Section 1 **The importance of growth**

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Introduction

Reviving Growth in India

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India has maintained a growth rate of over 6 per cent per annum for the past 30 years. Over the more recent period between 2000 and 2011, the Indian economy grew impressively at an average rate of about 8 per cent per annum, and even exceeded growth rates of 9 per cent per annum for some years. For a while, it seemed that India could repeat the Chinese miracle, and finally escape the low income trap that it has been in for centuries, to regain its bygone glory as a leading nation of the world. However, over 2011–14, inflation reared its ugly head as India struggled to meet rising food demand and deal with rapidly rising prices of crude oil and other commodities. This was compounded by large fiscal deficits and several populist schemes that created excessive demand for which appropriate supply arrangements did not exist. These supply constraints led to increasing inflation.

At this juncture, very careful steps were needed to be taken by the government to ease the supply constraints, especially to argument food supplies whose demand was rising rapidly with rising incomes, and to find imaginative solutions to increasing crude oil and commodity prices by better demand management and greater use of coal (that India has in abundance) and renewable energy. There was also an urgent need to control the fiscal deficits and avoid excessive spending on subsidies that were not well targeted to the poor. However, the United Progressive Alliance (UPA) government got mired in many corruption scams, which led to erosion of public confidence in and support for the government. The country seemed to drift during this period. The political leadership failed to give clear direction, and were often busy fighting political battles within the coalition and from the growing opposition. Senior bureaucrats hesitated to take decisions and sat on files. These conditions led to a 'policy paralysis'. Thus, the supply side steps needed urgently to fight food and commodity price inflation were not taken—at least not with sufficient vigour to make a difference. These conditions and the policy paralysis

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also led to erosion of the confidence of domestic and foreign investors in the Indian economy, thus further slowing down investment and economic growth.

Under normal circumstances, the Reserve Bank of India (RBI) might have considered lowering the interest rates or undertaking other monetary easing mechanisms to fight the resulting slowdown. But, as the government failed to undertake appropriate supply side measures to fight inflation, the entire burden of controlling inflation fell on the RBI, and it responded by raising interest rates sharply. This double assault of erosion of investment climate and the sharp increase in interest rates led to a sharp decline in investment and growth. The growth slowdown began in interest rate-sensitive sectors, like construction, automobiles and durable goods manufacturing, and eventually spread to the whole economy. Consequently, GDP growth, which was about 9 per cent in 2010–11, declined to under 5 per cent in 2012–13 and 2013–14 for the first time in over 10 years.

The next 20–25 years is a particularly important period for India, because we have the support of demographic dividend in the form of the world's youngest population and one of the highest proportions of working age to total population in the world. In about 20–25 years, once we exhaust this demographic dividend, achieving 8–10 per cent rates of GDP growth and escaping the poverty trap will become more difficult and the escape from the poverty trap much more difficult. But if we can maintain a growth rate of close to 10 per cent, we can become an upper middle income country in about 15–20 years. Since higher income levels tend to slow population growth, high growth rates now should also help slow population growth. This would help to stabilize India's population at a lower level than under a slower GDP growth scenario. This effect will further boost per capita income for a given GDP growth rate.

If we also start educating and skilling our people to world class standards, follow proper industrial policies to free the entrepreneurial energy of our people and have good governance, a growth rate of close to 10 per cent per annum is possible for the next 20–30 years (as the Chinese have achieved). That would set India on the road to becoming a developed country and one of the largest economies in the world. Thus, it is extremely important that India achieve a growth rate of close to 10 per cent per annum and sustain it for the next 20–30 years.

Given this importance of reviving and sustaining high growth rates in India, a workshop was organized on this topic at the Institute of Economic Growth, Delhi, India on 25 and 26 July, 2013. The workshop brought together leading economists from India, Europe and the US to analyse the major issues related to this theme and to find solutions to the problems facing India. This book is a selection of papers presented at the workshop.

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ORGANIZATION OF THE BOOK

This book is divided into five sections. The first section discusses the importance of growth; the second section focuses on industrial and trade policy; the third section considers how to deal with growth dampeners like inflations; the fourth section analyses various supply constraints to growth, such as food, energy, social and physical infrastructure, and discusses how to deal with them; and the fifth section deals with some emerging issues in growth relating to the labour and capital markets. A brief summary of each chapter is presented below.

