Mr. Annasaheb Misal, Mrs. Pratima Doshi, Mr. Sumit Mullick, Mr. Arun Bongirwar, Mr. Bharat Doshi. I will later switch to “Bharat” not just as a tit-for-tat strategy because he switched to “Kaushik” during his introduction but because, over the years, Bharat and Vidya have become such wonderful friends.

So, to all of you and the distinguished members of the audience, it gives me great pleasure to be here to deliver this address. I consider it an honour for two reasons. Looking at the list of people who have given this lecture, it becomes evident that this is an outstanding lecture series, and so it is humbling to be following in their footsteps. Secondly, this is an honour because of the person after whom this lecture series is named.

I had never met Lalit Doshi. There were common friends from whom I learnt little, now and then, about Lalit. I was not in government in those days, I was an academic researcher in the purest sense. But, subsequently, as I heard and got to know about him, it was amply clear that he was an amazing human being. I am not stressing the fact of his being an extremely efficient and good bureaucrat, but a remarkable human being. At the end of the day that is more important than anything else.

I must read out some of the accolades Lalit Doshi received. He died very young, at the age of 51. Some of the writings on him brought out his achievements and personality very well. Here is the Indian Express, in 1994: “On the Job, few could match his understanding of the system, red-tapeism was unheard of in his office. For all his achievements Lalit never lost his modesty, his great personal warmth and his wide ranging interests. Mr. Arun Shourie, Minister at that time, talked about Lalit Doshi, his goodness, his reaching out to help others, his nobility. “This word nobility has been used repeatedly to me,” Arun Shourie pointed out, “by persons who worked with

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him in the Ministry.” He went on to note that such a person should survive in our system is indeed rare. Clearly Lalit Doshi was a rare human being whom we are remembering today and I am glad to have this opportunity.

As I said earlier Bharat and Vidya have become very close friends of ours. When I first met Bharat, as Bharat rightly observed, it was for purely professional and technical discussions. Much of those early conversations were to do with policy, and the economy. But gradually we started discovering overlapping interests, which were encroaching onto our conversations. We have subsequently met in different cities, often for purely social reasons, watched plays, broke bread and talked. A most wonderful experience was three days ago, when we went and watched “Gauhar”, here at the Royal Opera. I do not want to do a commercial for it, but the play and the venue, (the theatre) are so marvellous, it takes one's breath away. This also gives me the opportunity to thank you for the invitation to come to Mumbai. I just love the city- -it is cosmopolitan, it is culturally rich, and the people and the colonial architecture are beautiful. Some of you who know that I am married to a Mumbaiker and a Maharashtrian, may think that I am saying all this for domestic peace, but that is not the case. I love the city. So thank you.

This will be a very broad spectrum lecture. The Indian economy is the focus, but I am going to start from the global economy. In a nutshell where I want to get to is an analysis of contemporary India and I can say at the outset that about the Indian economy overall I am, as an economist, very optimistic. In this lecture I will explain why I feel optimistic, and point to some of the risks and dangers. An open discourse, professional discourse, where you bring the best ideas to the table, is important and it is in that tradition that I will be talking about India.

Tim Cook (Chief Executive Officer, Apple Inc.) recently said that he was “very bullish” about India. This is good news, and it was deservedly reported widely in the Indian media. But we must remember that foreigners have been very bullish about India since 1947; and we have a long track record of
disappointing such people. Nevertheless, it is true that India stands at a juncture today from where we can take India much further forward and it is in that spirit that I am going to talk here today.

I begin with the global economy. That is not central to my lecture but will serve as a backdrop to evaluate India. But just because it is a backdrop please do not switch yourself off and not listen. Since I referred to my wife, who is in the audience, I may add that, forty years ago, when we were getting married, a friend of my mother's, who had written a cook-book of Bengali dishes, gave it as a present to my wife. That book is a collector's item for us because there is one dish in there which I have not seen in any other book. You begin by chopping onion and ginger, adding some spices, and keep it aside. Then you get the fish, cut it neatly, fry it on a pan and so on. The amazing thing about this dish is you never return to the ginger and the onion that you chopped and put aside. Foreigners may think that this is an exotic Indian yogic exercise but I think my mother's friend forgot about it. In brief, do not treat my opening remarks on the global economy like that ginger and onion, to be pushed aside.

