

Macroeconomic Overview of India

Since India gained independence from the British in 1947, they have made steady progress in economic growth and poverty reduction. There has been political unrest and tension with Pakistan. However, there have not been substantial shocks to the economy. The most recent crisis was in 1991, but was not a major crisis when compared to Asia or Mexico. GDP did not decline in 1991 or 1992. Despite the political tensions, India has shown substantial growth in the very long run. India is one of the fastest growing economies in the world.¹ Output has increased incrementally, poverty rates have been reduced, and there has been ongoing improvement in measures of human capital. Substantial challenges, such as ameliorating the persistence of poverty and insuring growth continues, still exists. Currently, India's GDP is around \$3-\$4 trillion, per capita GDP around \$3000. The GDP in India is growing at a rate of 8%.² By looking at the Solow Growth Model and some other key macroeconomics theories, some improvement can be done to improve these figures.

Economic Policy Changes

Government controls on foreign exports and investment have been reduced which provides an opportunity for continued growth. In 1991, the government implemented a number of reforms to liberalize the economy and integrate into the global market. These included currency devaluations and making currency partially convertible, reduced quantitative restrictions on imports, reduced import duties on capital goods, decreases in subsidies, liberalized interest rates, and tax reforms.³ The policy changes have resulted in a \$200 million increase in Foreign Direct Investment (FDI) from 1991 to 1992. FDI has increase every year since to over \$3 billion at the end of the 2002.⁴ In addition, despite policy changes, in 2003, the stock of FDI to India totaled just 5 percent of GDP.⁵ India has also experienced gains in exports, especially in the technological sector.

Monetary Policy Change

In 1993, India floated the rupees from its multi-currency peg. There was no noticeable affect on real GDP in 1993 or 1994. The immediate affect was an increase in inflation, 17% increase in the CPI in 1993 and 21% in 1994. Inflation has gone down since down to 3.5% for 2004.⁶ Yet at the same time, the reserve bank of India has been engage in monetary expansion. Foreign reserves have been increasing since 1996 and the currency has been depreciation in recent years. Interest rates (1 to 3 years loans) have been steadily declining; around 9%-10% throughout the 1980s and early 90s, down to 4%-5% since 2002.⁷

Banking

India has a heavily regulated banking system and capital market is controlled by the Reserve Bank of India (RBI). At present the number of nationalised banks is 20. Several Foreign banks were allowed to operate under the guidelines of RBI. Foreign banks are focused on the corporate and the middle class consumers. In the year 2001 estimated foreign bank account for 14.7 percent of the total net profit of commercial banking sector in India.

Because of the underdevelopment of the banking system, Indian citizens prefer using cash in transaction. There were 5.3 million credit cards and 5.6 lakh debit cards in India. Compared with its population of over 1 billion, the number is low. There are currently 500M people in India without bank accounts. This is in part because access to banks is limited, particularly in rural areas.⁸ Individuals who wish to save spend 10% of their savings on transaction costs, creating further barriers to increasing the savings rate.⁹

Main Industries

The rural economy in India is primarily based on agriculture, with a mix of village farming and modern agriculture. Agriculture accounts for 23.6% of GDP. However, the output from the agricultural sector has been declining. Industry accounts for 28% of the GDP and software and technology have been growing quickly in India. The remainder of the economy is service based.

Poverty

Poverty has been reduced by 10% since 1990. However, the poverty rate in India is still 25%. Unemployment is historically around 10%. This figure is a bit deceptive because rural unemployment is always around zero. Farmers may be employed, but it is not a good indicator of their welfare. This is important because agriculture industry is one of the biggest industries.

Education

Literacy rate in India has slowly been increasing in the last decade, from 52% in 1990 to 64% now; nearly doubled from 30 years ago. However, disparities between male and female are high, around 20%. As an indicator of human capital, these numbers are low.

