portuguese, French, Dutch and finally the English. One has to understand that as India has been globalized it has also been a globalizer too, with millennia of colonialism across Southeast Asia, with temples like Angkor Wat left behind as reminders of India's one time presence.

Long viewed by the West, as "poor and impoverished," to its neighbors such as Sri Lanka, Bangladesh and Pakistan, India is wealthy and powerful. To these smaller neighbors, India is a great power, a globalizer of its own, which expects deference from them and is sometimes angered when those nations downplay their Indian lineage. They prefer to play up their own local cultures, which are frequently hybrids of the larger Indian culture and their own indigenous ones.

India, knowing its past as a globalizer, sees itself as one of the great nations of the world. But today, India has yet to build on the onetime greatness of its civilization to earn international influence and respect. India sees itself as equally important as Russia, China and the U.S., believing it has much to offer the rest of the world. Historically this has a basis since important aspects of trigonometry were developed in India, as was the decimal system, which, was later taken from India by Arab mathematicians, and on to Europe in the 10th century, only to come back to India through books from the West. Similarly, at the start of the 18th century, India was a major economic power with 23 percent of the world's GDP according to some economic historians and over 25 percent share of the global trade in textiles.

2 Electronic Media

Television is arguably the most dominant gateway of globalization affecting India today. While TV was launched in India in the late 1950s it only became widespread in the 1980s, after the governments ended their monopoly as the only broadcaster. Satellite TV arrived in 1991, bringing with it Indian versions of MTV and later "Who Wants to.

Be a Millionaire?" Because of the abrupt end of the monopoly of the state channels, the instantaneous arrival of satellite TV has been more disruptive and far reaching in India than elsewhere in the world. According to reports, traditional dress is increasingly displaced by Western dress seen on TV. In the southern state of Kerala, a study showed that teenage abortions rose by 20 per cent in a year, as teenagers feel pressure to have sex, purportedly due to the explosion of sexually explicit imagery from sources like MTV and the Indian equivalent channels.

Another example of TV's globalization in India can be seen in how India globalizes neighboring nation's media markets. While English may be perceived as the dominant language of TV, in South Asia, India's Hindi is TV's dominant language, transforming neighboring countries into little more than passive recipients of Indian Hindi TV and displacing local languages like Bangla in Bangladesh and Nepali in Nepal. Increasingly, local languages, inside India and across South Asia fade under attack from Hindi as Indian film and sports stars are made as familiar to Bangladeshis and Pakistanis as they are to Indians.

The other way TV globalizes is in how it helps keep NRIs in contact with their culture of origin. These people, who are of Indian origin (and are also derided as Not Really Indian) make up the great Indian Diaspora, an estimated 15 to 21 million people spread across the world who are often better educated than the dominant populations they live amongst. NRIs are the third largest direct foreign investors in India after the U.S. and Britain. They stay in touch with India by viewing regional language in their homes across the world. Similar globalization occurs through the spiritual gurus, whose discourses are available to the Western and Indian global community through cable TV and the Internet. Similarly, Indi-pop music is the fusion of Indian popular music with Western rhythms that first emerged among Indian youth in England and then successfully traveled back to India.

3. Role of NRIs

While India clearly has access to important gateways of globalization, such as well-established channels of media and commerce, it also has its own unique, large NRI community, a large and potentially important gateway of globalization. The ultimate question is whether these gateways of globalization will bring real progress and modernity to India. While India has some characteristics of modernism one can not yet call India modern. Modernity is not just Westernization, with Japan being a modern country that has its on values at its core rather than Western values.

4. Stock Markets

Unlike the US system where stock options were a clear motivator for managements to maximise profits, which in turn drove the value of stocks, we have a preponderance of family managed businesses here, which don't need the munificence of the stock markets to become rich. That however does not mean all is well.

Interests of minority shareholders, proactive information disclosures, independence of the Board, supervision of managements, compliance with the spirit of law and concern for all stakeholders of the corporate, are some of the issues that require much greater attention. Some of these issues are covered under the traditional methods of evaluating corporate governance. However, other issues are recent incumbents which are generally clubbed with Corporate Social Responsibility.

Globally all these issues are increasingly brought together and tagged as sustainability issues. Pollution control, avoidance of child labour, etc are now being looked at as ways to improve sustainability of operations of corporate rather than as mere good behavior issues. This is because, sooner or later, such issues either disrupt the operations of a company or introduce an additional cost, thereby reducing profitability. This brings the evaluation of the corporate governance issues into the mainstream, and requires a good understanding of the corporate behavior vis-a-vis each of its stakeholders.

India took a giant leap forward in this paradigm when, under the aegis of the Securities and Exchange Board of India, Crisil launched a new rating product called the Governance and Value Creation Ratings. GVC Rating is a powerful tool that evaluates the behavior of a corporate towards all of its stakeholders, and also measures the tangible value such behavior creates for the stakeholders.

By combining these two elements of corporate practices and the tangible output that gets generated as a result, Crisil seeks to directly link the input side parameters of governance practices with the value created on the output side. For good measure, both the governance and value creation are captured for all constituents that form the stakeholders' community for the entity that is being rated.

