

How is the process of globalization influencing Indian companies?

The Indian companies have responded very well to the phenomenon of globalization within a very short period of time. This has been possible primarily due to the facilitative and enabling policies put in place by the government. About two decades ago only some Indians would have been conversant with Information Technology; however today Indian exports from this sector are of the order of \$10 billion.

What are the main reasons for foreign companies to invest and localize in India?

India is the largest functioning democracy in the world with political consensus on the economy. It has abundantly available qualified and competent human resource base, untapped natural resources, rich mineral base and agricultural surplus. The manufacturing capability is huge spanning almost all sectors. The consumer market is large and expanding exponentially. Special investment and tax incentives for infra-structural development prevail.

How can we run an efficient country with Good Governance and Effective Administration?

Today, China is the most obvious power on the rise. But it is not alone: India and other Asian states growth rates that could outstrip those of major Western countries for decades to come. China's economy is growing at more than nine percent annually, India's at eight percent. China's economy is expected to be double the size of Germany's by 2010 and to overtake Japan's, currently the world's second largest, by 2020. If India sustains a six percent growth rate for 50 years, as some financial analysts think possible, it will equal or overtake China in that time.

Nevertheless, China's own extraordinary economic rise is likely to continue for several decades — if, that is, it can manage the tremendous disruptions caused by rapid growth, such as internal migration from rural to urban areas, high levels of unemployment, massive bank debt, and pervasive corruption. At the moment, China is facing a crucial test in its transition to a market economy. It is experiencing increased inflation, real-estate bubbles, and growing shortages of key resources such as oil, water, electricity, and steel. Beijing is tightening the money supply and big-bank lending, while continuing efforts to clean up the fragile banking sector. It is also considering raising the value of its dollar-pegged currency, to lower the cost of imports. If such attempts to cool China's economy — which is much larger and more decentralized than it was ten years ago, when it last overheated — do not work, it could crash.

Even if temporary, such a massive bust would have dire consequences. China is now such a large player in the global economy that its health is inextricably linked to that of the system at large. China has become the engine driving the recovery of other Asian economies from the setbacks of the 1990s. Japan, for example, has become the largest beneficiary of China's economic growth, and its leading economic indicators, including consumer spending, have improved as a result. The latest official figures indicate that Japan's real GDP rose at the annual rate of 6.4 percent in the last quarter of 2003, the highest growth of any quarter since 1990. But that trend might not continue if



China crashes.

How has this global recognition emerged?

The IT sector has helped India achieve global recognition and self-confidence. Quality manufacturing sector is also now beginning to emerge. In the last 3 years, Indian exports have increased tremendously not only because of the cost advantage but mainly due to quality aspects. But realizing the vision is not easy, we would need to put in efforts to: establish a dynamic quality educational system; create a world-class infrastructure; build high value industrial growth, which could pull labour from under employment in agriculture into high productivity jobs in industry; and modernize agriculture and related industries.

In order to realize developed India by 2020, five key areas have been identified for an integrated action:

(1) Agriculture and food processing:

With a target of 400 million tons per annum of food-grains as well as other with different targets and agricultural products. Agriculture with the second green revolution and agro food processing would bring food security and prosperity to rural people and speed up the economic growth.

(2) Education and Healthcare:

Aiming to increase the employment potential leading to social security and population control.

(3) Infrastructure development:

This development including reliable and quality electric power for all parts of the country, which is vital for all the core sectors.

(4) Information and Communication Technology:

It is one of our core competencies. It

can help industry and commerce, promote education in remote areas, create massive employment and provide health care to remote areas, and

(5) Critical technologies and strategic industries:

The progress in nuclear, space, ocean, defence and other frontier technologies will provide sustained growth and self-reliance for the nation.

These five areas are closely inter-related and lead to national, food and economic security. A strong partnership among the R&D, academy, industry, business and the community as a whole with the Government departments and agencies will be essential to accomplish the vision. Foreign investors and partners too have an important role to play.

Human Capital :

knowledge capital to harness their energy for transforming our nations into developed nations. This transformation can take place by providing competitive goods and services to the international market. How do we transform our youth into a knowledge capital? We need to have a multi-pronged approach to upgrade the basic education, technical education and higher education levels of all the youth in our nation; infuse technology and create value added products using our national core-competence and natural resources and promote national and international markets and above all create linkages between education, industry, R&D and the economic system with well developed countries.

Education :

We need a strategy for promoting the education level of the entire population in a phased manner. In the first phase we have to increase the number of youth who

complete high school education. Simultaneously, we have to increase the percentage of youth who undergo vocational training and diploma level education on professional subjects. Parallely, we have to enhance the number of youth completing university education in professional, science, management, commerce and arts courses. Students who are above High School level can be trained to move up the value chain level through skill enhancement by knowledge based training to meet the global competition in the service sector, manufacturing sector and agricultural sector. The partnership of India with any of the competitor can be in the form of exchange of teachers, professors and work towards providing universal tele-education model and quality content for students living in remote areas.

We also need to impart entrepreneurship training to our youth to make them entrepreneurs who can take challenges and risks to bring prosperity to the nations. We need to create enabling environments for encouraging risk taking by our youth.

Healthcare mission :

Various parts of the world are getting affected by HIV/AIDS in addition to other communicable diseases in poorer sections of the society. In addition, most bacteria of traditional communicable diseases are becoming resistant to earlier established medicines. It is time that the national and international agencies join together to mount a concerted programme in eliminating these dreaded diseases from the planet earth. It can be a global mission with international agencies, WHO. India has already ventured into the field of anti-AIDS vaccine and it is in the stage of undergoing various tests. We are also mounting programmes to eradicate the new forms of earlier communicable disease like TB, waterborne & vector borne diseases.

Certainly we can progress the development faster. Another area of cooperation and research is on stem cells for cardio vascular, diabetics and eye ailments.

In his book, India 2020: A Vision for the New Millennium, Kalam says, "It is not just that the Indian nuclear tests are resented. If tomorrow Indian software export achieves a sizable share in the global market, we should expect different types of reactions

Improved bilateral relations between India and China, which hold great importance for peace and stability in Asia, would facilitate the building of such a regional organization.

India-China relations will play a critical role in ensuring peace and stability in Asia during the second quarter of this century. The evolution of India's GDP at purchasing power parity and its power potential relative to China's.

There are three key issues that need to be addressed.

First, a settlement of the India-China border. China's willingness to accept a settlement.

Second, a credible policy regarding nuclear proliferation to countries ill disposed towards India.

Third, a willingness to build new inclusive regional economic organizations that gives India and other Asian countries their due share in economic power. A settlement of the border and removal of historical restrictions and barriers to trade in goods and services could form the foundation for good relations.



