

REPORT OF THE PRIME MINISTER'S GROUP

MEASURES FOR ENSURING SUSTAINED GROWTH OF THE INDIAN MANUFACTURING SECTOR



September, 2008



सत्यमेव जयते

Government of India
National Manufacturing Competitiveness Council

**REPORT OF THE GROUP
CONSTITUTED BY
THE PRIME MINISTER
TO LOOK INTO THE MEASURES FOR
ENSURING GROWTH OF
THE MANUFACTURING SECTOR**

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Government of India

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National Manufacturing Competitiveness Council

September 20, 2008

My dear Prime Minister,

You had constituted a Group under my Chairmanship to look into the issues affecting the Manufacturing sector and to make recommendations for ensuring its sustained growth. I am enclosing the final report of the Group for your consideration.

2. The Terms of Reference include both the short-term as well as the long-term issues. We have submitted to you in January/February 2008 four Interim Reports which covered immediate measures to be taken by the Government to arrest deteriorating growth rates in the Manufacturing sector. These Reports were submitted in time for the formulation of the Budget of 2008-09 and to assist in the framing of the Foreign Trade Policy. These Interim Reports are added in Part-II of this Report.

3. The task given to us is a daunting one. In fact a strategy for ensuring long-term growth of manufacturing sector would mean taking a view on the growth strategy of the economy itself. I am also aware that an exercise of this nature has its limitations. The part-I of this Report deals with the measures required for ensuring sustained growth of the Manufacturing sector over the medium to long term.

4. Before coming to the conclusions in this report, we have examined the experiences of the countries in the region which posted high growth rates of manufacturing. We have also taken into account the experiences gained by India over the past decades as also from the implementation of the National Strategy for Manufacturing approved by you in January, 2006. Consultations were carried out with the Industry leaders/associations and the leading policy makers within the Government and their views were taken into consideration in the preparation of this report. Broadly the Report looked at the policies followed by successive Governments during the past two decades

in respect of the manufacturing sector. The modifications or additions required to these policies for ensuring sustained growth of manufacturing have been identified.

5. We believe that the growth of manufacturing sector will result in the creation of larger number of job opportunities for the increasing number of boys and girls entering the employment market, also to absorb the surplus labour from agriculture sector. Needless to say that any growth that is not inclusive and help in gainful employment and reduction of poverty cannot be sustained. The best form of poverty reduction is to provide productive employment to the millions joining the workforce annually. The country can reap the benefits of the demographic dividend only when its growth process includes creation of appropriate jobs and equipping the workforce with the necessary skills to man the jobs created. We kept this requirement in our mind in the preparation of this report.

6. In an economy that is opening up rapidly, the Small & Medium Enterprises (SMEs) are the hardest hit. They contribute a sizeable portion to nation's wealth and in promoting exports. SMEs being employment intensive need to be supported with appropriate policies and programmes designed to enable them to grow and play their role in the economy. We have made recommendations in this regard.

7. We have also looked at the role of the manufacturing sector in strengthening the national security. Manufacturing is not only the backbone of the economy, but is also the muscle behind the national security. Currently the manufacturing value added by India is merely 1.36 percent of the World's manufacturing value added which is very insignificant. We need to very substantially increase the value added as well as ensure that we become technologically advanced for the long-term security of the country. Our studies indicate that despite some very spectacular successes in the fields of Space and Atomic Energy our standing in the comity of nations is low in terms of strength in the technology area. We have made several recommendations in this regard.

8. The recommendations principally suggest that there should be a greater focus on manufacturing in the country to make it a major manufacturing hub of the World. For this purpose we have recommended that a Manufacturing Policy should be put in place. The group recognizes that furthering of economic reforms and ensuring macro-economic stability should form the foundation on which the policies for manufacturing growth need to be built. The report includes recommendations in respect of a number of horizontal issues such as tax policies, trade policies, technology policy, FDI policy, regulatory policies etc. We have also suggested added focus of Government on two sets of Industry Verticals – the employment-intensive industries and the strategically important industries.

9. The cornerstone for the growth of manufacturing is competitiveness. Maintaining competitiveness is not a one-time affair. Countries and companies need to constantly endeavour to keep up the competitive edge. Therefore, Government must put in place a permanent mechanism to review the developments in the competitiveness of the manufacturing sector for its growth, employment generation and technological development. This outfit should be able to suggest suitable recommendations and course corrections which should receive highest priority attention from the Government.

10. I am grateful to you for giving us this opportunity to study the issues relating to the growth of the manufacturing sector and make recommendations. I hope that the recommendations contained in this Report would receive urgent consideration of the Government and implemented at the earliest.

With kind regards,

Yours sincerely,



(V. Krishnamurthy) _____

Dr. Manmohan Singh
Hon'ble Prime Minister
Prime Minister's Office
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THE GROUP

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Secretary, Finance

Secretary, Revenue

Secretary, Commerce

Secretary, Textiles

Secretary, Industrial Policy & Promotion

Report of the Group Constituted by the Prime Minister to look into the Measures for Ensuring Growth of the Manufacturing Sector

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Summary and Recommendations

Summary

The Prime Minister appointed a Group in January, 2008 to look into the issues relating to the growth of the manufacturing sector and make recommendations. The terms of reference of the group are: -

- a) to suggest policy measures and a continuing mechanism to ensure sustained growth of the Indian manufacturing industries for the next 10-15 years;
 - b) to suggest policy measures and immediate steps to reverse the recent deceleration in the growth of the manufacturing industries;
 - c) to suggest policy measures and immediate steps to boost exports of Indian manufactured goods in the face of appreciation of the rupee and high interest rates, particularly with respect to labour intensive sectors like textiles, leather and handicrafts;
 - d) to suggest policy measures to leverage FDI to modernize manufacturing in India and create a strong technological base.
2. The terms of reference indicate the concerns of the Government which broadly appear to be the following –

- (i) the immediate measures required to be taken in the background of decelerating growth of manufacturing due to the measures taken to control demand for money, appreciating rupee etc;
- (ii) the average annual rate of growth of manufacturing from 1991-92 upto 2007-08 has been hovering around seven per cent which is way below the 12 to 14 per cent required to reach a growth rate of 9 to 10 per cent of the economy as whole;
- (iii) the growth pattern of the economy driven mainly by the services sector is unbalanced from the point of view both of the strength of the economy as well as the creation of appropriate jobs for the millions joining the work force every year; and
- (iv) inadequate absorption/development of technology required for enhancing the competitiveness of the Indian manufacturing

sector and create a strong technological base and in that context the need to leverage the FDI through appropriate policy measures.

3. Items (b) and (c) of the terms of reference relate to immediate measures and steps to be taken by the Government. These were considered by the Group and four interim reports were submitted in January/February 2008 well in time for the Budget and Foreign Trade Policy of 2008-09. These form **Part –II** of the report.

The four reports cover the following items:-

- | | |
|--|--------------------|
| 1. Issues relating to Exports | Interim Report – 1 |
| 2. Policy measures for consideration at the time of the Budget 2008-09 | Interim Report – 2 |
| 3. Expenditure related proposals | Interim Report – 3 |
| 4. Tax proposals | Interim Report – 4 |

4. Items (a) and (d) of the terms of reference are long term in nature and relate to policy measures including FDI policies needed to ensure sustained growth of the Indian manufacturing sector over the next 10 – 15 years. The Group is also required to suggest a continuing mechanism for the purpose. Part-I of the report covers these aspects.

5. The Indian economy is expected to grow between 9 to 10 per cent in the medium to long term to reduce poverty and to become a strong modern developed nation. For this to happen, the manufacturing sector would have to grow on average at 12 to 14 per cent per annum. Such growth would also ensure balanced growth of the economy which is at present skewed with the manufacturing contributing only about 17 per cent to the economy.

6. The objective of poverty reduction is best achieved through creation of productive jobs for the millions joining the workforce annually. The jobs have to be created mostly in areas other than agriculture since agriculture sector is already supporting disproportionate number of people when compared with its contribution to the GDP. Hence, the manufacturing sector, particularly of the labour intensive type, needs to grow much faster to enable the shift of surplus labour from the rural areas to manufacturing. This would also enable achievement of inclusive growth. The sector also requires to improve substantially its technological base both for achieving

competitiveness as well as for providing the long-term security needs of the country.

7. Ensuring long term growth of manufacturing would, in fact, mean taking a view on the growth strategy of the economy itself. The group recognizes that it would require taking a view on the role of the markets and that of the State, the macro-economic policies as well as other policies including sectoral policies that affect manufacturing. The group also recognizes that all these aspects cannot be discussed in full detail in a report of this nature. Attempts, therefore, have been made in this report to outline the directions in which the policies need to move keeping in mind the limitations mentioned above.

8. Part-I of the report contains an analysis of developments in the growth of the economy and the manufacturing sector including policy developments; it also examined the policies followed by eight developing countries which posted high growth rates of manufacturing such as Korea, Taiwan, Singapore, Hong Kong, Thailand, Malaysia, Indonesia and China; it also contains the current status in India with reference to the goals set for the Group. The issues and policy challenges the country faces and the opportunities available for accelerating the growth of manufacturing have also been analysed. Finally the report concludes with a number of suggestions for the way forward.

9. The National Strategy for Manufacturing (NSM 2006) prepared by the National Manufacturing Competitiveness Council (NMCC) identified the various elements that affect the competitiveness of the manufacturing sector and thereby affect the robust growth of the sector. The NSM made several recommendations which fell in the purview of the various Ministries and also the Industry itself. The implementation of the recommendations were mainly left to the Ministries. Six sectors in particular were identified for priority action. These are:

- i. Textiles and Garments
- ii. Food and Agro Processing
- iii. Leather and Footwear
- iv. IT Hardware and Electronics
- v. Skills Development
- vi. Problems of Small and Medium Industries including cluster development

10. Besides, a number of discussions were held with individual Ministries by the NMCC both in respect of various sectoral verticals as well as horizontal policies such as Skill Development, Infrastructure etc. and the

actions required by various stakeholders were identified in respect of each of the sub-sectors.

11. The NSM 2006 basically identified all the areas which required attention for improving the overall competitiveness of the manufacturing. It also identified sub-sectors which needed detailed attention. It however, did not differentiate between sectors for extra attention to be given by Government. The issues such as the role of manufacturing sector for the long term strategic needs of the country were also not identified. Several issues confronting the sector came up during the course of implementation of the strategy. The experience gained in the period 2006-08 has enabled to focus on specific actions needed. The current report therefore is built on these experiences and experiences of other developing countries which posted high growth rates of manufacturing over an extended period and makes a number of specific recommendations for implementation.

12. The improvement in competitiveness is dependent on not only on the internal efficiency improvement of enterprises, but also on the accompanying policy framework and the eco-system required for nurturing and developing the sector. This Report, therefore, emphasizes particularly on this aspect of ensuring that the over all eco-system is made conducive to sustained manufacturing growth.

13. The Manufacturing sector witnessed an uneven emphasis of policy during the past 60 years. After Independence, the first three Five Year Plans (1951-66) gave major emphasis to the development of heavy industries particularly in the public sector. Therefore, the manufacturing sector grew at a satisfactory 6.6 per cent during this period. The next phase was between 1967-1981 during which the sector witnessed extensive controls in all areas. The manufacturing during this period grew at a measly rate of 3.9 per cent. Post-1981 economic reforms were initiated on an extremely modest scale and more areas were opened for private sector participation as well as easier norms were adopted for expansion of the private sector units. This enabled the manufacturing sector to grow and in the period 1981-88 it grew at about 7.5%.

14. The big bang reforms of the 1991 brought in a wide variety of policy changes which encouraged the private sector. In the initial years, the private sector investment boomed with spurt in growth rates in the first five years. However, this was followed by a slow down and the sector is also witnessing competition both internally as well as from abroad as the import duties have been reduced substantially. The peak rate of customs duties which were at around 110% in 1991 were reduced to 10% by the year 2007.

The FDI policies and other accompanying policies were also liberalized which had its impact in providing stiff competition to the domestic sector as well as opportunities for forming collaborations and networks to improve efficiency. The overall growth of the economy as a whole increased from an average of 4 per cent to over 6 per cent in the 1990s and in the period 2004-2008 the growth has been averaging above 8 per cent. However, the average rate of manufacturing has not picked up to its potential. The period 1991-92 to 2007-08 the manufacturing sector grew only at about 6.7 per cent. However, the current decade starting with the year 2000 has witnessed a 7.9 per cent growth of manufacturing. Even this level is not adequate for the long-term growth of the economy and for poverty reduction.

15. The Indian firms in general, barring a few exceptions, do not appear to have been adequately successful in measuring up to the world standards in carrying out domestic R & D, innovating or creating new brands, investing in long term capabilities and building human resources. While some of the major firms have successfully undertaken all these tasks, the scale at which such improvements are needed has not occurred. Even though all the reforms carried out, particularly since 1991, are conducive to the long-term growth of the manufacturing sector, the sector has not grown upto its potential or expectations. It appears that there is a need to put in place a set of additional catalytic measures which will spur the entire spectrum to go up the ladder of competitiveness and technology and reach higher average growth rates.

16. The employment in the manufacturing during the past couple of decades has also not been very encouraging. The decade after reforms has shown a significant fall in employment intensity. The increase in employment in the recent years also seems to have occurred in unorganized sector which has its attendant deficiencies.

17. In respect of technology development while India can proudly showcase the achievements in Space, Atomic Energy, Missile Programme and Textiles the technology development across the sectors has not been impressive. The standing of India in the international comity of nations is relatively low. Two studies indicate that India has a long way to go in technological progress. A study on export of Advanced Technology Products (ATPs) to the U.S. prepared for the United States Congress indicates that while China and its surrounding countries exported 59% of the ATPs imported by the U.S., India does not at all figure in the list of countries which exported to the US clearly indicating that the Indian advanced technology production is way behind. The second study by the Georgian Institute of

Technology indicates that the technology standing of India is way below many of the competing developing countries.

18. Among the countries that posted high rate of growth of manufacturing the policies followed by Korea, Taiwan, Singapore, Hong Kong, Malaysia, Thailand, Indonesia China have been examined.

19. Korea and Taiwan substantially followed policies which were interventionist in nature with a clear preference for promoting indigenous enterprises and deepening local technological capabilities vigorously but assigned FDI only a secondary role. They followed an approach to ensure that no damage resulted to local enterprises and the local enterprises in fact, were encouraged to set up production systems of their own. In this process, Korea has become a clear technological major among the developing countries largely without reliance on FDI but on the basis of indigenous learning, skills and R & D effort. The Government provided selective and functional support by delivering massive technology infrastructure and creating general and technical skills. Taiwan had an industrial policy which included import protection, directed selectivity of FDI and support for indigenous skills and technology developed largely through support to the small and medium enterprises.

20. Singapore, on the other hand, depended on FDI for its growth through exports. It transformed into a Centre for high tech electronics and chemical production. The secret of Singapore's success was in providing an efficient and high skill base which targeted multinational corporations. Hong Kong, on the other hand, concentrated on light consumer goods with technology content. Relatively these two countries did not absorb technologies to promote their own major multinational companies, probably, because of their size.

21. Malaysia, Thailand and Indonesia had the lower end of technological base and were dependent on FDI for technology upgradation and diversification which has served the purpose of mass manufacturing of goods through low level assembly type of production. Their efforts in more value added manufacturing with deeper domestic technology absorption has not fully succeeded so far. These countries have been efficient users of new technology as producers of low to medium level of technological products.

22. China has been a recent entrant into this field. China has been making giant strides in manufacturing and is now known as the world's manufacturing factory. China has a well laid out industrial policy which is upgraded through series of reforms in infrastructure, labour, etc. The

specific industrial policy actions of China have substantially contributed to the rapid rate of growth of manufacturing in the country.

23. Promoting manufacturing has been a primary goal in China's growth model. The policy included a clear set of incentives in terms of subsidies, concessions in taxes for investment and promotion of manufacturing industries. Policies in respect of FDI were geared towards growth of domestic companies including technology transfer. Macro economic policies were tailored to ensure rapid growth of manufacturing. In short, China has followed an industrial policy which is a combination of the policies followed by Korea in terms of emphasis on heavy industry and technology transfer and also that of the other countries in terms of mass production in low level assembly manufacturing to employ its large work force and also to generate the much needed exports.

24. China has also succeeded in developing a gigantic technology base which is highlighted by several studies. For example, a report by the Georgia Tech Institute in the year 2008 has placed China at the top of the countries for its 'Technological Standing' with a score of 82.8 compared to 76 for the United States, 66.8 for Germany and 66 for Japan. Just 11 years ago, China scored only 22.5. The overall focus of China's policy has been to support domestic value addition through massive production of low technology products as well as create a high technology base to improve competitiveness as well as strength of its own economy.

25. The policies followed by these eight countries indicate some commonality in the approach they followed to industrialize their countries. Five aspects come out prominently in what these countries did to achieve the spectacular growth of manufacturing. First, in all these countries robust growth of manufacturing was central in their growth model. Second, the Governments intervened through policy actions in different ways to support the sector for withstanding competition, especially the external competition and enabled the sector to grow over a long period of time. Third, all these countries and also Japan had given special attention to the Small and Medium Industries to make them competitive and technology drivers. Fourth, all ensured involvement of the industry in the process of formulation and implementation of their industrial policy. Fifth, all these countries had effective mechanisms for ensuring that the goal of manufacturing growth and technology development received close attention and that appropriate actions were taken in time.

26. In contrast, since 1991 the efforts in India concentrated on dismantling the excessive role of Government in terms of controls and high

tariffs etc. The focus was on improving efficiency and overall economic growth and not particularly on the manufacturing sector. There was greater emphasis, rightly, in allowing industry to operate in a relatively free market and ensure that the economy reaped the benefits of competition. Manufacturing was substantially liberalized except in the areas relating to security such as defence etc. However, during the process of liberalization and globalization in this period, the Trade and FDI policies were not adequately leveraged to strengthen manufacturing or manage substantial transfer of technology as the Countries cited earlier had done. It appeared as though Government policy pendulum may have swung from one extreme of excessive controls to the other of abandonment or minimizing the role of the State in so far as the manufacturing sector is concerned. The role of the State in respect of the sectors that have been liberalized has not been clear. Similarly, the role of the public sector, which has a very sizeable manufacturing capacity was also not clearly defined.

27. With regard to the SMEs bulk of the items under reservation have been withdrawn and most of the incentives have also been withdrawn gradually. In the emerging highly competitive scenario for manufacturing, the role to be played by the SMEs which contribute substantially to the manufacturing value added as well as to employment needs to be clearly delineated. The programme for enhancing the competitiveness of the SMEs designed by the Government which is in the approval process could help the SMEs to some extent when operationalised. In almost all the countries which were examined, the SMEs have played a prominent role both as useful partners in the International supply chain as well as innovators and high technology developers. Lastly, a review of the requirements of newer and more sophisticated manufacturing capabilities in the background of India's emergence as a major economic power and its aspirations indicated a need for due focus.

28. The issue whether India should have an explicit Industrial/ Manufacturing Policy which sets out clear cut long term goals for the nation in terms of manufacturing growth which serves its long term needs or not has been discussed. There is considerable debate on what should be the role of Government in the development process and what it should do and not do.

29. Some believe the Government role should be as minimal as possible. There are two main objections put forward by these to having a structured Industrial Policy. The first relates to lack of adequate information/ understanding in governments to identify firms / sectors or markets that are subject to market imperfections leading to inefficient application of policy.

The second objection is that an Industrial policy is an invitation to corruption and rent seeking and in that process also would distort competition.

30. There are others who believe that developing countries in order to “catch up” need a pro-active role for the State to ensure that the growth process does not suffer due to market failures/imperfections. These believe that the informational and bureaucratic constraints raised by ‘free market’ supporters are not insurmountable and appropriate institutional designs would render them much less of being constraints. They believe that by ensuring participative process in decision-making, a system of well-designed incentives and disincentives and an accountability structure, these constraints can be overcome. They cite, in particular, the example of East Asian Countries.

31. Comparisons with the high growth stories of East Asian countries including China have often been dismissed by some with a facile argument that all these countries are ruled by autocratic or totalitarian regimes and therefore the policies followed by those countries cannot be models for a democratic country like India. This is a dangerous explanation which seems to equate autocracy with sound policies for growth and efficiency. There are a number of countries which have been ruled by autocrats but did not experience high growth rates. The crucial aspects in the growth story of the eight countries are covered in the five elements described at para 25 none which are beyond the reach or scope of a democratic country. The underlying message is that Governments need to be committed to building a sound manufacturing sector with necessary will and a bureaucracy that should be made accountable to its actions towards achieving that goal. In other words, the requirement is ‘committed, credible and capable Government’s’ as described in the Growth report prepared by the Independent Commission chaired by Nobel Laureate Michael Spence.

32. The views in the Group varied from minimalist role to the State in so far as dealing with markets to suggestions of active role for the State to address market failures through selective intervention for ensuring smooth and sustained growth of manufacturing and to achieve the goals mentioned earlier. Prime Minister Dr. Manmohan Singh in his speech at the Institute of Economic Growth has said aptly, “I would say that moving from one straight-jacket into another, from the ideology of ‘State’ to that of the ‘Market’ may also not help.” Clearly, countries need to take actions that serve the broader goals they set for themselves. Any policy needs to be tailored to meet those needs.

33. Overall, it was felt in the Group that it would be prudent to have a specific goal for growth of manufacturing as also a policy framework which would address the actions required to meet the goal. It meant that the role of the State in the growth process to be more clearly defined in the policy. In developing such a framework the experience gained in India during the past decades as well as in some of the Asian countries should be taken into account.

34. In working out the possible course of action for India it was recognized that the conditions under which the countries mentioned above were able to intervene in a variety of policies such as trade policy, foreign investment policy, etc. have changed. Globalization has changed the policy eco-system substantially in the past decade or so. The international rules of the game are now very different, and they exercise much greater influence on what national governments can and cannot do. Today, space for undertaking many policies such as selective import protection, local content requirements, export subsidies, directed credit and differential interest rates, performance and entry rules for foreign investors and copying of foreign products is unavailable substantially and also unacceptable to the WTO and major trading partners. Besides this, regional trade blocks have also emerged simultaneously, which also reduced the ability of a country to follow autonomous policies.

35. It now appears that India missed the bus not merely in terms of implementing the reforms in time, but also in terms of loss of policy space. The country will now have to meet the challenges that are before it and work towards the goals it sets for itself in terms of long term strengthening of manufacturing and of the economy.

36. The global scenario described above does not mean that there is no scope for a manufacturing policy. The new rules allow policies to strengthen factor markets and to reduce unnecessary red tape and regulation that cramp the growth of businesses. Many discretionary measures and grants can still be used to promote particular activities such as, space, defence or communications, and related functions such as R&D, training etc. regarded as necessary for competitiveness. New and innovative actions need to be designed to further the growth of manufacturing and development of technology.

37. There are several positive trends which would enable Indian manufacturing to flourish subject to the design of an appropriate Manufacturing Policy.

- Firstly, the share of Indian manufacturing in the world Manufacturing Value Added is miniscule at around 1.36 percent. There is vast scope to increase India's share through appropriate actions for improving the price competitiveness as well as quality improvement of the manufacturing products.
- Secondly, the recent trends in competing countries, in particular, China, in the area of mass and labour intensive goods like Textiles and Garments, Leather, etc., show that due to the wage increases as well as other policy changes in those countries the investors are looking at alternative locations. This development provides an excellent opportunity for India to attract companies which are looking for alternate source. Coordinated efforts to attract these investments need to be put in place.
- Thirdly, companies from the United States and other developed countries are also on the look out for alternative locations for their own strategic reasons.
- Fourthly, India has recently shown huge appetite for manufacturing goods in the wake of the spurt in domestic growth which has put more incomes particularly in the hands of younger people. This provides a very attractive expanding market where the companies can expect growth rates of 15 to 20% for some time to come. With appropriate policies, very substantial investments into manufacturing can be expected leading to robust growth of the sector.
- Fifthly, with the country in the process of becoming a major economy it would also provide huge market in the strategic requirements such as Defence, Space, Atomic Energy, etc.
- Finally, there are other traditional arguments which are in favour of India such as availability of skilled persons with proficiency in English, comparatively lower wage costs etc.

39. The issue is to leverage the strengths and utilize the available opportunities through appropriate policies to enhance the growth rate of manufacturing to 12% or more as also to obtain necessary technologies in the process. Expeditious action is necessary to not lose out again on utilizing the opportunities available for strengthening the manufacturing sector.

Recommendations

Introduction

1. The economic reforms undertaken since 1991 have had a salutary impact on a number of areas of the Indian economy. The annual GDP growth has averaged at over six per cent during the period 1991 to 2006. The GDP growth has further accelerated since 2006 and has posted over nine per cent in two successive years indicating a new high trajectory of growth. The external sector which was the proximate cause for the beginning of the reforms in 1991 is no longer an area for anxiety with the foreign exchange reserves touching over US \$ 300 billion. The industrial sector has become competitive in several areas with improvements in quality as well as efficiency. The services sector has grown robustly and became the main driver of the economic growth and job provider.

2. However, the manufacturing growth averaged only at about 7 per cent despite the fact that all the reforms undertaken were highly conducive to its rapid growth. The Indian firms in general, barring a few exceptions, have not been adequately successful in measuring up to the world standards. The scale at which such improvements are needed has also not occurred. It appears that there is a need to put in place a set of additional catalytic measures which will spur the entire spectrum of manufacturing to go up the ladder of competitiveness and technology and enable the sector to reach higher average growth rates.

3. The analyses in this report clearly bring out the need for policy focus on the manufacturing sector. These analyses have also brought out that a country's growth process needs to be anchored on the growth of manufacturing unlike in India in the recent past when the economic growth was driven more by the growth of the services sector. It establishes the need for making manufacturing growth central to the growth process of the economy. To enable the country to refocus on manufacturing there is a need to put in place a manufacturing policy, which is India specific.

4. The super structure of manufacturing growth needs to be built on the foundation consisting of furthering of economic reforms and ensuring macro economic stability. The design and content of the manufacturing policy would be the brick and mortar with which the super structure is built. The recommendations in this report are predicated upon deepening and furthering of the reform process as well as maintaining macro economic stability as a fundamental requirement for long-term economic and manufacturing growth.

5. Putting in place a Manufacturing Policy would mean selective intervention by Government and that would immediately bring up issues relating to Governance. Adopting a Manufacturing Policy does not mean and should not lead to a control regime that existed prior to 1991. It is meant to give focus to manufacturing which is the engine of growth for any economy. The policy is meant to ensure focused attention by Government to various aspects that would enable achieving the goals noted earlier in this report.

7. It was noted earlier that one of the strong arguments against a manufacturing/industrial policy is that it could lead to corruption and rent seeking. The interventions suggested are expected to be selective and would need to be made in a transparent manner. For achieving this Government needs to put in place a participative process of the stakeholders in decision-making, well-designed incentives and disincentives and an accountability structure including well-designed regulatory structures.

8. The four aspects relating to manufacturing sector which the terms of reference required the Group to study and make recommendations are – rapid growth of the sector, job creation for inclusiveness, creating a strong technology base for the growth of the manufacturing sector and the strategic needs of the country and suggesting a continuing mechanism for translating the recommendations into action. Needless to say that if specific outcomes such as above are expected to be realized it would need a directed effort to achieve the same.

9. The report envisages private sector to play the role as dominant driver of growth of manufacturing sector. For enhancing the competitiveness of the sector recommendations have been made in respect of several horizontal aspects which apply for the whole sector. Insofar as the job creating sectors and the strategic sectors are concerned, recommendations have been made on the need for special efforts by the Government if the goals are to be realized. In other words, actions needed in respect of two sets of verticals – namely those which contribute to substantial employment generation and those which are essential for building a strong economy and technology base for the future strategic requirements have been separately dealt and recommendations made. Besides these, recommendation on the need for an effective continuing mechanism that would advise and coordinate the efforts of Government in translating the recommendations in this report into action has also been made.

Recommendation -1:

Manufacturing Policy

The super structure of manufacturing growth needs to be built on the foundation consisting of furthering of economic reforms and ensuring macro-economic stability. The design and content of the manufacturing policy would be the brick and mortar with which the super structure is built.

To enable the country to refocus on manufacturing there must be a manufacturing policy that is India specific. The interventions required in the implementation of the policy should be the result of a participative process of the stakeholders in decision-making, well-designed incentives and disincentives and an accountability structure including well designed regulatory structures. The Manufacturing Policy should include:

- *the measures needed to enhance the growth rate of manufacturing to 12 to 14 percent per annum on average over the medium to long term;*
- *promoting competitiveness of the manufacturing sector as it is crucial to increasing production and securing larger share of global business;*
- *reform process, to be pursued for enhancing the efficiency of the system;*
- *domestic value addition to be the core endeavour of the policy;*
- *clean technologies to be promoted while achieving the growth objectives;*
- *private sector would continue to be the main driver of the manufacturing growth;*
- *the requirements of job creation through promotion of employment intensive industries;*
- *promotion of high technology industries specifically from the long-term national security angle;*

- *policies including FDI Policy that would encourage development of domestic technological capabilities including innovation capabilities of a high order for ensuring long-term growth of the Manufacturing Sector;*
- *emphasize that the Macroeconomic Policies such as the monetary Policy, fiscal Policy, foreign trade Policy, the Exchange Rate Policy, FDI Policy to be in tune with the requirement of the growth of the Manufacturing Sector while ensuring that macro-economic stability is maintained;*
- *outlining of the future role of the public sector;*
- *identification of the role for the small-scale industries in the growth process as well as in innovation and technology development and the mechanics for enabling the sector to achieve the same;*
- *suggestions for improvements in the regulatory systems including procedural reforms to enhance competition and efficiency;*
- *coordination with the State Governments; and*
- *mechanisms required for ensuring smooth and continuous implementation of the content of the Policy.*

Recommendation-2:

Interest rate and exchange rate policies

The primary goal of monetary policy is to contain inflation to within reasonable limits and to achieve that objective, the interest rate in particular and other policies are used by the monetary authority.

Government needs to put in place appropriate policy packages to ensure that the outfall of stabilization policies including exchange rate variations on growth and in particular on the manufacturing growth is moderated and that the loss of competitiveness due to monetary actions is offset adequately. Put in place a mechanism to ensure that corrective actions are triggered simultaneously.

Recommendation-3:

Indirect Taxes and Domestic Value addition

a) A study done in the year 2002 comparing the prices of a range of manufactured products in India and China found that the prices of Indian products were higher, on average, between 28 to 33 percent, half of which is attributed to the difference in indirect tax levels. Currently the combined tax levels in India are between 28 to 35 percent as against a combined VAT rate of 17 percent in China and of similar levels in other competing countries. **Hence, initiate the following actions on priority basis:**

- (i) the total tax levels should be brought down to levels obtaining in competing countries;**
 - (ii) early introduction of combined Goods and Services Tax (GST);**
 - (iii) rationalization of other taxes and duties, particularly at the state level;**
 - (iv) domestic value addition should be the core principle guiding tax structure; necessary studies in this regard for framing policies and guidelines should be initiated; and**
 - (v) corrections to be made in inverted duty structures where ever prevalent.**
- b) The Government incentives to the manufacturing sector should be linked to domestic value addition, so as to ensure that the manufacturing sector grows and at the same time the firms acquire necessary technological capabilities. Further, the issue of linking concessions to the Industry to domestic value addition is very important. **The following are recommended:**
- (i) value addition should be the central guiding principle not only in the design of tax structures but also in granting of concessions to the foreign as well as domestic companies;**
 - (ii) initiate a study on the subject with a view to frame suitable policy and guidelines to specify the quantum of domestic value addition criteria for availing concessions; and**
 - (iii) constitute a Standing Committee with suitable representation from the Revenue Department, the Department of Industrial Policy & Promotion and the NMCC to assess the domestic**

value addition implications of the proposals being considered for the Budget. They should ensure that there is no adverse impact of the proposals relating to indirect taxes on manufacturing growth. Use of export duties on raw materials and inputs as a tool for promoting domestic value addition should be part of the exercise

Recommendation-4:

Trade Policies

India is an important player in the World Trade Organization (WTO) and is bound in its obligation to the International Community as a member of the WTO. In the recent years India has been negotiating Regional Trade Agreements (RTAs), Free Trade Agreements (FTAs) and Comprehensive Economic Cooperation Agreements with a number of countries as well as Regional organizations such as ASEAN etc. with the ultimate goal of moving towards Free Trade Agreements over a period of time. It would be necessary to ensure that gains and losses in entering in to such agreement are assessed and appropriate decisions taken accordingly. The issue of unconventional pricing of products followed by some countries resulting in placing Indian manufacturing at a disadvantageous position also needs to be studied and attended to.