The rationale that underpins this rating is that the shareholders are the residual interest holders in the corporate entity, after meeting obligations to other contractual stakeholders such as employees, customers, suppliers and indeed the society in which it operates.

Conflicts between shareholder groups, their impact on the corporate ability to create value, the effectiveness of the board in collectively representing the shareholders and its ability to supervise the management, and the management's behavior towards each of its stakeholders are issues which are seriously examined in this methodology. Both practices and results are calibrated for each stakeholder to assess the management's attitude, philosophy and capacity to deal with that stakeholder.

Instead of the moral or socialistic protest against inappropriate practices that the CSR espouses, the Crisil GVC rating seeks to negatively mark such practices as possible sustainability issues. For example, if a company engages child labour, the way Crisil will take that into account is to mark down employee stakeholder wealth creation.

It means that the company's profits are unlikely to be sustainable should it not be in a position to continue the practice of employing cheap child labour, either through policy intervention or on account of consumer activism. GVC arrives at the core of the value creation capability of a corporate entity by capturing these embedded risks and exploring the connected governance issues.

The process itself is very interactive and intensive, and comprehensively covers scrutiny of sensitive documents relating to the board, as well as meetings with shareholders, board members, auditors, customers and other stakeholders. Therefore, the outcome is likely to be arrived at after much scrutiny and internal correlation.

The managements and the Boards of the first four companies that Crisil rated on the GVC scale, viz. HDFC, Hero Honda Motors Ltd., HDFC Bank and Dabur India, have to be complimented for showing exemplary foresight. These companies have set a remarkable trend that is likely to set them apart as pioneers in the comity of well-governed corporates. These entities participated very openly with the rating teams and were as enthusiastic in pursuing the rigours of this exercise as the teams were. They bear testimony to the spirit of good governance that prevails in our country.

The GVC ratings place India at the forefront of governance practices in the world. India's regulatory framework already imposes a fairly high degree of disclosures and reporting standards. We already lead the world in terms of electronic and dematerialized trading, settlement, clearing and risk mitigated trade guarantee schemes.

A wide range of derivative products is also available to offer depth and hedge mechanisms for investors. Combine these with a set of highly regarded professional institutions that put out research on corporate performance, and India is sure to emerge as one of the few quality markets for investors to explore.

It is not the first time that the stock market has crashed or we have seen the emergence of ugly head of corporate greed. The history of capitalism is replete with examples of similar excesses starting with the affair of the tulips in Holland and the South Sea Bubble. The general assumption is that like the previous market collapses; the current crisis will spur reforms, make corporates more ethical and help market emerge stronger than before. It is assumed that rationalization of the markets; stricter punishments for defaulters, curbing the stock options, banning of consultancy by auditors, bringing more independent directors, increasing transparency of accounts and making auditors independent will bring back sanity to the markets.

5. Corporate Governance

The malaise in the governance of corporations is far deeper than what appears on the surface. Capitalism, it has now emerged, is far more deeply flawed than our analyses suggest. By feeding on ruthless competition and promoting a culture of winner takes all, capitalism has spawned virulent individualism which has grossly discounted the value system based on ethics. Corporates still use moral language but they do not believe it has any objective foundation. Like George Bush they tell other corporates Do as I tell you, not as I do. Naturally nobody listens.

With growing dominance of the markets and emphasis on immediate gain people's behavior is guided almost exclusively by prudential and not moral consideration. They obey the rules, remain within the law, follow the norms, and respect values only if they calculate that these will benefit them personally. They do not accept the validity of moral discipline if it runs counter to their personal objectives. In a policy driven by competitiveness and aimed to enhance the authority of markets, individual action has little to do with ethical behavior.

The centrality of corporate governance lies in its emphasis on transparency. It is far easy to say but most difficult to implement. You cannot obtain transparency if investors expect double digit profits in each quarter. In our rapidly changing economy variations are an integral part of business. So why are we defensive about shortfalls? We practice the three types of truths we all know - first truth is what we tell others; the second truth is what we tell ourselves but do not tell others. The third truth is what we do not even tell ourselves. The malaise in corporate governance is so deep rooted that we do not even tell ourselves that it exists. This is why it has to make its presence felt every so often by market collapses causing pain and suffering to poor shareholders for no fault of theirs.

The problem of the American system is that it is skewed heavily in favour of shareholders. The practice of corporate governance was aimed to give the CEO unfettered authority to hire fire and reward in the name of creating wealth for shareholders and to mitigate "principal -agent problem". In practice most CEOs use this authority to reward themselves with huge pay hikes and vast bonuses by inflating earnings. This was largely an American disease. But of late European CEOs are also copying their US counter parts in this respect and awarding themselves hefty rises. Prudential shareholders had a hard job in preventing their boss to award himself bonuses worth £900,000. While CEO's salary in US quadrupled in 1990s, the employees salaries only increased by 3%. Such actions take away employees confidence in management. Governance that says shareholders should get most benefits and does not care about employees who dedicate their lives for corporation is not governance but corporate greed.