FORECASTS ABOUT INDIA

➤ FIRST IN POPULATION

India will be the first country in population in 2050: 1.5 billion, more than China (1.4)

➤ FIRST IN SCIENCE PRODUCTION

India will be the number one knowledge production center of the world by 2020

➤ A YOUNG GIANT

By 2015, over half of the Indian population will be less than 20 years old

➤ LABOR PRODUCTIVITY

Working population will be growing over the next 3 decades, giving India a sustainable competitive advantage in labor productivity.

➤ HIGH GROWTH RATES

Officials say that the target is a GDP growth rate of 8% per year until 2007. Some analysts believe that the GDP should even be approaching 10% growth rate, at least over several 3 to 5 years periods.

➤ BPO AND OFF-SHORING HUB

India has been able to create a world-class environment for BPO due to the committed, qualified and competent youth who are IT savvy. As service institutions develop further in India, the off shoring of many services to India, for example such as engineering design and medical based services, will develop in the near future.

➤ THE DIASPORA ASSET

The Indian Diaspora, the so-called "bollystan", is Indian brain bank.

➤ FIRST IN MIDDLE CLASS

50% of India's population (around 600

million) will form the 'middle class' in another decade or so, a formidable market by any yardsticks, larger than the US or Europe

➤ GEO-POLICY

India, Brazil and South Africa are already looking forward to forming a strategic golden triangle.

Forthcoming Events

➤ Swastha Bharat / Healthy India 2005

Premier Indian Exhibition & Conference focusing on the different part of ancient Indian system of medicine like Ayurveda, Homeopathy, Naturopathy, Siddha Medicine, Unnani Medicine, Yoga etc.

➤ Amazing Indian Education

New Knowledge Destination - Amazing Indian Education will showcase India's capabilities in the fields of Education and Training, economic development, great strides made by India, demonstrate the achievements.

➤ Global Food Tech

The 5th Indian International Show on Processed Food Industry. This Exhibition will see the convergence of top buyers, decision makers, and policy makers, Govt. Organizations all over the world. It will provide a unique marketing opportunity to make strategic alliances networking, transfer of technology, Joint ventures

Now India and China are thinking of joining the hands rather than competing with each other. This is going to be long walk to freedom from poverty. By this India will definitely become a developed nation in 2020. But cleverness is not enough what's needed is wisdom.

The only Constant in Life is CHANGE!



“CAN INDIA BE AN ASIAN TIGER BY 2020?”

Sanjay Pandurang Shinde

EXECUTIVE SUMMARY

· India and China are two of the oldest and still extant civilizations. **For Europeans, they were legendary seats of immense wealth and wisdom right up to the eighteenth century.**

Mughals invaded rich India many a times. There was a large and vigorous skilled workforce turning out not just cotton but luxury items for the barons, courts and ruling classes.

· Consequently, the economy produced a fabulous financial surplus. For example, the

GDP In % of World				
Year	1000	1500	1600	1700
India	29%	24%	23%	24%
China	23%	25%	29%	22%
Western Europe	9%	18%	20%	22%

Annual revenues of the Moghul emperor Aurangzeb (1659-1701) are said to have amounted to \$450 million or more than ten times those of his contemporary Louis XIV of France. According to an estimate of 1638, the Moghul court of India had accumulated a treasure equivalent to \$1.5 billion.

• By the early eighteenth century, India was the leading Manufacturing country in the world. Of course, ‘manufacturing’ then meant handloom textiles and handicrafts. **The economist Angus Maddison states that India, at that time, had a 22.6 per cent share of the world’s GDP.**

• In 1820, they had a combined population in excess of half a billion and by 1900, 700million. Within the twentieth century, their population had trebled. But they were also two of the poorest countries, typically thought of as locations of famine, disease, backwardness and superstition.



- **And now economics experts and various studies conducted across the globe foresee India and China to rule the world in the 21st century.** For over a century the United States has been the largest economy in the world but major developments have taken place in the world economy since then, leading to the **shift of focus from the US and the rich countries of Europe to the two Asian giants- India and China.**

With this Background “ Can India surpass China?” If yes how is it going to happen? What Strategy should India Adopt to be “**AN ASIAN TIGER** “ by year 2020

- This entire composition will throw light on the same. **As China Followed a path of Capitalism through FDI, India have to have a solid strategy.** Strategy to hit the higher GDP for next 20 years through – harnessing the global opportunities and managing the key economic resources effectively.
- **Agriculture** – Be a Food Base for the World by producing the value added food, medicinal plant, aromatic oils & bio material for the global market
- **Manufacturing** – Reforming the tax structure and labor laws that will add to the existing labor cost advantage & labor flexibility. Supporting with modern infrastructure will positively affect the sector.
- **Infocomm** – A huge market potential will be realized if the cost benefits of the technology are offered to customers. We are having natural advantage of huge talent pool, which is technologically savvy and English-friendly.
- **Water & Energy Resource** –Effective water management will change the landscape of agriculture, hydroelectric power. Exploration of oil and gas will alter the economics of the continent.

- **Investing in Physical And Professional infrastructure** -The air ports, ports & harbors and roads need significant investment. The war of progress cannot be fought without talent. Hence infrastructure is needed for professional resource development like education & research.

- **Attracting the Global savings** – We should not be hesitant about FDI & unlock ourselves for the same. We have to Harness it with domestic savings and find the right channels to invest in areas, which will support the global leadership.

- **Creating a new World mind set** – It is essential to adapt to knowledge explosion, living with continuous uncertainty in the new scenario. We must rediscover the hidden potential to innovate, create and collaborate.

The rule of survival says, “**The one who excuses himself, destroys himself**”. India is going to be economic super power by our choice and not mere chance. **We have to keep this in our minds and reach out for the stars.**

EVOLUTION

Can the vision 2020 of India as a developed nation by the year 2020 be called “Mission India”? Probably yes. More so, if the policy initiatives of the kind taken in 1991 economic liberalization continue to be taken. Only a few years back, a mood of pessimism prevailed in the country. **All that changed with the economic liberalization of 1991, which unleashed forces of dynamism that launched the Indian economy on a healthy growth curve.** Spectacular growth in some areas surprised the “no” Sayers and converted the prevailing pessimism into an infectious optimism, thus raising the Vision 2020 to the level of a near certainty.