Population Growth

India is notorious for its population size, currently at a little over 1 billion. Population growth in the 90s was 2.13%. This leads to projections of India becoming the world's most populous country somewhere between 2040 and 2050. Recent decline in growth rate make these predictions suspect. Growth rate has decreased from 2.4% in the 80s and 2.5% in the 70s. Current yearly population growth rate is 1.4%, high, but low relative to other countries in the region.

A more alarming trend is population movement. Rural population has grown only by 1.8% in the 80s and 2% in the 90s. The bulk of population grown has been urban, 3.1% in the 90s and 3.5% in the 80s, which indicates rural flight and urban overcrowding.¹⁰

There is mix blessing in the age distribution of the population. Population over 65 is only around 7% while population under 15 is 1/3. This indicates a growing labor force that will take care of the aging population, but a more alarming need for job creations.

Challenges

From the rough sketch of India economy, some of the most significant challenges to continued growth are:

- The current public debt is a cause for concern. It is currently approximately 60% of the GDP.

- Population growth is always a concern for the second most populous country.
- The liberalization of trade policies in India has resulted in greater dependence on imports, an increased reliance on debt, and vulnerability of the balance of payments.¹¹
- Private and public investment remains low compared to other Asian economies.¹²
- Other concerns for India include the ongoing tension with Pakistan and environmental degradation.

Solow's Growth

Whether looking at basic or endogenous growth model, India is paced for gradual growth. Real GDP growth for the last 10 years have held steady at approx. 7% per year. Real GNP per capita, however, has fluctuated from as high as 10% growth in 1995-1996 to a low of -1.5% in 1991-1992, the year of reform. The Solow model will explain the direction of the economy. Aside from the economic overview, the Solow model requires insight on depreciation and savings.

Depreciation

Depreciation in the 1990s has been stable, around 7% of GDP.¹³ The World Bank assumes a 4% depreciation rate for all country. Depreciation in India could be higher because of the climate and geography of the country.

Savings

Gross Domestic savings rate has held steady at 20% in the last decade. In the 80s, the savings rate was around 19% which is an improvement from 15% in the 70s and 9% at the time of independence. Over the same period, India has seen a steady decline in public saving over three decades. In fact its public saving has kept negative since 1980, but private savings has compensated. In 1980s India adopted expansionary fiscal policy and finance expenditure by borrowing at home and from abroad. The growth rate of GDP was temporarily improved to 5.8%, but the debt-led expansion was accumulating imbalances; which led to a slight crisis.¹⁴ Looking at trends, the steady state savings rate should be around 20%.

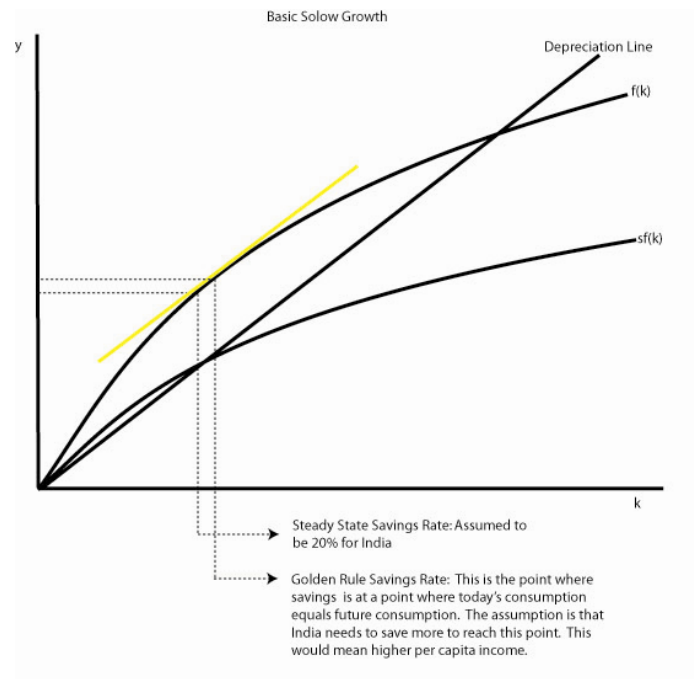
Putting the Model Together

Savings rate outpaces depreciation and population growth. The growth model indicates that India should continue to grow whether under exogenous or the basic model. Many economists, however, have indicated that India's growth rate should be higher.