More and more people today, individuals and groups expect a business organization to adopt a triple bottom line approach, be economically viable while becoming, environmentally and socially responsible. They also expect the business to be inclusive and ethical. Kenichi Ohmae argued in The Borderless World: Power and Strategy in the interlinked Economy that: A corporation is a social institution whose responsibilities extend far beyond the well being of its equity owners to giving security and a good life to its employees, dealers, customers, vendors and subcontractors. Their whole life hinges on the well being of the corporations.

Peter Drucker, in his now classic The Concept of the Corporation, said over 50 years ago that what is needed in a redefining of the corporation as a social institution is an integration of the worker as a partner in the industrial system and as a citizen in society. Yet most corporate governance definitions even today do not include employees as the beneficiary of the corporate rewards in the same way as shareholders.

If the capitalism is to survive, if it is to create wealth, it is absolutely essential that it adopts an inclusive approach to make it sustainable in the long haul. It must incorporate the social and environmental agenda, not as add-ons to a company's economic activities but as an essential and integral, part of business strategy and its processes, to reflect the rapidly changing post-industrial economy.

The ultimate aim of good corporate governance must be to make corporations good corporate citizens. Corporate citizenship calls for creating value for the society as a whole and goes well beyond corporate social responsibility or corporate philanthropy.

Open dialogue is at the heart of corporate citizenship. With wrenching change taking place all around us the corporation has to develop systems of regular communication within the board & between the board, shareholders, management, government, employees, custom, suppliers and the civil society. It is through this dialogue that the corporation will communicate its values, vision, mission and goals and share their financial, environmental and social numbers at regular intervals. It must demonstrate corporation's commitment to all its constituents' viz. the board of directors, management, employees, shareholders, the government and the other stakeholders and the civil society. Corporations must clarify that they are not only creating value for the corporations but making significant impact on the society by reshaping community values, attitudes and cultures.

Corporate scandals and the consequent collapses have a lethal effect on the poor and the old. Not only these destroy their life saving and reduces them to penury and desperation they take away their confidence in the markets self. They have no hope to make good their loss. It is a great national loss. We have to something, therefore, to prevent them happening again. But revising codes of corporate governance is certainly not the answer. We have a great capacity to beat the codes. Andersen has asserted all along that whatever they did at ENRON or WORLDCOM was within the law and thousands of firms do the same. Again nothing that President Bush has said in the aftermath of so many accounting scandals is new. Plastering over the capitalism's cracks simply won't work. It needs a systemic change which will come only by looking inside and not from outside. It is we who have to change our paradigm from individualism to integration, from tangibles to intangibles, from capital to knowledge, from objects to relationship, from parts to the whole, from domination to partnership, from structures to process, from short termism to long termism, from growth to sustainability, from confrontation to collaboration and from covering up failures to owning them up.

As we move into 21st century there is a growing recognition that the ultimate goal of economic effort ought to be to improve the quality of life. Money is not a measure of all things that make us happy and markets are not the best mechanism to enhance human happiness. Indeed, if completely unfettered, they can do the opposite by encouraging selfish behavior. Our focus should not be only on financial capital but also the human capital, intellectual capital and environmental capital. Good Corporate Governance must aim on maximizing the value of all capital.

We need to think of business designs that go beyond the externalities of quarterly profits and provide intrinsic sustainable value to all shareholders. With its belief in equity, fairness, transparency, legitimacy, integrity and responsibility corporate governance is the best vehicle to improve quality of life for all and enhance the value of financial, human, social and environmental capital of this planet. Alas, it may take many more scandals to move to such a radical solution but since the alternative is so grave it might be worthwhile to steer the debate in this direction.

Lately it is seen that Corporate India's latest obsession is corporate social responsibility. Talk to any company, you will hear of many stories of how it has helped victims of a natural calamity, undertaken poverty alleviation programmes in select villages and even assisted the government in improving civic amenities. This is the new age of corporate social responsibility. A company wants to be rated as much by its contribution to society as by its improvement in the bottom line.

Two-three years ago, companies were in a different mood. That was also a different era. Companies were optimistic of business prospects. Life began and ended with increasing shareholder value. Each company was in competition with the other to earn more profit. Yes, governance, rules and accountability were important. Even corporate social responsibility as a concept was not alien. But for most companies, this was not an issue that dominated the top management's mind space.

Today, business seems to be worried about trust, values and social responsibility. The main agenda at the recently concluded annual meeting of the World Economic Forum was all about rebuilding trust. Top CEOs of the world's best companies debated how companies should not just remain content with following rules of business. They need to follow principles. Enron followed the rules, but not the principles.

So, rules are important for the corporations of tomorrow, but more important is principled behavior. Similarly, accountability was considered very important. But most business leaders today feel that companies must move from accountability to transparency. It is argued that a company's financial performance should not be the sole criterion of its success.

Shareholders are important. But more important are other stake holders - its customers, the employees and the communities in which they operate, and hence the importance of corporate social responsibility. The world's business leaders may today discuss the importance of corporate social responsibility. Some Governments' in Europe may have even created a department of corporate social responsibility. But in India, corporate social responsibility is not something that has happened just now. India's much-maligned public sector has been on the forefront of what experts today describe as corporate social responsibility. Take any public sector unit in the heavy engineering industry, you will find that it not only sets up a township around the plant, it also establishes a school, a hospital and several other civic facilities for its employees and those that live in that area.