In order to ensure that the growth of manufacturing in India does not suffer the following are recommended:

- (i) institute a mechanism which would ensure impartial studies on the economic effects of the Agreements are made and reports submitted to the Prime Minister and the Cabinet before an FTA is entered into. Such studies should inter-alia include, indicators such as the overall impact on the growth of the domestic industry, the impact on employment, namely, jobs likely to be lost and jobs likely to be gained and the value addition that is expected to take place as a result of the agreement;***
- (ii) the mechanism also to carryout mandatory periodic reviews whether the intended benefits have accrued or not in terms of the above parameters and submit reports to the Parliament; and***

- (iii) in respect of countries that do not follow transparent policies regarding pricing of their products, suitable innovative policies and mechanisms should be designed and employed to deal with it.*

Recommendation-5:

Technology Acquisition and Development

Technology is a non-linear tool which could cause fundamental changes in the level of competitiveness. Going up the technology ladder is the quickest way to become competitive and ensure sustained growth of the manufacturing sector. Most of the rise in material standards of living since the industrial revolution has been the consequence of innovation. In this context, the following need attention:

- (a) **Foreign Technology Collaborations:** Increasingly, purchase of state-of-the art technologies is becoming difficult. Currently foreign companies are allowed to set up their own 100 percent subsidiaries and tap the domestic market demand which is making transfer of technology to the country difficult and slow. The policy for Foreign Technology Collaboration is quite liberal and enables both private and public sectors to access technologies needed by them at a cost. However, state of the art technologies are not available even at a cost. Small scale companies do not have necessary capacity to acquire technologies and upgrade themselves and need support. ***Therefore, the following are recommended:***

- (i) enunciate a clear policy to provide incentives for acquisition of advanced technologies which are required for strengthening country's technological capabilities from the long-term point of view. The incentive could be among others, in the form of allowable deductions under Income Tax Act, Custom duties exemption and also specific subsidization;*
- (ii) priority treatment be given in respect of five strategic manufacturing sectors, namely Aerospace, Shipping, IT and Electronic hardware, Capital Goods and Solar Energy as each of these sectors would need a dedicated fund for acquiring technology for their tier-2 suppliers;*

- (iii) *on a priority basis, consider creation of a Technology Acquisition Fund for use by the Small and Medium Industries. This was also echoed by the Knowledge Commission; and*
 - (iv) *re-examine the present policy of permitting 100 percent subsidiaries of foreign companies in the manufacturing sector*
- (b) **Technology Development and FDI Policy:** Broadly, the FDI Policy in respect of the manufacturing sector is very liberal and allows 100 percent foreign investment in almost all the sectors except a few like Defence sector where a restriction of 26 percent has been placed. Technology transfer is considered to be one of the most important benefits of permitting FDI into a country. In India, however, in attracting the FDI the emphasis appears to be substantially on the amount of FDI flows. ***It is recommended that a high level Technical Committee be set up;***
- (i) *to review the current FDI policy from the point of view of transfer of technology as well as considerations of National Security;*
 - (ii) *to identify technologies needed by the country from the point of view not only of general technological development but also from the strategic point of view; and*
 - (iii) *to identify specific areas of technology in which the FDI should be attracted along with appropriate conditions including of transfer of technology as also suggest needed policy changes in respect of FDI. Such policies must be designed to leverage among others the huge domestic market available for foreign companies.*
- (c) **Trade Policy and Technology Development:** Offset policy is one of the means to ensure that a proportion of the total equipment imported is manufactured in India. The Defence Ministry already has an offset policy in place. Further, an offset policy is under preparation by the Commerce Ministry for all major purchases of Government of India/Public Sector other than Defence, Space and Atomic Energy Ministries. ***The following are recommended:***
- (i) *put in place a clear policy which would enable upgrade technological capabilities in various strategic industries over a period of time;*

- (ii) all the offset policies including the one under consideration in the Commerce Ministry should mandate technology transfer in addition to manufacturing content; and*
 - (iii) put in place appropriate organizational structures for dealing with offset policy to enable quick decision making, close interaction with industry and other stakeholders so as to enable quick absorption of technology.*
- (d) **Domestic Research & Development**: There is recognition that the domestic Research & Development is an important aspect of development and requires to be strengthened. ***The following are recommended:***
- (i) revisit the current mechanisms as strong industry science linkages are needed to facilitate commercialization of scientific advancement;*
 - (ii) establish significant linkages through trade and investment with technologically advanced countries since lot of innovation takes place and is embodied in the products or processes adopted by them;*
 - (iii) strengthen science based institutions of higher learning and research both in terms of investment as well as human resources;*
 - (iv) support entrepreneurship through an institutional environment which encourages risk taking such as venture capital funding in frontier areas of Science and Technology;*
 - (v) create appropriate conditions to encourage innovation;*
 - (vi) enunciate a comprehensive Technology Policy which not only details on the above but also emphasizes cooperation among national universities, research organizations as well as private sector;*
 - (vii) identify and support certain high cost domestic R&D efforts (other than in strategic areas like defence, nuclear, space, etc.) of private and public sector companies through government funding with the purpose of establishing references for technologies/ products thus developed; and*

- (viii) invest heavily in research in future technologies such as nano manufacturing, solar and hydrogen technologies, and intelligent manufacturing technologies.*

Recommendation-6:

Innovation

Innovation is creating and applying new technologies, new ways of looking at issues. Innovations enable leapfrogging in terms of productivity and product development and competitiveness among others. Substantial investments in R&D, skill base and new technologies are required to improve the innovative capacities of the nation. The task of producing particularly of persons with high-level skills is enormous. In terms of enrolment at Ph.D level in India about 5000 people are enrolled. The corresponding figure for China is 1,20,000. As far as the turnout of Ph.Ds annually is concerned, the US turned out about 50,000 Ph.Ds in 2006, of which nearly 28,000 were in Science & Technology. As against this, in India, only 375 Ph.Ds were awarded. Certain actions have already been initiated by the Department of Science & Technology in the 11th Plan and this needs further reinforcement. According to one study, the bottom of the pyramid comprising of the poor is growing in importance as a viable market and provides enormous opportunities for technological innovation which needs to be developed. ***The following are recommended:***

- (i) develop and implement national priorities in innovation;***
- (ii) the Innovation system should support the manufacturing industries in attaining competitiveness;***
- (iii) draw up a long-term plan to improve the turnout of Ph.Ds;***
- (iv) develop capabilities of industries to ensure diffusion of technologies; support frontier science and technologies in areas where India has strengths; and***
- (v) promote innovation to solve national challenges like environment, climate change etc., and for serving the needs of the poor at the bottom of the pyramid.***

Recommendation-7:

Regulations and Procedural reforms

- (a) A well designed regulatory structure is of paramount importance to ensure competition. The design of any regulation needs to be simple and transparent. ***The following are recommended:***
- (i) ***review existing regulations to minimize the interface of the citizen/ entrepreneur with Government;***
 - (ii) ***move as much of the decision making as possible on most of the activities from the Government to independent regulators; and***
 - (iii) ***put in place a statutory selection process in respect of all regulators both at the Central and State levels to ensure independence in decision making.. The law must have a provision which provides a review of appointment in rare cases.***
- (b) ‘Doing Business 2009’ a study by the World Bank places India at a rank of 122 out of 181 countries in terms of ease of doing business. The National Strategy for Manufacturing (NSM 2006) went into the details for improving the procedures and had recommended a number of steps for implementation by the Government. Further, various aspects of the procedural and regulatory issues inhibiting both domestic and foreign investment have been studied by a number of Committees of the Government in the past and have been well documented. The key issue is implementation of the findings of these Committees. The implementation is at the Central, State and local levels. ***The following are recommended:***
- (i) ***implement the recommendations contained in the National Strategy for Manufacturing in a time bound manner of which the following are important;***
 - (ii) ***constitute an Empowered Group of Ministers on the lines of VAT group to prioritize and persuade the States to implement reforms in respect of specific laws and regulation. The Group***

should be empowered also to review the implementation by both the Central and the State Governments periodically; and

- (iii) set up independent Commissions both at Central and State Governments levels to follow up on the suggestions of the Empowered Group.*

Recommendation-8:

Raw materials - Acquisition of assets abroad by Indian companies

The proposed growth of manufacturing of over 12 percent per annum over the medium to long term would exert a lot of pressure on raw materials markets. Some of the raw materials required for manufacturing such as coking coal, chrome ore, iron ore are not available domestically or not available in adequate quantity. Arrangements for assured supply of such materials over the long term should be put in place. Even those raw materials which are available only for a relatively short period of time, alternative arrangements for supply need to be worked out well in time. In principle, export of raw materials particularly which are not available in abundance should be discouraged. Instead, export of value added products should be encouraged. Similarly, acquisition of Advanced Technology companies would facilitate transfer of technology to the parent manufacturing company. For this to be achieved a clear set of policy guidelines need to be put in place by the Government. ***The following are recommended:***

- (i) create a policy framework after a review of the benefits in terms of income, employment generation and technology transfer of outward investments made so far to the country;*
- (ii) aggressively direct the outward investments into purchase of raw material assets in the long-term interest of the country;*
- (iii) facilitate acquisition of companies with marketing network of products to help an India based manufacturing company get access to market in those countries more easily; and*
- (iv) establish a centralized fund for acquisition of foreign companies/assets in various sectors.*

Recommendation-9:

Skills Development

- (a) Skill building is required at all levels, from the level of vocational training to those requiring higher technical skills. Government has recognized the need for massive skill Upgradation and has initiated steps for coordinated action for skill development based on various inputs received. As a part of that process, Prime Minister's National Council on Skill Development has been set up to lay down broad policy objectives, strategies, financing and governance models, etc. Also, the National Skill Development Board headed by the Deputy Chairman of the Planning Commission has been formed which would coordinate the work of developing strategies to implement the decisions of the Prime Minister's Council and also take various actions for development of the skills. The wide range of actions needed for skill development places a great deal of responsibility on the National Skill Development Review Board which is the operational coordinating body. ***The following are recommended:***
- (i) put in place a lean full time independent secretariat of exceptional quality to assist the Board;***
 - (ii) a person of eminence and with wide experience in Government and industry should head the unit to prepare the papers for the council in line with the Skill Development Mission objectives;***
 - (iii) the secretariat should constantly be in touch with the line Ministries and the Industry to assess the progress made in relation to the set goals;***
 - (iv) in view of the emphasis required on developing science and technology skills, consider representation of the Ministry of Science and Technology on the Board as well the in the PM's Council; and***
 - (v) place greater emphasis on vocational education at lower levels and technical & professional education at other levels.***
- (b) Follow a two-pronged approach. One, which will promote skill development through public agencies and the second, promote skill

development with the help of private sector on a Public-Private Partnership mode. ***The following are recommended:***

- (i) continue the programmes for Skill Development, which are being implemented by 18 departments of the Government of India in the Public Sector; and***
- (ii) speed up the setting up of the proposed non-profit National Skill Development Corporation in Public-Private Partnership mode with a seed capital from Government and the funds for the programmes from the private sector. Substantially the programmes to be run for private sector requirements.***

Recommendation-10:

Small & Medium Scale Manufacturing Industries

- (a)** The Small and Medium Industries form the backbone of Manufacturing Sector not only in this country but also even in the developed countries. In India, the Small Scale Sector contributes to 40% of Manufacturing. It also contributes about 34% of the exports. Ensuring that the Small Scale Sector grows at a healthy rate is crucial for the overall growth of Manufacturing Sector as also the national economy. For this to happen the small scale sector has to be competitive. The sector is heterogeneous, dispersed and substantially unorganized. Mergers and Acquisitions to obtain economies of scale may be required. There are also other ways in which the competitiveness can be achieved by the Small Scale Industries. The National Strategy for Manufacturing (NSM 2006) prepared by the NMCC recognized the unique role of the SMEs and made detailed recommendations to the Government. Most of these recommendations have been accepted and the implementation has begun. The SMEs in order to ensure long term growth would have to diversify and become the crucibles of technology development. ***The following are recommended:***
 - (i) ensure that the small scale sector grows at a healthy rate as it is employment intensive;***
 - (ii) create on high priority basis, a Technology Acquisition Fund which would enable the SMEs to acquire technologies***

wherever available and manufacture products required by the high technology sectors; and

- (iii) create an appropriate mechanism to link up the SMEs, the Technology providers and the users of the products.**
- (b) Second, the MSME Act provides for a coordinating mechanism. This mechanism has to be made effective in terms of actual delivery of services. **Hence the following are recommended:**

 - (i) commission a detailed study of the existing delivery system in respect of the SME programmes and policies; and**
 - (ii) based on that carry out necessary restructuring and reorientation of the MSME administrative structure to meet the changing needs of the SMEs.**
- (c) Third, entrepreneur development is crucial for healthy growth of the SMEs. **Therefore, it is recommended to prepare and publish a guide for the new entrepreneurs on Government rules and regulations for setting up businesses on the lines of what has recently been done in the U.K.**
- (d) Fourth, there is a need for management and leadership development for the SMEs. A pioneering programme called Visionary SME Leaders Programme for the SMEs which has been designed by the NMCC and the CII is about to be launched. This is a unique programme to identify early competence to be nurtured with collaborative support system of the Government, academia and the industry. **It is recommended to multiply and take the programme across the country to upgrade the management of the SMEs on a large scale.**

Recommendation-11:

Public Sector Undertakings

- (a) With the liberalization of Industrial Policy in 1991, the role of the public sector in the manufacturing sector has become somewhat unclear. The disinvestment policy actually has become the default public sector policy in so far as ownership is concerned. **It is recommended that a clear policy in respect of Public Sector's future**

- role be enunciated and this should be reviewed only after a reasonable period of say 10 years.*
- (b) An ad-hoc Committee under the Chairmanship of Dr. Arjun Sengupta submitted a report in the year 2005 on administrative and financial delegation of powers to PSEs which has been accepted by Government for implementation. ***Therefore, implement these recommendations at the earliest***
 - (c) The public sector companies need to reposition themselves in the changed situation and adopt internal policy changes which would encourage new ideas and innovation to meet the challenges. ***It is recommended that the leadership of the PSEs be given necessary backing by the Government to undertake internal reforms.***

Recommendation-12:

Infrastructure and Special Economic Zones

- (a) The National Strategy for Manufacturing (NSM 2006) has highlighted the need for rapidly developing infrastructure and made specific recommendations. There are several estimates regarding the investment requirements in the infrastructure in the next five years ranging from \$ 350 bn. upwards. Currently, the spending on infrastructure is around 3 percent of the GDP. ***This should be raised to about 9 to 10 percent in the coming years.***
- (b) Among the infrastructure sectors, even though reforms have been put in place in power sector the results are yet to be reaped. The 11th Plan envisages an addition of 78,000 MW of new capacity in the power sector. In order to achieve this target a number of actions are required. ***Therefore, it is recommended that:***
 - (i) ***the bottlenecks for setting up this capacity are removed immediately and that power capacity is set up ahead of the demand in the medium to longer term;***
 - (ii) ***initiate comprehensive steps in respect of inputs for power generation such as Coal, Oil, Solar, Nuclear etc. including acquisition of assets abroad; and***

- (iii) ***enhance the capacity for production of power equipments in the country. Heavy dependence on imports of generating plants to be avoided.***
- (c) The other infrastructure sector needing attention is the transport sector. ***It is recommended to;***
- (i) ***step up the level of investment in both the highways as well as the railways; and***
 - (ii) ***develop a long term vision in respect of shipbuilding which also has defence applications.***
- (d) Robust growth of urban infrastructure is essential. ***It is recommended to repeal the Urban Land Ceiling Act in States where it has not been repealed as it has not only not served the purpose for which it was enacted but has created artificial scarcity of land which only helped rent seeking resulting in abnormal prices for land.***
- (e) Government has promoted the concept of Special Economic Zones (SEZs) through an Act in the year 2000. This Act was further improved in the SEZ Act of 2005 which was passed in early 2006 and is now in operation. About 600 SEZs have been formally approved under the Act out of which a third have been notified. The original purpose of promoting SEZs for attracting investment into the manufacturing sector has not materialized. ***Therefore, the following is recommended:***
- (i) ***the original purpose of making SEZs Manufacturing centres should be the main consideration for approving bulk of future SEZs;***
 - (ii) ***make them centers for domestic value addition, technology absorption and dispersion if the value for the concessions granted to the SEZs is to be reaped by the country;***
 - (iii) ***develop appropriate indicators to measure these parameters periodically to ensure above purposes are achieved;***
 - (iv) ***carryout a re-justification exercise in respect of SEZs as special enclaves as substantial reduction in customs duties have since taken place; and***

- (v) *consider them to be economic zones with no fiscal concessions but with world class infrastructure as recommended in the National Strategy for Manufacturing (2006).*

Recommendation-13:

Labour Reforms

The issues relating to Labour Reforms are dealt with in detail in the National Strategy for Manufacturing (2006) and several recommendations have been made. These included reforms in respect of the Industrial Disputes Act, the Contract Labour Act and the Trade Unions Act. Also the NSM highlighted the need for implementation of second National Labour Commission's recommendations. *The following are recommended:*

- (i) *fully implement the recommendations of the National Strategy for Manufacturing (2006) in order to ensure that the growth requirements are not constrained by the rigidity of the Labour Laws; and*
- (ii) *simultaneously ensure that the compensations made available to the labour are just and equitable.*

Recommendation-14:

Industry Verticals

If the objective of poverty reduction is to be achieved, it is essential that the type of growth pursued ensures substantial job creation. It is generally accepted that if India is to bring about a large shift of surplus labour force from agriculture, rapid growth of manufacturing sector, in particular, of the labour intensive sectors need to be promoted. For ensuring long-term security of the nation, strategic industries need to be promoted. In this context the employment intensive industries and the strategic industries are different in nature and would require different and priority treatment in terms of Government's actions.

Employment intensive industries: At a generic level, the Small and Medium industries create larger employment per unit of investment when compared with the large size industries. In addition specifically the

following employment intensive industries must receive additional focus and attention. The list could be expanded to include other labour intensive industries also.

- (i) ***(1) Textiles and Garments; (2) Leather and Footwear; (3) IT Hardware and Electronics; and (4) Food Processing Industries;***
- (ii) ***put in place an appropriate continuing mechanism to speed up the processes and to ensure a quick design of instruments for retaining the competitiveness of these industries.***

Strategic Industries: Manufacturing is not only the backbone of the economy but is also the muscle behind National Security. Therefore, a robust manufacturing sector is sine qua non for any major industry. Keeping this in view, five manufacturing sectors have been identified as strategic for strengthening the national capabilities from the long-term point of view. ***These are: (1) Aerospace; (2) Shipping; (3) Capital Goods; (4) IT Hardware and Electronics; and (5) Solar Energy.***

Aerospace:

- (i) ***restructure the Aeronautics programme into a Mission Mode and put in place a suitable organization structure;***
- (ii) ***the Mission should be headed by a visionary leader as in the case of Space and Atomic Energy;***
- (iii) ***design and launch a programme for making India a major force in this field in the next 10 years; and***
- (iv) ***the long term vision should include futuristic development of Aircraft requirements in both civil and military areas.***

Shipping: India has a vast coastline as well as a huge external trade requiring large fleet of ships both for civilian and military purposes. The existing facilities for shipbuilding are inadequate even for the limited demand at present. ***The following are recommended:***

- (i) ***prepare on an urgent basis a comprehensive plan to enhance domestic ship building capabilities and building large new shipyards;***

- (ii) *adopt a Mission mode approach for the purpose. In this context, the examples of both Korea and China be studied; and*
- (iii) *a continuing mechanism be evolved to synergize the efforts of the naval authorities under Ministry of Defence and the Ministry of Shipping for meeting long term requirements of the country.*

Capital Goods Industry : If the country is to manufacture products of world-class technologies, it would require a strong and substantial capital goods industry of high quality. *The following are recommended:*

- (i) *from the strategic point of view support the following industries with focused attention: (1) Machine tools; (2) Heavy electrical equipments; (3) Heavy transport, earth moving & mining equipments; and (4) High technology equipments like telecommunication equipments & upper end of IT and Electronic Hardware;*
- (ii) *prepare a time bound action plan in each of these areas for building high class modern capacities with R & D facilities in line with the requirement of meeting the long term strategic demands of the country;*
- (iii) *the action plan should contain policies and programmes which would encourage growth and development of these sectors in the private sector while strengthening the existing public sector. Competitiveness should be the touchstone for Governmental support;*
- (iv) *to protect and promote the selected capital goods industry reorient existing policies. e.g. under project import, the customs duty at present are exempt on power equipment and highway construction equipment;*
- (v) *abolish the mega power policy benefits prospectively. This would nullify the present unintended consequence of the mega power policy of duty free imports in effect encouraging a rapid surge in imports of Chinese power generating equipment into the country at the cost of domestic manufacturing;*

- (vi) ***similarly duty exemption given for the National Highway Development Project should be withdrawn where ever there is domestic capacity for production of such equipment; and***
- (vii) ***restrict the capital subsidy for textile industry under the Technology Upgradation Scheme (TUFs) to sourcing from domestic sources.***

IT Hardware and Electronics : Recognizing the importance of this sector, Government has constituted a Taskforce under the Chairmanship of the Principal Secretary to the Prime Minister. A sub-committee of the Task Force has submitted a report identifying several actions required to strengthen the industry in this important sector. It is estimated that the total requirement of ICT manufactured products would be about US \$ 320 billion by 2015 and of which less than 50% is likely to get manufactured in India. The aim of the country should be to produce bulk of the requirements domestically which are also competitive enough to export substantially. It is also a strategic requirement. ***The following are recommended:***

- (i) ***put in place a comprehensive set of policies to ensure that the entire value chain gets located in the country; and***
- (ii) ***adopt a Mission mode and specify goals in terms of development of products and new technology***

Solar Energy: India is blessed with abundance of solar energy and it needs to develop a mechanism to tap this cost effectively for meeting the long-term needs. Development of Solar Energy needs to be looked not merely from the point of view of climate change but mainly from the point of view of energy security of the country in the longer term. The investment need therefore is for an 'end to end' approach covering from basic research to marketing and demand creation. The National Action Plan for climate change has Solar Energy Mission as one of the eight missions recommended by it. The success of this mission would depend upon the timely availability of the equipment for tapping and conversion of solar energy. ***Therefore,***

- (i) ***enunciate appropriate policies for rapid long-term growth of this sector;***

- (ii) ***the Mission for Solar Energy should be on a much bigger and larger scale than the other seven Missions mentioned in the National Action Plan for climate change;***
- (iii) ***manufacturing capacity for Solar systems related equipment must receive a high priority; and***
- (iv) ***place the Solar Energy mission on par with that of the Space Commission and the Atomic Energy Commission in terms of priority and independence from routine bureaucracy.***

Recommendation-15:

Coordination with State Governments

There are several areas of manufacturing which fall within the purview of the State Government. These need to be addressed adequately to achieve the objective of sustaining the growth of the manufacturing sector. There is considerable variation between the competitiveness in different sectors and in different states. ***The following are recommended:***

- (i) ***to bring down transaction costs the State governments must address vital areas like taxation, availability of land and other infrastructure requirements like water, electricity, implementation of regulatory laws dealing with labour, environment etc.; and***
- (ii) ***establish an appropriate continuing mechanism for co-ordination between the Centre and the States in respect of manufacturing sector. The mechanism should include the States, the Centre, the Industry and the Academia.***

Recommendation-16:

Continuing Mechanism

The report recommends that there should be a focused attention to manufacturing and for this purpose, a manufacturing policy should be put in place. Growth of manufacturing sector would depend on its competitiveness. Companies, which compete with each other both

domestically and externally, need to constantly improve their competitiveness. Improving competitiveness is not a one-time affair. Since Governments provide necessary policy support in this endeavour, they also need to monitor the changes in global competitiveness and take appropriate action. Therefore, the NMCC or a set up of similar nature is required for effectively following up on various recommendations contained in this report. ***The following are, therefore, recommended:***

- (i) position an overseeing body, which could continuously advice both the Government and the industry on manufacturing competitiveness;***
- (ii) this organization should continuously work on the priorities of the Manufacturing Policy in consultation with the Ministries/Departments and all the stakeholders including taking an overall view on each of the sub-areas included in the policy;***
- (iii) empower the organisation to carry out the agenda of long-term sustained manufacturing growth;***
- (iv) the structure of NMCC almost meets the requirement but it would need strengthening. Expand its representation to include public sector and State Governments representatives;***
- (v) place the organisation under the PMO for effectiveness; and***
- (vi) review the progress of implementation of the recommendations at the PMO level with the concerned Ministries/ Departments and other stakeholders and place the actions required before HLCM / Cabinet Committee on Economic Affairs for decision making.***

MAIN REPORT

**REPORT OF THE GROUP CONSTITUTED
BY THE PRIME MINISTER
TO LOOK INTO THE MEASURES FOR ENSURING
GROWTH OF THE MANUFACTURING SECTOR**

INTRODUCTION

1. Prime Minister constituted a Group to study the issues relating to the growth of the Manufacturing Sector in January 2008. The Terms of Reference for the Group relate both to immediate and long-term measures for ensuring a 12 to 14 per cent growth of manufacturing. These are:-
 - a) to suggest policy measures and a continuing mechanism to ensure sustained growth of the Indian manufacturing industries for the next 10-15 years;
 - b) to suggest policy measures and immediate steps to reverse the recent deceleration in the growth of the manufacturing industries;
 - c) to suggest policy measures and immediate steps to boost exports of Indian manufactured goods in the face of appreciation of the rupee and high interest rates, particularly with respect to labour intensive sectors like textiles, leather and handicrafts;
 - d) to suggest policy measures to leverage FDI to modernize manufacturing in India and create a strong technological base.

The composition of the Group is at Appendix-1.

2. The terms of reference indicate the concerns of the Government which broadly appear to be the following –
 - (i) the immediate measures required to be taken in the background of decelerating growth of manufacturing due to the measures taken to control demand for money, appreciating rupee etc., in the period 2006-07;

- (ii) the average annual rate of growth of manufacturing from 1991-92 up to 2007-08 has been hovering around seven per cent which is way below the 12 to 14 per cent required to reach a growth rate of 9 to 10 per cent of the economy as whole;
 - (iii) the growth pattern of the economy driven mainly by the services sector is unbalanced from the point of view both of the strength of the economy as well as creation of appropriate jobs for the millions joining the work force every year; and
 - (iv) inadequate absorption/development of technology required for enhancing the competitiveness of the Indian manufacturing sector and create a strong technological base and in that context the need to leverage the FDI through appropriate policy measures.
3. The Group met in the month of January 2008 and discussed the terms of reference (b) & (c) which are the immediate measures to be taken up in the wake of the 2008 Budget and Foreign Trade Policy. The Group submitted four Interim Reports in this regard, which form Part-II of this Report. In the preparation of these interim reports apart from the inputs received from the members of the group the inputs from the industry were also taken into account.
4. The Group met in the months of March, April, June and August 2008 to discuss the remaining two Terms of Reference (namely, (a) and (d)) relating to the long-term growth of the manufacturing sector. The issues were also discussed in the Council Meeting of the NMCC, which has a wide representation of the industry, the academia, professional economists and Government representatives. In addition, Dr. V. Krishnamurthy, Chairman, NMCC / Shri V. Govindarajan, Member Secretary, NMCC met the Deputy Chairman, Planning Commission, Chairman, Economic Advisory Council to the PM, Chairman, Thirteenth Finance Commission, Chairman, National Commission for Enterprises in the Unorganized Sector and the Governor, Reserve Bank of India and broadly discussed the line of thinking in the preparation of the report on the long-term issues relating to the growth of the manufacturing sector. The draft report was discussed at the Group meeting in August, 08. Part-I of this report contains the analysis and recommendations based on all the above consultations and discussions.

PART – I

PART-I

LONG TERM GROWTH OF MANUFACTURING

5. PART-I of the report deals with two of the four Terms of Reference which were given to the Group constituted by the Prime Minister. The Terms of Reference under consideration in this part of the Report are –
 - i) to suggest policy measures and a continuing mechanism to ensure sustained growth of the Indian manufacturing industries for the next 10-15 years;
 - ii) to suggest policy measures to leverage FDI to modernize manufacturing in India and create a strong technological base.
6. The task given to the Group is a daunting one. Making recommendations for ensuring long-term growth of manufacturing sector would in fact mean taking a view on the growth strategy of the economy itself. It would also involve taking a view on the policies that promote growth of manufacturing. It includes taking a view on the roles of markets and that of the State, on the macro-economic policies as well as other policies including sectoral policies that affect manufacturing. The Group recognizes that all these aspects cannot be discussed in full detail in a report of this nature. Keeping these limitations in mind the report attempts to outline the direction in which the policies need to move. Detailing needs to be done once the principles outlined here are accepted. The report also contains specific suggestions for implementation.

SECTION - 1

BACKGROUND

- 1.1. The Indian economy is expected to grow between 9 and 10 per cent in the medium to long term to enable India to reduce poverty and become a strong modern developed nation. The first requisite for such a transformation of the economy is sustained growth. The growth can be sustained over a long period only when the manufacturing sector also grows robustly. Manufacturing sector can grow only when it is competitive. It is estimated that the manufacturing sector would need to grow at 12 to 14 per cent per annum to ensure a balanced growth of the economy of 9 to 10 per cent per annum. If the objective of poverty reduction is to be achieved, it is essential that the type of growth pursued ensures substantial job creation. It is generally accepted that if India is to bring about a large shift of surplus labour force from agriculture, rapid growth of manufacturing sector, in particular, of the labour intensive sectors need to be promoted.
- 1.2. For ensuring rapid growth of manufacturing it is necessary that, in a liberalizing and globalizing scenario, Indian manufacturing becomes globally competitive not only in terms of price but also in terms of quality. Besides, the country requires a strong technological base both from the point of view of maintaining competitiveness of manufacturing but also for ensuring the long-term security needs of the country. In that context, putting in place an appropriate FDI policy, which encourages transfer of technology and promotes domestic manufacturing growth, becomes a crucial element in the strategy.
- 1.3. The National Strategy for Manufacturing (NSM 2006) prepared by the National Manufacturing Competitiveness Council (NMCC) had considered all the aspects which required attention for improving the competitiveness of the Indian Manufacturing sector. The Strategy Report has identified that “the growth of manufacturing sector is dependent on government policies which influence the market environment in which the businesses operate as well as on the role played by the industry itself. There are certain areas where both

Government and Industry need to put in efforts, preferably, through a well-designed Public-Private partnership mode.”

1.4. It also mentioned the following areas in which the Government should take the lead. They are:

- “Ensuring macro economic stability including containment of core inflation
- Ensuring cost competitiveness and stimulating domestic demand
- Strengthening education & skill building
- Investing in innovations & technology
- Enabling speedy development of infrastructure
- Providing right market framework & regulatory environment to reduce transaction costs
- Ensuring effective coordination between Central, State and Local levels
- Creating a standing mechanism for resolving manufacturing policy issues.
- Enabling Small & Medium Enterprises (SMEs) to achieve competitiveness
- Enabling Public Sector Enterprises (PSEs) to meet competitive market conditions

1.5. The National Strategy for Manufacturing also identified that the Industry on its part needs to deal with the following challenges:

- Investing in R&D and technology,
- Showing a continuing commitment to skills development & knowledge enhancement,
- Adopting global standards and Benchmarking their performance against the best in the class,
- Adopting best manufacturing practices & production techniques, and
- Increasing the scale of operations and delivering on globally acceptable quality levels.”

1.6. The NMCC circulated the NSM 2006 to all the Ministries. Individual actions have been taken on some of the aspects by the Ministries whatever fell in their domain without focus on overall impact on the Manufacturing growth. However, in respect of the six sub-sectors of Manufacturing which were identified by the High Level Committee on Manufacturing (HLCM) for taking up in detail by the NMCC, the

individual Ministries in consultation with the NMCC did make extra efforts and formulated Policies and Programmes towards improving these sub-sector areas. These sub-sectors are, Textiles and Garments, Food and Agro Processing, Leather and Footwear, IT Hardware and Electronics, Skills Development and problems of SMEs. However, these Sub-sectors were also greatly affected by the other macro-economic policies which fell outside the purview of Ministries dealing with these sub-sectors and the Ministries had little or no say in the framing of those policies.

- 1.7. The improvement in competitiveness is dependent on not only with respect to the activity of the sub-sector, but also on the accompanying policy framework and the eco-system required for nurturing and developing the sector. This Report, therefore, concentrates on this aspect of ensuring that the over all eco-system is made conducive to sustained manufacturing growth. The individual elements have already been detailed, as mentioned above, in the National Strategy for Manufacturing (NSM 2006). Besides, discussions were held at the NMCC on several sub-sectors of manufacturing and the future course of action required in those sub-sectors was also conveyed to the concerned for follow up.
- 1.8. The NSM 2006 basically identified all the areas which required attention for improving the overall competitiveness of the manufacturing sector. It also identified sub-sectors which needed detailed attention. It however, did not differentiate between sectors for extra attention to be given by Government. The issues such as the role of manufacturing sector for the long term strategic needs of the country were also not identified. Several issues confronting the sector came up during the course of implementation of the strategy. The experience gained in the period 2006-08 has enabled to focus on specific actions needed. The current report therefore is built on these experiences and experiences of other developing countries which posted high growth rates of manufacturing over an extended period.
- 1.9. The present Report has taken into account the efforts made so far by the country and analyzed the successes and failures. The Sections that follow briefly deal with the developments in the growth of the Economy and in particular the Manufacturing Sector in India in the past; the role of the Government and thereby of the need for an appropriate manufacturing policy is also discussed. In this context the experiences of the countries that have registered a robust growth in

manufacturing during the past few decades such as Korea, Taiwan, Singapore, Hong Kong, Malaysia, Indonesia, Thailand and China have been examined. The role of technology and innovation and in that context the role of the FDI policy in ensuring competitiveness as well as creating a strong technological base is also discussed. The mechanisms for ensuring continuous monitoring and implementation of policies for the long-term growth of the manufacturing sector have also been discussed.

SECTION-2

Developments in the growth of the Indian Economy, in particular of the Manufacturing sector during the past three decades

- 2.1. India has moved from about a 5 per cent average growth rate of the economy in the 1980s to over 6 per cent in the 1990s and is at about 8.5 per cent during 2004-08. India's growth pattern has been somewhat different from the growth paths usually witnessed by countries during their development from an underdeveloped state to that of a developed country. The share of agriculture in the Indian GDP fell from 46 per cent in 1970-71 to 32 per cent in 1990-91 and to further 21 per cent in 2004-05. During the same period, the share of industry rose from 22 per cent in 1970-71 to 27 per cent in 1990-91, and has stayed there since then. The share of manufacturing rose from 13 per cent in 1970-71 to 17 per cent in 1990-91, and has remained more or less at that level. In spite of a very substantial reduction in the share of agricultural output in the GDP, the share of industry in general, and of manufacturing in particular, has not grown since 1990-91. The decline in the share of agriculture since 1990-91 has been occupied completely by services, which rose from 32 per cent of the GDP in 1970-71 to 41 per cent in 1990-91 and 52 per cent in 2004-05.
- 2.2. **Table-I** and **Graphic-I** show the growth of the economy during the period from 1991 onwards and that of the manufacturing and services sectors during the same period. The contribution of services to GDP during this period continued to be sustained at a reasonably high level, while the manufacturing growth has been uneven and did not contribute substantially except during the past four years i.e., 2004-05 to 2007-08.

TABLE-I

Annual Percentage Growth Rate of GDP, Manufacturing and Services at Constant prices 1999-00			
	Gross domestic product	Manufacturing	Services
1991-92	1.43	-2.4	4.62
1992-93	5.36	3.09	5.67

1993-94	5.68	8.59	7.25
1994-95	6.39	10.82	5.9
1995-96	7.29	15.46	10.09
1996-97	7.97	9.5	7.57
1997-98	4.3	0.05	8.83
1998-99	6.68	3.13	8.29
1999-00	6.44	3.22	9.46
2000-01	4.35	7.75	5.65
2001-02	5.81	2.54	7.18
2002-03	3.84	6.81	7.47
2003-04	8.52	6.63	8.49
2004-05	7.45	8.65	9.14
2005-06	9.4	8.98	10.34
2006-07	9.62	12	11.08
2007-08	9.0	8.8	10.8

Source: CSO, NAS

2.3. **Table-II** shows the average rate of growth of manufacturing during the 1980s, the 1990s and in the current decade so far. It also brings out the trend of the growth of manufacturing since the onset of substantial economic reforms i.e., from 1991-92 to 2003-04 and also for the period 1991-92 to 2007-08. It can be seen that the growth of the sector in the period 1991-92 to 2003-04 has been 5.7% which is at the same level as in the 1980s while it improved somewhat to 6.7% in the period 1991-92 to 2007-08. Overall, it cannot be said that manufacturing sector in India has performed according to potential or expectations during this period.

