A Case Study: Impact of International Liberalization on the Indian Economy

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Abstract

This paper, using the Solow growth model looks at the impact of liberalization on India's economic growth. Additionally, using empirical data, it analyzes the patterns, processes, and characteristics of India's economic growth. The Solow model explains the long run economic growth via the change in the Solow residuals. This paper defines the Solow residual as International trade. This paper will show that International trade and fewer regulations on exports and imports have ignited high economic growth in India. After the late 1980s, India saw an immense increase in international trade. Led by low tariff rates, India saw a hike in exports and imports and more importantly, foreign investments. With the backing of facts and figures, this paper will show that India has actually benefited in terms of economic growth from international trade. With liberalization, India has not only had success in the macro level, but it has also impacted people in terms of per capita income in the micro level. This paper is broken down into 4 sections. The first section gives an introduction to India and its relevance to the Solow model. The second section explores the theoretical framework of the Solow model. The third section uses the empirical data to examine the impact of liberalization on India (pre and post reformation). Finally, the fourth section is the analysis and conclusion section which compares India to other South Asian counties and gives policy recommendation.

Key Terms: International Trade, Foreign Direct Investment, Exports, Imports.

A Case Study: Impact of International Liberalization on the Indian Economy

Introduction:

India is the largest country in the Sub-Continent bounded by the Indian Ocean in the south, the Arabian Sea on the northwest and the Bay of Bengal in the southeast. It also borders with Pakistan to the west, Nepal, Bhutan and the Republic of China to the northeast and Bangladesh and Burma to the east. A country mainly known for its rich culture, India is also known for its highly diverse and rich geography, different languages and religion. Hinduism is practiced by the majority of the people (80.5 percent), with Muslim (13.4 percent) being the largest minority (CIA, 2011) . Despite being considered an underdeveloped country after gaining independence from Great Britain in 1947, India has transformed its economy to become the 5th largest economy in the world with a gross national product (GDP) of 1.31 trillion USD in 2011(CIA, 2011). Thanks to economic liberalization, including industrial

deregulation, privatization of state-owned enterprises and reduced controls on foreign trade and investment, India has accelerated its economic growth tremendously over the last two decades.

Historically, India was predominantly an agricultural society. In other words, the agricultural sector had been the core of the Indian economy for several decades, accounting for 57 percent of the GDP in 1950-1951and 49 percent from 1964-1965 (Panagariya, 2008, p. 12). However, after the 1970's, India started to see a steady decline in the share of agriculture in the GDP, falling from 57 percent in 1950-1951 to 21 percent in 2004-2005(Panagariya, 2008, p. 12). The decline in the agriculture sector was absorbed by the industrial and the service sector. Contrasted to other emerging countries, where economies transitioned from the agricultural to the industrial sector, India experienced bulk of its growth in GDP through the service sector. Between 1950-2005, the share of the industry sector in India grew only from 15 percent to 27 percent (Panagariya, 2008, p. 13). On the other hand, the share of services grew from 28 percent to 52 percent in the same period (Panagariya, 2008, p. 13). The reason for this unorthodox transition is attributed to continuing restrictions implanted on labor-intensive products. Until the 1990's, reservation of the vast majority of the labor-intensive products for small-scale enterprises kept large firms from entering their production despite removal of licensing. Also, labor market inflexibilities, including the lack of rights to hire and fire employees, played a major disincentive for big firms to enter the local market. Service sector on the other hand was

free of these regulations, which allowed the firms to operate more freely and grow quickly. Moreover, the lack of regulations in the service sector played a vital role in the economic growth of India.

This paper aims to evaluate the policies and trends in the liberalization process in India. In order to accomplish this research, the basic economic theories that address this issue must be understood. The most important economic theory that applies to the liberalization transformation is the Solow Growth Model. This model builds on the production function, which describes how any amounts of capital and labor can be combined to generate total output. The Solow model adds the theory of capital accumulation to the production function. According to the model, increase in investment rate or total factor productivity can increase a country's steady-state position and therefore can increase short term growth. However, to enjoy long term growth, a country needs to focus on the Solow residuals. Solow residuals are exogenous factors that help in raising the overall output of the economy. This paper argues that international trade and openness of the economy (Solow residuals) have accelerated India's overall output leading to a faster economic growth. In order for an underdeveloped country to prosper, it needs to liberalize its economy to generate higher output. This paper will test the impact of liberalization in India's economy before 1990 and compare it to post 1990. Also, this paper will try to analyze the patterns, processes, and characteristics of liberaralization and its importance toward transforming one's economy. Additionally, it will try to examine the impact of economic liberalization in the

development process of India. Finally, it will compare India to other South Asian countries and give policy recommendation.