Even a private sector giant like Tata Steel had set up a township in Jamshedpur much before today's global managers began crying hoarse over the need for corporate social responsibility. The problem with corporate social responsibility began when the Indian government expected the private sector too to playa role similar to that of the public sector companies. There were not too many enlightened private sector companies that came forward in response to the government plea. The government did not give up its efforts. It introduced fiscal incentives to encourage private sector companies to undertake rural development programmes.

6. Infrastructure investments

Let us also talk about Infrastructure investments. There are various definitions of what constitutes infrastructure, but generally infrastructure refers to the large-scale public systems, services, and facilities of a country or region that are necessary for economic activity. The sector tends to be separated into two broad subsets - economic and social. Economic infrastructure includes highways, water and sewerage facilities, and energy distribution and telecommunication networks whereas social infrastructure encompasses schools, universities, hospitals, public housing and prisons.

Infrastructure assets are generally characterized by high development costs (high barriers to entry) and long lives. They are generally managed and financed on a long-term basis. Historically it was seen as the role of the government to fund and manage these assets for the good of the population. Today, the role of the government as the provider of public services is increasingly being questioned both in terms of the absolute cost to taxpayers and as to whether a government can deliver the assets as efficiently as a private company competing for the privilege. From the government's perspective there is a strong case for privatization, where the debt raised by the private partner remains on their balance sheets, not on that of the Treasury's. These factors have resulted in a gradual migration from the public provision of infrastructure to the private sector. The private provision of these assets may take many forms from joint ventures, concessions and franchises through to straight delivery contracts. Essentially the private sector is being brought in to design, build, and finance and/or maintain public sector assets in return for long term contracted payments from the government or access to the revenues generated from the asset.

The privatization of infrastructure assets has created a large number of investment opportunities for astute private investors. Infrastructure assets display a number of characteristics that distinguish them from more traditional equity or debt investments. The assets themselves tend to be single purpose in nature, such as a gas pipeline, toll road or hospital. The private investors' participation in the asset is often for a finite period. This is generally a function of the agreement the investor has made with the governmental authority, such as toll roads which are generally handed back to the government after a pre defined period of time (the end of the concession), or a function of the natural useful life of the asset. In either case, infrastructure assets are characterized by their long lives. In fact the capital invested in these projects is often referred to as patient capital; in that the initial development involves high upfront capital costs with payback occurring over the assets generally lengthy life.

Finally, one of the key characteristics of infrastructure assets, and what can make them particularly attractive as investments, is that they tend to be, or exhibit the characteristics of, natural monopolies. Briefly, a natural monopoly is the provision of a good or a service for which there are large economies of scale, where the initial capital cost is large, but whose marginal cost of production is low. For example, the costs of re-building Telstra copper network would be enormous, yet the cost to Telstra of you placing a single local call is negligible. Under a natural monopoly, economies of scale are such that the unit cost of a product will be minimized only if a single firm produces the entire industry output. This environment has the potential to weaken market forces, especially when there are few, if any, alternative suppliers of the infrastructure. In this case, firms operating in a natural monopoly, protected from new competitors by the high barriers to entry, may be able to earn abnormal profits by charging higher prices. Whilst this may be attractive to a potential investor in infrastructure, clearly this is not in the best interests of the general public.

As a result of these monopolistic characteristics, infrastructure assets tend to be subject to varying degrees of government regulation, depending largely on the degree of natural monopoly. This is not necessarily to the detriment of investors in infrastructure, as it provides a level of surety regarding the income streams that will likely flow from the asset.

The risks of an investment in infrastructure may be generally divided into those specific to the infrastructure asset and those affecting the broader asset class. The asset specific risks encompass risks pertaining to the design, construction and operation of the infrastructure asset. The asset class risks include market/economic risk and regulatory and political risk. The asset specific risks will largely depend on the maturity of the asset. For example, in the construction phase, there is considerable risk associated with the construction process. Will the construction be on time and on budget and if not what compensation will the builder pay? Importantly, a key feature of infrastructure assets is that as an asset matures its risk profile declines and valuation increases, all other things remaining equal.

Of the more generic risks affecting the infrastructure asset class, perhaps the most pertinent is interest rate risk. The prevailing level of interest rates can have an impact on the discount rates applied to the valuation of infrastructure investments, and on the debt portion of the investment structure; such that as interest rates rise, the valuation of an infrastructure investment will generally fall. This is generally a short-term phenomenon. Over the medium to longer-term, this initial fall in value is mitigated as revenue from the underlying asset grows. Generally, revenue increases are derived from CPI linked pricing increases (CPI generally increases in a higher growth environment) and the volume increases that occur in a growing economy.

