Address by Chief Guest, Shri K. V. Kamath, Chairman, ICICI Bank and Chairman, Infosys Technologies Ltd

Ladies and gentlemen:

Thank you for inviting me to the convocation ceremony at IIM Ahmedabad. I feel honoured to be here to share my thoughts with you in this institution which has been producing some highly capable minds in the country over many years. To all the young men and women gathered here today, I would like to talk about the exciting future of India that you will not only be a part of but where you will also be drivers of change.

India has made remarkable progress over the last two decades and is viewed today as a land of opportunities. This transformation had its genesis in the process of economic reforms initiated in the 1990s, which unleashed the entrepreneurial abilities of India's people. In addition to opening up to global competition, the transition resulted in a positive structural shift within the economy. It saw the rise of a strong services sector, the growth of new industries like information technology (IT) and biotechnology, and pushed traditional sectors like pharma and automobiles to become globally competitive. Among the many transformational developments of these years, I would pick four that were truly momentous in their impact.

First, we crossed per capita GDP of USD 500 and USD 1,000 in the same decade. While it took over two decades to double our per capita GDP from around USD 260 in 1980 to USD 550 in 2003, it doubled again in just five years and indeed today has crossed USD 1,500. This had tremendous implications for savings growth, consumption demand and the ability to finance investment in the country. Suddenly so many possibilities emerged, not only for growth in traditional business segments but also for building a whole new set of businesses.

Second, the decade gone by saw the rise of the Indian consumer as a key driver of India's growth. As per capita GDP crossed USD 500, driven to a large extent by growth in the services sector, we saw rising demand for homes, for consumer goods, for financial services and a range of other goods and services. These in turn drove economic activity and upward migration of incomes, creating a virtuous cycle of growth.

Third, India quickly adopted and leveraged developments in information and communications technology, in some cases leapfrogging intermediate stages of development. This enabled the quick scale up of new paradigms of distribution and service delivery in a range of areas.

Fourth, a changing Indian corporate sector which is operationally efficient, internationally competitive and has stronger balance sheets. Operating cashflows increased over nine folds between 1995 and 2010. This enabled the Indian corporate sector not only to leverage on growing domestic demand, but also to expand outside India, acquiring backward and forward linkages, making Indian brands known globally and also acquiring marquee global brands. The Indian corporate sector emerged from a period of restructuring and repositioning with healthy finances and globally competitive quality and cost metrics.

From a global point of view, there is a shift in focus towards emerging market economies as global rebalancing was accelerated due to the impact of the 2008 crisis. The contribution of emerging market economies in global growth increased from 43% in 2000-2008 to around 68% in 2010. India today is one of the fastest growing economies in the world, with the domestic economy presenting a number of opportunities for growth be it in terms of unlocking value in sectors like agriculture or building basic infrastructure.

Infrastructure is a key growth area for the economy with opportunities in several sectors including highways, ports, airports, telecom, urban infrastructure, power, railways and oil & gas. The Twelfth Plan estimates investment of USD 1 trillion in infrastructure of which 50 percent will come from the private sector, including public-private partnerships. This level of infrastructure investment will have a significant positive impact on overall economic growth, with its linkage to other sectors in terms of demand for their output, its generation of employment and its improvement of national productivity.

The changing character of and potential in rural India should further catalyse our progress. The traditional belief that India's rural economy is agriculture driven is gradually changing. In the last decade, there has been a marked shift in the composition of India's rural economy. According to estimates, India's rural economy had a share of 48% in net domestic product, much higher than the share of the agriculture sector. The share of agriculture in the rural economy has come down from 39% in FY2005 to 30% in FY2010. Several initiatives taken in recent years in rural road development, supply chain management, communication technology and financial services have redefined the business needs of the rural economy. As rural incomes will grow, it will create a vast consumption market and the demand for consumer goods and consumer finance will increase. The rising affluence is expected to propel demand for goods and services and provide a strong domestic impetus to growth.