An Examination of the Solow Model

The general characteristics of less developed countries (LDC) include low income, inadequate infrastructure, a poor health care system, a poor educational system as well as unstable economic and political systems. It has been a global challenge, especially for developed countries, to try to tackle these complex issues. Since World War II, it has been a big interest in the economics field to determine the best economic policies that can provide higher standards of living in less developed countries (Hendricks & K. Kulkarni, 2008, p. 6). Over the years, various economists and scholars have proposed different theories as vital to achieving economic development. American economic historian Walt W. Rostow proposed The Stages of Economic Growth. According to Rostow, for any economy to grow, it must go through sequential stages. However, he was not explicit as to how economic growth would occur. This model was followed by the Harrod-Domar Growth Model, which concluded that economic development is a direct result of increase in savings rate. However, in order to increase the savings rate, the model proposed increasing savings by external borrowing from international lending institutions such as the Asian Development Bank, the World Bank and the International Monetary Fund. The biggest problem of this approach was that it could cause repayment problems later, which has been the case in many developing countries (Todaro & Smith, 2009, p. 115).

In the mid 1950s, Nobel Prize winner Robert Solow described a mechanism that drives economic development. Since its establishment, the model has been extended in a number of important directions and is now probably the most widely used in the field of macroeconomics. The model is based on the ideology of neoclassical economics. Neoclassical economists argue that economic development is possible when markets are allowed to work efficiently and private enterprises are supported by the domestic government. This is achieved by liberalization of the economy with fewer taxes, lower administration controls and free international trade. They also argue that too much government control has led to no economic growth, citing corruption, bureaucracy and administration delays as impediments to growth.

The Solow model is an extended version of the production function. It is comprised of one more element known as the theory of capital accumulation. Instead of the capital stock being given at some exogenous level, agents in the economy can accumulate tools, machines, computers, and buildings over time (Jones, 2011, p. 99). This accumulation of capital is converted from an exogenous variable into an endogenous variable in the Solow model. According to the model, the accumulation of capital is the main engine that drives economic growth. Solow expands this theory by saying that investing in more capital becomes the difference between a rich and a poor country. A country that uses its resources to invest in capital accumulation prospers compared to a country that does not.

The model is best understood by looking at a hypothetical example. Let us assume that an economy is comprised of a large family that owns a farm. The family produces various vegetables. Each year, the family starts by planting some seeds in the spring, tending the crop over the summer, and then harvesting near the start of the autumn. Let us assume that the first year the family uses cattle to plow the land before planting the seeds. They end up with X amount of vegetables. Out of the amount they produce, let us assume that they consume half and save the other half to sell in the market. By selling one half of the vegetables, the family generates some income. They use that income to purchase a tractor (capital) to help plow the lands. This increases the efficiency of the production process and results in higher yields of vegetables the next year. Therefore, as the years pass, the size of the harvest grows larger and larger, as does the quantity of vegetables that the family can sell to make profit. This shows the accumulation of capital overtime, which is the core of the Solow model. This can also be interpreted mathematically using the production function and adding the capital accumulation to it. The production model can be mathematically described as follows:

$$Y_t = F(K_t L_t) = AK_t^{1/3} L_t^{2/3} \quad \dots\dots\dots\dots\dots(1)$$

where Y is the total output produced by the firm, K and L are the capital and labor used in the production of the output. We assume that this production function is a Cobb-Douglas and exhibits constant returns to scale in K and L. In other words, if capital increases by 1 unit, holding everything else constant, Y will increase by 1 unit. In the example economy above, the output can be used for two purposes- consumption and investment. Mathematically, $C_t + I_t = Y_t$ C_t is the amount of output that is consumed by the family, while I_t is the amount invested for the future. This function is called a resource constraint, which describes a fundamental constraint on how the economy can use its resources. Also, it is assumed that the farm is a closed economy, meaning that there are no imports or exports in the equation.

The portion of the vegetables invested for the future (I_t) determines the accumulation of capital and can be shown by the capital accumulation equation-

$$K_{t+1} = K_t + I_t - dK_t \quad \dots\dots\dots\dots\dots\dots\dots(2)$$

Equation 2 says that the capital stock next year, K_{t+1}, is equal to the sum of three terms- K_t, I_t, dK_t, K_t is this year's starting capital. I_t is the amount of investment undertaken using this year's production and dK_t subtracts depreciation from the capital. The capital is assumed to depreciate every year by the amount of d. In the above example, is thought of as the fraction of vegetables that cannot be produced due to the tractor's malfunction. According to the capital accumulation equation, the amount of vegetables in storage next spring will be equal to the amount in storage this year, plus the new additions from this year's harvest, minus the amount that is lost due to the tractor's malfunction (depreciation).

The capital accumulation equation can also be expressed in a different form.
Let $K_{t+1} = K_{t+1} - K_t$ represent the change in the capital stock between today, t, and next year, $t+1$. Then, $K_{t+1} = I_t - dK_t$. The change in the capital stock is equal to new investment I minus the amount of capital that depreciates in production. It can be seen that today's capital stock is the result of investments

undertaken in the past. This works fine for all periods except the first. To get the model started, it is assumed that the economy is endowed with some initial capital K0 and the model begins at t = 0. It is assumed that the amount of labor working on the family farm is given exogenously at the constant level L.

In the economy described above, it is critical to know the rule for allocating resources. In other words, out of the total vegetables produced, how much is allocated to consumption and how much is allocated toward investment. For simplicity, let us assume that the family farmers eat a constant fraction of the output each period and invest the remainder. Let S denote the fraction invested, so that $I_t = sY_t$. If S signifies investment then consumption $(C_t) = (1 - s) Y_t$ because the total output is used for either consumption or investment.