Section 1: The importance of growth

Part 1 discusses the importance of growth. Chapter 1 discusses the importance of maintaining high economic growth in India for it to be able to escape the low income trap and emerge as a developed country in about 20–30 years. It also provides an overview of the various chapters of the book.

Poverty continues to remain a serious problem in India with its consequent toll on human welfare in the form of poor health, low levels of education and a poor quality of life. Unfortunately, about 33 per cent of India's population still lives in acute poverty (less than \$1.25 per person per day). Thus, a careful analysis of the determinants of poverty and of various government policies that can help reduce poverty is very desirable. This is the purpose of this chapter.

Thus, in Chapter 2, Pradeep Agrawal empirically examines the various factors that affect poverty and shows that economic growth is the key to rapid poverty reduction in India. He shows that main factors affecting poverty can be decomposed into the growth of income per capita and the distribution of income and then undertakes empirical analysis to show that the poverty rate declines with the growth of GDP per capita and reduced inequality of income distribution. Over the past 20 years, the impact of growth in GDP per capita (which nearly tripled over the past 20 years) in reducing poverty was much larger than that of reduced inequality (which declined by about 10 per cent over the same period). Agrawal shows that growth reduced poverty by leading to increased employment and higher real wages. Further, both government revenue and expenditure increased considerably in real per capita terms, even while not changing much as per cent of GDP. This demonstrates the magic of growth. Government revenue, which has tripled since 1993, was used partly to increase expenditure on education, health and welfare measures. This increased social expenditure has helped reduce poverty as also argued by Amartya Sen and others. . However, the increase in real social expenditure per capita was made possible by rising government revenues due to rapid growth. In fact, social expenditure as a percentage of GDP or as a percentage of government revenue has not increased significantly over the past 20 years. So

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that, in the absence of growth, even a very well-meaning government would not have been able to achieve much in terms of increasing social services or reducing poverty. This shows that growth is indeed the most crucial element in the fight against poverty—both directly, by creating more employment and raising wages, and indirectly, through increased social expenditure, on education, health, and welfare measures, which are facilitated by increased government revenues as a result of the growth in GDP. Another insight that emerges from our analysis is that given that raising per capita income (or output) is the most crucial factor in reducing poverty, controlling population growth also has a significant role to play in the fight against poverty, at least in a surplus labour economy like India, where the marginal contribution of labour to output is close to zero. The government should, therefore, actively promote smaller family norms and try at the earliest to move the country towards a zero population growth target. Thus, the government's near abandonment of its policy of promoting smaller family norms over the past decade is highly regrettable and needs to be changed.

Section 2: Reviving growth of industry and exports

Given the importance of rapid economic growth, this section deals with policies for sustaining high rates of industrial growth (Chapter 3), growth drivers (ICT and Inclusive Innovations; Chapter 4), and examines the various determinants of services exports (Chapter 5), to help to devise better policies to revive economic growth of industry and exports.

In Chapter 3, B N Goldar examines various aspects of 'Sustaining a High Rate of Industrial Growth in India in the Next 10 Years'. The basic motivation of this chapter comes from India's new National Manufacturing Policy, which aims at raising the share of manufacturing in aggregate GDP from about 15 per cent now to about 25 per cent by 2022, and creating in that process an additional 100 million jobs. Is such an increase in the growth rate of manufacturing real GDP possible and sustainable and, if so, what does it entail? This chapter focuses on these questions. For attaining this objective, the rate in real output growth of the manufacturing sector should be about 13–15 per cent per annum over the next 10 years, which is much higher than the trend growth rate (8.3 per cent per year) in manufacturing real output during the period 1999–2000 to 2011–12 that collapsed to near zero per cent over 2012–14. Thus, even if we ignore the last two years as an abnormality, the annual growth rate in real output growth of the manufacturing sector needs to increase by about 5 per cent.