Such economic progress will inevitably lead to a higher degree of urbanisation. The urban population grew from 220.0 million (26%) in 1991 to 340.0 million (30%) in 2008. In the next

twenty years the urban population is estimated to grow to 590.0 million (40% of total population) as 250.0 million more people join the urban population. This will require the emergence of new cities and significant urban rejuvenation in existing cities. A significant proportion of the growth is expected to come from the next level of cities. The numbers forecast for India are extraordinary. The top three cities themselves will grow to a size equivalent of countries today. Eg. Mumbai will grow from GDP of US\$ 36.00 billion in 2010 to US\$ 265.00 billion in 2030 (Malaysia GDP was US\$ 220 in 2010). Similarly Delhi and Kolkata would grow to a GDP of US\$ 250.00 billion and US\$ 200.00 billion respectively by 2030. The next six cities in 2030 are expected to become 2-4 times the size of Mumbai today!

Technology pervades through every aspect of economic activity. The rise of communications technology was led by the increasing use of the handheld device with the spectacular growth in mobile telephony and increased connectivity. India is home to the third largest internet user base at about 100 million and has the second largest mobile subscriber base of over 800 million. While the number of internet users is increasing at an annual rate of over 20%, the number of mobile internet users has more than doubled indicating the increasing usage of mobile phone as a means of internet access². The mobile phone is now well equipped with state of the art specifications and has the capabilities of the desktop and the laptop both in terms of communications access and as a computational tool. A decline in device costs will make more and more capabilities available at costs that are within reach of a large section of the population. Broadband connectivity will be the catalyst to multiply the social and economic impact of the evolution in communications technology. The increase in computing power accompanied by reduced costs makes the future biased towards a "digital, mobile and personalised" world.

Economic growth leads to a demand for better services, better infrastructure and a spurt in consumption demand. Shift in income levels and lifestyle will lead the Indian consumer to fulfill his aspirations at a younger age with an optimal combination of debt and equity. With income levels poised to improve further and the favourable demographic profile ensuring that a large proportion of the population is in the economically active working age group, consumer finance will continue to grow in the coming years. Similar to those in banking, the trends of development and sophistication are evident across the spectrum of financial services, including insurance and asset management. We are seeing a variety of new product offerings and innovative methods of distribution fostering robust growth in these areas. The next game

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¹ McKinsey report India's urban awakening: Building inclusive cities, sustaining economic growth, April 2010. Estimates urban population of 590.0 million people (40% of population) by 2030.

² Report on Internet in India (I-Cube) 2011 and Mobile internet in India, August 2011, published by the Internet and Mobile Association of India (IAMAI) and IMRB

changer in banking and financial services will be biometric and communications technology. Biometric technology will change the way customers access financial services - the thumb would become the customer's passport into the financial world. Similarly, wireless communications technology means that a small personal portable device, maybe a mobile phone, can be used to carry out transactions and seamlessly connect with the financial services provider's backend systems. The combination of biometric technology for authentication, wireless communications technology for carrying out transactions and maintaining seamless records at both the service provider end and the customer end, will rapidly accelerate financial inclusion, transform the customer's engagement with the financial system and enhance the efficiency of the financial system.

The Indian banking sector has mirrored the country's gradual emergence as an economic powerhouse over the last two decades. The sector has undergone a transformation over the last two decades, with the adoption of technology, development of new products and creation of alternate banking channels to serve customers and can today drive inclusive growth. Technological innovation played a pivotal role in this expansion, as banking services such as cash management, foreign exchange and trade finance underwent a major change imparting greater efficiency to both banks and corporate houses. Channels of banking also saw a paradigm shift through the decade with increasing use of channels other than the branch. Technology has been an important disrupter in enabling the emergence of these alternate channels of banking. While bank branches continue to be key sales and service points, alternate channels such as ATMs, point-of-sale terminals and internet banking continue to grow their share of transactions. India now boasts of more than 80,000 ATMs, and this number is growing further. Indian banks have developed the technological capability to handle large volumes at a lower cost than their global counterparts. The level of functionality being delivered through these alternate channels has gone well beyond balance enquiries and cash withdrawals, to extend to remittances and payments solutions as well. To frame the story in numbers: at ICICI Bank, the share of branch transactions has come down from 94% in 2000 to 19% currently. Correspondingly, the share of transactions through ATMs has gone up from 3% to 53%, internet transactions from 2% to 18%. Mobile banking transactions have just started picking up.