TABLE-II

Long term Growth Rates of Industry & Manufacturing in India

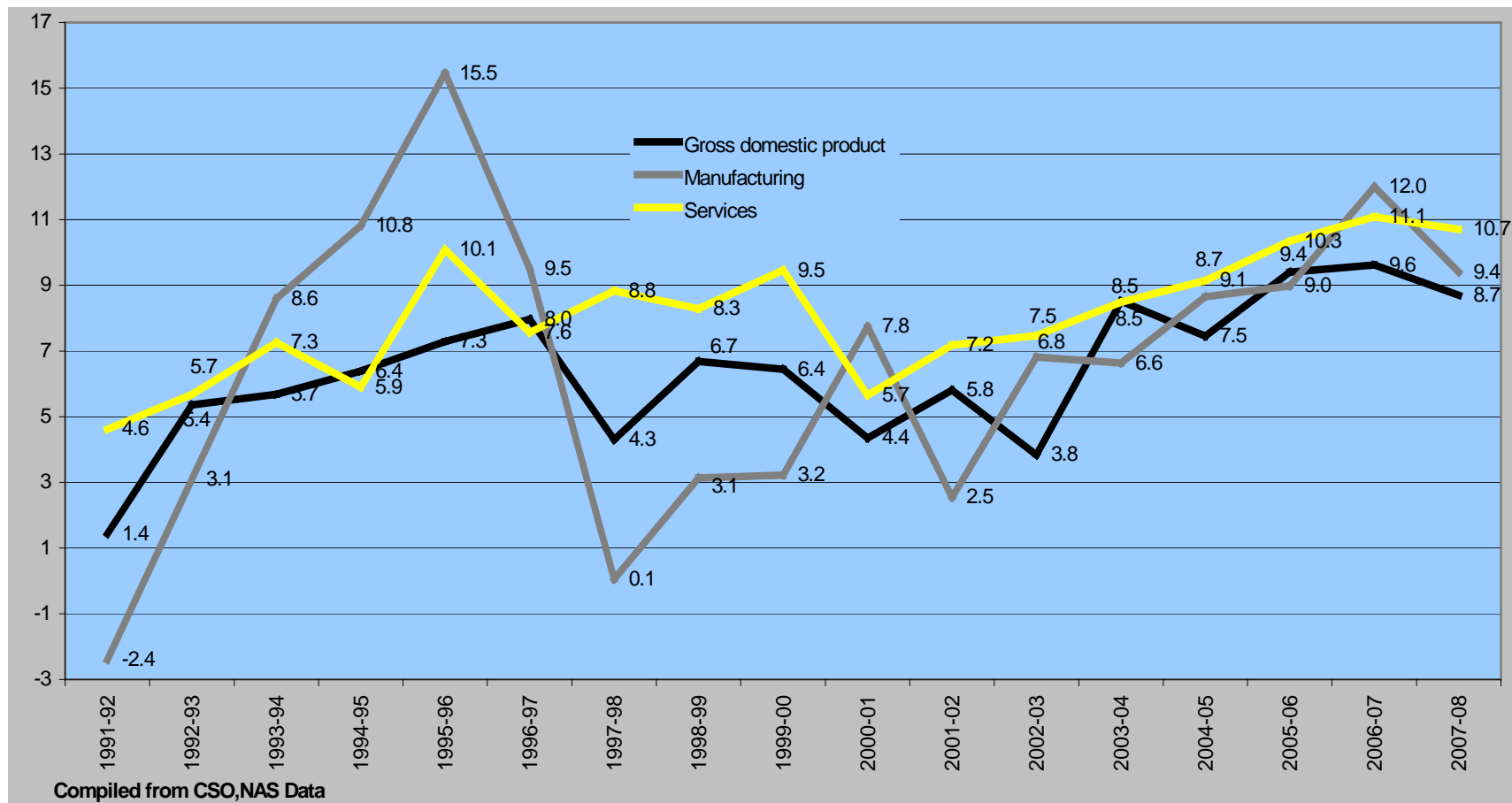
Average Growth Rate in % at Constant Prices 1999-00					
1	2	3	4	5	6
	80's	90's	00's		
	1980-81 to 1989-90	1990-91 to 1999-00	2000-01 to 2007-08	1991-92 to 2003-04	1991-92 to 2007-08
Industry	5.9	5.6	7.8	5.6	6.5
Manufacturing	5.7	5.5	7.9	5.7	6.7

Compiled by CMIE at NMCC from CSO, NAS Data

Methodology of Calculation: Geometric Mean as followed by IMF

Graphic-I

Annual Percentage Growth Rates of GDP, Manufacturing and Services at Constant Prices 1999-00



2.4. The position relating to the employment in the sector is also equally disturbing. The share of employment in Agriculture and related sectors in 1999-2000 remained at around 60 per cent while its share in GDP was only about 21 per cent. The manufacturing sector whose share in GDP was between 16 to 17 per cent has contributed only about 11 per cent of employment (**Table-III**). The growth of the manufacturing sector also did not reflect itself in greater share of employment in the organized sector; instead, the bulk of the employment appears to have taken place in the unorganized sector, the organized sector contributing only about five per cent in the employment in the manufacturing sector as a whole (**Table-IV**). These figures clearly reveal that even though the growth of the economy since the reforms has been higher than what it was prior to the onset of the reforms, it did not grow to its potential or create appropriate jobs for the surplus labour in the rural sector through robust growth of labour intensive manufacturing sectors.

TABLE-III
**GDP and Employment Shares of Various Sectors,
1999-2000**

Industrial Category	Output Share	Employment Share
1	2	3
1. Agriculture, Forestry, & fishing	25.3	60.3
Nonagricultural	74.7	39.7
2. Mining & quarrying	2.3	0.6
3. Manufacturing	14.7	11.0
4. Electricity, gas, & water supply	2.5	0.3
5. Construction	5.9	4.4
6. Trade, Hotels, & restaurants	14.2	10.3
7. Transport, Storage, & communication	7.4	3.7
8. Finance, Insurance, real estate, & business services	13.0	1.2
9. Community, social, & personal services	14.7	8.3
Gross Domestic product at factor Cost (1 to 9)	100.0	100.0

Source: Panagaria, India the Emerging Giant

TABLE-IV**Shares of Informal Sector Output and Employment by Industry, 1999 - 2000**

Industry	Percentage share in GDP, by Sector		Percent Share of Informal Employment
	Formal	Informal	
Agriculture	3.2	-	99.2
Forestry & logging	5.6	-	98.3
Fishing	0.1	-	98.5
Agriculture, Forestry & logging, and fishing	3.1	-	99.1
Mining & quarrying	91.6	8.4	90.7
Manufacturing	60.8	39.2	94.9
Electricity, gas, & water supply	93.8	6.2	90.1
Construction	41.8	58.2	85.8
Trade	18.1	81.9	84.7
Hotels & restaurants	41.2	58.8	90.7
Transport & storage	35.2	64.8	79.3
Communication	91.4	8.6	92.8
Banking & insurance	90.5	9.5	88.7
Real estate, ownership of dwellings, and business services	18.6	81.4	89.9
Public administration & defense	100.0	0.0	0.4
Other services	69.5	30.5	87.4
Nonagricultural, other than paid domestic workers	56.0	44.0	88.3
Hired domestic workers	-	-	100.0
Total	42.0	32.4	95.6

Source: Saha, Kar, and Baskaran (2004, tables 1 and 2) and Panagaria

2.5. During the period 1991-92 to 2007-08 the mean growth rates of labour intensive sectors such as Textiles and Garments, leather and

leather products and food products have been very low further substantiating the above point (**Table V**). These developments clearly call for a reworking of the policies which would ensure that the objectives of high growth of manufacturing and appropriate employment generation becomes part and parcel of the overall growth strategy of the economy. Policies need to ensure that the inherent negative bias seen in the growth process in terms of employment is corrected.

TABLE-V

Index of Industrial Production Two digit level indices (NIC-1987) Mean Growth Rate from 1991- 92 to 2007- 08 (BASE: 1993- 94=100)			
Indicator	Codes	Weights	Mean Growth Rate in %
Food products	20-21	90.83	3.54
Beverages, tobacco and related products	22	23.82	11.52
Cotton textiles	23	55.18	4.29
Wool, silk and man--made fibre textiles*	24	22.58	7.62
Jute & jute textiles	25	5.90	1.22
Textile products (incl. wearing apparel)	26	25.37	4.35
Wood and wood products	27	27.01	1.42
Paper & paper products	28	26.52	6.45
Leather & leather products	29	11.39	3.39
Chemicals & chemical products	30	140.02	7.94
Rubber, plastic, petroleum & coal products	31	57.28	5.53
Non-metallic mineral products	32	43.97	7.91
Basic metal and alloy industries	33	74.53	9.03
Metal products	34	28.10	2.52
Machinery and equipments	35-36	95.65	7.76
Transport equipment	37	39.84	8.62
Other manufacturing industries	38	25.59	6.50
Manufacturing		793.58	6.83

* Growth Rate of the sub-sector is available from 1994-95

Source: CSO

2.6. Turning to the developments in technology during this period it is doubtless that India had made major strides in mastering technology in some fields such as Space, Atomic Energy, Missile Programme in particular. However, as a country, across various manufacturing sectors, one cannot say that India is producing high technology products in most fields. While India is supplying the software and IT inputs to the countries world over to upgrade their capital goods as well as other manufacturing products, the manufacturing sector in India has not adequately benefited from the achievements of the Indian IT Sector. It also did not move up the technology ladder sufficiently. The technology status of India in the world is discussed in detail in Section 5 of this report.

SECTION - 3

Policies followed by developing economies which posted high growth rates of manufacturing

- 3.1. In this Section a brief description of the policies followed by various countries in the East Asia and the South East Asia and China have been discussed. These countries have posted high growth rates which transformed them substantially and improved the standard of living of their people considerably. Of these countries Korea, Taiwan, Singapore and Hong Kong started industrialization in the 1960s and 70s while Thailand, Malaysia and Indonesia started industrializing in the 70s and 80s. China, as is well known started its reforms in late 70s but actually its economy started registering high growth rates in the later half of 80s to the present day.

KOREA, TAIWAN, SINGAPORE, HONG KONG

- 3.2. The Republic of Korea and Taiwan, the technological leaders in the developing world, adopted highly interventionist strategies on trade and domestic resource allocation, with a clear preference for promoting indigenous enterprises and deepening local capabilities. They imported technology vigorously from leading TNCs, but assigned FDI a secondary role to technology import. Their export drive was led by local firms, and comprehensive policy support allowed local firms to build impressive technological capabilities. The domestic market was not exposed to free trade; a range of quantitative and tariff measures were used over time to give infant industries “space” to develop their capabilities. The deleterious effects of protection were offset by strong incentives to export and face full international competition. During liberalization, the same careful strategic approach was used to ensure that no damage resulted to local enterprises; concomitantly, these enterprises were encouraged to go transnational and set up integrated production systems of their own.
- 3.3. Of the emerging Asian economies Korea stands out as the clear technological leader on almost every criterion. Its industrial sector has considerable depth and integration, with competitive capabilities over a very wide range of activities (including practically all heavy

producer goods industries) that have been developed largely without reliance on direct foreign investment, largely on the basis of indigenous learning, skills and R&D efforts. Its leading firms are multinationals in their own right in many frontier activities, challenging established multinationals on their home ground, and competing in industries where it was thought that developing country firms could not play an independent role.

- 3.4. The Republic of Korea went much further in developing advanced technologies and heavy industry than Taiwan. Its interventions had been more detailed and pervasive, along the lines of Japan but more comprehensive. It relied primarily on capital goods imports, technology licensing and other technology transfer agreements to acquire technology. It used “reverse engineering”, adaptation and own product development to build upon technology imports and develop its own capabilities. It drew upon OEM contracts to access technologies and skills from TNCs. The Republic of Korea accounts for around 53 per cent of total private sector R&D spending in the developing world (UNIDO, 2002). The R&D risks undertaken were contained by the strict discipline imposed by the Government in terms of export performance, vigorous domestic competition, and deliberate interventions to rationalize the industrial structure. The Government also undertook various measures to encourage the diffusion of technology, putting pressure to establish supplier networks. Apart from the direct interventions to support local enterprises, the Government provided selective and functional support by building a massive technology infrastructure and creating general and technical skills.
- 3.5. Taiwan’s industrial policy encompassed import protection, directed credit, selectivity on FDI, support for indigenous skill and technology development and strong export promotion. This differs from the Republic of Korea’s strategy in many ways. Taiwan did not promote giant private conglomerates, nor did it attempt the intense drive into heavy industry as Republic of Korea did. Industry in Taiwan is largely composed of small and medium-sized enterprises (SMEs), and given the disadvantages for technological activity inherent in small size, these were supported by a variety of inducements and institutional measures in upgrading their technologies. Taiwan probably has the developing world’s most advanced system of technology support for SMEs.

- 3.6. In the early years of industrialization, the Government of Taiwan attracted FDI into activities in which domestic industry was weak, and used a variety of means to ensure that TNCs transferred technology to local suppliers. The Government also played a very active role in helping SMEs to locate, purchase, diffuse and adapt new foreign technologies. Where necessary, it entered into joint ventures in order to get into technologically very difficult areas such as semiconductors and aerospace.
- 3.7. Of the smaller countries, with narrower spheres of competence, Singapore is distinctly ahead of Hong Kong in technological terms. Despite its smaller size and higher wages, which may be expected to lead to faster de-industrialization, Singapore continues to register among the highest rates of industrial and export growth in the region, while Hong Kong is suffering a rapid contraction on its manufacturing sector and falling exports. The industrial structure of the two countries has diverged greatly, with Singapore transforming itself into a centre for high-tech electronics and chemical production (with concomitant technological capabilities) and Hong Kong remaining in light consumer goods with low technological content. The Hong Kong economy has continued to grow by moving into services largely directed at the mainland, but its rate of growth is lower than that of Singapore, which has also increased its service sector considerably without running down industry. However, Singapore's edge lies in providing an efficient and high-skill base for MNC activity rather than in its own technological capabilities. These capabilities are growing, partly as MNCs are induced to set up research facilities there in certain selected areas, but they are not comparable to those in the larger countries like Korea and Taiwan.

THAILAND, MALAYSIA, INDONESIA

- 3.8. None of these countries has a significant technological base. Their high dependence on FDI for technology upgrading and diversification has served them extremely well in the past, but they are conscious of the constraints of the strategy. They are making efforts to upgrade from essentially low-level assembly to more value-added manufacturing with deeper local roots, and to develop their 'know-why' bases by trying to raise local content, encouraging technological activity, building technology institutions, and/or entering higher-technology activities with state-owned enterprises. The results so far

are mixed. There are a few successes, but these are insufficient to influence the technological base as a whole and they are not developing a tradition of autonomous R&D in the private sector. They suffer from shortages of technical manpower that will prevent them from following an aggressive FDI-targeting strategy like Singapore. The new rules of international investment would in any case limit such efforts.

- 3.9. On present trends, these countries seem set to remain efficient implementers of new technology, as producers at low to medium levels of technological sophistication. Domestic firms will dominate in the simpler technologies, and MNCs in high-tech ones. This may allow them to sustain high rates of growth as in the past; on the other hand, with a strong competitive threat from lower-cost economies or those with larger technological bases, they may lose momentum as these competitors offer similar incentives to foreign investors and improve their infrastructure. As the initial advantages erode, their continued growth will depend on the success of their efforts to move up the technological ladders.

CHINA

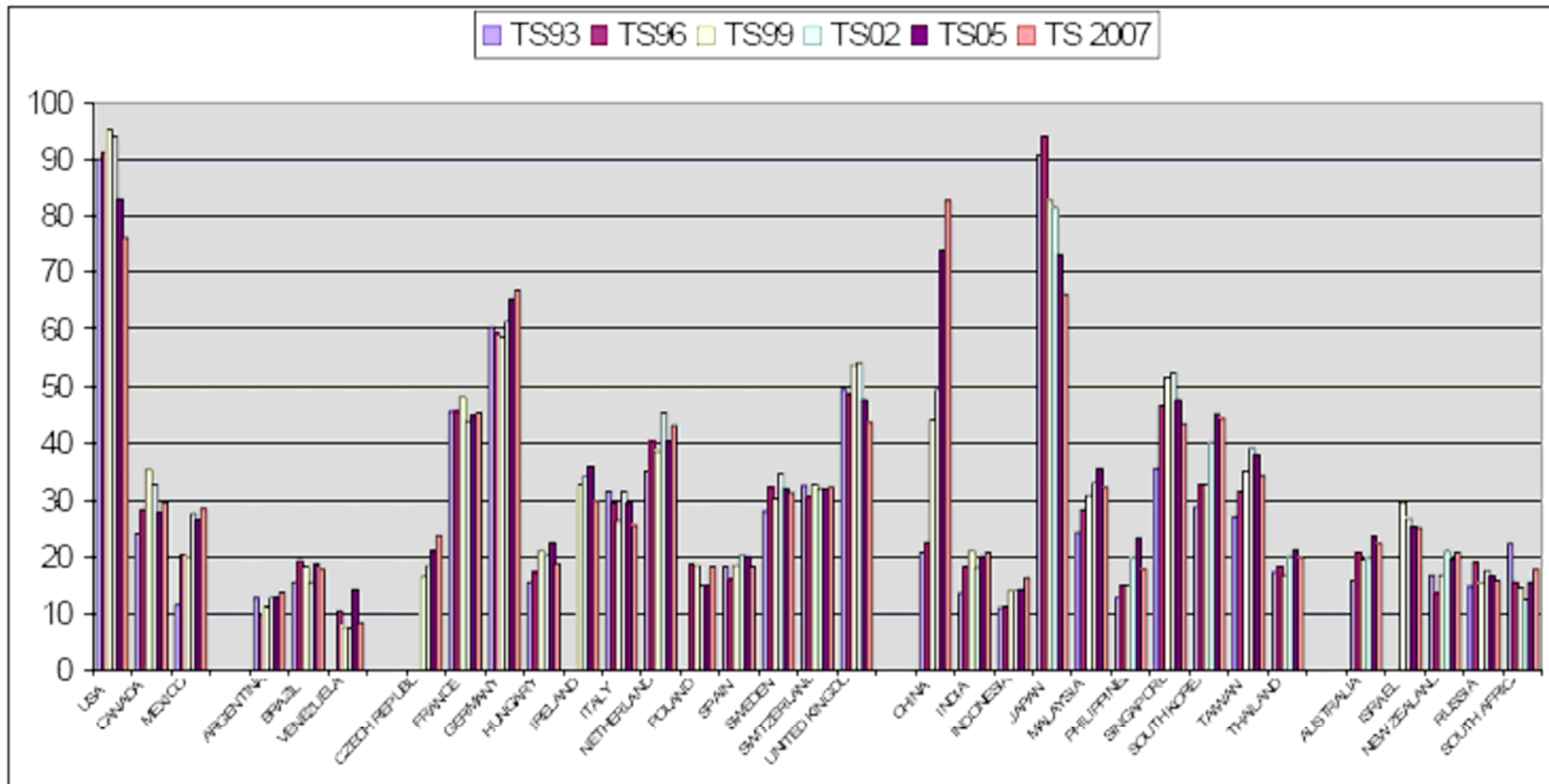
- 3.10. China has made giant strides in manufacturing and is now known as the world's manufacturing factory. The manufacturing value added (MVA) by China has increased from 3.83% in 1980s to 5.26% in 1990s and to 10.82% in 2000s. Policies followed by China, therefore are worth noting. In this Section we are not elaborating, though relevant, on China's unconventional use of banking system, exchange rate policies etc., but are concentrating on the strategy followed by them through Industrial Policy including FDI policy to strengthen their manufacturing base both in terms of its size as well as technological advancement.
- 3.11. China has followed an industrial policy including the FDI policy which promoted domestic manufacturing growth. In addition to providing better infrastructure, labour flexibility/discipline etc., some specific policy actions put in place by Chinese Government have substantially contributed to the rapid growth of manufacturing in China. China has adopted a clear policy for promoting manufacturing as a primary goal in its growth model. Chinese policy included a clear set of incentives in terms of subsidies, concessions in taxes etc., for investment and promotion of manufacturing industries. China also has put in place

policies in respect of the FDI which helped in the growth of domestic companies including technology transfer. For example, absorption of technology by local company, minimum capital requirement, local participation in the companies etc., are prescribed to ensure that the manufacturing along with technology is shifted to China. The macro economic policies such as the Exchange rate and Interest rate policies in China also have been made to subserve the goal of growth of manufacturing.

- 3.12. Broadly, China's Industrial Policy has been a combination of the Policy followed by Korea substantially in terms of emphasis on heavy industry and Technology and also that of the smaller South East Asian countries in terms of low level assembly type of manufacturing for engaging large workforce and generating much needed export volumes. The results so far indicate that China has been successful on both the fronts. Besides this, like Korea, China has also made major strides in developing domestic technological capabilities. Their success in this regard is highlighted in a recent study on 'High Tech Indicators' by Georgia Institute of Technology (USA) in 2008.
- 3.13. Georgia Tech's "High Tech Indicators" study ranks 33 nations relative to one another on "technological standing," an output factor that indicates each nation's recent success in exporting high technology products. Four major input factors help build future technological standing: national orientation toward technological competitiveness, socio economic infrastructure, technological infrastructure and productive capacity. Each of the indicators is based on a combination of statistical data and expert opinions.
- 3.14. A chart showing change in the technological standing of the 33 nations is dominated by one feature – a long and continuous upward line that shows China moving from "in the weeds" to world technological leadership over the past 15 years (**Graphics-II & III**).
- 3.15. The 2007 statistics show China with a technological standing of 82.8, compared to 76.1 for the United States, 66.8 for Germany and 66.0 for Japan. Just 11 years earlier, China's score was only 22.5. The United States peaked in 1999 with a score of 95.4. In this Graphic India's progress has been minimal and it also stands relatively at a low level. **Graphic-IV** shows the progress made by various countries in respect of competitiveness. Even here China outperformed every country and the results are seen in terms of exports as well as domestic growth rates.

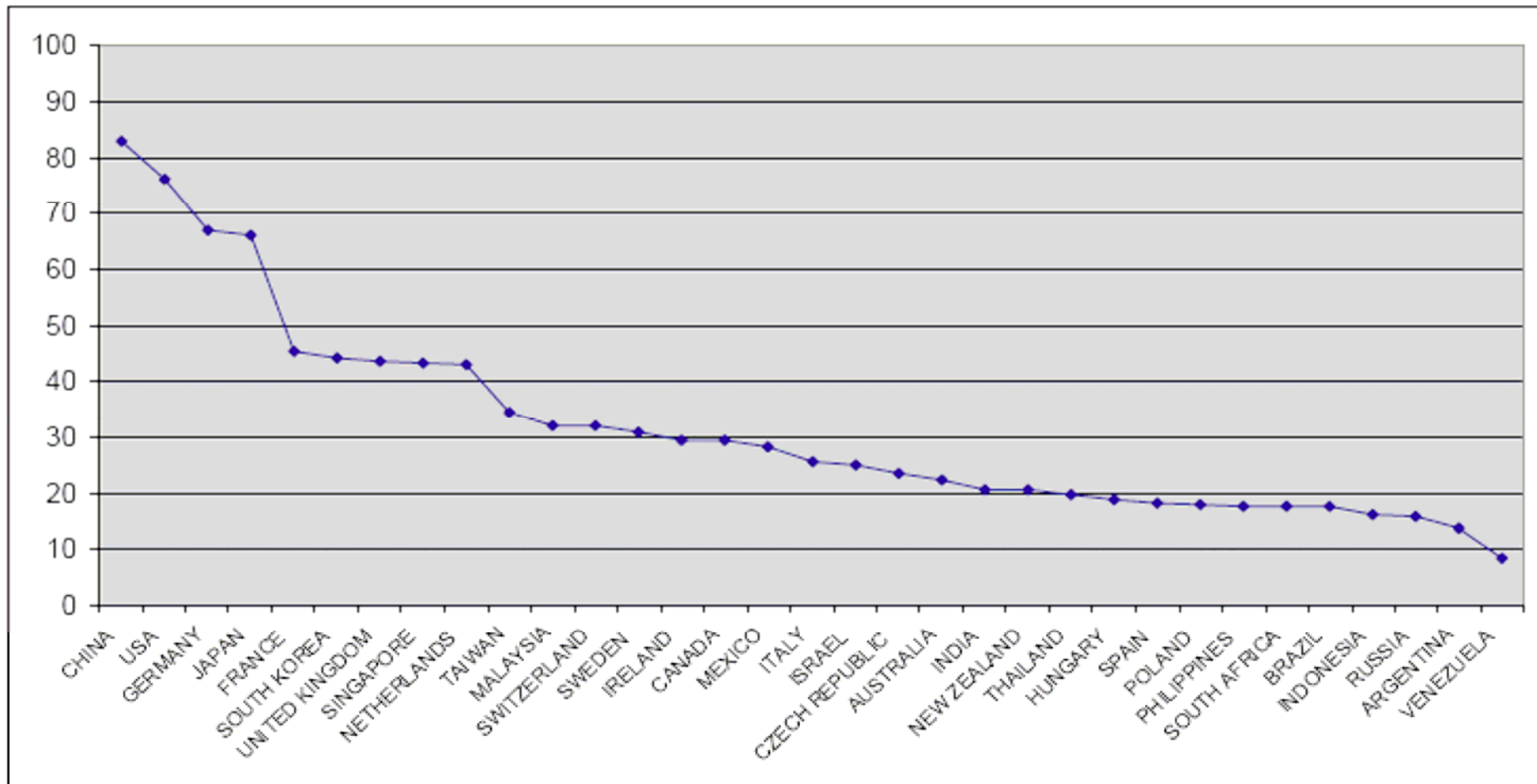
Graphic-II

Technological Standing: 1993-2007



Graphic-III

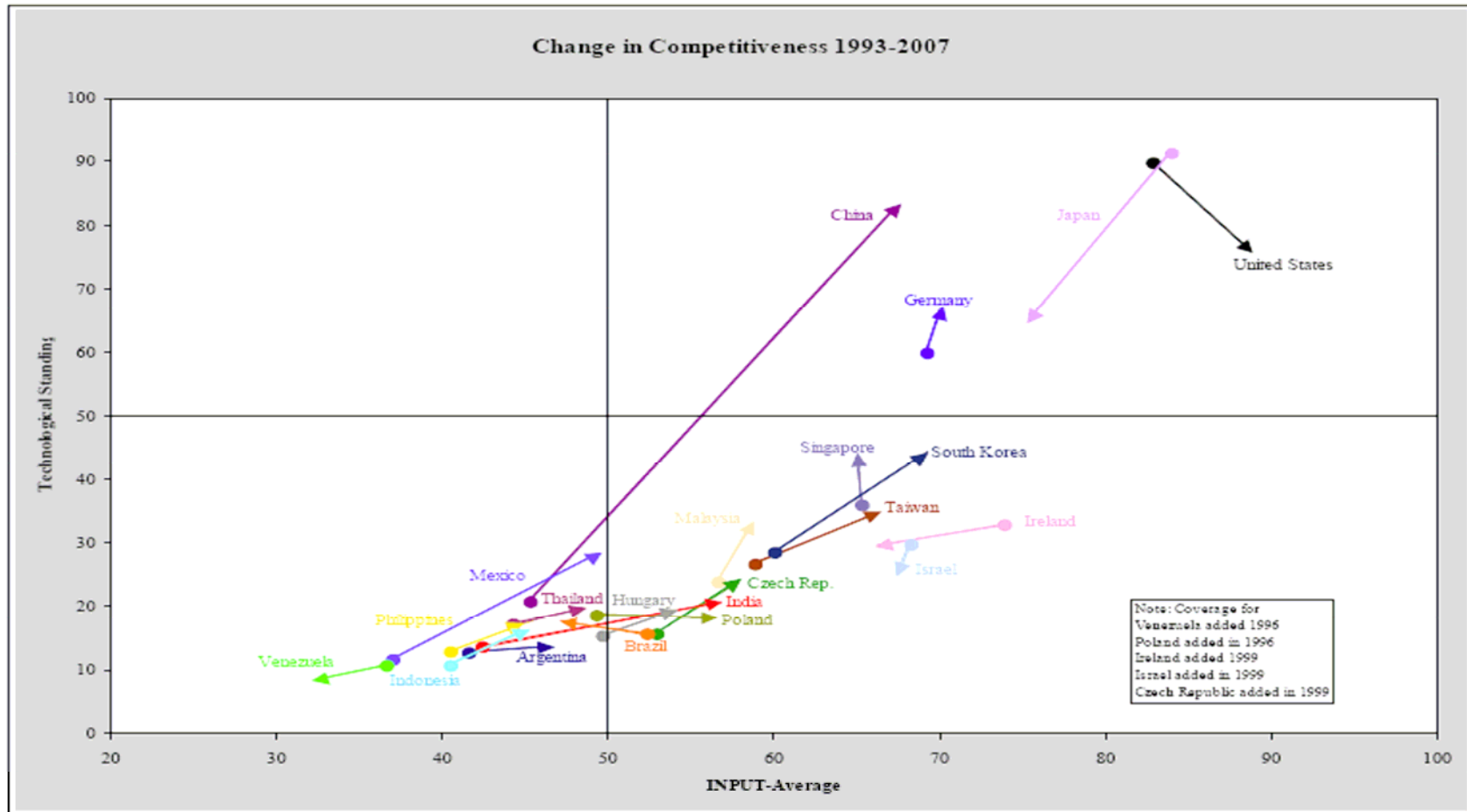
Technological Standing, 2007



Source: Georgia Institute of Technology

Graphic-IV

Change in Competitiveness



Source: Georgia Institute of Technology

- 3.16. The study's indicators predict that China will soon pass the United States in the critical ability to develop basic science and technology, turn those developments into products and services – and then market them to the world. Though China is often seen as just a low-cost producer of manufactured goods, the study clearly shows that the Asian powerhouse has much bigger aspirations. For the first time after nearly a century leadership of the US in basic research and the economic ability to pursue the benefits of that research such as creation and marketing of products based on research is being challenged by China.
- 3.17. China has recently embarked on a revised manufacturing policy which has further sharpened the focus. The new policy aims at aggressively promoting value addition in manufacturing. For example, the concessions on VAT would be given to the companies on a graded basis with reference to the amount of local value addition. Also, to support the domestic industry with cheap availability of raw materials and inputs, China is using the export taxes on these materials as a tool to limit exports. This serves two purposes. The levy of export taxes ensures that the Chinese companies get cheaper raw materials and inputs while the countries that import these materials would have to buy it at a higher cost and, therefore, will be less competitive in terms of the finished products.
- 3.18. China has also been actively putting in place some measures which outwardly are not WTO incompatible but which helped domestic manufacturing. For example, China has come up with a new mandate in 2007 called “indigenous innovation”. While China claims that this is only to invigorate domestic innovation, the real purpose appears to be to give indigenous manufactures, i.e. Chinese companies an additional advantage through preferences, tax incentives etc.
- 3.19. Already, indigenous innovation has manifested itself in a number of areas ranging from the development of national standards and conformity assessment to competition policy and favoritism in government procurement. One example of this is the government's efforts to promote its homegrown Third Generation (3G) cellular network technology called Time Division-Synchronous Code Division Multiple Access (TD-SCDMA). The government appears to be waiting for this indigenous technology to be fully developed before opening the Chinese market to foreign 3G companies. Separately, China appears to be moving toward mandating the use of unique and non-

- transparent Chinese standards for national and information security purposes.
- 3.20. The Chinese Government has also encouraged that state-owned enterprises purchase domestic Chinese software as part of its software effort; this is being done in spite of an explicit WTO commitment not to discriminate purchasing by state-owned enterprises. Procurement measures announced in December 2007 and January 2008 require the government to procure products from an “indigenous innovation catalogue” wherever possible. Government agencies wishing to purchase imported products must justify and seek approval from the Ministry of Finance.
 - 3.21. Standards, particularly in the technology sector, are increasingly used as a tool to help China achieve its industrial policy goals. With the emphasis on indigenous innovation, there appears to be a clear policy of developing, encouraging and in some cases mandating development and implementation of homegrown standards to support China’s technological development. This has come primarily in areas such as nanotechnology, information technology, information security and biotechnology, especially in genomics and stem cell research.
 - 3.22. Certification and testing of imported products is conducted in an uneven manner compared to similar domestically produced products. For example, domestic manufacturers can evade or escape scrutiny in the certification and testing of special purpose products such as agricultural machinery and other vehicles. Domestic manufacturers have been known to produce a model for type testing, only to bring the unit to market without including all the safety or pollution-control equipment featured on the demonstration model. This allows companies to reduce costs by skirting safety and environmental rules.
 - 3.23. Furthermore, Chinese manufacturers in some cases encourage the government to mandate the use of outdated technologies (via standards or test methods) in order to restrict or limit competition by foreign manufacturers trying to enter the Chinese market. This lag in adoption of new technologies by mandating the use of outdated standards or test methods is particularly noticeable in the building-materials industry. For example new insulation materials and application technologies are prohibited in China because of a lack of standards with which to evaluate them.

- 3.24. In the area of communications technology, China is developing security and encryption-related standards that could have an adverse impact on the ability of foreign IT companies to produce and sell their related products in China. The scope of such measures remains unclear.
- 3.25. In sum, China has ensured that a variety of policy and administrative instruments are used for developing domestic manufacturing and promoting upgradation of technologies by domestic companies. The bottom line for China has been to pursue domestic manufacturing and acquisition/development of technologies including high technologies with a single-minded focus.

Role of Government in the Development of Technology in these Economies

- 3.26. Governments of these economies intervened both selectively and functionally in promoting technology development. The patterns of intervention varied enormously. Hong Kong and Singapore did not use trade interventions, though Singapore influenced resource allocation by targeting and guiding foreign investment.
- 3.27. Korea and Taiwan intervened significantly in trade, using the whole range of quantitative restrictions, tariffs, procurement, and other administrative measures to promote selected industries. They offset these interventions by strong export incentives and targeting, and coordinated investments across firms, activities, and industries as well as across product and factor markets, where they subsidized and allocated credit, targeted human capital formation, and encouraged technological activity. As noted, they also restricted FDI inflows to deepen their indigenous technological capabilities. The new Tigers had mixture of policies.
- 3.28. China has followed a well-structured Industrial policy of encouraging domestic manufacturing either by foreign companies or domestic companies. It followed a policy of privatization and FDI, which is conducive to domestic manufacturing, and transfer of technologies to China. Its outward investment encouraged acquisition of raw materials or market networks that helped Chinese domestic manufacturing companies. Domestic value addition has been the bedrock of its Industrial and FDI policies.

3.29. The countries that managed to build up the most advanced base of capabilities were those that intervened most heavily and efficiently – efficiently in this context means being selective, offsetting the effects of intervention by export orientation, and coordinating related activities and factor markets. **Table VI** gives differing industrial visions and strategies followed by these economies.

3.30. The interventions by Korea, Taiwan or China are basically different from the interventions made by Indian State till 1991. India more or less closed the inflow of foreign goods through the very high tariff barriers for the fear of closure of domestic industry. FDI was not permitted easily and foreign collaborations for technology were few and in selective areas. However, India did not develop adequately domestic skills and capabilities to improve the competitiveness of the domestic industry. This resulted in inefficiency as well as technology stagnation. The countries studied in this Section, in particular, Korea, Taiwan and China opened their economy for Trade, FDI and Technology in a calibrated manner according to their industrial policy while strengthening their own domestic capabilities. The sequencing was done in such a manner that the domestic manufacturing flourished while acquiring technological capabilities on a large scale.