Although infrastructure assets vary in terms of the level of regulation they face, this regulation generally results in income streams that exhibit low growth. To compensate investors for this, infrastructure investments tend to be higher yielding than equity investments. In terms of capital values, this stable, high yield results in infrastructure assets displaying a lower level of price volatility than equity investments over the longer term. It also acts as a support to the price of infrastructure assets in periods of poor returns in the broader equity market. As such, 'infrastructure is often referred to as a 'defensive' asset, that being an asset that should provide a steady return throughout the economic/investment cycle.

Forecast returns from individual infrastructure investments vary depending on the characteristics of the underlying asset, its maturity, and risk and taxation treatment; taken in the context of the prevailing macro environment. It is difficult to comment on the level of expected returns of the infrastructure sector as a whole.

Especially given the Australian regulatory environment is relatively immature and there has been a clear trend toward increased competition in some segments.

Over the longer term, as industry structures and regulatory regimes mature, the listed infrastructure sector will most likely behave like a hybrid between an equity and a bond, similar to that of a listed property trust - although the ultimate drivers of infrastructure returns are different to that of property and as such the two sectors will not exhibit the same performance. This poses difficulties for investors, in that unlike listed property, there is not sufficient historical data on the sector to establish correlations so that it may be included within portfolios as a separate asset class. As such infrastructure is generally included within a portfolio's allocation toward equities.

The investment decision to allocate funds toward infrastructure is further complicated by the variation in the individual infrastructure projects available for investment. This does, however, enable investors to tailor their exposure- to the sector by selecting infrastructure assets that best meet their requirements. Infrastructure assets in the earlier stages of construction will generally exhibit larger amounts of risk, higher potential growth and lower yields and so may be better suited to younger or more risk tolerant investors. More mature infrastructure investments tend to display lower growth and very high yields, which may be preferred by investors seeking a stable income over time, such as a retiree. Investment in infrastructure has traditionally been the domain of large corporates and consortia. However, with the rapid increase in the number of listed infrastructure investments since the mid-199O, infrastructure assets are becoming much more widely held by retail investors who are attracted by the sectors defensive characteristics. The infrastructure sectors relatively low correlation with more traditional equity investments, also means that their addition to an equity portfolio will aid in diversification.

India from the year 2000 & onwards is an economy witnessing to rapid lifestyle changes, which accompany the new technological paradigms, which have shifted from the digital ways and are currently exploring the boundaries of the wireless world. The growing demand for broadband is indicative of more profound changes in the social strata as the burgeoning demand for multiservice oriented net-based solutions makes the pace of life faster and more complex. The Indian economy is today part of the New Economy movement which is characterized primarily by the growing relevance of the Internet and other virtual net based service providers and also the Convergent approach to the attempting to provide both electron and byte based utilities across existing networks to optimally utilize existing infrastructure.

7. Trade

FOREIGN DIRECT INVESTMENTS (FDI) IN INDIA
(From AUGUST 1991 to JANUARY 2009)

Source: - DIPP/NIC, GoI

FDI EQUITY INFLOWS:

A. Cumulative FDI Equity Inflows *(equity capital components only)***:**

1.	**Cumulative amount of FDI inflows** *(from August 1991 to January 2009)*	Rs. 4,36,400 crore	**US$103,100 million**

B. FDI Equity Inflows (with Company-Wise Details) Available 2000-08:

1.	**Cumulative amount of FDI inflows** *(from April 2000 to March 2008)*	Rs. 2,70,100 crore	**US $62,509 million**
2.	**Amount of FDI inflows during 2008-09** *(from April 2008 to January 2009)*	Rs.105,673 crore	**US $23,885 million**
3.	**Cumulative amount of FDI inflows** *(updated up to January 2009)*	Rs. 3,75,772 crore	**US $86,394 million**

Note: *FDI inflows include amount received on account of advances pending for issue of shares for the years 1999 to 2004.*

C. FDI Equity Inflows during Financial Year 2008-09:

Financial Year 2008-09 (April-March)		***Amount of FDI inflows***	
		(In Rs. crore)	***(In US$ mn)***
1.	April 2008	15,005	**3,749**
2.	May 2008	16,563	**3,932**
3.	June 2008	10,244	**2,392**
4.	July 2008	9,627	**2,247**
5.	August 2008	9,995	**2,328**
6.	September 2008	11,676	**2,562**
7.	October 2008	7,284	**1,497**
8.	November 2008	5,305	**1,083**
9.	December 2008	6,626	**1,362**
10.	January 2009	13,347	**2,733**
2008-09 (up to January 2009)		**105,673**	**23,885**
2007-08 (up to January 2008)		58,203	**14,466**
%age growth over last year		**(+) 81 %**	**(+) 65 %**

D. FDI Equity Inflows during Calendar Year 2008:

Calendar Year 2008 (Jan.-Dec.)		***Amount of FDI inflows***	
		(In Rs. crore)	***(In US$ mn)***
1.	January 2008	6,960	**1,767**
2.	February 2008	22,529	**5,670**
3.	March 2008	17,932	**4,443**
4.	April 2008	15,005	**3,749**
5.	May 2008	16,563	**3,932**
6.	June 2008	10,244	**2,392**
7.	July 2008	9,627	**2,247**
8.	August 2008	9,995	**2,328**
9.	September 2008	11,676	**2,562**
10.	October 2008	7,284	**1,497**
11	November 2008	5,305	**1,083**
12.	December 2008	6,626	**1,362**
Year 2008(up to December 2008)		**135,167**	**33,033**
Year 2007 (up to December 2007)		79,736	**19,156**
%age growth over last year		**(+) 70 %**	**(+) 72 %**