The World Economy has been going through a very difficult phase. What we see today is not the deepest crisis, but one of the longest crisis recorded. It began with the sub-prime crisis in the US and the 2008 Lehman Brothers collapse. It then spread from one sector to another, from one country to another; even today Europe is affected by it, Japan never really recovered fully, and the United States is looking better but still there are lots of concerns.

The sub-prime crisis began as a very sector specific problem. The United States, for good reason, decided that it wanted to lend money to relatively poor people, who may not be credit-worthy. Give them the money, they will buy homes, they will be better-off—that was the idea. What happened was many of these people bought homes and found that they were not able to pay back their loans. So they were defaulting on the mortgage and their homes were coming back on the market for sale. As that happened, house prices dropped. The banks and the financial institutions that had given the loans, and showed the
value of the property on their balance sheets, saw a worsening of their balance sheets; and this became a major crisis.

Let me put in a footnote on India here. Dr. Y. V. Reddy, then Governor of RBI, had observed that India had a similar sub-prime risk; but a crisis did not happen for the wrong reasons. The fact is black money saved India from having a sub-prime crisis. It is quite interesting what happened. In India very often when people buy homes they will show the value of the house as half the real value, since the rest of the transaction is in cash and unaccounted for. So the bank loan that you take will typically be for 40% or 45% of the full value of the house, that is, 80 or 90% of the value declared. So even if that part goes sour, the real asset is much higher than what is being backed up by the mortgage. This meant fewer defaults and even when there were defaults there was no worsening of balance sheets of the mortgage companies and banks. In brief, the black transactions actually prevented excessive lending that had taken place from translating into a sub-prime crisis in India.

As an economist it annoys me when people, after listening to this, say, “So you are saying black money is good?” That is not the case at all. It is the same mistake as you saying that on the way to that airport you had a minor car accident and hence you were saved because the plane you were supposed to take crashed; and the listener concluding that you are saying that car accidents are a good thing. You are not saying that the car accident is a good thing; you are saying that it is bad thing, which had a good consequence. So it is in that spirit that I just told you the black money story.

Returning to the sub-prime crisis in the US, this escalated and soon enough there was another crisis - that concerning excessive European sovereign debt. The European countries had over borrowed and if you look at the balance sheets of the European Governments, their overall fiscal position even now is worse than in most developing countries. In the early years, developing countries would be told, look at France, look at Germany, look at Britain, and learn how to manage your fiscal balance sheet. The positions are now reversed.
What happened is interesting. Let me inflict on you a little serious economics, which can be done surprisingly easily using a graph. Economists often have a propensity to overload arguments with mathematics and algebra. There are occasions when that is not needed.

What I am showing you is one of the most amazing pictures. In the beginning you see a spread of curves, showing the different interest rates that different countries of the Euro zone had to pay to borrow money from the public. The curve on top is Greece, so if you lend money to Greece, Greece will have to pay you a very high interest rate. The curve at the bottom is a cluster of a few safe countries, which includes Germany. If you lend money to Germany, you will get a low interest. The reason is: some countries are riskier than others. If Greece does not give a high interest rate, no one will lend money to Greece. Germany pays the lowest interest because when you lend to Germany you are virtually certain you will get your money back.
The graph shows that after 1999, all these interest rates merged. Seldom do you see in a graph of real economic data such a change of behaviour. What happened in 1999? The answer is clear—the euro was created. Here on, if you lend to Portugal, if you lend to Ireland, if you lend to Germany, you are dealing with the same currency, the euro. Since there is a monetary union, people began to feel that the risk across the nations is the same. And so the interest charged was the same.

2008 broke the illusion. Thereafter, the interest rates spread out once again. What happened was the market realised the mistake it was making. The European Union was a monetary Union; not a fiscal Union. So when Portugal borrows money, it is Portugal's responsibility to pay you back. The currency may be Euro, but it is Portugal that has to pay you back.

In 2008, after the sub-prime crisis, people gradually realised this and they also realized that in fact now the risk was bigger than it was before 1999. In those olden days, each of these countries had their own Central Banks. So if they ran out of money, as a last resort, they could print money and pay you back. After the Euro was created, and given the provisions of the Treaty of Lisbon, that option was gone. You were not in charge of your own currency any more. So not only were the risks associated with lending to different Eurozone countries different but, in addition, these countries now no longer had the option of printing and paying back, as they could in principle have done before 1999, or, in the case of Greece, 2001, when it joined the Eurozone.