The overall investment rate of the Indian economy had a clear upward trend since the early 2000s. Assuming similar trend for the future, one may expect the overall investment rate in Indian economy to go up by about 10 per cent in the

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next 10 years. (Although the share of manufacturing in investment flows in India had a downward trend in the recent period, the long term trend in this ratio is an upward one). Thus, there are reasons to believe that this ratio will increase in the years to come. In 10 years' time it may again reach the peak it reached in 2007–08 (36 per cent). The fixed capital series for manufacturing constructed under these optimistic assumptions has a growth rate of 12.6 per cent between 2013–14 and 2022–23. This hike in the growth rate of capital input will raise the annual growth rate of real GDP of manufacturing by about 2.5–3 per cent. If the annual growth rate in manufacturing real GDP has to go up by 5 per cent, the annual rate of growth in TFP in manufacturing needs to increase by 2–2.5 per cent. Much of this increase has to take place in organized manufacturing. Thus, the rate of TFP growth in organized manufacturing needs to increase from about 1.6 per cent between 1999–2000 and 2011–12 to about 4.5 per cent per year in the next 10 years. This is high, but not unachievable provided major policy initiatives are taken by the government.

In India's organized manufacturing sector, the rate of TFP growth can be improved by greater export orientation of Indian manufacturing firms; substantial improvements in the investment climate, particularly labour market reforms to increase flexibility and productivity; sizeable investment in infrastructure; and large investments in human capital formation. This will also create a favourable environment for investment in manufacturing and, thus, contribute further to growth. However, a mismatch between skilled labour requirements of manufacturing firms and the availability of skilled workers among the youth who would be entering the Indian labour market in the next 10 years may pose a serious obstacle to growth of Indian manufacturing. While 1.7 per cent of the youth of age between 15–24 years have technical education (in 2009), in a majority of industries at least 5 per cent of the workers have technical education. There are several industries (constituting about one-fifth of all three-digit manufacturing industries) in which more than 30 per cent of the workers have technical education. Evidently, only a very small proportion of the youth have the skill levels required by organized manufacturing industry. This is a major problem that needs to be solved.

In Chapter 4, 'Growth Drivers: ICT and Inclusive Innovations', Ashima Goyal explores the contribution of innovations to Indian growth. Innovations are essential to raise productivity and sustain growth. The chapter explores the contribution of innovations to Indian growth. Inclusiveness of innovations is also important to sustain growth, benefit the common man, raise average productivity, and expand the market size. An analytical framework helps to characterize policies that contribute to such innovations, and provide measures against which recent telecommunication, science and technology, and mobile banking policies are examined. While policies can directly encourage it, if innovation depends

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on market size above a threshold, policies that expand size can be especially useful. These include a general improvement in public services. But in India, the record in expanding even telecom infrastructure has been poor. However, new technical developments that promise more flexibility and convergence can help overcome the last mile problem, provided that enabling policies reduce costs and that implementation improves through better coordination and incentives. The failure to focus on increasing market size was partly responsible for India's failure, compared to other countries, in the more inclusive use of many productivityenhancing innovations. Mobile banking is a recent example of such failure.

Along with industrial growth, exports growth is also important for promoting faster economic growth. While exports of goods have been analysed by many previous authors, exports of services have not been adequately analysed.

Thus, in Chapter 5, 'Determinants of India's Service Exports', Sahoo, Das and Mitra examine and analyse the factors of India's robust performance in services exports. The chapter argues that sustaining services exports is important for sustaining India's high growth rate and also for maintaining stability in the external sector. It examines and analyses the factors responsible for India's robust performance in services exports. The results reveal that India's aggregate services exports are determined by world income, exchange rate, manufacturing exports and endowment factors like human capital, physical infrastructure stocks and financial development. While factors such as institutions, foreign direct investment and financial development significantly impact the export of modern services, traditional exports are more dependent on limited factors like world income, exchange rate, manufacturing exports and infrastructure levels. Since The world economy is growing at a moderate pace and this might limit growth of manufacturing and services exports of India, India needs to focus on the supply side factors, such as the development of human capital, infrastructure, financial sector development, institutions and broadband tele-density to improve competitiveness of services exports thereby resulting in higher exports.

Section 3: The dampeners to growth - controlling inflation

A major dampener to growth over the past few years has been inflation. Thus, the two chapters in this section discuss whether and how monetary policy can deal with inflation. Both chapters argue that in the presence of supply constraints and commodity price increases, monetary policy cannot be very effective in controlling inflation, as indeed has been India's experience—instead, it is the government that has to work to ease the supply constraints.