E. **Share of Tope Investing Countries in FDI Equity Inflows** ***(Financial year-wise):***

Amount Rupees in crores (US$ in million)

Ranks	*Country*	***2005-06*** *(April-March)*	***2006-07*** *(April-March)*	***2007-08*** *(April-March)*	***2008-09*** *(April – Jan.09)*	***Cumulative Inflows*** *(April '00 to Jan. '09)*	*%age to total Inflows (in terms of rupees)*
1.	**MAURITIUS**	11,441 **(2,570)**	28,759 **(6,363)**	44,483 **(11,096)**	42,394 **(9,545)**	152,768 **(35,180)**	**43 %**
2.	**SINGAPORE**	1,218 **(275)**	2,662 **(578)**	12,319 **(3,073)**	14,636 **(3,237)**	32,761 **(7,594)**	**9 %**
3.	**U.S.A.**	2,210 **(502)**	3,861 **(856)**	4,377 **(1,089)**	7,192 **(1,639)**	27,149 **(6,172)**	**8 %**
4.	**U.K.**	1,164 **(266)**	8,389 **(1,878)**	4,690 **(1,176)**	3,478 **(791)**	22,542 **(5,154)**	**6 %**
5.	**NETHERLANDS**	340 **(76)**	2,905 **(644)**	2,780 **(695)**	3,636 **(826)**	15,557 **(3,531)**	**4 %**
6.	**JAPAN**	925 **(208)**	382 **(85)**	3,336 **(815)**	1,171 **(264)**	10,507 **(2,390)**	**3 %**
7.	**GERMANY**	1,345 **(303)**	540 **(120)**	2,075 **(514)**	2,623 **(604)**	9,361 **(2,148)**	**3 %**
8.	**CYPRUS**	310 **(70)**	266 **(58)**	3,385 **(834)**	4,738 **(1,040)**	8,805 **(2,025)**	**3 %**
9.	**FRANCE**	82 **(18)**	528 **(117)**	583 **(145)**	1,885 **(425)**	5,269 **(1,186)**	**2 %**
10.	**U.A.E.**	219 **(49)**	1,174 **(260)**	1,039 **(258)**	947 **(220)**	3,820 **(883)**	**1 %**
TOTAL FDI INFLOWS *		**24,613 (5,546)**	**70,630 (15,726)**	**98,664 (24,579)**	**105,673 (23,885)**	**375,773 (86,396)**	**-**

Note: ***(i) *Includes inflows under NRI Schemes of RBI, stock swapped and advances pending for issue of shares.***

(ii)Cumulative country-wise FDI inflows (from April 2000 to January 2009).

(iii) %age worked out in rupees terms & FDI inflows received through FIPB/SIA+ RBI's Automatic Route+ acquisition of existing shares only.

F. **Sectors attracting Highest FDI Equity Inflows:**

Amount Rupees in crores (US$ in million)

Ranks	*Sector*	*2005-06 (April-March)*	*2006-07 (April-March)*	*2007-08 (April-March)*	*2008-09 (April – Jan. '09)*	*Cumulative Inflows (April '00 to Jan. '09)*	*% age to total Inflows (In terms of rupees)*
1.	**SERVICES** (financial & non-financial)	2,399 **(543)**	21,047 **(4,664)**	26,589 **(6,615)**	23,045 **(5,061)**	78,742 **(18,118)**	**22 %**
2.	**COMPUTER SOFTWARE & HARDWARE**	6,172 **(1,375)**	11,786 **(2,614)**	5,623 **(1,410)**	6,944 **(1,599)**	39,111 **(8,876)**	**11 %**
3.	**TELECOMMUNICATIONS** (radio paging, cellular mobile, basic telephone services)	2,776 **(624)**	2,155 **(478)**	5,103 **(1,261)**	10,797 **(2,374)**	27,544 **(6,216)**	**8 %**
4.	**HOUSING & REAL ESTATE**	171 **(38)**	2,121 **(467)**	8,749 **(2,179)**	10,632 **(2,408)**	21,794 **(5,119)**	**6 %**
5.	**CONSTRUCTION ACTIVITIES** (including roads & highways)	667 **(151)**	4,424 **(985)**	6,989 **(1,743)**	7,974 **(1,866)**	21,360 **(5,029)**	**6 %**
6.	**AUTOMOBILE INDUSTRY**	630 **(143)**	1,254 **(276)**	2,697 **(675)**	4,824 **(1,074)**	14,680 **(3,310)**	**4 %**
7.	**POWER**	386 **(87)**	713 **(157)**	3,875 **(967)**	4,079 **(924)**	13,709 **(3,130)**	**4 %**
8.	**METALLURGICAL INDUSTRIES**	6,540 **(147)**	7,866 **(173)**	4,686 **(1,177)**	3,608 **(850)**	10,956 **(2,613)**	**3 %**
9.	**PETROLEUM & NATURAL GAS**	64 **(14)**	401 **(89)**	5,729 **(1,427)**	1,196 **(263)**	9,442 **(2,244)**	**3 %**
10.	**CEHMICALS** (other than fertilizers)	1,731 **(390)**	930 **(205)**	920 **(229)**	2,561 **(579)**	8,701 **(1,964)**	**2 %**