TABLE-VI

Differing industrial visions and strategies in the Asian NIEs

	Deepening industrial structure	Raising local content	FDI strategy	Raising technological effort	Promotion of large local enterprises
Hong Kong	None, leave to market forces	None, leave to market forces	None, leave to market forces	None, except technology support for SMEs	None
Singapore	Very strong push into specialized high-skill/tech industry for export markets, but without protection	None, but subcontracting promotion for SMEs	Aggressive targeting and screening of MNCs, direction into high value-added activities	None for local firms, but MNCs targeted to increase R&D	None, but some public sector enterprises enter targeted areas
Taiwan	Protection and subsidization of capital, skill and technology-intensive industry. Incentives for exports of more advanced products	Pressures for raising local content, technology diffusion by MNCs and local subcontracting	Screening FDI, entry discouraged where local firms strong. Local technology diffusion pushed	Intense support for local R & D and upgrading of SMEs, Government targeted and orchestrated high-tech development	Sporadic: to enter heavy industry by public sector enterprises

Korea	Strong trade and credit interventions to promote capital, skill and technology-intensive industry, especially heavy intermediaries and capital goods. Selective export targeting and promotion	Stringent local content rules, creating support industries, protection of local suppliers, subcontracting promotion	FDI kept out unless necessary for technology access or exports, joint ventures and licensing encouraged	Ambitious plans for R&D in advanced industry, heavy investment in technology infrastructure. Targeting of strategic technologies	Sustained drive to create giant private conglomerates to internalize markets, lead heavy industry, create export brands
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Source: Competitiveness, Technology and Skills by Sanjaya Lall

SECTION - 4

Brief history of Policy Developments in India in Respect of the Manufacturing Sector

- 4.1. The first three Five Year Plans after Independence (1951-66), in particular the Second (1956-61) and the third (1961-66) five-year plan gave major emphasis to the development of Heavy Industries and thus the Manufacturing sector. The developments in Industry during that period were guided by the Industrial Policy Resolutions of 1948 and 1956. The public sector was the key instrument in the development of the sector during this period. There were very few major manufacturing companies in the private sector at that time. The investments required for quick transformation of a predominantly agricultural economy (agriculture accounting for about 60% of GDP) into a modern industrial economy required major investments and the private sector did not have necessary strength to raise resources required for this gigantic task. Therefore, the Government took the decision to invest massively from public funds and develop major industries and infrastructure projects. The outcome was creation of very strong heavy industry giants such as the Hindustan Steel Limited (later became Steel Authority of India Limited), the Bharat Heavy Electricals Limited, the Hindustan Machine Tools factory, the Heavy Engineering Corporation, the Mining and Allied Machinery Corporation, public sector units in Fertilizers, Petroleum, Pharmaceuticals, etc.
- 4.2. Many of these public sector units have continued to serve the purpose for which they were created and are also among the major manufacturing companies in India today. Parallely, during this period major boost was also given to the Atomic Energy, Space and Defence Equipment Manufacturing; Capital Goods Manufacturing was at the heart of that development process. Private sector was encouraged to develop in areas such as Textiles, Cement, Jute, etc., during this period. The manufacturing sector grew during this period at about 6.6 per cent mainly driven by the investments in the public sector.
- 4.3. This process changed somewhat in the next 15 years from the end of the Third Plan onwards and not many major public sector units were established barring Maruti Udyog Limited and a few others. The

period saw expansion of capacities of existing public sector companies to meet the requirements. The private sector did not have the freedom to build and expand in view of the controls brought in starting with 1967 onwards. The Monopolies and Restrictive Trade Practices (MRTP) Act was brought in to control the growth of large companies; tighter restrictions were placed on foreign firms by bringing in the Foreign Exchange Regulation Act (FERA); manufacture of a number of products were reserved for production by small scale industries and licencing regulations were tightened through industrial licensing policy. Similarly, controls by Government were brought in other areas such as Banking and Insurance sectors, foreign trade, and amendments to Industrial Disputes Act and enactment of urban and rural Land Ceiling Acts. This period also coincided with the slowest rate of growth of manufacturing. In the period 1965-81 the manufacturing sector grew at only 3.9 per cent.

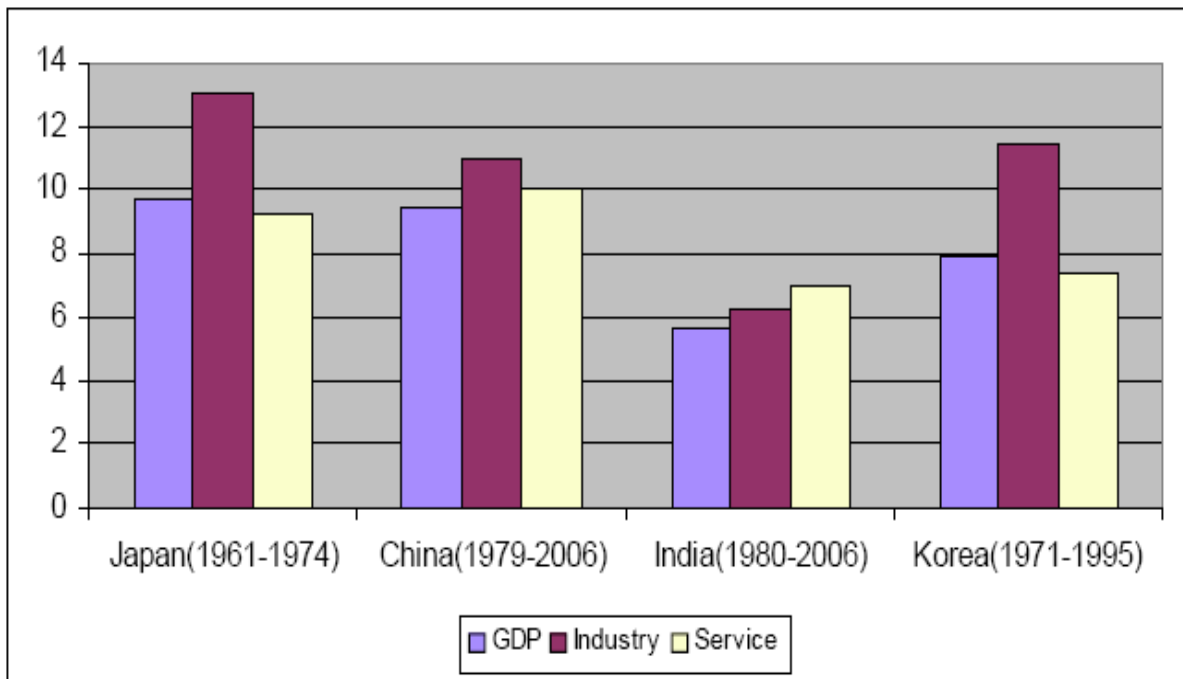
- 4.4. Manufacturing sector once again received the boost during the period when the first round of reforms took place after 1981. During this period the liberalization process started in a modest way and contributed to the expansion of the existing units typically in the private sector. Industrial licensing reforms were undertaken which eased the restrictions and enabled firms to expand. Price and distribution controls were relaxed. Trade liberalization was also undertaken on several fronts. Foreign investment was also allowed in a gradual manner. The growth rate of manufacturing in the period 1981-82 and 1987-88 has been over 7 per cent even though the decade of 1980s as a whole posted only 5.7 per cent growth of the sector.
- 4.5. The period starting 1991-92 is characterized by the big bang reforms in the form of industrial delicensing, a more pro-active FDI policy and a gradually liberalized foreign trade policy. The statement of Industrial Policy, 1991 was a major turning point. The trend of these reforms has continued with liberalizing and removing controls in a calibrated manner until now. Insofar as trade policies are concerned, the peak rates of customs duties which were at around at 110% in most cases in the year 1991, have been reduced to 10% by the year 2007. In some cases it has been reduced to 7.5%. In respect of IT hardware sector on many items the import duties have been brought down to zero per cent under the Information Technology Agreement (ITA). The Foreign Exchange Regulation Act (FERA) has been replaced by a more market friendly Foreign Exchange Management Act

- (FEMA). There are virtually no controls on capital movement for foreign investors.
- 4.6. The process of privatization and disinvestments of public sector units began during this period. Government support for addition of capacity in the public sector was not available except in exceptional circumstances. The public sector mainly depended on internal and borrowed resources for undertaking new activities. The liberalization ensured that many companies in the public sector had to compete with the private sector, which led to efficiency improvements in many units. However, many others fell by the wayside because of the increasing competition from domestic as well as foreign manufacturers. Overall, barring a few large undertakings, which could undertake restructuring and reform or which virtually enjoyed monopoly or are supported by administered prices, other public sector units could not perform well particularly when compared with the private sector. Thus, in the post-reform period the overall contribution of the public sector to the growth of manufacturing has decreased. The private sector, however, grew relatively more robustly in the wake of liberalization, particularly, the delicensing of industries in 1991.
- 4.7. However, as indicated earlier the growth of manufacturing in the period 1991 to 2004 was a mere 5.7 per cent which is the same as achieved in the 1980s. The growth picked up during the past three years peaking at 12.4 per cent in 2006-07. However, it again plunged to 8.6 per cent in 2007-08, which suggests that it may not be possible to sustain the growth of the manufacturing sector at an average 12 percent over the long term unless some remedial actions are taken. Some analysts feel that the recent high growth is cyclical and not structural and therefore cannot be sustained. It probably is a combination of both. The developments in this regard need to be observed further before one can come to any conclusions.
- 4.8. The pattern of growth of manufacturing and services sectors in respect of the major Asian economies during the periods of their high growth is worth noting. **Graphic-V** clearly shows that unlike in India, in Japan, Korea and China both manufacturing and services sectors grew robustly and contributed to a sustained high rate of growth of their economies. What is even more conspicuous is that during the period of their take off both in China and Japan in particular, the services sector grew much faster than in India where the growth of services sector, particularly during the past two decades is considered

spectacular! The services dominated growth in India appears to be more due to a smaller contribution of the manufacturing sector rather than any extraordinary expansion in the services sector when compared with the other major Asian economies. Arguably, had the manufacturing sector performed better during the post reform period in India, the services sector might have grown even faster thus contributing to even higher growth of GDP.

Graphic-V

Average growth rate of GDP, value added in industry and services in the fast growth periods



Source: Yuefen Li and Bin Zhang, United Nations University – World Institute for Development Economics Research

SECTION - 5

Current Status of the Manufacturing Sector in India

- 5.1. The Economic Reforms undertaken since 1991 were aimed at the improvement of the efficiency of the system. The reforms were undertaken to create a more competitive environment in the economy and for improving the productivity and efficiency of the system. The first set of policies undertaken related to the stabilization on the fiscal and balance of payments areas. The second sets were the structural Reforms aimed at removing the rigidities in various sectors of the economy. These were in the areas of industrial licensing, foreign direct investments, foreign trade, financial sector and the exchange rate management. Despite implementation of the reforms which are all conducive to long-term growth of the manufacturing sector, the sector still did not grow to its potential. There were no major manufacturing investments on the scale required. The Indian firms did not appear to have been successful in measuring to the World standards in carrying out domestic R&D, innovating, creating brands, investing in long term capabilities and building human resources and infrastructure. It is not to say that nothing of this has happened, but it has not happened at the scale required. There are some outstanding examples of successes as mentioned earlier. However, it appears that a catalyst is needed to spur the entire spectrum of industry to go up the ladder of competitiveness and technology and reach much higher average growth rates. The catalyst, perhaps, has to be a set of well-designed policies of incentives and disincentives which will strengthen the growth momentum of Indian manufacturing sector.
- 5.2. In this background it is necessary to evaluate the current status in respect of the four objectives that arise out of the Terms of Reference given by the Prime Minister to the Group. These four are:
- First, the necessity for the manufacturing sector to grow at 12 per cent or above, on average, if the economy is to grow at 9 per cent or more;

Second, the need for generating adequate and appropriate employment which would absorb the surplus manpower entering the market particularly from the rural areas;

Third, how to enhance the technological capabilities of the nation including innovation and through leveraging the FDI particularly in the high technology areas; and

Fourth, to evolve a suitable mechanism for monitoring the developments in manufacturing sector, advising on the actions to be taken and reviewing the progress of actions on the above to see whether the above objectives are being met.

Growth

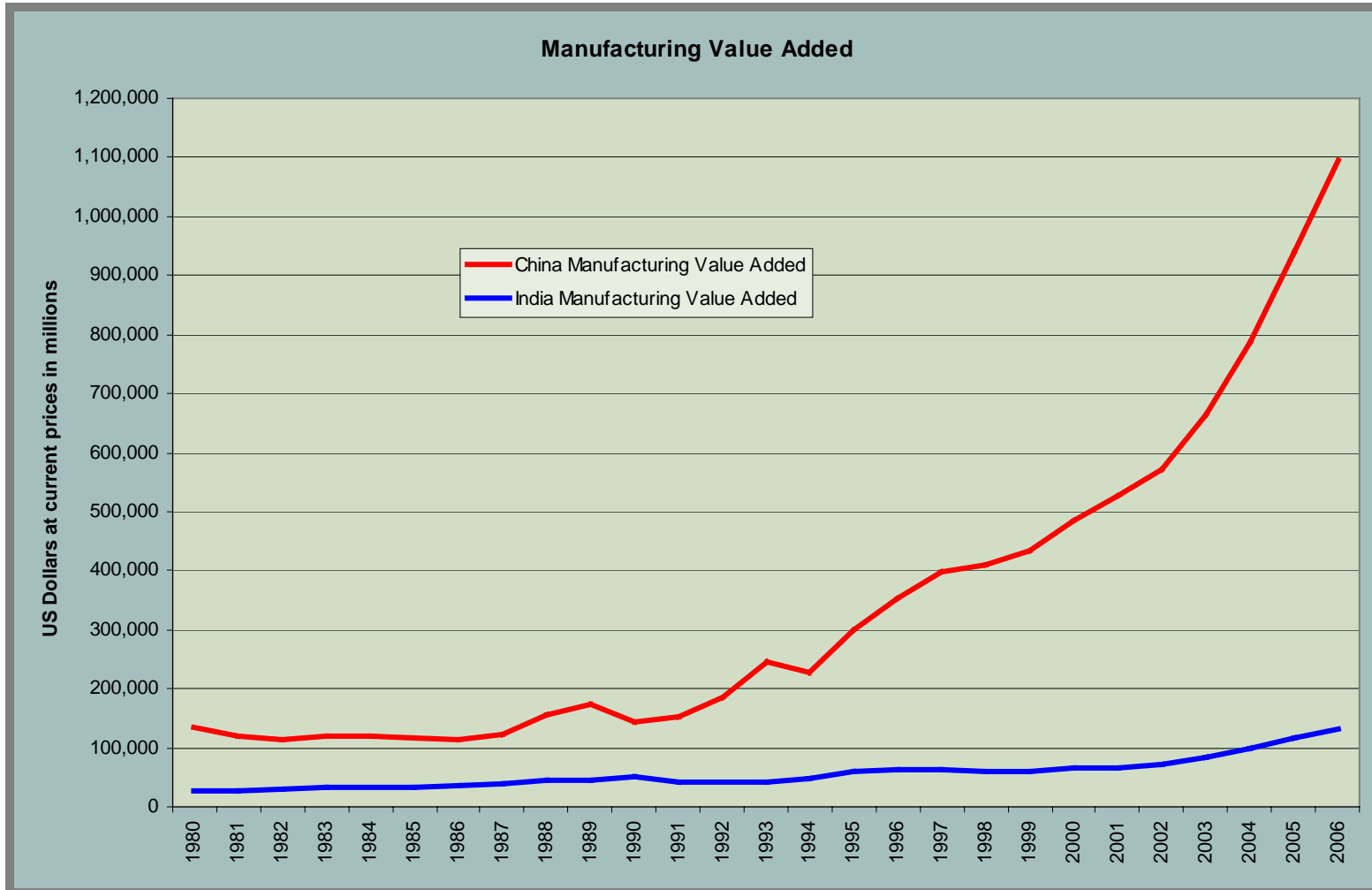
- 5.3. The growth patterns in India were examined in Section 2 of the Report. The manufacturing growth in India over the past two decades or more has been averaging around 7 per cent. There has been a spurt in growth of manufacturing to about 9 per cent on average during 2004-07. However, during the year 2007-08 there has been a down turn with the growth decelerating to about 8.8 per cent. Clearly, even during the high growth period of the past four years the average growth of manufacturing sector has been well below the 12 per cent growth rate which is required in the long term. Comparing internationally, India's share in world Manufacturing Value Added (MVA) is just around 1.36 per cent in 2007 as against 11 per cent in the case of China (**Table-VII** and **Graphic-VI**). Substantial part of Chinese growth took place during the 1990s and in the current decade.

TABLE-VII

Share in World Manufacturing Value Added (%)

	China	India
1980's	3.83	1.03
1990's	5.26	0.98
2000's	10.82	1.36

Graphic-VI



Source: UNCTAD

Employment

- 5.4. Insofar as employment is concerned, the figures of employment for the recent growth period are not available. However, the Economic Census of 2005 gives the employment trends for the period 1998 to 2005. During this eight-year period, the manufacturing sector has provided about 3 million jobs per year. However, a closer look at the type of employment reveals that the employment is heavily in the informal sector. Even in the formal sector, from the growth figures of labour-intensive manufacturing sectors indicated in **Table-V** at page 37 it can be seen that the labour-intensive industries have not been growing at the desired pace. This would indicate that the provision of employment at the lower end of manufacturing does not appear to be adequate during this period. It can be surmised from these figures that the job creation is perhaps, more in the area of skilled and technically qualified levels because of capital-intensive manufacturing that has taken place in the formal sector. Besides this, there appears to be an enormous variance in the employment created in various States (**Table VIII**). Roughly 63 percent of the total employment was created in seven States comprising of the four southern States and Maharashtra, West Bengal and Uttar Pradesh.

Technology Development and FDI Policy

- 5.5. Turning to the issue of Technology Development while India has considerable achievements to its credit in terms of progress in Space Technology, Atomic Energy and recently in the field of Automobiles, on an overall technology standing India has a long way to go. Two studies clearly bring out that relatively India's progress in the field of Technology is not very impressive.
- 5.6. The first is a study made in the year 2004 called "Trade in Advanced Technology Products" (ATPs) for the US-China Economic and Security Review Commission of the United States which is revealing. According to this report, the US imported \$238 billion of ATPs in 2004 of which nearly \$140 billion or about 59% were imported from China and its surrounding nations which the paper dubs as "China Sphere". As compared with this the European Union exported only about 22%. In the list of countries that exported ATPs to the US during that year the exports from India were so negligible that India does not even figure in the list. This clearly shows that India ranked very low in the production of ATPs. This also clearly indicates that while in some

areas India has made considerable progress technologically, in most areas of high technology manufacturing, the country still needs to considerably strengthen its technological base including skills.

TABLE-VIII

Number of workers engaged in Manufacturing by type of establishments & by States/UTs													
Sl. No.	States\UTs	Rural				Urban				Combined			
		OAE	NDE	DE	ALL	OAE	NDE	DE	ALL	OAE	NDE	DE	ALL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Jammu & Kashmir	36,743	31,810	24,456	93,009	15,457	32,565	13,161	61,183	52,200	64,375	37,617	154,192
2	Himachal Pradesh	40,792	12,610	33,8+23	87,225	4,012	6,168	21,385	31,565	44,804	18,778	55,208	118,790
3	Punjab	65,304	53,516	156,240	275,060	55,930	145,715	285,049	486,694	121,234	199,231	441,289	761,754
4	Chandigarh	384	827	397	1,608	1,875	4,386	16,212	22,473	2,259	5,213	16,609	24,081
5	Uttarkhand	30,483	14,914	40,195	85,592	9,895	22,407	22,034	54,336	40,378	37,321	62,229	139,928
6	Haryana	67,472	40,076	262,847	370,395	37,216	75,378	219,956	332,550	104,688	115,454	482,803	702,945
7	Delhi	1,296	4,130	11,206	16,632	30,776	172,001	876,818	1,079,595	32,072	176,131	888,024	1,096,227
8	Rajasthan	227,090	143,058	211,236	581,384	120,157	164,983	184,898	470,038	347,247	308,041	396,134	1,051,422
9	Uttar Pradesh	531,393	275,488	388,137	1,195,018	302,774	394,667	359,288	1,056,729	834,167	670,155	747,425	2,251,747
10	Bihar	168,741	102,258	58,606	329,605	40,445	63,114	24,853	128,412	209,186	165,372	83,459	458,017
11	Sikkim	753	489	1,223	2,465	172	575	563	1,310	925	1,064	1,786	3,775
12	Arunachal Pradesh	1,243	1,232	2,912	5,387	392	1,037	1,144	2,573	1,635	2,269	4,056	7,960
13	Nagaland	3,164	1,592	1,799	6,555	378	1,555	1,835	3,768	3,542	3,147	3,634	10,323
14	Manipur	14,525	5,236	2,760	22,521	9,010	5,411	2,483	16,904	23,535	10,647	5,243	39,425
15	Mizoram	1,996	519	110	2,625	2,041	2,665	1,637	6,343	4,037	3,184	1,747	8,968
16	Tripura	35,515	11,773	6,679	53,967	5,222	6,130	3,066	14,418	40,737	17,903	9,745	68,385
17	Meghalaya	2,850	6,008	6,479	15,337	703	3,500	2,389	6,592	3,553	9,508	8,868	21,929
18	Assam	79,311	82,658	130,631	292,600	16,059	57,919	34,488	108,466	95,370	140,577	165,119	401,066
19	West Bengal	843,364	454,215	548,325	1,845,904	197,008	383,748	686,935	1,267,691	1,040,372	837,963	1,235,260	3,113,595
20	Jharkhand	71,743	62,085	48,030	181,858	15,677	34,683	49,315	99,675	87,420	96,768	97,345	281,533
21	Orissa	563,151	149,828	91,833	804,812	39,873	44,811	60,783	145,467	603,024	194,639	152,616	950,279
22	Chattisgarh	73,878	50,401	64,329	188,608	21,925	38,208	60,196	120,329	95,803	88,609	124,525	308,937
23	Madhya Pradesh	458,740	102,178	95,736	656,654	219,272	156,079	138,702	514,053	678,012	258,257	234,438	1,170,707
24	Gujarat	101,378	67,712	243,462	412,552	118,209	217,195	720,533	1,055,937	219,587	284,907	963,995	1,468,489
25	Daman & Diu	276	1,044	38,250	39,570	324	434	258	1,016	600	1,478	38,508	40,586
26	D. & N. Haveli	419	745	36,156	37,320	126	720	10,499	11,345	545	1,465	46,655	48,665
27	Maharashtra	281,712	171,879	405,996	859,587	208,086	490,583	875,394	1,574,063	489,798	662,462	1,281,390	2,433,650
28	Andhra Pradesh	527,641	279,100	821,082	1,627,823	156,248	236,940	418,528	811,716	683,889	516,040	1,239,610	2,439,539
29	Karnataka	420,920	197,411	422,050	1,040,381	162,610	209,753	322,685	695,048	583,530	407,164	744,735	1,735,429
30	Goa	4,583	6,462	19,911	30,956	3,148	8,064	7,128	18,340	7,731	14,526	27,039	49,296
31	Lakshadweep	230	204	378	812	75	110	270	455	305	314	648	1,267
32	Kerala	298,871	211,532	263,545	773,948	99,053	133,113	150,133	382,299	397,924	344,645	413,678	1,156,247
33	Tamil Nadu	407,310	441,286	719,102	1,567,698	270,950	481,561	587,763	1,340,274	678,260	922,847	1,306,865	2,907,972
34	Puducherry	948	1,667	24,385	27,000	2,220	4,819	16,158	23,197	3,168	6,486	40,543	50,197
35	A & N Island	574	955	732	2,261	84	741	1,307	2,132	658	1,696	2,039	4,393
All State/Uts		5,364,793	2,986,898	5,183,038	13,534,729	2,167,402	3,601,738	6,177,846	11,946,986	7,532,195	6,588,636	11,360,884	25,481,715

OAE: Own Account Establishments; NDE: Non-Directory Establishments; DE: Directory Establishments; SOURCE: ECONOMIC CENSUS

- 5.7. The second, is a study by Georgia Institute of Technology on “Technology standing” of countries places China at the top in terms of its capacity for future technologies (even above US and Japan), while India is far below in its ranking. For more details sub-Section on China in Section 3 of this report may be referred. These studies clearly bring out that India has a long way to go in making a mark in the world of Technology.
- 5.8. Insofar as FDI policies are concerned, liberalization on a large scale started in 1991 with a requirement of specific approvals from the Government in 1991 and later by the Foreign Investment Promotion Board. The FDI policy was liberalized gradually and by the year 2000 very substantial liberalization of the FDI policy was achieved barring in very few sectors. In respect of manufacturing sector, almost all sub-sectors were liberalized and 100% investment by foreign companies was allowed. In fact, the concept of Joint Ventures was also given up and the foreign companies can establish 100% own subsidiaries in the country. The conditions of divestment to local investors, technology transfer etc., were also given up during this period.
- 5.9. It is beyond doubt that the economic reforms have helped in restructuring of the manufacturing sector through exposure, greater competition and in improving the quality of the products manufactured in India in many sectors. The improvements have happened also through the infusion of FDI, adopting of new technologies by purchasing technology from abroad and mergers and acquisitions. However, these technologies, quite often, are not the state of art technologies but are at least one or two generations behind what is available elsewhere in the world. Purchase of technology is increasingly becoming costly and in view of liberal FDI policies, companies from abroad are reluctant to part with technology even for purchasing.
- 5.10. Normally FDI is permitted into a country because of four distinct advantages that it is expected to bring the recipient country. These are infusion of capital, additional foreign exchange availability, transfer of state of the art technology and better managerial skills. The FDI regime in India appears to have so far concentrated on attracting investments to earn foreign exchange, provide capital for investment and also the management skills that follow. However, there has been little or no emphasis on whether technology transfer is taking place or whether the kind of technologies that are brought in were appropriate or not. In particular, many of the technologies in

the fields of Defence, Aero Space, IT, Atomic Energy and other high technology areas are not available either through the liberalized FDI route or for buying them outright. Clearly for a major country like India, in the long term, it is necessary to have the state of the art technologies and also a programme to develop the next generation technologies internally through vigorous R & D effort. Many developing countries including China have worked towards this end by putting in place appropriate FDI and Industrial policies.

Mechanisms for Co-ordination

- 5.11. As far as regular or mandated review of manufacturing sector is concerned, traditionally, in the Government, there has not been any single reviewing point on the developments of manufacturing sector in the country particularly after the dismantling of the license permit raj. Prior to 1991, the Ministry of Industry being in-charge of the overall development of the industry through the licensing system had hands-on information on not only the trends in the growth of the industry including its segments but also on the transfer of technology and the status of technologies. An alternative mechanism to look at the sector as a whole in the changed circumstances did not emerge. The Industry is being looked after by several Ministries in the Government and as such no single Ministry is able to take an overall view on the manufacturing sector and advise all the concerned.
- 5.12. The mechanisms that are traditionally available in the Government for coordination are the Planning Commission and the Committee of Secretaries presided by the Cabinet Secretary. The Planning Commission as of today does a large number of functions which consume its time fully. These include the annual plan exercises with the Central Ministries and the State Governments, preparations for the Budget and a host of other things. While the Planning commission can outsource and get some reports done on developments in manufacturing, given its workload and organization the Commission will not be able to perform the detailed examination of the issues relating to various manufacturing segments and co-ordinate through frequent meetings with the private sector, the public sector, the academia and the Ministries to arrive at the status of individual manufacturing sectors or manufacturing as a whole on a regular basis and make recommendations to the Government. The Committee of Secretaries mechanism as well as the Cabinet Secretary

himself are overburdened with many issues that are specific and often entrusted to them by the Cabinet or its Committees. The kind of detailed exercise that is required would not be possible for this mechanism to undertake given the time constraints that the Cabinet Secretary and individual Secretaries practically face as also due to the quality of the inputs they receive.

- 5.13. It is, perhaps, for this reason that the Government felt the need for a body which would examine the issues relating to manufacturing in consultation with all the stakeholders and the National Manufacturing Competitiveness Council (NMCC) was created. The NMCC started its work since early 2005 with a lean organization.
- 5.14. The NMCC is expected to function as an interface between the Government, Industry and Academia. Membership of the Council as constituted also reflects in the due representation to these Sections. The NMCC is expected to advise the Government with regard to various issues relating to manufacturing including the sub-sectors. These include sectoral and enterprise level initiatives, Innovation and Technology development, entrepreneurship promotion, Infrastructure and enabling facilities, Trade and fiscal policies, and Employment generation among others. The NMCC is basically an advisory body to advise the Government, mostly the Prime Minister, on the issues relating to the manufacturing sector.
- 5.15. The NMCC does not have a formal role through appropriate amendment of the business rules. However, the need to consult NMCC was conveyed to the Secretaries of various Ministries/Departments that deal with manufacturing directly and also to Secretaries of the Departments whose policies affect manufacturing were requested to consult the NMCC before putting up proposals for final decision by the Government, by the Principal Secretary to the Prime Minister and Cabinet Secretary through their letters. The response from the Ministries has so far been mixed. Some of the Ministries consulted the NMCC more regularly while some others did not consult on the issues relating to policy to the extent desirable and required.
- 5.16. However, the NMCC during its tenure so far has performed a number of important functions relating to the manufacturing sector.

First, It has been able to ensure that the country and the top functionaries in the Government, Academia and Industry started refocusing on the growth of the manufacturing sector as

essential for healthy growth of the economy as well as for providing employment.

Second, the NMCC has been bringing to the notice of the Prime Minister on various issues relating to manufacturing every month through a monthly report: in addition, reports were also submitted on specific issues of immediate importance and issues of long-term nature.

Third, the NMCC prepared the National Strategy for Manufacturing (NSM) which made recommendations on the various policies and programmes required for enhancing the competitiveness of the Indian Industry. The NSM was disseminated amongst all the stakeholders for necessary action.

Fourth, the NMCC took up detailed study of 25 sub-sectors of manufacturing. The procedure followed was to have discussions with the stakeholders, particularly belonging to that sub-sector in order to identify various issues affecting the sector in terms of competitiveness. The Secretaries of the concerned Departments functioned as a focal point in these discussions and the outcome of the discussions were expected to be followed up by them in their Departments. The NMCC also has followed up on these.

Fifth, through its sub-sector meetings, the NMCC has also been able to emphasize that the new role of the departments in a liberalizing and globalizing economy is different from the plan programme and regulation oriented functions to which they were used to. This has helped the departments to set their policies and programmes in a sectoral framework including the private sector requirements rather than in the narrow Government oriented framework;

Sixth, the NMCC also worked on the six priority sectors identified by the High Level Committee on Manufacturing (HLCM) presided over by the Prime Minister. These are:

- i. Textiles and Garments
- ii. Food and Agro Processing
- iii. Leather and Footwear
- iv. IT Hardware and Electronics
- v. Skills Development

vi. Problems of Small and Medium Industries including cluster development

Action Plans were prepared and taken to the HLCM in respect of the first two sub-sectors and in respect of the others the suggestions were followed up through the Ministries and decisions taken.

Seventh, the NMCC also brought together the concerned Departments while discussing a particular sector which enabled a coordinated view on issues.

Eighth, the NMCC took up major issues such as issues relating to the impact of FTAs, Exchange rate, Interest rate, and Energy security related problems etc. with the Prime Minister and the concerned Ministers.

Ninth, the NMCC is working with the National Security Council on manufacturing sectors which have a bearing on National security such as Aerospace, Shipping, IT Hardware, Critical Capital Goods sector and Energy security and is in the process of formulating action plans along with concerned Ministries.

There are many other areas in which the NMCC has been working.

5.17. In sum –

To set up an organization such as the NMCC specifically to look at Manufacturing was an excellent decision. The NMCC's work during this period has helped the sector in many ways as described above. However, it cannot be said that the current way of dealing with the recommendations of the NMCC would enable the country to achieve the ambitious growth rate for manufacturing set out in the terms of reference to this Group.

SECTION - 6

Issues and Opportunities

- 6.1. In this Section the issues that confront India in undertaking some of the policy and other tools used by the eight high growth countries and also the kind of opportunities available for India to put in place policies and mechanisms to achieve 12 – 14 per cent growth of manufacturing are discussed.

Issues

- 6.2. In Section 3 of the report the policy actions taken by some of the important South East Asian and East Asian countries which posted rapid growth of manufacturing during the past three or four decades were discussed. The latest to join this group of countries with high manufacturing growth is China. The policies followed by these eight countries indicate some commonality in the approach they followed to industrialize their countries. Five aspects come out prominently in what these countries did to achieve the spectacular growth of manufacturing. First, in all these countries robust growth of manufacturing was central in their growth model. Second, the Governments intervened through policy actions in different ways to support the sector for withstanding competition, especially the external competition and enabled the sector to grow over a long period of time. Third, all these countries and also Japan had given special attention to the Small and Medium Industries to make them competitive and technology drivers. Fourth, all ensured involvement of the industry in the process of formulation and implementation of their industrial policy. Fifth, all these countries had effective mechanisms for ensuring that the goal of manufacturing growth and technology development received close attention and that appropriate actions were taken in time.
- 6.3. In contrast, since 1991 the efforts in India concentrated on dismantling the excessive role of Government in terms of controls and high tariffs etc. The focus was on improving efficiency and overall economic growth and not particularly on the manufacturing sector. There was greater emphasis, rightly, in allowing industry to operate in a relatively free market and ensure that the economy reaped the

benefits of competition. Manufacturing was substantially liberalized except in the areas relating to security such as defence etc. However, during the process of liberalization and globalization in this period, the Trade and FDI policies were not adequately leveraged to strengthen its manufacturing or manage substantial transfer of technology as the Countries cited earlier had done. It appeared as though Government policy pendulum may have swung from one extreme of excessive controls to the other of abandonment or minimizing the role of the State in so far as the manufacturing sector is concerned. The role of the State in respect of the sectors that have been liberalized has not been clearly spelt out. Similarly, the role of the public sector, which has a very sizeable manufacturing capacity was also not clearly defined. With regard to the SMEs bulk of the items under reservation have been withdrawn and most of the incentives have also been withdrawn gradually. In the emerging highly competitive scenario for manufacturing, the role to be played by the SMEs which contribute substantially to the manufacturing value added as well as to employment did not get clearly delineated. The programme for enhancing the competitiveness of the SMEs designed by the present Government which is in the approval process could help the SMEs to some extent when operationalized. In almost all the countries which were examined in Section 3, the SMEs have played a prominent role both as useful partners in the International supply chain as well as innovators and high technology developers. Lastly, a review of the requirements of newer and more sophisticated manufacturing capabilities in the background of India's emergence as a major economic power and its aspirations indicated a need for due focus.