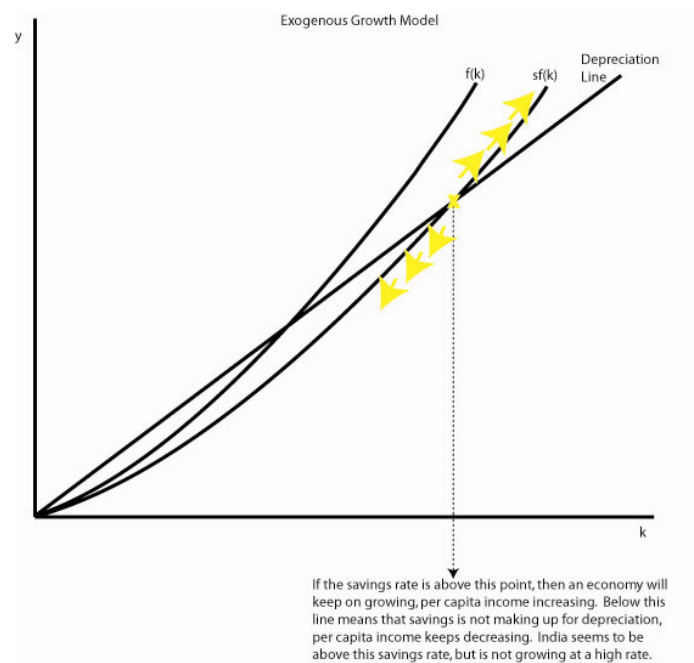
While population growth rate had decrease, high urban growth rate will cause infrastructure problems. At the same time, the large under 15 population will increase the labor force weighing down the capital labor ratio and the income labor ratio. If literacy rate is an indicator of capital, then the positive growth is a good trend. Slow rate of GDP growth could also be from technology increase, which is hard to predict. Technology growth has reached certain segments of the population, but not others.

Applying these facts to the basic Solow model, the savings rate is above depreciation because y , as measured by per capita GDP, has been increasing. This does not mean that

the economy is at the Golden rule savings rate. The number indicated that savings need to increase in order for future consumption to increase. Thus, explain the measures by the government to increase savings rate.



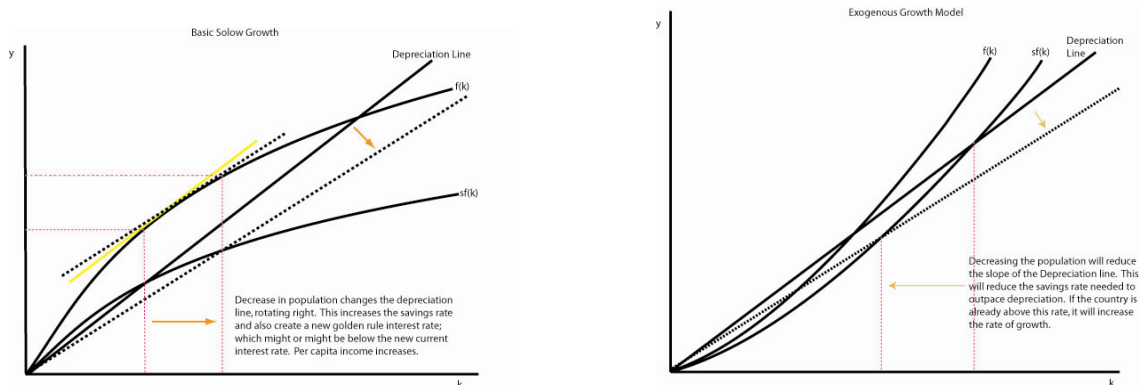
Because the Indian economy has been growing, the same prediction the basic model applies to the exogenous growth model. If India was saving below depreciation, then y would be decreasing. Instead, y has been steadily increasing and according to this model, will continue to grow.