8. Balance of Payment Position

(Source: Reserve Bank of India report, 2008)

India's trade deficit on a balance of payments (BoP) basis has widened significantly by $26 billion to $69.2 billion in the first six months (April-September) of fiscal year***** 2008-09 from $43.2 billion in the comparable period in previous fiscal. The widening trade deficit is attributed to significant growth in imports. During the second quarter (July-September) alone the trade deficit grew by over $17 billion to $38.6 billion in second quarter (July-September) of fiscal 2008-09 against compared with $21.2 billion in the comparable period of previous fiscal.

The key features of India's BoP that emerged in the first half of fiscal 3008-09 were: (i) widening trade deficit ($69.2 billion) led by high imports, (ii) significant increase in invisible surplus ($46.8 billion) led by remittances from overseas Indians and software services exports, (iii) higher current account deficit ($22.3 billion) due to high trade deficit, (iv) volatile and relatively lower net capital inflows ($19.9 billion) than April-September 2007-08 ($50.9 billion), and (v) decline in reserves (excluding valuation) of $2.5 billion (as against an accretion to reserves of $40.4 billion in April-September 2007-08).

Major Items of India's balance of Payments (April-September, 2008) (In $ million)

	April-September (2008-09) (P)	**April-September (2007-08) (P)**
Exports	96732	72629
Imports	165913	115856
Trade Balance	-69181	-43227
Invisibles, net	46849	32250
Current Account Balance	-22332	-10977
Capital Account*	19833	51413
Change in Reserves# (+ indicates increase;- indicates decrease)	2499	-40436

Including errors & omissions; # On BoP basis excluding valuation; P: Preliminary, PR: Partially revised. R: revised

On a BoP basis, country's merchandise exports posted a growth of 33.2 percent in April-September 2008-09 (16.5 percent in the corresponding period of the previous year). Exports of agricultural and allied products, textile products, ores and minerals, engineering goods, petroleum products showed higher growth. Import payments, on a BoP basis, increased substantially and recorded a growth of 43.2

percent during April-September 2008-09 as compared with 21.5 percent in the corresponding period of the previous year.

According to the DGCI&S data, while oil imports recorded a significant growth of 59.2 percent in April-September 2008-09 (17.1 percent in the corresponding period of the previous year), non-oil imports showed a relatively modest growth of 29.4 percent (33.2 percent in the corresponding period of the previous year). In absolute terms, the oil imports accounted for about 35.6 percent of total imports during April-September 2008-09 (31 percent in the corresponding period of the previous year).

Out of total increase in imports of $43.1 billion in April-September 2008-09 over the corresponding period of the previous year, oil imports contributed an increase of $20.5 billion (47.5 percent as against 20.9 percent in April-September 2007-08), while non-oil imports contributed an increase of $22.6 billion (52.5 percent as against 79.1 percent in April-September 2007-08).

India's Cumulative value of exports for the period April-November 2008 was $119301 million (Rs.523879 crore) as against $99912 million (Rs.404417 crore) registering a growth of 19.4 percent in Dollar terms and 29.5 percent in Rupee terms over the same period last year. Exports during November 2008 were valued at $11505 million which was 9.9 percent lower than the level of $12768 million during November, 2007. In rupee terms, exports touched Rs.56374 crore, which was 12.0 percent higher than the value of exports during November 2007.

India's Imports during November, 2008 were valued at $21571 million representing an increase of 6.1 percent over the level of imports valued at $20329 million in November, 2007. In Rupee terms, imports increased by 31.8 percent. Cumulative value of imports for the period April- November, 2008 was $203642 million (Rs.897246 crore) as against $153109 million (Rs.620050 crore) registering a growth of 33.0 percent in Dollar terms and 44.7 percent in Rupee terms over the same period last year.

	In $ Million	In Rs Crore
Exports including re-exports		
2007-2008	99912	404417
2008-09	119301	523879
Growth 2008-09/2007-2008 (percent)	19.4	29.5
Imports		
2007-08	153109	620050
2008-09	203642	897246
Growth 2008-09/2007-2008 (percent)	33.0	44.7
Trade Balance		
2007-08	-53197	-215633
2008-09	-84341	-373367
Figures for 2007-08 are the latest revised whereas figures for 2008-09 are provisional		

The trade deficit for April-November 2008 was estimated at $84341 million which was higher than the deficit at $53197 million during April-November 2007.