Solving the Solow Model

The first step is to combine the investment allocation equation with the capital accumulation equation. From that we get,

$$K_t + 1 = sY_t - dK_t \dots\dots\dots\dots\dots\dots\dots\dots\dots(3)$$

| Change in Capital | Net investment |

Equation 3 can be interpreted as the change in the capital stock is equal to . Therefore, quantity $I_t - dK_t$ is often called net investment. It is the investment minus the depreciation. In order to obtain the single dynamic equation describing the evolution of the capital stock, we can simply plug in the production function for output into Equation 3. The Solow diagram helps understand the different dynamics of the capital stock.
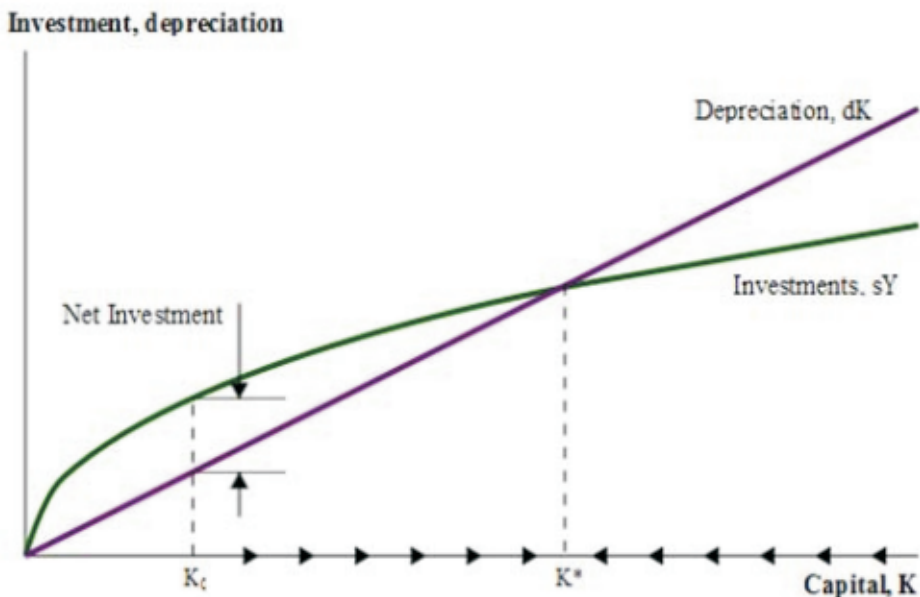

Figure 1 : Source (Jones, 2011, p. 105)

In Figure1, two terms (sY and dK) are plotted that govern the change in the capital stock, according to the capital accumulation equation. The curved line, which is the new investment line depends on production and can be written as $= sY = sAK^{1/3}L^{2/3}$.

Let us suppose that the economy begins with a starting capital K 0, as shown on the graph. At the level K0, the amount of investment, sY exceeds the amount of depreciation, dK0. In other words, the amount of vegetables we add to the storage exceeds the amount that is not produced due to tractor's malfunction, so the total amount of vegetable in the storage rises. In mathematical terms, t+1= sY_dk - is greater than zero, so the capital stock increases. This signifies that k1 will be greater than k 0 and is right of k0 on the graph. Therefore in period one, the sY curve lies above the dK curve as shown in Figure1. Investment exceeds depreciation leading to a positive net investment. If Net investment is positive, it leads to an increase in the capital stock. This process continues as the economy moves in the direction of the arrows in Figure 1 until the economy reaches a capital level $K*$. At this point, the two curves in the Solow diagram intersect so that $sY = dK$. This shows that the amount of investment being undertaken is exactly equal to the amount of capital that wears out through depreciation. Since investment equals depreciation, the change in the capital stock is equal to zero (Kt+1 = Kt) and the capital stock remains constant. In the absence of any exogenous shock, the capital stock remains at point K *. This point is called the steady state of the Solow model. In Figure 1, indifferent of the initial level of capital, $K0$, after a certain time, the economy will converge to the steady state $K*$. The steady state can be explained mathematically.

According to the Solow diagram, the steady-state level of capital is such that $sY* = dK*$. Substituting from the production function, Equation 1, we see that

$$sAK*^{1/3}L^{2/3} = dK*$$

Solving this equation for $K*$ by collecting the $K*$ terms on the right-hand side and raising both sides of the equation to the 3/2 power, we get

$$K* = \left(\frac{sA}{d}\right)^{\frac{3}{2}}L \quad\dots\dots\dots\dots\dots\dots\dots\dots\dots(4)$$