In recent years, there has been enhanced focus on inclusive growth and financial inclusion as a key ingredient of inclusive growth. Financial services remain under-penetrated in India, with substantial scope to increase access to financial services across the country, especially in rural areas and among low income households. In the past, a key challenge was the high cost of delivery of financial services through traditional brick-and-mortar structures. Two key developments have changed this paradigm. First, regulations have been introduced permitting

delivery of financial services through business correspondents. Second, the development of technologies using smart cards and biometrics has changed the way banking services can be accessed by the customers.

Right from enrolling to opening an account and carrying out transactions, technology has made this possible without the need for a brick and mortar branch presence. However, physical delivery of cash to remote location is still a problem in many remote areas. It may require some innovative solutions tailored to the problem, such as a secure and mobile cash box with a mounted electronic authentication mechanism to facilitate easy disbursement of cash.

In this context, the government's Unique Identification (UID) number project will be a path-breaking effort towards improving financial inclusion. It exemplifies how technology can be a game changer. The UID will not only help to create an identity and a unique identification mechanism that can help track credit history of consumers and improve service delivery, but also help achieve financial inclusion at a low cost. Taking this a step further, it will also help improve governance and efficiencies in social sector investments.

One major trend going forward would be the replacement of cash and cheques by electronic payments. India with its proven ability to quickly adapt and leapfrog technology has already started seeing the emergence of electronic cash as a medium of exchange. Currently, around 250 million credit and debit cards issued by banks are in active use. Electronic payments in fiscal 2011 grew to around 955 million transactions valued at USD 7.5 trillion (excluding interbank transactions). This indicates the potential impact of technology on the way money is handled in the country. For large value transactions, systems like real time gross settlement (RTGS) are already fast replacing paper instruments, but small value transactions are still undertaken in cash. Developments in payments will lead to shift of small value payments to electronic channels, as technology reduces the cost of low value transactions. The rapid shift towards electronic payments would require Indian banks to continuously innovate and increase investments in technology to further leverage alternate channels through technological innovation. The use of handheld devices for banking is set to grow exponentially. It is estimated that mobile internet users will touch 200 million by 2015. The inter-bank mobile payment system (IMPS) operated by the National Payments Corporation of India (NPCI) permits payments with the use of the recipient's mobile phone number. This system offers promise in wider applications for low cost electronic payments for the inclusion agenda as well as for merchant and business payments where additional transaction information is required.

Technology such as small card readers that enable mobile devices to accept credit and debit cards will lead to a multi-fold increase in acceptance and usage of card based payments further reducing the need for cash. Banks are also exploring new payment mechanisms with the use of secure near field communication (NFC) chips and the use of bar codes for exchange of transaction information without the need of carrying a physical card.

Mobile banking will thus further evolve not only as a cost effective channel, as the cost of a transaction through a branch is roughly fifty times that through a mobile, but also serve across the spectrum as a tool for catering to services such as travel and utility payments and remittances. The rapid growth of mobile connectivity, dropping costs of bandwidth, declining costs and growing functionality of handheld mobile communications devices, the ability of UID to serve as the authentication basis for transactions and the growing volumes of electronic payments – will all set the stage for a paradigm shift in banking.

India is poised for truly exciting times ahead with several more opportunities and challenges emerging in step with India's growth: the aspirations of a young population, an expanding corporate sector and the imperatives of inclusive growth. The disruptive impact of technology will play a critical role in meeting these opportunities head on.

In painting a picture of the India of the future, let me share the proxy of China. China grew at a CAGR of 9.5% for over 25 years since it began its economic reform process in 1979. The impact of such high growth was phenomenal. China's GDP grew tenfold over this period. According to China's official statistics, the poverty rate fell from 53% in 1981 to 2.5% in 2005. The wealth creation and infrastructure development in China is there for all to see. In many ways we are at the same stage as China was in 2003 and therefore the possibilities for the next decade for us are tremendous. Structurally we are in the same position as the economies of China, Japan and South East Asia were just prior to their growth phase and as such we do have the potential of achieving the same results as they have.