The economic liberalization of the last decade was part of the global phenomenon

from which the former socialistic economies of the East reaped the most benefits. **These benefits materialized relatively slowly in the Eastern Europe; faster in India; and fastest in China.** The difference in the speed and strength of the upsurge was a phenomenon of the local policies and practices. It is now certain that India is on a visible path to progress towards the status of a developed nation. **Whether the nation crawls, walks or runs towards it depends upon the way the future progress is fuelled.** Timely policy initiatives can work as synchronized pushes to the swing ensuring a speedy progress toward the cherished goal.

Government policies in post-independence India were influenced by the perceived fear of economic strangulation of the poor by the rich. The enthusiasm to safeguard against these fears resulted in the implementation of policies, which, in many cases, became roadblocks in the path of a smooth progress. **The results of the bold changes in policy made during and after 1991, however, prove that the economy is capable of propelling itself at a much faster rate if the unnecessary barriers are removed.** The most potent outcome of liberalization was the opening of a sheltered economy to global competition. It had a magical effect on the assimilation of new technologies without their feared harmful effects. This, in the process, disproved many widely held myths. Introduction of computers was feared to trigger a massive job loss, but it did not happen. Allowing easy conversion of the currency was feared to trigger a flight of capital leading to a foreign exchange crisis, which did not happen either. What actually happened was just the opposite. Instead of feared loss of jobs, the introduction of computers and information technology brought a ground swell of well paying IT jobs; instead of drying up the foreign exchange kitty, the economic liberalization

triggered an unparalleled growth in foreign exchange reserves. **There is, thus, a clear case for the identification and dismantling of the remaining roadblocks, one by one.** But should India content with this? Is this enough to call it an **“Asian Tiger”**?

SWOT ANALYSIS

What Does Tiger Mean?

India’s political, intellectual and business leadership must work together to reach the goal - to win for India a place commensurate with the hidden potential of her people. This is why this theme is highly inspiring. It is a MISSION. It reflects an irrepressible ambition: **to take Indian enterprise to the top of the global ladder.**

Consequently, my wish that India to become an economic super power is not only for her own sake, but also for the benefit of the whole world. Unleashing India’s potential is no doubt in our interest. But it is equally in the interest of the whole world. We can **grasp the vast untapped potential** of our people if we clearly identify the decisive parameters of what we want to achieve. Here is a view - **Globalization, technology and demography are altering strategic international balances.**

Services of large segments of the working population can now be easily substituted across national boundaries. There is a widening gap between those who have the skills and mobility to flourish in global markets and those who do not have these advantages. Globalization is insisting on efficiency and promoting the specialization.



Globalization is ruthless in its demands. But it is equally generous in its rewards.

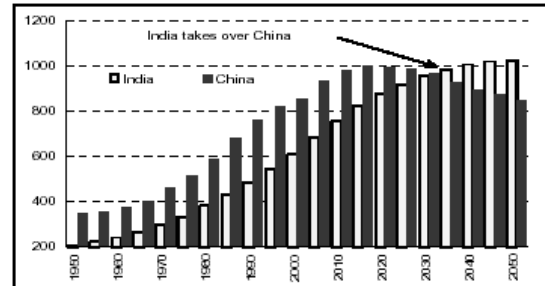
Technology has become the most important driver of economic growth and development. Technologies that promote efficiency and specialization are primarily in the domains of information, communications, automation, robotics, biotechnology and advanced materials.

Technology particularly in biotechnology and infocomm, promises to spectacularly change life, living and living systems. At another level, technology is creating new outlook of knowledge and avenues for economic output. But these technologies are the privilege of a few countries, such as the US, UK, Germany and Japan.

An aging population is slowly weighing down the US, Europe and Japan. Today, approximately 20% of the American population is above the age of 60. In 20 years

time, this number will increase to a quarter of the US population. Germany is worse off. Roughly, a quarter of the Germans are now old. In 20 years, a third of them will be old. The case of Japan is very comparable to that of Germany.

China and India: Working Population Age 15-65* (mn)



* People who could potentially be economically active.
Source: UN

While the world is getting older, **India will continue to be young. By year 2010, India should add 83 million workers to global pool, and China 56 million.** (Vs. 13 Mn in US & 0.1Mn in Europe.)

SWOT ANALYSIS

STRENGTH	WEAKNESS
Solid History in software development English Proficiency Government Support Cost Advantages Strong Tertiary Education Process Quality Focus Skilled Workforce / Demography Expertise in new technologies Entrepreneurship Reasonable technical innovations Reverse brain drain Existing Long Term Relationship	Positioning & Brand Management Infrastructure Cultural Differences Sales & Marketing Leverage expertise for higher-value education Fear/Uncertainty from Pakistan Legal System Bureaucracy Poor globalisation skill
OPPORTUNITIES	THREATS
Creation of global brands BPO & Call center offerings Resource Based Sectors Chinese domestic & export market Leverage relationship in Middle East markets Indian Domestic Market Growth	Internal competition for resources Over promise / Under delivery Regional Geo-political uncertainty Rising Labor cost Competition from other countries Blinding Nationalism Corruption / Piracy / trust Political & religious instability Over Population

Economic power is central to achieving prosperity in such a world. That's what I mean by ASIAN TIGER.

WHAT SHOULD INDIA DO?

Aiming to be a global economic superpower is not a game of one-upmanship for India. It is important; ensuring stability, progress and prosperity in a rapidly changing strategic global landscape.

What should India do to reach this goal?

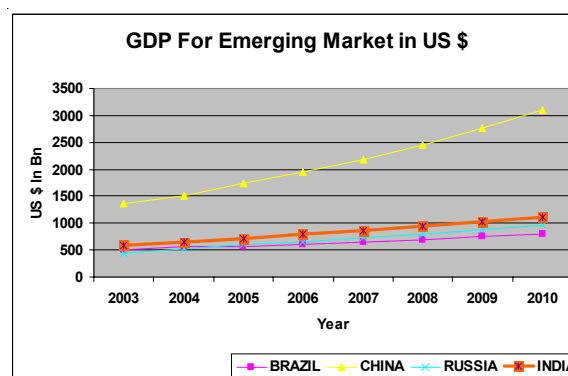
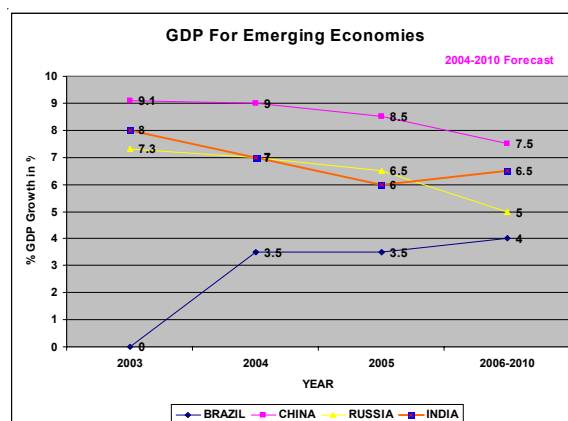
1. Work out a feasible strategy for a high rate of growth
2. Harness global opportunities in important economic sectors
3. Manage Key economic resources efficiently
4. Invest in important enablers of economic performance
5. Recognize the global savings pool

TARGETING AGGRESSIVE GDP

India's GDP is 659 Bn US dollars, is a fraction of the global GDP of about 51.48 trillion US dollars. Given a population denominator of more than 1 billion people the per capita income works out to 590 US dollars. This is only about a tenth of the world's average per capita income. It is also only one fiftieth of the per capita income of the developed world.