- 6.4. The first of the five aspects where commonality in the approach of the eight countries outlined at para 6.2 relates to having a specific Industrial/Manufacturing Policy. The issue is whether India should have an explicit Industrial/ Manufacturing Policy which sets out clear cut long term goals for the nation in terms of manufacturing growth which serves its long term needs. The needs and aspirations of the country have been identified in the previous paragraphs, namely, sustained and balanced long term growth, growth of manufacturing sector to provide relevant jobs for the large labour force entering the market and to enhance technological capabilities including innovation which will help in not only the long term growth of the sector but also the long term security needs of the country.

- 6.5. There is considerable debate on what should be the role of Government in the development process and what it should do and not do. Some believe the Government role should be as minimal as possible. Quite often they suggest that Government should restrict itself to provision of infrastructure, both physical and human, and even in these areas private-public partnership is recommended. Private sector should be predominantly the primary driver of growth of the economy according to them.
- 6.6. There are two main objections put forward by these to having a structured Industrial Policy. The first relates to lack of adequate information / understanding in governments to identify firms / sectors or markets that are subject to market imperfections leading to inefficient application of policy. The second objection is that an Industrial policy is an invitation to corruption and rent seeking and in that process also would distort competition.
- 6.7. There are others who believe that developing countries in order to “catch up” need a pro-active role for the State to ensure that the growth process does not suffer due to market failures/imperfections. These believe that the informational and bureaucratic constraints raised by ‘free market’ supporters are not insurmountable and appropriate institutional designs would render them much less of being constraints. They believe that by ensuring participative process in decision-making, a system of well-designed incentives and disincentives and an accountability structure, these constraints can be overcome. They cite, in particular, the example of East Asian Countries. The independent Commission on Growth and Development chaired by Nobel laureate Michael Spence dealt with this issue extensively in its Growth Report released in June 2008, debating the pros and cons and suggested a number of do’s and don’ts but left the matter of relative roles of the markets and of the State to be decided by individual countries as these are “country and context – specific responding to widely varying initial conditions”. The report, however, has recognized the need for what it called the role of the developmental State.
- 6.8. The Growth report studied 13 developing countries which had posted high growth rates of the economy and the eight countries studied in the present report are also included in their study. On a broader front, the growth report identified five points of resemblance in these high growth countries. These are, that these countries “fully exploited the opportunities afforded by the world economy, they

maintained macro-economic stability, and sustained high rates of savings and investment, they let the markets allocate resources and they had committed, credible and capable Governments.” The five aspects relating to the eight countries studied in Section 3 and dealt at para 6.2 are more specific and are in addition to the above general points.

- 6.9. Comparisons with the high growth stories of East Asian countries including China have often been dismissed by some with a facile argument that all these countries are ruled by autocratic or totalitarian regimes and therefore the policies followed by those countries cannot be models for a democratic country like India. This is a dangerous explanation which seems to equate autocracy with sound policies for growth and efficiency. There are a number of countries which have been ruled by autocrats but did not experience high growth rates. The crucial aspects in the growth story of the eight countries are covered in the five elements described at para 6.2 none which are beyond the reach or scope of a democratic country. The underlying message is that Governments need to be committed to building a sound manufacturing sector with necessary will and a bureaucracy that should be made accountable to its actions towards achieving that goal. In other words, the requirement is committed, credible and capable Government’s as described in the Growth report prepared by the Independent Commission chaired by Nobel Laureate Michael Spence.
- 6.10. The issue regarding the role of the State came up for discussion in the Group as well as during meetings with the Industry and other Stakeholders. It was recognized that even though there is no stated comprehensive Industrial Policy, individual Ministries and Departments are undertaking policies and programmes that affected the markets in the form of incentives or disincentives. For example, the policies relating to Special Economic Zones, Export incentives, special dispensations in terms of tariffs and duties, special concessions given by Central and State Governments, the priority sector dispensation in the lending by Commercial Banks etc., all fall under “Intervention by State” in the area of Industry and can be called ‘Industrial Policy’ actions. Many of these actions are also of an ad hoc nature responding to an immediate requirement rather than anchored to a set of long term goals of the sector. In particular, what is lacking in India, is an effective nodal point which puts together a

- coherent framework for industry sector as a whole with reference to the objectives mentioned above.
- 6.11. The views in the Group varied from minimalist role to the State in so far as dealing with markets to suggestions of active role for the State to address market failures through selective intervention for ensuring smooth and sustained growth of manufacturing and to achieve the goals mentioned earlier. Prime Minister Dr. Manmohan Singh in his speech at the Institute of Economic Growth has said aptly, “I would say that moving from one straight-jacket into another, from the ideology of ‘State’ to that of the ‘Market’ may also not help.” Clearly, countries need to take actions that serve the broader goals they set for themselves. Any policy needs to be tailored to meet those needs.
 - 6.12. Overall, it was felt in the Group that it would be prudent to have a specific goal for growth of manufacturing as also a policy framework which would address the actions required to meet the goal. It meant that the role of the State in the growth process to be more clearly defined in the policy. In developing such a framework the experience gained in India during the past decades as well as in some of the Asian countries should be taken into account.
 - 6.13. Before the possible course of action for India is discussed, at this juncture, it is necessary to recognize that the conditions under which the countries mentioned above were able to intervene in a variety of policies such as trade policy, foreign investment policy, etc. Clearly, globalization has penetrated many economies much more at this point of time than when the eight countries had adopted the policies detailed earlier. Globalization has changed the policy eco-system substantially in the past decade or so.
 - 6.14. While lessons can be drawn from the experience of the Asian Tigers for Industrial/Manufacturing strategy, it is necessary to note that the context for policy making has changed significantly over the past decade or so. The international rules of the game are now very different, and they exercise much greater influence on what national governments can and cannot do. In the 1960s and 1970s, when Korea and Taiwan built up their industrial base, pervasive government intervention was the accepted norm and there were few external pressures against selective policies. Today, space for undertaking many policies such as selective import protection, local content requirements, export subsidies, directed credit and differential interest rates, performance and entry rules for foreign investors and

- copying of foreign products is unavailable substantially and also unacceptable to the WTO and major trading partners.
- 6.15. Besides this, regional trade blocks have also emerged simultaneously, which also reduced the ability of a country to follow autonomous policies. Following the trend set by the US in having a Free Trade Agreement with North American Countries (NAFTA), the South East Asian Countries have come together to form ASEAN. This trend continued with India encouraging South Asian economies to form SAFTA and China entering into a number of FTAs with Asian and African countries and organizations. India, also, has been engaging with many countries bilaterally as well as regionally for Trade and Comprehensive Economic Agreements. All these developments are constricting the policy space available to the country to encourage manufacturing in a manner similar to what happened in South East Asian and East Asian countries including China. Hence one needs to keep these constraints in mind and move forward in the design and implementation of policy to strengthen manufacturing sector in India.
- 6.16. Rapid shrinking of economic policy space and the spread of globalization, driven by accelerating technical change, would mean that countries have to encourage technology inflows embodied in FDI and traded products to a much greater extent. Participation in TNC-dominated production systems appears more necessary now than ever before for boosting competitiveness and keeping up with fast moving technologies.
- 6.17. It is often said that India had missed the bus in terms of manufacturing. It now appears that it missed the bus not merely in terms of implementing the reforms in time but also in terms of loss of policy space which has been described in the previous paragraphs. It was well known that the world was moving towards globalization and that global rules for trade and investment were being set. Unfortunately, the post-reform period did not focus on the impact of all these developments on domestic manufacturing and the measures needed to ensure that the domestic manufacturing growth did not get adversely affected. Attempts for supporting the growth of manufacturing and acquisition and absorption of new technologies were inadequate if not indifferent. The country will now have to meet the challenges that are before it and work towards the goals it sets for itself in terms of long term strengthening of manufacturing and of the economy.

Opportunities

- 6.18. The global scenario described above does not mean that there is no scope for a manufacturing policy. The new rules allow policies to strengthen factor markets and to reduce unnecessary red tape and regulation that cramp the growth of businesses. Many discretionary measures and grants to promote particular activities for example, space, defence or communications related functions such as R&D, training and so on regarded as necessary for competitiveness can still be used. New and innovative actions can be designed to further the growth of manufacturing and development of technology.
- 6.19. There are several positive trends which would enable Indian manufacturing to flourish subject to the design of an appropriate Manufacturing Policy.

Firstly, the share of Indian manufacturing in the world Manufacturing Value Added is miniscule at around 1.36 percent. There is vast scope to increase India's share through appropriate actions for improving the price competitiveness as well as quality improvement of the manufacturing products.

Secondly, the recent trends in competing countries, in particular, China, in the area of mass and labour intensive goods like Textiles and Garments, Leather, etc., show that due to the wage increases as well as other policy changes in those countries the investors are looking at alternative locations. A recent study has shown that Taiwan has started moving some of its manufacturing plants out of China to other countries and the first few have already migrated to Vietnam. This development provides an excellent opportunity for India to attract companies which are looking for alternate source. Co-ordinated efforts to attract these investments need to be put in place.

Thirdly, companies from the United States and other developed countries are also on the look out for alternative locations for their own strategic reasons.

Fourthly, India has recently shown huge appetite for manufacturing goods in the wake of the spurt in domestic growth which has put more incomes particularly in the hands of younger people. This process is only likely to continue in the medium to long term providing a very attractive expanding market where the companies can expect growth rates of 15 to 20% for some time to come and

this makes India a much more attractive proposition for imports/setting up manufacturing facilities to tap domestic market.

Fifthly, with the country in the process of becoming a major economy it would also provide huge market in the strategic requirements such as Defence, Space, Atomic Energy, etc.

Finally, there are other traditional arguments which are in favour of India such as availability of cheap labour force, skilled persons with proficiency in English, etc.

- 6.20. The issue is to leverage the strengths and utilize the available opportunities through appropriate policies to enhance the growth rate of manufacturing to 12% or more as also to obtain necessary technologies in the process.

SECTION – 7

Way Forward

- 7.1. In Section 5 of the Report the current situation of the manufacturing sector in India and its preparedness for the growth in the future was discussed. In Section 6 the issues that are confronting the manufacturing sector, particularly those due to international developments and also the opportunities that are available for the sector have been identified.
- 7.2. This Section deals with the way-forward and makes a number of suggestions which would help in improving the competitiveness of the Manufacturing sector and also contribute to strengthening of the economy from the long term view point. It deals with the need for a Manufacturing policy and a mechanism to monitor and advice on implementation. The content of the policy includes recommendations on some horizontal aspects which affect the sector as a whole and also specific suggestion in respect of Industry verticals which promote employment as well as those that meet the strategic requirements. The role of the SMEs and the Public sector has also been discussed.
- 7.3. The actual results achieved in respect of the manufacturing sector, the robustness of its growth and the technological progress made particularly over the past two decades was the most important consideration that guided the analysis in this report The areas where strengthening or modifications needed in the present policy mix are discussed in this Section with reference to the set of goals contained in the terms of reference given to this Group.

Manufacturing Competitiveness and the NSM (2006)

- 7.4. Manufacturing competitiveness is crucial for robust growth of the sector. The National Strategy for Manufacturing (NSM 2006) had outlined the challenges facing Indian manufacturing and the deficiencies which need to be corrected. The NSM has also outlined the role of the Government, the role of the industry and the possible mechanisms for monitoring implementation of its recommendations.
- 7.5. The NSM 2006 noted that the manufacturing competitiveness broadly depends on two types of actions one which is external to the manufacturing concern and the other which is internal to the company. To improve competitiveness, actions would be needed on

both fronts. Typically, the external actions are policy oriented and are generally within the mandates of Central, State and local Governments.

7.6. The important external policies that affect manufacturing outlined in the NSM 2006 are:-

- Ensuring cost competitiveness including tax policies
- Monetary policy including interest rate and exchange rate policies
- Trade Policy
- Policies relating to raw materials and other inputs
- Infrastructure
- FDI policy
- Fiscal policy in terms of direct and indirect taxes and incentives through Budgetary processes;
- Labour policies
- Skill Development
- Research, Development and Technology policies

7.7. The NSM 2006 also noted that the following actions, among others, are to be taken at the firm level to improve competitiveness.

- Investing in Research, Development and Technology
- Skill development and knowledge enhancement
- Adopting global standards and bench marking their performance
- Adopting best manufacturing practices and production techniques
- Increasing scale of operations and delivering products of global quality.

7.8. The recommendations contained in the National Strategy for Manufacturing (NSM 2006) covered the entire gamut of actions required to make the manufacturing sector competitive. A number of initiatives have been taken by Government in various areas outlined in that report. The experience gained in the implementation of the NSM was helpful in arriving at the suggestions and recommendations contained in this report.

Need for a Manufacturing Policy

- 7.9. The need for policy focus on manufacturing comes out clearly in the light of the discussions in the previous Sections. These analyses have also brought out that a country's growth process needs to be anchored on the growth of manufacturing unlike in India in the recent past when the economic growth was driven more by the growth of the services sector. It establishes that manufacturing growth should be made central to the growth process of the economy. To enable the country to refocus on manufacturing there is need to put in place a manufacturing policy which is India specific.
- 7.10. The super structure of manufacturing growth needs to be built on the foundation consisting of furthering of economic reforms and ensuring macro economic stability. The design and content of the manufacturing policy would be the brick and mortar with which the super structure is built. The recommendations in this report are predicated upon deepening and furthering of the reform process as well as maintaining macro economic stability as a fundamental requirement for long-term economic and manufacturing growth.
- 7.11. Adopting a Manufacturing Policy does not mean and should not lead to a control regime that existed prior to 1991. It is meant to give focus to manufacturing which is the engine of growth for any economy. The policy is meant to ensure focused attention by Government to various aspects that would enable achieving the goals noted earlier in this report.
- 7.12. Putting in place a Manufacturing Policy would mean selective intervention by Government and that would immediately bring up issues relating to Governance. It was noted earlier that one of the arguments against a structured manufacturing/industrial policy is that it could lead to corruption and rent seeking. The interventions suggested in this report are selective and would need to be made in a transparent manner. For achieving this Government needs to put in place a participative process of the stakeholders in decision-making, well-designed incentives and disincentives and an accountability structure including well designed regulatory structures.

What should be the content of the Policy?

- 7.13. The content of the Manufacturing policy outlined in this Section has been arrived at after taking into account the discussions in the Group, at the NMCC, as well as with the stakeholders and the experience

gained in the actual operationalization of the National Strategy for Manufacturing particularly through governmental effort. The experience gained by the NMCC through its interactions both in terms of horizontal policies as well as vertical sectoral policies and programmes has enabled moving to the next stage of working out a well-defined and structured manufacturing policy which could be the basis for working towards achieving the four goals mentioned in Section 5.

- 7.14. The four aspects relating to manufacturing sector which the terms of reference required the Group to study and make recommendations are – rapid growth of the sector, job creation for inclusiveness, creating a strong technology base for the growth of the manufacturing sector and the strategic needs of the country and suggesting a continuing mechanism for translating the recommendations into action. Needless to say that if specific outcomes such as above are expected to be realized it would need a directed effort to achieve the same.
- 7.15. This Section took into account the experiences of countries which posted high growth in its analysis and recommendations. In particular the report envisages the private sector to play the role of the dominant driver of growth of manufacturing sector. For enhancing the competitiveness of the sector several horizontal aspects which apply for the whole sector have been discussed and recommendations made. Insofar as the job creating sectors and the strategic sectors are concerned, recommendations have been made on the need for special efforts by the Government if the goals are to be realized. In other words, actions needed in respect of two sets of verticals – namely those which contribute to substantial employment generation and those which are essential for building a strong economy and technology base for the future strategic requirements have been separately dealt and recommendations made. Besides these, recommendation on the need for an effective continuing mechanism that would advise and coordinate the efforts of Government in translating the recommendations in this report into action has also been made.
- 7.16. The Manufacturing Policy would include the following elements:-
- The measures needed to enhance the growth rate of manufacturing to 12 to 14 percent per annum on average over the medium to long term;

- Promoting competitiveness of the manufacturing sector as it is crucial to increasing production and securing larger share of global business;
- reform process to be pursued for enhancing the efficiency of the system;
- Domestic value addition to be the core endeavour of the policy;
- Clean technologies to be promoted while achieving the growth objectives;
- Private sector would continue to be the main driver of the manufacturing growth;
- The requirements of job creation through promotion of employment intensive industries.
- Promotion of high technology industries specifically from the long-term national security angle;
- Policies including FDI policy that would encourage development of domestic technological capabilities including innovation capabilities of a high order for ensuring long-term growth of the Manufacturing Sector.
- Emphasize that the Macroeconomic Policies such as the monetary Policy, fiscal Policy, foreign trade Policy, the Exchange Rate Policy, FDI policy to be in tune with the requirement of the growth of the Manufacturing Sector while ensuring that macro economic stability is maintained.
- Outlining of the future role of the public sector.
- Identification of the role for the small-scale industries in the growth process as well as in innovation and technology development and the mechanics for enabling the sector to achieve the same;
- Suggestions for improvements in the regulatory systems including procedural reforms to enhance competition and efficiency;
- Coordination with the State Governments; and
- Mechanisms required for ensuring smooth and continuous implementation of the content of the Policy.

Interest rate and exchange rate policies

- 7.17. The goal of monetary policy is to contain inflation to within reasonable limits and to achieve that objective, the interest rate in particular and the exchange rate policies are used by the monetary authority. The impact of variations in the interest rates or the exchange rates on domestic manufacturing costs in the immediate term is obvious. A question often arises what should be the optimum level of interest rate during times of excess liquidity and what should be the level of exchange rate at the given level of productivity and developments in the external sector in order to maintain export competitiveness. These are matters which are determined by the Reserve Bank of India as necessary. There are no two opinions that in order to maintain macro economic stability keeping inflation at reasonable levels is crucial. There can always be questions on what constitutes a 'reasonable level' of inflation.
- 7.18. Manufacturing sector typically needs financing at low interest rates and an exchange rate which ensures export competitiveness and at the same time nudges the sector to improve its productivity. This is a fine balance that needs to be maintained. Almost all the countries studied, by and large maintained an interest rate regime that encouraged growth of the manufacturing sector both in terms of production and investment. Invariably the exchange rate in these cases was undervalued. In fact, Japan kept the Yen undervalued even after it became the second largest economy in the world and corrected it only in 1987 through the Plaza agreement because of pressure from the other G-7 countries. China continues to keep its currency undervalued despite enormous pressure from the international community for the past four to five years as they consider it to be in the best interest of their economy. What would be the most optimal rate at a given time is dependent on a number of factors and is difficult to determine. Broadly, the need to retain and promote the competitiveness of the Manufacturing sector needs to be one of the important factors to be considered in the decision making process of the authorities. However, the outfall of policies on growth and in particular on the manufacturing growth need to be moderated through appropriate policy packages which would ensure that the loss of competitiveness due to monetary actions is offset adequately. A mechanism needs to be put in place which would ensure that corrective actions are triggered simultaneously.

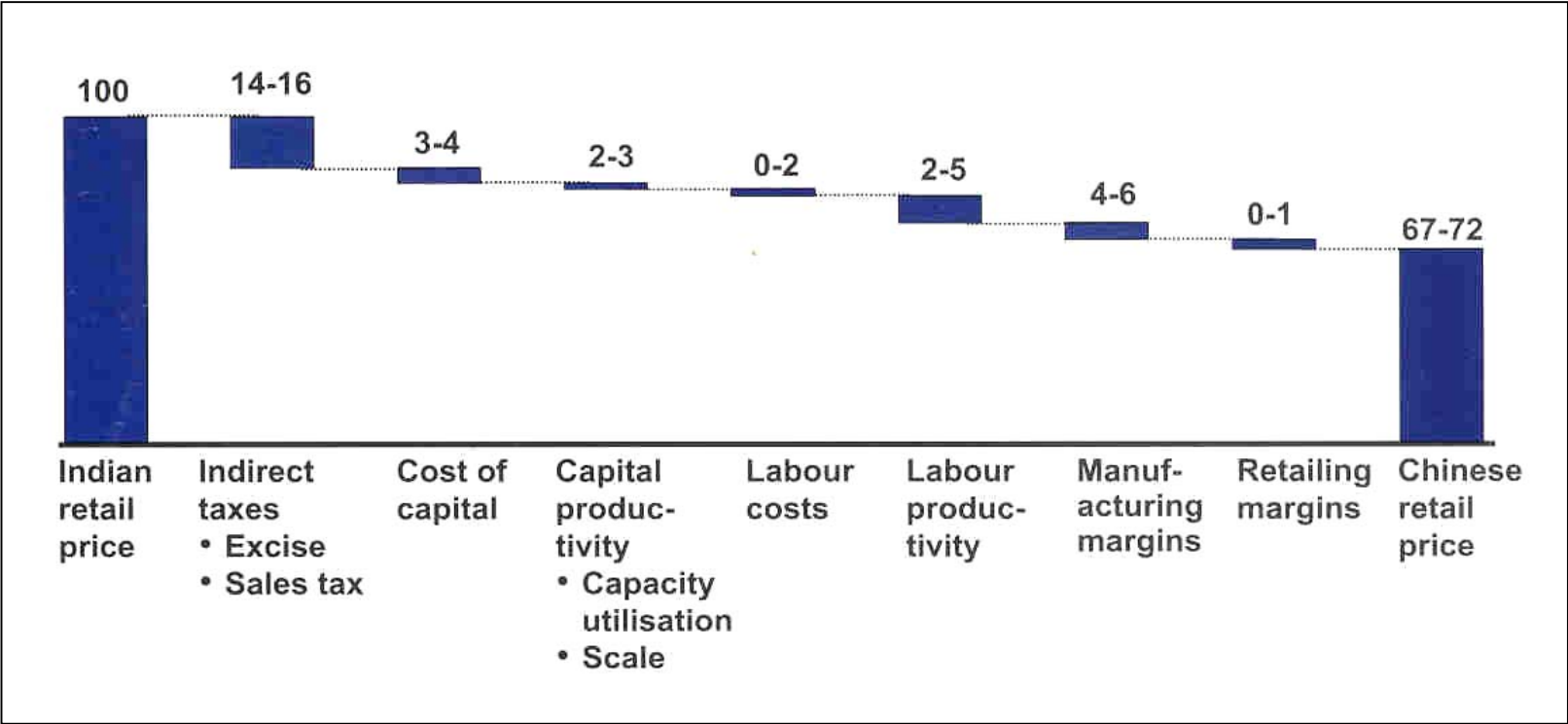
Indirect Taxes and Domestic Value addition

- 7.19. A study done in the year 2002 comparing the prices of a range of manufactured products in India and China found that the prices of Indian products were higher, on average, between 28 to 33 percent, half of which is attributed to the difference in indirect tax levels. The **Graphic-VII** gives the overall drivers of the price difference between the two countries.
- 7.20. A number of steps have been taken since then by the Government and the concerned resulting in a reduction in the gap to some extent. Among the steps taken on the taxation front, introduction of State level VAT in a variety of products is a significant step. The second step is the decision to abolish the Central Sales Tax by 2010. A more important step would be the proposed introduction of combined Goods and Services Tax (GST) and abolition of other local level levies. Currently the combined tax levels in India are between 28 to 35 percent as against a combined VAT rate of 17 percent in China and of similar levels in other competing countries. Needless to say that bringing in GST at the earliest and rationalizing other taxes and duties is essential and should be undertaken on a priority basis. The total tax burden finally should be at levels similar to those obtaining in competing countries.
- 7.21. The second issue on the fiscal front relates to the abolition of inverted duty structures and rationalizing the Custom Duties. There are cases with inherent contradictions in policy relating to the protection are apparent. Corrections that need to be made in respect of Inverted duty structures were detailed in the Interim Report-4 of Part-II of this report.
- 7.22. It is also necessary that any special dispensation given through fiscal policy in terms of lower rates of excise duty etc. or even through budgetary support should be linked to domestic value addition for ensuring growth of manufacturing. In Section 3 of this report, the policies followed by China for domestic value addition have been outlined. Crucially, in India also it is necessary that the Government incentives to the manufacturing sector should be linked to domestic value addition, which will ensure not only that the manufacturing sector grows but the firms would also acquire necessary technological capabilities. A policy needs to be put in place in this regard and in respect of each concession the domestic value addition need to be specified.

Graphic-VII

Overall Drivers of Price Difference

(Indian retail price indexed to 100)



Source: Learning from China to Unlock India's Manufacturing Potential: A CII-McKinsey Report 2002

- 7.23. For example the case of automobiles and auto component industries is one such. A recent study sponsored by the NMCC and conducted by ICRIER brings out that the Automobiles Industry enjoys a 60 percent import duty protection (the effective rate of protection being much higher) while the Auto Component Industry is subjected to 10 percent or less of Customs Duty. While the higher rate of protection to the automobiles has ensured that the automobile manufacturers find it more attractive to set up plants in India to tap domestic market, the auto component industry with low protection is subjected to much more severe international competition. Some companies of the auto component industry no doubt have undertaken restructuring and were able to meet the international competition. This lasted as long as there was a boom in the market and domestic conditions, particularly, the interest rates and exchange rate were stable. However, the component industry which was termed as a sun rise industry till a couple of years ago today is facing a severe crunch due to substantial rise in interest rates and an appreciating rupee till recently.
- 7.24. The balance of trade in this sector, which has been rising positively till two years ago, has now turned negative. During 2007-08, the imports of auto components have overtaken the exports. This has happened because of the fact that the automobile OEMs are outsourcing components from anywhere in the world even while enjoying high protection. The Components Industry, on the other hand, is unable to meet the competition, hit by the domestic policy changes in terms of interest rates and exchange rates and also low protection through tariff reduction. The result of this is, that more and more domestically manufactured cars and other automobiles are using imported components. This trend is affecting not only the growth of the component industry but also is resulting in loss of substantial jobs. This is only one of the examples as to how the customs duty configuration could end up with unintended adverse effects on the growth of manufacturing particularly if other macro variables do not remain stable. Normally, whenever the duties are reduced due to any reason, the impact is softened through exchange rate adjustment and that did not happen during this period resulting in excessive loss of competitiveness. Value addition criteria would have enabled proper duty structures to be put in place.
- 7.25. Another example where domestic value addition could be promoted relates to the recent reduction in excise duty only for small cars while

the large cars continue to pay higher duty. Instead of linking the concessions to the size of the cars it could profitably be linked to the local content of the cars, which would ensure growth of domestic manufacturing. This issue of linking concessions to the Industry to domestic value addition is very important and requires to be studied and suitable sector wise guidelines prepared. A standing Committee with suitable representation from Revenue Department, Department of Industrial Policy & Promotion and the NMCC to assess the domestic value addition implications of the proposals being considered for the budget may be formed. Use of Export duties on raw materials and inputs as a tool for promoting domestic value addition should be part of the exercise.

Trade Policies

- 7.26. India has gradually liberalized its Trade Policy in particular from 1991. The average customs duties which were over 100 percent in 1991 have been brought down to 10 percent gradually in respect of most categories of imports. India is also an important player in the World Trade Organization (WTO) and is bound in its obligation to the International Community as a member of the WTO. In the recent years India has also been negotiating Regional Trade Agreements (RTAs), Free Trade Agreements (FTAs) and Comprehensive Economic Cooperation Agreements with a number of countries as well as Regional organizations such as ASEAN etc. The ultimate goal in most of these agreements is to move towards Free Trade Agreements over a period of time.
- 7.27. The benefits of freer trade regimes are well known and need not be elaborated here. However, while considering all agreements that promote freer trade, the bottom line should be whether the design and the contents of the agreements would ensure growth of manufacturing in India in line with the aspirations of the country. A perfect agreement is one which ensures a win-win situation where both sides benefit not only in terms of increased trade, but also of investment and technology. In order to ensure that the growth of manufacturing in India does not suffer there is a need to conduct studies regarding the benefits and losses to the country before finalizing any agreement. Consultation with Industry is essential. Apart from the three Apex Industry Organizations namely, FICCI, CII and ASSOCHAM every sectoral association of the products involved

should be included in the consultation process. After the initial experience with the Thailand Agreement the consultations by the Commerce Ministry with the Industry are more extensive and useful. However, the studies regarding the costs and benefits in terms of the impact of any agreement on domestic manufacturing are still not of desirable level of technical excellence. The studies should not be limited to comparing the estimates of growth of trade in both the countries, but should also include, among others, indicators such as the over all impact on the growth of the domestic industry, the impact on employment, namely, jobs likely to be lost and jobs likely to be created and the domestic value addition that is expected to take place as a result of the agreement.

- 7.28. There should also be a mandatory review whether the intended benefits have accrued or not in terms of the above parameters. In this context the example of the system followed by the USA is noteworthy. The United States International Trade Commission (USITC) makes a study of the probable economic effect of each of the FTA which USA enters into whether the country concerned is small or big. Based on the study the USITC advises the President of the USA of the probable economic effect of any proposed FTA through a confidential report before the FTA is negotiated. The USITC also reports to the Congress periodically on the economic impact of all the FTAs that are under implementation. In India it would perhaps be useful to institute a mechanism which would ensure impartial studies on the economic effects of the Agreements are made and reports to the Prime Minister and the Cabinet before an FTA is entered into and also submits periodic reports on the outcomes to the Parliament once the agreement is in operation.
- 7.29. Freer trade can be beneficial only when the parties concerned play according to the rules of the game. In the absence of such situation it becomes necessary that countries that do not follow transparent pricing policies in respect of products need to be dealt with differently. There are several examples of major domestic manufacturers resorting to import from such countries at a great cost to the domestic suppliers. Anti-dumping mechanism which is expected to deal with such cases can work only when predatory pricing can be proved. The current procedural requirements for decisions on anti-dumping also lead to loss of valuable time during which period a lot of damage can occur to domestic industry. When a country adopts unconventional methods of pricing it would be

necessary to deal with it in an unconventional way. Hence suitable and innovative policies and mechanisms should be designed and employed to deal with imports from such countries.

Technology Acquisition and Development

- 7.30. Technology is a non-linear tool which could cause fundamental changes in the level of economic competitiveness. Going up the technology ladder is the quickest way to become competitive and ensure sustained growth of the manufacturing sector. Technology development consists of stages like research and development, technology transfer, technology absorption and production of products besides improvements in performance, quality and cost effectiveness.
- 7.31. The current Technology standing of India was discussed at paras 5.6 & 5.7 it was noted that India has a long way to go to be in the top league in so far as Technology standing or Export and thereby, the manufacture of Advance Technology products (ATPs) is concerned. In this sub-Section the actions required in this area are discussed.
- 7.32. The development of technology in a developing country like India takes place through three different routes:
- Through Foreign Technology Collaborations for acquisition of foreign technology. This could be subject to payment of royalty, lump-sum payments etc.
 - Transfer of technology through foreign direct investment and Trade policies such as offset policy.
 - Developing technology indigenously through R&D efforts.
- 7.33. Absorption of technology through Foreign Technology Collaborations depends upon the technological capabilities of a country. Technological capabilities can be categorized into four levels. At the bottom are the simplest operational ones, needed for running a technology efficiently: these involve basic manufacturing skills as well as some more demanding, troubleshooting, quality control, maintenance and procurement skills. At the intermediate level are duplicative skills, which include the investment capabilities needed to expand capacity and to purchase and integrate foreign technologies. Next come adaptive skills, where imported technologies are adapted and improved, and design skills for more complex engineering leaned.

Finally come innovative skills, based on formal R&D, that are needed to keep pace with technological frontiers or to generate new technologies.

- 7.34. India has capabilities in the technology usage and development in almost each one of these levels. However, the real problem is that the overall application and development of technology itself is very low when compared with many other countries as discussed in earlier Sections. The actions needed in each of the three ways of technology development discussed in para 7.32 are outlined below.

Foreign Technology Collaborations

- 7.35. Increasingly, purchase of state-of-the art technologies is becoming difficult. This is because of the fact that the companies/countries that possess the technology would prefer to get the return for their technology through sale of their equipments/processes till the recipient country is itself able to develop relevant technology and compete in the market. In fact several countries including India are allowing foreign companies to set up their own 100 percent subsidiaries and tap the domestic market demand which also is hampering the process of technology transfer. Typically, therefore, foreign companies are prepared to enter into technology collaborations only in cases where the technology offered is of older technologies which are one or two generations behind and/or where the size of the market does not make economic sense to establish their own subsidiary in the country seeking technology. This would in turn mean that under the 100 per cent subsidiary regime technology transfer would be slow and the gap would persist if not widen unless suitable policies to compress the same are put in place by the country. The policy of permitting 100 per cent subsidiaries in the manufacturing sector needs a relook from the point of view of technology transfer.
- 7.36. In India, the policy for Foreign Technology Collaboration is quite liberal and enables both private and public sectors to access technologies needed by them at a cost. However, there appears to be a need for a clear policy for acquisition of advanced Technologies which are required for strengthening country's technological capabilities from the long-term point of view. Similarly, small-scale companies do not have necessary capacity to acquire technologies and upgrade themselves. There appears to be a need for a coherent

policy which encourages Technology acquisition liberally. For the Small and Medium Industries a Technology Acquisition Fund may be considered on a priority basis. This was also suggested by the Knowledge Commission which says:

“The strategic positioning of India as a technology superpower will depend not just on development indigenous technological expertise, but also on the ability to make crucial technology acquisitions in the global market. Countries like Japan and Korea have successfully used such acquisitions to expand their IP portfolio and some Indian companies, especially in the pharmaceuticals and biotech sectors, have already been engaged in such acquisitions. However, such examples are sporadic and there is need for a national strategy on technology acquisition, with the aim of leapfrogging our expertise in key areas. A Global Technology Fund, created by the central government, could be a significant step forward in facilitating such acquisitions, especially for the SMEs.”

- 7.37. There are some models suggested by various industry organizations on the structuring of the Fund including formation of an SPV to tap the reserves. All alternatives could be studied and suitable mechanism created for this purpose.
- 7.38. This report has emphasized in a later Section priority treatment to be given in respect of five strategic manufacturing sectors by Government. These are Aerospace, Shipping, IT and Electronic hardware, Capital Goods and Solar Energy. Fuller details are given at a subsequent part of the report. Each of these sectors would need a dedicated fund for acquiring technology for their tier-2 suppliers.
- 7.39. Policy to provide incentives for technology acquisition in high technology areas per se should also be put in place. The incentive could be, among others, in the form of allowable deductions under Income Tax Act, Custom duties exemption and also specific subsidization.

FDI Policy and Technology Development

- 7.40. The FDI policy followed in India has been briefly narrated in Section 5 of the report. Broadly, the Policy in respect of the manufacturing sector is very liberal and allows 100 percent foreign investment in almost all the sectors except a few like Defence sector where a

restriction of 26 percent has been placed. Also, it was noted that no conditions are attached to FDI inflow in terms of transfer of technology or ownership. The Multinational Companies are also permitted to open 100 percent owned subsidiaries in India. In other words, in those areas the technology would continue to remain with the Multinational Companies themselves.