Demography has been and will be one of the most important drivers of growth in India. By 2020, the demographic advantage in India relative to the rest of the world, including China, will become even more significant. India is a young country with 50% of its population under 30 years of age. The median age of our population is 25 years – this is projected to be at only 30 years even in 2025. It is estimated that India will add around 11 million to the workforce every year for the next five years and will account for 25% of the global workforce by 2020. The dependency ratios, i.e., the number of dependents per working person, in India is expected to decline for the next three decades, unlike other major economies, even China, where the dependency ratio is on an upward trend. These are indications of the demographic dividend

the country enjoys, creating a growing consuming class and the human capital to drive growth.

GDP per capita of USD 1,000 was an important threshold beyond which an economy sees increased affordability and aspirations for a better lifestyle. With a per capita GDP just over USD 1,500 we are at the next inflexion point in terms of rising purchasing power and demand for goods and services. It is estimated that the next decade should see around 200-250 million people coming into the consuming class in India. It is estimated that by 2020, the middle class population in the country would be close to 580 million and per capita income would be USD 4,000. The ramifications of this are immense resulting in demand for a better living environment and an accelerating consumption cycle. The consumption and savings dynamics the country has witnessed in the last few years are unprecedented in our history, and will only accelerate in the years ahead.

Economic growth and rising per capita income shall lead to demand for better infrastructure, growing ability to finance projects and willingness to pay for infrastructure facilities. For example, while just over 22,500 MW of power capacity was added in the five years from FY2001-FY2006, about 50,000 MW was added during the next five years FY2006-FY2011. The Twelfth Plan estimates capacity addition to the tune of 100,000 MW during FY2013-2017. Infrastructure development will be a key priority and investment in infrastructure is projected to increase to over 9% of GDP.

The speed of adoption to newer technological means and its impact has been breathtaking and as India continues to grow, technology will be a force for disruptive change. The scale of opportunity will dramatically change given that the economy would double every five years at least for the next two decades; there is thus a significant opportunity to leverage technology to drive new business models. The next wave of evolution would be the impact of technology on driving an inclusive transformation: not only as a multiplier of productivity but also towards democratising access to information, goods and services, and driving the inclusive agenda by facilitating savings, investments, remittances and spending for a large unbanked population of 700 million people.

It is important to realise that the potential that we have today needs significant efforts to be fulfilled successfully and that the process of building the nation must continue. For instance, the demographic dividend to translate into a significant push to the economy needs to be accompanied with skill development, which is currently at inadequate levels. Though over 90% of new entrants into the workforce are literate today, the institutional capacity for providing skill training is insufficient. The challenge today is in terms of upgrading skills and

meeting industry requirements. Both the private and the public sector have to jointly provide wide-scale vocational training to quickly enhance capabilities of people. A related issue is that of basic healthcare and primary education for all our people, to enable the less advantaged sections of society to have the capacity to access opportunities in this growing economy. Inclusive growth is not just about subsidies or unemployment benefit schemes – at its core it is about building capacity in the poorest communities in our country to lead productive lives and earn a decent livelihood. Investment in basic healthcare, primary education and vocational training are critical to making this happen.

The Indian growth story is based on multiple pillars: consumption, investment, domestic demand, global competitiveness, knowledge based businesses and industrial growth. India's key competitive strengths lie in a large domestic consuming market with a favourable demographic profile, an entrepreneurial talent pool with innovation capabilities, cost advantage and potential for improvement in productivity with easing structural bottlenecks. There is perhaps no better time than now to enter the corporate arena in a country well on its way to graduate to an economic superpower. A final word of advice: learning is a continuous process and you must look out for opportunities to learn so that your skills and knowledge are continuously upgraded and relevant to the needs of the market. With the strong foundation this glorious institute has given you, I am sure you shall succeed in your respective careers.

My congratulations and best wishes.