If India has to attain global economic leadership, growth rates have to accelerate significantly to double digits - from about 6 to 7% now to about 12-15% per annum, year on year, for about twenty years.

I am aware of the recent forecast by Allianz Group; they are forecasting not more than 7 at least till year 2010.



I know that experts have dismissed targets of a high growth rate as unrealistic. But still I would like to submit, respectfully but forcefully, that the **depressing forecast of growth rates flows from incremental thinking.** We must break free from the mould of thinking about growth in an incremental manner. It limits our capacity to **conceptualize growth and progress on a large, 'beat the world' format.** New management styles have put classical management on the shelf. We need similar transformation in economic thinking. The Indian intellect must break free from an evolutionary mindset. **It must conceptualize initiatives in all**



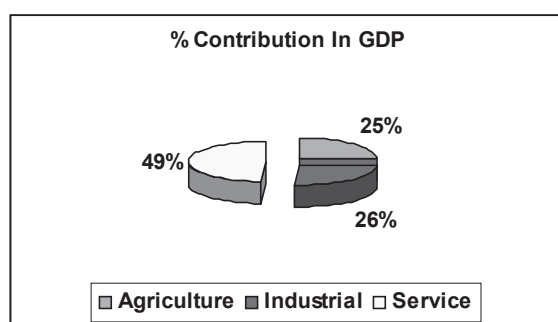
spheres in a revolutionary manner.

Show me how we can translate this into action? You may ask. As my response to this question, let me present concrete examples of opportunities that are available in the different sectors for achieving our goals.

HARNESSING GLOBAL OPPORTUNITIES

Food and Agriculture

Let's start with food and agriculture. **Latest available statistics show that currently the agricultural sector contributes 25%; the industrial sector 26% and the service sector 49% to the national GDP.** In popular saying, however, Indian economy is still called **an agricultural economy** despite the fact that this sector contributes the least to the GDP, percentage wise. This notion prevails because 65% of the population has a rural base with agriculture as its only vocation. **This majority 65% agriculture-oriented portion of the population contributes only 25%** to the national income while 75% of the national income comes from the minority 35% of the population engaged in the industrial and the service sectors. **In other words, the extra 40% of the manpower engaged in agriculture is underemployed due to the great rural-urban divide.**



In the developed world, specifically in the USA, the agricultural sector contributes only 2% to the GDP with less than 3% of the work force engaged in that sector. Rest of

the US national income, to the tune of 98%, is accounted for by the industrial and the service sectors.

Judging by other indicators of productivity, China is not that far ahead. The proportion of irrigated land in agriculture is only 16 per cent higher in China. Gross cropped area under food crops was, however, 30 per cent lower, although yield was 2.87 times higher. Agricultural value added per agricultural worker is just 17 per cent more in China. **While commercial energy use per capita in kg of oil equivalent is almost double in China, the efficiency in its use measured by its ratio to GDP is surprisingly higher in India.** This obtains despite China having 2.35 times more of scientists and engineers in R&D activities than India. It is clear that if productivity in agriculture is systematically raised in India, the food gap cannot only be closed, but India can surpass China.

India has about 13 percent of the world's arable land, receives 4% of the world's annual fresh water supply through rainfall each year, is blessed with twelve major river basins, has a wide range of agro climatic conditions and has a large number of scientific and technological resources devoted to this sector.

But Indian agriculture is still hanging around in the low end of the agronomy value chain. It is a victim of the low-investment, low-yield, water-inefficient model of farming. We have to change this scenario. This will require the use of modern farming methods and plant biotechnology, diversifying the crop mix away from rice and wheat and moving up the value chain into food processing. Israel's food and agricultural output, valued at 4 billion US dollars, is produced on just one million acres of very dry land.

India has 400 million acres of irrigated land and 75 million acres of

wasteland at its disposal. Why can't India improve its productivity thirteen times to produce 1,900 billion US dollars of output? I refuse to accept that the Indian farmer is deficient in any way, when compared to others. In fact, he is very hard working.

Also, he has convincingly demonstrated the ability to adopt and practice modern-farming technologies. If the Middle East is the energy base for the world, why can't India be the food base for the world? **If the Middle East can make value added petrochemicals from hydrocarbons for the global markets, why can't India produce value added food, medicinal plants, aromatic oils and biomaterials for the global markets?** Of course, realizing this vision calls for several radical initiatives. **These include, reforming agricultural landholding laws,** instituting a market-based procurement price system and allowing the barrier-free movement of food produce across India and to the world. Simultaneously, we must safeguard the interests of Indian farmers and give them a level playing field.

Therefore, we must lobby for the removal of huge subsidies provided to agriculture in the US and Europe and for unrestricted integration of our produce with retail markets in the world.

Manufacturing

India is richly endowed with **natural resources and human capital.** Inherent capital in the country has to be better utilized for higher growth. **Macro economic changes are always dynamic in nature.** A change in a sector influences changes in all other sectors. There is a significant opportunity for consolidating these advantages initially and later progressing to value added products. We have to be globally competitive by achieving **cost-effectiveness, brand performance & JIT**

delivery.

Our base level industries such as textiles, clothing, metalworking and consumer products, require minimum skills. This is globally a 700 billion US dollars segment. Industries such as office machines as well as electrical and electronic equipment, require simple skills, and comprise globally a one trillion US dollars segment.

Industries such as aluminum and automobiles enjoy a huge domestic market combined with cost advantages. These can catapult India into the league of global players.

These industries are valued at 3 trillion US dollars at the global level.