But this long period, from 1999 to 2008, when all these countries were borrowing money at the same interest rate, did a huge amount of damage. Thanks to this 'interest-rate signal-malfunction,' a whole lot of Eurozone nations over-borrowed. Not surprisingly, by the time the malfunction was corrected, these countries were weighed down by debt and we were then in the midst of the sovereign debt crisis.

The sovereign debt crisis is gradually being brought under control; there is effort to bring banks under common rules, and have some fiscal coordination.
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In the meantime another problem began — the end of high commodity prices, especially oil. This is actually good news for India, but initially was a difficult problem. Oil prices began falling from the end of 2014. In India, historically, a disproportionate share of export earnings went to importing oil. But that is not the case for the entire world. There are middle-eastern countries suffering badly; Russia is hit by this; Venezuela is in chaos. So, as the oil price began to fall, many nations were in turmoil and the negative side effect of that had a large negative fallout on India.

The question that arises from this chain of crises is whether there is something more fundamental going on beneath the surface? I believe the answer is yes and the problem beneath the surface has to do with technology. There are two particular kinds of changes taking place. One which has happened through history, from the stone age to now, though it may have speeded up now, is the march of “labour-saving technology”.

The second change which is new to the world is what I have in an earlier paper called “labour-linking technology”. This is technology which allows you to do your work sitting far away from the corporation for which you are working, and far away from the consumers to whom you are supplying the goods or services. You can sit in Bangalore, or Chennai or Hyderabad and work for them. This is transforming the world of labour and this is showing up in data which is only now beginning to be noticed and talked about. This is an important development for India.

If you take the last forty years, the share of wages as part of GDP has been falling in virtually all upper-middle income and high-income countries. Take 1975 and 2015. For European Union countries together, the wage bill to GDP was 66% in 1975, it is now 56%. For Japan in 1975 the wage bill was 77% of GDP; now it is 60%; United States moved from 61% to 57%. This is true almost across the board. The reason is not difficult to see. A part of it is machines are taking over human jobs, and a part of it is caused by developing countries having the capacity to use labour-linking technology and do long-
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distance work. All you need is internet access, digital technology set-up, law and order, electricity, water. With such few basic things, you can sit in Bangalore and work for Tokyo. India has these supporting conditions, by and large, and has done well by labour-linking technology.

But this is a global problem and will eventually be a challenge to India as well. In rich and upper-middle income countries workers are getting displaced. And as this happens, wages previously earned by workers are becoming income in the hands of people who own the machines, who own the robots. To solve this requires a certain amount of radical thinking. I believe that in rich countries a certain amount of profit sharing is not just desirable but unavoidable. Otherwise, you are inviting social turmoil.

I should clarify here that interventions of this kind by the state have to be used with caution and care. You have to be careful not to use a blunt intervention that damages enterprise and creativity, since they are the drivers of the economy. At the same time, you do need interventions for redistribution so that for the segments of masses getting displaced by machines or by workers in other countries, which is happening in the United States, there is support from the state.

With this in the background, let me turn more directly to India. What is happening to the Indian economy, what are the opportunities for India? I want to say at the outset that, I believe, India's prospects are excellent. The price of oil is down and given the ceiling set by shale oil, it is likely to remain low. This is an enormous advantage to India. India has, in recent times, enacted some laws, which were needed and can confer benefits. The new GST (Goods and Services Tax) has teething troubles, but it is absolutely the right move. The new bankruptcy law is a move in the right direction and can potentially improve the ease of doing business in India. I must here add that the demonetisation was a big mistake. It has had and will have a negative fall out on the economy. But it will pass and the economy should pick up thereafter because of the other good moves mentioned above.
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As I criticize some policies and praise others, I want to stress that openness to debate is important for the long-run well-being of the economy. We will not be able to assess policies correctly if we jump to conclusion on the basis of ideology or depending on who is the author of the policy. India was known for its tradition of openness and free discourse. We must work hard to protect that. Having arrived in India a couple of weeks ago, and watched some evening television, I have to say it is very frightening to see some of these screaming matches. You do not hear any serious debate or discussion, just screaming.

For me, personally, this is not bad because I normally have slightly low blood-pressure, and watching some of the Indian television channels for fifteen minutes increases the pressure just right. But for India this is damaging. People need to sit, have serious discussions, and think clearly. I can give you lots of examples of how plain, simple clear thinking can help. Here is an example.