Equation 4 points out the steady-state level of capital $K*$. According to the equation, a higher investment rates leads to a higher steady-state capital accumulation. For example: - If 20 percent of the harvest is invested instead of 10 percent, more vegetables will accumulate in the storage. The steady state level of capital also increases if the level of productivity is higher. This happens because if the farm is more productive, the harvest will be larger, and the larger harvest will translate into more vegetable in the storage. The steady state capital stock also depends on the depreciation rate and the size of the workforce. A higher rate of depreciation reduces the capital stock as more of the vegetable is affected by the tractor's malfunction. A larger workforce produces more output, leading to more investment and hence more capital in the steady state. Associated with the steady state level of capital $K*$ is a steady state level of production $Y*$, given by the production function:

$$Y* = AK*^{1/3}L^{2/3}$$

Substituting the equation of $K*$ into the equation above yields the expression for steady state production:

$$Y* = \left(\frac{s}{d}\right)^{1/2} A^{3/2} L \quad\quad (5)$$

In equation 5, a higher investment (*s*) and a higher productivity (*A*) lead to a higher steady state level of production, but faster depreciation (*d*) lowers it. The constant returns to scale of the function above shows that doubling labor leads to a doubling of steady state production . Finally, by dividing both sides of equation 5 by labor, we get solution for output per person (y) in the steady state.

$$Y^* = \left(\frac{Y^*}{L^*}\right) = A^3 \left(\frac{s}{d}\right)^{1/2} \quad \text{... (6)}$$

A is the Solow residual, which consist of exogenous factors such as human capital, international trade, less trade restrictions, technology change, etc.

Economic growth in the Solow Model

The most important implication of the steady-state is that there is no long-run growth in the Solow model. In the long run, the economy is stagnant at a constant level of production Y* and a constant level of capital K*. As we see from Figure 1, the Solow model will lead to economic growth for a while, but eventually growth stops as the capital stock and production converge to constant levels (Jones, 2011, p. 112). Therefore, it can be said that the capital accumulation cannot be counted to serve long term growth. The investment on factories, machines, computers, and other tools does lead to higher output in the short run. However, in the long run the diminishing returns to capital accumulation cause a decline in the return from these investments. Eventually, new investment of capital and depreciation offset each other, and the economy settles down to a constant level of output per person.

Therefore, a country cannot enjoy long term growth through capital accumulation, but it can through the Solow residuals. Solow residuals are exogenous factors that will help an economy to grow at a faster rate. Figure 2 explains this phenomenon.

In Figure 2, K* is the steady state is at Investment sY. Raising the capital (K) will lead to higher investment sY but only for a short period of time due to the diminishing return on the extra capital. The Solow residual causes an increase in output. Output increases from its initial steady-state level Y* to the new steady state Y**. This example shows that the increase in Solow residual causes the economy to grow over time.
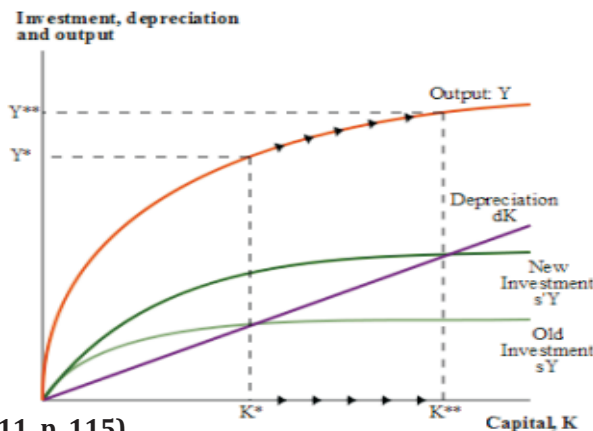

Figure 2: Source (Jones, 2011, p. 115)

In the long run- both steady-state capital and steady-state production are higher. Since we are assuming labor as constant, the level of output per person also increases permanently.

This paper defines International trade as the Solow residual. The reason for India's high economic growth over the last two decades has been a direct result of International trade. Due to International trade and fewer regulations on trade and foreign investment, another Solow residual, India has increased its output massively.

Pre-Reform - Protectionism Dominance

India gained its independence from Great Britain in 1947. After being ruled by the British for more than a century, a sense of nationalism had taken over the country. Foreigners were seen in a negative way and India was looking forward to being isolated from the rest of the world. In what was famously known as the Swadeshi movement, there was a strong belief that India could produce everything at home and become self-dependent (Kishore Kulkarni, 2010, p. 368). Jawaharlal Nehru, the prime minister of India (1947-1964) led this nationalist movement. Nehru envisioned India to become a socialistic society with a particular emphasis on development of heavy industries such as railways, airplanes, and guns. In a speech delivered at the Federation of Indian Chamber of Commerce and Industry in 1953, he emphasized the importance of developing heavy industries internally. He said if India did not develop heavy industries internally, it would have to import them from abroad. For Nehru, importing from abroad was to be the slaves of foreign countries (Panagariya, 2008, p. 25).

Nehru also emphasized that economic independence was critical to maintaining political independence at home. The main objective was to promote a production structure through planning and industrialization, which would eliminate the needs for imports, and free the country from the threat of closure of the world markets. This nationalistic vision had overshadowed the benefits of foreign direct investment. Multinational corporations were seen as exploitative entities that operated only for their economic benefit. They were also seen as companies that benefited from cheap labor but did not invest back their profits in the developing country. Therefore, foreign investment in India during this period was negligible. Higher tariffs were implemented to discourage foreign imports as India pushed for isolation.