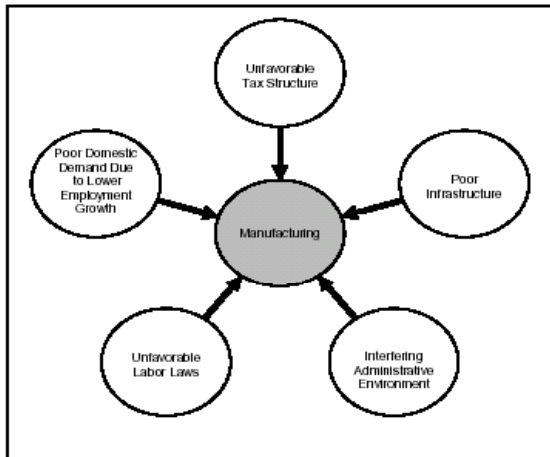
For this, the Indian manufacturing industry has to carefully target the export markets, focus on scale, technology and customer needs, improve efficiency across the supply chain and move away from controlling all activities in the value chain.

A concrete example is the export performance of Reliance Industries Limited in the manufacturing sector. Exports for Reliance have grown dramatically from Rs 366 crores in 1997-98 to Rs 11,200 crores in 2001-02, thirty fold increase in just four years. **It also calls for an understanding between industry and labour.**

Only in such a conducive environment, can we find solutions to the problems in diverse areas such as: indirect taxes, labor laws, bureaucracy and infrastructure.



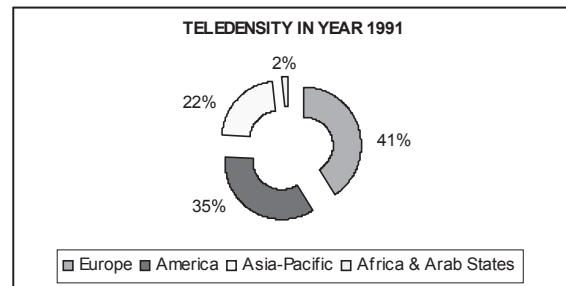
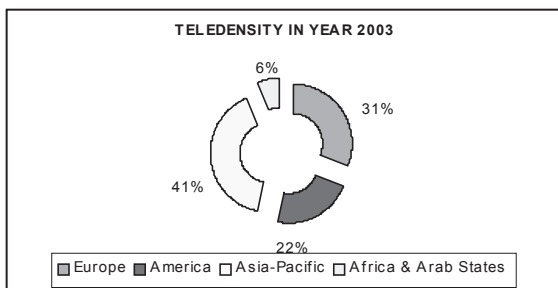
Manufacturing Environment in India



A climate of trust would give the government the courage to support selected sectors aggressively. It can join hands with them to ensure that they reorient their manufacturing skills for global economic leadership.

Infocomm

It is the most important sector, given the context of the ongoing information age. **An overarching infocomm infrastructure will prepare India to get into the shroud of leadership in knowledge intensive businesses.** It will enable India to harness the potential of millions of young men and women. **It will create a huge job bank. It will provide the knowledge workers with a platform to develop and offer IT solutions for all professions and institutions across the world.**



The recent deregulation with unrestricted entry in the sector is enabling India create the next generation communication infrastructure. It shows how the spirit of partnership between the government and business can help us in realizing India's potential. But we cannot forget that the customer is the third pivot of a triangular partnership in infocomm sector.

Top 5 Country	Dec-2003 Mobile Subscriber	Top 5 Country	Dec-2009 Mobile Subscriber
China	257.5 m	China	547.3 m
USA	157.3 m	USA	223.9 m
Japan	79.8 m	India	116.6 m
Germany	62.3 m	Brazil	106.1 m
Italy	55.5 m	Japan	130.1 m

This sector will grow rapidly only if the industry offers to the people the benefits of technology, if the services are of high quality at an affordable cost. As per the projections, the number of voice lines in India in the next five years will increase by the same quantity as in the last fifty years. It will cost one fourth. This will benefit consumers. India is currently world's 13th largest market for mobile & is forecast to quadruple in size to take third place with 117 million mobile subscribers by 2009.

India has natural advantages in infocomm sector that most other countries in East Asia will never be able to match - **its huge pool of relatively low cost labour, which is educated, technologically savvy and English-friendly.** India is home to 600,000 software developers, which would

grow to three million in five years. **In the infocomm sector, India has the potential to power the entire intellectual systems and applications in the connected world.**

Health Care and Life Sciences

This is another sector, which offers a great opportunity for India. Twentieth century was the century of physics and chemistry. **The twenty first century is the century of biology.** Today, mankind is using biotechnologies to understand, alter and direct the function of a wide set of organic cells - in plants, animals and humans. **It is predicted by the year 2025, gene therapies will become available for every major conceivable disease.** Artificial assist devices will take over diseased liver and pancreatic functions.

Individualized medicine will be developed on the basis of each person's genetic make up. Genetic manipulation will alter human traits. Biotechnology is also moving towards decoding the library of proteins in the body. This will enable making to alter the very metabolism of life processes. **Biotechnology can impact every one of the 6 billion people in the world today.**

It will also stimulate the international economy in a very big way. **It is estimated that the global life sciences market will be in the order of USD 2 trillion in the next five years.**

Reliance, have taken concrete measures to explore this exciting area. Reliance Life Sciences is developing business opportunities in the domains of medical biotechnology, plant biotechnology, industrial biotechnology, contract research and clinical trials.

India has everything going for it in health care-competent doctors, strong nursing skill sets, a resurgent pharmaceutical industry, strong chemistry-based drug

discovery capabilities and a modest, but growing, breed of medical biologists. **India can provide a whole range of services, from medical transcription to telemedicine through a modern information and communication infrastructure. India can grow as a leading health care provider to the world.**

MANAGING KEY ECONOMIC RESOURCES

To be a global economic power, India needs to manage its critical economic resources very well. Water and energy at the top of first of critical resources.

Water Resources

When we talk **about food and agriculture sector, it cannot be without addressing the question of water resources.** Technology has advanced to such an extent that, the only limiting factor to agriculture is water.

India receives about 4,000 billion cubic meters of fresh water every year. Of this, 3,600 billion cubic meters is through rainfall. About half the rainfall runs off the rivers. Of the remaining water, only 1,100 billion cubic meters is put to productive use. This is because of topographical constraints and the uneven distribution of water resources over space and time. Water storage in dams is limited to 250 billion cubic meters. It is grossly insufficient. **In comparison, the US has three times this storage capacity with a comparable flow. Only half the storage and irrigation potential of dams is utilized.** Further only half the water from the main



sources reaches farms due to evaporation losses and seepage.

The hydroelectric potential is grossly underutilized. Irrigation systems are outdated and inefficient. India is forecasted to face water scarcity by the year 2020. It is necessary to invest heavily in twenty years for the development of water resources. **In brief, water should not be viewed only as a resource necessary for sustaining agriculture. It is also vital for building economic power.** We need bold initiatives in this area.