- 7.41. In this context the policies adopted by the eight high growth countries discussed in Section 3 of this report are worth reiterating. Invariably these countries dovetailed transfer of technology to the local companies as an essential part of their FDI Policy. In particular, China has a very elaborate policy not only in terms of conditions, but also in terms of local content. In fact, recently, the Chinese Government has issued a directive that in all new Petro-chemical plants the equipments should contain at least 75 percent of local content. Even developed countries like United States and Australia have FDI policy which imposes certain restrictions which they consider that are in their national interest. For example every case of \$ 10 Million or more for investment by a foreign company in Australia would require to go through a mechanism equivalent of the Foreign Investment Promotion Board in India which does a detailed scrutiny whether the investment could be permitted in their “national interest”. The United States also has Federal Statutory restrictions on Foreign investment which cover Shipping, Aircraft industry, Mines, Energy, lands, communications, Banks, Investment Company regulation and Government contracting.
- 7.42. The above are only examples illustrative of how individual countries have tailored their FDI policies to further their national interest. In other words, the conditions imposed for allowing FDI into these countries fall under two specific categories – the first those related to the security concerns and the second related to strengthening the domestic economy, particularly the manufacturing, by reaping the four benefits of FDI flows mentioned at para 5.10. India needs to review its FDI policy by passing it through these two basic funnels.
- 7.43. Technology transfer is considered to be one of the most important benefits of permitting FDI into a country. In India, however, in attracting the FDI the emphasis appears to be substantially on the amount of FDI flows. All announcements of successive Governments have been on the quantum of FDI received rather than on the quality of FDI. The benefits that accrued to the economy in terms of transfer

- of Technology, if any, is rarely highlighted possibly because no such assessments have been made.
- 7.44. Some argue that when the multinational companies set up their factories, the technology spillovers enrich the skills and knowledge in the country and that benefits the economy as whole. It is a fact that such spillover effects do take place but not only that such spill over takes long time for the benefits to percolate, as mentioned earlier, it ensures that the technology gap keeps widening. The technology standing of India in the World was discussed in Section 6 which clearly shows that even if some spillover benefits have been there, they have not been significant enough to take India to the upper bracket in the Technology standing index. The countries discussed in Section 3 have all followed FDI policies that ensured that local entities absorbed the technology that came with the FDI effectively.
- 7.45. Thus, there is clearly a need to have a relook at our FDI policy in terms of the technological benefits the country needs to derive. In that context, there is a need also to identify specific areas of technology in which the FDI should be attracted along with conditions of transfer of technology. In an earlier Section the policies adopted by various countries to leverage their strengths for Foreign Investment including Technology were discussed. The strengths that India has have been identified in Section 6 which need to be leveraged. India should put in place policies that would enable her to leverage among others the huge domestic market available for foreign companies.
- 7.46. Investments will flow where the markets are as long as reasonable conditions for profitably carrying out businesses exist. The story of mobile phones in India is precisely this. While the mobile manufacturers are using the availability of cheap labour for assembling millions of mobile instruments, the major part of the value addition in terms of technology is still taking place outside India. It is here that China and some of the East Asian countries have been able to leverage better through their policies. There are similar opportunities awaiting in many other areas. In fact it should be much easier to apply such policies in the areas where market for products in India is expanding at faster rate such as, IT and Electronics including Mobiles and Telecom equipments, etc. A high level Technical Committee needs to be set up to identify technologies that are needed by India from the point of view not only of general technological development but also from the strategic point of view.

Based on the strengths of the Indian economy, appropriate policy changes in respect of FDI need to be suggested by this Committee.

Trade Policy and Technology Development

- 7.47. India's imports have been growing at a very healthy rate, an average, over 25% per annum during the past several years. It includes sizable import of products of high technology such as aircraft, ships, defence equipment, etc. Offset policy is one of the means to ensure that a proportion of the total equipment imported is manufactured in India.
- 7.48. The Defence Ministry already has an offset policy in place which is applicable to Defence purchases from abroad. An offset policy is under preparation by the Commerce Ministry for all major purchases of Government of India/Public Sector other than Defence, Space and Atomic Energy Ministries.
- 7.49. The Offset Policy of the Defence Ministry has a condition of a minimum of 30% of the value of the contract to be locally manufactured. It is essential that in order to upgrade our technological capabilities that all the offset policies including the one under consideration in the Commerce Ministry should not only include manufacturing content but also technology transfer content. The technology to be transferred should be such that it adds to the pool of technology that India already has. Even if the cost of purchase were to be slightly higher due to the technology transfer condition it is worth insisting on the same. A clear policy which would enable upgradation of technological capabilities in various strategic industries as mentioned earlier over a period of time should be put in place. It is essential that the organizational structure dealing with offset policy should enable quick decision-making, close interaction with Industry and other stakeholders to enable quick absorption of technology. Ministry of Science & Technology should be in the loop along with the industry in the entire exercise of getting technologies into the country through the Offset Policy.

Domestic Research & Development

- 7.50. There is recognition that the domestic Research & Development is an important aspect of development and requires to be strengthened. The allocations in the 11th Plan for science and technology departments as well as for higher learning in the human resources

department indicate the priority being given to this area by the Government. However, there are some areas of weakness in the current system which need to be overcome through appropriate institutional mechanism. There is a need to ensure:

- Strong industry science linkages to facilitate commercialization of scientific advancement. Current mechanisms need to be revisited.
- Significant linkages through trade and investment with technologically advanced countries since lot of innovation takes place and is embodied in the products or process adopted by them. This requires appropriate fine tuning as indicated in previous sub-Sections.
- Science based institutions of higher learning and research to be strengthened both in terms of investment as well as human resources.
- Entrepreneurship to be supported by an institutional environment which encourages risk taking such as venture capital funding in frontier areas of Science and Technology.
- Appropriate conditions to be created to encourage innovation.

7.51. To begin with, there is a need to put in place a comprehensive Technology Policy which not only details on the above but also emphasizes cooperation among national universities, research organizations as well as private sector. It is necessary to ensure appropriate support for all levels of research i.e., basic research, applied research and development and training. There is a need for greater coordination between different departments dealing with Science and Technology.

7.52. The current mechanisms in this field are obviously not working in an optimal manner. The involvement of the universities in industrial research is minimal except in the case of a few IITs and a few research laboratories or a few in the Industry. In general there is a need for a much more effective mechanism for bringing the industry, the research institutions and the educational institutions together.

7.53. Research in future areas of technology need to be given high priority if the non-linear leap forward in manufacturing is to be achieved. Among these areas, research in nano manufacturing is important. Nano technology has the potential to impact virtually every area of the economy, from aerospace and energy to healthcare equipments and even agriculture. The second future area of research should be in

the alternative energy technologies which include Solar energy and hydrogen technologies. The third area of research would be in intelligent manufacturing which should include development of appropriate software, controls etc. to achieve rapid design and innovative processes to meet rapidly changing requirements. Substantial investments, in these areas would enable country to catch up in terms of technology and be competitive.

Innovation

- 7.54. Most of the rise in material standards of living since the industrial revolution has been the consequence of innovation. New or improved products or services – and new and improved ways of producing them – have for a long time been the main motor of economic growth. Innovation would encompass every aspect from research in the laboratory to the manner in which goods are sold. Innovation is creating and applying new technologies, new ways of looking at issues. Innovations enable leapfrogging in terms of productivity and product development and competitiveness among others. Needless to say that substantial investments in R & D, skill base and new technologies are required to improve the innovative capacities of the nation. It is necessary to develop and implement national priorities in innovation.
- 7.55. The innovation system should support the manufacturing industries in attaining competitiveness; it should develop capabilities in industry that ensure diffusion of technologies, develop capabilities in industry to innovate, use and profit from innovation; it should support frontier science and technologies in areas where India has strengths; and finally, it should be used to solve national challenges like environment, climate change etc. According to one study, the bottom of the pyramid comprising of the poor is growing in importance as a viable market and provides enormous opportunities for technological innovation which needs to be developed.

Regulation and Procedural Reforms

- 7.56. In this Section the issues relating to regulation and procedures are discussed. A well-designed regulatory structure is of paramount importance to ensure fair competition. The design of any regulation needs to be simple and transparent. First, the decisions on most of

- the activities need to move from decision making by Government to an independent regulator. Second, there is a need to review the existing regulations to minimize the interface of the citizen/entrepreneur with Government. Third, it is necessary to ensure that regulators are selected on a bipartisan basis and are bestowed with necessary freedom from executive interference.
- 7.57. The appointment of a regulator should be made in a manner that it does not lead to compromising the credibility and independence of the regulator. There is a need to ensure a fine balance that regulatory capture by the Government of the day does not take place and the selected regulator is appropriately checked from becoming capricious in decision making due to the independence given. This would mean a statutory prescription of a selection process in respect of all regulators both at the Central and State Government levels which ensures independent and impartial selection and the law should contain provisions which provide a review of the appointment in rare cases.
- 7.58. A number of studies have been made both by the Industry and the Government regarding the adverse impact of the delays due to complex procedures and Red Tape. There are studies by the World Bank and IFC according to which India figures unfavourably compared to most of the competing countries relating to ease of doing business. "Doing Business 2009" a study made by the World Bank Group places India at a rank of 122 out of 181 countries in terms of facility of doing business which clearly indicates the long way that the country needs to move in this regard. The indicators measure regulations affecting 10 stages of business life which are - starting a business, dealing with licences, employing workers, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and closing a business.
- 7.59. In order to simplify the procedures Government had set up Committees periodically, to recommend actions to be taken. A Committee set up by the Cabinet Secretariat in the year 2001 gave two reports, one relating to improving the Investment Approval Procedures within the Government and Public Sector Projects and the second relating to improving the Procedures Downstream in terms of implementation and operation which is applicable to both the public and private sectors. The reports also gave very detailed recommendations as to how to practically implement the recommendations. The Government circulated these reports to all

the Ministries in Central Government and also to the State Governments for implementation. However, the results of implementation were not adequate and in many Ministries the implementation was tardy and uneven.

7.60. Later the Planning Commission has also prepared a report in the year 2006 on “Inspector Raj” which contains some suggestions to limit the number of inspections etc. In respect of this Report also the implementation was left to the Central Ministries and State Governments and not much progress has been made except in those States which are progressive and have been working on streamlining the procedures and processes even on their own. These states included the Southern States, Maharashtra and Gujarat all of which understandably are also in the fore-front in terms of domestic and foreign investments.

7.61. The National Strategy for Manufacturing (NSM 2006) also went into the details in this regard. They recommended the following steps for implementation by the Government.

- “The regulatory framework should ensure fair competition, better access to markets – both domestic and foreign, trade negotiations that ensure a level playing field for domestic manufacturers, review of existing regulations and reduce the burden of paper work and inspector raj.
- The adverse impact of regulations on SMEs is particularly large as they are less equipped to deal with the complex requirements. The design and implementation of regulations need to minimize the cost of compliances.
- Procedures related to compliance with environment & safety regulations have to be simplified. In this respect, on the lines of ‘financial audit firms’, government should identify certain special institutions or firms of reputation specifically in the area of ‘environment & safety’ to carry out necessary certifications.
- Only clear-cut rules, rationalizing approval/permission requirements and manufacturing industries, optimizing inspections by Regulatory Authorities etc. can significantly reduce the transaction costs to the manufacturing sector. Hence, government should focus on transforming the regulatory processes through re-engineering of procedures to reduce ambiguity & the need for discretion.

- The Procedural and regulatory hassles inhibiting both domestic and foreign investment have been studied by a number of Committees of the Government in the past and have been well documented. The key issue is implementation of the findings of these Committees. The implementation is at the Central, State and local levels. Currently, the implementation is left to the individual Ministries in the Government of India as well as in the State Governments. It has been weak generally and in some cases non-existent. Many State Governments are also aware of the need for procedural reform not only from the point of view of investors, but also to improve the overall Governance. However, the experience in this respect is not uniform across states and it is necessary to ensure that the State Governments are fully involved in pursuing the procedural reforms. The problem is pervasive and, therefore, requires a concerted action similar to what is being done in respect of the VAT by involving the State Governments in the entire process. It is, therefore, recommended that an Empowered Group which would prioritize and persuade the States to implement reforms in respect of specific laws and regulation is constituted. The Group should be empowered also to review the implementation by both Central and State Governments periodically.
- The recommendations of the empowered Group need to be pursued by the Central and State governments. It is recommended that to ensure focused attention, independent Commissions should be set up both at Central and State Governments levels to follow up on the suggestions of the empowered Group. The recommendations of these Commissions should be implemented.”

The Group would reiterate that the recommendations contained in the NSM 2006 be implemented in a time bound manner.

Raw materials - Acquisition of assets abroad by Indian companies

7.62. The robust growth of manufacturing would be facilitated by adequate availability of raw materials. As we indicated earlier the value addition domestically should be the guiding principle for spurring growth of manufacturing. In other words, the outcome of the policies should be such that overtime, all available domestic raw materials

would be utilized for value addition. In principle, export of raw materials particularly which are not available in abundance should be discouraged. Instead, export of value added products should be encouraged. For example in the value chain of iron ore, steel and products manufactured with steel as input, the preferred export item should be the finished products. However, there could be temporary demand-supply gaps and during that period some exports of low value added items could be allowed.

- 7.63. The proposed growth of manufacturing of 12 percent per annum over the medium to long term would exert a lot of pressure on raw materials markets. Some of the raw materials required for manufacturing such as coking coal are not available at all domestically or not available in adequate quantity. Arrangements for assured supply of such materials over the long term should be put in place. Even those raw materials which are available only for a relatively short period of time, alternative arrangements for supply need to be worked out well in time. In this context the efforts of China to invest in raw material companies in various countries of Africa and Latin America is worth following, India has made a small beginning. Some of the private companies such as Tata Steel and others have started acquiring raw material assets abroad. However, these are relatively modest efforts and are individual company oriented and are not on the long term national requirement basis. In the Public Sector also some attempts have been made to acquire foreign raw material assets, particularly, oil. A new company has been formed recently by the public sector majors to buy coal companies/assets abroad. However, these efforts are only at the initial stages. In view of the severe competition from countries like China for acquiring such assets, a sense of urgency needs to be brought into this area.
- 7.64. In the past three or four years India's outward investment has been rising dramatically. However these investments are basically for acquiring companies that produce final products such as steel companies, component companies etc. Relatively, very little investments are going into raw material and commodity asset acquisition. During the year 2007-08 proposals for outward investment were of the order of \$ 23.07 billion of which nearly \$ 22.24 billion were on the automatic mode. The proposals for acquisition of raw material assets in these investments are very insignificant. There is, therefore, a need to encourage and direct the outward investments into purchase of raw material assets in the long-

- term interest of the country. For this to be achieved a clear set of policy guidelines need to be put in place by Government.
- 7.65. Establishing a centralized fund for acquisition of foreign assets in various sectors should be given a serious thought. The Group had suggested setting up a joint venture for fertilizer products with a corpus of Rs. 2000 crores. The alternatives of a centralized fund or funds under each sector needs to be studied from the point of view of effectiveness of delivery and a decision taken at the earliest in view of the aggressive acquisition being undertaken by China in particular.
- 7.66. Similarly, acquisition of Advanced Technology companies would facilitate transfer of technology to the parent manufacturing company. Acquisition of companies with marketing network of products would also help an India based manufacturing company get access to markets in those countries more easily. A review of the benefits of outward investments made so far to the country also needs to be assessed in terms of income, employment generation and technology transfer for creating an appropriate policy framework.

Skills Development

- 7.67. Competitiveness of the industry depends on several factors. Amongst them, the skill of the work force at all levels is, perhaps, the most important single determinant. The effective use of technologies requires skills and Upgradation from low-level technology to complex technologies require greater and diverse skills. The availability of skilled manpower at all levels is of paramount importance for the growth of the economy and in particular the manufacturing sector.
- 7.68. The recent spurt in growth of the economy has exposed the widening skill deficit confronting the industry. While appropriate policies for growth have started providing employment opportunities on a wider scale, programmes to prepare the workforce with necessary skills to avail these opportunities has lagged behind. This has resulted in increase in wages and also loss of employment opportunities.
- 7.69. It is for this reason that the requirement for skill building at various levels has been voiced by all Sections of the industry, as also by the Agriculture and Services sector. Skill building is required at all levels, from the level of vocational training to those requiring higher technical skills. Thus, any skill-building programme has to be

comprehensive and needs to cover all aspects of skills and knowledge Upgradation.

- 7.70. The NMCC identified very early Skill building as one of the important aspects requiring urgent attention of the Government. The issues relating to Skill Development were discussed starting May 2005 and resulted in identifying it as one of the six priority areas requiring attention by the High Level Committee on Manufacturing presided by the Prime Minister. Further these aspects were also discussed in the Task Force set up by the Planning Commission of which the NMCC was a member.
- 7.71. Government has recognized the need for massive skill Upgradation and has initiated steps for coordinated action for skill development based on various inputs received. As a part of that process, Prime Minister's National Council on Skill Development has been set up to lay down broad policy objectives, strategies, financing and governance models, etc. The Council is to work as an oversight mechanism. Also, the National Skill Development Corporation Board headed by the Deputy Chairman of the Planning Commission has been formed which would coordinate the work of developing strategies to implement the decisions of the Prime Minister's Council and also take various actions for development of the skills. The review Board would look at the initiatives of both the Government schemes as well as the private sector. The Government also has proposed setting up of a non-profit National Skill Development Corporation which is expected to function in Public-Private Partnership mode with a seed capital from Government and the funds for the programmes to be provided by the private sector. Substantially the programmes would be run for private sector requirements. The Government has earmarked Rs.1000 crores for the purpose. The Chief Executive of the Corporation would be a professional. The Corporation would be set up by the Finance Ministry.
- 7.72. Parallely, the programmes for Skill Development, which are being implemented by 18 departments of the Government of India in the Public Sector, would also continue. In other words, there will be a two-pronged approach. One, which will promote skill development through public agencies and the second, would promote skill development with the help of private sector on a Public-Private Partnership mode.

- 7.73. The work of the National Skill Development Corporation as well as that of Government agencies would be reviewed by the National Skill Development Review Board. The Board in turn would submit the outcomes of the review for the consideration of the National Council.
- 7.74. These initiatives provide an excellent structure for Skill development. The next step would be to operationalize the same. While operationalizing it needs to be recognized that skilled persons are required in two different categories. The first relate to provision of skilled people to the immediate requirements of the economy. These include basic skills including ITI trained persons, skilled persons at polytechnic and at graduate levels. Some of the industries like Chemicals, Pharmaceuticals etc., need persons with high skills such as those with Ph. Ds apart from the above categories of skilled personnel. In terms of enrolment at Ph.D level in India about 5000 people are enrolled. The corresponding figure for China is 1,20,000. As far as the turnout of Ph.Ds annually is concerned, the US turned out about 50,000 Ph.Ds in 2006, of which nearly 28,000 were in Science & Technology. As against this, In India, only 375 Ph.Ds were awarded of which Computer Sciences and Information Technology contributed to 100 Ph.Ds while other engineering disciplines like Chemical, Electrical and Mechanical Engineering contributed to about 100. Actions have been initiated by the Department of Science & Technology in the 11th Plan to improve the turnout of Ph.Ds. However, the country's requirement would be far higher and therefore, a long term plan needs to be drawn up for this purpose.
- 7.75. The second category of skill development is for the long-term growth and strength of the economy. These are Science and Technology skills of a high order which can be developed only in the longer term. They include basic research and directed applied research. In paras 5.6 & 5.7 of this report the relatively low standing of India in terms of Technology was noted. It would be essential to give high priority to this area of skill development not only from the competitiveness and economic growth point of view but also from the point of long-term national security. All major developing countries are investing heavily to develop their science and technology base. The 11th Plan has recognized this need and stepped up funding for higher education and science and technology. Funding solves only a part of the problem.
- 7.76. Education sector at all levels requires major reform to produce skilled persons suited to a modernizing economy. The country's present educational pattern continues to lay emphasis on traditional

curriculum leading to a large number of persons entering the market without appropriate skills. Korea, Taiwan, Singapore and now China have placed great emphasis on vocational education at lower levels and Technical and professional education at other levels. The boys and girls coming out from schools and colleges are trained predominantly in professions rather than in liberal education. The results of that approach are there to be seen. India needs to drastically reorient the approach to education.

- 7.77. The next main constraint is finding right people who would man the gigantic mission in this area. For this, novel ways of attracting talented human resources including persons of Indian origin with necessary background need to be put in place. Incentives for carrying out the research tasks need to be designed in an innovative manner.
- 7.78. The wide range of actions needed for skill development places a great deal of responsibility on the National Skill Development Review Board which is the operational coordinating body. It needs to review the whole gamut of activities including those mentioned in the previous paragraph. The structure of the Board as constituted indicates that all its members including the Member Secretary would be on a part time ex officio basis. Quite often, Committees/Boards in such a set up end up in discussing individual schemes or pleadings of the departments. It could end up as business as usual. Therefore, there is need for a lean full time independent secretariat of exceptional quality to assist the Board. A person of eminence and with wide experience in Government and industry would need to head the unit to prepare the papers for the Board in line with the Skill Development Mission objectives. That unit also has to be constantly in touch with the line Ministries and the Industry to assess the progress made in relation to the set goals. Leaving these tasks to the routine bureaucracy in the Planning Commission may not yield the expected results. In view of the emphasis required on developing science and technology skills, the Board as well the PM's Council would necessarily need to have representation of the Ministry of Science and Technology.

Small & Medium Scale Manufacturing Industries

- 7.79. The Small and Medium Industries form the backbone of Manufacturing Sector not only in this country but also in the developed countries. In India, the Small Scale Sector contributes to 40% of Manufacturing. It also contributes about 34% of the exports.

The SME sector is employment intensive and generates employment for 7 persons on an investment of Rs.5 lakhs as against one person in the organized sector for same investment. Given the dispersal of the units all over the country it also provides substantial employment in the rural areas. These enterprises manufacture a wide variety of products ranging from household food items to textiles and machine parts and even small machines. Therefore, ensuring that the Small Scale Sector grows at a healthy rate is crucial for the overall growth of Manufacturing Sector as also the national economy. For this to happen the small scale sector has to be competitive.

- 7.80. In the past, the Small Scale Sector existed in a relatively sheltered environment. The levels of protection were high, several goods were reserved for production in the Small Scale Sector, special fiscal incentives were extended to the units in the sector and a number of support programmes were also drawn up to ensure the Small Industries survived.
- 7.81. In the post-reform era starting from 1991, the situation for the Manufacturing Sector as a whole as well as for the Small Industries has undergone a dramatic change. The tariffs on imports have been reduced very substantially and today the peak rate of tariff is only around 10%. India is integrating with the world economy; New trade blocs are forming and many countries, including India, are entering into Preferential Trade Agreements, Free Trade Agreements or Comprehensive Economic Agreements to improve trade in areas of their comparative advantage. In this process the Indian economy is becoming more open compelling the Indian Industry to adjust to the new situation.
- 7.82. The situation confronting the Small Industries, in particular, provides both opportunities as well as challenges. An opportunity to grow in a global market place is available to such of those Small Scale Industries which are able to access entry into the global value chain by virtue of their being internationally competitive. The others would need to reposition themselves and become competitive to meet the challenges if they have to survive.
- 7.83. In this background, in order to become competitive a number of measures are needed. Mergers and Acquisitions to obtain economies of scale may be required. There are also other ways in which the competitiveness can be achieved by the Small Scale Industries. For example, the ancillaries to a major company have a distinct advantage

since they are part of a value chain. Quite often, the major company demands products from the ancillary unit which are competitive in order to ensure that the final product of the major company remains competitive. Therefore, they drive the ancillary unit into manufacturing components of international quality and competitiveness.

- 7.84. The second set of Small Industries that are able to harness these advantages are those in a cluster. Through a cluster development program, common facilities which an individual unit may not be able to afford could be created and the competitiveness derived through such provision of infrastructure. The cluster can have a common facility centre which can give them an IT as well as managerial information back up. The service centre can operate like a clearing centre for a variety of services such as locating markets, technology etc., to simpler jobs of tax related services. Each cluster has to find its own unique model that would answer its requirements.
- 7.85. The third set of Small Scale Units are those which produce items on a stand alone basis. These need to assess their position in a competitive world and accordingly take up actions to restructure their company. The issues relating to this set of units are indeed very difficult to handle in a globalizing world. They need to undertake expert studies as to specifically what kind of restructuring would be needed by them to become competitive and take actions to implement them. Otherwise they will be wiped out by their competitors whether domestic or foreign.
- 7.86. The Small and Medium Industries in India as observed earlier, face a number of challenges. The sector is heterogeneous, dispersed and substantially unorganized. The challenges include inadequate access to credit, non-availability of quality raw materials, insufficient market research, design capabilities, technology obsolescence and above all the competition due to opening up of the economy.
- 7.87. World over, both in developed and developing countries, in the recent years action plans have been drawn up for assisting the SMEs to meet the new challenges. The National Strategy for Manufacturing (NSM 2006) prepared by the NMCC recognized the unique role of the SMEs and made detailed recommendations to the Government. These included better credit delivery, dereservation policy, cluster development, quality improvement, design clinics etc. Most of these recommendations have been accepted and the implementation has

begun. The MSME development Act has been passed and is under implementation. Action plan for improving credit delivery to SMEs has been drawn up and RBI has issued necessary guidelines to the Banks. Direct access to SIDBI credit has been increased. SIDBI with Commercial Banks has started 100 service centers. The National Manufacturing Competitiveness Program (NMCP) designed by the NMCC mainly to support the SMEs has been approved and is under implementation. The NMCP contains various elements that were recommended in respect of SMEs in the NSM of the NMCC.

- 7.88. The Government has dereserved almost all the items barring about 35 from the small scale industry reservation list. This has enabled the industries in the delisted categories to scale up their companies. New entrepreneurs have also started entering into the areas which have been dereserved. Government recognizing the need for improving the competitiveness of the sector has included a number of schemes in the 11th plan. The schemes include the National Manufacturing Competitiveness Program (NMCP) designed by the NMCC and being implemented by the Ministry of Micro, Small and Medium Enterprises. This has become a flagship programme of the Ministry. There are also several programmes in the Ministry which work towards improving the competitiveness of the small scale industries. There are also a number of schemes in specific industry departments such as Food Processing Industries, Agro and Rural Industries, Chemicals & Fertilizers, Information Technology and Industrial Policy & Promotion etc. which cover small scale industries also in their respective sectoral responsibility. All these endeavours form an excellent beginning but are not adequate. There is, however a need to step up these activities substantially if the reach of the Government is to increase in stabilizing and upgrading the SMEs.
- 7.89. In this background, there are a few more aspects in addition to what has been suggested in the NSM that require attention of the Government. The first relates to the role of the SMEs in Technology development. The SMEs in order to ensure long term growth, would have to diversify and become the crucibles of technology development. For this purpose, the Group has recommended elsewhere in the report for creation of a Technology Acquisition Fund which would enable the SMEs to acquire technologies wherever available and manufacture products required by the high technology sectors. This is to be taken up on high priority. An appropriate

- mechanism to link up the SMEs, the Technology providers and the users of the products needs to be created.
- 7.90. The second aspect relates to effective delivery of various services by the Ministries concerned. The charge of MSMEs is spread over various line Ministries as noted earlier. The MSME Act provides for a co-ordinating mechanism. This mechanism has to be made effective in terms of actual delivery of services. That can happen only when the co-ordination between MSME department, State Government and SME industry is carried out at the local level. The current participation level of the industry in the implementation of the schemes is at best sketchy. There is a need to reorganize and have a mechanism which would enable periodic review on the effectiveness of the functioning of the system.
- 7.91. The top down approach which is the norm in any bureaucracy needs to be changed and greater Public-Private dialogue at all levels needs to be promoted to improve the delivery of the Government schemes as intended. The Government machinery which is trained in the past in subsidy oriented top down schemes does not appear to be capable of delivering the modern inputs to the SMEs to enhance their competitiveness. The mind set of the stakeholders needs to be reoriented and the capabilities of Government delivery mechanisms enhanced if Government schemes are to be successful. In the alternative, a system of Public-Private Partnership has to be developed with due safeguards. A detailed study of the existing delivery system in respect of the SME programmes and policies need to be commissioned and necessary restructuring and reorientation of the MSME administrative structure needs to be made to meet the changing needs of the SMEs.
- 7.92. Third, entrepreneur development is crucial for healthy growth of the SMEs. New and innovative methods need to be put in place in the changed scenario where employment can be created mainly in the private sector. Greater interaction with potential entrepreneurs need to take place at the level of Universities. The opportunities available to start new business need to be brought to their knowledge. Greater awareness of the Governmental entrepreneurial development programmes in University/college cells need to be generated. In this context it would be useful to prepare and publish a guide for the new entrepreneurs on Government rules and regulations for setting up businesses on the lines of what has recently been done in the U.K.

(The No-Nonsense Guide to Government rules and regulations for setting up your business (2006) – Government of U.K.)

- 7.93. Fourth, there is a need for management and leadership development for the SMEs. A programme needs to be designed which will strengthen the management and leadership skills available to the SMEs. A pioneering programme called Visionary SME Leaders Programme for the SMEs which has been designed by the NMCC and the CII is about to be launched. The Visionary Small & Medium Enterprise Programme (VSME) which will target potential SMEs to make them world class 'Locomotive' SMEs. This is a unique programme to identify early competence to be nurtured with collaborative support system of the Government, Academia and the Industry. This is a modest attempt and based on the experience gained, this programme needs to be multiplied and taken across the country to upgrade the management of the SMEs on a large scale.

Public Sector Undertakings

- 7.94. India has 237 Central public sector undertakings out of which 97 deal with industrial production. These undertakings account for about 27 percent of the total industrial production in the country or about 6 percent of the GDP. In addition there are 41 ordnance factories and production units under the Ministry of Railways which also undertake manufacturing activities. The Public Sector, thus contributes quite substantially to the growth of manufacturing as well as of the national economy.
- 7.95. Most public sector undertakings now face competition both from imports as well as from domestic private sector. The future of the public sector therefore, would depend upon its competitiveness. In order to enable them to become more efficient Government has delegated a variety of powers to the Boards of these enterprises and granted significant autonomy through the concept of 'Navratnas' and 'Mini Ratnas'. The areas requiring reforms in respect of the public sector undertakings were identified in the National Strategy for Manufacturing (NSM 2006) prepared by the NMCC. The Government has been implementing many of the recommendations contained in the NSM. In addition, an ad-hoc Committee under the Chairmanship of Dr. Arjun Sengupta submitted a report in the year 2005 on administrative and financial delegation of powers to PSEs which has been accepted by Government for implementation.

7.96. With the liberalization of Industrial Policy in 1991, the role of the public sector in the manufacturing sector has become somewhat unclear. The disinvestment policy of Government varied from time to time. The period 1991-2000 witnessed a policy basically of adhoc sale of shares. This was followed by an active privatization policy in the period 2000-2004 with the Government referring all non-strategic Public Sector Undertakings to the Disinvestment Commission for privatizing and proposing strategic sale. With the change in Government in 2004 the policy again changed. This has led to some amount of uncertainty in the minds of the public sector manufacturing companies about their future. The disinvestment policy actually has become the default public sector policy in so far as ownership is concerned. The policy for disinvestment has been outlined in the National Common Minimum Programme adopted by the Government which states

“The UPA Government is committed to a strong and effective public sector whose social objectives are met by its commercial functioning. But for this, there is need for selectivity and a strategic focus. The UPA is pledged to devolve full managerial and commercial autonomy to successful, profit-making companies operating in a competitive environment. Generally profit-making companies will not be privatized.

All privatizations will be considered on a transparent and consultative case-by-case basis. The UPA will retain existing “Navratna” companies in the public sector while these companies raise resources from the capital market. While every effort will be made to modernize and restructure sick public sector companies and revive sick industry, chronically loss-making companies will either be sold-off, or closed, after all workers have got their legitimate dues and compensation. The UPA will induct private industry to turn around companies that have potential for revival.

The UPA Government believes that privatization should increase competition, not decrease it. It will not support the emergence of any monopoly that only restricts competition. It also believes that there must be a direct link between privatization and social needs – like, for example, the use of privatization revenues for designated social sector schemes. Public sector companies and nationalized banks will be encouraged to enter the capital

market to raise resources and offer new investment avenues to retail investors.”

In line with this policy the Board for Recommendation of Public Sector Enterprises gave recommendations in respect of 25 PSEs for revival/restructuring instead of disinvesting. Out of these Government has approved 12 cases for revival/restructuring and in two cases closure has been approved.

- 7.97. In order to enable the Public sector undertakings to know their future and to plan their activities accordingly it is necessary that a clear policy is put in place which should be reviewed only after a reasonable period of say 10 years. Otherwise not only the efficiency of the undertakings would suffer due to uncertainty but as a consequence even the capital infused with the tax payer's money could become infructuous. The public sector companies need to reposition themselves in the changed situation and adopt internal policy changes which would encourage new ideas and innovation to meet the challenges. The leadership of the PSEs need to be given necessary backing by the Government to undertake internal reforms.

Infrastructure and Special Economic Zones (SEZs)

- 7.98. It has been recognized widely that the infrastructure deficiencies have a major impact on the growth of the manufacturing sector as well as on the economy as a whole. The National Strategy for Manufacturing (NSM 2006) has highlighted the need for rapidly developing infrastructure and made specific recommendations. There are several estimates regarding the investment requirements in the infrastructure in the next five years ranging from \$ 350 bn. upwards. Currently, the spending on infrastructure is around 3 percent of the GDP and needs to be raised to about 9 to 10 percent in the coming years.
- 7.99. Among the infrastructure sectors notable progress has been made in the telecom sector both due to the reforms carried out in the sector and the dramatic increase in the demand for telecom products from the newly prosperous middle class. However, the same can not be said of the power sector. Even though the reforms enactments in the power sector have been put in place the results are yet to be reaped. Power which is one of the key inputs for manufacturing sector has currently become the key constraint in the growth of the sector. The energy deficit in July 2008 is estimated at 10 percent and the peak demand deficit is at around 14.5 percent. In some regions like the

- industrially dominant western region the situation is worse. The National Strategy for Manufacturing (NSM 2006) had estimated that the power shortage alone contributed to a production loss of about 1 percent of the GDP. The estimates of loss of production in the current year could well exceed that figure.
- 7.100. The 11th Plan envisages an addition of 78,000 MW of new capacity in the power sector. The need of the hour is to ensure that the bottlenecks for setting up this capacity are removed immediately and that power capacity is set up ahead of the demand in the medium to longer term. It would also mean finding necessary inputs for power generation such as coal, oil, Solar, Nuclear etc. and also enhancing the capacity for production of power equipments. Comprehensive steps are needed in all these areas.
- 7.101. The other infrastructure sector requiring attention is the transport sector. Both the highways as well as the railways are required to step up the level of investment. A beginning has been made and sizeable action plans are in the process of implementation to improve the capacities in these two important segments. Development of Ports and ship building are the other areas of infrastructure requiring attention. Long term vision is essential in respect of shipbuilding which also has defence applications. With the robust growth of the economy the urban infrastructure requires attention. Repeal of the Urban Land Ceiling Act requires to be put on high priority in States where it has not been repealed as it has not only not served the purpose for which it was enacted but has created artificial scarcity of land which only helped rent seeking resulting in abnormal prices for land.
- 7.102. Government has promoted the concept of Special Economic Zones (SEZs) through an Act in the year 2000. This Act was further improved in the SEZ Act of 2005 which was passed in early 2006 and is now in operation. About 600 SEZs have been formally approved under the Act out of which about a third have been notified and are at various stages of implementation. Even though the original purpose in promoting SEZs was to attract investment into the manufacturing sector, in reality, the approvals/notifications for this sector appear to form only about a third of the total approvals. The original purpose of making SEZs Manufacturing centers should be the main consideration for approving bulk of future SEZs. The SEZs should become centers for domestic value addition, technology absorption and dispersion if the value for the concessions granted is to be reaped by the country.