Table1- India's Trade: 1965-1985

	Merchandise Exports	Services Exports	Merchandise Imports	Services Imports	Trade Balance
1965	129.4	62.1	125.3	57.5	4.9
1966	139.3	69.1	146.5	66.2	-8.6
1967	98.9	74.8	152.1	73.2	-57.3
1968	82.5	67.0	130.6	63.0	-51.2
1969	107.1	69.3	107.0	56.8	.9
1970	146.2	85.1	143.5	71.3	2.1
1971	150.8	97.2	200.6	85.0	-49.0
1972	191.7	99.8	215.5	84.0	-25.8
1973	291.0	118.9	326.0	93.2	-16.2
1974	329.4	140.7	476.7	125.3	-160.4
1975	306.5	182.5	441.9	118.3	-102.7
1976	402.0	172.5	427.9	117.2	-22.8
1977	512.6	212.1	564.7	149.8	-48.3
1978	640.3	262.0	618.4	192.1	18.9
1979	779.6	2 92.8	754.1	253.5	-21.2
1980	919.8	279.8	899.9	262.8	-79.1
1981	896.4	302.8	925.5	282.0	-147.9
1982	685.5	340.6	837.6	308.5	-263.2
1983	742.0	342.5	721.6	280.7	-56.9
1984	743.2	347.1	756.6	310.9	-131.3
1985	814.0	394.3	814.3	362.9	-115.1

Source: (Kishore Kulkarni, 2010, p. 369)

Table 1 describes India's trade market from 1965 to 1985. In these two decades, the exports and imports were so low that it formed less than one percent of the total world trade (Kulkarni, 2010, p. 368). As can be seen in table 1, Merchandise exports were only 82.5 million dollars in 1968. During this period, India achieved its peak in 1980 (919.8 millions) but the next two years saw a rapid decline. Between 1975-1985, the merchandise exports averaged only 675 million USD. The service sector shared similar pattern. Even though service exports were gradually increasing in this period, the figures were relatively low. The highest service export was experienced in 1985 at 394.3 million USD. This was the time when the agriculture sector was still dominant and the service sector was still decades away.

Merchandise imports gradually increased in the latter part of the 1970s into the early 1980s.

1974 saw a hike in merchandise imports, which was caused by the first oil price increase by OPEC (Kulkarni, 2010, p. 368). India was primarily dependent on OPEC countries for oil. Service imports also saw a gradual increase during the early 1980s but were kept at a relatively lower rate. As can be seen on the table, India saw its trade deficit spike from 16.2 million USD in 1973 to 160.4 million USD in 1974. This change within one year was astronomical and was blamed on the rise in the oil prices in the OPEC countries. Between 1965-1980, the share of exports and imports on India's GDP was considerably low. In 1970, only 3.4 percent of India's GDP was accounted by exports with only 3.7 percent by imports (Pangariya, 66). These low numbers in trade industry can be explained by economic policies that favored higher tariffs rate, strict quotas and different licensing on imports.

Due to many restrictions, India did not take advantage of the foreign direct investment (FDI). Compared to most industrializing economies in South East Asia, India followed a restrictive approach on foreign private investment until the late 1980s. The country primarily relied on bilateral and multilateral loans with long term maturities. FDI was perceived as a means of acquiring industrial technology that was unavailable through licensing agreements and capital goods import (Nagaraj, 2003, p. 1701). The few FDI India allowed were permitted to designate industries in a condition that they would set up joint ventures with domestic industries. The condition also required export obligations, and promotion of local research and development. The Foreign Exchange and Regulation ACT (FERA) of 1974 allowed foreign firms to have equity holding only up to 40 percent (Nagaraj, 2003, p. 1701). Foreign firms were not allowed to use their brands but hybrid brands like Hero-Honda were promoted.

Graph 1 shows the Net inflows of FDI in India from 1967 to 1990. Between 1972 and 1985, FDI was very low with negative between 1976 and 1978. More foreign investment started to pick up in the late 80's with net inflows of $220 million in 1988(Trading Economics, 2011). Even in the peak year of 1988, the FDI only accounted for 0.08 percent of the nation's GDP. This shows how negligible the impact of FDI was on the economy of India on the eve of globalization.

INDIA - FOREIGN DIRECT INVESTMENT; NET INFLOWS (BOP; US DOLLAR)

Source: TradingEconomics.com

India finally started seeing some change in the 1980s. While the agriculture sector still accounted for the majority of the GDP, industrial and service sectors started to boom rapidly. The economy started to prosper slowly but more steadily than the earlier decades. The importance of liberalization of the economy was realized by the government of Rajiv Gandhi which led to reduction in tariff rates in the early 1980s and more progress was made in the sector of international trade in the late 1980s.