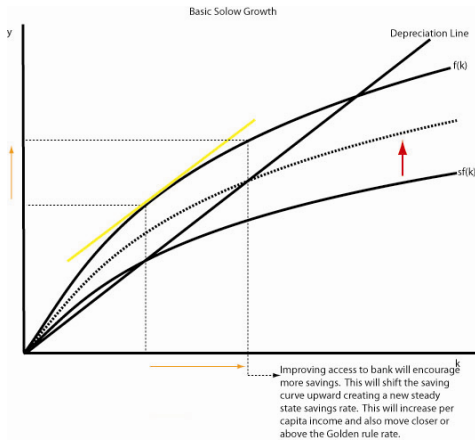
Recommendations

In the last half century, countries that have experienced high rate of growth have 4 things in common. They all exercise fiscal discipline, spent money on health and education, expanded their tax base, and achieve a unified competitive exchange rate. Many of these are already being address in India. These recommendations address some of the key point that India needs to improve along with predictions based on the Solow model.

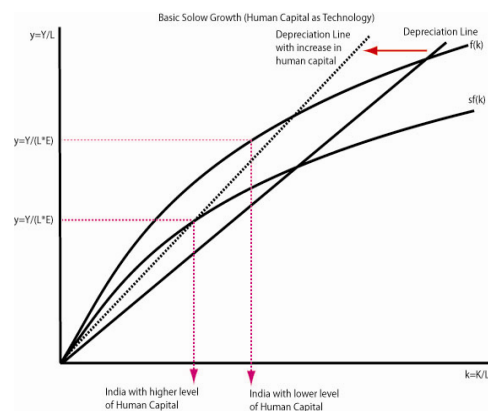
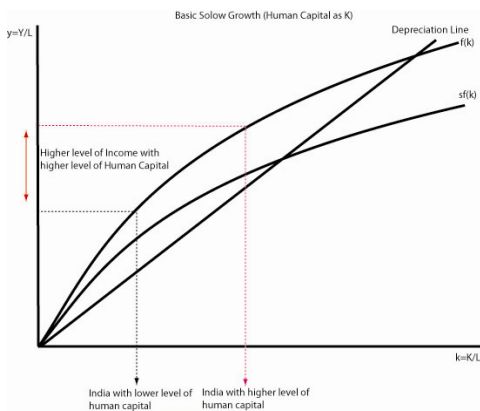
1. In order to address the concerns about population growth, family planning services should be provided in India. This can increase access to information and birth control and improve the general health of the country. Reduction in the population growth rates will rotate the depreciation curve right. In the basic Solow model, this will increase the saving rate and also change the golden rule interest rate. In exogenous growth this will reduce the rate at which savings exceed depreciation. India is probably above this rate, but now it will be even further above and should grow at an even faster pace.



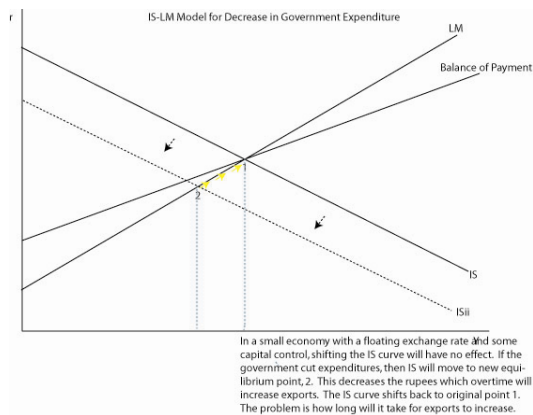
2. Another important recommendation for improving the financial situation in India is increasing the savings rate. One strategy for improving the savings rate is improving the access to banks, especially in rural areas. In addition, the quality of the Indian money is too low to go through ATM machines. Utilizing ATM machines is one strategy for increasing access to banks. Additionally, it is critical that India work to reduce the transaction costs for banking in order to remove existing disincentives to save. In addition, India should privatize its bank in order to induce competition in this sector; hopefully leading to increased efficiency. Overall, these reforms should increase saving rates. In the basic model, this would move the savings rate curve up, increasing per capita income and also bring the country closer or above Golden rule rate. Under exogenous growth, increase savings is along the curve and can bring a country above depreciation or increase the growth rate.