Appropriate indicators to measure these parameters need to be put in place for periodic review to ensure above purposes are achieved. In addition, with the reduction in customs duties, the whole concept of SEZs as special enclaves may require rejustification. As recommended in the National Strategy for Manufacturing 2006 the concept of economic zones with no fiscal concessions but with world class infrastructure would need consideration.

Labour Reforms

7.103. The issues relating to Labour Reforms are well deliberated and have been dealt with in the National Strategy for Manufacturing (NSM 2006) and several recommendations have been made. These included reforms in respect of the Industrial Disputes Act, the Contract Labour Act and the Trade Unions Act. As observed in the NSM the second National Labour Commission's recommendations need to be fully implemented in order to ensure that the growth requirements are not constrained by the rigidity of the Labour Laws. Simultaneously it is necessary to ensure that the compensations made available to the labour are just and equitable.

Industry Verticals

7.104. The Group also felt that Government interventions will need to be in line with achieving the objectives set out earlier, in particular, in respect of the employment intensive industries and the strategic industries. The two sets of industries are different in nature and would require different treatment in terms of Governments actions.

Employment intensive industries

7.105. The best form of poverty reduction is to provide productive employment to the millions joining the workforce every year. The demographic dividend can be harnessed only when the jobs are created in large numbers and the skills of the job seekers match the job requirements. Increase in the number of job seekers without creation of appropriate jobs would be the surest recipe for disaster. The social tensions which are manifesting themselves in lawlessness of various forms is attributable to the failure of the system to make use of the energies of the youth for productive purposes. Unless this

is corrected, the increase in the proportion of youth in the population which is expected to provide demographic dividend to the country could end up as demographic disaster. It is in this context, the question of balanced growth and support to the employment intensive industries becomes extremely important. Policies and programmes need to be put in place which would encourage the employment intensive industries.

7.106. At a generic level, as noted earlier the Small and Medium industries create larger employment per unit of investment when compared with the large size industries. The advantages of promoting healthy growth of Small and Medium industries have been noted in the report earlier. It is felt that, in addition, specifically the following employment intensive industries need to be given additional focus and attention. They are:-

1. Textiles and Garments
2. Leather and Footwear
3. IT Hardware and Electronics
4. Food Processing Industries

This list could be expanded as necessary to include other labour intensive industries also such as utensils, wooden furniture and fixtures, steel furniture including doors, windows, etc.

7.107. Individual action plans have been drawn up in respect of these industries and included in the 11th Plan. However, the programmes are not large enough or bold enough to give them an identity as priority sectors. Once these are recognized as priority sectors for the purpose of employment creation, the policy package would need to be constantly reviewed so that these sectors are protected from the vicissitudes of developments external to the industry. While the sector should continuously improve productivity, quality and costs which are internal to the companies, Government through appropriate policy measures must ensure that their competitiveness is not eroded due to external factors.

7.108. Some of the incentives that can be thought of for these industries are illustrated below. Fiscal incentives in the form of reduction of excise duty from the existing 14% to 8% would help in reviving labour intensive industries. An excise duty reduction for leather footwear & garments, plastic footwear, safety matches, utensils made of metals, wooden furniture & fixtures, steel furniture, metallic door, windows,

- ventilators, rolling shutters will help in generating demand and help create employment opportunities.
- 7.109. In addition, the excise duty reduction from present 14% to 8% on specified raw materials for footwear components, specified machinery and equipments used in leather and leather products, spare parts of boot and shoe manufacturing machinery and specified footwear components would help, particularly, the leather goods industry. Similar exemptions need to be given to the labour intensive industries in general.
- 7.110. These sectors were also identified as priority sectors by the High Level Committee on Manufacturing presided by the Prime Minister. The NMCC along with the concerned Ministries has worked out comprehensive policies and programmes that need to be implemented. In particular, the Textiles and Garments sector and Food Processing Sector were also considered by the High Level Committee and policy level decisions were taken. However, when it came to actual item wise approvals, the consideration in various Ministries and at various levels did not reflect any sense of urgency that a priority item of the Government should receive. The procedural delays were as difficult as in the case of any other proposal. This experience brought out the need for a mechanism which has enough power to speed up processes.
- 7.111. The mechanism should ensure that there is an assurance of long-term support from the Government to the priority industries. In effect, whenever these industries are hit because of external reasons such as changes in taxation structures, exchange rate movement, interest rate movement, etc having adverse impact, actions to mitigate these impacts should be immediately triggered. A mechanism should be put in place which would ensure a quick design of instruments for retaining the competitiveness of these industries.

Strategic Industries

- 7.112. Manufacturing is not only the backbone of the economy but is also the muscle behind National Security. Therefore, a robust manufacturing sector is sine qua non for any major country. Keeping this in view, five manufacturing sectors have been identified as strategic for strengthening the national capabilities from the long-term point of view. These are:

- Aerospace
- Shipping
- Capital Goods
- IT Hardware and Electronics
- Solar Energy

7.113. These would need to be given focused attention by Government. All these sectors require high technology components and sub-assemblies. Mastery of those technologies would bestow spill over benefits to the rest of the civilian industry also. Thus, these sectors are important not only from the strategic point of view but also from the point of Technology Development.

Aerospace

7.114. India is one of the few developing countries to have had an aircraft manufacturing programme almost 60 years ago. However, the progress, development and operation of India made aircraft has been painfully slow. Even as of to-day the country has not been able to bring out commercially viable Aircraft of international quality even in the smaller capacity segments. In the meantime, countries like Brazil and China which started their programme much later, have not only overtaken the Indian aircraft programme but also are in a position to be competitive in world markets. China is already manufacturing a 100 seater aircraft which is supposed to have one of the most fuel efficient systems in the world. Brazil's 'Embraer' aircraft is operational and more than 200 aircraft are said to be operating in Europe itself.

7.115. The Aircraft manufacturing industry is important both from the civilian as well as the defence point of view. One of the key reasons for the inability to push this programme forward appears to be organizational. The space research programme which started much later than the Aircraft programme has made major strides because of a focus given to the programme. There is a need to restructure the Aeronautics programme into a Mission Mode and a suitable organization structure has to be put in place. The Mission should be headed by a visionary leader as in the case of Space and Atomic Energy. A programme for making India a major force in this field in the next 10 years needs to be worked out and launched as early as possible. The long-term vision should also include futuristic development of Aircraft requirements in both civil and military areas.

The programme can be implemented either in the public sector with private sector inputs or wholly in the private sector.

Shipping

- 7.116. India has a vast coastline as well as a huge external trade requiring large fleet of ships both for civilian and military purposes. With increasing incomes demand for cruise vessels is also increasing. The existing facilities for shipbuilding are inadequate even for the limited demand at present let alone the demand that would be generated by high growth. India's emergence as a major economic power would mean greater integration in terms of trade with the rest of the world requiring huge shipping tonnage. Also, the need for strengthening the naval forces would place an extra urgency on ship building activities. Therefore, a comprehensive plan to enhance domestic ship building capabilities and building large new shipyards need to be taken up on an urgent basis.
- 7.117. There have been detailed discussions in this regard in the NMCC with the shipping and Defence Ministries. There is a need to build a common platform between the naval authorities and the Ministry of Shipping to synergize the efforts of the two Ministries for meeting the long term requirement of the country. A combined vision with an Action Plan needs to be developed urgently. Mission mode approach is absolutely essential for the purpose. In this context, the examples of both Korea and China who have made giant strides in this area are worth studying. Needless to say there is an urgent need to put in extra efforts to 'catch up' in this field.

Capital Goods Industry

- 7.118. If the country is to manufacture products of world-class technologies, it would require a strong and substantial capital goods industry of high quality. Considering that the economy is expected to grow at 9 to 10 per cent on average, the capital goods industry in India today is of a miniscule size when compared with the future requirements of the country. More than 50 percent of the capital goods requirements of the country are currently being imported and with the targeted economic growth the demand for capital goods will increase enormously leading to much higher imports unless action is taken urgently to build a modern capital goods industry of substantial

capacity. It is not possible to give focused attention to all sub-sectors within the capital goods Industry. Therefore, the following more important industries from the strategic point of view need to be supported with focused attention.

- Machine tools
- Heavy electrical equipments
- Heavy transport, earth moving and mining equipments
- High technology equipments like telecommunication equipments and upper end of IT and Electronic Hardware

7.119. In each of these sub-sectors, a time bound action plan should be prepared for building high class modern capacities with R & D facilities in line with the requirement of meeting the long term strategic demands of the country. The plan would contain policies and programmes which would encourage growth and development of these sectors in the private sector while strengthening the existing public sector. Competitiveness should be the touchstone for Governmental support.

7.120. In order to protect and promote the selected capital goods industry there is a need to reorient some of our existing policy. Under Project Import the customs duty, at present, are exempt on power equipments and highway construction equipments under the mega power project and National Highway Development Project respectively. In the mid 1990s the mega power policy was introduced whereby duty free imports of power generating equipment was enabled for large projects with the view to lowering the cost of electricity. The conditionality of privatization of distribution in cities over one million for States to be eligible for getting cheaper power from mega power projects has been in effect abandoned. The conditionality of 15% price preference for domestic manufacturers as provided in World Bank ICB procedures are unenforceable for private sector projects. It would be appropriate to abolish the mega power policy benefits prospectively. This would nullify the present unintended consequence of the mega power policy of duty free imports in effect encouraging a rapid surge in imports of Chinese power generating equipment into the country at the cost of domestic manufacturing. This is essential given the disadvantage to domestic manufacturing on account of the relative appreciation of the rupee vis-a-vis the Chinese currency and the non-market nature of the Chinese economy.

7.121. Similar duty exemption given for the National Highway Development Project should be withdrawn wherever there is domestic capacity for production of such equipment. The capital subsidy is provided for the textile industry under the Technology Upgradation Scheme (TUFS). This capital subsidy now should be restricted only if the machinery is accessed from the domestic sources.

IT Hardware and Electronics

7.122. In the modern era the strength of ICT of a country would determine the future of that country. The greater the advancement in technology in this area the greater would be the value addition as well as the strength of the economy. To make the country technologically strong, it is necessary to treat IT/Electronic hardware industry like a mother industry similar to the capital goods industry.

7.123. Recognizing the importance of this sector Government has constituted a Task Force under the Chairmanship of the Principal Secretary to the Prime Minister. A sub-committee of the Task Force has submitted a report identifying several actions required to strengthen the industry in this important sector. It is estimated that the total requirement of ICT manufactured products would be of the order of US \$ 320 billion by the year 2015 and of which less than 50% would be manufactured in India indicating the very low domestic manufacturing capacity in the country and the need to increase it very substantially.

7.124. Evidently, the report seems to envisage that even by 2015 the country would still be dependent on heavy imports. The aim of the country has to be to produce bulk of the requirements domestically which are also competitive enough to export substantially. Currently only 20% of the total value of IT and Electronic hardware sector is from domestic sources and it mainly consists of low technology components. Bulk of the value is from imported products. A situation of this type can not be continued if the country has to become a strong modern economy. The policy relating to Fab which has been approved recently is a good beginning. However, the country needs to put in place a comprehensive set of policies that would ensure that the entire value chain gets located in the country. The task for achieving this is gigantic and cannot be under taken unless major steps are taken. A mission mode approach would be required

specifying goals for the Mission in terms of development of products and new technology.

Solar Energy

- 7.125. Energy is, perhaps, the most important input for the growth of manufacturing sector. It is estimated that the energy needs of the country by 2020 would be of the order of 500 GW or 5 lakh megawatts. In that background, it is imperative India taps energy resources of various types to meet the demand. Among them Solar Energy should take the pride of place.
- 7.126. India is blessed with abundance of solar energy. Development of Solar Energy needs to be looked not merely from the point of view of climate change, but mainly from the point of view of energy security for the nation in the longer term. Already India is facing the consequence of the rising oil prices. Coal and other fossil fuels are not inexhaustible and would impose limits on growth in the longer term apart from the damage they cause to the environment. Besides, particularly for oil, the country is overly dependent on other countries. The levers controlling the availability of oil at a reasonable price would be in the hands of others. In turn, the growth of the economy and the manufacturing sector would be subjected increasingly to these external factors. Therefore, India needs to tap energy resources that she has in abundance such as Solar Energy on a war footing for meeting the long-term needs.
- 7.127. Quite often, many of the projects of this type are taken up as projects for development of science and technology rather than as projects for production. If the country is to achieve substantial growth in solar energy generation, it is necessary to concentrate not only on science and technology, but also on the design and development and commercialization of the products. Appropriate policies need to be put in place for rapid long-term growth of this sector.
- 7.128. Currently, the Department of Science and Technology, the Council for Scientific and Industrial Research and the Department of New and Renewable Energy deal with the subject of Solar Energy. The Science and Technology Ministry deals with the research aspects while DNRE deals with policies to promote use of Solar Energy. The industry on their own are entering into collaborations to meet market demand. All these stakeholders are operating in different compartments with little co-ordination. The overall effort itself is meager when compared

with the potential and the need. Hence, it is essential to mount a major programme in a coordinated manner to cover all aspects of this potential energy source for the country.

- 7.129. The National Action Plan for climate change has Solar Energy Mission as one of the eight missions recommended by it. The Mission for Solar Energy has to be thought of on a much bigger and larger scale than the other seven Missions mentioned in the Plan. The Solar Energy mission should be placed on par with that of the Space Commission and the Atomic Energy Commission in terms of priority and independence from routine bureaucracy. From the energy security point of view as well as from the climate change point of view this Mission deserves that status. The success of this Mission also would depend upon the timely availability of the equipment for tapping and conversion of solar energy. Therefore, manufacturing capacity for Solar systems related equipment must receive a high priority.

Coordination with State Governments

- 7.130. There are several areas of manufacturing activity which falls within the purview of the State Government. The setting up of a factory and running it would require a number of clearances from State Governments. In addition, most of the statutory inspections are carried out by the State Governments. It is, therefore, very important that issues falling under the domain of the State Governments need to be addressed adequately and necessary reforms are undertaken in order to achieve the objective of sustaining the growth of the manufacturing sector. Hence the need for a continuous dialogue with the States and working together with them in the implementation of the reforms.
- 7.131. There is considerable variation between the competitiveness in different sectors and in different states. Several problems at the ground level lead to higher transaction costs. Hence, State Governments would need to address vital areas like taxation, availability of land and other infrastructure requirements like water, electricity, implementation of regulatory laws dealing with labour, environment, etc. in order to bring down the transaction costs.
- 7.132. An appropriate continuing mechanism for co-ordination between Centre and States should be established in respect of the

Manufacturing Sector. This mechanism should include the States, the Centre, the Industry and the Academia.

Continuing Mechanism

- 7.133. Growth of manufacturing sector would depend on its competitiveness. Maintaining and improving competitiveness is not a one-time affair. Companies which compete with each other both domestically and externally need to constantly improve their competitiveness. Countries which provide necessary policy support in that endeavour also need to constantly monitor the changes in global competitiveness and take appropriate actions. For this purpose, it is necessary to have an overseeing body which would continuously advise both the Government and the Industry.
- 7.134. This report recommends that there should be a focused attention to manufacturing and, for this purpose, a Manufacturing Policy should be put in place. Given the nature of attention required there is a need for an organization which would continuously work on the priorities set in the Manufacturing Policy in consultation with the Ministries/Departments and all the stakeholders and takes an overall view of each of the sub-areas included in the policy. In Section-5 of the report the inadequacies of the existing mechanisms were discussed.
- 7.135. The creation of the NMCC has been a welcome step forward. The contributions of the NMCC towards a more coherent view of the Manufacturing sector have been detailed earlier. It was also observed that since the NMCC is not part of the formal structure of decision-making the follow-up requirement in line with the recommendations in this report would not be as effective if the current organizational position is continued. It was also noted that all the high growth countries studied in Section-3 of the report had a mechanism which was sufficiently empowered to carry out the agenda of manufacturing growth. These mechanisms ensured what is sometimes called “embedded” development. The mechanisms worked as a continuous interface between the Industry, scientific laboratories, academia and the Government to come out with the best possible solutions. India needs a similar effective set up. The structure of the NMCC in terms of its representativeness almost meets the requirement. However, a few changes may be required such as bringing in the public sector representation, representation of State Governments, etc.

- 7.136. Currently, the NMCC in addition to being an interface between Industry, Government and Academia is also advising and reporting to the Prime Minister on various developments in the Manufacturing sector. Currently, the processing of these has been varied. On NMCC's recommendations with respect to the six priority areas identified by the High Level Committee on Manufacturing presided by the Prime Minister, the progress in terms of decisions and follow up has been better than in the other cases. However, in the absence of a clear manufacturing policy and mandate the responses from individual Ministries have been varied. This process needs to be modified if the elements contained in this report are accepted and manufacturing is to be given the needed focus.
- 7.137. Clearly, the NMCC or a set up of similar nature is required for effectively following up on the recommendations. For this purpose, the organization in its new form would need strengthening and the process of dealing with its recommendations requires radical change. The organization, its location and the process would be important given the emphasis needed to genuinely make manufacturing the growth engine of the economy. To be effective, the organization has to be directly under the PMO. Its recommendations need to be reviewed at the PMO level with the concerned Ministries/ Departments and taken to the HLCM/Cabinet Committee on Economic Affairs for decision-making. Unless a focus of this nature for decision-making and implementation is provided, it would be difficult to achieve the speedy implementation of the recommendations which is essential for meeting the goals contained in the terms of reference.

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PART - II

PART-II

RECOMMENDATIONS ON IMMEDIATE MEASURES

Background

This Terms of Reference given to the Group constituted by the Prime Minister to look into measures for ensuring sustained growth of the manufacturing sector contained the following requiring immediate recommendations.

- (a) to suggest policy measures and immediate steps to reverse the recent deceleration in the growth of the manufacturing industries;
- (b) to suggest policy measures and immediate steps to boost exports of Indian manufactured goods in the face of appreciation of the rupee and high interest rates, particularly with respect to labour intensive sectors like textiles, leather and handicrafts;

In addition, the Prime Minister also forwarded for the consideration of the Group a note submitted to him by the Commerce & Industry Minister on issues that required immediate attention. The Group considered the issues in that note also which related directly to the difficulties being faced by the exporters.

The Group considered all the above issues and four interim reports were submitted to the Prime Minister, Finance Minister and the Commerce and Industry Minister particularly in the context of the Budget and Foreign Trade Policy 2008-09 for taking immediate action. The following are the four interim reports submitted in late January / early February 2008.

1. Issues relating to Exports – Interim Report –1
2. Policy measures for consideration at the time of the Budget 2008-09 – Interim Report – 2
3. Expenditure related proposals – Interim Report – 3
4. Tax proposals – Interim Report - 4

The recommendations made in Interim report 2 relating to the elimination of inverted duty structures, exemptions of VAT to be based on value addition, need to levy export taxes on raw materials are also of medium to long term nature and therefore also find place in Part I of the report. Action has been taken on some of the recommendations of the Group by the Government in the Budget and Foreign Trade Policy exercises. On others, the matters are under examination.

The issues examined in this part of the report are of immediate nature and similar issues would be coming up annually at the time of Budget preparation. The continuing mechanism recommended in Part-I of this report should examine such issues also relating to manufacturing as they arise and at the time of the Budget and submit its report for Government consideration.

Report of the Group Set up by Hon'ble Prime Minister regarding growth of Manufacturing Sector

Subject: Issues relating to Exports.

Prime Minister's Office vide PMO ID No. 900/40/P/132/2007-Pol. Dated January 9, 2008 referred a list of issues raised by the Commerce and Industry Minister to the Group constituted under the Chairmanship of Dr. V. Krishnamurthy, Chairman, National Manufacturing Competitiveness Council (NMCC) to look into the Measures For Ensuring Growth of the Manufacturing Sector. The issues raised in the note enclosed to the Prime Minister's Office reference were discussed by the Group and the following are its recommendations. Among the issues referred the following two have already been put up to the Cabinet for decision.

- i) Operationalization of Tariff Rate Quota (TRQ) for readymade garments to Bangladesh under SAFTA.
- ii) Operationalization of Tariff Rate Quota (TRQ) on readymade garments to Sri Lanka under India-Sri Lanka Free Trade Agreement.

Hence no further discussion in the Group was envisaged on these two and the PMO was informed accordingly.

The Group considered the remaining issues as follows:-

1. 2% duty free tradable scrips for exports by EOUs/SEZs and those under Advance Authorisation, Gems and Jewellery/DFIA Scheme.

The Commerce Department had prepared a calculation sheet (at Annexure-I) which showed that extra loss is being suffered by the units in EOUs/SEZs etc. when compared with the units in the DTA area. This according to Commerce Department was directly the result of Rupee appreciation which made the units with in the EOUs etc. not only uncompetitive, but also subjected to additional loss. To compensate the loss to some extent the Commerce Ministry has suggested issuance of duty free tradeable scrips. The Group felt that provision of duty free scrips as recommended by DOC may be considered favourably in respect of the four sectors namely, Textiles

and Garments, Leather and Leather goods, Handicrafts and Marine products.

2. Refund/Rebate/Exemption of Service tax on the list of services provided by Department of Commerce.

The matter relating to the issue of notification of Exemption of Service Tax in respect of the list of services provided by the Ministry of Commerce to the Ministry of Finance was discussed in detail. It was noted that Ministry of Finance has already issued notification in respect of 11 items. It was decided that the note sent by the Department of Commerce in September, 2007 to the Finance Ministry with the list of services and the documentation necessary for exempting service tax should be examined expeditiously and necessary notification be issued in respect of remaining items as in Annexure-II.

Ministry of Finance representative agreed that it would be possible to send a note in respect of the remaining items to the Finance Minister within a week for appropriate decision. It was also agreed that wherever there was any relevant information in this regard is required, Shri Shekhar, Joint Secretary, Ministry of Finance will consult with Shri R. Gopalan, Additional Secretary, Department of Commerce and then process the cases expeditiously. It was felt that the process of finalization at the Official level could be completed within a week. Necessary action may be taken accordingly.

In order to obviate the procedural hassles for refund of Service Tax, it was felt that exemption of the tax for SMEs could be considered. The Group suggested that Finance Ministry could consider this suggestion in consultation with the Industry and Commerce Departments.

3. Provision of additional 1% enhancement of DEPB/Duty Drawback rate across the Board over and above the existing DEPB/Drawback rates, in respect of all the sectors and 2% in respect of textiles, handicrafts, leather, plantations and marine products.

The issue was discussed in detail. It was agreed that instead of insisting on the 1% enhancement of DEPB/Duty Drawback rate across the Board, the five sectors which have been affected badly in the recent months namely Textiles, Handicrafts, Leather, Plantation and

Marine Products could be provided with additional 2%. Finance Ministry may consider this accordingly.

4. Capital Goods to be allowed under Zero Duty under EPCG Scheme.

Currently most Capital Goods are allowed at 7.5% duty and the benefit for the importers therefore is restricted to 2.5%. The Department of Commerce mentioned that the floor of 5% duty for eligibility was fixed when the Import Duty on capital goods was 20%. It seems the duty have now reduced to 7.5% and the benefit of EPCG has come down drastically. They argued that the capital goods may be allowed at zero duty under the EPCG Scheme. The issue of impact of this concession on the domestic manufacturing if the duty was reduced to zero was also discussed. It was felt that the proposal need to be supported. However, Commerce Department would immediately furnish details relating to domestically manufactured capital good items which would not be included in the list of items for zero duty under EPCG scheme to the Finance Ministry for further action.

5. Rebate of State Taxes/levies.

The issue of Rebate of State Taxes and Levies is a part of the Cabinet Note circulated by the Commerce Department. In view of the difficulties faced by the exporters in getting the refund from the State Governments the Commerce Department proposes that these could be refunded by Government of India and the amount could be adjusted in the releases to be made by the Government under the Plan to the State Governments. This aspect is also covered under the DEPB replacement scheme considered at para 8 of the scheme. The recommendations made there may be considered.

6. The EOUs and STPIs may be allowed to enjoy benefits of Section 10A and 10B of the Income Tax Act for one more year from 31.03.09.

In view of the continuing loss of competitiveness in the year 2007-08 due to substantial Rupee appreciation by the units in EOUs and STPIs it is suggested that the benefit under Section 10A and 10B of the Income Tax Act may be allowed for one more year with 31.3.2009 as the terminal date.

7. Pre shipment and post shipment credit should be fixed at 6%.

The Commerce Department requested that the nine identified sectors namely, Textiles (including handlooms), Readymade Garments, Leather Products, Handicrafts, Engineering Products, Processed Agricultural Products, Marine Products, Sports Goods and Toys may be provided pre shipment and post shipment credit at 6%. Currently Finance Ministry has reduced the credit rate with the flow of cap at 7% in respect of the four sectors namely, Leather, Leather manufactures, Marine products, Textiles and Handicrafts. The Ministry's request is that similar benefit may be provided for the other five sectors also. This request may be considered favourably.

8. DEPB Replacement Scheme

The Department of Power has circulated a draft Cabinet note for replacement of DEPB scheme which is valid upto 31st March, 2008. The Committee constituted under the Chairmanship of Mr. Hoda, Member, Planning Commission went into the issue and suggested the following:

- i) DEPB scheme should not be brought to an abrupt end causing dislocation.
- ii) Empowered Committee of State Finance Ministers to consider for reimbursement of State taxes on exports.

When this matter was discussed, it was informed that a suggestion was made to the Hoda Committee that the phasing of DEPB could be over a period of 3 years in line with the phasing out of Income Tax benefit under Section 80 HHC.

It was highlighted that the Hoda Committee has acknowledged the need for rebating various State taxes. The Group felt that it is essential to resolve the issues through the Empowered Committee route as suggested by Hoda Committee. In the alternative a Committee consisting of Finance Secretary, Commerce Secretary and Secretary, Planning Commission may study the issue and make suggestions for an alternative mechanism for achieving the same objective.

In view of the fact that the issue is a contentious one and likely to take some time for settlement, the present DEPB scheme should be

extended by one year during the course of which the alternative arrangement for rebating State taxes should be put in place.

9. Aggregation of shares of GIC and Temasek

Commerce Department has mentioned that the issue of allowing GIC and Temasek equity of 10% each in Indian companies was a part of the agreement with Singapore under CECA. Commerce Department has also mentioned that the Cabinet has already approved the decision to allow GIC and Temasek to be treated as separate and distinctive legal entities for the purpose of investing 10% each in the issued capital of any company. It is understood that the RBI has not been able to agree to implement this since the ownership of both entities happens to be the Singapore Government and it was not possible to agree to it under existing legal position. It is clear that the matter has to be resolved by the Ministry of Finance in consultation with the RBI. Finance Ministry may like to take a view in the matter at an early date.

10. Double Taxation Avoidance Convention (DTAC) with Mauritius.

The Commerce Department has mentioned that consultation with the Finance Ministry has been done and a Cabinet note is being submitted for approval.

11. Clarification of Section 10AA of the Income Tax Act, as incorporated in the 2nd schedule of the SEZ Act, 2005.

It was felt that this was a reasonable request and may be considered for approval at the earliest.

12. Removal of Sunset Clause under Section 10B of the Income Tax Act.

This issue has been covered under para 6 above.

13. Definition of Manufacturing

The Commerce Department mentioned that while there is a clear definition of Manufacturing under the Foreign Trade Policy, the Income Tax Act does not contain any definition of what constitutes

Manufacturing. This gives a lot of discretion at the level of the Income Tax Officers in interpreting what is Manufacturing and what is not. This situation is not desirable for many reasons including uniformity of interpretation etc. It is understood that the Ministry of Finance is addressing the issue in the Comprehensive Income Tax Code which is under final stages of preparation and is likely to be taken up during the ensuing Budget session. In case the Code is to come into operation in 2008-09 one could wait for it. However, if the Code is not in place by then, it may be useful to consider application of the definition already available in the Foreign Trade Policy for determining what constitutes Manufacturing. A clarification to the Tax officials on these lines would help in uniform application of the definition.

ANNEX TO ANNEXURE-2

Duty Free tradable scrips for exports by EOUs/SEZ Units

A comparison of a textile exporter in the EOU and DTA. The following calculations clearly shows that 11% drawback rates (earlier 7%) given to the DTA units enable the DTA units to earn a profit inspite of appreciation of rupee. Whereas such benefits on account of rupee appreciation has not been given to EOUs/SEZ units./ These units suffer a loss after appreciation of rupee. Since the unit is suffering a loss, the provision of exemption from income tax under Section 10B in any case does not help. If the unit does not make a profit, the question of exemption from income tax just does not arise.

100% EOU

Costing of Cotton Trouser

Style# 265618

	(All amounts in \$) Imported	Costed @Rs.44 per \$	Realised @ Rs. 39 per \$
Fabric Cost	4.05	178	178
Accessories Cost	3.02	132	132
Manufacturing Cost	1.7	75	75
Total Cost	8.77	385	385
Selling Price	9.33	410.52	364
Profit/Loss		Profit - Rs. 25.52	Loss - Rs.21

DTA, Costing of Cotton Trousers

Style#265618

	(All amounts in \$) Domestic	Realised @Rs.39
Fabric Cost	4.05	178
Accessories Cost	3.02	132
Manufacturing Cost	1.7	75
Total Cost	8.77	385
Drawback @ 11% FOB		40
Selling Price		364
Total realization per trouser		Rs.404

Profit Rs.404-385 = Rs.19 per trouser i.e. 5% of selling price

Further to costing sheet given above, kindly note that on cotton fabrics excise duty is zero.

If a cotton fabric is imported from the far eastern countries, the costing comes up to the same after add the transport cost and the clearing forwarding cost at the port. That is the reason we have taken the same rate in our illustration. Earlier the draw back level was 7% on the FOB which is now 11% after the Government increased recently. This extra draw back makes the difference when you compare the 100% EOU with a DTA unit.

Interim Report-2

Report of the Group set up by Prime Minister to ensure growth of the Manufacturing Sector

Sub: Policy measures for consideration at the time of the Budget 2008-09

Hon'ble Prime Minister has set up a Group to look into the issues of growth of Manufacturing Sector under the Chairmanship of Dr. V. Krishnamurthy, Chairman, National Manufacturing Competitiveness Council (NMCC).

The Terms of Reference of the Group are as under:

- a) to suggest policy measures and a continuing mechanism to ensure sustained growth of the Indian manufacturing industries for the next 10-15 years;
 - b) to suggest policy measures and immediate steps to reverse the recent deceleration in the growth of the manufacturing industries;
 - c) to suggest policy measures and immediate steps to boost exports of Indian manufactured goods in the face of appreciation of the rupee and high interest rates, particularly with respect to labour intensive sectors like textiles, leather and handicrafts;
 - d) to suggest policy measures to leverage FDI to modernize manufacturing in India and create a strong technological base.
2. The Group has been requested to submit its recommendations in three months from 3rd January 2008.
 3. The Prime Minister's Office had also forwarded a communication vide PMO ID No. 900/40/P/132/2007-Pol. Dated January 9, 2008 a set of issues raised by the Commerce and Industry Minister to the Prime Minister for the consideration of the Group and its recommendations. The Interim Report-1 covering these specific issues has been submitted to the Prime Minister and the Finance Minister vide DO No.4(16)/NMCC/2008 dated January 30, 2008. A copy of the same has also been sent to the Commerce & Industry Minister.

4. Among the four terms of reference given to the Group, items (a) and (d) are related to long-term aspects while (b) and (c) are those that require immediate action. The Interim Report-1 mentioned above has addressed issues relating to exports. The present report aims to address the policy measures as indicated at (b) which need to be considered during the 2008-09 Budget. In addition, sector wise recommendations on specific tax proposals are being sent separately as 3rd Interim Report.
5. The Group met and discussed in detail the immediate measures that are required to be addressed in the forthcoming Budget. These included:-
 - (i) The fiscal measures that are required. The Group met fifteen Secretaries to the Government of India directly in-charge of manufacturing sector and also the three apex industry associations to obtain their views (Annexure-I). The Group itself includes Finance Secretary, Revenue Secretary, Commerce Secretary, Secretary, Textiles and Secretary, Department of Industrial Policy & Promotion as members.
 - (ii) The Group also discussed the generic issues which affect manufacturing which included:
 - (a) Monetary policy issues, viz., exchange rate, interest rate developments.
 - (b) The fiscal policy issues, viz., the peak tariff levels, inverted duty structures, value addition based exemptions, export taxes of raw materials and excise duty levels.
 - (c) The issues relating to India's outward investment.

In this Interim report, the fiscal issues, which are policy issues in nature, are considered and recommendations made.

6. The Group discussed the issue of impact of change in interest rates during the past one and half years and the exchange rate appreciation that had taken place during the year on the manufacturing sector. The details of monetary policy options are not meant to be discussed in this report. However, since the developments in the Interest rate and Exchange rate have affected the growth of manufacturing sector a discussion was warranted.
7. Finance Secretary explained in detail the constraints faced by the Union Government due to the inadequate maneuverability in

- moderating interest rates as for ensuring that the exchange rate did not appreciate further. He said the main concern of the Government has been to get inflation and inflationary expectations under check while ensuring that a reasonable growth rate is maintained. He said that the monetary policies have been geared to achieve these objectives.
8. The Finance Secretary also indicated that there could be a limited room in checking the inflows under Capital Account particularly in the form of External Commercial Borrowings (ECBs). He said that his Ministry and the RBI are constantly working on these issues to do whatever is possible.
 9. This was followed by a discussion in the Group. It was noted that the Manufacturing Sector has decelerated during the period April – November 2007 to 9.8 per cent when compared with 11.8 per cent during the previous year. A number of manufacturing sectors are showing deceleration in their growth. The consumer durables in fact have started registering negative growth rate. The Economic Advisory Council to the Prime Minister in their review of the Economy in January have estimated that the manufacturing growth during 2007-08 would be around only 9%. Compared with the growth of 12.5% achieved during 2006-07 this indicates a very significant deceleration in growth of this sector.
 10. During the year 2006-07 the Interest rates for the borrower have gone up by about three to four per cent. The Rupee appreciated against the dollar by about 12% during the last one year. Evidently, these steps taken by the government and the RBI towards inflation control have had an effect on the slowing down of the Manufacturing sector. It was noted that the competitiveness of the manufacturing sector eroded very substantially due to unprecedented movement in the Exchange rate and that productivity improvements did not match or practicable to take care of the changed situation in such a short time. We will also have to take note of the fact that many of the internal reforms which would have helped competitiveness is taking time.
 11. The Group appreciated the need for macro economic stability for long term growth of the economy. In that process, they recognize that inflation control is an essential element. The Group felt that moderation of capital inflows through a sustainable mechanism would ease the pressure on Rupee from appreciating further. It would also reduce costs due to sterilization. The policy should be able to

differentiate and encourage the more stable components of the capital flows and moderate the less stable flows more actively through policy. It was noted that the flows from NRIs have been moderated relatively successfully when compared with the External Commercial Borrowings (ECBs) flows. It is understood that proposals to moderate ECBs and other flows are under consideration of the Finance Ministry. It was felt that necessary actions may be taken to moderate the flows and ensure that the exchange rate reflects the competitiveness situation of the economy and in particular of the manufacturing sector. With the sizeable cut in interest rates by the US of the order of 125 bp recently, the possibility of enhanced capital flows in the coming months are expected.

12. In the background of what the Finance Secretary mentioned regarding limited maneuverability in adjusting the interest rates and the exchange rates in view of the policy stance it is essential to seriously look at the options available on the fiscal policy side to ensure that competitiveness in the Manufacturing sector is maintained if not strengthened. Taking into account these factors, the following policies were discussed:

Peak Tariff Levels

13. The peak tariff levels were reduced during the last Budget 2007 from 12.5% to 10% on most of the items and to 7.5% in respect of some items. It is well known that the Indian Manufacturers suffer an overall disadvantage of over 15% when compared with other competing countries for a variety of reasons including inadequate infrastructure, labour inflexibility, etc. The movement in internal reforms has been slow and therefore these deficiencies could not be corrected adequately. Normally in such a situation appropriate movement in the exchange rate is expected to take care of these disabilities suffered by the Indian manufacturing sector. However, during the past one year the exchange rate has moved in the opposite direction and fairly rapidly. It eroded the competitiveness of the dollar denominated exports and labour intensive sectors by almost 10 to 12% apart from increasing competition from imports in the domestic market.
14. Besides the interest rate increase is making new investments less viable and the production costs have also increased. Due to increased

- financing costs the demand for consumer durables has come down substantially. The impact of Interest rate on the competitiveness has been relatively lesser when compared with that of the exchange rate. However, the combination coming more or less one after the other has adversely affected Manufacturing.
15. The Group discussed all these issues extensively. In this context, it was noted that imports from China have started surging at a rapid rate from the time the peak tariff levels were reduced below 20%. The imports from China are growing at more than twice the rate of our imports from the rest of the world while our exports to China have remained more or less at the same rate as our exports to the rest of the world. This clearly indicates that the relative exchange rate movement and tariff reductions have helped the Chinese importers. In this scenario any further reduction in the tariff levels would only exacerbate the situation. Besides, China is and potentially would be our main competitor for international markets. The Rupee has appreciated against Yuan during the past one year by over six per cent. That also has added to the problem. The impact of Chinese factor will require a fuller study and the NMCC is working on it separately.
 16. It was noted that our Trade balance has deteriorated very substantially not only due to increased prices of petroleum and petroleum products but also due to faster growth of non-oil imports when compared with exports. The non oil trade balance which was a surplus four years ago has turned into a deficit of over three per cent of GDP deficit in 2006-07. This clearly indicates the loss of competitiveness of Indian Manufacturing in particular due to the developments described earlier.
 17. The Group realizes that it would not be possible to compensate fully the erosion of competitiveness induced by the movement of exchange rate and the impact of the interest rate through monetary policy or export sops. Keeping this in mind the Group felt that in the coming Budget there should be no further reduction in the peak tariff levels except in the case of certain raw materials where imports enable value addition in India. In fact some of the members of the Group felt that there was scope for increasing the customs duties in respect of a few sectors like Capital Goods, Auto Components, etc., also a review of the concessions given to mega power projects and the like which are witnessing severe competition due to the exchange rate movement in particular.

Inverted Duty Structures

18. The Group discussed the issue related to Inverted Duty Structures and it recommended that in all cases where it is possible without affecting the domestic industry inverted duty structure should be immediately corrected. Even in respect of the cases where there is domestic angle there should be a programme to correct these over a period of time to increase value addition domestically. It was noted that the Free Trade Agreements (FTAs) / Regional Trade Agreements (RTAs) are also contributing to inverted duty structure and that while entering into such agreements the impact on domestic industry should be simultaneously addressed through appropriate policy actions. It is understood that a Group in the Finance Ministry is specifically looking into the inverted duty structures and would be addressing these issues. The Group requests that the exercise may be expedited and addressed in the current year Budget itself.

Exemptions of VAT based on Value Addition

19. This is a new idea for promoting domestic value addition. The proposal is that the exemptions granted by Government to Industry should be leveraged to improve value addition in the country. Any exemption granted should be directly proportional to the domestic content in any manufacturing that take place in the country. This would ensure substantial increase in value addition in domestic manufacturing by not only the local firms but also the foreign companies which establish their businesses in India.
20. This issue was discussed in detail. It is understood that somewhat similar approach has been adopted for domestic value addition in China recently. It would be useful to study it. It was generally agreed that it was a good idea which would help develop domestic manufacturing through increased value addition and, therefore, should be studied in greater detail. The Finance Ministry may like to commission a study in this regard. In the alternative, the NMCC would be happy to undertake the same.

Export taxes on raw materials

21. A good beginning was made in the last Budget by imposing the export taxes on iron ore and chrome ore. In this context the policies being followed by other countries in not exporting their raw materials but conserving them deserves to be studied. It is understood, even though China has about 45 billion tonnes of iron ore as against seven billion tonnes in India, they are conserving their iron ore by importing their requirement for steel making from India and other countries. In fact China does not allow even export of semi-finished intermediate products of Iron and Steel freely. China has recently slapped export taxes of the order of 25% on coking coal and other raw materials.
22. Similarly, South Africa which has more than two-thirds of the world chrome ore has banned export of chrome ore while India with a small chrome ore deposits has been the leading exporter of the ore in the world. In fact there is a fear that in a few year's time there will be no chrome ore left for domestic productions. There could be similar cases in respect of other raw materials. These aberrations need to be corrected through appropriate tax policies. It is suggested that not only the previous years taxes be continued but increase in the tax levels should be actively considered and, if necessary, banning of exports over a period of time should also be explored.
23. A study of other minerals and raw materials which are being exported need to be made to take similar actions as necessary.

Domestic Tax levels

24. Even after rationalization through VAT system the total indirect taxes burden in India averages to about 28 to 35% as against a total VAT of 17% in China and similar levels in other competing East Asian countries. The need to reduce taxes is well recognized. It is suggested just as we are having a goal and a time frame in respect of customs duties to reduce to the East Asian levels, a roadmap for reduction of excise duties and overall domestic taxes to the levels obtaining in competing countries, particularly China, over a given timeframe should be considered. A high powered Committee may be constituted to review and suggest acceptable tax levels in the long term interest of growth of the economy and in particular the Manufacturing sector.

ANNEX TO Interim Report-2

List of participants in the meetings of the Group set up by PM on Manufacturing Sector

Secretaries to Government of India

Heavy Industries & Public Enterprises

Information Technology

Telecommunications

DSIR

Science & Technology

Steel

Mines

Coal

Shipping

Road Transport & Highways

Food Processing Industries

Chemicals & Petrochemicals

Micro, Small & Medium Enterprises

Fertilizers

Defence Production

Industry Associations

CII

FICCI

ASSOCHAM

Report of the Group set up by Prime Minister to ensure growth of the Manufacturing Sector

Expenditure related proposals

This report is based on several expenditure related proposals made by the Secretaries to Government who met the Group constituted by the Prime Minister to look into the growth of the manufacturing sector (Annexure-I). It was felt at this point of time that it would not be possible to focus on all of them in this report. It was, therefore, felt that some of the proposals that have impact on the growth of manufacturing sector should be highlighted. These are also in line with the broad priorities indicated in Interim Report-2.

Research & Development

There are three proposals. They are:

1. Techno-Fund for Manufacturing
2. Advanced Manufacturing Capabilities Enhancement Initiative (AMECI)
3. Establishment of Nano Manufacturing Technology Centre (NMTC)

The Advanced Manufacturing Capabilities Enhancement Initiative to be set up at IIT, Chennai and the establishment of Nano Manufacturing Technology Centre in Central Manufacturing Technology Institute, Bangalore are meant to satisfy the long term strategic needs of the country in terms of advanced manufacturing capabilities. The initiatives are based on extensive discussions with the Ministries/Departments concerned with import and development of high technology equipment such as Space, Atomic Energy, Defence, etc.

Both these proposals need to be supported. The Group understands that the working groups for the Plan have also supported them.

Fertilizers Sector

There are two proposals relating to Fertilizers sector. The first one is for establishing a Special Purpose Vehicle (SPV) for investment in fertilizer resource rich countries. This is similar to the ONGC Videsh established to buy oil and gas properties abroad. It is understood that NTPC, Coal India Ltd., NMDC and SAIL have formed an SPV for buying coal mines abroad.

In this connection, in our Interim Report – 2 we had mentioned about the need to invest abroad for procuring the sources of necessary raw materials and inputs for long term needs of our manufacturing sector. This proposal also falls within that category.

The proposal for buying fertilizer resources abroad needs to be supported in view of the need for increasing our agricultural output. We also have a successful precedent of IFFCO Oman project in this sector.

The second proposal of the Department is for reviving five closed fertilizer units. The proposal is basically to augment domestic production of fertilizers and from the longer-term point of view of food security this may be essential.

Shipping and Ports Sector

The sixth proposal relates to the Ports sector. We have studied the sector in great detail. Development of new deep draft ports is extremely important in view of the expected rapid increase in our merchandise trade. The scheme appears to have been included in the 11th Plan and, therefore, could be announced in the Budget.

The detailed proposals in respect of all the six items are at Annexure-II.

ANNEX-II TO Interim Report-3

Techno-Fund for Manufacturing Sector

Investing in innovations is one of the pre-requisites to attain global competitiveness. Investing in R&D to innovate in technology by the Industry and the Government ahead of markets is necessary and should be encouraged. There are a number of areas in which Government intervention including public investment is essential for encouraging innovations and R&D. Development in these areas will lead to increase in productivity gains leading to overall growth and better standard of living.

The new challenges in the post-liberalization and post WTO regime warrants us to formulate new strategy with pioneering role for technology as one of the important growth stimulants. For India, as most of the manufacturing industries are in small and medium category lack capacity and capability to go for investment in innovations and R&D. However, with the increasing globalization, this aspect is unavoidable. Hence, the focus needs to be developed and nurture R&D through handholding approach to facilitate so that it will reach at the required targets.

In the post WTO era, the only legitimate Government support permitted to industry is that for R&D. in this circumstance the government can consider and create a “Techno-Fund for Manufacturing Sector”. The objective of the fund should be to support R&D activities for incremental improvements, new technology developments as also cost savings measures related activities. The activities relating to R&D under the fund could also be taken for individual or a group of companies in a cooperative mode. This fund could be modeled on the lines of New Millennium Indian Technology Leadership Initiative (NMTLI) and in public-private partnership mode. The ultimate outcome of the fund should be to position the Indian Manufacturing sector in competitive position at the Global level.

Advanced Manufacturing Capabilities Enhancement Initiative (AMECI)

India's GDP growth is at the rate of 7-8% and the manufacturing sector contributes substantially to country's GDP. The manufacturing industry makes a significant contribution to the economic security of the

nation. Though India has large manufacturing base, there are not many specialized centres to raise the quality and productivity so as to meet the challenges of manufacturing industry. There is an immediate need to have centres for advanced manufacturing that would help the Indian Industry to be globally competitive and develop and nurture talented people into quality man power required for manufacturing industry. The proposed initiative is aimed at achieving the above objectives.

Several successful advanced manufacturing centres exist in the world today. They demonstrate a synergistic interaction with industry and academic research. Some examples are Advanced Manufacturing Research Centre at University of Sheffield, S.M.Wu Manufacturing research centre at University of Michigan, International manufacturing centre at Warwick University; Fraunhofer Institute in Germany and SIMTech in Singapore. These manufacturing centres have been able to help the industry not only in improving the quality of their products but also in the design and development of advanced materials and processes and in raising the level of the industry to be globally competitive. Recently, China has been creating a number of Advanced Manufacturing Centres to foster innovations and breakthrough that have contributed significantly for their steep growth in the international market.

India has the potential to become major hub for equipments and components manufacturing for use within the country and for export purposes. Advanced research in manufacturing processes, materials technology and management systems contributes towards India achieving this status. Manufacturing is also moving from an era of mass production to mass customization. There is thus a need for more flexible, smaller and cost effective manufacturing system. The future of manufacturing is expected to be largely IT driven with an integrated approach involving materials, manufacturing and management. It is in this context that this proposal of IIT Madras for creating an Advanced Manufacturing Capabilities Enhancement Initiative at a cost of about Rs. 100 crores is to be supported by way of budgetary provisions.

Establishment of Nano Manufacturing Technology Centre (NMTC)

Nano Technology has been acknowledged as the most extensive and all pervading and promising technological revolution, which would occupy the centre stage in R&D initiatives across the globe in the coming years.

Developed and developing alike are making significant investments for R&D in this futuristic technology.

Nano manufacturing has been growing rapidly over recent years and has a great impact on the development of new fabrication concepts and processes. This is an enabling technology that offers ability to create products that are more reliable, efficient, safer, environment friendly and profitable. One of the main challenges for nano manufacturing technology is miniaturization, which enables to make devices and products that are smaller, faster and cheaper.

For an initiative in Nano-manufacturing technology in our country, the precision engineering centre at Central Manufacturing Technology Institute is well suited with its present infrastructure and resources. Further the city of Bangalore known for its technological Industries and leading electronic industries like BEL, ITI, Fanuc, BPL, Wipro, HP, Motorola, Digital and other precision engineering industries like MICO – BOSCH and a host of R & D institutions and institutes of higher learning like IISc, offers an ideal environment for undertaking development activity like Nano-manufacturing technology.

The main aim of the Nano Manufacturing technology centre is to help industries to absorb/adapt this technology and offer services in machining and measurement of Nano components and devices which would help new product development technology advancement across the country. The CMTI has proposed to create Centre of Excellence in the above area. The estimated cost of the project is about Rs. 280.00 Crores which requires funding support from the budget.

Projects for Budgetary Support

Fertilizer Sector

I. Special Purpose Vehicle for JVs abroad.

An Overseas SPV in the line of 'ONGC Videsh' for sourcing raw materials for fertilizers industry particularly Rock phosphates etc. require an initial corpus of Rs.2000 crores.

In order to secure future supplies of fertilizers inputs and fertilizers, and also play an effective role in controlling the international price of the

fertilizers inputs/fertilizers it is important to encourage investment by Indian entities in resource rich countries. Since most of the resources in fertilizers sector are Government controlled in the resource rich countries, initiatives through government- to -government dialogue for creating a platform for investments by Indian entities would create a breakthrough. A credible financial arm with adequate funds to invest of the government would be the solution for this. The countries where the department is presently engaged in discussion for this purpose include:

Urea: Oman, Kuwait, Saudi Arabia, Egypt, Nigeria, Mozambique, Algeria, Australia

Phosphates: Morocco, Tunisia, Algeria, South Africa, Jordan, Syria.

Potash: Argentina, Belarus, Canada.

The Special Purpose Vehicle (SPV) with government support to coordinate investment abroad in the fertilizers sector has been approved by the government under new pricing schemes stage-III. Separate allocation of funds is needed which can be invested as an initial corpus for the SPV. Based on various project possibilities generated by the SPV and appraisal of the same in an empowered inter-ministerial committee at the level of Secretary (Fertilizers) funds can be made available to the SPV. The government can be a minority/majority investors in each of the project depending upon the assessment of need in order to secure the future supplies at reasonable prices from the project depending upon the global demand-supply situation prevailing.

II. Revival of Closed Units

Five out of eight closed fertilizers units need to be revived which would require investment by way of budgetary support.

The CCEA has decided to explore the possibility of revival of the eight closed urea units of FCIL and HFCL subject to assured availability of gas. M/o Petroleum & Natural Gas has assured the availability of gas for all fertilizers projects in the country including the closed units. In the event of the availability of basic infrastructure in the form of land, (which has been acquired by State Governments for setting up of fertilizers plan in the public sector), basic utility like railway sidings, water, storage, etc. provide a good opportunity for setting up of new brown field urea projects in the shortest

possible time, the department has proposed to revive the closed units. In the event of increased demand for urea and also to control the increasing subsidy expenditure, it would be a viable proposal to re-open them with assured availability of gas and a proposed import parity benchmark pricing regime for urea sector. The closed units are mainly located in urea deficit regions. Their revival could also substitute imports at a lower price leading to direct savings in subsidy. The PSUs which have shown interest in revival of five closed units are:

RCF- Durgapur (HFCL), Talcher (FCIL)

NFL – Barauni (HFCL), Ramagundam (FCIL)

KRIBHCO – Gorakhpur (FCIL)

Revival of one unit will involve investment of about Rs.3500 to 4000 crore with an equity requirement approximately Rs.1200 to 1500 crore. The government support in the form of equity for each unit of Rs.1000 to 1200 crore will expedite the revival. The GOI investment in revival can also be recovered through savings in subsidy. It is estimated that the government investment is indirectly recoverable in 4 years of commercial operations of the revived planned as a one million tonne planned will lead to a total (direct- Rs.60.4 crore plus indirect – Rs.247.8 crore) savings of Rs.308.2 crore per annum.

Shipping and Ports Sector

I. Development of Five New Deep Draft Ports

Initial public investment of Rs.1000 crore is requiring for development of 5 new deep draft ports.

The estimated capacity level for Indian ports is 2 billion tones per annum by the year 2016-17, which can be met only by developing some new ports, apart from optimizing of potential of the existing ports. Accordingly, the Working Group on ports sector for the 11th FYP has proposed setting up of five new deep draft ports during the Plan Period. The country lacks deep draft ports at present in spite of possibilities in this regard. A provision of Rs.2000 crore is made in the 11th FYP period; Out of the Rs.2000 crore, the budgetary support is projected at Rs.1000 crore and the reminder fund will be mobilized through other sources. It is necessary to make provision of at least Rs. 200 crores out of the requirement of Rs.1000 crore of budgetary support for development of five new deep draft ports by the department of Shipping for the FY 2008-09.

Report of the Group set up by Prime Minister to ensure growth of the Manufacturing Sector

The fourth report of the Group constituted by the Prime Minister vide Ministry of Commerce & Industry Order No. 17 (4)/07-LEI dated the 3rd January, 2008 deals with the Tax proposals. The Report does not claim to cover all the proposals. The proposals are under the following seven broad categories.

1. Concessional Import Duty of Zero per cent on input materials
2. Correction of inverted import duty structure
3. Restriction on export of raw materials
4. Basic customs tariff not be reduced from the present level
5. Reduction of excise duty
6. Concessions under the Income Tax Act
7. Abolition of CST and rationalization of State VAT.

Details with regard to each of the above seven items are at Annexure.

ANNEX TO Interim Report-4

1. CONCESSIONAL IMPORT DUTY OF ZERO PERCENT ON INPUT MATERIALS

In our study and interaction with various industry bodies, we have found that there is scope for lot of value addition and capture larger share of the international market also if the input materials are available at competitive price. This is particularly the situation in the sectors where SMEs have predominant presence. For example, Indian Foundry Industry has been expressing that if input materials like iron scrap, sponge iron etc. are available at a lower duty there is scope for much larger value addition. Therefore, there has been a legitimate request for import of various items of scraps on duty free basis as many small-scale and tiny units are facing closure due to spurt in the prices of locally available raw materials.

On the same lines we have analysed the request from Gems and Jewellery industry, Tyre industry, Textiles industry, Insulator industry, Chemicals and Petro-chemicals industry also. The short list of input materials that need to be imported on duty free basis for higher value addition in the country have been compiled after due analysis. Most of the short-listed items are either not available adequately in the country or the prices of these materials have increased considerably in the recent past in the domestic market either due to shortage or due to price fixation by the producer cartels by the concerned who are generally pricing their products and materials at the landed price of such products from outside the country. Reduction of import tariffs in respect of these may be considered.

(List of Items)

<i>Requirement of Steel & Foundry Industry</i>	Pig iron, steel, iron scrap.
	copper/brass scrap.
	Ores under ch. 26 which are not available in the country.
	Non-coking coal of metallurgical grade and Met coke
<i>Requirement of Insulator Industry</i>	raw materials used for manufacturing insulators not available in the country.
<i>Requirement of gems & jewellery</i>	raw materials for jewellery like loose gems.
<i>Requirement of Tyre Industry</i>	Butyle rubber.
	Polyester Tyre cord.
	Styrene Butaldene.
	Steel tyre cord.
	Butadiene Rubber.
	Chlorobutyl/Bromo Butyl.
<i>Requirement of Chemical & Petro-chemical Industry</i>	Naphtha, Liquified propane, Ethylene, Propylene, Catalysts and chemicals used as inputs in the manufacturer of polymers.
<i>Requirement of Textile Industry</i>	Rayon Grade Pulp, extra long staple cotton fibre and man-made fibres.
<i>Requirement of Food Processing Industry</i>	Items of cold chain at Annex-A
<i>Requirement of Pharmaceuticals Industry</i>	<i>National list of essential medicines as per the Kelkar Committee Report(2003)</i>
<i>Capital Goods Sector (Machine Tool Industry)</i>	CNC System, Servo Drives/Motors, Precision Spindles, LM guide ways, Ball Screws, Precision Bearings, Precision Gauging and Balancing System

Annex - A

- Ready-to-Fit Refrigerator Units for Reefer Vans.
- Portable Pre-cooler Units based on D.G. Sets/Solar Power.
- PUF Insulated Sandwich Panel and Doors for CA Cold Storages,

- Compact Screw Type Refrigeration Compressors operating on ammonia
- Air cooled refrigeration Condensers suiting Indian climate conditions.
- Skid mounted low temperature Refrigeration Units for freezing tunnels.
- Temperature/Pressure/Time Actuated Solenoid Valves required for low temperature refrigeration applications.
- Equipments required for creating and maintaining controlled atmosphere conditions in cold stores for fresh fruits and vegetables.
- Solar Powered Refrigeration Systems.
- Refrigerated Containers.
- I.Q.F. Freezing Tunnels and Spiral Freezers.
- Computer Software for Monitoring, Controlling and Data Recording with remote networking of C.A. Cold Storage and Food Processing Plants.
- Defrosting systems and allied equipments.
- Dressage to be used in Sub-Zero temperatures.
- Special lighting equipments for low temperature cold rooms.
- Gas drier
- Sight glasses for gas levels.
- HP/LI cutouts.
- Heaters.
- Control panel with all accessories.
- Carbon-dioxide absorbers and nitrogen absorbers.
- Butterfly vans
- Cold chain safety devices.
- Air buffer Carbon-dioxide analyzers.
- Carbon-dioxide analyzers.

2. CORRECTION OF INVERTED IMPORT DUTY STRUCTURE

The customs duty structure at present has created inversion in certain areas which allows import of finished products at a lower rate compared to the raw materials going into it. Indian Tyre Industry faces this situation most acutely. On finished tyres, the import duty is only 10% whereas on natural rubber, the main input for making tyre, the import duty at present is 20%. Therefore, it becomes economically beneficial to produce tyres outside the country and then to import the same to India rather than producing tyres inside the country by importing the raw materials. Similar situation has also been seen in the case of auto component industry as well as in the case of manufacturing of certain high voltage equipments where the finished products are allowed import at a lower duty compared to the components and raw materials going into the making of it.

In view of the above, correction of following anomalies are suggested:-

- i) Correcting the inverted custom duty structure for Tyre by reducing the duty on natural rubber from the present 20% to 7.5%. In case this is not feasible due to the impact on domestic natural rubber prices, custom duty on tyre from 10% to 20% without any exemption to RTAs and FTAs countries may be considered.
- ii) The inverted duty structure arising out of FTAs and RTAs for auto component segment has to be corrected.
- iii) Allow import of inputs by indigenous manufacturers at 5% custom duty for manufacture of 23 specified high voltage transmission equipment at par with the end products.

3. RESTRICTION ON EXPORT OF RAW MATERIALS

It is seen that the increasingly primary raw materials are going for exports whereas we are importing finished products of such raw materials after value addition in foreign countries importing our raw materials. Best example of this is seen in the case of export of iron ore. India is exporting very good grade iron ore to countries from where we are importing steel products in large quantities after its processing and value addition in the iron ore importing countries. Steel Industry in India is not getting these high quality raw materials at reasonable price by which the country is foregoing the value addition opportunities and value addition benefits like wealth creation, employment and higher tax revenue which are enjoyed by our

competitors significantly adding to their revenue and employment opportunities.

Similarly chromite ore is being exported from the country without value addition. Now we have reached a stage where India is meeting 70% of the world's chromite export trade with only 10% of the world's reserve. The way we are extracting and exporting our chromite ore, it is likely to get exhausted in a few years (10-12 years) from now.

Cotton spinning industry is faced with a situation where the raw materials in the country is available to importers from China at a cheaper price than the price at which they get from the local market as exports going to China has a DPEB benefit reducing the net price for the importers from China. On the other hand processed fabrics using Indian cotton are being imported due to the constraints created by our legacy issue in the textile sector.

In view of the above, following steps are suggested in this regard:

1. Significant enhancement of Export duty on Iron ore and Chromite ore.
2. Removal of DEPB benefit to exports of raw cotton.

4. BASIC CUSTOMS TARIFF NOT TO BE REDUCED FROM THE PRESENT LEVEL

The Indian Capital Goods industry including Auto Component sector is facing onslaught of competition from imported products as the progressive reduction of Customs Duty in the last five years has now reached a stage where any further reduction could not give any protection to the domestic industry to offset the local disadvantages and the associated transaction costs, which a foreign exporter does not have to incur. Due to these reasons, imports are increasing phenomenally; be it in the segment of machine tools, textile machinery or power equipments where India was not only meeting its own requirement, we were also a major exporter. Similar is the situation with the Indian chemical industry where exports are increasing because of lower protection.

Apart from rationalizations of certain anomalies, there should also be a policy commitment of not decreasing Basic Customs rates any further till the internal reform in the country to correct the disadvantage which the Indian manufacturers suffer in terms of poor infrastructure, cascading multiple levels of taxes, high interest rate and other labour related problems

and issues unique to the country are attended to. Therefore, till a level playing field is created by addressing the above mentioned issues for bringing down the transaction cost to the level of our competitors, further reduction of the Basic Customs duty would be counter-productive, harm the Domestic Industry and dissuade future investment coming to the relevant sectors.

Also we have a situation of having a mega power policy where complete duty free import of power equipments are being allowed which is discouraging any domestic investment for new advanced products as suppliers prefer to produce the machinery elsewhere in spite of huge demand in the Indian market. Therefore, apart from no further reduction of customs duty, the following suggestions are made to correct the present anomalies and afford the minimum required protection to the Domestic Industry:

- (i) A uniform import duty of 7.5% plus 4% SAD on all Capital goods to afford the minimum protection for the domestic industry.
- (ii) Equipments imported under mega power policy should also be subjected to same suggested tax rate of 7.5% Customs Duty and 4% SAD.
- (iii) Uniform Customs Duty at 7.5% on all items of textile machinery which now range from 5% to 10%.

5. REDUCTION IN EXCISE DUTY

In order to boost production excise duty may be reduced to 4% in respect of following categories of industries.

- The principle of tax benefits for labour intensive manufacturing needs to be introduced.
- Labour intensive manufacturing industries such as auto components, toys etc.
- Energy efficient technologies and products.
- Sunrise industries like nano technology and biotechnology.

In addition, there is a need for reducing the excise duty in certain cases which has potential to boost demands for the products and correspondingly improve the production level in the respective industries which has shown considerable slackness in the recent past. The excise duty reduction suggested now would also to a large extent rationalize the tax

structure in the relevant sub sector and help the overall growth of the sector also.

The list of items where excise duty reduction will help in improving demand for the products and increase the utilization of the existing capacity of the sector is given below:

Sl. No.	Name of the Sector
1.	Textile Sector
	Reduction of excise duty on man made fiber CENVAT from 8% to 4%
	Inclusion of accessories like zip and others used for garment making in the CENVAT chain.
2.	Leather Sector
	Application of 4% excise duty CENVAT chain to entire leather and foot-wear industry.
3.	Food Processing Sector
	Zero excise duty on all food items such as
	(i) Paws, mudi & the like (ii) Muesli made from grains, nuts and dry fruits; whether or not sweetened and (iii) beverage concentrates made from gains, nuts, herbs, dry fruits etc., whether or not sweetened.
	All items of the cold chain for food processing as in the Annex-B.
	Reduction of excise duty on packaging material like OS cans (made from special electrolytic tins) and aseptic bags (made from special poly laminates), aluminium foils, paper boards and multi layered poly films
4.	Capital goods sector
	Reduction in the excise duty on all textile machineries, accessories and spares parts to 8%
	Reduction in excise duty of all leather machineries spare parts from 16% to 8%.
	Removal of anomaly in respect of certain shuttles looms.
5.	Auto Sector
	Reduction in excise duty on buses, trucks from 16% to 8%
	Reduction of excise duty on two wheelers from 16% to 8%.
	Rationalization of multiple levies to single excise duty.
6.	IT and Electronics Sector
	All electronics and IT hardware products including components and finished products to attract 8% excise duty if not zero duty.
7.	Pharmaceuticals
	Reduction in excise duty on pharmaceuticals from 16% to 8%.
	Excise duty on all essential drugs as identified by the Kelkar Committee to be subjected to zero percent excise duty

Annex-B

- Ready-to-Fit Refrigerator Units for Reefer Vans.
- Portable Pre-cooler Units based on D.G. Sets/Solar Power.
- PUF Insulated Sandwich Panel and Doors for CA Cold Storages,
- Compact Screw Type Refrigeration Compressors operating on ammonia
- Air cooled refrigeration Condensers suiting Indian climate conditions.
- Skid mounted low temperature Refrigeration Units for freezing tunnels.
- Temperature/Pressure/Time Actuated Solenoid Valves required for low temperature refrigeration applications.
- Equipments required for creating and maintaining controlled atmosphere conditions in cold stores for fresh fruits and vegetables.
- Solar Powered Refrigeration Systems.
- Refrigerated Containers.
- I.Q.F. Freezing Tunnels and Spiral Freezers.
- Computer Software for Monitoring, Controlling and Data Recording with remote networking of C.A. Cold Storage and Food Processing Plants.
- Defrosting systems and allied equipments.
- Dressage to be used in Sub-Zero temperatures.
- Special lighting equipments for low temperature cold rooms.
- Gas drier
- Sight glasses for gas levels.
- HP/LI cutouts.
- Heaters.
- Control panel with all accessories.
- Carbon-dioxide absorbers and nitrogen absorbers.
- Butterfly vans
- Cold chain safety devices.
- Air buffer Carbon-dioxide analyzers.
- Carbon-dioxide analyzers.

6. CONCESSIONS UNDER THE INCOME TAX ACT

The concessional benefit under the Income Tax Act is required to help the manufacturing sector in two areas – one relating to the benefits to reduce the cost of infrastructure service and therefore, according infrastructure status to certain activities and segments. The second one relate to promotion of technology development through R&D effort which has the potential to launch new products at a competitive price. In this regard, analyzing the proposals of various sectors and Ministries following suggestions are made:

- i) Coal Mining should be given the status of infrastructure sector under the Income Tax Act.
- ii) Infrastructure status for cold chain establishments and tax benefit thereto be provided under Section 80-A instead of Section 80-1B.
- iii) 100% tax holiday in respect of profits of undertakings investing in cold chain establishments for a period of 10 years.
- iv) Extension of tax benefit of the weighted deduction of 150% of the expenses incurred for in-house and commissioned scientific research to all sectors. This benefit should be extended for a further period of at least 10 years even after 2012. This would give a long term direction to the R&D.

7. ABOLITION OF CST AND RATIONALISATION OF STATE VAT

CST

The manufacturers in India in general and IT Industry in particular are facing hardships in the form of multiple tax levies by the Government. CST is proving to be a major impediment to the growth of manufacturing. Currently, VAT is implemented by all states in India. However, CST is still chargeable on inter-state sales. Existence of CST defeats the very purpose of switching to the VAT regime. Due to levy of CST, the cost of components and other inputs are increasing, leading to increase in cost of finished equipments and lower cost competitiveness of the domestic manufacturers. Abolition of CST will lead to decrease in the cost of many equipments and it will make domestically manufactured equipments more cost competitive in the international markets. The 4% additional customs duty, which is levied on imports, is vatable when imported by manufacturers and refundable when imported by traders. But same is not the situation with CST. If CST is

abolished, the cost of final equipment will reduce and it will also promote inter-state sales of Electronics/IT equipments and their components/parts. The decreased manufacturing costs shall also lead to increased cost competitiveness for exports from India.

Rationalisation of State VAT

IT goods are levied VAT @4% whereas non-IT goods are levied VAT @ 12.5%. With the advent of Digitalization, there is clear convergence of applications and technologies and it has become difficult to segregate electronic products into IT products and non-IT products. Whether a Cell Phone, a Personal Computer, a MPEG4 Player, a Set Top Box or a TV set, the applications are overlapping. The LCD Monitor for Personal Computer can be easily converted into Television by adding a Tuner & Audio-Video Card. MP3 and MPEG4 players are fast replacing Audio & Video Players and these need Computers to download Music & Video. A Set Top Box, which delivers TV channels also delivers high speed internet and multimedia services to our homes (IPTV). In today's market, differentiation of IT and non-IT products has got blurred, as one can view the TV programmes on Personal Computer and on Mobile Phone. On account of convergence, there is a problem of classification of products in into Electronics and IT category in different states. Therefore, in view of convergence, both IT and non-IT Electronic goods, including their parts and components should be levied a uniform rate of VAT, i.e. 4%.

Due to high level of VAT @ 12.5%, many of the consumer electronics segments such as Radios, Music systems, Car Stereo Systems, VCD/DVD players and B&W TV have rampant grey market with grey market share between 60-75%. If the State VAT is reduced to 4%, the grey market share would drastically come down, leading to increased revenue for States.

Composition of the Group

Dr. V. Krishnamurthy, Chairman, National Manufacturing Competitiveness Council	Chairperson
Shri V. Govindarajan, Member-Secretary, National Manufacturing Competitiveness Council	Member-Secretary
Secretary, Ministry of Finance	Member
Secretary, Department of Revenue	Member
Secretary, Department of Commerce	Member
Secretary, Department of Industrial Policy & Promotion	Member
Secretary, Ministry of Textiles	Member