Trade Reforms in India

The decade of 1980 saw a few signs of policy changes when Rajiv Gandhi was the prime minister of India. Unlike his predecessors, Gandhi came to power with aspirations to change India's economic approach. He implemented programs of economic liberalization and introduced reforms in the first two years in office. However, India had a long way to go because of earlier macroeconomic setbacks. The fiscal deficit of Centre and State governments had reached an astonishing 10 percent of GDP (Aggarwal, 2003, p. 47). The current account balance hovered around 3.3 percent of GDP, with inflation of 9.9 percent (Aggarwal, 2003, p. 47). Also, India had started having balance of payments problems .Therefore, despite experiencing rapid economic growth which averaged 5 percent annually in the 1980s, India could not sustain its growth due to the balance of payment deficits. These deficits resulted from heavy external borrowing from the World Bank and the International Monetary Fund (IMF). The government of India was going through a major macroeconomic crisis and was close to default. Therefore, something drastic had to be done to bring the Indian economy back to normal.

With Narashinha Rao at the helm (1991-1996), India witnessed its first significant shock of liberalization in 1991. The first step toward liberalization was done via the devaluation of the Indian currency (Rupee). Rupee was devalued by 21 percent in 1991 in order to reduce the current account deficit (Joshi et al., 1997, p. 11). Other policy changes included a major reduction in tariff rates and quotas. FDI was encouraged by elimination of heavy licensing. Also, India needed short term stabilization of its balance of trade. This was done through reduction in expenditure and contractionary fiscal and monetary policies. Due to the internal demand as well as the IMF dictated condition, India had to deregulate and liberalize all markets and exercise laissez-faire economic policies (Menezes, 1999, p. 2). These reforms not only helped India get out of the biggest economic crisis in its history, but lay the foundation to become one of the dominant economic powers in the world today.

Post Reform-The impact of liberal reforms

The post reform India saw a tremendous economic growth that ended the balance of payment crisis. The quick recovery was attributed to major liberalization policies on the domestic as well as the international fronts. During the 1988-91 fiscal years, India's GDP at factor costs grew at rates of 10.5, 6.7, and 5.6 percent, respectively (Panagariya, 2008, p. 100). Inflation rate of 13.6 percent in 1991 was reduced to 1.3 percent in 2001-2002 (Kishore Kulkarni, 2010, p. 372). This was a tremendous achievement considering the macro instability the country went through just a few years back. The economic growth is also attributed to lower tariff rates and increase in import and export quotas. Prime

Minister Narasimha Rao also regulating the Ministry of Industry by himself undertook some major reforms. He announced the industrial policy of 1991 which put an end to licensing except in 18 sectors and opened the door to foreign investment (Panagariya, 2008, p. 96). The finance minister, Dr. Manmohan Singh ended the import licensing on capital goods and corrected the overvaluation of the exchange rate, which was a key element in the liberalization process. He also cut the tariff rates considerably, with the top rate falling from 355 percent to 110 percent in 1991-1992 and to 65 percent in 1994-95(Panagariya, 2008, p. 96). The elimination of licensing and the reduction of tariffs incentivized trade immensely.

Even though the country saw great economic success starting the late 1980s, the early 90's brought a few economic hiccups due to external factors. The rise in oil prices had created a slight recessionary trend in the country. Also, internal political instability combined with lack of technological advancement and poor monsoon season had brought economic hardship in the country. Fortunately for India, the recession lasted only for a short period of time. The country started seeing tremendous growth in information technology after 1994, which boosted the service sector of the economy. Liberalization also helped increase the foreign investment in services in India. Before 1991, service sectors were dominated by government intervention. However, post 1991, considerable efforts were made toward opening the door to private sector participation including foreign investors. Pangariya in 2006 pointed out that as a whole "India now has a foreign investment policy that is approximately as open as that of China" (Panagariya, 2008).

INDIA - FOREIGN DIRECT INVESTMENT; NET INFLOWS (% OF GDP)

Source: TradingEconomics.com
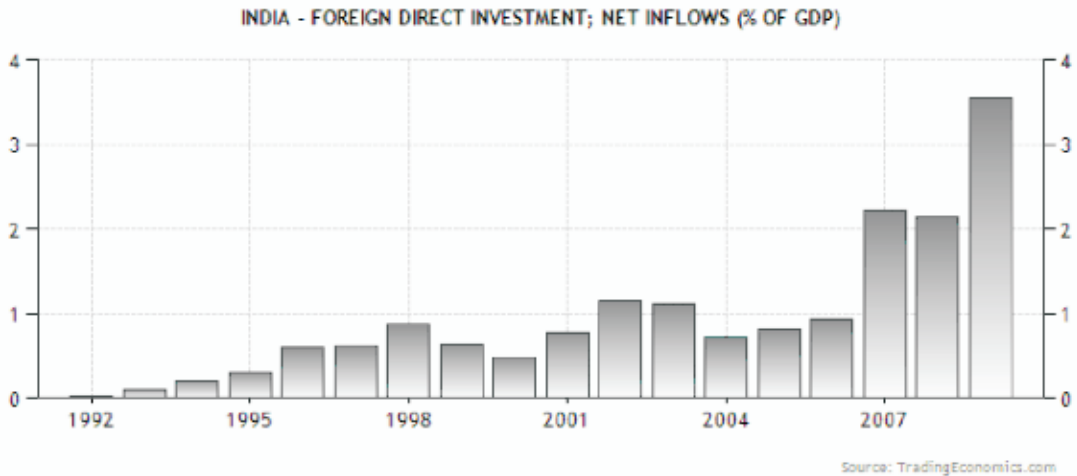
Graph 2 shows the Net inflows of FDI in India from 1992 to 2009. FDI was relatively low in India up till 1994. However, it started to pick up in the mid-1990s and has gradually increased ever since. The net inflow of FDI in 1998 was 2,634,651,658 USD, the highest in that decade (Trading Economics, 2011). As can be seen in Graph 2, the FDI in 2009 accounted for approximately 3.5 percent of Indian GDP. It is critical to note that India did not only see reforms in trade and foreign investment. After 1991, India made remarkable progress in areas such as taxation, telecommunications, electricity, airline industry, and the national highway construction. These reforms have helped India maintain a stable macroeconomic environment..