3. Invest in human capital by increasing education. Improvement would be reflected in the literacy rate. The basic Solow model has two ways of explaining the effect. Human capital can be thought of as capital (K) growth. Increasing K will increase $k = K/L$ which is an increase in per capita income. If human capital is thought of as technology progress, then $k = K/(L+E)$, because each worker is now more productive. India has been especially focused on technology progress with numerous investments in the telecommunications and computers industry. The level of per capita income is higher here, because technology growth leads to an increase production and income.



4. Reducing the deficit is another goal for India. A decrease in government expenditure, for a country with a floating exchange rate and some capital control, will have little effect under the IS-LM model. Output will decrease at first as the IS curve shift right, but also the exchange rate which will leads to increase exports. Overtime, India exports will move the IS back to its original point. There will be some economic hardship for a short time, but this would definitely worse if India is a country with fixed exchange. Decreasing deficit will increase confidence in the economy and FDI will increase. It would also wise to increase the tax base at the same time. Fiscal contraction might not be necessary and the IS curve might actually shift outward.



Conclusion

India has been on a good track for the last 30 years. Some minor changes can improve economic growth. Based on historical records, India need to increase education and health services in order to improve human capital and decrease population growth. Capital market improvement will need to reform in the form of privatizing banks and improvement access to banks. This would increase the savings rate. At the same time, 60% debt is a concern. Increasing the tax base might be a solution to avoiding decreasing government expenditure. Confidence in the Indian economy is growing, but it could be higher.

¹ Rodrigo de Rato, (2005) Managing Director of the IMF “Prospering in a Global Economy” a speech at the Reserve Bank of India retrieved from <http://www.imf.org/external/np/speeches/2005/031705.htm>

² CIA World Factbook Online

³ “India Business Culture” retrieved from http://www.indianchild.com/indian_economic_policies.htm

⁴ “Country Profile: India” The World Bank Group, <http://devdata.worldbank.org/external/CPProfile.asp?SelectedCountry=IND&CCODE=IND&CNAME=India&PTYPE=CP>

⁵ Rodrigo de Rato (2005)

⁶ Indiastat.com “Selector indicators of the Indian Economy” retrieved from <http://www.indiastat.com/india/ShowData.asp?secid=21498&ptid=160&level=3>

⁷ Indiastat.com “Interest Rate” retrieved from <http://www.indiastat.com/india/ShowData.asp?secid=6021&ptid=142&level=3>

⁸ Mor, Nachiket, (2005) “Expanding Access to Financial Services-Where do we go from here?” From the SIDBI Sa-Dahn Policy Conference on “Financial Series Accessibility and the Poor: Need for Facilitating Regulatory Environment” (New Dehli)

⁹ Prahalad, C.K. (2005) The Fortune at the Bottom of the Pyramid (Wharton School Publicishing: Philadelphia, PA)

¹⁰ Indiastat.com “Population” Retrieved from <http://www.indiastat.com/india/ShowData.asp?secid=217&ptid=7&level=2>

¹¹ “India Business Culture” retrieved from http://www.indianchild.com/indian_economic_policies.htm

¹² Rodrigo de Rato (2005)

¹³ Indiastat.com “Depreciation as Provided in Books of Accounts (At Current Prices) in India (1993-2001)” and “Gross Domestic Product by Economic Activity at Current Prices (1993-1999)” retrieved from <http://www.indiastat.com/india/showdata.asp?secid=332801&ptid=332741&level=> and <http://www.indiastat.com/india/ShowDataSec.asp?secid=19323&ptid=19312>

¹⁴ Nirvikar Singh “Fiscal Policy in India: Lessons and Priorities” retrieved from http://repositories.cdlib.org/cgi/query.cgi?field_1=lname&value_1=Srinivasan&field_2=fname&value_2=T.&advanced=1