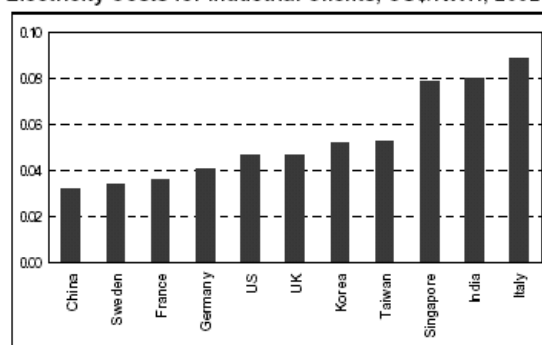
We have to **link all the river water basins, build a number of large dams, privatize the operations and maintenance of irrigation and water supply systems and mandate the recycling of water.**

Energy

Water is not important only from agriculture point of view but equally important for energy sector. It leads to hydroelectric power. There is a huge potential; waiting to be converted into performance. **India can easily increase its hydroelectric production capacity seven-fold to about 40,000 MW, primarily in the North East.** This calls for regional cooperation with Nepal and Bhutan. This power base can lead to significant competitive advantages for Indian industry through a **relatively lower cost of energy.**

Few years back Reliance announced the largest ever gas find in India in three decades, with in place reserves of 7 trillion cubic feet. This is an outcome of exploring just 2,000 square kilometers in the deep waters of the Bay of Bengal. We still have about 175,000 square kilometers to explore. **India is a largely under explored territory in oil and gas.** But we have to change this situation. Reliance as well as other companies are prospecting for oil and gas

Electricity Costs for Industrial Clients, US\$/KWH, 2002



Source: IMD

on land and also in the shallow waters and deep waters of India.

An energy self-sufficient India can alter the economic, political and manufacturing landscape of the region.

India has already started considering new projects for linking electricity grids, building gas pipelines, promoting regional hydroelectric stations. But also push the stockpiling oil on a cooperative basis and pursuing nuclear energy options. **In essence, the face of energy in India is set to change, bringing with it new opportunities for supporting the country's bid for achieving global economic leadership.**

INVESTING IN PERFORMANCE ENABLERS

Another important mission for global economic leadership for India is the need to make significant investments in infrastructure. It does not talk only about **physical but also intellectual infrastructure.** Critical areas in physical infrastructure are **power, transportation, communications and the financial markets.** The vital segments of the intellectual infrastructure are : **professional resource development, high quality education and constructive research.**

Physical Infrastructure

Enterprises in India have expressed many a times about the sorry state of the physical infrastructure. In transportation, some commendable initiatives have already been taken in the road sector (Like **Golden Quadrangle**), with the major cities being linked through nation-wide networks. Results are expected in the next few years. However, significant investments are required in the long neglected area of **rural roads, ports, harbors, and airports.**

Professional Resources Development

This is a neglected portion so far & needs more attention. **World is facing two wars. The war for progress and the war for talent.** Those who have none will fight for one. Those who have will fight the other. **While India fights the war for economic progress, it has the unique opportunity to gain from the war for talent by building up its professional resources.** As mentioned, an aging population in the US. Europe and Japan means a decline in their workforce and talent. The US is already facing a shortage of skilled professionals. This will be further stress.

Over the next 10 to 15 years, the professional workforce shortage in the US will peak to 15 million; Europe will see a shortfall of a million professionals in information technology alone. Germany is already facing a shortfall of about 200,000 engineers. China is estimated to need upwards of 1.4 million management graduates. Japan, Australia, Malaysia, Singapore and New Zealand are forecasting large shortages of professional talent.

This shortage will last at least till the middle of this century. Warning bells of a talent scarcity are ringing loud and clear. Demography has been kind to India. **India has a young population. Just 7% of**

Indians are above the age of 60. India has a large pool of scientific, technical and professional talent. Thanks to the visionary leadership of post-Independent India, the educational and professional infrastructure built in the past has served us well so far.

The Indian professional has proven creativity, adaptability and a spirit of initiative.

Unfortunately the professional talent base in India is limited to an elite group of 5.5 million people.

Education

Developing professional resources on a large scale requires significant investments in education. Education is key for global leadership because knowledge has become the single most important economic resource today.

India spends just 3.2% of its GDP on education. In contrast, progressive nations are investing heavily in education, in the range of 8% of GDP. India's investment in education, in relation to GDP, is lower than the world average of 4.8% .It is also below those of low-income countries, whose average is 3.3%.

After referring the above charts, we will realize that the **numbers of engineers available are much ahead than that of any country, in spite of the adversities.** Imagine what miracle we can do if the situation improves. To tackle with the huge resources needed for this sector public funding should be concentrated on school education. Private initiative should be encouraged in higher



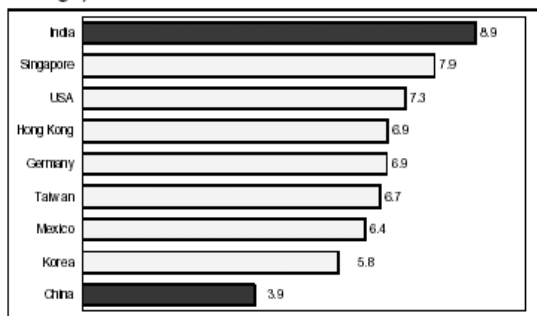
education, particularly in science and technology. Allowing the private sector to develop universities in science and technology would be an appropriate policy measure in this field. **Supports for education from the corporate houses will help to change the scenario. Also we can make it globally acceptable by introducing market driven courses.**

China and India: Education Data Comparison

Education	China	India
Primary Schooling		
Gross Enrollment Ratio (%)	114	102
Drop-Outs (%)	2	53
Pupil/Teacher Ratio	20	40
Secondary Schooling		
Gross Enrollment Ratio (%)	68	49
Pupil/Teacher Ratio	19	34
Literacy		
- Adult (%)	84	57
- Male (%)	92	68
- Female (%)	76	45

Source: UNESCO Institute for Statistics, World Bank, Morgan Stanley Research

Availability of Qualified Engineers, 2003 (1=low; 10=high)



Source: IMD Competitiveness Yearbook, 2003

Research

Progressive nations are spending significantly on scientific research.

Sweden spends about 8 billion US dollars, which is 3.8% of its GDP, on research and tops the list. America is next with 208 billion US dollars, which is about 2.6 % of its GDP. In contrast, India's expenditure is very low at 3 billion US dollars or 0.73% of its GDP. During the period 1963 to 1998, India obtained just 700 US patents. This is

just 0.02% of the 2.8 million US patents issued. India has already shown shades of prowess in leveraging research in two areas - nuclear energy and space. India has secured a place for herself in these areas in the global club. This has become possible because there was a mission-oriented approach.