Inflows & Outflows from NRI Deposits and Local Withdrawals (In $ million)

	Inflows	Outflows	Local m Withdrawals
2006-07 (R)	19914	15593	13208
2007-08 (PR)	29401	29222	18919
April-September 2007 (PR)	12227	18237	17164
P: Preliminary, PR: Partially revised. R: revised			

Under the NRI deposits, both inflows as well as outflows remained steady in the recent past. A major part of outflows from NRI deposits is in the form of local withdrawals. These withdrawals, however, are not actually repatriated but are utilized domestically. During April-September 2008-09, the share of local withdrawals in total outflows from NRI deposits was 65.4 percent as compared with 64.1 percent in April-September 2007-08.

Under Private transfer, the inward remittances for family maintenance accounted for about 52.8 percent of the total private transfer receipts, while local withdrawals accounted for about 41.5 percent in April-September 2008-09 as against 50.2 percent and 43.8 percent, respectively, in April-September 2007-08.

Software receipts at $21.9 billion in April-September 2008-09 showed a lower growth of 22.3 percent than that of 26.3 percent in April-September 2007-08. Miscellaneous receipts, excluding software exports, stood at $14.3 billion in April-September 2008-09 ($12.3 billion in April-September 2007-08).

The key components of the business services receipts and payments were mainly the trade related services, business and management consultancy services, architectural, engineering and other technical services and services relating to maintenance of offices. These reflect the underlying momentum in trade of professional and technology related services. Investment income receipts amounted to $7.3 billion in April-September 2008-09 as compared with $5.9 billion in April-September 2007-08.

9. India's Global Competitiveness

The United States tops the overall ranking in The Global Competitiveness Report 2008-2009. Switzerland is in second position followed by Denmark, Sweden and Singapore. European economies continue to prevail in the top 10 with Finland, Germany and the Netherlands following suit. The United Kingdom, while remaining very competitive, has dropped by three places and out of the top 10, mainly attributable to a weakening of its financial markets. India ranks 50 out of 134 countries surveyed by WEF.

10. Foreign Collaborations in India

Developing countries like India have been using import of technology through foreign collaboration as a strategy to bridge the technological gaps in the country, to expedite economic development1. There have not been many studies, however, to understand its impact and implications for technological capacity building of the country, and the deficiencies to be overcome for deriving the maximum benefits from collaborations. Experience also shows that many a collaborations have failed to fetch results as expected, and many have run into rough weather in implementation

(Source: WEF report 2008)

Rankings 2008-2009 (out of 134 Countries)		
Rank	**Country**	**Score**
1	US	5.74
2	Switzerland	5.61
3	Denmark	5.58
4	Sweden	5.53
5	Singapore	5.53
6	Finland	5.50
7	Germany	5.46
8	Netherlands	5.41
9	Japan	5.38
10	Canada	5.37
50	India	4.33

The number of foreign collaborations has been increasing on a cyclical manner in the first forty years, from 1951-91, starting with a meager 44 collaboration in the year 1951, it increased to 592 in the year 1961 and then suddenly to 402 in 1962, the year in which India faced war with China. The number of collaborations hovered around the same figure until 1965, when India faced war with Pakistan, when number dropped further to 343. This was followed with further decline due to political turmoil and rapid changes in government policies, marked with stricter regulatory requirements. The trend continued more or unchanged during 1970s, when the country underwent dramatic changes is political arena, with the imposition of emergency followed by short lived Janata Party Government at the Centre. Eighties, however, saw the return to the rising trend, which became steeper and steeper in the 1990s, Total number of collaborations in the eighties equaled the total number of collaborations in the three decades of 1950s, 1960s and 1970s. The period 1991-2000 saw total number of collaborations in the decade surpassing the total number of all the collaborations in the 4 decades preceding it. Indeed, the total number collaborations in the 9 years of post- liberalization (1992- 2000) period is observed to be 17810, while in the 41 years of pre- liberalization (1951- 91), there were only 15105 foreign collaborations. *India banked on expert technological support for goods and services at an accelerated pace than in the preliberation era.* The *rise in number is substantial in the post liberalization era, 10-fold compared to* *the decade of 1950s, 5- fold compared to the decades of 1960s and 1970s and 2-fold* compared to the decade of 1980s.

1	**2**	**1**	**2**	**1**	**2**	**1**	**2**	**1**	**2**
1951	44	1961	592	1971	232	1981	388	1991	891
1952	40	1962	452	1972	263	1982	579	1992	1407
1953	53	1963	443	1973	264	1983	653	1993	1476
1954	61	1964	521	1974	374	1984	955	1994	1864
1955	81	1965	343	1975	274	1985	798	1995	2337
1956	92	1966	203	1976	273	1986	906	1996	2303
1957	119	1967	179	1977	268	1987	590	1997	2325
1958	169	1968	131	1978	307	1988	648	1998	1786
1959	368	1969	138	1979	268	1989	979	1999	2224
1960	478	1970	185	1980	527	1990	1481	2000	2098
	1505		**3187**		**3055**		**7976**		**18709**
1----Year									
2---- Number of foreign collaborations									
Source: DIPP, GoI									

11 Convergence Matrix

A typical Convergence Matrix adopted in India to meet our social, cultural, political, economic, technological, legal and ecological needs is given below: