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Twelfth Plan: An Overview

INTRODUCTION

1.1. India's 1.25 billion citizens have higher expectations about their future today, than they have ever had before. They have seen the economy grow much faster in the past 10 years than it did earlier, and deliver visible benefits to a large number of people. This has understandably raised the expectations of all sections, especially those who have benefited less. Our people are now much more aware of what is possible, and they will settle for no less. The Twelfth Five Year Plan must rise to the challenge of meeting these high expectations.

The Initial Conditions

1.2. Though expectations have mounted, the circumstances in which the Twelfth Plan has commenced are less favourable than at the start of the Eleventh Plan in 2007–08. At that time, the economy was growing robustly, the macroeconomic balance was improving and global economic developments were supportive. The situation today is much more difficult. The global economy is going through what looks like a prolonged slowdown. The domestic economy has also run up against several internal constraints. Macro-economic imbalances have surfaced following the fiscal expansion undertaken after 2008 to give a fiscal stimulus to the economy. Inflationary pressures have built up. Major investment projects in energy and transport have slowed down because of a variety of implementation problems. Some changes in tax treatment in the 2012–13 have caused uncertainty among investors.

1.3. These developments have produced a reduction in the rate of investment, and a slowing down of economic growth to 6.2 per cent in 2011–12, which was the last year of the Eleventh Plan. The growth rate in the first half of 2012–13, which is the first year of the Twelfth Plan, is even lower. The downturn clearly requires urgent corrective action but it should not lead to unwarranted pessimism about the medium term. India's economic fundamentals have been improving in many dimensions, and this is reflected in the fact that despite the slowdown in 2011–12, the growth rate of the economy averaged 8 per cent in the Eleventh Plan period. This was lower than the Plan target of 9 per cent, but it was better than the achievement of 7.8 per cent in the Tenth Plan. The fact that this growth occurred in a period which saw two global crises, one in 2008 and another in 2011, is indicative of the resilience which the economy has developed.

The Policy Challenge

1.4. The policy challenge in the Twelfth Plan is, therefore, two-fold. The immediate challenge is to reverse the observed deceleration in growth by reviving investment as quickly as possible. This calls for urgent action to tackle implementation constraints in infrastructure which are holding up large projects, combined with action to deal with tax related issues which have created uncertainty in the investment climate. From a longer term perspective, the Plan must put in place policies that can leverage the many strengths of the economy to bring it back to its

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real growth potential. This will take time but the aim should be to get back to 9 per cent growth by the end of the Twelfth Plan period.

1.5. The preparation of a Five Year Plan for the country is an opportunity to step back, take stock of the ‘big picture’, identify the strengths that can be leveraged to enable the country to move forward, and the constraints that could hold it back, and on this basis develop a strategic agenda. In developing such an agenda, the Planning Commission has relied on four key elements.

- First, the strategy must be firmly grounded in an understanding of the complexities of the development challenges that India faces, recognising the transformation that is taking place in the economy and in the world. This understanding of the ground reality must be used to identify the critical leverage points where government action could have the maximum impact. The focus must be on identifying the strategic leverage points where successful action could trigger many supportive reactions rather than fixing everything everywhere.
- Second, progress will be achieved through a combination of government action in both policies and public programmes, and the efforts of many private actors that are important in the economy. Much of the inclusive growth we hope to achieve depends on investment in the private sector which accounts for over 70 per cent of total investment. This includes not only the organised corporate sector, but also Micro, Small and Medium Enterprises (MSMEs), individual farmers and myriads of small businessmen who add to Gross Domestic Product (GDP) and create jobs. The dynamism of this segment, and its ability to seize economic opportunities, is critical for inclusive growth and the Plan must address the constraints faced by all these private actors in achieving better results.
- Third, the outlay on government programmes has to increase in many areas but this must be accompanied by improved implementation. For this, it is necessary to focus on capacity building and governance reforms, including system change that will increase accountability in the public sector. The Twelfth Plan must back this focus by

making specific allocations to improve the ability of government to work better.

- Finally, the planning process must serve as a way of getting different stakeholders to work together to achieve broad consensus on key issues. These stakeholders include (i) different levels of the government sector: Centre, States and Panchayati Raj Institutions (PRIs)/Urban Local Bodies (ULBs); (ii) the private sector, both big companies and small businesses, whose investments will drive our growth and (iii) citizens’ groups and the voluntary sector, who bring the key element of people’s participation and can greatly help improve the quality of government action.

1.6. The Planning Commission has consulted widely over the past two years with other Ministries, with State Governments, with experts and also with Civil Society Organisations (CSOs). As many as 900 CSOs have been consulted through workshops and other fora. Several expert groups were set up to advice on various aspects of the economy and their reports are important inputs. These include the High Level Expert Group (HLEG) on Health, the HLEG on Transport, the Expert Group on Infrastructure Financing, the Expert Group on the Low Carbon Economy, the Expert Group on Venture Capital and Angel Investors, and the Expert Group on Management of Public Enterprises.

1.7. This Chapter is not an executive summary. Rather it provides an overview of the basic rationale of the Plan and the key areas of intervention. The Chapter is organised as follows:

- Section 1.2 presents the basic vision and aspirations which drive the Plan and which are captured in the sub-title ‘Faster, sustainable and More Inclusive Growth’.
- Section 1.3 focuses on the development of capabilities—both human and institutional—to achieve the vision.
- Section 1.4 focuses on the challenge of managing our national resources rationally; a critical area for planning if we want growth to be sustainable.
- Section 1.5 deals with India’s engagement with the world in the Twelfth Plan and beyond.

- Section 1.6 presents a summary of some of the major policy initiatives that taken together would contribute a strategy for achieving faster, more inclusive and sustainable growth.

VISION AND ASPIRATIONS

1.8. The broad vision and aspirations which the Twelfth Plan seeks to fulfil are reflected in the subtitle: 'Faster, Sustainable, and More Inclusive Growth'. The simultaneous achievement of each of these elements is critical for the success of the Plan.

The Need for Faster Growth

1.9. Planners are sometimes criticised for focusing too much on GDP growth, when the real objective should be to achieve an improved quality of life of the people across both economic and non-economic dimensions. The Twelfth Plan fully recognises that the objective of development is broad-based improvement in the economic and social conditions of our people. However, rapid growth of GDP is an essential requirement for achieving this objective.

1.10. There are two reasons why GDP growth is important for the inclusiveness objective. First, rapid growth of GDP produces a larger expansion in total income and production which, if the growth process is sufficiently inclusive, will directly raise living standards of a large section of our people by providing them with employment and other income enhancing activities. Our focus should not be just on GDP growth itself, but on achieving a growth process that is as inclusive as possible. For example, rapid growth which involves faster growth in agriculture, and especially in rain-fed areas where most of the poor live, will be much more inclusive than a GDP growth that is driven entirely by mining or extraction of minerals for exports. Similarly, rapid growth which is based on faster growth for the manufacturing sector as a whole, including MSME, will generate a much broader spread of employment and income earning opportunities and is therefore more inclusive than a growth which is largely driven by extractive industries.

1.11. The second reason why rapid growth is important for inclusiveness is that it generates higher revenues, which help to finance critical programmes

of inclusiveness. There are many such programmes which either deliver benefits directly to the poor and the excluded groups, or increase their ability to access employment and income opportunities generated by the growth process. Examples of such programmes are the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Sarva Siksha Abhiyan (SSA), Mid Day Meals (MDMs), Pradhan Mantri Gram Sadak Yojana (PMGSY), Integrated Child Development Services (ICDS), National Rural Health Mission (NRHM), and so on. This is also relevant for the sustainability objective since programmes aimed at making development more sustainable also involve additional costs.

Growth Prospects

1.12. The Approach Paper to the Twelfth Plan, approved by the National Development Council (NDC) in 2011, had set a target of 9 per cent average growth of GDP over the Plan period. That was before the Eurozone crisis in that year triggered a sharp downturn in global economic prospects, and also before the extent of the slowdown in the domestic economy was known. A realistic assessment of the growth prospects of the economy in the Twelfth Plan period is given in Chapter 2. It concludes that the current slowdown in GDP growth can be reversed through strong corrective action, including especially an expansion in investment with a corresponding increase in savings to keep inflationary pressures under control. However, while our full growth potential remains around 9 per cent, acceleration to this level can only occur in a phased manner, especially since the global economy is expected to remain weak for the first half of the Plan period. Taking account of all these factors, the Twelfth Plan should work towards bringing GDP growth back to an inclusive 9 per cent in the last two years of the Plan, which will yield an average growth rate of about 8 per cent over the entire Plan period. The outcome is conditional on many policy actions as is described in scenario one.

1.13. Within the aggregate GDP growth target, two sub-targets are especially important for inclusiveness. These are a growth rate of 4 per cent for the agricultural sector over the Twelfth Plan period and around 10 per cent in the last two years of the Plan

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for the manufacturing sector. The policies needed to achieve these sectoral targets are summarised in Section 1.6.

1.14. The Twelfth Plan's strategy for growth depends crucially on productivity gains as one of the key drivers of growth. Productivity is the additional contribution to growth after taking account of the effect of capital accumulation and growth in labour. These traditional sources of growth are not likely to be enough for India in the coming years and we must therefore focus much more on productivity improvements among all constituents: big businesses, MSMEs, farmers and even government. This can be done by improving the business regulatory environment, strengthening the governance capacity of States, investing more in infrastructure rather than subsidies, and by using Science and Technology (S&T) to drive innovation.

Alternative Scenarios

1.15. The projection of 8 per cent growth in the Twelfth Plan period should not be viewed as a 'business as usual' outcome that can be realised with relatively little effort. It is in fact a projection of what is possible if we take early steps to reverse the current slowdown and also take other policy actions needed to address other key constraints that will otherwise prevent the economy from returning to a higher growth path. Failure to act firmly on these policies will lead to lower growth and also poorer outcomes on inclusiveness.

1.16. To illustrate the consequences of inaction on key growth promoting policies, the Planning Commission has undertaken a systematic process of 'scenario planning' based on diverse views and disciplines to understand the interplay of the principal forces, internal and external, shaping India's progress. This analysis suggests three alternative scenarios of how India's economy might develop titled, 'Strong Inclusive Growth', 'Insufficient Action' and 'Policy Logjam'.

1.17. The first scenario 'Strong Inclusive Growth', describes the conditions that will emerge if a

well-designed strategy is implemented, intervening at the key leverage points in the system. This in effect is the scenario underpinning the Twelfth Plan growth projections of 8 per cent, starting from below 6 per cent in the first year to reach 9 per cent in the last two years. The second scenario 'Insufficient Action' describes the consequences of half hearted action in which the direction of policy is endorsed, but sufficient action is not taken. The growth in this scenario declines to around 6 per cent to 6.5 per cent. The third scenario 'Policy Logjam', projects the consequences of Policy Inaction persisting too long. The growth rate in this scenario can drift down to 5 per cent to 5.5 per cent.

1.18. The scenarios are discussed in greater detail in Chapter 2 and presented in another document complementing the Plan. Public discussion of these scenarios could help to generate a discourse going beyond the parameters of the Twelfth Five Year Plan and assist in building a national consensus about the policies that are necessary if India's future is to unfold as we want. It is important to emphasise that the scenarios are not presented as an alternative option form which we can choose. In fact, the only scenario that will meet the aspiration of the people is scenario one. The other scenarios are only presented to illustrate the consequences of inaction.

1.19. Ours is a diverse society and also an argumentative one. We are suspicious when decisions that affect us are not taken transparently and we resent too much centralisation of decision-making. But we all believe in democracy, we respect the views of others and, although we may disagree, we admire and learn from those who work together to offer any vision of a better India. We need to do more to build a greater consensus around a common national goal.

1.20. The Twelfth Plan should aim at a growth process that preserves emphasis on inclusion and sustainability while minimising downside effects on growth. Plans are traditionally viewed as being about what governments should do, but that is a narrow view since most investment today is private, and much of that is corporate. The Twelfth Plan must provide a competitive environment in which the private sector, including the corporate sector but also

all Indians, both as individuals and in the collective, are able to reach their full potential. The objective must be to stimulate new entrepreneurship while enabling existing MSMEs, including in agriculture, to invest more and grow faster. For this, we need to meet their needs for infrastructure and for easier, cheaper and faster access to capital.

1.21. India is fortunate that it is richly endowed in entrepreneurial talent. At a rough estimate, the number of non-agricultural establishments in the country increases by about 8 million every 10 years. While many of these enterprises are very small, and reflect basic survival strategies, many are not. The past decade has shown the dynamism that is possible in this sector under the right circumstances. Many of the leading corporates today belonged to the MSME category at the turn of the century. In this context, the Twelfth Plan's overarching priority on developing human capital can, with the proper prioritisation of infrastructure and with innovative use of technology and finance, unleash a truly inclusive growth story.

1.22. This inclusive strategy involves a much greater role of the States, and closer coordination between the Centre and the States, than would be needed for a purely corporate-led growth strategy. This is because most of the policy measures and institutional support required for small and medium entrepreneur-led growth lie in the domain of State Governments and local bodies. The Centre's contributions would lie mainly in creating the appropriate macroeconomic framework, financial sector policies and national level infrastructure.

The Meaning of Inclusiveness

1.23. Inclusiveness means many different things and each aspect of inclusiveness poses its own challenges for policy.

Inclusiveness as Poverty Reduction

1.24. Distributional concerns have traditionally been viewed as ensuring an adequate flow of benefits to the poor and the most marginalised. This must remain an important policy focus in the Twelfth Plan. It is

worth noting that the record in this dimension of inclusiveness is encouraging. The percentage of the population below the official poverty line has been falling but even as that happens, the numbers below the poverty line remain large. According to the latest official estimates of poverty based on the Tendulkar Committee poverty line, as many as 29.8 per cent of the population, that is, 350 million people were below the poverty line in 2009–10. Questions have been raised about the appropriateness of the Tendulkar poverty line which corresponds to a family consumption level of ₹3,900 per month in rural areas and ₹4,800 per month in urban areas (in both cases for a family of five). There is no doubt that the Tendulkar Committee poverty line represents a very low level of consumption and the scale of poverty even on this basis is substantial. An Expert committee under Dr. C. Rangarajan has been set up to review all issues related to the poverty line keeping in view international practices.

1.25. Chapter 2 reports on the progress made in reducing poverty over time. It is well established that the percentage of the population in poverty has been falling consistently but the rate of decline was too slow. The rate of decline in poverty in the period 2004–05 to 2009–10 was 1.5 percentage points per year, which is twice the rate of decline of 0.74 percentage points per year observed between 1993–94 and 2004–05. Normally, large sample surveys used for official estimates of poverty are conducted every five years, but because 2009–10 was a drought year, the National Sample Survey Office (NSSO) felt that it would tend to overstate poverty and it was therefore decided to advance the next large sample survey to 2011–12. The results of this survey will yield an official estimate of the extent of poverty in 2011–12, that is, the position at the end of the Eleventh Plan period, but this will be available only in mid-2013. However, preliminary results from the survey have been published and they suggest that the percentage of the population in poverty will decline significantly compared to 2009–10. According to some non-official estimates, the rate of decline in poverty between 2004–05 and 2011–12 will be close to 2 per cent per year, which was the Eleventh Plan target. If this turns

out to be the case, it can be claimed that the Eleventh Plan has indeed delivered on inclusiveness.

Inclusiveness as Group Equality

1.26. Inclusiveness is not just about bringing those below an official fixed poverty line to a level above it. It is also about a growth process which is seen to be 'fair' by different socio-economic groups that constitute our society. The poor are certainly one target group, but inclusiveness must also embrace the concern of other groups such as the Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs), Minorities, the differently abled and other marginalised groups. Women can also be viewed as a disadvantaged group for this purpose. These distinct 'identity groups' are sometimes correlated with income slabs—the SCs and STs, for example, are in the lower income category—and all poverty alleviation strategies help them directly. Women on the other hand span the entire income spectrum, but there are gender-based issues of inclusiveness that are relevant all along the spectrum.

1.27. Inclusiveness from a group perspective obviously goes beyond a poverty reduction perspective and includes consideration of the status of the group as a whole relative to the general population. For example, narrowing the gap between the SCs or STs and the general population must be part of any reasonable definition of inclusiveness, and this is quite distinct from the concern with poverty, or inequality. For example, it is perfectly possible for anti-poverty strategies to be reducing income poverty among SCs and STs without reducing the income gap between these groups and the general population.

Inclusiveness as Regional Balance

1.28. Another aspect of inclusiveness relates to whether all States, and indeed all regions, are seen to benefit from the growth process. The regional dimension has grown in importance in recent years. On the positive side, as documented in Chapter 11, many of the erstwhile backward States have begun to show significant improvement in growth performance and the variation in growth rates across States

has narrowed. However, both the better performing and other States are increasingly concerned about their backward regions, or districts, which may not share the general improvement in living standards experienced elsewhere. Many of these districts have unique characteristics including high concentration of tribal population in forested areas, or Minorities in urban areas. Some districts are also affected by left wing extremism, making the task of development much more difficult.

1.29. In the Twelfth Plan, we must pay special attention to the scope for accelerating growth in the States that are lagging behind. This will require strengthening of States' own capacities to plan, to implement and to bring greater synergies within their own administration and with the Central Government. As a first step, the Planning Commission is working with its counterpart Planning Boards and Planning Departments in all State Governments to improve their capabilities. An important constraint on the growth of backward regions in the country is the poor state of infrastructure, especially road connectivity, schools and health facilities and the availability of electricity, all of which combine to hold back development. Improvement in infrastructure must therefore be an important component of any regionally inclusive development strategy.

Inclusiveness and Inequality

1.30. Inclusiveness also means greater attention to income inequality. The extent of inequality is measured by indices such as the Gini coefficient, which provide a measure of the inequality in the distribution on a whole, or by measures that focus on particular segments such as the ratio of consumption of the top 10 per cent or 20 per cent of the population to that of the bottom 10 per cent or 20 per cent of the population, or in terms of rural–urban, such as the ratio of mean consumption in urban *versus* rural areas. An aspect of inequality that has come sharply into focus in industrialised countries, in the wake of the financial crisis, is the problem of extreme concentration of income at the very top, that is, the top 1 per cent and this concern is also reflected in the public debate in India.

1.31. Perfect equality is not found anywhere and there are many reasons why it may not even be a feasible objective. However, there can be no two opinions on the fact that inequality must be kept within tolerable limits. Some increase in inequality in a developing country during a period of rapid growth and transformation may be unavoidable and it may even be tolerated if it is accompanied by sufficiently rapid improvement in the living standards of the poor. However, an increase in inequality with little or no improvement in the living standards of the poor is a recipe for social tensions. Static measures of inequality do not capture the phenomenon of equality of opportunity which needs special attention. Any given level of inequality of outcomes is much more socially acceptable if it results from a system which provides greater equality of opportunity. As a society, we therefore need to move as rapidly as possible to the ideal of giving every child in India a fair opportunity in life, which means assuring every child access to good health and quality education. While this may not be possible to achieve in one Plan period, the Twelfth Plan should aim at making substantial progress in this dimension.

Inclusiveness as Empowerment

1.32. Finally, inclusiveness is not just about ensuring a broad-based flow of benefits or economic opportunities, it is also about empowerment and participation. It is a measure of the success we have achieved in building a participatory democracy that people are no longer prepared to be passive recipients of benefits doled out by the Government. They are slowly beginning to demand these benefits and opportunities as rights and they also want a say in how they are administered. This brings to the fore issues of governance, accountability and peoples participation to much greater extent than before. This also covers areas like access to information about government schemes, knowledge of the relevant laws and how to access justice. The growing concern with governance has also focused attention on corruption. How to tackle corruption is now at the centre stage of policy debates.

Inclusiveness through Employment Programmes

1.33. One of the most important interventions for fostering inclusion during Eleventh Plan was the

MGNREGA. While its achievements in ameliorating poverty and preventing acute distress during times of drought have been recorded and appreciated, there are also some complaints against MGNREGA, primarily on the grounds that it is a dole, involving huge expenditures that could have been spent more productively. There are also complaints that it is leading to increase in wages of agricultural labour and construction workers.

1.34. The view that rising wages by themselves represent a problem is not credible since this is the only mechanism through which landless agricultural labour can benefit from economic growth. If rising wages squeeze farm profitability, the solution lies in raising farm productivity to accommodate higher wages. Several initiatives in this regard are discussed in Chapter 12. In any case, rural labour relations in large parts of the country continue to be feudal, and use of migrant labour for both agriculture and construction continues to be exploitative. These inequities would not get corrected by themselves. We should not be looking to perpetuate a situation where low-cost labour provides the necessary profit margins for farmers, removing incentives to invest in efficiency improvement.

1.35. The main point to note is that employment schemes are not new in India, and they have a well-established poverty reducing impact. With National Sample Survey showing an eightfold increase in employment in public works after MGNREGA, there is no doubt that its impact on rural wage earnings and poverty has been much larger than all previous rural employment schemes. What is less appreciated is that this has been achieved with a rather modest increase in the share spent on rural employment schemes out of total Central Plan expenditures. It has increased from an average of 11.8 per cent in the three years before MGNREGA (2002–03 to 2004–05) to 13.3 per cent in the last three (2009–10 to 2011–12). This means that although MGNREGA is not free of leakages, these have declined considerably. Thus, far from opening a bottomless pit as some critics still claim, the provision of employment as a legal right, has greatly improved the share of intended beneficiaries in what government spends for development of rural areas.

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1.36. There is also evidence that wherever land productivity has improved and greater water security been delivered, small and marginal farmers working in MGNREGA sites have reverted back to farming and allied livelihoods. There is also evidence that MGNREGA is enabling crop diversification, particularly into horticulture, wherever it has adequately converged with schemes of Agricultural Departments. An important lesson from this experience is that it is the quality of assets created, which will determine whether MGNREGA can go beyond the safety net to become a springboard for entrepreneurship, even at the lowest income levels.

1.37. Each of the dimensions of inclusiveness discussed above is relevant, and public attention often focuses on one or the other at different times. We should aim at achieving steady progress in each of these dimensions. Accelerated growth in recent years has yielded distinct benefits to many and the prosperity which this has generated is visible to all, raising the expectations of all sections of the population, and creating a demand for a fair share of the benefits of growth. Policymaking has to be watchful of developments in each dimension of fairness and be quick to take corrective steps as soon as the need arises. Box 1.1 provides an assessment of trends in some key

Box 1.1

Eleventh Plan Achievements on Inclusive Growth

The following are some important indicators showing the extent to which the Eleventh Plan succeeded in fulfilling the objective of inclusive growth. (In some cases, where the data relate to the NSSO surveys, the time period for comparison is before and after 2004–05.)

- GDP growth in the Eleventh Plan 2007–08 to 2011–12 was 8 per cent compared with 7.6 per cent in the Tenth Plan (2002–03 to 2006–07) and only 5.7 per cent in the Ninth Plan (1997–98 to 2001–02). The growth rate of 7.9 per cent in the Eleventh Plan period is one of the highest of any country in that period which saw two global crises.
- Agricultural GDP growth accelerated in the Eleventh Plan, to an average rate of 3.7 per cent, compared with 2.4 per cent in the Tenth Plan, and 2.5 per cent in the Ninth Plan.
- The percentage of the population below the poverty line declined at the rate of 1.5 percentage points (ppt) per year in the period 2004–05 to 2009–10, twice the rate at which it declined in the previous period 1993–94 to 2004–05. (When the data for the latest NSSO survey for 2011–12 become available, it is likely that the rate of decline may be close to 2 ppt per year.)
- The rate of growth of real consumption per capita in rural areas in the period 2004–05 to 2011–12 was 3.4 per cent per year which was four times the rate in the previous period 1993–94 to 2004–05.
- The rate of unemployment declined from 8.2 per cent in 2004–05 to 6.6 per cent in 2009–10 reversing the trend observed in the earlier period when it had actually increased from 6.1 per cent in 1993–94 to 8.2 per cent in 2004–05.
- Rural real wages increased 6.8 per cent per year in the Eleventh Plan (2007–08 to 2011–12) compared to an average 1.1 per cent per year in the previous decade, led largely by the government's rural policies and initiatives.
- Complete immunization rate increased by 2.1 ppt per year between 2002–04 and 2007–08, compared to a 1.7 ppt fall per year between 1998–99 and 2002–04. Similarly, institutional deliveries increased by 1.6 ppt per year between 2002–04 and 2007–08 higher than the 1.3 ppt increase per year between 1998–99 and 2002–04.
- Net enrolment rate at the primary level rose to a near universal 98.3 per cent in 2009–10. Dropout rate (classes I–VIII) also showed improvements, falling 1.7 ppt per year between 2003–04 and 2009–10, which was twice the 0.8 ppt fall between 1998–99 and 2003–04.

Box 1.2

Prime Minister Dr Manmohan Singh at the 57th NDC

“Gender inequality is an aspect which deserves special attention. Women and girls represent half the population and our society has not been fair to this half. Their socio-economic status is improving, but gaps persist. The emergence of women in public spaces, which is an absolutely essential part of social emancipation, is accompanied by growing threats to their security.”

Prime Minister Dr Manmohan Singh in his opening remarks at the 57th National Development Council (NDC) meeting on 27th December 2012.

variables which point to the greater inclusiveness of growth in recent years.

1.38. Ending of gender based inequities, discrimination and all forms of violence against girls and women is being accorded overriding priority in the Twelfth Plan. This is fundamental to enabling women to participate fully in development processes and in fulfilling their social, economic, civil and political rights, for more inclusive growth.

Environmental Sustainability

1.39. While striving for faster and more inclusive growth, the Twelfth Plan must also pay attention to the problem of sustainability. No development process can afford to neglect the environmental consequences of economic activity, or allow unsustainable depletion and deterioration of natural resources. Unfortunately, the experience of development in many countries, and our own past experience in some respects, suggests that this can easily happen unless appropriate corrective steps are taken at early stages. The Twelfth Plan must devise a strategy of development which effectively reconciles the objective of development with the objective of protecting the environment.

1.40. Development cannot take place without additional energy and the energy requirement of development will have to be reconciled with the objective of protection of environment. The economy depends heavily on coal and hydro power to meet its energy needs and the development of each of these energy sources involves potential trade-offs with conservation of forests and the objective of avoiding displacement of people. We need to manage these conflicting objectives more efficiently, with adequate compensation for those dispossessed and appropriate remedial steps to correct for loss of forest cover where this is unavoidable. Nuclear energy is another important energy source for the country, and has the greatest potential over the next 20 years, of providing a substitute for coal-based electricity. However, here too environmental and safety issues have arisen, especially after the Fukushima accident. These concerns are being addressed.

1.41. The achievement of environmental sustainability will impact the life of communities in several

dimensions. It will require the need development of new energy efficient practices in urban housing and transport to contain the growth in the demand for energy. It would mean use of far more energy efficient technologies in coal-based electricity generation such as the introduction of super critical and ultra super critical boilers. It would require active promotion of energy efficiency in industries, farms and offices, and the promotion of more energy efficient appliances through policies of branding and mandatory standards. Transport policies and related technologies for more energy efficient vehicles will need to be developed and adopted.

1.42. The issue of sustainability also has a global dimension because of the threat of climate change caused by the accumulation of carbon dioxide and other Greenhouse Gases (GHG) in the atmosphere due to human activity. Since GHG emission in any country accelerates the process of global warming, this is obviously an area where a global cooperative solution is needed. No country will have sufficient incentive to contain its own emissions unless it is part of a global compact. Such a compact in turn is possible only if there is a fair distribution of the burden. Developing countries have consistently argued that since it is the industrialised countries that have historically contributed the bulk of the accumulated stock of GHG, and are also the most able to pay, they must bear burden of global mitigation and adjustment. India is participating in the ongoing international negotiations under the UN Framework Convention on Climate Change, but progress thus far has been minimal.

1.43. We cannot, however, abstain from taking action to deal with climate change until an international solution is found. It is known that India will be one of the countries most severely affected if global warming proceeds unchecked and as such appropriate domestic action is necessary. A National Action Plan for climate change has been evolved with eight component Missions. Implementation of these missions must be an integral part of the Twelfth Plan. Policies should be closely monitored to ensure that we achieve the stated objective of reducing the emissions intensity of our GDP by 20 per cent to 25 per cent between 2005 and 2020.

1.44. Resolving the conflict between energy and the environment is not without cost. It involves additional upfront costs both of mitigating the adverse impact on the environment and of switching to more expensive renewable energy sources. These costs must be built into the cost and the pricing of the energy produced. The reluctance to bear these costs arises largely because the cost of environmental damage is not properly measured. It is only when this is done that the cost of avoiding such damage can be compared with the environmental benefits to reach a rational decision on whether the costs are worth it. Part of the problem is that the conventional ways of measuring GDP in terms of production do not take account of environmental damage caused by production of certain goods which should properly be reflected as a subtraction from GDP. Only if GDP is adjusted in this way for environmental costs that growth of adjusted GDP can be called a measure of the increase in total production in the economy. Recognising this problem, the Planning Commission has commissioned an Expert Group under Professor Partha Dasgupta to prepare a template for estimating green national accounts which would measure national production while allowing for negative effects on national resources.

1.45. To summarise, the Twelfth Plan must be guided by a vision of India moving forward in a way that would ensure a broad-based improvement in living standards of all sections of the people through a growth process which is faster than in the past, more inclusive and also more environmentally sustainable. What is needed to achieve this objective is outlined in subsequent sections of this chapter.

DEVELOPING CAPABILITIES

1.46. In this section, we focus on the capabilities we need to develop to achieve the objective of faster, more inclusive and sustainable growth. We first consider the development of human capabilities, which are in many ways the most important. Then we focus on institutional capabilities and the development of infrastructure which is a general capability enhancer for all agents. Both the Central and State Governments have a large role to play in developing these capabilities and the Twelfth Plan at the Central

and State level should accord high importance to this effort.

Development of Human Capabilities

1.47. The development of human capabilities must be the first priority, for three reasons. First, these capabilities are actually ends in themselves. Second, they are also important instrumentalities which interact positively with others to raise the productive capacity of our economy and therefore its ability to satisfy the material needs of our population. Third, proper development of human capabilities will also ensure that our growth is more inclusive in the sense that the marginalised and disadvantaged sections of our society will be more able to access the opportunities thrown up by the growth process.

Life and Longevity

1.48. The most fundamental of all human capabilities is life itself and the steady rise in life expectation in the country suggests that significant progress has been made in this dimension. Life expectancy which was only 32 years at the time of Independence is now 67 years. In other words, every Indian can expect to live twice as long as was the case at Independence! Nevertheless, the level of life expectancy in India remains lower than in many emerging market economies and it is appropriate to plan for significant further improvements in this important dimension.

1.49. The infant mortality rate (IMR) is another dimension of human capability where we are making progress. IMR fell from 80 in 1991 to 66 in 2001 and at a faster rate thereafter to 47 in 2010. The rate of decline was 14 in the first period and 19 in the second period. Nevertheless, the level of IMR remains high and we need to do much better for our children. We must strive to bring the IMR down to 28 by the end of the Twelfth Plan. Maternal mortality rates (MMRs) are another indication of weakness in our performance. MMR has been falling over time, thanks to the initiatives for promoting institutional deliveries under the NRHM. The percentage of women giving birth in institutions with the benefit of skilled birth attendants has increased from 53 per cent in 2005 to 73 per cent in 2009. We need to do even better, and the Twelfth Plan must bring MMR down to 1 per 1,000 by the end of the Plan period.

1.50. While there has been progress in the dimensions discussed above, the decline in the child sex ratio rings an urgent alarm. This is an area of grave concern since it implies that society is denying life to female children, and increasingly resorting to female foeticide. The spread of diagnostic and medical facilities has paradoxically actually worsened the situation, as the falling child sex rate is being seen in the more developed areas and cities.

Education

1.51. India has a young population, and consequently, the labour force, which is expected to decline in most developed countries and even in China, is expected to increase over the next 20 years. This 'demographic dividend' can add to our growth potential through its impact on the supply of labour and also, via the falling dependency ratio, on the rate of domestic savings. Besides, a young population brings with it the aspirations and the impatience of youth, which in turn can become strong drivers for bringing about change and innovation. To reap this demographic dividend we must ensure that our younger citizens come into the labour force with higher levels of education and the skills needed to support rapid growth. The SSA has brought us close to the target of universalisation of primary education and the Right to Education Act (RTE) 2009 makes eight years of elementary education a fundamental right for all the children. The MDM Scheme has ensured that retention in schools has improved greatly. However, the learning outcomes for a majority of children continue to be disappointing. Addressing the quality issue in our schools is critical for the effective development of human capabilities and for achieving the objective of equality of opportunities. The quality of teachers and, even more important, their motivation and accountability will need to be improved. Many of the children who are presently in school are first-generation learners, and these children need supplementary instruction. This is not easy due to shortage of qualified teachers in many schools across the country. New and innovative approaches such as multigrade learning, which has been successfully tried in Tamil Nadu, could be adopted in such cases.

1.52. The success of the SSA has put pressure on expanding the capacity of secondary schools and

the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) addresses this issue. Although there is considerable focus on providing secondary school access, the dropout rates between elementary and secondary schools continue to be high, and between the secondary and post-secondary stage they are even higher. This is a particularly serious problem for girls, who have to travel longer distances to attend secondary schools. Curricular and examination reforms in secondary schooling would receive special attention aimed at fostering critical thinking and analytical skills, and preparing students for further education. All this requires innovative approaches, some of which are already in evidence in certain States.

1.53. The last decade has also seen a huge increase in the demand for higher education and this is expected to increase further as more children complete school and more and more jobs are seen to require higher-level qualifications. However, our higher education institutions also suffer from problems of quality. Too many of our universities are producing graduates in subjects that are not required by the changing job market, and the quality is also not what it should be. Higher education policy has to be driven by three 'E's: expansion, equity and excellence. Of these, the third E, 'excellence', is the most difficult to achieve. India cannot hope to be competitive in an increasingly knowledge driven world if our higher education institutions do not come up to the high standards of excellence needed to be able to be globally competitive. Not even one Indian university figures in the latest list of the top 200 universities in the world. We should work towards ensuring that there are at least five by the end of the Twelfth Plan. For this, universities at the top of the quality hierarchy should be identified and generously supported so that they can reach the top league. Centres of excellence within existing universities should be created. A special initiative should be launched to attract high calibre faculty from around the world on non-permanent teaching assignments. All these initiatives should be pooled into an India Excellence Initiative in the Twelfth Plan.

Skill Development

1.54. The Skill Development Mission is being launched to skill at least 50 million individuals by the end of the Twelfth Plan. Skill development

programmes in the past have been run mainly by the government, with insufficient connection with market demand. To ensure that skills match demand, special efforts are needed to ensure that employers and enterprises play an integral role in the conception and implementation of vocational training programmes, including managing Industrial Training Institutes (ITIs) and in the development of faculty. An enabling framework is needed that would attract private investment in Vocational Training through Public-Private Partnership (PPP). We should try to optimise on the respective strengths of the public and private sector entities engaged in skill development. Mobilising the required investments, setting up first rate ITIs, ensuring efficiency in operations and management and enabling post-training employment will be the primary responsibilities of private sector entities while the government will provide the enabling framework and the requisite financial support especially in respect of SC, ST, Minorities and differently abled persons and other deprived sections of society.

Nutrition

1.55. Poor learning outcomes in our schools are partly because of poor quality of teaching but they are also partly due to high incidence of child malnutrition, which reduces learning ability. India has had the largest and the longest running child development programme in the world in the form of ICDS, but the problem of malnutrition remains large. Unfortunately, the latest data on child malnutrition are from the National Family Health Survey (NFHS-3) conducted in the period 2005-07 which pre-dates the Eleventh Plan. The full impact of the Eleventh Plan programmes on this aspect of human capability is therefore not yet known. Surveys undertaken by the State Governments seem to suggest that malnutrition has fallen in many States. The next Annual Health Survey for 2012-13 will include data on malnutrition and these data will provide a reliable basis for assessing what has happened since NFHS-3. Meanwhile, the ICDS programme will be expanded and comprehensively restructured in the Twelfth Plan to make it more effective.

1.56. Malnutrition is also a problem among adults, especially women. The incidence of anaemia and low

body mass among women is very high in the country. The causes of this persistent malnutrition are not well understood. The availability of food, especially better quality food products such as fruits, vegetables and dairy products, is significantly better today than it was in the past. Nevertheless, the incidence of malnutrition remains high. There is a need to bring this dimension of human capability to the fore front of policy attention. The Food Security Bill under consideration will address some of these issues, but the problem of nutrition is actually much more complex and a multidimensional approach is necessary.

Health

1.57. Health is another critical dimension of human capability, which needs much greater attention in the Twelfth Plan. At present, less than 30 per cent of outpatient and less than half of inpatient health care capacity of the country is in the public sector, and the majority of the population relies on private health care provision which often imposes a heavy financial burden. It is, therefore, essential to expand public sector capacity in health care especially in the rural areas. The NRHM, launched during the Tenth Plan, made an important start in expanding health care facilities in rural areas. While additional infrastructure has been created, there are large shortages of personnel, especially specialists in rural health facilities, reflecting the fact that trained human resources in health are in short supply and it takes many years to set up new medical colleges to train the required number of doctors.

1.58. Ideally, the public health care system must be expanded to address the health needs of the vast majority of citizens, recognising that upper-income groups may opt for private health care. The Twelfth Plan will therefore see the transformation of the NRHM into a National Health Mission, covering both rural and urban areas. Unlike rural residents, those in urban areas have access to private health care providers, but private health care is costly and large numbers of urban residents especially slum dwellers cannot afford it. An important component of the National Health Mission will be the Urban Health Initiative for the Poor, providing public sector primary care facilities in selected low-income

urban areas. This will require additional resources in the public sector from the budgets of both the Centre and the States, and cities.

1.59. There is a massive shortage of healthcare professionals in the country and their supply must therefore be expanded rapidly if we want to fulfil our commitments in this sector. We must therefore plan for an expansion of teaching and training programmes for healthcare professionals, particularly in the public sector institutions.

1.60. Finally, attainment of good health outcomes is not just a matter of providing curative care. We need to give much greater attention to public health which has traditionally suffered from neglect. We also need to focus much more on a provision of clean drinking water and sanitation, which can make a major contribution to improved health. This was the experience in industrialised countries over a hundred years ago, and this is also true for us today.

1.61. The longer-term objective of Health Policy must be the provision of Universal Health Care (UHC), whereby any one who wants it is assured of access to a well defined set of health care entitlements. Putting a UHC system in place will take time, but we need to start building an appropriate architecture.

Drinking Water and Sanitation

1.62. The problem of providing safe drinking water is particularly acute in the rural areas. Successive plans have emphasised programmes for expanding the coverage of rural drinking water but they have not had as much success, as desired. The incidence of 'slipped back' habitations appears to be accelerating and serious problems of water quality have emerged in many areas. Part of the problem is that rural drinking water schemes are not fully integrated with national system of aquifer management. Excessive drawal of groundwater for irrigation is leading to lowering of water tables causing drinking water hand pumps to run dry and lowering of the water table is also causing salinity and chemical pollution, making the water non-potable. A sustainable solution to the

rural drinking water problem has to be found as part of a holistic approach for aquifer management.

1.63. Sanitation and clean drinking water are critical determinants of health and are complementary to each other. Without proper sanitation, the incidence of diarrhoeal diseases due to contaminated drinking water will not come down, and without adequate water supply, improved sanitation is generally not possible. It is, therefore, necessary to adopt a habitation approach to sanitation and to institutionalise the integration of water supply with sanitation in each habitation. The problem of sanitation in urban areas is also very serious since almost all our cities, including even the State capitals and major metros, have a large percentage of the population (45 per cent in Delhi) not connected to the sewer system. Urban development must give top priority to planning for water, toilets and sewerage as an integrated whole taking into account the likely expansion of the urban population.

Enhancing Human Capabilities through Information Technology

1.64. The ability to access information is an important institutional capability we need to develop. Lack of ready access information is often a major impediment in efforts to improve the well-being of the people. With improvement in literacy and education, and developments in information technology, we are in a position to provide our people with access to information, including obtaining birth records, land records, payment records for utilities and so on.

1.65. The rapid spread of mobile telephony, including in rural areas has facilitated innumerable innovations which directly benefit the ordinary citizen. Farmers in some parts of the country are able to subscribe to commercial services which deliver relevant information for a particular crop to the farmer through Short Message Service (SMS). The parents of babies born in municipal hospitals in Bengaluru get an SMS alert, when the next vaccination is due. Such innovations need to be encouraged. Yet another human capability that is important is the ease and effectiveness of establishing identity. The

Aadhar project, which provides a unique identification (UID) number, backed by biometric data capture, to establish identity unambiguously, is a major step forward. Identity can be difficult to establish, especially for the poor, when they move from their place of origin, whether by choice or by compulsion. The UID project has already enrolled 200 million persons. Experiments with using Aadhar to make payments under MGNREGS electronically into no frill bank accounts which can be accessed through mobile phones have begun in 51 districts. It will soon be possible for large-scale use of the Aadhar platform to make various types of government payments due to individuals in a seamless manner electronically, avoiding problems of misuse and leakage.

1.66. The Aadhar platform will also facilitate a shift from the physical delivery of subsidised commodities through the Public Distribution System (PDS) to a system of cash payment, if desired. Some States have indicated that they would be interested in such a shift. Adoption of a target to move the major subsidies and beneficiary payments to a cash basis linked to Aadhar by the end of the Twelfth Plan period would be a major step towards improving efficiency.

Development of Institutional Capabilities

1.67. The Twelfth Plan also needs to focus on developing the capabilities of our institutions to perform the increasingly complex and demanding tasks expected of them. We have three pillars of governance (Legislature, Executive and Judiciary) and three tiers of government (Centre, State and Panchayats/ULBs). The capabilities of these institutions to deliver on their mandate need to be greatly improved. The gaps are most evident at the lowest level of PRIs and ULBs, where trained personnel are lacking and the training systems are also inadequate. It is also true at higher levels, where trained personnel may be available, but the capability of the systems is poor because they are not performance oriented and motivation is low.

Implementation Capability

1.68. The consultations undertaken by the Planning Commission in the course of preparing the

Twelfth Plan have revealed a near universal perception that the capacity to implement is low at all levels of government. The government simply does not function with the efficiency that is required in the twenty-first century. This is partly because of the lack of motivation at various levels, but it is primarily because governmental systems and procedures are largely process-driven. They are not outcome-oriented. Accountability is often viewed as adhering to procedures with no incentive to depart from procedures to secure better results. Unless this weakness is overcome, mere provision of more funds for programmes implemented in the same old way will not help.

1.69. Where implementation rests within one Ministry, there are problems of (i) insufficient attention to evidence-based analysis in the design of policies and programmes, (ii) insufficient concurrent evaluation that would give feedback on outcomes achieved and (iii) lack of willingness or ability to bring about systemic changes needed to improve outcomes. Even when it is known that a change in procedures will help, it takes very long to bring about that change. The problem is greatly multiplied when the effectiveness of a programme depends, as it often does, on actions that have to be taken by several different Ministries. Inter-ministerial consultations take far too long, and more importantly, are typically not oriented to resolving problems. This is because each Ministry works in a silo, applying its own rules and procedures. The effort is to seek a consensus if possible, with little ability to over rule positions taken by individual Ministries in the interest of a holistic problem solving approach. Resolving conflicting stands by consensus is of course desirable if possible, but beyond a point, it may not be possible, and some systems for conflict resolution are needed.

1.70. To deal effectively with these problems it may be necessary to redesign governmental decision-making systems. There has been a great deal of system redesign in the private sector in response to the new environment created by economic reforms. A similar redesign of government is needed. For example, one way of accelerating the processing of

large infrastructure projects is to set up a National Investment Approval Board chaired by the Prime Minister and including all key Ministers and to amend the Transaction of Business Rules so that statutory clearances under various Acts for all infrastructure projects above a given size are given by the Board, taking into account the views of all Ministries. The allocation of business rules could provide that such clearances would be issued by the Cabinet Secretariat based on the decision of the Board. This would be a systemic change which would ensure a holistic consideration of complex issues and greatly accelerate decision-making. Several other changes are discussed in Chapter 6 including in particular the need for greater reliance on industry specialists with domain knowledge.

Delivery of Public Services

1.71. Delivery of public services in many States is hampered by weak institutional capacity. Thus, although public hospitals may have trained doctors and nurses, and public schools may have trained teachers, neither of these institutions will have administrators who are trained in the operation of health care or educational institutions. Too much of the knowledge needed to manage public service delivery is learnt on the job, which detracts from the institution's effective functioning.

1.72. The first step in reforming public service delivery is to devise mechanisms for measuring the extent of public satisfaction with public services and publicising the results. The Public Affairs Centre at Bengaluru has done excellent work in conducting systematic surveys of public perception or satisfaction with various types of public services ranging from water and sanitation, health and education, public transport, police and so on. Such surveys periodically conducted produce valuable information for the political leadership on where performance is felt to be poor and where it is improving.

1.73. Greater involvement of citizens' organisations can help focus government attention on these problem areas. The Delhi Government's experiment with Bhagidhari is example of citizen involvement and

consultation operating through Resident Welfare Associations.

Regulatory Institutions

1.74. An area where the lack of institutional capability is beginning to manifest itself is in our expanding system of regulatory bodies. As areas that were earlier dominated by the public sector have been opened up for private operators, often competing among themselves or with existing public sector operators, independent regulatory institutions have been established to oversee the functioning of the players in the system. The effectiveness of regulatory organisations depends critically upon the quality of the personnel running the institutions and the degree of independence established. Too many of the regulatory agencies are staffed by former bureaucrats and there is not enough induction of specialists with domain knowledge. A thorough review of the regulatory system established in different sectors is needed to determine the weaknesses of the system currently in place and recommend ways of correcting them. This is especially true as the next two five year Plans are likely to see faster change in the global economy and in the structure of the Indian economy too.

Development of Infrastructure

1.75. Infrastructure provides the basic support system for other sectors of the economy expanding capabilities everywhere. A distinguishing characteristic of infrastructure is that where imports can meet the gap between demand and supply, deficiencies in infrastructure cannot be made good through imports. Infrastructure requirements can only be met through development of the relevant infrastructure capacity in the domestic economy. Furthermore, Good quality infrastructure is important not only for faster growth but also to ensure that growth is inclusive. Small businesses spread throughout the country need access to good quality and reliable infrastructure services to compete effectively. Large enterprises can often develop their own infrastructure as they often do with captive power, and being large can even locate themselves *ab initio* where other infrastructure is better, that is, nearer ports and near transport hubs. Small enterprises on the other hand

are dispersed across the country, and have to rely on the general infrastructure available. Their ability to compete successfully, which is critical for growth to be employment generating and inclusive, depends upon the quality of this infrastructure.

Power

1.76. Electric power is a critical input into all economic activity and rapid and inclusive growth is only possible if reliable electricity is made available everywhere. It is essential not only for agriculture, industry and commercial business but also for basic household lighting. The percentage of households with electricity has increased from 56 in 2001 to 67 in 2011, but even so almost 45 per cent of rural households have no electricity connection. Furthermore, those that do typically do not have assured power, even in urban areas.

1.77. The Eleventh Plan added 55,000 MW of generation capacity which, though short of the target, was more than twice the capacity added in the Tenth Plan. The Twelfth Plan aims to add another 88,000 MW. This level of additional capacity is not infeasible but delivery of power depends critically on solving serious fuel availability problems that have arisen relating to coal and natural gas. Uncertainties about fuel availability would seriously dampen investment activity, especially since about half the generation capacity is expected to come from the private sector, and they will not be able to achieve financing if fuel supply issues are not resolved. The problem is not that fuel cannot be made available since domestic shortfalls can be met by imports but since imports are at much higher prices, power producers are reluctant to accept. The problem can be resolved by resorting to some form of price pooling and this must be explored. Equally important is the need to address the financial weakness of the distribution segment of the power sector. Almost all the distribution companies (discoms) are running large financial losses, reflecting high transmission and distribution losses and also an unwillingness to raise tariffs in line with rising cost. Some discoms have recently raised tariffs after many years, which is a welcome development but most have yet to do so. Some of the critical

policy correctives to deal with these problems are outlined in Section 1.6.

1.78. Renewable energy, especially wind energy and solar energy are potentially promising alternatives to conventional fossil fuel-based electric power. They are more expensive at present, but given likely trends in fossil fuel prices globally, and technological developments in these sectors there is a need to expand the contribution from these sectors. The scope for doing so is discussed in detail in Chapter 10.

Telecommunications

1.79. Telecommunications has seen impressive expansion and large investments in the past several years with a tele-density increasing from 26.2 per cent in 2008 to 78.7 per cent in 2012. The expansion has been led by private sector service providers whose market share (in terms of number of connections) increased in this period from 73.5 per cent to 86.3 per cent. Unfortunately, issues related to alleged improprieties in the allocation of spectrum in 2008 have dominated public discussions. Several 2G licenses and associated spectrum allotted in 2008 were cancelled by the Supreme Court in 2011 and the court ordered the government to auction the spectrum. This process of auctioning is currently underway and is expected to be completed by January 2013.

1.80. There is tremendous scope for further expansion in telecommunications, especially with the introduction of 3G services. Telecommunications, and the associated increase in Internet connectivity is clearly a productivity enhancing development, and India is well placed to benefit from this. Already, a large number of services benefiting ordinary people have come into being. For a small fee, farmers can sign up for a service which provides customer specific information through SMS on market prices in nearby markets, conditions and possible disease outbreaks in specific crops in which the farmer is currently interested. Mobile banking, through business correspondents acting as agents, is giving ordinary people in villages,

far from a brick and mortar bank branch, virtually direct access to simple banking service.

1.81. There is scope for using the Universal Services Obligation Fund (USOF) creatively to enhance access to mobile telephone including especially as a platform for delivery of a range of services to the underserved in rural areas.

Road Transport

1.82. In the area of transport, there has been some progress in the roads sector, both in the development of national highways and in rural roads, but much more needs to be done. The National Highway Development Programme needs to be stepped up with an aggressive pursuit of PPP to construct toll roads on a Build-Operate-Transfer (BOT) basis. The States too need to expand their road programmes to provide good quality connectivity in all areas. Many States have resorted successfully to PPP as a mode of road development.

1.83. A special effort is needed to speed up road connectivity in Jammu & Kashmir, the North East and other Special Category States. A good start has been made in the SARDP-NE in the Eleventh Plan and this needs to be pursued with greater vigour in the Twelfth Plan. Enhanced connectivity of the North East should be a high priority. This is also true for districts affected by Left-Wing Extremism.

Railways

1.84. Development of capability in the Railways is another urgent priority for the Twelfth Plan. Capacity in the Railways has lagged far behind what is needed and feasible, especially given the need to shift from road transport to rail in the interest of improving energy efficiency, and reducing the carbon footprint of our development. Expansion of the system must be accompanied by technological modernisation, greater attention to safety and steps to ensure financial viability. Several important new initiatives are underway which will materialise in the course of the Twelfth Plan. These include flagship projects such as the Western and Eastern Freight

Corridor, the Mumbai Elevated Rail Corridor and the High Speed Corridor. Given the scarcity of resources, there is need and also considerable scope, for pursuing PPP initiatives in this sector along the lines outlined in Chapter 9.

Airports

1.85. Airport development is a basic infrastructure requirement for connectivity, especially since the demand for air travel is projected to grow rapidly. This area has seen a sea change in the Eleventh Plan with the development of four new airports through private participation in the PPP mode (Bengaluru, Hyderabad, Delhi and Mumbai), the upgradation of two metro airports by Airport Authority of India (AAI) (Chennai and Kolkata) and the development of 35 non-metro airports by AAI. There is need for further expansion in the Twelfth Plan with the creative use of PPP wherever possible. Several projects are likely to be taken up in the Twelfth Plan. These include the Navi Mumbai Airport, the Goa Airport and the Kannur Airport. A policy to make some of our airports into international hubs is also being considered.

Ports

1.86. Ports are another critical capability for international trade connectivity. Progress in this area in the Eleventh Plan was disappointing as for as major ports were concerned because several institutional issues had to be resolved for the proposed PPP expansion plans to materialise. These have now been resolved and it is expected that the Twelfth Plan will see a much greater expansion. In contrast minor ports (which come under State Governments) have done very well in the Eleventh Plan. An aggressive expansion of port capacity in the major ports based on PPP is essential in the Twelfth Plan. In addition, two entirely new PPP ports are proposed by the Central Government; one in West Bengal and the other in Andhra Pradesh.

Financing Infrastructure

1.87. Traditionally, infrastructure development used to occur through the public sector. However,

given the scarcity of public resources, and the need to shift scarce public resources into health and education, efforts have been made to induct private participation in the development of infrastructure. These efforts have met with a fair degree of success. As of 31 March 2012, 390 PPP projects have been approved involving an investment of ₹3,05010 crore. According to a report published by the World Bank, India has been the top recipient of PPP investment since 2006 and has accounted for almost half of the investment in new PPP projects implemented in the first half of 2011 in developing countries. An Asian Development Bank report states that India stands in the same league as developed economies like South Korea and Japan on implementation of PPP projects and the Model Concession Agreements prepared in India and used in our PPP projects have also been commended.

1.88. The total investment in infrastructure sectors in the Twelfth Plan is estimated to be ₹55.7 lakh crore, which is roughly one trillion dollars at prevailing exchange rates. The share of private investment in the total investment in infrastructure rose from 22 per cent in the Tenth Plan to 36.61 per cent in the Eleventh Plan. It will have to increase to about 48 per cent during the Twelfth Plan if the infrastructure investment target is to be met. These projections have also been validated by the high level committee on infrastructure set up under the chairmanship of Shri Deepak Parekh. The committee has however qualified its projections as dependent on several policy initiatives that the government would need to take for ensuring this level of investment.

1.89. The Twelfth Plan lays special emphasis on the development of social sectors in view of their impact on human development and quality of life. Unlike the case with other infrastructure, experiments with PPP in the social sector have been more limited. Many States have experimented with PPPs in health and education. The Central Government has approved setting up of 2,500 Model Schools in PPP mode and a proposal for setting up 3,000 ITIs through PPP is under consideration. These initiatives will be strengthened during the Twelfth Plan.

1.90. Resort to PPPs in the social sector often raises concerns about the commercialisation of services that are normally expected to be provided free or highly subsidised. These are important concerns but they can be addressed by well-drafted concession agreements and strict monitoring to ensure that PPP concessionaires abide by their commitments. This must be reinforced with penalties for non compliance. While extending the concept of PPP to social and urban sector projects, the need for 'people's' participation in the design and monitoring of PPP schemes becomes crucial. Local citizens are direct stakeholders in such projects and therefore their support becomes crucial. Therefore, some cities and States have begun to shape PPPs in the social and urban sectors as People–Public–Private Partnerships (PPPPs). This is a valuable innovation which should be applauded.

The Reach of Banking and Insurance

1.91. Like infrastructure, development of an efficient financial services system is a key enabler of capabilities which affects how well individuals can manage life cycle needs and also affect the functioning of enterprises and their prospects of growth. More broadly, it affects the extent of entrepreneurship and of competition. India is underserved by financial services on every parameter. More than 40 per cent of households avail no banking service at all. The ratio of total bank credit outstanding to GDP is only about 57 per cent as against over 140 per cent in East Asia and Pacific. Insurance premia account for less than 1 per cent of GDP, which is only about a third of the international average. The organised financial sector does not reach out to large segments of the population which are serviced if at all by all manner of informal financial entities at terms and costs that retard their growth prospects.

1.92. Lack of insurance products is an example of under-supply of financial services. It can be nobody's case that the Indian economy has lower inherent risks than others, or that life cover is any less important. It is rather that costs of providing cover and assessing claims are currently so high relative to the cover itself that either premium-to-cover ratios

become exorbitant or appropriate insurance products are simply not created. High transactions costs relative to size of accounts are also the main reason for low banking coverage and this is compounded by high risk perception of banks, in part because of lack of insurance. Agriculture and other forms of MSMEs are particularly ill-served and the situation has in fact deteriorated in some ways over the last two decades because of problems afflicting the cooperative banking sector.

1.93. In recent years, financial inclusion has come back into focus, partly because technology (such as the IT-infrastructure, set-up of a core banking network, mobile phones, satellite imagery and automatic weather stations) now permits solutions such as banking correspondents and weather insurance which cut down on overhead costs; and partly because the power of cooperation, whether through SHG-bank linkage, Joint Liability Groups or simply the old fashioned Primary Agricultural Co-operative Society is again being revitalised. Cooperatives still have the widest credit reach and their local knowledge and risk sharing potential is an asset for the financial sector as a whole which has not been fully exploited. They should be given increased prominence during Twelfth Plan because potential benefits and cost of inaction are both very high. An area that government should take a lead in creation of suitable databases of registry information both for easier collateral and finer actuarial calculations. The UID project can help with this, but there are also more basic requirements such as proper land records and property titling which should not meet the same fate as the so far disappointing record on registering births and deaths.

1.94. In the industrial sector smaller firms are credit constrained. The size distribution of firms in India shows that there are a number of large firms, as in other countries, but there are not enough firms in the middle range with employees ranging from 100 to 500. Instead an overwhelming number of firms are concentrated at the small end with less than 50 employees. This suggests that our small firms do not

operate in an environment in which they can graduate to the middle category. One of the constraints is finance. Banks and other financial institutions have to be more creative to respond to the needs of potentially dynamic entrepreneurs capable of rapid growth. Indian banks typically do not exercise judgement in expanding credit limits in a manner which favours companies that are more likely to grow.

1.95. The capital market has been an important source of funding for larger companies and the opening of the economy to portfolio flows from Foreign Institutional Investors (FIIs) in recent years has produced a buoyant capital market where companies have raised significant funds through new issues. However, this mechanism has been used mainly by the larger companies to raise funds. We do not have effective institutions that can channel equity funding to smaller companies and start-ups. In a knowledge economy, we need to do much more to encourage the growth of venture capital funds and angel investors. The Planning Commission had appointed a Committee on Angel Investment and Early Stage Venture Capital which has since submitted its report. The Committee has made a number of recommendations which are discussed in Chapter 2 and which need to be given serious consideration.

Science and Technology

1.96. S&T is a vital aspect of national capability. Science Departments/Agencies have played a significant role in solving the socio-economic issues. The Department of Space through satellite-based system has provided nationwide land use/land cover mapping for natural resources management, thematic mapping for national urban information system, the process of measuring forest and wasteland, locating potential drinking water zones and potential fishing zone and crop production forecasting. The Twelfth Five Year Plan must build on the scientific base created by earlier Plans and give a renewed thrust to emphasise creative and relevant research and innovation. The central focus must be to ensure that S&T becomes a major driver in the process of the national development.

1.97. The Twelfth Plan programmes of the Indian Science should aim at three outcomes:

1. Realisation of the Indian vision to emerge as global leader in advanced science;
2. Encourage and facilitate Indian Science to address the major developmental needs of the country like food security, energy and environmental needs, addressing the water challenges and providing technological solutions to affordable health care requirements and
3. Gain global competitiveness through a well-designed innovation ecosystem, encouraging global research centres of multinational corporations (MNCs) to be set up in India.

1.98. To realise these objectives, it will be necessary to build technology partnerships with States and socio-economic ministries through new models of technological solutions, design, development and delivery. India's aspiration to emerge as a stronger scientific power at the end of the Twelfth Plan period will require additional funding and also an effort to interconnect available resources and competitiveness. Indian researchers must also be able to gain access to the large global Research and Development (R&D) infrastructure and work in collaboration with others to develop necessary indigenous capabilities. There is need for much greater flexibility in the way scientific establishments work. We need to encourage collaboration with universities, with private and public sector corporations and also with global research centres. The Twelfth Plan must also experiment with new models of funding scientific research. Instead of all government research funds being allocated to the budget of different scientific departments, there is a case for creating a new National Research Fund which can receive competing research proposals from different research institutions, or combinations of institutions, and select from these proposals to fund the most promising on a project basis. Research funding for particular projects should be continued only on the basis of periodic peer reviews which indicate whether progress is satisfactory and also point to corrective steps which might help.

1.99. S&T endeavours over the last decade have placed increasing emphasis on contributing to the societal development and improving the quality of life of citizens. Such new initiatives in turn have also created in some cases societal reactions stemming from issues like health and environmental safety. In the recent past, introduction of genetically modified (GM) foods and Nuclear Energy are two such examples. The Twelfth Plan envisages a more effective institutional framework in linking S&T with society through a variety of outreach strategies. This is proposed to be carried out both through the scientific establishments as well as through educational programmes including initiatives from non-governmental organisations (NGOs).

MANAGING NATURAL RESOURCES AND THE ENVIRONMENT

1.100. Achievement of rapid and sustainable growth is critically dependent on our ability to manage our natural resources effectively. India is not liberally endowed with natural resources. In fact, we are among the lowest in the world on almost all measures of resource availability on a per capita basis. In recent years, the deficiencies in the way in which we manage natural resources have come under increasingly critical scrutiny. Agitations around land acquisition, deforestation, water use, air and water pollution, and also our response to natural disasters, have become more common. These are no longer peripheral issues: They are issues which demand mainstream attention and pose challenges which this Plan must address squarely.

Soil Health and Productivity

1.101. Soil is one of the basic natural resources that support life on earth and this resource is under threat in India from soil erosion due to natural factors compounded by deforestation which increases run off and also from excessive use of chemical fertilisers. The soil ecosystem is a living self-balancing system and excessive use of synthetic chemical fertilisers disturbs this balance often causing long-term damage to the soil.

1.102. Chemical fertilisers, especially urea, are highly subsidised and the fertiliser subsidy has grown exponentially during the last three decades. These heavy subsidies on some fertilisers prompt overuse of the subsidised chemical fertilisers which has resulted in severe depletion of micronutrients and degradation of soil in many parts of the country. Chemical fertilisers should be used with great care and in conjunction with other means of using organic sources to replenish the soil. The way forward is to rejuvenate the soil and restore soil health through addition of organic matter in large quantities. Use of organic manures will gradually bring down the dependence on chemical fertilisers. However, the use of organic manures is discouraged because they receive no subsidy while urea is heavily subsidised. This price distortion is an important factor discouraging the shift.

1.103. More generally, support for ecological/organic fertilisation is scattered under various schemes and hence it is not getting its due. The best practices of soil fertility management need to be adopted, which include generation of biomass for bulk addition of organic matter in the soil to maintain proper soil health, *in situ* degeneration of biomass through sole cropping/inter-cropping/bund cropping of green manure crops, recycling of farm and household waste through use of intensive nutrient recycling methods such as composting, production of bio-fertilisers at regional and local levels, adoption of bio-dynamic farming methods and crop rotations to enrich the soil.

Rational Use of Land

1.104. Land is a fixed resource and its availability in India on a per capita basis is relatively low compared with most countries. Furthermore, the country's population is likely to continue to grow till at least 2040 whereas the land mass may actually shrink with increased coastal erosion and flooding due to climate change. In these circumstances, the rational and planned use of land must be an issue that needs the highest priority, and should be made a central focus of our resource planning. Land is a state subject, but the issues are so critical that there is need for better coordination at the national level.

1.105. There are three main areas of conflict that need to be addressed. The first relates to the allocation of available land between agriculture, industry and urban use. The second potential conflict arises from the fact that allocation across different uses cannot occur simply through market processes and some land acquisition is therefore necessary, but the terms on which this had been done in the past are no longer acceptable. The third potential conflict arises because most of our mineral resources are in areas, which are forested and the effective exploitation of these resources calls for acquisition, which may disrupt some tribal communities.

1.106. As far as the allocation to alternative sectors is concerned, it is important to recognise that diversion of land from agricultural to non-agricultural uses is inevitable in any development process since industry must expand and cities must also expand and in both cases land needed for this expansion can only come from agriculture. Concern is often raised in this context about the impact on food security. This problem is greatly exaggerated because the productivity of land in agriculture at present is very low and the shift of some land from agriculture to non-agricultural use can easily be offset by productivity increases, which are feasible and have been seen in many other developing countries. We need a clearer articulation of a strategy for dealing with such shifts while ensuring the continuing increase in the supply of agricultural products of the appropriate mix of grains, horticulture products and cash crops. The scope for achieving productivity increases in agriculture is discussed in detail in Chapter 12.

1.107. If the shift of land from agriculture to non-agricultural use could take place without any compulsory acquisition it would not pose a major problem since all such shifts would be voluntary. Unfortunately, this is not always possible. Land required for constructing a road or a railway line or even a dam has to be location specific and this effectively gives the landowner a veto right over the project. Given the large number of landowners involved, problems can arise even if the vast majority of the landowners are adequately compensated which is

why compulsory acquisition provisions are unavoidable and exist in every country. Compulsory acquisition is unavoidable where there is a genuine public purpose such as acquiring land for infrastructure development. There may be a case for using acquisition for certain lands of privately owned facilities which serve a public purpose but this needs to be carefully defined. To remedy the deficiencies in the existing legislation for land acquisition which dates back to colonial times, the government has introduced the Land Acquisition Relief and Rehabilitation Bill in Parliament which is expected to create a much more balanced framework protecting the rights of those whose land is being acquired, as well as those whose livelihood will be disrupted.

1.108. The third potential conflict between accessing our mineral resources and minimising disturbance to forests also poses difficult problems. The services that are rendered by forests are unique and cannot be easily replaced. They include sustaining the life styles of the adivasis, but go well beyond that to include critical ecological services such as acting as a carbon sink and as a natural harvester of water through enhanced groundwater recharging. Mining encroaches on forest land and involves displacement of tribals, but the conflict can be reconciled if mining is combined with scientific replanting or regeneration, plus compensatory forestation on a larger scale, which may enable effective exploitation of our mineral resources with an actual increase in total forest cover. There may be some areas of forests that we view as sacrosanct, such as special reserves and biodiversity hotspots, where no intrusion is allowed, but other than these it should be possible to reconcile the two conflicting objectives, extracting valuable minerals and protecting the forests, through scientific methods of exploitation combined with steps which can protect and even enhance forest cover.

1.109. Resolution of this conflict is particularly necessary in view of the energy challenge facing the country. Most of our coal resources and hydro potential are in ecologically sensitive areas and a successful resolution of these problems is critical if we are to be able to exploit our potential energy resources.

The alternative is to either accept a much lower rate of growth, or rely even more than we already do on imported energy, which has implications for both the balance of payments and energy security.

1.110. Alternative energy sources, including a variety of renewable energy sources, provide another route for energy security especially in the longer run. However, its quantitative potential over the next 10 years is small at present though it is expected to expand to 50,000 MW by the end of the Twelfth Plan. The costs of these sources are also much higher though they are falling. This is a potentially profitable area for further research, which is of special interest for us.

1.111. Expansion of nuclear energy as an important potential alternative to coal-based electricity poses a new set of concerns following the Fukushima accident in Japan which has heightened fears of possible accidents with leakages in radiation. This has promoted agitations against nuclear power in some parts of the country but it is an option that cannot be closed if we are to meet the essential energy needs of the country. However, much greater attention will have to be paid towards improving the confidence of the people and especially in providing world-class systems to counter the risks associated with this form of energy.

Water as a Scarce Natural Resource

1.112. Water is another key natural resource in fixed supply and its availability is now at a level which is just about equal to demand on average. Availability in some areas is greater than demand but there are other areas which are seriously water-stressed. While intensive use of groundwater made a great contribution to the Green Revolution, today in large parts of west, central and south India there is a man-made crisis of falling water tables. Economic growth at between 8 per cent and 9 per cent a year will only be possible if the water requirements of the expanding population, with a growing degree of urbanisation and the water requirement of expanding GDP can be met. Detailed studies suggest that on a business as usual basis, the total demand for water by 2031 is likely to be 50 per cent higher than today. This gap

has to be bridged if the projected GDP growth is not to be choked. It is estimated that about 20 per cent of the gap at most can be bridged by taking steps to augment available supply through additional storage and groundwater retention. The rest of the deficit has to be bridged through greater water use efficiency.

1.113. Fortunately, there is large scope for improving water use efficiency in our economy. Agriculture consumes around 80 per cent of our available water resources at present and its water use efficiency is among the lowest in the world. Absence of rational pricing for canal water, combined with free or very cheap power for agriculture, has encouraged agricultural practices which are extremely wasteful. Cheap power has encouraged excess drawal of groundwater leading to falling water tables in large parts of the country. However, the man-made crisis of falling water tables is forcing some change as farmers are beginning to recognise the need to adopt technologies that economise on water.

1.114. The Twelfth Plan must break new ground in bringing sustainable management of our aquifers to the forefront of policymaking. Although efforts are being made for recharging of groundwater sources, these are yet to show sustained results across most parts of the country. An aquifer mapping programme that would enable more informed participatory management and better alignment of cropping patterns to water availability across the country will need to be the starting point of our efforts. This must be combined with a massive groundwater recharge programme based on integrating a reformulated MGNREGS with programmes on watershed development and restoration of water bodies.

1.115. It is also necessary to consider whether a new legislative framework is necessary to help manage our water resources better. Water, except for interstate rivers, is a state subject and as such, it is largely up to the States to consider what initiatives are feasible to avoid a steady intensification of the problem. A framework law, that is, an umbrella statement of general principles governing the exercise of legislative and/or executive (or devolved) powers by the

Centre, the States and the local governance institutions needs to be developed. Such a framework law is not intended to either centralise water management or change Centre-State relations or alter the Constitutional position on water in any way. It is intended to be justiciable, in the sense that the laws are passed, and the executive actions are taken by the Central and State Governments, and the devolved functions exercised by PRIs conform to the general principles and priorities laid down in the framework law, and that deviations can be challenged in a court of law. These are, indeed, sensitive issues, and action on them must be receded by the largest possible consensus across States. However, the urgency of moving forward on these critical matters can no longer be disputed.

1.116. New model legislation is needed for protection, conservation, management and regulation of groundwater. The present model bill amounts to little more than grandfathering existing uses. What is remarkable is that some of the most important legal principles governing groundwater even today were laid down in British common law as early as the middle of the nineteenth century and have not been updated since then. The new model bill would need to recognise that over the last two decades, not only has the groundwater situation in India acquired crisis proportions, new developments in jurisprudence have created the basis as well as the necessity to re-define the legal framework for use of groundwater. These include the Public Trust Doctrine enunciated by the Supreme Court, principles of environmental law and the 73rd and 74th amendments to the Constitution. These issues are discussed in detail in Chapter 4.

1.117. Parallel efforts are needed to contain pollution of surface water and contamination of groundwater, which is reaching serious proportions. Industry must be pushed to adopt the best international practices to improve water use efficiency. Consumption of fresh water can be substantively reduced through use of water-efficient technologies or changed processes in various manufacturing activities and also by re-using and recycling the waste water from water using

industrial processes and making the reclaimed water available for use in the secondary activities within or outside the industry. Enforcing pollution control measures in a context where the vast majority of producers are small and widely dispersed is not easy. However, this is a challenge in policy design, which cannot be ignored. States have to ensure that it is fully integrated into local planning.

1.118. Increased urbanisation will also pose additional problems for water management since urban populations need to be serviced with piped water systems available on a 24 × 7 basis and these systems should be accompanied by sewerage systems, which ensure that only cleaned water is returned to rivers or other disposal sites. At present, no Indian city is in a position to boast of a complete sewerage system. We have installed capacity to treat only about 30 per cent of the human waste we generate. Just two cities, Delhi and Mumbai, which generate around 17 per cent of the country's urban sewage, have nearly 40 per cent of the country's installed capacity. The Twelfth Plan must ensure that no water scheme in urban India will be sanctioned without an integrated sewerage treatment component, which ensures that city waste does not pollute our fresh water sources.

ENGAGEMENT WITH THE WORLD

1.119. Economic reforms over the past two decades have made India a much more open economy. The share of exports of goods and services in total GDP has increased from 6.9 per cent in 1991 to 24.6 per cent in 2012. Imports of goods and services as a percentage of GDP have also increased from 8.3 per cent to 29.8 per cent in the same period. These changes are the result of conscious efforts to open up the economy. Import duties have been reduced over time and a number of preferential trading arrangements have been introduced as part of Comprehensive Economic Partnership Arrangements with individual countries and groups of countries, especially Association of Southeast Asian Nations (ASEAN), Japan, Korea, Singapore and Sri Lanka. More such agreements are being negotiated with the European Union and with Australia. Investment into India, and also from India to other countries has increased.

For all these reasons, India's growth prospects in the years ahead cannot be viewed in isolation from what is happening in the world economy.

Global Economic Prospects

1.120. The global economy is currently going through a very difficult phase. The financial crisis of 2008–09 interrupted what had been a long period of global growth. Initially, the global economy appeared to respond well to the stimulus policies introduced by many countries in 2009, but the horizon was again clouded by the Eurozone crisis which is currently seen as a major fault line in the world economy. Many European countries are facing severe social and economic pain in their effort to introduce fiscal discipline aimed at regaining market confidence. The International Monetary Fund (IMF) projects zero growth in the Eurozone in 2012 with only a gradual improvement thereafter, on the assumption that a disruptive outcome is avoided.

1.121. The major industrialised and developing countries, meeting at Summit level in the G20, have repeatedly emphasised the importance of avoiding disruptive outcomes and the need for all countries to act in concert and cooperation to bring the global economy back on a path of sustainable growth. It is to be hoped that global economic cooperation will prove strong enough to avoid a hard landing. Although uncertainty remains high, and downside risks are significant, the most reasonable assumption on which to plan is that the global economy will recover gradually. However, the structural change that has been underway for some time, with industrialised countries growing more slowly while the emerging market countries, especially in Asia, grow more rapidly, will continue in the foreseeable future. We must, therefore, plan for a world in which the share of global GDP will therefore shift steadily away from the current industrialised countries and towards the faster growing emerging economies, especially in Asia.

Implications for the Balance on Current Account

1.122. Slower growth in industrialised countries will mean that our exports to these countries may be

adversely affected. Our exports to Europe fell 9 per cent in April–December 2012, undoubtedly affected by economic conditions there. Fortunately, India's export basket is relatively diversified and since emerging market countries are expected to grow more rapidly in the years ahead, we may be able to benefit from this. There is also scope for increasing our share in industrialised country markets by competing more aggressively with countries like China, which will experience loss of competitiveness because of rising labour costs at home. This is especially true of services, where India's increasing sophistication will allow it to win more business from cost-conscious developed countries. However, there is no room for complacency, because other developing countries, such as the Philippines, are improving their capabilities and there are moves within developed countries to 'on shore' services hitherto outsourced. It is difficult to quantify the net effect of all these factors, but it is reasonable to plan for merchandise exports growing at an average annual rate of about 15 per cent in the Twelfth Plan than compared with 20.7 per cent in the Eleventh Plan. Growth of earnings from tourism and also remittances are likely to be subdued.

1.123. On the import side, the targeted GDP growth of average 8 per cent per annum will require a rapid growth of imports, particularly because of our incremental energy needs. The impact on the balance of payments will of course depend on what happens to oil and gas prices, but these are not expected to moderate significantly in the short to medium term, and indeed may even go up as the world economy recovers gradually from the global crisis, or due to any sudden shocks in the Middle East. High import payments combined with modest export growth means that the current account deficit will be an important source of stress in the coming years.

1.124. Another contingency that we have to keep in mind is the likely trend in global food prices. For a variety of reasons, most notably rising demand from emerging markets as their incomes expand, combined with lagging agricultural productivity in many emerging market countries and possible diversion of land to production of renewable energy

in industrialised countries, global food prices are likely to be high in the years ahead. Fortunately, our domestic food grain production has been expanding but food security considerations may require import in certain conditions. Domestic import and export policies and our buffer stock policy have to be calibrated to meet domestic demand while responding to developments in global markets.

1.125. India's current account deficit was a surplus 2.3 per cent of GDP in 2003–04. Since then it has gone into deficit, reaching 2.7 per cent of GDP in 2010–11 and 4.2 per cent in 2011–12. As pointed out in Chapter 2, a large part of the increase in 2011–12 was due to imports of gold, which are not expected to be repeated. Even so, the current account deficit in the first year of the Twelfth Plan will be around 5 per cent, which exceeds what has traditionally been regarded as a sustainable level. The macroeconomic analysis in Chapter 2 prescribes that policies must be calibrated to ensure that the current account deficit in the Twelfth Plan period averages around 2.9 per cent. On current prospects, it is likely to be somewhat higher. The ability to finance this deficit through stable capital flows is therefore critical.

Capital Flows

1.126. India has followed a calibrated policy of opening up the capital account, differentiating according to the nature of capital flows. Foreign Direct Investment (FDI) is regarded as the most stable capital flow which also provides technology and marketing links, and has therefore been most freely allowed. Portfolio flows are not as stable as FDI, but they are also not as volatile as short-term debt and have been allowed freely from qualified FIIs. Short-term debt from abroad is the least stable form of capital flow and is, therefore, highly controlled except for trade credit. Longer-term external borrowing is allowed more liberally, but subject to caps. This policy produced good results in the Eleventh Plan, yielding an annual average net capital inflow of 4.1 per cent of GDP during the Eleventh Plan. Since the average current account deficit was 2.7 per cent of GDP, the net capital inflows exceeded what was required to finance the current account deficit and contributed to a build up of forex reserves.

1.127. Looking ahead, if we assume that worst case outcomes will be avoided, then even though Europe may grow very slowly in the coming years, world financial markets can be expected to stabilise. On this assumption, it is reasonable to assume that India can finance a current account deficit of around 2.5 per cent of GDP relying mainly on FDI and FII flows, with some recourse to long-term borrowing. Since the projected current account deficit for 8 per cent growth is somewhat higher, financing the deficit will be a stress point in the years ahead. Capital flows from Europe may well be subdued, but there is scope for diversifying to tap other markets, notably Japan and also the sovereign wealth funds in the Middle East. The key element that will make this possible is that India must be seen to be set on a high growth path, with macroeconomic balances coming under control over the medium term, and policies towards foreign investment being viewed as supportive. The specific policy requirements for achieving this outcome are discussed in Section 1.6.

Other Aspects of External Engagement

1.128. There are several other aspects of engagement with the world economy, which are relevant for achieving our overall growth objectives. First and the most important relates to energy supply and energy security. India's dependence on imported energy is high and is generally expected to increase. Apart from our traditional dependence upon oil imports, the import of natural gas and coal will also need to increase significantly. The price of imported energy will obviously have an impact on our growth capacity in the sense that high energy prices impose a cost on the economy and make it more difficult to generate domestic surpluses for investment. Dependence on energy imports also raises concern about energy security. We need to have sufficient flexibility to be able to alter our fuel composition to respond to movements in energy prices. We also need to develop stable long-term steady sources of supply for different fuels relying on long-term supply agreements with countries in different geographies, and through asset acquisition abroad.

1.129. Second, non-financial aspects of India's engagement with the world need to be strengthened. S&T is an important area to project India's engagement with the world. India has the potential to emerge as a major scientific power, provided the right policies and frameworks are implemented. The need for more global collaboration and partnerships in research on the part of our universities, research institutes and the corporate sector has been mentioned earlier. Such activity needs to be strongly encouraged.

1.130. Finally, India needs to engage more proactively with the global community at bilateral, regional and multilateral levels. In the last 10 years India has worked on several bilateral agreements—these take time to show impact, and positive effects of these will start showing up soon. Special attention needs to be paid to our immediate neighbours. The South Asian Association for Regional Cooperation (SAARC) mechanism is yet to achieve the necessary degree of salience. The bilateral efforts have certainly been more fruitful but much greater emphasis needs to be placed on the regional cooperation agenda as the benefits can go well beyond what is possible through the bilateral route. While this is largely a political issue, it may be desirable to begin the process of instituting dialogue between the apex planning agencies of neighbouring countries.

1.131. Looking beyond our immediate neighbourhood, India needs to be proactive in traditional multilateral forums such as the United Nations (UN), and also participate proactively in new emerging forums of importance such as the G20, IBSA, BASIC and so on. This will sometimes require us to go beyond our comfort zone and be prepared for out-of-the-box modes of engagement. India will also need to play an active role in breaking deadlocks and ensuring progress on two economically important multilateral forums, the World Trade Organization (WTO) and United Nations Framework Convention on Climate Change (UNFCCC).

KEY POLICY INITIATIVES NEEDED

1.132. In this section, we discuss some of the major policy initiatives needed to achieve rapid, more inclusive and sustainable growth. Policies and programmes to improve human capabilities, institutional capabilities and to develop infrastructure, have been discussed in Section 1.3. They are all necessary for achieving the Twelfth Plan objectives and should have high priority.

Immediate Priorities: Reviving Investor Sentiments

1.133. An immediate policy objective in the very first year of the Plan must be to revive animal spirits, which have suffered for a variety of reasons. Some of the reasons for a downturn in investor sentiment can be easily corrected. For example, the perception among investors, that some of the tax changes introduced in the Budget are anti-investor need to be allayed as quickly as possible. The Finance Ministry has appointed two expert committees to look into these issues and it is hoped that the recommendations of these committees will provide a reasonable basis for reviving investor confidence on these issues. A firm decision on the recommendations of the Committee should be announced as early as possible.

1.134. The next important short-term action must be to remove the impediments to implementation of projects in infrastructure, especially in the area of energy. The following steps are especially urgent.

Fuel Supply to Power Stations

1.135. The fuel supply problem affecting electric power generation stations that have been commissioned but do not have adequate assurance of supply of coal or gas, and the problems of power stations currently under implementation which have yet to tie up fuel supply agreements, need to be addressed urgently. Coal India is the dominant domestic producer of coal because of nationalisation. It must take on the responsibility of making coal available to all power plants which are governed by regulated tariffs or have entered into PPAs based on competitive bidding for tariffs. Coal India must take steps to enhance its domestic production capability

as much as possible, including by exploring possible PPP arrangements with mine development operators working on a contract basis. In the short run, however, the shortage can only be made up by imports. Additional imports are possible but the fact that imported coal is available only at much higher prices discourages potential consumers. One way of resolving this problem is through a system of pricing pooling. This should be explored and it should be implemented urgently.

Financial Problems of Discoms

1.136. Many discoms have accumulated high volumes of debt to finance their large current losses. Commercial banks are increasingly unwilling to finance the losses any further. This in turn has created unwillingness on the part of banks to finance power generation projects that are being set up because of doubts that they will be paid by the discoms. A debt restructuring plan, in which State Governments take over a large part of the burden of paying back the debt has been approved by the Cabinet and must be implemented by all the affected States. The commercial banks will have to bear part of the burden by restructuring the loans, and the Reserve Bank of India (RBI) may have to allow some regulatory forbearance relieving the banks of treating the restructured loans as non-performing assets (NPA) and making suitable provisions for them. As envisaged in the package, these steps must be combined with credible steps on the part of the State Governments and the discoms to ensure restoration of the operational viability of the discoms in future. An early implementation of open access would help create an environment that would promote efficiency and competitiveness.

Clarity in Terms of NELP Contracts

1.137. Several problems have arisen in interpreting existing New Exploration Licensing Policy (NELP) contracts especially related to the process for approving expenditure on the development plan and the approval for gas prices. This uncertainty is not conducive to attracting private investment in this very important part of the energy sector. A committee under Dr. C. Rangarajan has been set up to make

recommendations on future NELP contracts, which would avoid uncertainty and establish clear rules regarding the pricing of oil and gas from future NELP fields. An early decision on this issue should be taken within calendar year 2012.

The Size of the Public Sector Plan

1.138. Although planning should cover both the activities of the government and those of the private sector, a great deal of the public debate on planning in India takes place around the size of the public sector plan. The Twelfth Plan lays out an ambitious set of government programmes, which will help to achieve the objective of rapid and inclusive growth. These programmes add up to a total plan size for the Centre of ₹43,33,739 crores including both budget resources and the resources of the public sector enterprises which comes to about 6.35 per cent of GDP. This compares with ₹20,25,130 crores in the Eleventh Plan, which was 5.96 per cent of GDP. The total plan size of the States is ₹37,16,385 crore or 5.45 per cent of GDP, as compared to ₹17,25,848 crore in the Eleventh Plan, which was 5 per cent of GDP.

1.139. Although the proposed Plan size is large, the demand from various sectors is also very high. However, resource constraints are a reality and even the plan size projected is conditional on high growth rate of revenue and a significant degree of control over subsidies. If for any reason these assumptions prove too optimistic, the size of the Plan may have to be trimmed at the time of the Mid Term Review.

1.140. In view of the scarcity of resources, it is essential to take bold steps to improve the efficiency of public expenditure through plan programmes. To this end the Planning Commission had established a Committee under Member, B. K. Chaturvedi to make recommendations for rationalisation and to increase efficiency of Centrally Sponsored Schemes (CSSs) and for improving their efficiency. There has been a proliferation of CSS over the years, many of which are quite small. The Chaturvedi Committee had recommended that the number of CSSs should be drastically reduced and the guidelines under which the schemes are implemented should be made

much more flexible. The recommendations have been discussed with the Ministries and the States and have generally been welcomed. It is proposed to implement these recommendations with effect from 2013–14.

Longer-Term Increase in Investment and Saving Rates

1.141. Bringing the economy back to 9 per cent growth by the end of the Twelfth Plan requires fixed investment rate to rise to 35 per cent of GDP by the end of the Plan period. This will require action to revive private investment, including private corporate investment, and also action to stimulate public investment, especially in key areas of infrastructure especially, energy, transport, water supply and water resource management.

1.142. The strategy of expanding investment will help to counter the weakening of external demand on account of the global downturn. It is important that the expansion in domestic demand should not be in the form of consumption, but in the form of higher levels of investment. This not only provides demand in the short run to support higher levels production but also strengthens the longer-term growth potential of the economy. We should also ensure that a large part of the increase in investment goes into infrastructure as this would have a positive effect on reviving private investment in other sectors and would ease supply constraints, which limit future growth. The Eleventh Plan succeeded in raising investment in infrastructure from 5.04 per cent of GDP in the Tenth Plan to 7.2 per cent of GDP in the Eleventh Plan. The Twelfth Plan aims to raise it further to 9 per cent of GDP by 2016–17.

1.143. Higher levels of investment have to be supported by a sufficient expansion in domestic savings to keep the investment savings gap, which is also the current account deficit, at a level which can be financed through external capital. India's domestic savings capacity has been an important strength of the economy, although recent years saw a distinct weakening in this area because of deterioration in both government and corporate savings. Household

savings, however, have remained strong and are likely to increase in the future, both because of our age composition and as result of increased financial inclusion. Nonetheless, reversal of the combined deterioration in government and corporate savings has to be a key element in our strategy.

The Need for Fiscal Correction

1.144. The decline in public savings in the past few years is largely a reflection of the stimulus policies that were followed, which are reflected in the expansion in the fiscal deficit. The Central Government fiscal deficit was 5.9 per cent of GDP in 2011–12. Allowing for a fiscal deficit of just under 3 per cent for the States, the combined deficit of the Centre and the State Governments, which had fallen to 4.7 per cent in 2007–08, expanded to just under 9 per cent in 2011–12. This has to be reversed through a credible correction over the medium term. The Finance Ministry has set up an Independent Expert Committee to advise on a credible medium-term road map for fiscal correction. The Committee has recommended a new road map for fiscal deficit reduction to bring the Central government deficit down to 3 per cent by the end of the Twelfth Plan. It will be necessary to take action on two fronts:

1. The Centre must persevere with reforms of the tax structure, notably the introduction of Good and Services Tax (GST), which will represent a major modernisation of the indirect tax system. GST will greatly simplify the system and improve revenue mobilisation, primarily by plugging loopholes. Since introduction of GST requires a Constitutional amendment, it needs a broad political support which has taken time to build. However, if it can be introduced soon, it will give a boost to efficiency and to revenue mobilisation without raising rates.
2. It will require a reversal of the trend witnessed in recent years for Central Government subsidies to grow as a percentage of GDP. It must be emphasised that the objective is not to eliminate subsidies. Subsidies can even increase in absolute terms as the GDP grows, but they must be reduced as a percentage of the GDP. There is a

role for targeted subsidies that advance the cause of inclusiveness, but such subsidies can be contained within a predetermined level of affordability. It should be possible to do this without hurting the poor. Some subsidies such as under the proposed Food Security Act will be predetermined. Others such as on fertiliser can be redesigned to serve their purpose at less cost. Subsidies, on petroleum products are untargeted and do not benefit the poor and the most needy. They will have to be reduced.

1.145. The State Governments also need to take steps to reduce the growing burden of subsidies, most especially the large and growing losses in the power sector.

Managing the Current Account Deficit

1.146. The initiatives described above to increase government savings and corporate savings will create conditions conducive to keeping the current account deficit at 2.5 per cent of GDP. This level of deficit can be financed through long-term capital flows as long as India's macroeconomic parameters are seen to be improving and GDP growth recovers above 7 per cent. India is still under weight in most global portfolios given its economic size and growth potential and positive signals about the revival of growth, combined with a credible commitment to improve macroeconomic balances and a welcoming stance towards foreign investment will ensure the financing needed to maintain a current account deficit of 2.5 per cent.

1.147. The steps taken to liberalise FDI, especially in areas where there is evident investor interest such as for example, FDI in retail, would help by sending the right signals. We must build on the success of previous liberalisation in FDI in other sectors, such as insurance, and before that telecom.

Economic Reforms and Efficiency of Resource Use

1.148. While higher investment is necessary for faster growth, it is equally important to ensure efficiency in resource use, both in the public and private

sectors. The implementation of the reform relating to CSSs mentioned above will help achieve greater efficiency to implement in the public sector.

1.149. In the private sector—which accounts for over 70 per cent of total investment—the main instrument available for improved efficiency of resource use is to continue economic reforms, which increase competitive pressure in the system and give producers the flexibility and freedom they need to upgrade technology and expand capacity. In this context, it is worth noting that the global experience with the financial crisis, and the policy rethinking it has triggered, a backlash against market based reform in the financial sector. We need to consider what implications this has for our own policies of economic reforms.

1.150. There is no doubt that the financial excesses in the United States, the United Kingdom and Europe have revealed deep institutional weaknesses in the financial system in these countries and this has produced a backlash against ‘Wall Street’, ‘greedy capitalism’ and also against ‘markets’ generally. What this implies for the pursuit of efficiency promoting economic reforms in emerging market countries needs careful consideration. The principal lesson from the global financial crisis is that financial systems are prone to vulnerability if internal controls are weak; the structure of incentives does not incentivise risk-averse behaviour and if the structure of regulation and the quality of supervision is poor. Since financial integration has made financial systems highly interconnected, vulnerability in one part of the system can extend rapidly to others. These weaknesses explain the severity of the crisis in the industrialised countries. However, our financial system was not exposed to these problems, partly because the degree of integration with global financial markets was low (that is, capital controls were in place which limited cross border banking activity) and partly also because the banking system was much more tightly regulated. On both issues, the cautious approach of the Government of India (GOI) and the RBI towards capital account liberalisation and the maintenance of fairly tight regulatory control on the banks stand vindicated.

1.151. The principal lesson we should learn is that we should continue with our strategy of gradual liberalisation in the financial sector. There is no case for reversing this process of gradual liberalisation, or even stopping it. Countries that had gone too far towards adopting ‘light touch regulation’ are quite correctly tightening their regulatory standards though it should be noted that concern is beginning to be expressed in these countries that this process may be going too far. India was never at that end of the spectrum. In fact, we were if anything at the other end where control over banks and financial institutions is much stronger than in most other jurisdictions and is sometimes excessive.

1.152. However, there is one aspect that does require attention. The global financial crisis highlights the moral hazard problems of following universal banking principles and has brought back into prominence the issue of segregating the commercial and investment banking functions. Our efforts to liberalise the financial sector in the past have meant that Indian banks are today required to undertake investments lending less by design than by default. With the demise of development finance institutions (DFIs), the function of term lending has devolved on the commercial banking sector, which may not be entirely prepared to carry out this function. First, it is not clear whether the Indian banking sector has acquired the requisite risk assessment and project appraisal skills for term loans, without which financing long-duration projects can be hazardous. Second, the entire sector is now more vulnerable to asset-liability imbalance, requiring more frequent recapitalisation particularly as global regulatory norms tighten following the crisis. Third, since there has been no change in the sources from which banks can raise their resources, all increases in term lending are at the cost of funds available for working capital purposes. This leads to smaller and weaker clients being crowded out from the credit space whenever norms stiffen or investment increases. This makes our banking system less inclusive than it would otherwise have been. It is an opportune time, therefore, to blend further gradual liberalisation with a broader consideration of the design of our banking

sector and ensure that the laws are consistent with the intentions.

1.153. Looking beyond the financial sector, to the real sector, there is no reason to backtrack on the use of market mechanisms to achieve efficiency or from an open economy, including a freer flow of foreign direct investment. No such reversal is taking place anywhere in the world and we should act no differently. Protectionist noises have certainly increased in industrialised countries, which is disturbing, but actions have been relatively contained thus far. The G20, of which India is a part, have regularly called in their summits for an avoidance of new protectionist measures. It is to be hoped that this high level consensus will be translated into action. None of this justifies a retreat from international openness on our part. Those arguing for protectionism in industrialised countries are fighting to protect their economies from the loss of competitiveness vis-à-vis emerging markets. It is not in India's interest to support such voices by willingly redirecting our own policies in that direction. On the contrary, it is in our interest, as we gain in competitiveness, to ensure that global markets remain open.

Transparency in Allocating Scarce Natural Resources

1.154. The economic reforms successfully eliminated discretionary decision-making in areas such as industrial licenses and import licenses. The process of extending transparent policies and mechanisms to allocation of scarce natural resources to private companies for commercial purposes has also been initiated. This is an extremely important gain. It will be further carried forward during the Twelfth Plan.

Agricultural Growth

1.155. It is well recognised that faster growth of agriculture makes the overall growth process more inclusive. A positive feature of the experience is that agricultural growth increased from 2.4 per cent in the Tenth Plan to 3.7 per cent in the Eleventh Plan. Further acceleration to 4 per cent is essential to ensure inclusiveness.

1.156. Action is needed on several fronts including provision of basic support services such as technology and irrigation infrastructure, access to credit, good and reliable seeds and improved post-harvest technology. The latter is particularly important since the bulk of the acceleration in growth will come from diversification towards horticulture, animal husbandry and fisheries. The greatest potential for improving productivity is in the rain-fed areas, which account for 55 per cent of net sown area and where most of the poor live. Land productivity is low in these areas, but a combination of effective water management combined with better seeds, promotion of soil health and critical on farm investments combined with public sector efforts to improve infrastructure can make a big difference. Rain-fed farming requires a natural resource management perspective with a farming systems approach focusing on producing diverse products that mutually reinforce each other and stabilise the system. These areas are ecologically fragile and highly vulnerable to the vagaries of climate, so the resilience of the system has to be increased. They require knowledge and institutional investments to improve soil moisture management, enhance soil productivity, revitalise common pool resources, provide appropriate seed and low external input systems as also farm mechanisation, along with diverse livelihood options such as livestock and fisheries. Some of the government's key inclusiveness promoting programmes, such as MGNREGA, can make a major contribution to improving land productivity, if the projects under it are structured to increase on farm productivity. Properly designed and converged, MGNREGA can contribute to creating positive synergy with agricultural growth.

1.157. In addition, the Twelfth Plan must address some basic imbalances. First, to increase rice productivity in Eastern India and at same time relieve North-West India from the stress on groundwater caused by this water-intensive crop. Second, to focus on growing imbalances in nutrient use that can affect productivity seriously. Third, to ensure that there is enough parity between procurement operations for crops such as oilseeds and pulses as for rice and wheat, so that we can avoid situations like at present

when huge stocks of the latter coexist with huge imports of the former. Fourth, to put at the centre of our agricultural policies. These matters are discussed in Chapter 12.

Manufacturing

1.158. The manufacturing sector provides the best opportunity for creating quality jobs, which require skills which are relatively easily imparted to someone who has finished secondary school. However, this is also an area where business as usual will not produce rapid growth and a paradigm shift is needed. The reasons why manufacturing in India has not grown sufficiently rapidly and also not created as much employment in the formal sector as might have been expected, have been analysed in Chapter 9. The following are some of the initiatives needed to correct this performance:

- First, India ranks towards the bottom of international comparisons of ease of doing business. The business regulatory environment in the country is intimidating for manufacturers, especially small-scale enterprises. It saps their productivity and deters further investments. The Plan proposes some initiatives to tune up India's business regulatory environment. Much of the action needed lies with State Governments.
- Second is the state of the physical infrastructure—power and transport, in particular—on which manufacturing enterprises depend much more than IT-based service enterprises, strategies for improving infrastructure are a core of the Plan and they will make a difference to performance of manufacturing as a whole.
- Third, India needs to increase the technological depth of its manufacturing sector to improve its competitiveness and also the country's trade balance. India is increasingly importing high-tech and capital goods and exporting raw materials in return. Strategies are required to induce more depth and value-addition in India's manufacturing sector that are not 'protectionist' and that leverage FDI and are compatible with an open global trade regime.
- Fourth is a rethinking of the role of human resources in manufacturing. Successful manufacturing requires learning and absorption of technologies and the ability to improve them and this takes place principally through the human side of the enterprise. Sustainable competitiveness will also require a new way of dealing with labour. Refurbishing of India's outdated labour laws is necessary, but improvement of industrial relations and the collaboration that is necessary between employees and management will not be obtained merely by changing the laws. It will require a new social contract founded on a developmental orientation and on partnerships in India's Manufacturing and Industrial sectors and in the enterprises within them.
- Fifth, the growth of the MSME sector must be a central focus of India's manufacturing strategy. This sector is the foundation for a strong manufacturing sector providing more employment with less capital. It has a complementary relationship with large industries because it supplies components and inputs to them. It is the entry point for workers and entrepreneurs who move through it to larger-scale enterprises. Whereas much government attention is given to consult with and address the issues of larger enterprises, the development of the MSME sector must become more central to the deliberations about the challenges of Indian industry and the Indian economy. The sector must be viewed not as a static and weak sector, requiring constant support and protection, but as an integral part of the industrial system with upward mobility for individual units within it.
- Lastly, many of the changes in policy and implementation that are required to improve the environment for manufacturing—in the business regulatory environment, in implementing infrastructure projects, in industrial relations, and the requirements of SMEs—are within the domains of the States. This includes the quality of power supply, much of road connectivity, implementation of sales tax administration, implementation of laws relating to safety, pollution control and labour, industrial parks and so on. The Centre also has a critical role to play in areas such as rail

transportation, income tax, Cenvat, export regulation and the functioning of the financial system.

1.159. These issues are also relevant for India's entire business sector, which apart from manufacturing, covers services and off-farm rural enterprises. All of them will benefit from better business regulation and better infrastructure.

Energy Policies for Long-Term Growth

1.160. A growth rate of 8 per cent in GDP requires a growth rate of about 6 per cent in total energy use from all sources. Unfortunately, our capacity to expand domestic energy supplies to meet this demand is severely limited. We are not well-endowed with energy resources except for coal and the existence of policy distortions make management of demand and supply more difficult. Some of these problems have already been discussed earlier in this Chapter in connection with the immediate need to revive investor sentiment. There are also longer-term constraints that need to be addressed.

Coal Production

1.161. Coal is the most abundant primary energy source available in the country, but most of the country's coal resources are in forest areas, traditionally inhabited by our tribal population. Coal production for supply to third parties is nationalised but projects in some sectors are allowed to have captive coal mines. Coal India was not able to meet its coal production targets in the Eleventh Plan and, as pointed out earlier, domestic coal supplies are not assured for coal-based power projects coming on stream in the Twelfth Plan. It is absolutely essential to ensure that domestic production of coal increases from 540 million tonnes in 2011–12 to the target of 795 million tonnes at the end of the Plan. This increase of 255 million tonnes assumes an increase of 64 million tonnes of captive capacity with the rest being met by Coal India Limited. However, even with this increase, we will need to import 185 million tonnes of coal in 2016–17. Environmental and forest clearances of coal projects have presented problems. A special mechanism for inter-Ministerial coordination needs to be set up to accelerate processing of

these projects in a time bound manner. Unless this is done, India's energy needs will be in jeopardy and investor sentiment will weaken irreversibly, at least for the duration of the Twelfth Plan. Taking a longer-term view, the policy of nationalisation of coal itself needs to be reviewed as was pointed out in the Eleventh Plan. If private sector producers are allowed in petroleum, which is a more valuable resource, there is no reason why they should not be allowed in coal. They are allowed to a small extent in the State of Meghalaya, which has private ownership of coal, because the tribal land there is not government land.

Petroleum Price Distortions

1.162. The petroleum sector suffers from a serious distortion in product prices which lead to huge under-recoveries and discourage private investment. Domestic prices for diesel charged by Oil Marketing Companies (OMCs) was 35.3 per cent lower than trade parity prices before the recent price adjustment. Prices for kerosene and LPG are 72.6 per cent and 53.6 per cent lower than they should be.

1.163. Continuation of these systems indefinitely, without provision of a budgetary subsidy, would seriously damage the petroleum industry, limiting its ability to invest in the discovery and development of new oil sources and discouraging all new private investment. If on the other hand, the gap is covered by a budgetary subsidy, it will impose an impossible burden on the budget, necessitating either a sharp cut in other government expenditures or a highly destabilising increase in the fiscal deficit. It is in this context that the diesel prices had to be raised to reduce the gap or a cap was placed on the number of subsidised cylinders. The Twelfth Plan must ensure a move to more rational petroleum product pricing. It may not be possible to remove all distortions immediately, but a phased price adjustment is needed that would reduce subsidy to manageable levels. As a general rule small increases in prices effected over time can help reduce the gap by manageable levels.

Natural Gas Pricing

1.164. Natural gas also faces problems of price misalignment. At present, the price of gas paid to

domestic producers is \$4.25 per MMBtu, whereas the spot imported liquefied natural gas (LNG) price is around \$11–14 per MMBtu. Producers argue that unless they are assured of prices linked to world prices, no investment will take place in this sector. The government has appointed an expert committee under Dr. C. Rangarajan to advise on the form of NELP contracts. The Committee is expected to submit its report very shortly and it is hoped that it will recommend steps to introduce clarity about the policy regarding pricing of gas without which new investment may be inhibited.

Urbanisation

1.165. More effective management of the process of urbanisation in the country will be critical for more inclusive, more sustainable and faster economic growth. Urbanisation is a natural part of the development process because cities provide substantial economics of scale and of agglomeration. In India the cities are also effective drivers of inclusiveness because barriers of caste, creed, and language are bridged in interconnected efforts by residents to earn better livelihoods. At present, about 31 per cent of the population, that is, about 380 million, live in urban areas and this will increase to about 600 million by 2030. Providing reasonable quality services to the growing urban population presents a major challenge. Urban services are very poor, particularly sanitation, solid waste removal, water, roads and public transportation. Affordable, decent housing is woefully inadequate in all Indian cities, leading to the formation of slums, health and living conditions in which are aggravated by poor water and sanitation services.

1.166. The Jawaharlal Nehru National Urban Renewal Mission-II (JNNURM-II) was a landmark initiative because it put India's urban agenda centre stage. It set about providing resources to the States linked to incentives for reforms which would trigger to focus on improvements to cities and towns. The seven years' experience with JNNURM has been a substantial learning experience which has also revealed weaknesses in the governance systems and

the capabilities of cities, States and even the Centre to manage the process of urbanisation. Urban governance is very weak, with poor coordination amongst the many agencies that must work together to create and maintain good functioning habitats. Personnel and institutional capabilities for urban management have to be developed on a massive scale across the country. Capabilities for planning locally are woefully inadequate, which is leading to projects not aligned with local priorities and poor coordination amongst separate initiatives.

1.167. Since overall government resources are limited and must be applied to other priority sectors such as health and education, it is necessary that cities, especially the larger ones, and progressively even the smaller ones, are encouraged and enabled to draw resources from the market and the private sector. For this, they must improve their governance and ability to implement projects. They will also have to manage their land resources more strategically, both to ensure better land use and to secure what will be a principal resource for their future financial needs. They must become able to recover adequate service charges, and equitably, from their inhabitants, which will require them to demonstrate an ability to deliver better and more reliable services. The concept of PPPs, which systematically put local citizens into the partnership framework must be applied.

1.168. The strategies for improving the management of urbanisation are explained in Chapter 14. A new JNNURM-II incorporating the learning from JNNURM-I will be a major feature of the Twelfth Plan. It must give priority to the strengthening of human and institutional capabilities, local planning and improvements in governance, which are the foundations for a more financially and environmentally sustainable and a more inclusive process of governance.

MONITORABLE TARGETS FOR THE PLAN

1.169. The aspirations and challenges that guide the Twelfth Plan have been discussed in the body of this chapter and strategies for meeting these aspirations

are spelt out in detail in the individual Chapters of the Plan. To focus the energies of the government and other stakeholders in development, it is desirable to identify monitorable indicators, which can be used to track the progress of our efforts. Given the complexity of the country and the development process, there are a very large number of targets that can and should be used. Most of these are discussed in the sectoral chapters. However, there is a core set of indicators which could form the objectives towards which all development partners can work, which includes not only the Central and State Governments, but also local governments, CSOs and international agencies.

1.170. Twenty-five core indicators that are listed below reflect the vision of rapid, sustainable and more inclusive growth:

Economic Growth

1. Real GDP Growth Rate of 8 per cent.
2. Agriculture Growth Rate of 4.0 per cent.
3. Manufacturing Growth Rate of 10.0 per cent.
4. Every State must have an average growth rate in the Twelfth Plan preferably higher than that achieved in the Eleventh Plan.

Poverty and Employment

5. Head-count ratio of consumption poverty to be reduced by 10 percentage points over the preceding estimates by the end of Twelfth Five Year Plan.
6. Generate 50 million new work opportunities in the non-farm sector and provide skill certification to equivalent numbers during the Twelfth Five Year Plan.

Education

7. Mean Years of Schooling to increase to seven years by the end of Twelfth Five Year Plan.
8. Enhance access to higher education by creating two million additional seats for each age cohort aligned to the skill needs of the economy.
9. Eliminate gender and social gap in school enrolment (that is, between girls and boys, and between

SCs, STs, Muslims and the rest of the population) by the end of Twelfth Five Year Plan.

Health

10. Reduce IMR to 25 and MMR to 1 per 1,000 live births, and improve Child Sex Ratio (0–6 years) to 950 by the end of the Twelfth Five Year Plan.
11. Reduce Total Fertility Rate to 2.1 by the end of Twelfth Five Year Plan.
12. Reduce under-nutrition among children aged 0–3 years to half of the NFHS-3 levels by the end of Twelfth Five Year Plan.

Infrastructure, Including Rural Infrastructure

13. Increase investment in infrastructure as a percentage of GDP to 9 per cent by the end of Twelfth Five Year Plan.
14. Increase the Gross Irrigated Area from 90 million hectare to 103 million hectare by the end of Twelfth Five Year Plan.
15. Provide electricity to all villages and reduce AT&C losses to 20 per cent by the end of Twelfth Five Year Plan.
16. Connect all villages with all-weather roads by the end of Twelfth Five Year Plan.
17. Upgrade national and state highways to the minimum two-lane standard by the end of Twelfth Five Year Plan.
18. Complete Eastern and Western Dedicated Freight Corridors by the end of Twelfth Five Year Plan.
19. Increase rural tele-density to 70 per cent by the end of Twelfth Five Year Plan.
20. Ensure 50 per cent of rural population has access to 40 lpcd piped drinking water supply, and 50 per cent *gram panchayats* achieve Nirmal Gram Status by the end of Twelfth Five Year Plan.

Environment and Sustainability

21. Increase green cover (as measured by satellite imagery) by 1 million hectare every year during the Twelfth Five Year Plan.
22. Add 30,000 MW of renewable energy capacity in the Twelfth Plan.

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23. Reduce emission intensity of GDP in line with the target of 20 per cent to 25 per cent reduction over 2005 levels by 2020.

Service Delivery

24. Provide access to banking services to 90 per cent Indian households by the end of Twelfth Five Year Plan.
25. Major subsidies and welfare related beneficiary payments to be shifted to a direct cash transfer

by the end of the Twelfth Plan, using the Aadhar platform with linked bank accounts.

1.171. States are encouraged to set state-specific targets corresponding to the above, taking account of what is the reasonable degree of progress given the initial position. Sector-wise growth targets for each State are given in Chapter 11.

2

Macroeconomic Framework

INTRODUCTION

2.1. The Eleventh Plan (2007–12) had targeted an average annual growth of 9 per cent, significantly higher than the realised rate of 7.6 per cent in the Tenth Plan (2002–07), but broadly in line with the acceleration of economic activity and growth experienced after 2004–05. The Plan began well, with 9.3 per cent growth in 2007–08, but the global financial crisis of 2008 reduced growth to 6.7 per cent in 2008–09. The economy rebounded well initially, to record 8.6 per cent growth in 2009–10, and then 9.3 per cent in 2010–11. However, the downturn in the global economy in 2011 due to the sovereign debt crisis in Europe combined with the emergence of domestic constraints on investment in infrastructure reduced gross domestic product (GDP) growth to 6.2 per cent in 2011–12. As a result, the average growth over the five years of the Eleventh Plan was 8.0 per cent.

2.2. Achieving 8.0 per cent growth in a period which saw two global crises, one in 2008 and another in 2011 is commendable. However, the deceleration is also a matter of concern, especially since growth in 2011–12 showed a continuous deceleration quarter by quarter during the year, with the last quarter of 2011–12 registering a year on year growth rate of only 5.3 per cent. The preliminary estimates for the first half of 2012–13 show a growth of 5.4 per cent, which is only marginally higher, suggesting that the first year of the Twelfth Plan will see relatively low growth momentum. However, weak short-term performance should not lead to pessimism about the medium term. There is good reason to believe that the fundamentals of the Indian economy remain

strong, and the economy can return to 8–9 per cent growth path depending on the state of the global economy and the domestic policy response to overcome growth constraints.

THE DETERMINANTS OF GROWTH

2.3. The growth potential of the economy over a five year period depends upon a number of factors. These include the capacity of the economy to maintain high rates of investment, while also ensuring productive use of capital. This in turn depends upon investor expectations and the ability to mobilise financing for investment. The existence of a dynamic entrepreneurial and managerial class capable of taking risks and dealing with competitive pressure is an important positive feature of our economy. It also depends upon the quality of public sector managers responsible for investment and productivity in the public sector, which remains important in many areas of the economy. We have good reason to be optimistic on all these counts as evidenced by the fact that we grew rapidly between 2003–04 and 2008–09, and the Indian enterprise has also begun to expand its global presence.

2.4. Growth also depends on the availability of labour in adequate quantities, and with the right kind of skills to support rapid growth. We have the benefit of a demographic dividend because the age structure of the population ensures that the labour force will be growing in India even as it is falling in most industrialised countries, and even in China. However, the level of skills of the labour force needs to be enhanced. Skill shortages did emerge during

our period of high growth and this is an area to which the government is according high priority.

2.5. The external environment also affects the growth potential since it determines the scope for exports to grow and thus contribute to the expansion of domestic economic activity. It also determines the extent to which the economy can finance a current account deficit through non-debt flows, especially Foreign Direct Investment (FDI), which often serves as an instrument for technological up-gradation and modernisation.

2.6. The acceleration of economic growth has been examined in detail in many studies. The accumulation of capital and labour stocks, as well as the manner in which these stocks are used, that is productivity, has been the subject of intensive study. Global experience suggests that different countries have drawn their growth acceleration in somewhat different proportions from factor accumulation and from Total Factor Productivity (TFP). The latter is the residual that is not explained by factor accumulation and represents an array of elements from technology (both that embodied in capital and that which is disembodied), to education and skills, to institutions and public policy.

2.7. It is well known that emerging market countries have the potential to accelerate growth substantially by accelerating growth in TFP because they are generally not at the productivity frontier, though their ability to do so is not independent of the rate of investment. The higher the TFP, the better is the use of labour and capital stock. Economic reforms have also increased efficiency of resource use in many sectors and studies show that there has been an increase in TFP in the Indian economy over time, and that this improvement was greater in the past two decades, especially in the past decade as compared to the previous periods. There is also considerable scope for further efficiency gains especially from use of IT-based technology, such as geographic information system (GIS) based systems, to increase the efficiency with which we create and operating public investments. These are important reasons for being optimistic about future growth in India.

Growth Prospects in the Twelfth Plan

2.8. Ideally, we should be able to explore the interaction of different determinants of growth through the use of quantitative economic models, which could illustrate the effect of different policy alternatives. However, it is well recognised that no single model will capture all possible interactions. The Planning Commission, therefore, relies upon a number of different models constructed by different research institutions which emphasise different aspects of the interaction between growth variables. The synthesis view that emerges from this exercise, and, from internal discussions within the Commission, is that it is possible for the economy to work its way out of the current slowdown and restore high growth, but this will take time and a number of hard policy decisions. The macroeconomic conclusions which emerge from this exercise are summarised in this Chapter.

2.9. Since the growth in the first year of the Plan is likely to range around 6 per cent, and the international economy is also expected to remain weak for the next two years, we need to plan for a gradual build up to high growth in the succeeding two years, accelerating thereafter to take the economy back to 9 per cent growth in the last years of the Plan. This backloaded trajectory of acceleration implies that growth in the Twelfth Plan period as a whole will at best average around 8.0 per cent. Any target that may be set now is bound to be subject to some uncertainty and downside risks, but it can be said that given the past record of growth, a target of 8.0 per cent is certainly feasible provided the worse case assumptions about the global economy do not materialise, and positive assumptions about our own ability to take hard decisions necessary to achieve a rapid and inclusive growth does.

2.10. The need to take hard decisions to return to high growth follows from the fact that we cannot assume the earlier rapid growth will readily re-emerge in the future. This is because several critical constraints, which emerged as the economy accelerated, and which visibly constrain our growth potential, have to be effectively tackled. Among these constraints are macroeconomic constraints that

limit our ability to increase investment and savings, and to finance the current account deficit, which is the difference between the two. These are discussed in greater detail in this Chapter. There are also sectoral constraints relating to the availability of energy, transport, water, land and employable skills, and constraints relating to the business environment. These are discussed in other chapters of the Plan document.

2.11. Before discussing the macroeconomic constraints or achieving 8.0 per cent growth, it is useful to point out that growth is also affected by social and political forces, which are not easy to quantify. These forces determine the acceptability of economic policies and consequently the pace at which they can be implemented, all of which affect the determinants of growth such as investment rates and the pace of productivity improvement. Indeed, the decline in investment and growth in recent years is attributed to the country's internal social and political environment, which is preventing India from realising what pure economics would suggest is its full growth potential. These influences are not easy to build into quantitative models. However, the Planning Commission has attempted, for the first time, to reflect the impact of these forces by using the technique of 'scenario planning'.

Defining Alternative Scenarios

2.12. Scenario planning is designed to make a qualitative assessment of the forces that affect the economy, but cannot be easily quantified, such as social and political forces and conditions of institutions. Scenario planning cannot predict exact numerical outcomes of different scenarios, but it can project the trends of the economy, depending on how the principal sociopolitical forces take shape.

2.13. Figure 2.1 is a graphic presentation of some of the interconnections that were analysed to explain the principal forces shaping India's economy in different scenarios. The arrows indicate the primary direction of influence, though in many cases, the influence is circular over time generating 'feedback loops' within a system. Consider the interactions between 'Lack of Trust in Institutions', 'Impatience and Protest' and 'Political LogJam'. Lack of trust

in institutions can cause increasing impatience in the country, especially amongst younger people, and leads to protests, sometimes turning violent. (The increasing impatience and protest is fuelled by the ubiquity of media and the explosion of information.) The lack of trust can create a political logjam, which makes reforms that the system needs that much more difficult. This reduces performance which in turn increases impatience and further reduces the credibility of the country's institutions, and trust in them.

2.14. This type of systems' analysis helps locate the 'leverage points' at which decision-makers can act to break the system out of its negatively reinforcing loops. For example, merely asking citizens to be more patient and trust their leaders will not increase trust and patience. However, credible improvement in the conduct of government (and business) institutions can increase citizens' trust, dampen protest, ease the political logjam and enable policy reforms that are required to improve the condition of government's finances and induce economic growth. Thus, analysis locates the leverage points as also the forces on which action can be taken to influence the condition of others. These are seen in the middle of Figure 2.1.

2.15. Figure 2.1 shows that in the present situation one of the key leverage points lie in the design and conduct of institutions of governance and business, including the policy framework with which business works and the signals to which it responds. Change at these leverage points can affect other conditions of the system positively, generating positive feedback loops. Economists, such as Nobel Laureates Douglass North and Elinor Ostrom have explained that 'institutions' are both the guiding ideas and norms of societies as also the 'organisations' with significant roles in governance. In our analysis, we have described these combinations as 'Governance Models' and 'Business Models'. The analysis of scenarios for India has revealed three critical features of governance and business models that are impacting the pace of inclusion, equitable use of our natural resources, environmental sustainability and economic growth. These are:

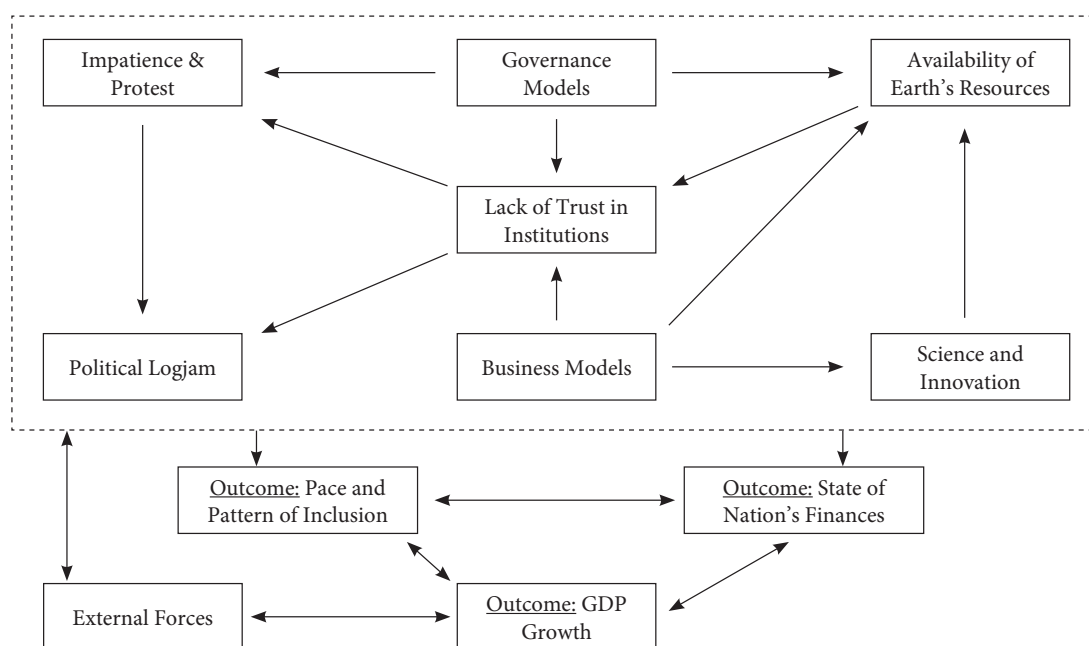


FIGURE 2.1: Systems Analysis for Twelfth Plan Scenarios

1. The approach we take to 'Inclusion': More subsidies or more widespread generation of opportunities for better livelihoods?
2. The approach we take to 'Governance': Will we strengthen local, community-based and collaborative governance rapidly?
3. The strategies we adopt towards energy and environment (as well as structure of programmes and enterprises): Big projects and centralised programmes, or more community-based solutions and enterprises?

2.16. Scenarios are not predictions. They are projections of plausible outcomes of alternative courses of action. They point to strategies that have more likelihood of producing the desired results. Therefore, depending on the strategies we choose and implement, we can envisage different outcomes for the country's progress. Three alternative scenarios are described in the following paragraphs.

Scenario 1

2.17. *Strong Inclusive Growth*: This is the future of India if we can implement a well-designed

strategy addressing the key constraints holding back the economy. With appropriate steps taken to deal with implementation and governance problems, the wheels of government at all levels begin to move more smoothly. Local governance institutions and small enterprises are nurtured and have an opportunity to grow effectively, along with larger enterprises. Livelihood opportunities, along with community-based solutions and enterprises for addressing environmental issues, are seen to be sprouting. Many virtuous circles begin to operate in this scenario, raising confidence and trust. In this scenario, growth could average 8.0 per cent and inclusiveness would be assured.

Scenario 2

2.18. *Insufficient Action*: This scenario reflects the outcome of insufficient policy action. While broad direction of policy may be endorsed at different levels, action is incomplete or implementation is poor, with the result that outcomes are weaker than anticipated. Centralised government systems do not provide sufficient flexibility to cope with demands for decentralisation. Small enterprises and new

entrepreneurs need to be encouraged, but unless the business environment necessary for them to flourish is effectively transformed, the outcome will fall short of expectations. The policy conflict between subsidies and financial stability of the economy remains unresolved. In this scenario, growth of 8.2 per cent is not feasible. Growth could decline to between 6 per cent and 6.5 per cent, and inclusiveness would suffer.

Scenario 3

2.19. Policy Logjam: This scenario reflects a situation where very little can be done for whatever reason on many of the policy fronts identified in the Twelfth Plan. It will be difficult to build growth momentum if critical supply constraints relating to energy and transport are not overcome. Investor confidence is likely to be severely eroded, and the lack of inclusiveness that results will lead to increased impatience and political logjam, putting the economy under severe stress. Vicious cycles begin to operate and the growth rate can drift down to 5–5.5 per cent with serious loss on the inclusiveness front. In some ways, there is a danger of insufficient action scenario degenerating into a policy logjam scenario, if it persists too long.

2.20. Clearly, Scenario 1: Strong inclusive growth is the only way for the country to go and the policy agenda laid out in the Plan is designed to achieve this objective. The outcomes of the three scenarios, in terms of the pace of inclusion, the confidence of people in country's institutions, as also the government's finances and the GDP, are not easily quantified, but their broad direction can be clearly seen. More information is available in the document, 'Scenarios: Shaping India's Future', that accompanies this Plan document, and is posted on the Planning Commission's website.

2.21. It is difficult to predict what the precise impact of different scenarios on poverty will be. However, past trends indicate what 'strong inclusive growth' can achieve on this front. Consumption Poverty in India is measured on the basis of Household Consumption Survey, conducted quinquennially (after a gap of every five years). Evidence suggests decline in poverty headcount ratio between 2004–05

and 2009–10 was twice as fast as that between 1993–94 and 2004–05. For details see the analytic note on 'Poverty—Measures and Changes Therein' in Annexure 2.1.

Sectoral Pattern of Growth

2.22. The sectoral pattern of growth associated with the 8.0 per cent growth scenario is summarised in Table 2.1. The Agriculture Forestry and Fishing Sector is projected to grow at 4 per cent, an improvement over the 3.7 per cent rate achieved in the Eleventh Plan. A detailed analysis of the constraints on growth and policy imperatives in the sector is given in Chapter 12 which concludes that 4 per cent growth is feasible.

2.23. The Mining and Quarrying Sector grew by only 3.2 per cent in the Eleventh Plan, the growth rate being pushed down by negative growth of 0.6 per cent in 2011–12 reflecting problems in the iron ore sector, gas production and also coal. The Twelfth Plan assumes a substantial improvement with the growth rate averaging 5.7 per cent. This will require serious attention to the many constraints that have bedevilled growth in this sector.

2.24. The manufacturing sector decelerated in the course of the Eleventh Plan with a growth rate of only 2.7 per cent in 2011–12. A robust reversal of this trend is essential for a return to rapid growth and especially the growth with inclusiveness since the growth of manufacturing job opportunities depends critically on this revival. The Plan projects a steady acceleration with the growth rate close to 10 per cent in the last two years. The average growth rate in the Twelfth Plan period is projected at over 7 per cent which is a significant improvement over the situation in 2011–12 and 2012–13. An average growth rate of 7 per cent in manufacturing is relatively low, but it reflects the fact that the Twelfth Plan begins with a base year growth of only 2.7 per cent in 2011–12 and perhaps lower in 2012–13. Over the longer run, the aim should be to achieve a sustained double digit growth in manufacturing sector.

2.25. Electricity, gas and water supply are projected to grow at 7.3 per cent on an average compared with 6.1

TABLE 2.1
Annual Growth Rate of GDP by Industry of Origin at Constant (2004–05) Prices

(Unit: Per Cent)

	2007–08	Eleventh Plan period						Twelfth Plan period					
		2008–09	2009–10	2010–11	2011–12	Average	2012–13	2013–14	2014–15	2015–16	2016–17	Average	
1 Agriculture, forestry and fishing	5.8	0.1	0.8	7.9	3.6	3.7	2.0	4.5	4.5	4.5	4.5	4.5	4.0
2 Mining and quarrying	3.7	2.1	5.9	4.9	-0.6	3.2	1.0	5.0	7.0	7.0	7.0	8.5	5.7
3 Manufacturing	10.3	4.3	11.3	9.7	2.7	7.7	2.2	6.0	8.5	9.5	8.5	9.5	7.1
4 Electricity, gas and water supply	8.3	4.6	6.2	5.2	6.5	6.1	5.2	7.5	8.0	8.0	8.0	8.0	7.3
5 Construction	10.8	5.3	6.7	10.2	5.6	7.7	8.0	8.0	8.5	10.0	10.0	11.0	9.1
6 Trade, hotels and restaurant	10.1	5.7	7.9	11.5	6.2	8.3	5.5	6.0	8.0	8.7	8.7	8.7	7.4
7 Transport, storage and communication	12.5	10.8	14.8	13.8	8.4	12.0	7.3	11.1	13.0	13.6	14.1	14.1	11.8
8 Financing, insurance, real estate and business services	12.0	12.0	9.7	10.1	11.7	11.1	9.8	9.5	10.0	10.0	10.0	10.0	9.9
9 Community, social and personal services	6.9	12.5	11.7	4.3	6.0	8.3	7.3	7.2	7.2	7.2	7.2	7.2	7.2
Total GDP	9.3	6.7	8.6	9.3	6.2	8.0	5.8	7.3	8.5	9.0	9.0	9.2	8.0
Industry (2–5)	9.7	4.4	9.2	9.2	3.5	7.2	4.0	6.6	8.4	9.4	9.4	9.8	7.6
Services (6–9)	10.3	10.0	10.5	9.8	8.2	9.7	7.6	8.3	9.4	9.7	9.7	9.9	9.0

per cent achieved in the Eleventh Plan. Construction, which grew at 7.7 per cent in the Eleventh Plan, is projected to grow at an average rate of 9.1 per cent. The other service sectors are projected to grow fairly robustly with Trade Hotels and Restaurants at 7.4 per cent; Transport, Storage and Communication at 11.8 per cent; Insurance and Business Service at 9.9 per cent, and, finally, Community and Personal Services at 7.2 per cent.

INVESTMENT

2.26. The ability to raise the rate of investment (ratio of gross fixed capital formation [GFCF] to GDP) is widely regarded as critical for the achievement of high growth. As shown in Figure 2.2, the period when the economy grew rapidly after 2003–04 and up to 2007–08 was a period when the investment rate increased. The fixed investment rate (at current prices) rose steadily after 2003–04 and was close to 34 per cent in 2007–08. Total capital formation—which includes inventories and investment in valuables—was higher at 39 per cent in that year, but for growth what matters is the fixed investment.

2.27. The fixed investment rate fell after 2007–08, initially on account of global factors, and later also owing to difficulties in the domestic arena which affected the pace of implementation of projects. The estimate for the GFCF rate in 2011–12 at constant prices is 33.7 per cent. The rate of gross domestic capital formation (GDCF), which includes stocks and valuables, but not other errors and omissions, is 37.9 per cent, of which valuables is 2.4 per cent of GDP.

2.28. For annual output growth to average 8.0 per cent in the Twelfth Plan period, and to cross 9 per cent in the closing year, it is estimated that the fixed investment rate will have to increase by about 1.5 percentage points of GDP over the level in 2011–12. The resulting trajectory of fixed investment over the Plan period is shown in Table 2.2. The fixed investment rate should increase to 35 per cent of GDP (at constant prices) by the end of the Twelfth Plan, yielding an average fixed investment rate of over 34 per cent of GDP for the Twelfth Plan period as a whole. These levels are marginally higher than what was achieved in the Eleventh Plan but they are broadly consistent with achieving an average

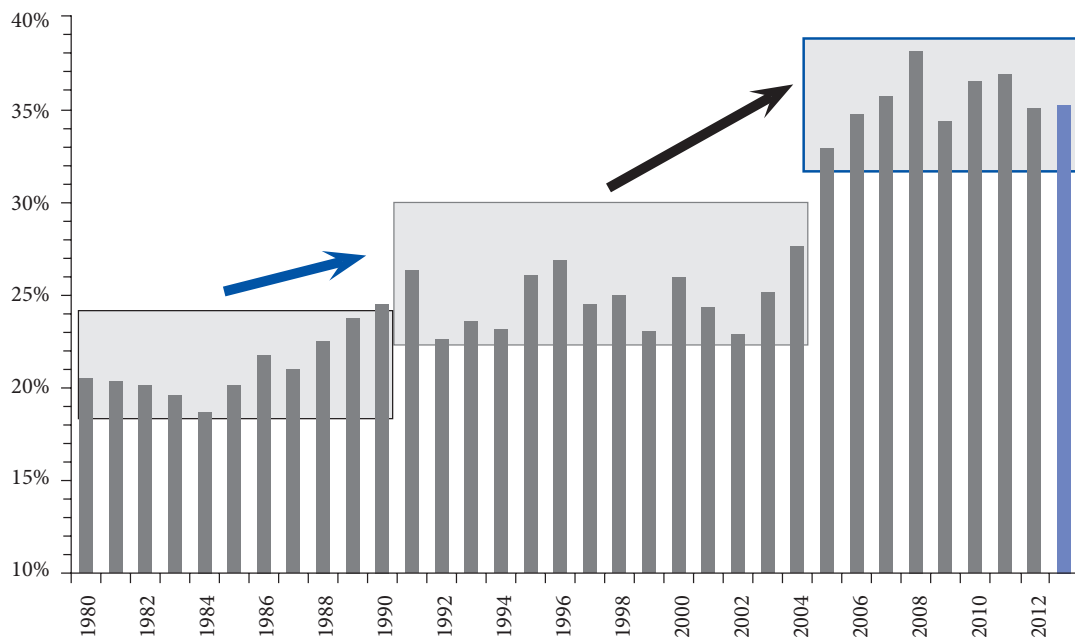


FIGURE 2.2: Fixed Investment Rate—Ratio to GDP at Current Prices—Over the Years

TABLE 2.2
Investment and Consumption Expenditure as Proportion of GDP at Constant 2004–05 Prices

	Eleventh Plan period							Twelfth Plan period				
	2007–08	2008–09	2009–10	2010–11	2011–12	Average	2012–13	2013–14	2014–15	2015–16	2016–17	Average
	Ratio to GDP in Per Cent											
Fixed investment rate	33.7	33.5	33.3	34.3	33.7	33.7	33.0	33.9	34.4	34.5	35.0	34.2
Public	8.2	8.8	8.6	8.1	7.8	8.3	8.0	8.4	8.4	8.5	8.5	8.4
Private corporate	15.0	11.3	11.3	12.8	11.6	12.4	11.3	12.5	14.0	14.5	15.0	13.5
Household	10.5	13.5	13.4	13.4	14.3	13.0	13.5	13.0	12.0	11.5	11.5	12.3
Stocks	4.1	1.9	3.0	3.5	2.3	3.0	2.3	2.9	3.1	3.1	3.1	2.9
Valuables	1.1	1.4	2.0	2.4	2.4	1.8	2.2	1.9	1.6	1.6	1.6	1.8
GDCF	38.9	36.8	38.3	40.2	38.4	38.5	37.5	38.7	39.1	39.2	39.7	38.8
Errors and omissions	0.1	-1.3	0.2	-0.2	-0.5	-0.3						
Investment rate	39.0	35.6	38.4	40.0	37.9	38.2	37.5	38.7	39.1	39.2	39.7	38.8
	Annual Real Growth Rate Per Cent											
Private consumption exp.	9.4	7.2	7.4	8.6	8.0	8.1	6.5	7.5	7.5	8.0	8.0	7.5
Govt consumption exp.	9.6	10.4	13.9	5.9	8.6	9.7	5.1	5.5	5.5	5.5	5.5	5.4
Total consumption exp.	9.7	7.7	8.4	8.1	8.1	8.3	6.3	6.8	7.3	7.8	7.8	7.2
	Ratio to GDP in Per Cent											
Private consumption exp.	58.1	60.0	59.4	58.3	59.2	59.0	59.5	59.1	58.8	58.3	57.8	58.7
Govt consumption exp.	10.3	11.0	11.5	11.0	11.3	11.0	11.2	10.9	10.6	10.3	10.0	10.6
Total consumption exp.	68.5	71.0	70.9	69.4	70.5	70.0	70.6	70.0	69.4	68.6	67.8	69.3

real growth rate of little above 8 per cent, allowing for acceleration in growth in the course of the Plan period, and implying a significant relaxation in the physical constraints that limit the economy in infrastructure and other key sectors.

2.29. Over the past decade and a half, price inflation in capital goods has lagged that in the overall economy. As a consequence, the rates of capital formation at constant prices have tended to exceed that when measured at current prices. In the base year of the Twelfth Plan, the investment rate at constant prices is about 1.2 percentage points higher than in current prices. The savings investment balancing must of course be achieved at current prices.

Composition of Investment

2.30. The composition of fixed investment by source is also shown in Table 2.2. The public fixed investment rate (mostly investment by public enterprises) averaged 8.3 per cent in the Eleventh Plan, with a range of 8.2–8.8 per cent. It is projected to remain roughly in this range in the Twelfth Plan period averaging 8.4 per cent. Household fixed investment (which includes unincorporated business) averaged 12.4 per cent in the Eleventh Plan, with a range of 10.5–13.4 per cent. For the Twelfth Plan, household fixed investment is projected to average 12.3 per cent for the Plan period as a whole, it begins higher at 13.5 per cent in the first two years, slowly reducing to 11.5 per cent in the final two years of the Plan as the corporate sector expands its share.

2.31. Private corporate investment has been the major driver of investment in recent years. In 2003–04 private corporate fixed investment (at constant 1999–2000 prices) was only 6.2 per cent of GDP, while the overall fixed investment rate was 27.1 per cent. It rose to 9.1 per cent (at constant 2004–05 prices) in 2004–05 and 11.9 per cent in 2005–06. The overall fixed investment rate increased to 28.7 per cent in 2004–05 and to 30.5 per cent in 2005–06. Private corporate investment averaged 12.4 per cent in the Eleventh Plan but it was at a peak of 15.0 per cent in 2007–08, that is, the first year of the Eleventh Plan and declined in subsequent years to 11.6 per cent in 2011–12. If the overall fixed

investment rate has to pick up in the Twelfth Plan, there has to be a recovery in private corporate fixed investment. Table 2.2 shows a gradual build-up in private corporate investment from 11.5 per cent in 2012–13 rising steadily to touch 15.0 per cent—the peak value achieved in 2007–08—in the last year of the Twelfth Plan. This would produce an average of 13.5 per cent for the Twelfth Plan as a whole; higher than the average of 12.4 per cent in the Eleventh Plan.

2.32. It must be noted that a large part of private corporate investment is now in the field of infrastructure—power generation, roads, ports, airports and telecommunications—and a lot of it is in the Public–Private Partnership (PPP) mode. The robust growth in private corporate investment is in part a reflection of the strategy of increasing the share of investment devoted to infrastructure and the recognition that private investment has to play a large part in this. Higher investment in infrastructure is critical for the revival of the investment climate as it would lead to enhanced investment in manufacturing.

Gross Capital Formation

2.33. To move from GFCF to gross capital formation we need to add increase in inventory and investment in valuables. Increase in inventory averaged 3.0 per cent of GDP in the Eleventh Plan, at constant (2004–05) prices. If the crisis year of 2008–09 is excluded (there is very large drawing down of inventories in crisis periods, as indeed had occurred in 2008–09), the average for the Eleventh Plan period is 3.2 per cent of GDP. For the Twelfth Plan period the increase in inventories is projected to account for close to 3.0 per cent.

2.34. Investment by households in valuables refers mainly to gold and silver. Import of gold and silver aggregated about \$60 billion in 2011–12, most of which was ‘investment’ made by households. Until 2007–08, this represented around 1.0–1.3 per cent of GDP and even in the crisis year of 2008–09 the ratio was 1.4 per cent. Thereafter, it has increased very sharply perhaps reflecting the assessment that inflation had increased and the rupee was likely to come under pressure, combined with a fall in the

penetration of other financial savings products, thereby making gold an attractive asset. It is estimated at constant prices to be 2.5 per cent of GDP in 2011–12. With the exchange rate depreciation that has occurred, and the initiatives to improve the availability of financial savings products and expected moderation in inflation, the proportion of investments in valuables is expected to steadily decline to 1.6 per cent of GDP in 2016–17. The average for the Twelfth Plan period is projected to be around 1.8 per cent, about the same as in the Eleventh Plan period.

2.35. As shown in Table 2.2, the aggregate GDCF in the Eleventh Plan at constant 2004–05 prices amounted to 37.5 per cent of GDP (including errors and omissions item of (-)0.3 per cent). The projections as outlined above for the Twelfth Plan would result in a higher average of 38.8 per cent of GDP. However, in the first year of the Plan, the ratio is likely to be lower than the Eleventh Plan average, but it is then expected to move up close to 40 per cent by the end of the Twelfth Plan. At current prices, the increase in GDCF would be somewhat less, moving up from 36.1 per cent of GDP in the Eleventh Plan to 36.9 per cent in the Twelfth Plan period. It is this ratio that is relevant for financing.

The Role of Infrastructure Investment in Accelerating Growth

2.36. A key component of the overall strategy for raising the rate of fixed investment is an increase in public and private investment in infrastructure. This is because enhanced investment in infrastructure will ease some of the key supply constraints on growth and it is also the area where progress is most likely to increase investor confidence. Several things need to be accomplished in order to facilitate this.

2.37. The most important sector in infrastructure is the power sector. There is about 90 GW of capacity under various stages of construction and attending to the outstanding issues facing these projects must be given a high priority. However, given the time lag involved in implementing power projects, it is necessary to ensure that projects which will be commissioned only in the Thirteenth Plan can also move

ahead satisfactorily. Almost half the capacity in the Twelfth Plan is projected to come from the private sector and the position is likely to be the same in the Thirteenth Plan. Private sector investors in power generation have faced many problems in recent times. They include (i) inadequate supply of domestic coal and unanticipated increase in prices of imported coal; (ii) difficulties with clearances for captive mines, as well as for generating stations; (iii) land availability; (iv) poor financial health of some state electricity distribution companies which are the main customers, and which suffer from insufficient tariff adjustment plus inefficiencies in collection; (v) inadequate availability of domestic natural gas; (vi) inadequate fuel supply agreements for coal and (vii) more recently, difficulties in obtaining finance from both external and domestic sources. Several steps have been taken to resolve the problems that are negatively impacting fresh private investment in the power sector. A strict timeline needs to be maintained to achieve all of these measures. These issues are discussed in detail in Chapter 14.

2.38. Investment in road development has seen successes in both the Central and State Sectors. There was a return to buoyancy in 2011–12, with contracts awarded for nearly 8,000 km as against the target of 7,300 km. We need to be able to accelerate the pace of progress in the coming years. The Railways also require considerable investment to achieve the expansion in capacity needed and also to modernise and improve safety. The Delhi Mumbai Freight Corridor has external funding, but other investments are constrained by inadequacies of internal resources of the Railways, largely the consequence of frozen and uneconomic tariffs on passenger routes. On the freight side, Railways make a surplus, but transport services need to adapt more to customer requirements. There is a lot of potential and need for constructive change.

2.39. Many ocean port projects are pending due to clearances and other decisions that are in the domain of government. It is vital that we smoothen out the path ahead for the port sector. The New Mumbai International Airport is yet to be bid out. There are several problems involved, but we need to get the

process off the ground. There are many other airports, small and big, that need to be developed in the Twelfth Plan. The Airport Authority has completed several terminal buildings and modernised these airports. The rest need to be taken up, if possible with private partners. In addition, there are many small airports and landing strips which hold potential for the purpose of extending connectivity and spreading of business opportunities. However, we have to work out a framework for executing of these projects and also develop a sub-model for air transport linkages to these dispersed and smaller airports.

2.40. Inland water transport has been neglected and needs to be accelerated. There are large gains to be had in terms of efficiency, if we can get some of the river-ways to become meaningfully functional. Coastal shipping also has considerable potential.

2.41. Connectivity is especially crucial to our north-eastern region, both between themselves and to Myanmar and Bangladesh. We are working on a multi-modal connection through Ashuganj in Bangladesh to Tripura and the Sithwe–Kaladan River Project to Lunglei in Mizoram. We need to energise the reconditioning and reconnections of the other road networks through Moreh (Manipur) and Ledo (Assam) to Myanmar. This can then link up further to Thailand and to the road network system in South East Asia. Our development partners including Association of Southeast Asian Nations (ASEAN) and Asian Development Bank (ADB) are likely to be supportive of this.

2.42. Infrastructure capacity creation has suffered from implementation problems. It is vitally important that government makes strenuous efforts to ensure that buoyancy of private investment in infrastructure is returned. If that is achieved, it will catalyse balancing investments in a host of manufacturing activities and enable the economy's fixed investment rate to slowly return to its pre-2008 trajectory (as also the overall growth rate of the Indian economy). Investment in infrastructure is sometimes seen as running into environmental problems. The reconciliation of these objectives may require higher levels of investment than otherwise but this

additional cost of compliance is perhaps a necessary cost that will have to be borne and can be partly offset by greater efficiency elsewhere.

SAVINGS

2.43. The high levels of investment projected for the Twelfth Plan have to be financed through a combination of domestic savings and net foreign inflow. The prospects of each of these components playing their expected role in the Twelfth Plan period and facilitating the level of investment projected are discussed in the following sections.

Trends in Domestic Savings

2.44. A strong domestic savings performance has been one of the strengths of the Indian economy for several years. As evident from Figure 2.2, the savings rate has undergone deep transformation rising from less than 20 per cent of GDP in 1980 to around 25 per cent in the 1990s and to over 30 per cent in the second half of the last decade. It reached a peak value of 36.8 per cent in 2007–08, after which it dropped to 33.7 per cent in 2009–10, but picked up a bit to 34.0 per cent in 2010–11. It has come down to 30.8 per cent in 2011–12. Thus the aggregate savings rate declined by 6.0 percentage points between 2007–08 and 2011–12.

2.45. Two factors were principally responsible for raising the domestic savings rate in the period up to 2007–08. One was the big improvement in government finances and the other was the improvement in the level of retained earnings of the private corporate sector. Between 2001–02 and 2007–08, the savings of government administration improved from *minus* 6.0 per cent of GDP to *plus* 0.5 per cent of GDP—an improvement of 6.5 percentage points. This was equal to almost half of the 13.4 percentage point improvement in the overall savings rate. The retained earnings of the private corporate sector improved from 3.4 to 9.4 per cent of GDP—an increase of about 6.0 percentage points. There were also small increases in the savings by households and that by public sector enterprises. Household savings comprise financial savings as well as physical savings that are directly made by households and unincorporated enterprises such as house building,

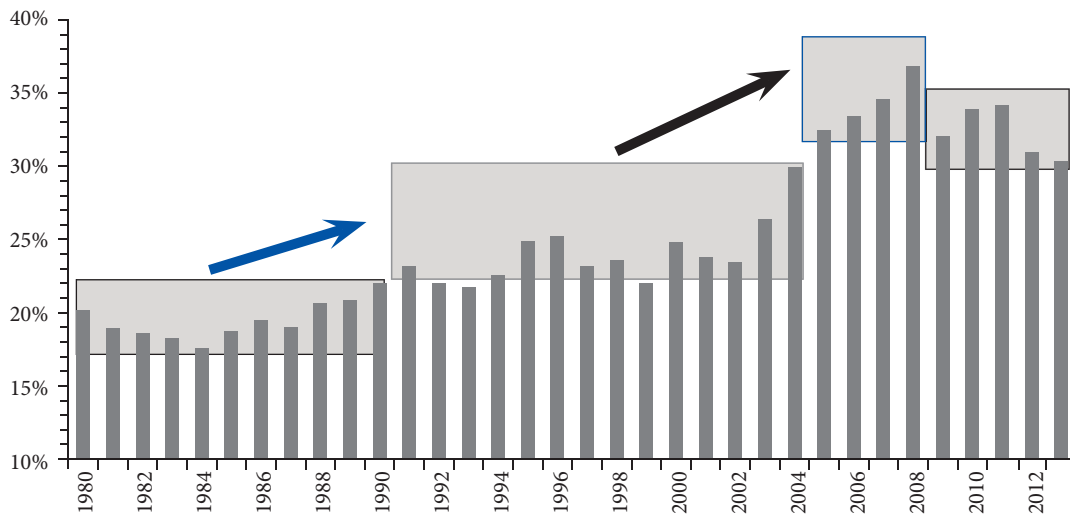


FIGURE 2.3.: Domestic Savings Rate—Ratio to GDP—Over the Years

farm improvement and asset creation by unincorporated businesses. Gross financial savings by households improved by 2.3 percentage points, but then so did the sector's liabilities (mortgage, automobile and other kinds of borrowing), so that net financial savings of the household sector increased by just 0.7 percentage points. However, the savings made by the household sector directly in physical assets declined by about 0.5 percentage points. The total savings of this sector therefore, remained more or less unchanged during this period as a percentage of GDP.

2.46. The decline in domestic savings rates after the crisis of 2008 reflects deterioration in precisely the two elements, which had accounted for the increase earlier. Between 2007–08 and 2011–12 the deterioration in the savings of government—flowing from the fiscal stimulus given in the wake of the crisis—amounted to 2.5 percentage points. Combined with lower retained earnings by departmental and non-departmental enterprises, this reduced the savings of the public sector by as much as 3.7 percentage points of GDP accounting for nearly two-thirds of the fall of 6.0 percentage points in the domestic savings rate. Savings by the private corporate sector declined by

2.2 percentage points while households savings remained largely unchanged.

A Savings Strategy for the Twelfth Plan

2.47. The savings strategy in the Twelfth Plan must be to reverse the decline in savings that occurred after 2007–08 in order to finance the increase in the rate of investment projected for the Twelfth Plan period. The Working Group on Savings for the Twelfth Plan had made several projections based on alternative values for economic growth and inflation. It had projected the gross domestic savings rate to range between 36–37 per cent of GDP for the Twelfth Plan period, depending on whether GDP growth is 8 per cent or 9 per cent. On reviewing these estimates, it was felt that it would suffice if the savings rate reaches 36.0 per cent in the last year of the Plan as shown in Table 2.3. The projected average level of the domestic savings rate for the Twelfth Plan is 33.6 per cent, slightly higher than the 33.5 per cent recorded in the Eleventh Plan.

2.48. Factoring in capital inflows from abroad to cover the projected current account deficit of 3.4 per cent of GDP, the average investment rate for the Twelfth Plan period that can be sustained

TABLE 2.3
Domestic Savings and Components Thereof in Per Cent of GDP at Current Prices

	Eleventh Plan period										Twelfth Plan period				
	2007-08	2008-09	2009-10	2010-11	2011-12	Average	2012-13	2013-14	2014-15	2015-16	2016-17	Average			
Gross Savings in Financial Assets	15.4	13.0	15.1	13.9	11.1	13.7	12.4	13.8	15.0	16.1	16.4	14.7			
Increase in Financial Liabilities	3.8	2.9	3.1	3.6	3.1	3.3	3.4	3.8	4.2	4.5	4.5	4.1			
Net Household Financial Savings	11.6	10.1	12.0	10.4	8.0	10.4	9.0	10.0	10.8	11.6	11.9	10.7			
Household saving in physical assets	10.5	13.5	13.4	13.4	14.3	13.0	13.2	12.7	12.2	11.7	11.7	12.3			
Household savings total	22.4	23.6	25.2	23.5	22.3	23.4	22.8	22.7	23.0	23.3	23.6	23.0			
Savings by the private corporate sector	9.4	7.4	8.4	7.9	7.2	8.1	7.3	7.7	8.0	8.5	8.5	8.2			
Savings by the public sector	5.0	1.0	0.2	2.6	1.3	2.0	1.5	2.0	2.5	3.1	3.9	2.7			
Savings of government administration	0.5	-2.8	-3.1	-0.6	-2.0	-1.6	-1.8	-1.5	-1.2	-0.9	-0.3	-1.2			
Savings of departmental enterprises	0.6	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.4			
Savings of non-departmental enterprises	3.9	3.3	2.8	2.9	3.0	3.2	3.0	3.1	3.3	3.5	3.7	3.3			
Gross Domestic Savings	36.8	32.0	33.7	34.0	30.8	33.5	31.0	32.4	33.5	34.9	36.0	33.6			
Net Savings from Abroad	1.3	2.3	2.8	2.8	4.2	2.7	4.8	3.8	3.0	2.8	2.5	3.4			
Finance for Investment	38.1	34.3	36.5	36.8	35.0	36.1	35.8	36.2	36.5	37.7	38.5	36.9			

comes to about 36.9 per cent of GDP. This is roughly equal to the rate of GDCF in current prices, of 36.8 per cent.

Household Savings

2.49. The gross financial savings of the household sector is expected to average 14.7 per cent in the Twelfth Plan going up from 13.7 per cent in 2010–11 (and 11.1 per cent in 2011–12), to 16.4 per cent at the end of the Twelfth Plan (2016–17). The borrowings of the household sector from the financial system are expected to increase from 3.6 per cent in 2010–11, and 3.1 per cent in 2011–12 to 4.5 per cent in 2016–17. Thus, the net financial savings of the household sector is expected to go up from 10.4 per cent in 2010–11, and 8.0 per cent in 2011–12 to 11.9 per cent in 2016–17, while the average for the Plan period is likely to be 10.7 per cent. Investment by households in physical assets is expected to average 12.3 per cent of GDP in the Twelfth Plan. Thus, the total household savings including both net financial and physical assets are projected to average 23.0 per cent for the Twelfth Plan period, about the same as in the Eleventh Plan period.

Private Corporate Savings

2.50. Savings of the private corporate sector reached a peak of 9.4 per cent of GDP in 2007–08, from which it came down as profits came under pressure from the crisis, growth slowed down and input costs rose. The average for the Eleventh Plan period was 8.1 per cent. It is expected that a gradual recovery in the savings of the private corporate sector from 7.9 per cent in 2010–11 to 8.0–8.5 per cent in the final three years of the Plan would give an average of 8.2 per cent for the full Plan period. This is about the same as that in the Eleventh Plan.

Public Sector Savings

2.51. The savings of the public sector comprise of the savings of government administration, surpluses of departmental undertakings and retained earnings of public sector enterprises. The first two are a function of the extent of operating deficit in government finance, and the third has been adversely impacted by losses arising from selling prices not increasing in line with rising costs. More specifically, this has been the case with government-owned petroleum

companies and state owned electricity distribution companies. The Working Group on Savings had projected that savings of the public sector would be around 2 per cent in 2012–13, and would average 3.5 per cent over the Twelfth Plan period. However, it now appears that savings in the public sector would be significantly lower at about 1.1 per cent in 2012–13, which would improve gradually to over 4 per cent in 2016–17, yielding a Plan average of 2.7 per cent. A better performance would yield large positive potential results since the government borrowing needs could be curtailed freeing resources for productive uses in the economy. This is only possible if we can curb the subsidy bill, particularly that associated with refined petroleum products, which has become so large that it is undermining the financial capacity of the government to spend on more socially worthwhile activities.

2.52. The overall domestic savings rate is projected to increase from an estimated 30.8 per cent in 2011–12 to 36.0 per cent in 2016–17, and average 33.6 per cent for the Twelfth Plan period. This would be slightly higher than the 33.5 per cent recorded in the Eleventh Plan period. Since the projected average investment rate (GDCF, including errors and omissions) in the Twelfth Plan (at current prices) is 36.9 per cent and the projected gross domestic savings is 33.6 per cent, the net external financing needed for macroeconomic balance should average 3.4 per cent. This would be a significant reduction over the course of the Plan period from 4.2 per cent reported in 2011–12, the last year of the Eleventh Plan and the anticipated higher level in 2012–13.

Projected Current Account Deficit

2.53. In this section, we review trends in the external sector to see whether the financing gap viewed from the balance of payments side is broadly consistent with the investment savings gap described above. The opening up of the Indian economy has greatly increased the role of trade in the economy. The ratio of merchandise exports to GDP in 1999–2000 was 8.3 per cent and that of import was 12.3 per cent, while the net service export was 0.9 per cent. The sum of these three items in that year (which has sometimes been used as a measure

of openness) was 21.5 per cent. The extent of trade integration with the rest of the world has expanded very significantly since 1999–2000. For the Tenth Plan (2002–07) period as a whole, merchandise exports and imports rose to 11.7 and 15.7 per cent of GDP respectively, and net service exports to 2.1 per cent, taking the aggregate of external trade activities to 29.5 per cent of GDP. In the Eleventh Plan the share of merchandise exports and imports rose further to 16.3 and 26.1 per cent respectively. Adding in net service export, the proportion of external trade to GDP rose to 40.3 per cent of GDP for the Eleventh Plan period as a whole. In the final year of the Eleventh Plan, that is 2011–12, this figure touched 45.8 per cent of GDP.

2.54. India is greatly dependant on import of crude petroleum and more recently of Liquefied Natural Gas and hence our external payments are seen to be particularly vulnerable on this count. Though crude oil prices have more than quadrupled over the past decade (from \$25 per barrel to \$115 per barrel at present), our merchandise exports and other imports have tended to keep pace. On the import side, the value of total oil imports as a ratio of aggregate merchandise imports have risen from less than 27 per cent in 2003–04 and 2004–05 to 31.7 per cent in 2007–08, before easing up a bit, before once again hitting 31.7 per cent in 2011–12 and perhaps exceed 34 per cent in 2012–13. India exports a large volume of refined petroleum products and it is the net oil import bill (after reducing the value of exported refined petroleum products from the oil import bill) that should be germane. The net oil import bill was less than 21 per cent of total merchandise imports in 2004–05 and increased only slightly to 22 per cent in 2008–09 and is expected to be around 23 per cent in 2012–13.

2.55. However, the key issue from the point of view of sustainability is the proportion that these oil imports bear in relation to merchandise exports. The value of net oil imports to that of merchandise exports excluding refined petroleum products was 28 to 30 per cent in 2003–04 and 2004–05 and steadily rose thereafter to peak at 40 per cent in 2007–08 and 2008–09. It dipped slightly, but was back up close to this level in 2011–12. In the current year (2012–13) the ratio has risen to 48.7 per cent in the first ten

months. Clearly the adverse situation in our balance of trade is significantly on account of the stress arising from the rising proportion of net oil imports relative to our capacity to export other products.

2.56. As trade integration has increased, the merchandise trade deficit has widened from 4.7 per cent of GDP in 2004–05 to 6.5 per cent in 2006–07, and further to 7.1 per cent and 9.5 per cent in the two succeeding years. It declined a little in subsequent years, but hit 9.9 per cent in 2011–12. This high trade deficit was offset by a growing net balance on service trade, and a high level of remittances. In the Eleventh Plan period, the average merchandise trade deficit was 8.3 per cent of GDP, the net services export was 3.2 per cent, and private remittances 3.5 per cent of GDP. The sum of the net services export and private remittances thus averaged 6.7 per cent of GDP, which funded 80 per cent of the merchandise trade deficit. However, it must be kept in mind that as the stock of foreign investment builds up in India, the net investment income is increasingly becoming a larger negative number, going from (–)0.6 per cent of GDP in 2004–05 to (–)0.9 per cent in 2011–12. It should, however, be noted that this negative item does not necessarily result in an actual outflow. In Balance of Payments accounting, if the income accrues, but is not remitted abroad and is retained in the enterprise, it will show up as positive FDI inflow.

2.57. The net effect of all these developments has been an expansion of the current account deficit from 1.2 per cent of GDP in 2005–06 and 1.3 per cent in 2007–08, before going to over 2.5 per cent in each of the years after 2008–09. In 2011–12 the current account deficit was at a record high of 4.2 per cent of GDP though this reflects abnormally high gold imports. For the Eleventh Plan as a whole the average current account deficit was 2.7 per cent of GDP.

2.58. Projections of trade and other balances for the Twelfth Plan period are presented in Table 2.4. Merchandise exports as a proportion of GDP are expected to remain around 16.0 per cent GDP during the course of the Twelfth Plan. In 2016–17, exports would be over \$570 billion. The average of the Twelfth Plan would be 16 per cent. Merchandise imports are expected to stabilise a proportion of

TABLE 2.4
External Payments—Current and Capital Account

(All Figures as Per Cent of GDP at Current Prices)

	Eleventh Plan period											Twelfth Plan period				
	2007-08	2008-09	2009-10	2010-11	2011-12	Average	2012-13	2013-14	2014-15	2015-16	2016-17	Average				
Merchandise Exports	13.2	14.9	13.1	14.7	16.3	14.4	15.7	16.0	16.1	16.0	15.9	16.0				
Merchandise Imports	20.3	24.4	21.1	21.6	26.1	22.7	26.5	25.8	25.1	24.5	24.0	25.2				
Merchandise Trade Deficit	-7.1	-9.5	-8.0	-6.9	-9.9	-8.3	-10.8	-9.7	-9.0	-8.5	-8.1	-9.2				
Net Service export	3.1	4.4	2.6	2.6	3.4	3.2	3.5	3.5	3.5	3.4	3.4	3.5				
Merchandise, Exports (X) + Imports (M)	33.4	39.3	34.1	36.3	42.4	37.1	42.2	41.8	41.2	40.5	39.9	41.1				
Total of X, M and Net Services Export	36.6	43.8	36.7	38.8	45.8	40.3	45.7	45.3	44.7	43.9	43.3	44.6				
Private remittances	3.4	3.6	3.8	3.1	3.4	3.5	3.6	3.6	3.5	3.4	3.4	3.4				
Net Investment Income	-0.4	-0.5	-0.4	-0.9	-0.9	-0.6	-1.2	-1.1	-1.1	-1.1	-1.0	-1.1				
Current Account Balance	-1.3	-2.3	-2.8	-2.8	-4.2	-2.7	-4.8	-3.8	-3.0	-2.8	-2.5	-3.4				
FDI Net	1.3	2.1	1.4	0.4	1.2	1.3	1.4	1.4	1.3	1.1	1.0	1.3				
FDI Inward	2.8	4.2	2.4	1.4	1.8	2.5	2.0	1.9	1.8	1.7	1.6	1.8				
FDI Outward	1.5	2.1	1.0	0.9	0.6	1.2	0.5	0.5	0.5	0.5	0.6	0.5				
Portfolio equity	2.4	-1.7	2.4	1.8	0.9	1.2	1.3	1.2	0.9	0.6	0.5	0.9				
Loans	3.4	0.5	1.0	1.6	1.0	1.5	1.3	1.3	1.1	0.9	0.8	1.1				
Banking	0.9	-0.4	0.1	0.3	0.9	0.4	1.3	1.1	0.9	0.7	0.5	0.9				
Other	0.7	0.5	-1.0	-0.6	-0.4	-0.1	-0.3	-0.2	-0.2	-0.1	-0.1	-0.2				
Capital Account Balance	8.7	1.0	3.9	3.6	3.7	4.2	4.9	4.8	3.9	3.2	2.7	3.9				

GDP at about 25 per cent of GDP during the Plan period. The merchandise trade deficit would therefore average a little over 9 per cent of GDP.

2.59. The net positive balance on trade in services is expected to increase only slightly to 3.5 per cent of GDP from 3.2 per cent in the Eleventh Plan. Private remittances averaged 3.1 per cent of GDP in the Tenth Plan, which increased to 3.5 per cent in the Eleventh Plan. Net investment income was (-)0.4 per cent in the Tenth Plan and (-)0.6 per cent in the Eleventh Plan, but as pointed out previously, has gone up to nearly (-)0.9 per cent in 2010–11 and 2011–12. In the Twelfth Plan, private remittances are expected to average an almost unchanged level of 3.4 per cent of GDP, while net investment income is expected to grow to a slightly larger negative number of (-)1.1 per cent.

2.60. The resultant current account deficit emerging from these projections average 3.4 per cent of GDP for the Twelfth Plan period as a whole. It is projected to be higher in the first two years and moderate slightly thereafter towards the end of the period. The projected current account deficit is higher than the normal comfort level, according to which it should be restricted to less than 2.5 per cent of GDP. This would reduce the risk of non-availability of external financing conditions for both domestic and overseas investors. Having a higher than comfort level of current account deficit, for at least the first two years, has implications for the way the capital account is managed to facilitate capital inflows.

Prospects for Mobilising External Finance

2.61. The capital inflow required to finance a projected average current account deficit of 3.4 per cent of GDP can take several forms including FDI, Foreign Institutional Investor (FII) flows, and various types of debt including short-term trade credit and official external assistance. Our objective should be to finance the deficit as much as possible through stable foreign inflows. This means emphasising FDI and minimising short-term debt in particular. The pattern of capital flows in the Eleventh Plan period and projection for the Twelfth Plan are summarised in Table 2.3.

2.62. In the Eleventh Plan, inflows by way of FDI ranged between 1.4 and 2.8 per cent of GDP, averaging 2.2 per cent of GDP. In the same period, there were also outflows as Indian companies acquired overseas assets and this ranged between 1.0 and 1.5 per cent in various years, being much higher in 2007–08 and 2008–09, averaging 1.2 per cent for the Eleventh Plan period as a whole. In 2011–12, out-bound FDI flows were much lower at 0.6 per cent of GDP.

2.63. Portfolio equity inflows fluctuated to a greater extent, from (-)1.7–2.4 per cent of GDP in the Eleventh Plan period, and averaged 1.3 per cent of GDP for the Plan period as a whole. It is worth noting that they were lowest at (-)1.7 per cent in 2008–09, the year of the financial crisis but otherwise they were positive and sizeable in every year. This suggests that while FII flows are more volatile, than FDI, they are not the same as ‘hot money’.

2.64. Loan capital inflows occur mostly through external commercial borrowings (ECBs) of Indian private and public sector companies and non-resident bank deposits. Short-term trade loans as well as FII investment in Indian government and corporate debt securities are also significant. Net inbound official assistance now forms a relatively small component of capital inflows. These sources taken together accounted for 1.5 per cent of GDP in the course of the Eleventh Plan. Net inflow through the banking channels was just 0.4 per cent of GDP during the course of the Eleventh Plan.

2.65. Total capital inflows from all sources thus averaged 4.2 per cent of GDP in the Eleventh Plan period. This volume of capital inflows was significantly higher than the financing required for the 2.7 per cent current account deficit, and the excess was accumulated in the foreign currency assets (including special drawing rights [SDRs] and gold) of the Reserve Bank of India (RBI).

2.66. The baseline projections made for the Twelfth Plan, as presented in Table 2.4, are based on conservative assumptions, keeping in mind the current uncertain conditions in the global economic

environment. This uncertainty is bound to lead to risk aversion, and also conservative assessment of the relative attractiveness of India as a destination for global capital in present circumstances. On this basis, the inbound FDI flows are projected to be slightly less than that in the Eleventh Plan, to average 1.8 per cent of GDP. It is likely that outbound FDI will also be lower than in the Eleventh Plan level, and is projected to be 0.5 per cent of GDP, and as a result the net inflow of FDI will remain almost unchanged at 1.3 per cent of GDP.

2.67. Portfolio equity inflows are volatile and given the global conditions that have been prevalent for some time, our projections assume that the total of such inflows would be only around 0.9 per cent of GDP, lower than the 1.2 per cent recorded in the Eleventh Plan. This assumption is almost certainly unduly cautious. Early resolution of some of the uncertainties that have arisen in the mind of foreign investors in India, combined with a visible resumption of growth momentum in 2013–14, could easily lead to stronger inflows in the remaining years. An average of over 1 per cent of GDP over the Plan period is not at all infeasible.

2.68. Loan and banking capital inflows (including NRI deposits), net of repayments, taken together are expected to be 1.1 per cent of GDP, lower than that the 1.3 per cent recorded in the Eleventh Plan. Taking all the flows together, the total of capital inflows in the Twelfth Plan is expected to be 3.9 per cent of GDP, lower than the 4.2 per cent experienced in the Eleventh Plan, but about adequate to finance the current account deficit of 3.4 per cent. This only reinforces the lack of slack on the external payments side.

2.69. To summarise, the capital inflow, projection on which the Twelfth Plan is based is deliberately conservative. It is not at all unreasonable to conclude that if growth proceeds as planned in Scenario 1, and policies towards foreign investment are seen to be positive, is encouraged, we could expect additional flows of at least 0.5 per cent of GDP. This would allow us some build up foreign exchange reserves in line with rising levels of trade and external liabilities. However, to achieve this outcome, it is imperative to improve investment conditions at home and to

encourage more capital inflows, while at the same time work on ways to contain the current account deficit.

The Importance of Fiscal Consolidation

2.70. Since the Twelfth Plan strategy involves mobilising external finance to meet a current account deficit, which is likely to significantly exceed the comfort level of 2.5 per cent of GDP, it is important to emphasise that international analysts focus on the fiscal situation as a key indicator of macroeconomic balance. India's domestic macroeconomic balances must be seen to inspire confidence in the international market. The key indicator in this context is the fiscal deficit. Table 2.5 presents the fiscal position of both the Centre and the States.

2.71. The deficit of the Centre has risen from 2.5 per cent of GDP in the first year of the Eleventh Plan to 5.9 per cent in the last year, with the Plan average at 5.2 per cent. Taking the fiscal deficit of the Centre and the States together, it has increased from just under 4 per cent of GDP in 2007–08 to a little over 8 per cent, a deterioration of 4 percentage points.

2.72. The initial increase in the fiscal deficit in 2007–08 seemed justified on the grounds that all countries were embarking on a fiscal expansion as a countercyclical move. However, India's fiscal deficit expansion continued even after the crisis, and although a reversal was attempted in 2011–12, the projected fiscal deficit target of 5.1 per cent of GDP in 2011–12 was considerably overshoot. The increase in the Centre's

TABLE 2.5
Fiscal Position of Centre and States and Subsidy Quanta

	Gross Fiscal Deficit % GDP		
	Centre	States	Total
2007–08	2.54	1.49	3.97
2008–09	5.99	2.26	8.17
2009–10	6.48	3.02	9.46
2010–11	4.87	2.15	6.99
2011–12 (LE) ^a	5.68	2.32	8.00
Total Eleventh Plan	5.29	2.25	7.54

Note: ^aLE: The figures for 2011–12 are provisional actual for Centre and RE for States.

fiscal deficit after 2008–09 has been shaped by a combination of two factors. The first is the slowing down of growth that has adversely impacted tax collections along with fiscal concessions in the form of lower excise duty and service tax rates given by the government at the time of the global crisis. The second factor has been the build-up in subsidies. The subsidy burden is a matter of particular concern because a substantial part of the subsidy on petroleum products is not reflected in the budget of the Centre as indeed the real losses of the power sector are not reflected in the budgets of the State Governments.

2.73. Table 2.6 presents a comparison between India's fiscal deficit and debt to GDP ratio with that of other major industrialised and developing countries. India's fiscal deficit, though not as high as some industrialised countries, is much higher than the other emerging markets. India's debt to GDP ratio is also lower than that of many industrialised countries but is higher than that of emerging market countries.

TABLE 2.6
General Government Balance and Government Debt
as Per Cent of GDP

	General Government	General Government
	Balance % of GDP	Debt % of GDP
	2011	2011
All Advanced	-7.2	110.3
Euro Area	-4.1	88.1
Spain	-8.5	68.5
Germany	-1.0	81.5
UK	-8.7	82.5
France	-5.3	86.3
US	-9.6	102.9
Ireland	-9.9	105.0
Portugal	-4.0	106.8
Italy	-3.9	120.1
Japan	-10.1	229.8
All Emerging	-2.2	37.0
Brazil	-2.6	66.2
Russia	1.6	9.6
India	-8.7	68.1
China	-1.2	25.8

Source: *Fiscal Monitor* (IMF, April 2012).

To some extent, the extent of fiscal stress in India is less than it seems because India's likely growth rate is much higher than expected by other countries except China. However, considering that the fiscal position had improved in the years before 2008, and there is need to release resources for investment in infrastructure, there can be no doubt that the Twelfth Plan must aim at a credible fiscal consolidation path that would bring the central government's fiscal deficit back to tolerable levels.

2.74. The compression in the deficit does not have to be brought about immediately. The Finance Ministry's original fiscal consolidation path envisaged reducing the fiscal deficit from the targeted 5.1 per cent of GDP in 2011–12 to 3 per cent of GDP by 2014–15, that is, an adjustment of a little over 0.6 percentage points per year. The end point envisaged may no longer be feasible in present circumstances, but it should be possible to get to 3 per cent of GDP by the end of the Plan period. As pointed out in Chapter 3, this will require a substantial increase in tax revenues, and also a reduction in subsidies as a percentage of GDP.

2.75. The ratio of Central Government revenues to GDP declined by over 2 percentage points of GDP over the Eleventh Plan period. The increase in tax revenues needed to accelerate growth, therefore, requires the tax revenue to GDP ratio to rise by the same percentage points, taking it a little above the level that prevailed in 2007–08. This should not be onerous and can be achieved primarily through efforts to improve tax administration. The implementation of Good and Services Tax (GST) is the most promising prospect in this regard. It will not only modernise the indirect tax system, greatly increasing efficiency and the ease of doing business, but also that will increase the revenues of both the Centre and the States.

2.76. As far as subsidies are concerned, it requires a reduction in subsidies from about 2.4 per cent of GDP in 2011–12 to around 1.5 per cent of GDP in the terminal year of the Twelfth Plan. It is important to emphasise that subsidies are not being abolished, but only reduced as a percentage of GDP in order to accommodate Plan expenditure which is now largely

directed at inclusiveness promoting schemes, and can be better targeted than most of the existing subsidies.

2.77. The consequences of not achieving fiscal consolidation need to be carefully considered. It is important to avoid complacency that the concern with fiscal consolidation is a purely technical concern, which can be ignored if the corrective steps needed are politically difficult. It needs to be kept in mind that global perceptions about our macroeconomic stability are critical for maintaining access to capital flows and, as pointed out above, the fiscal deficit is a performance parameter of critical importance. Failure to take credible action towards fiscal consolidation risks an erosion of confidence leading to lower capital inflows and greater exchange rate depreciation, which will either force large adjustments in petroleum prices, or would lead to a further worsening of the fiscal deficit.

EFFICIENT FINANCIAL INTERMEDIATION

2.78. While availability of savings in the aggregate is an important part of macroeconomic balance, it is also important to have an efficient financial system that can channel savings to the most productive uses, and also ensure inclusiveness. The past two decades have seen far-reaching change in the character and structure of the country's banking system and the capital markets. These changes have addressed the management of credit risk, provisioning against delinquent loans and a greater focus on fee-based income. The interest rate regime that used to be highly regulated was systematically replaced by a commercially determined framework that helped price-in credit quality, duration and diversification of risk. The kind of loan products available and the servicing of these for the commercial sector have also become more efficient. Retail banking, that is, personal loans for buying homes and other durable assets, and payment and settlement facilities, have become an important and rapidly growing component of banking. Lending to small borrowers typified by the self-help group (SHG) and microfinance has come some distance towards making financial inclusion meaningful.

2.79. These changes have also changed the behaviour of corporate borrowers. In many ways, financial

risk was not meaningful in the years before 1991. It changed subsequently, and with it the incentives to maintain a clean credit record and a lower leverage. Dismantling of the production licensing system, lower import tariffs and the end of quantitative restrictions on imports made competition a reality in India, that is, both domestic competition and competition vis-à-vis the global producers. Finally, the decline in the ownership functions of government and quasi-governmental agencies, and the enhanced role of capital markets in raising finance has given new importance to the interests of shareholders, especially minority shareholders. Associated with this is the challenge of corporate control, which now has to face up to proactive mergers, acquisition and sale.

2.80. The combination of all of these developments was in full play between 1997 and 2003. The large-scale expansion by Indian corporates in the immediate follow-up of the economic liberalisation was subject to some weaknesses. As these assets came into production, commodity prices worldwide came under pressure, first on account of low-priced supply from the former USSR, and later on account of the Asian Currency Crisis. For the first time, starting 1997 there were large-scale corporate defaults in India. This led to a round of restructuring, with assets being sold and corporate ownership changing hands. Once the process was complete, the corporate manufacturing sector came out well-equipped to deal with business and financial risk, challenges to corporate control, and became more competitive globally. The Information Technology Sector evolved post-liberalisation and has focused on export business, with funding secured mostly from equity. It has, therefore, developed in an entirely different environment than did the manufacturing sector, and was therefore always globally competitive, receptive to new ideas, with very little leverage on its balance sheet.

2.81. A large number of today's manufacturing units (and some service sector ones too) originally began as small scale industries (SSI), and have grown into much larger establishments, including many in engineering, chemicals, pharmaceuticals and textiles. In many ways, the emergence of a modern corporate establishment in India gained from the horizontal expansion of SSI units in years past. Small and

medium scale enterprises (SMEs)—which do exceed even the current definitions of SSI by a wide margin—will nevertheless be a continuing source of entrepreneurial talent and a source of great strength for the Indian economy in the years to come.

Banking and Finance

2.82. Although the financial sector in India has grown fairly rapidly in recent years, in terms of the conventional metrics of financial deepening—such as a ratio of total financial claims or bank loans to GDP—India appears to be considerably behind other emerging markets. It is not entirely certain whether the data can be interpreted thus, and whether we should necessarily follow the contours of bigger the better. Capital, unlike labour, is perpetually recycled, and the shorter the cycle, the more efficient is the use of such capital. The loan to GDP ratio, which is used as a measure of the role of banking, reflects end balance sheet totals, and does not tell us anything about the extent of turnover during the year.

2.83. However, this is not to say that there are no challenges facing the development of the Indian financial sector. Possibly, the most troubling in the present context is the manner in which gold has resurfaced as a vehicle of choice for households to invest their savings in. Gold and land were the only vehicles of investment in the past. Since Independence, we have striven to encourage not just thrift, but the confidence of the Indian citizen in financial products so that their savings become available for productive use by the rest of the economy. That over six decades later, gold would resurface to such an important extent as a preferred mode of holding savings, speaks of the serious deficiencies in the distribution and perhaps regulatory structure of our financial framework that channels household savings.

2.84. This is closely related to the larger issue of instruments of long-term savings—life insurance, pensions, provident funds and so on. As both personal disposable incomes and life expectancy increases, the need for perceived safe instruments that offer a reasonable real return has, and will continue to play an increasingly important role in the financial life of the nation and its citizens. The

development of this industry has to be seen in an appropriately longer time frame, inherent financial sustainability and the quality of assurance that it gives investors with regard to their concerns. The government has been considering steps to increase the scale of FDI permitted in the insurance sector but a lack of political consensus has held back change.

2.85. The need for long-term savings products is the mirror image of the other important need—that of long-term finance for long gestation products, namely physical infrastructure. Without the first, the latter becomes hard. Commercial banks mostly hold short-term liabilities and their assets ought to reflect this duration too. However, in the absence of adequate sources of long-term finance, much of infrastructure lending has been coming from banks. A secondary market for bank loans through conversion to securities offers an exit to banks without excessively stretching their asset–liability mismatch. That is an important objective of the policy to promote infrastructure debt funds, which is now close to being in place.

2.86. The secondary market for corporate bonds has yet to take off in a significant manner, especially in the medium to long term. This has been a matter long identified as a priority and several regulatory issues have since been resolved. Possibly the non-development of ancillary markets or the continued excess of supply of gilts is preventing this market from taking off. The market for infrastructure debt generically belongs to the corporate bond market and without movement on the latter, movement in the former is not likely. In the financial sector, deep markets reduce the market (duration, illiquidity and so on) risk, and thus in the final analysis, total risks, which eventually lower the cost of capital to the borrower. For several independent and interrelated reasons, in the Twelfth Plan, special efforts must be made to ensure that the corporate bond market takes off.

2.87. There is also an issue of access. Small businesses find it hard to raise finance, and poorer households find it hard to access the organised savings and credit industry. These are not problems of India alone or for that matter of developing countries only. Even

in developed economies these challenges are in evidence. In some contrast to most of the world, Indian banks actually have much greater exposure to small credits and experience in dealing with such exposure. This has arisen from the mandates with regard to lending to the farm sector and to SSI.

2.88. The banking system, with its larger overheads, is perhaps not best suited to deal with small credits. This is where SHGs and similar collective guarantee credit schemes have a big role to play. Microfinance institutions are another vehicle. There have been some unfortunate developments in the case of microfinance, but we must be alive to the danger of throwing the baby out with the bathwater. The Microfinance Regulation Act which has been introduced in Parliament will establish a regulatory framework which would allay suspicions and allow the industry to develop unhindered with due regulatory oversight. We do need other kinds of mezzanine financial agencies—SHG, microfinance, cooperative—which permit the banks an easier way to fund the capital needs of small creditors.

2.89. The well-intentioned Know Your Customer (KYC) requirements have made it even harder for the poor to enter our banks. This is not acceptable. The Aadhar number must become a passport for ordinary people to be able to use the savings and payments facilities of our banking system, or for that matter, all other regulated savings products—mutual funds, insurance and so on.

2.90. The financing of small businesses is an intrinsic challenge because of heightened perception of credit risks. The system of refinancing through government agencies like SIDBI, in conjunction with the use of credit information databases, offers some solutions. Raising the cost to wilful defaulters is intrinsic to combat moral hazard that may creep in from well-intentioned official compassion. Otherwise the cost to the competent small businesspersons from the indiscipline of their competitors is debilitating.

2.91. However, a large part of the problem lies with the inadequacy of equity in the sector. To increase access to equity—especially for small businesses—venture capital, private equity finance and similar

agencies have been encouraged. However, notwithstanding the sharp increase in the extent of this kind of activity, only the surface has been scratched. Regulatory encouragement to the providers of equity to small business is therefore essential.

Venture Capital

2.92. One of the most important gaps in our existing financial structure is the lack of a sufficiently large venture capital and angel investor community, who play a very important role in financing start-ups, especially in areas where technology is the key to success and risk capital is needed. To explore ways of filling this gap, Planning Commission had constituted a Committee on Angel Investment and Early Stage Venture Capital under the Chairmanship of Shri Sunil Mitra, former Finance Secretary. The committee included members from traditional financing bodies, venture/PE capital, consulting firms and National Association of Software and Services Companies (NASSCOM). The report of the committee is available at the Planning Commission website under the link 'reports'. The committee has made a number of recommendations that would help to create a strong ecosystem for innovation and early stage entrepreneurship to flourish. The recommendations include tax-related incentives and various relaxations on the regulatory side that would enable banks and insurance companies to be a little more active in this area. It also makes recommendations for setting up, technology parks and incubators of various types through PPP.

THE EXTERNAL ENVIRONMENT

2.93. Macroeconomic balance in an open economy is powerfully affected by the external environment. This is particularly relevant at the start of the Twelfth Plan because the Indian economy is now much more globally integrated and the global economy is experiencing serious short term difficulties in the midst of some fundamental longer term changes.

2.94. As shown in Table 2.6 the rate at which the world economy expanded did not change much in the decade of the 1990s vis-à-vis the 1980s. However, in the period after 2000 and just before the global crisis broke out, the average annual rate of increase in world output increased by 1.2 percentage

points: This increase in global growth, in the period 2000–07 reflected an interesting asymmetry. The advanced economies slowed marginally from 2.7 per cent in the 1990s to an average growth of 2.6 per cent per year in 2000–07. However, the developing world growth accelerated sharply from 3.6 per cent in the 1990s to 6.5 per cent per year. Although the bulk of the growth occurred in Asia alone, the rest of the developing world in Africa and Latin America also benefited. This period represents the extension of economic opportunity to the world as a whole, and almost every country raised itself up to seize these opportunities. This favourable period come to an end in 2008.

2.95. Between 2008 and 2011, the US and the Eurozone economies have virtually stagnated. While the US economy is picking up, the recovery is weaker than what was expected, and is certainly disproportionate to the size of the fiscal and monetary stimulus that was used. The problems inherent in the European Monetary Union, and fiscally overweight governments, were prised open by the crisis. Though economic conditions seem to have stabilised for the moment, it is clear that it will take several years for the Eurozone economy to return to health. The trends in global growth are shown in Table 2.7.

TABLE 2.7
Trends in Global GDP Growth

GDP Growth (Constant Prices)	1980s	1990s	2000– 2007	2008– 2011
World	3.2	3.0	4.2	2.8
Advanced economies	3.1	2.7	2.6	0.3
Emerging and developing economies	3.5	3.6	6.5	5.6
Developing Asia	6.7	7.2	8.4	8.1
India	5.4	5.6	7.1	7.7
Brazil	3.0	1.7	3.5	3.8
China	9.8	10.0	10.5	9.6
Russia	–	–	7.2	1.5

Source: WEO database (IMF, October 2012).

2.96. A positive feature of the global scene is that many developing economies, and a handful of strong developed economies, have developed an autonomous momentum of their own. However, they

are obviously not immune to what happens in the United States and Eurozone—on account of trade effects, the likely turbulence in the world’s financial markets and the effect of all this on business confidence. It is therefore prudent to look at the general global economic outlook in terms of different time segments—the short term (up to two years), then the medium to longer term (3–15 years).

The Short-Term Prospects

2.97. The IMF World Economic Outlook of October 2012, continues to emphasise the downside risks that can emerge, primarily from the Eurozone. It is our view that while there continues to be serious problems in the developed world and that these will persist, the downside risks have reduced significantly compared to 2011. The manner in which matters have been handled in Europe in 2012 reflects the learning from the difficulties of dealing in an atmosphere of excessive public scrutiny and unduly high expectations. Issues have crystallised to a much greater extent, and notwithstanding the change in political leadership in France, the direction of Franco-German cooperative leadership does not appear to have shifted significantly. The European Central Bank (ECB) has provided large amount of finance to the banking system through the Longer-Term Refinancing Operations (LTROs) and together with the IMF appears to have constructed a ‘firewall’ in excess of \$1 trillion. The explicit determination to intervene on such a large scale is indeed important. This offsets the potential risks that emanate from de-leveraging of an estimated \$2.6 trillion mostly by European banks. Many adaptive changes that limit the damage can reasonably be expected to transpire. The Fiscal Deficits and Public Debt, in general, remain high in the developed countries, as would be evident from Table 2.6.

2.98. The Eurozone member countries seem to recognise the need for a coordinated move towards a fiscal union though it is unclear whether, in the final analysis, this fiscal union will indeed materialise. However, they are most likely to tread this path for the next few years, in which period the two other large Eurozone economies—Italy and Spain—are expected to stabilise. It is possible that Greece will have to leave the monetary union, but it will not

imperil the Eurozone as long as they can stabilise Italy and Spain.

2.99. In the United States, the recovery has been weaker than projected. However, there are clear signs that the economy is on the mend, and the IMF has raised its growth estimate for 2012 to 2.3 per cent. Going forward, conditions are likely to stabilise in 2013. However, the United States will continue to have the problem of adopting an internally consistent and non-disruptive path for fiscal consolidation, and for rolling back the enormously extended monetary stance.

2.100. It is possible that the unprecedented loose monetary stance in the United States and in the European Union may continue for some years, and this, may create problems for others, as indeed has been the case with commodity prices. However, the main concern is shocks—not persistent weaknesses in these economies. The shocks, are not likely to happen because: (i) In the Eurozone, the direction that member countries, under the leadership of Germany and France, have taken, are expressly designed to keep things on hold for the next few years; (ii) the large amount of liquidity that has been created by the US Federal Reserve, and more recently by the ECB, will prevent any recurrence of the financial crisis. However, conditions in the European Union will continue to negatively impact the European bank financing, which has been significant for the Indian private sector infrastructure projects in the past.

2.101. It is difficult to assess how this environment will affect us. The slower growth in the United States and in the European Union will undoubtedly have an adverse impact on expansion of our markets for exports—of both goods and services—to these countries. In the short run, therefore, we are likely to face continuing pressure on the balance of payments in the form of high trade deficits and higher than comfortable current account deficit estimated at about 3.4 per cent of GDP on average.

The Medium and Longer Term

2.102. The medium- and longer-term perspective is better. It is reasonable to assume that the economies of the United States and Eurozone will recover

over a period of time and disastrous outcomes, that is, shocks, are unlikely to happen, because the major players have too much to lose and a lot of preparation has gone into creating the ground to expressly avoid such an event. However, there will be periodical upheavals in the financial markets because certain things will go wrong, and some unexpected developments will happen. While these will be managed and contained, it is reasonable to expect sporadic volatility continuing in financial markets and investment sentiments, on account of bad news that will come out from time to time from the advanced economies.

2.103. China, India and other emerging markets in Asia and also in Africa are posed to grow more rapidly. The twenty-first Century has been referred to as the 'Asian Century' and it could well be, but it is imperative to underscore that this is not pre-ordained. It will depend on whether the emerging market economies of Asia are able to make the effort to overcome obstacles, to where they have got to, by dint of their own efforts. The opportunities exist, but it is always possible to fail to make the best of opportunity. It is vitally important that we show the resolve not to miss the opportunity by taking the outcome for granted.

2.104. It is relevant in this context, to recall what happened at the end of the Multifibre Agreement (MFA) in 2004. Before the end of MFA there was a belief in informed policy circles that India and China would reap the whole of the benefit and that the least developed economies may gain little. In fact, China was the principal beneficiary: Share of exports of apparel was 18.3 per cent in 2000 and this doubled to 36.9 per cent in 2010. The less-developed economies such as Bangladesh, Vietnam and Cambodia gained significantly¹ in line with what was desired by policy. However, India's share increased from 3.0 per cent in 2000 to only 3.2 per cent in 2010. In other words, opportunities do a rise, but countries can fail to seize them.

Changing Global Economic Structure

2.105. India, China and other Asian economies, are poised to reverse the huge declines in their relative share in world economic output. Between 1500 and 1700, India and China had each accounted for

about one quarter of world economic output, while the share of Asia as a whole was over 60 per cent.² At the end of the colonial era in 1950, the shares in world output of India, China and the rest of Asia (excluding Japan) were 5.1 per cent, 4.8 per cent and 3.6 per cent respectively.³ Between 1950 and 1980, there was not much that changed in output shares—except of course for the post-war boom in Japan, and later rapid export led growth in Korea, Hong Kong, Taiwan and Singapore. In the two decades between 1980 and 2000, while East and South East Asian economies expanded at a rapid pace and successfully improved their respective shares of world economic activity, the developed world as a whole, also gained ground, with the share of world output originating in the advanced economies increased from 73 per cent to 80 per cent. This was largely at the expense of the former Soviet bloc. There was, however, a sharp pick up in the rate of growth in the advanced economies of the West flowing for the most part from the deep changes in economic policies adopted by these economies in the 1980s which reinvigorated them. There were also small declines in the relative shares of Latin America, Middle East and sub-Saharan Africa in addition to the substantial decline in the former Soviet bloc.

2.106. Post-2000, it has been an altogether different story. The share of the advanced economies fell from 80 per cent in 2000 to 64 per cent in 2011, while that of the developing world increased from 20 to 36 per cent. Not only is this a development of enormous moment in the economic polarity of the world, but there is every reason to believe that it will progress further. Some projections envisage an equally balanced split between the advanced and developing economies around 2025–30.

2.107. The underlying trend of shifting economic polarity will continue. As mentioned previously, the share of developed economies in world GDP is likely to fall further towards 50 per cent by 2025–30. China which has been the biggest gainer in terms of altered share of world GDP is likely to see her share of world output rise to about 15 per cent by 2020 and to around 18 per cent by around 2025. This would bring her close to the projected GDP of the USA.

2.108. India's share of world GDP was 1.5 per cent in 2000, which increased to 2.4 per cent in 2011. By 2017, we may be at 3.5 per cent (\$3.3 trillion), 4.2–4.5 per cent (\$4.5–5.0 trillion) by 2020 and 5.5–6.0 per cent (\$8 trillion) by 2025. This is based on somewhat modest assumptions. It is self-evident that projections made over this kind of time horizon are likely to come up short. However, in the absence of any cataclysmic event, the broad contour of future economic geography is most likely to approximate this.

2.109. It is important to emphasise that even if developing countries are able to harvest their economic potential, they will still not become rich economies in the next 10 or even 20 years. China, for instance, has made the greatest advance in terms of income and output experiencing 34 years of rapid economic growth (average annual rate of 10 per cent) that has propelled her from being the sixth-largest in 2000 to being the second largest economy in the world. Nevertheless, China in 2012 had a per capita income of \$6,000, much ahead of India at \$1,600 but still far behind middle-income economies in Eastern Europe and Latin America. Even if she is able to sustain a rapid pace of expansion, by 2025 China will still at best be able to secure a position in the highest 60–65 economies, but yet be lower in per capita income compared to many economies in East Europe, Latin America and Asia. India will at best be a middle-income country, but with the important difference that problems of poverty as currently defined will be well behind us.

Change in the Character of Capital Flows

2.110. The structure of the international capital market has changed considerably and this has implications for India's strategy in the years ahead. The developed world, particularly the USA, has run persistent current account deficits, which have been matched by persistent current account surpluses in the oil exporting nations, Japan, China and several other East and South East Asian economies.

2.111. The aggregate of the absolute values of current account deficits and surpluses amounted to 2.2 per cent of world GDP in 1990, which then went on

to a peak value of 5.8 per cent in 2006; from where it declined to 4.1 per cent in 2010. In absolute terms the sum of the global aggregate of current account deficits and surpluses has increased from \$1.2 trillion in 2000 to \$2.8 trillion in 2006 and 2007 and now stands at \$2.9 trillion in 2011.⁴ This represents the sum of the net flows between surplus and deficit national economies. However, the volume of gross flows is much greater than represented by these net flows. Further, cross-border capital flows over the years have accumulated and the stock of cross-border capital has been estimated to be as large as \$100 trillion today.⁵

2.112. One of the interesting developments in international capital markets is the emergence of a much wider array of instruments, both debt and non-debt. Bond issuance and risk capital in the form of equity, as also some kinds of hybrid instruments have come to form a very significant component of capital flows. Further, the nature and direction of these capital flows no longer follow the traditional North–South contours and are also not unidirectional. Capital flows from the advanced to the developing economies and also from developing to advanced economy and indeed amongst the developing economies themselves.

2.113. In 1990, as much as 95 per cent of the FDI outflows originated in advanced economies. In 2011 this share had fallen to 73 per cent, even as the total value of flows rose from \$242 billion to \$1.7 trillion. The volume of FDI outflows peaked at \$2.2 trillion or almost 4 per cent of world GDP in 2007, the year before the global crisis. On the destination side, the share of developing economies saw a rapid increase from 17 per cent in 1990 to 45 per cent in 2011, of which the inflow into Asia increased over the two decades from 11 to 28 per cent. The large increase in the proportion of total FDI originating in the developing world from 4.5 per cent in 1990 to 23 per cent in 2011, translates in absolute terms to an increase from \$11 billion to \$384 billion, of which \$280 billion was from developing Asia.⁶ It must be noted that while there was understandably a sizeable decline in the FDI flow from advanced economies, after 2008 that from developing Asia continued to rise without interruption.

2.114. The regional difference in current account balances is a manifestation of major differences in the national savings rates in the respective countries. It is quite possible that there will be some mitigation in the magnitude of these differentials. However, it is rather likely that in the foreseeable future, the magnitude of incremental savings arising in Asia and other developing economies will be proportionately larger than that which may reasonably be expected to arise in the advanced economies. To a great extent Asia has come to be a major locus of capital flows with several centres acquiring considerable significance as the focus of financial intermediation.

2.115. The shift in the polarity and geography of both capital flows and of their intermediation will be as powerful and notable as the shift in the geography of production and international trade. The dominance of conventional centres in New York, London and Frankfurt will yield to a growing role for centres in the developing world—most particularly in Asia. Hong Kong and Singapore have already acquired increasingly important roles as centres of financial mobilisation. Asia is simultaneously a major source of savings as also of demand for investment financing. Skills have gradually become internalised, and regulation and market structures seem to be supportive of these two island centres to expand very much more. It is not certain to what extent mainland centres like Shanghai, or for that matter Mumbai, will be able to keep pace. In any event a financial network within Asia is already there and will take on a much greater role. Increasingly larger increments of the stock of savings of the developed economies are entering into this network, and this process too will continue and deepen.

2.116. The changing structure of global capital markets and India's need for financing capital flows raises the issue of what should be India's policy towards capital flows. India has followed a policy of calibrated opening to capital inflows, which has served the country well. FDI is regarded as the most stable form of capital inflow and one that brings with it technology, productivity enhancement and international market linkage. Portfolio flows are more volatile than FDI but past experience shows that they are much less so than commonly feared. The real

area of vulnerability is debt denominated in foreign exchange, especially short-term debt. India's policy has reflected this hierarchical preference with the greatest openness to FDI and the strongest control over short-term debt. This basic policy of calibrated opening up of the capital account should continue.

2.117. Looking ahead, it needs to be kept in mind that as Indian industry globalises, and acquires assets abroad; Indian firms will need much more flexibility in capital transactions including especially access to risk management instruments. Unwillingness to allow such instruments to be developed in domestic market only pushes this activity abroad, and in the longer run this weakens India's ability to serve as a potential centre for financial transaction. There is a case for comprehensively reviewing the present policy and laying out a clearer road map of calibrated liberalisation over the Twelfth Plan period and beyond.

Changes in Trade Patterns

2.118. The large ongoing changes in the pattern of economic activity described above have expectedly been mirrored in the changes in the pattern of trade in merchandise and services. In the decades following the end of colonial rule, the share of developing economies in world merchandise exports fell from 34 per cent in 1948 to 24 per cent in 1973, as exports of manufactures from the developed world increased rapidly. Thereafter, as many developing countries turned into increasingly important exporters of manufactured goods, their shares in aggregate merchandise exports recovered to 33 per cent in 2003 and further to 44 per cent by 2010.⁷

2.119. Most dramatic has been the increase in the share of global merchandise imports accounted for by Asia (excluding Japan) which has risen from 17 to 25 per cent between 1993 and 2010. If we take Asia (excluding Japan), Latin America, Africa and the Middle East together, we will find that their share of global merchandise imports increased from 28 to 38 per cent between 1993 and 2010. The share of the developed western economies and Japan dropped from 71 to 59 per cent in the same period. This process will only deepen further in the coming decades. The market for services—which includes

transportation, travel, financial and telecommunication, besides IT-related businesses—is actually more evenly spread out than that for merchandise, with developing economies accounting for almost half of the import market. However, even here there will be proportionately more rapid expansion in the IT-related business in the developing economies.

2.120. The other notable development in international trade is the increasing regional concentration of merchandise trade. In 2010, the second-largest regional trade was located in Asia (excluding Middle East) amounting in value to \$2.9 trillion or 63 per cent of the regional trade concentration of Europe, which amounted to \$4.7 trillion. Expectedly, the proportion of Asian origin exports to other Asian markets has increased from 47 per cent in 1999 to 53 per cent in 2011. Not only is the developing world as a whole and Asia in particular, becoming proportionately more important in international trade, but the trade within the region, and potentially with Africa and Latin America holds the promise of further expansion in future.

2.121. This has implications for our longer-term trade strategy. Although our markets in the industrialised world may not grow rapidly, other markets will expand to a greater extent and we need to be present in these markets to take the advantage.

Four Lessons

2.122. Several lessons emerge from this brief review which are relevant for developing economies as a whole:

- First, a window of opportunity exists and domestic conditions have supportive so far, and, therefore, may reasonably be expected to continue to support a rapid pace of expansion.
- Second, the initial conditions are so disparate that many decades of sustained high economic growth can bridge, but only a part of the gap.
- Third, with almost all developing economies expanding at a fast pace, even with a rapid and sustained pace, an individual country may fail to do as well as many of her comparators.
- Fourth, some kind of end state may emerge within a few decades and there is a strong probability that

this will in some sense become the new economic hierarchy. Thereafter, flexibility and opportunity may become diminished. We need to hasten to make as much use of these opportunities, while they are still open.

Strategy for Trade and Commerce

2.123. The long-term vision of the government is to make India a major player in world trade by 2020, and assume a role of leadership in the international trade organisations commensurate with India's growing economic and demographic profile. In consonance with its vision of ensuring sustained accelerated growth of exports and making India a major player of world trade, the government announces a Foreign Trade Policy (FTP) every five years. FTP is annually reviewed to incorporate changes necessary to take care of emerging economic scenarios both domestically and globally.

2.124. The underlying philosophy of India's FTP is based on seven broad principles:

1. Give a focused thrust to exports of employment-intensive industries.
2. Encourage domestic manufacturing for inputs to export industry and reduce the dependence on imports.
3. Promote technological up-gradation of exports to retain a competitive edge in global markets.
4. Persist with a strong market diversification strategy to hedge the risks against global uncertainty.
5. Encourage exports from the North-Eastern Region given its special place in India's economy.
6. Provide incentives for manufacturing of green goods recognising the imperative of building capacities for environmental sustainability.
7. Endeavour to reduce transaction cost through procedural simplification and reduction of human interface.

2.125. To boost exports, supportive measures are necessary as is adequate infrastructure. Simultaneously, concerted efforts need to be directed at creating domestic capacity in production of goods where India's import dependency is high and increasing. Given this background, the objectives on exports for the Twelfth Plan are:

- Substantial increase in exports to balance the Trade Deficit
- Enhancing the proportion of Manufacturing in the export basket (61.5 per cent at present) to realise higher value addition

These objectives entail drawing up of country and commodity specific strategies, with a medium- and long-term perspective. The products strategies are discussed in Chapter 9.

Territorial Strategy for Exports

2.126. Trade flows within the South has increased substantially. However, the share of India, though increasing rapidly, is still much lower as compared to countries like China and those in South East Asia in particular. Thus, there is substantial potential for increasing India's trade with the South and with Latin America, Africa and CIS.

2.127. During the Eleventh Plan, America and Europe continued to be important destinations of Indian exports although their combined share declined from 39.8 to 35.4 per cent. India is negotiating a Broad-based Trade and Investment Agreement (BTIA) with European Union and on its completion it would result in increase bilateral trade and flows of investment between the two trading partners. The share of Asia and ASEAN after showing steady increase have shown some decline during the last two years of Eleventh Plan and the region still accounted for more than half of India's exports during the Plan period. Exports to Africa also registered a steady increase after showing some decline in initial years of the plan.

2.128. India has been pursuing a policy of market diversification directing her export promotion efforts at Asia and ASEAN, Latin America and Africa through Focus Market initiatives and bilateral trade agreements.

Commercial Relations and Trade Agreements

2.129. While the multilateral trade negotiations progressed slowly, India pursued regional and bilateral trade negotiations with vigour. In pursuance of its 'Look East Policy', a continuous dialogue

is maintained with the ASEAN and the countries of South East Asia at summit-level engagements. Having signed the India–ASEAN Trade in Goods Agreement, negotiations on Agreements on Trade in Services and Investment continued with a view to be concluded by end 2012.

2.130. Some of the Major bilateral agreements which have been concluded in the recent past include: Comprehensive Economic Partnership Agreement (CEPA) with Republic of Korea, Comprehensive Economic Cooperation Agreement (CECA) with Malaysia, India–Thailand Free Trade Agreement, conclusion of CEPA with Japan, continuing relations with the United States, USA remains one of India’s major trade partner and India–EU BTIA Negotiations and so on; so far as, the focus areas are concerned, these are:

South Asian Association of Regional Cooperation (SAARC)

2.131. In a major initiative the Government of India (GOI) completely eliminated negative list for less developed countries (LDCs) in South Asia Free Trade Area (SAFTA) leaving only tobacco and alcohol on the list. This is expected to give a big boost to exports from SAARC LDC countries to India. India further reduced 30 per cent (264 tariff lines) of the SAFTA Sensitive list maintained by it for non-least developed countries (NLDCs) allowing the peak tariff rates to reduce to 5 per cent within three years, as per SAFTA process of tariff liberalisation. This shall reduce India’s Sensitive list for Pakistan from 878 to 614 tariff lines. Agreement on SAFTA, inter alia, prescribes a phased Tariff Liberalization Programme (TLP) according to which peak tariff rate maintained by India for all items other than those included in the sensitive list is 8 per cent which will reduce to 5 per cent with effect from 1 January 2013.

2.132. *India–Bangladesh Trade Relations:* India–Bangladesh relations intensified during the year. A Memorandum of Understanding (MoU) on establishment of border haats at Balamari-Kalaichar (Pillar No. 1,072) and Lauwaghar-Balat (Pillar No. 1,213) at Meghalaya, India–Bangladesh border was signed on 2010. The first border haat at Kalaichar

was inaugurated on 2011 and both the border haats are now operational.

2.133. *India–Nepal Trade Relations:* India and Nepal have special relations and regular consultations take place between the governments. Double Taxation Avoidance Agreement (DTAA) with Nepal was signed, which will help exporters and investors of both the countries in further improving mutual business engagements.

Focus Latin American Countries Programme

2.134. An integrated programme ‘Focus: LAC’ which was launched in November 1997 has been extended up to March 2014 in order to consolidate the gains of the previous years and significantly enhance India’s trade with the Latin America and the Caribbean (LAC) region. Latin America has been given special ‘focus’ status to diversify our trade basket and offset the inherent disadvantages for our exporters such as credit risk, higher freight cost and so on. The new FTP (2009–2014), pays special attention to LAC and 16 new markets of LAC region have been incorporated under Focus Market Scheme (FMS) bringing the total 231. Under the Market-Linked Focus Product Scheme (MLFPS), 13 markets have been identified, includes Brazil. The Preferential Trade Agreements (PTAs) with Mercosur and Chile are being expanded.

‘Focus Africa’ Programme

2.135. The ‘Focus Africa’ Programme was initially launched with focus on seven countries of Sub-Saharan African (SSA) Region, namely South Africa, Nigeria, Mauritius, Tanzania, Kenya, Ghana and Ethiopia. With a view to further widen and deepen India’s trade with Africa, the scope of this Programme was further extended to include Angola, Botswana, Ivory Coast, Madagascar, Mozambique, Senegal, Seychelles, Uganda, Zambia, Namibia and Zimbabwe, along with the six countries of North Africa, namely Egypt, Libya, Tunisia, Sudan, Morocco and Algeria. *India and Southern African Customs Union (SACU)* are also negotiating a PTA. SACU consists of a group of five countries, namely Botswana, Lesotho, Namibia, Swaziland and South Africa.

2.136. Till now, three 'India Show' events have been held in Africa. The first India Show was in South Africa in 2010, Next one was held in Addis Ababa, Ethiopia in 2011 and in the current year, 'India Show' was organised at Accra, Ghana.

2.137. India hosted the first ever *India-Africa Forum Summit* in 2008 at New Delhi. The second Africa-India Forum Summit was held at Addis Ababa from 24-25 May 2011. These Summits have been built upon the foundations of the historical relationship that exists between India and Africa, and designed a new architecture for a structured engagement, interaction and co-operation between India and Africa in the twenty-first century.

2.138. The first India-Africa Trade Ministers Meet was convened at Addis Ababa in May 2011, just ahead of the second India-Africa Forum Summit. The second meeting of the Trade Ministers from India and Africa was held on March 2012 at New Delhi, which was attended by 12 ministers from African countries. During this meeting, the Ministers launched the *India-Africa Business Council (IABC)*. The Council will suggest the way forward on enhancing economic and commercial relations between India and Africa and also identify and address issues which hinder growth of economic partnership between India and Africa.

WTO Negotiations

2.139. The Doha Round of negotiations at the World Trade Organization (WTO), which began in 2001, is still under way. The scope of the negotiations includes agriculture, market access for non-agricultural products, services trade, trade-related aspects of intellectual property rights (TRIPS), rules (covering anti-dumping and subsidies), trade facilitation and so on. The conduct, conclusion and entry into force of the outcome of the negotiations are parts of a single undertaking, that is, 'nothing is agreed until everything is agreed'.

2.140. Progress has been very slow due to wide gaps in the expectations of the members. There have been several attempts to bring the talks back on track and

to build on the results already achieved in the negotiations. There have been constant attempts in the WTO and in other forums like the G20 to resolve the impasse. During the Ministerial Conference of the WTO held in December 2011, members once again reaffirmed their belief in rules based multilateral trade and their commitment to resolve the issues in a transparent way through consensus.

2.141. In keeping with its commitment towards the legitimate interests of developing economies, LDCs and vulnerable economies, India has been working closely with various coalition groups in the WTO towards an early development-oriented conclusion of the Doha Round.

2.142. However, developed countries no longer appear interested in concluding the Round as a single undertaking. They are using the prolonged financial and economic crisis and the relatively better performance of a few developing countries to justify their demands for a change in mandate of the Doha talks and for new issues such as food security and climate change to be brought into the negotiations. Over the last several months, they have been making efforts to selectively conclude areas of the Doha negotiations in which they have a particular interest, for example trade facilitation and services.

2.143. The prolonged hiatus in the Doha Round talks is a matter of concern. It is not for want of willingness on the part of developing countries to engage, but is the result of an apparent perception among some developed countries that they will not gain much from the Round. The neglect of the Doha Round is unfortunate and jeopardises an opportunity to strengthen multilateral trade rules. Trade liberalisation will take place in any case driven by global market dynamics. Many countries, including India, have autonomously lowered tariffs and simplified border procedures. However, the multilateral trading regime treats trade as a tool of economic growth and development and not merely as a tool to serve commercial interests. The Doha Round offers a chance to strengthen this regime.

ANNEXURE 2.1

Poverty—Measures and Changes Therein

Household consumption expenditure surveys of the National Sample Survey Office (NSSO) have formed the basis of our analysis and conclusions about family consumption baskets and from that of consumption poverty. Till recently, the official estimates of poverty was based on the recommendations of the expert committee chaired by the late Professor D.T. Lakdawala which had submitted its recommendations in 1993. Over the years the findings on poverty made in line with the methodology of the Lakdawala Committee began to be criticised as being 'too low' and not in line with the general advancement of the economy.

In 2005, the Planning Commission appointed a new expert committee chaired by the late Professor Suresh Tendulkar which submitted its recommendations in late 2009. The Tendulkar Committee made several deep-rooted changes in the methodology for adjusting poverty lines to price changes and substantially revised upward the rural poverty line vis-à-vis the Lakdawala Committee, both for 1993–94 as well as for 2004–05, which was the latest large survey of the NSSO on household consumption expenditures then available.

What constitutes a 'fair' poverty line has always been a contentious issue. This primarily flows from the fact that poverty and in a broader sense deprivation is a cultural construct specific to a point in time. It is inconceivable that the sense of what constitutes poverty would remain unchanged as society becomes wealthier, incomes rise and modern amenities become widely available. Progress by its very nature inherently does and should recalibrate the very notion of what constitutes poverty and deprivation.

The recommendations of the Expert Committee chaired by the late Professor Suresh Tendulkar were adopted by the Planning Commission. Applying this methodology to the NSSO large survey of 2009–10 showed that the poverty ratio had declined by 7 percentage points for the country as a whole between 2004–05 and 2009–10. The annual rate of decline in this period was double that for previous periods.

This finding was criticised by some for using a poverty line that was variously described as being too 'low'. Some points need to be made in this regard. First, what we have is the NSSO data which is collected on the basis of household surveys that seek to assess family expenditure budgets. Since households are of different sizes, the NSSO normalises the data by expressing their finding in per capita terms. These neither relate to single member households nor to family income.

Second, the finding that poverty has declined much faster in the period 2004–05 to 2009–10 is valid irrespective of where we choose to draw the poverty line. If we use the Tendulkar poverty line (PL), the decline in the period is found to be 7.3 percentage points. If we use a poverty line 30 per cent higher, the decline would be 7.8 percentage points. Likewise at 50 per cent higher the decline is 6.5 percentage points.

In fact, the decline in the poverty ratio for different levels higher and lower than the Tendulkar PL shows that the decline not only occurs at every level higher or lower than the Tendulkar PL, but that the decline is noticeably faster at lower levels of PL, particularly in rural areas, namely within the range of ± 30 per cent of the Tendulkar PL, that is amongst the lower end of the consumption distribution (Figure 2.4).

At the left hand tail of the distribution it appears that the pace of reduction is lower both for rural and urban areas. However, this is because the reduction is being measured as the annualised rate of decline in percentage points of poverty. If the initial poverty ratio is low, then the decline in terms of percentage points cannot be other than small. To see what the pace of decline at the lowest income groups, the rate of decline has been normalised by expressing it in terms of a ratio of the initial percentage of persons falling under that PL or expenditure class. This is depicted at Figure 2.5.

From the charts in Figure 2.5, it is clear that the rate of decline has if anything been faster amongst the lowest income groups in rural areas and this phenomenon is even more marked in the urban areas. The positive distributive implications of the reduction of poverty at the overall level, and even more so the greater impact on the relatively poor at the lower end of the income distribution, is a matter of satisfaction.

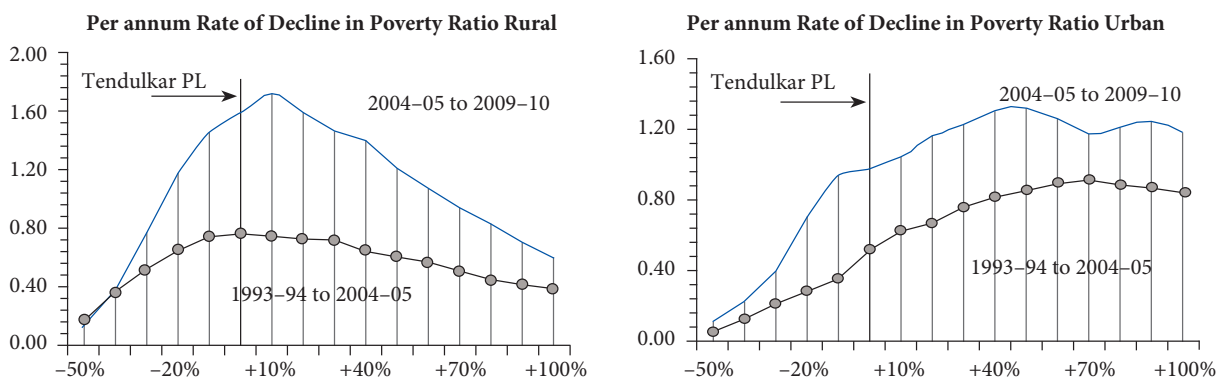


FIGURE 2.4: Annualised Reduction in Poverty Ratio between 1993-94, 2004-05 and 2009-10 for Alternate Measures of PL in Percentage Points

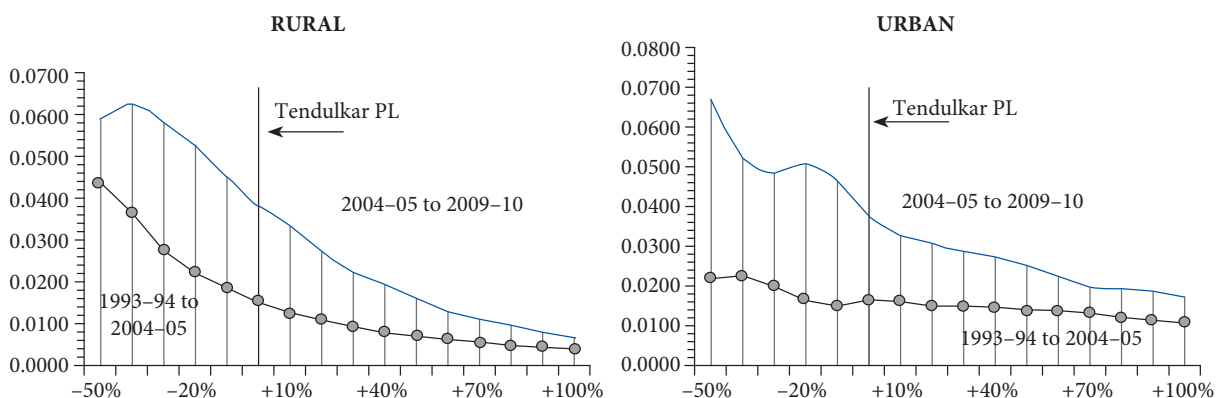


FIGURE 2.5: Annualised Rate of Decline as Proportion of the Initial Ratio in that Expenditure Class

Third, is that the difference in the NSSO consumption expenditure total and that of the private final consumption expenditure estimate of National Accounts Statistics (NAS) has been large and widening, from being over 90 per cent of the latter in the 1970s to less than 50 per cent now. Some of this is explicable, some not. In any case, the data available is the NSSO data as reported has been used without making any adjustment. Finally, these are actual data and about actual families who live below these consumption expenditure levels.

In view of the debate on the issue of measuring poverty, it has been decided to (i) de-link the benefits that are intended for the poor from the PLs computed from the NSSO household consumption surveys using the Tendulkar methodology; and (ii) set up a fresh Committee to go into every aspect of the issue.

The 68th Round of the NSSO Household Consumption Expenditure for 2011-12 has been just completed. Detailed household unit wise data will only become available after some time. The NSSO has however released some preliminary summary estimates on Uniform Recall Period (URP) both at current and at constant prices. The methodology now in use follows the Tendulkar Committee which is based on Mixed Recall Period (MRP). However, the URP distribution by decile categories is available. From the NSSO summary data release it appears that Monthly Per Capita Consumption Expenditure (MPCE) at constant (2004-05) prices increased in the two year period between 2009-10 and 2011-12 by 18.1 per cent and 13.3 per cent in rural and urban areas. This corresponds to an annualised rate of increase of 8.7 and 6.5 in rural and urban areas respectively, which is much higher than the 1.4 per cent and 2.7 per cent respective annual increases in rural and urban households between 2004-05 and 2009-10.

The 30th percentile (that is the third decile from the bottom of the distribution) of MPCE (URP) in the 68th Round show that at constant prices the increase between 2009–10 and 2011–12 was 14.5 per cent and 15.3 per cent for rural and urban households respectively, which translate to annualised rates of increase of 7.0 per cent and 7.4 per cent for urban and rural households. These are much higher than the corresponding values for the period 2004–05 to 2009–10 which was 1.7 per cent and 1.9 per cent respectively.

A large part of the reason for the much higher growth in real MPCE in the most recent period may well have been that conditions in 2009–10 was unusually depressed on account of the combination of the global crisis that had occurred a year earlier and the very poor monsoon of 2009. The initial findings of the 68th Round fully justifies the decision that was taken to go in for a large sample survey in 2011–12 (before the results for the 2009–10 survey was available) instead of the normal five-year interval.

From this, the inference is that the rate of decline in poverty in the period 2009–10 to 2011–12 would be much higher than that which emerged from the NSSO surveys for the periods 2004–05 to 2009–10. Or to put it another way the rate of decline in poverty in the period 2004–05 to 2011–12 would be much higher than that for the period 1993–94 to 2004–05.

Decile-wise annual growth in real MPCE for the periods 1993–94 to 2004–05 and 2004–05 to 2011–12 as given in Table 2.8 shows that growth in consumption across deciles was much more inclusive in the period 2004–05 to 2011–12 as compared to the period 1993–94 to 2004–05.

TABLE 2.8
Decile-wise annual growth in MPCE_{URP} at constant prices (2004–05)

Deciles (% of population)	Rural		Urban	
	1993–94 to 2004–05	2004–05 to 2011–12	1993–94 to 2004–05	2004–05 to 2011–12
First (0–10)	0.70	2.91	0.66	2.96
Second (10–20)	0.49	3.00	0.54	3.28
Third (20–30)	0.56	3.15	0.66	3.39
Fourth (30–40)	0.55	3.17	0.91	3.42
Fifth (40–50)	0.54	3.17	1.00	3.41
Sixth (50–60)	0.55	3.30	1.24	3.35
Seventh (60–70)	0.52	3.40	1.36	3.30
Eighth (70–80)	0.61	3.45	1.35	3.40
Ninth (80–90)	0.71	3.48	1.47	3.45
Tenth (90–100)	1.61	3.71	2.30	4.52
Average	0.85	3.40	1.49	3.72

NOTES

1. The shares of Bangladesh, Vietnam and Cambodia rose from 2.6 per cent, 0.9 per cent and 0.5 per cent in 2000 to 4.5 per cent, 3.1 per cent and 0.9 per cent respectively (*International Trade Statistics 2011*, WTO).
2. Angus Maddison, *Contours of the World Economy 1-2030 AD* (Oxford University Press, 2007). The regional identifier 'Asia' does not include Middle East/West Asia in conformity with conventional practice.
3. For purposes of comparison, India in 1950 is the sum of India, Pakistan and Bangladesh (then East Pakistan) and

that of China the sum of mainland China, Hong Kong and Taiwan.

4. Computed from balance of payment data in the *World Economic Outlook* database of the IMF.
5. Stephen G. Cecchetti, *Global Imbalances: Current Accounts and Financial Flows* (Myron Scholes Global Markets Forum, University of Chicago, September 2011).
6. *World Investment Report* (UNCTAD, 2012).
7. Data on trade flows in this sections are from *International Trade Statistics* (WTO, 2011).