## Table2- Macroeconomic Performance in Post 1991 Years

Year	Real GDP Growth	Inflation Rate	Interest Rate	Unemployment No. in Millions	Money Supply Billions of Rs
1991	.96	8.9	17.88	36.3	1046.1
1992	2.3	13.7	18.92	36.75	1120.9
1993	1.5	10.1	16.25	36.27	1330.2
1994	5.9	8.4	14.75	36.69	1695.0
1995	7.3	10.9	15.46	36.74	1883.5
1996	7.3	7.7	15.96	37.43	2148.9
1997	7.8	6.4	13.83	39.14	2419.3
1998	6.5	4.8	13.54	40.01	2703.5
1999	6.5	6.9	12.54	40.37	3161.2
2000	6.1	3.3	12.29	40.34	3495.9
2001	4.0	7.1	12.08	41.99	3846.0
2002	6.2	4.7	11.92	42.36	4318.6
2003	5.5	5.1	11.50	43.10	4822.3
2004	8.0	4.5	10.60	42.50	5402.3

Source: (Kulkarni, 2010, p. 373)

The post 1991 India saw tremendous economic growth. In 1994, as can be seen in Table 2, India enjoyed a 5.9 percent GDP growth, while the inflation declined from 13.7 percent in 1992 to 8.4 in 1994. The drop in inflation rate can be explained by higher interest rates. The unemployment numbers were alarming due to numerous factors. First, it is common to have high unemployment when a country is in the first stages of transitioning from an agricultural sector economy to a modern sector economy. Also, India consists of underemployment problems due to extreme poverty due to illiteracy (Kulkarni, 2010, p. 372) . There are other problems such as imperfect labor markets and data collection problems that may impact the high unemployment numbers. Other than these problems, India enjoyed very high economic growth in the 1990s.

By the mid-1990s, the policy makers were convinced that for India to economically grow, it had to be through liberalization of markets and trade. This prompted for more policies that favored fewer tariffs on trade and foreign direct investment. With more liberal policies, India kept growing throughout the late 1990s and onto the early 2000s. In 2004, India had the second fastest growing economy in the world, second to the Chinese economy (Kishore Kulkarni, 2010, p. 373). Also, in this period India saw a wave of technological change just like other developed countries. Information technology played a vital part in the rise of the service sector. This growth was initially seen in bigger cities of Bangalore, Pune, and Hyderabad but by mid-2000s, it had spread all across the country. It is evident that this drastic turnaround of the Indian economy in the 1990s was due to liberalization.

This can be further analyzed by comparing the pre and post-reform International trade patterns.
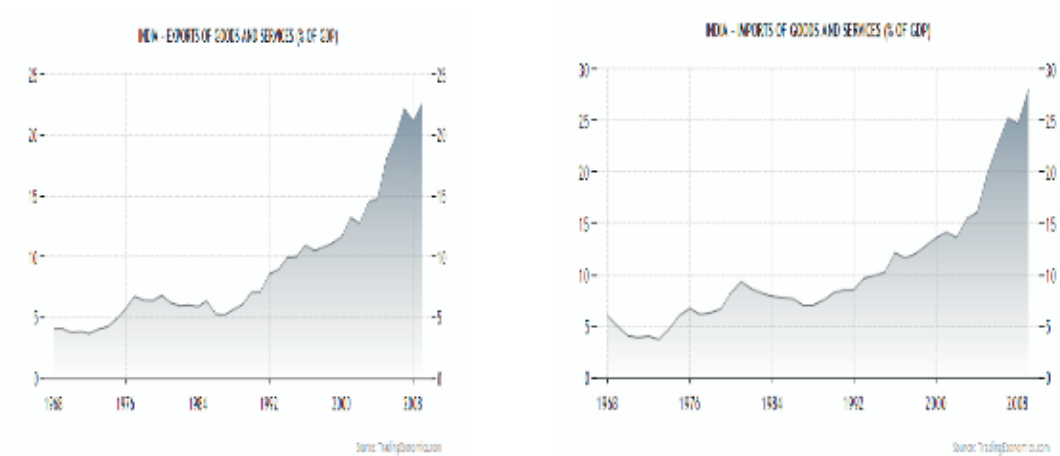
Graphs 3 and 4 above show the exports and imports contribution to Indian GDP from 1968-2009. Before the reformation, the exports and imports did not account for much of India's GDP. In 1986, the eve of major reformations, only 5 percent of exports of goods and services accounted for India's GDP. The same can be said about imports. In 1986, imports of goods and services accounted for a negligible 7 percent of India's GDP (Trading Economics, 2011). However, this turned around starting in the early 1990s. Due to the opening of borders and reduction in tariff rates, imports and exports increased drastically after 1990. Exports and imports were rising in different sectors. While the service sector is credited for a rise in exports, important raw materials helped the imports grow significantly.