In 1991, India was, as you all know, in a massive crisis. Then from 1991 to 1993 India undertook reforms, among the most important reforms the country ever undertook since its independence. What these reforms did is there for all to see. India's growth picked up in 1994, and, though there have been road bumps, such as the one we just hit, generally the nation has been on an upswing since then.

I want to talk here about one policy reform, which needed nothing but some clear thinking. Till the early 1990s, Indians had to worry a lot about India's foreign exchange reserves. RBI used to have roughly five billion US dollars of reserve at any point of time, for the previous twenty years—since 1970 or so. If it dropped to 3 billion we called it a balance-of-payments crisis; if it rose to 7 billion you sat back comfortably. In 1991 came a big crisis, which forced the government to think through and implement policy change.

Before 1991, you will remember, the policy in India was, since India had so little foreign exchange you must not allow people to take foreign exchange out
of the country. That was meant to be a measure for preserving the country's meagre foreign exchange reserve. But just think in two steps: If in a country you do not allow people to take foreign exchange out, people will surely hesitate to bring foreign exchange into the country, because once you bring it in, you will not be able to take it out.

So, paradoxical though this may sound, one way to encourage people to bring foreign exchange into the country, is to announce that people will be allowed to take foreign exchange out of the country. In 1991, India, thanks to the crisis, was forced to contend with this policy option. It took cover from IMF, because when you announce such a policy, in the beginning there is always a risk, as soon as you allow people to take foreign exchange out, you will get a huge outward rush without commensurate inflows. So India approached the IMF, which provided cover. The policy was successful and two years later, IMF was not needed anymore.
India, which over a twenty year period used to have roughly five billion US dollars, once it allowed people to take their money out, over the next twenty years, felt comfortable to bring their money in. And India's foreign exchange reserve rose to roughly 300 billion rising steadily. The attached graph of India's foreign exchange reserve illustrates what a dramatic difference a policy shift can make.

The demonetisation policy mistake could have been averted, if it was subjected to some clear thinking and diagnostic discussion. Many justifications were given for the demonetisation subsequently. The first justification, in the press release that was posted by the Ministry of Finance on 8th of November last year, was that demonetisation would clean up India's fake currency notes problems. In India, it is believed 1 in every 4,000 notes is fake, which is slightly higher than in similar nations. Let us think through the case for fake currency notes being cleaned up through demonetisation.

What will happen if you go for demonetisation? Yes, fake currency notes of denominations 500 and 1000, will (along with genuine currency notes) come to the banks. The banks will change those to regular currency notes, and give them back to people. But what is achieved by this? Absolutely nothing. Fake currency notes in themselves do no harm, they are like actual currency notes.

What needs to be understood is that fake currency is bad at the point of injection. When someone brings in this currency, that person buys up goods, and services, which are meant for other people. But once the person who minted those false notes have bought up the goods, those notes in circulation do no harm. Those notes are like any other notes. If we feel there are too many notes in circulation because of the injection of fake notes, all we have to do is to remove some notes. Nothing is gained by going specifically after the fake notes.

The second objective of catching black money was more serious. It is a desirable objective. But the way it was done, its failure was preordained. First, the real big players park their black money abroad—in Panama, in Mauritius,
in Switzerland—also in real estate. The bulk of black money that sits as cash was also exchanged by the hoarders who cut up their hoarding into small blocks and got ordinary people, the “money mules,” to change them into new currency.

What about the objective of digitisation, going from cash to cash-less economy? That is the direction in which every country will move, given the march of technology. But, again, you do not use a shock technique to the economy, a big shock to the market, to achieve this. A sudden digitization in an emerging economy like ours will be devastating for the poor and for the informal sector. Digitization has to be a gradual process. Demonetization has nothing to do with it. So, all said and done, demonetisation was a mistake and it has slowed down growth. The country should have been back to over 8% growth but we are at 6.1%. We will probably remain at a low growth for some more time as the shock works through. But fortunately it is a one-time shock; if we do not make a similar mistake it is going to go away and other drivers of growth will kick in.