In Chapter 6, titled 'Macroeconomic Effects of Monetary Policy in India', S. K. Mallick investigates the macroeconomic impact of the nominal exchange rate

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and monetary shocks, using quarterly Indian data, along with examining the impact of term-premium and fiscal policy shocks. Within a theoretical setting, the model predictions have been estimated, identifying structural shocks via recursive and non-recursive procedures. Given the rupee depreciation and high inflation, this chapter aims particularly at disentangling the effect of different shocks on a depreciating currency along with the shocks driving high inflation. Supply shocks are found to be more dominant sources of inflation than exchange rate and demand shocks. While monetary policy shocks play a limited role in affecting output dynamics, they also tend to stabilize inflation in the short run. No discernible effect of monetary policy shock was found on inflation in the medium term. This suggests the ineffectiveness of monetary policy in an emerging market economy, where the monetary authority has multiple targets to achieve, and where inflation is largely due to supply shocks. Therefore, the central bank's recent monetary tightening to stabilize inflation via the interest rate channel is unlikely to be effective in the Indian context, because of the modest impact of monetary policy shocks on inflation, and the underlying cause of the inflation, as made evident in this chapter.

In Chapter 7, A. Samanatraya analyses the 'Role of Monetary Policy in Sustaining High Growth' and controlling inflation. The role of bank credit in the monetary transmission mechanism is critical. Given that, this chapter develops a model to understand the dynamics in the determination of bank credit and to objectively assess the role of monetary policy to support economic growth in India. The model explicitly considers the endogeneity between bank credit, deposits and lending rate in a small simultaneous equations framework. Using panel data analysis based on bank-wise data for India during the post-reform period, the estimated results for the above model revealed that credit supply by banks was mainly influenced by monetary policy stance, while the cost of borrowing and overall economic growth were significant to determine the credit demand by the public. It was also observed that lower interest rates on deposits discouraged public demand for bank deposits. Juxtaposed with observed evidence on the heavy dependence of the supply of bank lending on deposits, the above findings do not support the proposition that a lower interest rates regime can engender credit expansion and support economic growth. On the contrary, the estimated results tend to support the view that monetary tightening through raising of interest rates can dampen credit growth due to its adverse impact on credit demand. Thus, the asymmetric impact of monetary policy on the economy becomes evident, and confirms what monetary policy can and cannot do. In assessing the current economic slowdown in India, the policy implications from the present study highlight the limited potency of monetary policy to boost the economy by adopting a lower interest rate regime, but also that monetary policy can contribute to sustain high economic

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growth in general and a revival from the current economic slowdown indirectly by achieving and maintaining price stability.

Section 4: The supply constraints to growth

The analysis of the previous section on controlling inflation explains that when a country faces supply constraints and the price of commodities increases, a monetary policy is not very effective in controlling inflation. Instead, it is the government that must act and do its best to release the underlying supply constraints (e.g., by increasing food output to control food inflation) and ensure supplies or look for suitable alternatives (as in the case of crude oil and gas). Similarly, the government must ensure development of human capital (through education, vocational training, proper provision of health facilities for the poor) and by developing good infrastructure Unfortunately, this job has not been handled properly so far, and there is an urgent need to pay special attention to these areas of the economy if we are to control inflation and sustain growth over long periods. Thus, the four chapters in this section deals with understanding various supply constraints facing the Indian economy.

In Chapter 8, titled 'Sustainability in Indian Agriculture', Ghosh and Kumarideal with supply constraints in India's agricultural output, needed to feed its large and growing population. It attempts to reflect rationally on the way forward to food security. The chapter reviews and explores future possibilities for Indian agriculture, identifies the concerns that should guide the path to sustainable growth, identifies the limitations of Indian agriculture, and observes the tendencies in India's production pattern from the perspective of the limitations identified. They find that the pattern of shift in agricultural production seems to be inconsistent with India's resource endowments, especially water. Given the expected substantial increase in the production of fruits and livestock products, indirect consumption of cereals and pulses is projected to grow more than the current growth rate of these products. This will increase the demand of water substantially, causing depletion of resources. Growth in Indian agriculture, therefore, needs to be planned with care and caution with an eye for not only food security and consumer demands but environmental, resource endowment and economic sustainability also.

In Chapter 9, titled 'Energy Security for India', Pradeep Agarwal and Shruti Tripathy empirically estimate India's long term demand relations for crude oil and diesel, using careful co-integration procedures, and then use these to project demand for these products until 2025 under various scenarios of GDP growth and oil prices. The projections show that by 2025, demand is likely to increase by about 90 per cent for crude oil and 110 per cent for diesel. This study suggests