Integrating efforts across several institutions have earned us impressive rewards.

A similar effort is now called for, particularly in the areas of life sciences, materials sciences, ocean engineering, aerospace.

ACCESSING THE GLOBAL SAVINGS POOL

So far, India has **depended substantially on domestic savings.** The scale of investment needed to make India into an economic superpower cannot be achieved by persisting on that route.

And why should we? The riches of the world have resulted from the transfer of wealth from poor colonies. The latter now have a legitimate right to ensure that at least a part of it flows back. **We must not be apprehensive of foreign investment.** On the contrary, India must compete for a sizeable chunk of foreign direct investments without any sense of guilt or fear.

The world saves and invests about 7 trillion US dollars. About 300 billion US dollars out of this flows as foreign direct investments or FDI.

India has, on an average, attracted **FDI of only 5.6 billion US dollars recently. China's is at around 55 Bn USD.** Other emerging markets such as Brazil, Poland and Malaysia, have attracted much more and have benefited by higher GDP growth. **Their FDI as a percentage of GDP is in the 3 to 6**

% range, while for India it is just nearing 1%.

India can easily achieve six times its current FDI and attract 30 billion US dollars each year, if appropriate policy measures are taken. **This can help in improving the GDP growth rate by 2% each year.**

Only creating a very high rate of economic growth can create global savings pool. This will be evident if you carefully study the pattern of flow of foreign investment. We have to believe in the proverb **'money chases money'**.

Therefore, the best way to attract very high amounts of foreign investments is to target and achieve very high economic growth rates.

Changing the mindset For FDI

India cannot hope to attain global leadership with an antiquated mindset.

We are in a world where the rules of survival and progress are changing.

In a nutshell, India has to access global savings through FDI, fully harness domestic savings and find the right channels to invest in areas that support global leadership.

CAN INDIA OVERTAKE CHINA?

APPROACH

Before commenting anything on this, we should understand certain facts. **What's the fastest route to economic development?** Welcome foreign direct investment (FDI), says China, and most policy experts agree. But a comparison with long-time laggard India suggests that FDI is not the only path to prosperity. Indeed, **India's homegrown entrepreneurs may give it a long-term advantage over a China hamstrung by inefficient banks and capital markets.**

That is because China's export-led manufacturing boom is largely a creation of foreign direct investment (FDI), which effectively serves as a substitute for domestic entrepreneurship. During the last 20 years, the Chinese economy has taken off, but few local firms have followed, leaving the country's private sector with no world-class companies to rival the big multinationals.

DIASPORAS

India has not attracted anywhere near the amount of FDI that China has. But the FDI gap is also a tale of two Diasporas. **China has a large and wealthy Diaspora that has long been eager to help the motherland, and its money has been warmly received.** By contrast, the Indian Diaspora was, at least until recently, resented for its success and much less willing to invest back home. **New Delhi took a dim view of Indians who had gone abroad, and of foreign investment generally, and instead provided a more nurturing environment for domestic entrepreneurs.**

It has long been an article of faith that China is on the faster track, and the economic data bear this out. However, the statistics tell only part of the story-the macroeconomic story. At the micro level, things look quite different. **There, India displays every bit as much dynamism as China. Indeed, by relying primarily on organic growth, India is making fuller use of its resources** and has chosen a path that may well deliver more sustainable progress than China's FDI-driven approach. **"Can India surpass China?" is no longer a silly**



question, and, if it turns out that India has indeed made the wiser bet, the implications for China's future growth and for how policy experts think about economic development generally-could be enormous.

THE STIFLING STATE

The fact that **India is increasingly building from the ground up while China is still pursuing a top-down approach reflects their contrasting political systems: India is a democracy, and China is not.** But the different strategies are also a function of history. As of the late 1990s, according to the International Finance Corporation, more than two dozen industries, including some of the most important and lucrative sectors of the economy-banking, telecommunications, highways, and railroads-were still **off-limits to private local companies. Beijing is still not willing to give up its control over the largest ones, such as China Telecom.** A report issued in 2000 by the Chinese Academy of Social Sciences concluded that, "**The legal, policy, and market environment is unfair and inconsistent.**"

THE MOGUL AS A HERO

For democratic, postcolonial India, allowing foreign investors huge profits at the expense of indigenous firms is simply unfeasible. Recall, for instance, the controversy that erupted a decade ago when the Enron Corporation made a deal with the state of Maharashtra to build a \$2.9 billion power plant there. The project proceeded, but only after several years of acrimonious debate over foreign investment and its role in India's development.

While China has created obstacles for its entrepreneurs, India has been making life easier for local businesses As a consequence, entrepreneurship and free enterprise are flourishing. A measure

of the progress : In a recent survey of leading Asian companies by the Far Eastern Economic Review (FEER), India registered a higher average score than any other country in the region. **Indeed, only two Chinese firms had scores high enough to qualify for India's top 10 lists.**The latest entrant to this club, of course, is the **UB Group** which, with the acquisition of Shaw Wallace, has become the second-largest liquor company in the world after Diageo. With sales of 2.16m motorcycles a year in the first 10 months of FY05, **Hero Honda is set to end this fiscal as the largest two-wheeler company in the world for the fourth year in succession.**

Similarly, **Essel Propack** is the world's largest manufacturer of laminated tubes that are used to package toothpastes, cosmetics, drugs, and food. With a **global market share of more than 30%**, the company has manufacturing facilities in China, the US, Germany, Mexico, Colombia, Venezuela, Philippines, Indonesia, Egypt and Nepal, apart from India.

LEGAL SYSTEMS

But democracy, traditions of entrepreneurship, and a **decent legal system have given India the foundation necessary for free enterprise to flourish.** Although India's courts are notoriously inefficient, they at least comprise a functioning independent judiciary. Property rights are not fully secure, but **the protection of private ownership is certainly far stronger than in China.** The rule of law, a legacy of British rule, generally prevails.