Some of the other policy moves by India in recent times were good moves. The GST, while not perfectly designed — you have to understand India's complicated politics - will do the country a lot of good. Let me point to one particular aspect of the GST which is not getting enough attention. People worry about GST causing prices to rise or fall. That is minor compared to some of the real big benefits GST can confer. GST allows goods to flow freely from one state to another. The amount of wastage—bureaucratic interference and delays - that would take in the market place, before GST, used to be large. The World Bank estimated that when a truck, carrying freight, moves from one city to another in India, going through different states, on an average it is stationary 60% of the time—mostly at check-posts paying taxes, paying octroi, bribing and doing paper work. The GST makes it possible to rule that trucks will not be stopped any more, anywhere. Tax them at the start, tax them at the end if you want, you cannot stop them in transit. Since India is now under a single taxation system, you do not have to stop anybody entering or leaving a state. I
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am told 22 States have already announced such a policy. It is this cutting down of transaction costs that is the big gift of GST.

The other policy that is not getting as much attention because it is sector specific, is India's new bankruptcy law, which implies that firms going bankrupt should be able to close down more quickly. This bankruptcy law can change India's position in the doing business ranking, which the World Bank produces. Even before I went to the World Bank, when I was in India as chief economic adviser, I would stress the importance of cutting down transactions costs for business. India used to be 142nd among 189 countries that are ranked; it is now at 130th. That is still too poor a performance. To enforce a contract, India is 176th among 189 countries. These are things that we need to work on and improve and try to take India quickly into the top 100 and then aim for the top 50.

Finally, I want to mention two areas where India can do very well, if the government creates an enabling atmosphere. This is bit of a China-style policy of identifying special sectors and making them vanguards for the whole economy. First, India can be a hub for higher education in the world. People will come not just from developing countries, Africa, Asia, Latin America, but from United States and Europe. Come to India, four years of excellent education, much cheaper than in rich countries, and then you go back. The American higher education market is extremely expensive, for a lot of middle-class Americans it is a big worry. India with its advantage of the English language, with its advantage of history of good engineering education, finance education, can do this. I have worked out the details of the finances. Success as a global hub for higher education, will bring in a lot of foreign exchange, help India provide subsidized education to its own masses and also be a form of soft-power engagement with the world. If you look historically at countries that have done well economically, typically they have also been centres of education. Britain did this in the 19th century and early 20th century. United States is doing it now. China is also investing a lot of money in this.
The other sector where India is already doing well but can do better is providing healthcare services for the world. Health-care is extremely expensive in today's world. India can provide this at a much lower cost. These are areas where government does not have to get directly involved, creating schools and hospitals. There is enough enterprise in the country that these developments will occur through private initiative once the enabling ethos is provided by the government. The state has to do small things, like change visa rules appropriately, regulate standards, basically, oil the nuts and bolts of society; and these two sectors can flourish and inject energy into the entire economy.

In closing I must mention one concern on the social side. There has in recent times been a rise in hyper-nationalism and in aggression towards 'others' and minorities, the recent lynchings being the most extreme manifestation of these tendencies. This is not in keeping with India's tradition of tolerance, democracy, freedom of speech and the nurturing of science. The lynchings that occurred in the name of patriotism were reported all over the world and are a matter of national shame. But even if they were not reported widely, they are morally abhorrent and should not be permitted anywhere. Further, these social regressions can damage the nation's economic growth prospects.

In economics we often ignore the connection between the social and economic; but that is folly. One example, which I am acutely aware of as a Bengali, from Kolkata, is the decision, in 1983, to ease out English from government-run primary schools in the state. This was done for a reason that is understandable. The leaders wanted to nurture the language of the region, in this case Bengali. They wanted children to learn the poetry and literature of this rich language. Yet, to banish English to the margins, which is the world's most important language, was a mistake, a social intervention for which the state paid a big price. The workers of the region lost an advantage they earlier had on the job market, in India and the world. This will take long to repair.

The intolerance and violence are worse because, while they do damage to the
economy, they do not even have a cultural or social rationale and are morally reprehensible. I would appeal to the nation's leaders, that there are people in every society, every group, who would like to destabilise society by these kinds of depraved behaviour. It is the responsibility of the leaders to stop these retrogressive forces, for the sake of the country and even in their own long-run interest. Occasionally when I talk to people at the helm in Delhi, they express concern. But that has to be translated into action. India today stands at the cusp of major economic development. We want the country to take leadership in terms of not just economic growth but also politically and morally. I close by urging all of us to work together to seize the opportunity.

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