CORPORATE GOVERNANCE

In a World Bank study published last year, only 52 percent of the Indian firms surveyed reported problems obtaining capital, versus 80 percent of the Chinese companies polled. As a result, the Indian

firms relied much less on internally generated finances: **Only 27 percent of their funding came through operating profits, versus 57 percent for the Chinese firms.**

Corporate governance has improved dramatically, thanks in no small part to Murthy, who has made Infosys a paragon of honest accounting and an example for other firms. In a survey of 25 emerging market economies conducted in 2000 by Credit Lyonnais Securities Asia, **India ranked sixth in corporate governance, China 19th.**

MIS ALLOCATION OF RESOURCES

India's annual growth rate is only around 20 percent lower than China's is, then, a remarkable achievement. And, of course, whether the data for China are accurate is an open question. **The speed with which India is catching up is due to its own efficient deployment of capital and China's inefficiency, symbolized by all the money that has been frittered away on SOEs. And China's misallocation of resources is likely to become a big drag on the economy in the years ahead.**

BANKING SECTORS

In the early 1990s, when China was registering double-digit growth rates, Beijing invested massively in the state sector. Most of the investments were not commercially viable, leaving the banking sector with a huge number of **non-performing loans-possibly totaling as much as 50 percent of bank assets.** At some point, the capitalization costs of these loans will have to be absorbed, either through write-downs (which means depositors bear the cost) or recapitalization of the banks by the government, which diverts money from other, more productive uses. **This could well limit China's future growth trajectory. India's economy is thus anchored on more solid footing.**

Consider the contrasting strategies of

Jiangsu and Zhejiang, two coastal provinces that were at similar levels of economic development when China's reforms began. Jiangsu has relied largely on FDI to fuel its growth. Zhejiang, by contrast, has placed heavier emphasis on indigenous entrepreneurs and organic development. During the last two decades, Zhejiang's economy has grown at an annual rate of about 1 percent faster than Jiangsu's. Twenty years ago, Zhejiang was the poorer of the two provinces ; now it is unquestionably more prosperous. **India may soon have the best of both worlds :** It looks poised to reap significantly more FDI in the coming years than it has attracted to date.

China and India have pursued radically different development strategies. India is not outperforming China overall, but it is doing better in certain key areas. **That success will enable it to catch up with and perhaps even overtake China.** Should that prove to be the case, **it will not only demonstrate the importance of homegrown entrepreneurship to long-term economic development; it will also show the limits of the FDI-dependent approach China is pursuing.**

STRATEGIES AND RECOMMENDATIONS

In conclusion, **I would strongly advocate that India needs a bold new vision and a feasible action plan to be a global economic superpower.** A vision and an action plan that is regenerative. **That revives, renews and revitalizes up the country.**

We must internalize values that benchmark with the world. We must adapt and adopt new practices that



embrace the world. Based on our above detailed discussion of several key themes, **India needs to work on following strategies to accelerate its growth trend.**

1. Develop Human Capital
2. Augment Savings Rate Through Fiscal Reforms
3. Increase in Capital Accumulation Through FDI and Privatization
4. Kick-start Investments in Infrastructure
5. Reform Tax Structure
6. Improve Labour Flexibility
7. Decentralize

1. Develop Human Capital

While India has been successful in creating an educated work force for the tertiary sector, primary level education still needs to be improved. The government has already taken a number of measures in this area recently. While enrolment for primary education has improved significantly, there is still a high incidence of dropouts. In 2000-01 about 53% of primary school students dropped out of school. Apart from increasing the focus on primary education, we think the government needs to complement this with **programs that help train the work force.**

2. Augment Savings Rate Through Fiscal Reforms

India's savings rate is still lower than for most other Asian economies. One of the key reasons for the high growth in Asia (excl. Japan and India) has been the average savings rate of around 35% of GDP in the 1990s. In India, the savings rate has averaged at 24% of GDP for the past 10 years, restricting total capital formation. Even if India's average incremental capital output ratio (ICOR) improves to about 4% from 4.4

currently, it is difficult to see **sustained GDP growth of above 6.5% unless the savings rate increases.**

3. Increase in Capital Accumulation Through FDI and Privatization

As efforts to improve the domestic savings rate are critical, attracting foreign direct investment and privatization by way of selling stakes in SOEs to foreign investors can also augment fixed investment. **Total FDI as a proportion of GDP is significantly lower in India than in China, averaging less than 1% of GDP over the past three years compared with 3.9% in China.** India's average share of global FDI inflows over the past three years is a mere 0.9%, compared with 10.2% for China. Although the government has opened many sectors to FDI, we need to improve the overall business environment.

4. Kick-start Investments in Infrastructure

Since the liberalization effort was started in 1991, the government has pulled back from investing in infrastructure, assuming that the private sector will participate. However, it is unlikely to happen in the medium term. In addition, rebuilding infrastructure on a nationwide basis may take longer. Therefore, in the near term, **the government could partially address this issue by developing special economic zones at strategic locations with world-class infrastructure.** Investment in infrastructure sectors needs to be increased to at least 9% of GDP (about US\$65 billion) from about 6% currently to sustain GDP growth of 7%.

5. Reform Tax Structure

Indian tax rates are currently among the highest in emerging economies. In today's fast-globalizing world, where all countries reduce import tariff

barriers, India still has inter-state trade taxes. This is high time India needs to move to a consolidated value-added tax, instead of multiple point and multiple rate production and sales taxes. Moreover, indirect taxes are inherently regressive and affect productivity adversely. Hence, there is a need to improve the compliance of direct taxes to reduce the pressure on collecting higher indirect taxes through high rates. **Regarding VAT already the steps are taken.**

6. Improve Labour Flexibility

India's labour laws remain restrictive. These laws are effectively working only for the protection of the labour employed in the organized sector, which accounts for only 10% of the total work force. In fact, to avoid these restrictive laws, a large majority of factories use 'casual' labor. Factories prefer to employ people on contract instead of taking them directly onto their payroll. **There is an urgent need to relax labor laws to enable flexibility of labour.**

7. Decentralize

China may have traditionally been a centralized economy; it is currently operating in a completely decentralized structure. State governments actively compete with each other in wooing foreign direct and domestic private investment, ensuring a progressive business environment. In India decentralization of authority and responsibility is crucial to encourage reform.

We have enjoyed global leadership in the past. We led the world in thought, word and deed. We had the world's first university at Takshashila in 700 BC. We had a global university in Nalanda in the 4th century. We were far ahead of other civilizations in medicine and surgery 2,500 years ago. **We led the world in astronomy and mathematics.** We showed the world

how to navigate. We created footprints across the world through merchandise and trade. **Our textile industry was a world leader in the 17th and 18th centuries. Above all, we were a global economic power at the turn of the eighteenth century, contributing to a quarter of the global output.** We must seek inspiration from our past, stride opportunities of the present and secure a glorious future-as a superpower in the global economic order.

Twenty years from now we will be more disappointed by the things that we did not do than that ones we did do. Let us forge a partnership of men and women who govern, who think, who produce wealth and those who labour. Such a creative partnership will unleash the vast latent energies of our 1 billion people. It will enable them scale the highest peak to make India an economic superpower. I am sure we will succeed and will do India proud.

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