Liberalization of the Indian economy not only helped ignite the economic growth of India in a macro level but it also helped increase the welfare of the people in a micro level. As can be seen from Graph 5, the per-capita income in India has risen after 1992. It may seem like a small increase, but in a country like India where incomes have been historically low, it is a significant achievement.
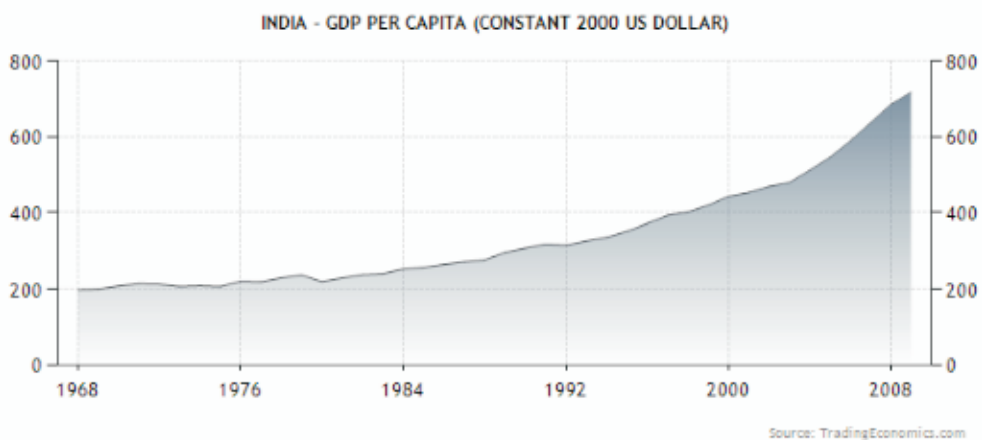
Opponents of liberalization have complained about low wage rates among unskilled workers. Although, it is a valid argument, it is critical to note that liberalization has provided jobs to people that would not have had otherwise. Critics also point out how liberalization has destroyed the local culture and has dominated India with western values. These are all good arguments, but it is to be noted that for a country to have economic success, it has to make some hard sacrifices. As Dr. Bhagwati points out in "In Defense of Globalization," that trade liberalization has more benefits than costs and therefore needs to be supported to the fullest extent. The post-reform success clearly shows the importance of trade liberalization in India.

Analysis and Conclusion

More so than other developing countries, India has experienced the fastest economic growth. Despite being considered a poor country after its independence in 1947, India has bounced back to become one of the most powerful emerging economies in the entire world. How has India been able to achieve this incredible goal? What are the lessons that other South Asian countries can take from India's success? Various policies were implemented after 1991 that were key to India's economic success.

First, India followed the Solow growth model theory on its way to success. According to the Solow model, long term growth is a direct result of the Solow residuals. This paper argues that international trade and openness of the economy increased the overall level of output leading to a faster economic growth. The initial hypothesis proved to be correct as International trade was the difference between a poor India and an emerging India.

Between 1950s -1980's, protectionism swept the shores of India. Politicians favored policies that restricted movement of goods and services from other countries. India was destined to become independent of the world markets. However, India could not sustain this phenomenon forever. It realized that restriction of trade had a negative effect on the economic growth of India. Also, policy makers realized that in order for India to prosper like other South East Asian countries like Singapore, Taiwan and South Korea, it had to open its borders. This notion proved to be true as India's growth rate between 1988-2006 was 6 percent annually compared with 4.8 percent annually during 1981-1988, right before reformation (Pangariya, 108). The economy grew even faster during the period from 2003-2004 to 2005-2007, when India's GDP at factor cost grew at an impressive rate of 8.6 percent annually (Panagariya, 2008, p. 108). Opening the economy to the world market has been the reason for India's impressive success. This openness increased the rate of investment at home, which in turn led to a high economic growth just like Solow had predicted.

There are multiple lessons that other South Asian countries can learn from the case of India. One of the keys to economic success depends on the country's political structure. In other words, the more interest there is politically to economically advance, the higher the chances of achieving that particular goal. In the case of other South Asian countries, that has been the main problem. Political incentives have overlooked the potential economic growth. These countries need to realize that India, by changing its political ideologies helped itself to grow tremendously. Other countries also need to learn that India had to sacrifice deep cultural beliefs that

prevented effective policies to be put into effect before the 1980s. These sacrifices may be hard to make but in the end, the benefits of liberalization outweigh these sacrifices as has been seen in the case of India.

Overall, the experience of liberalization in India has been better compared to other developing countries. For India, the future is very bright if it continues to follow the same path since the late 1980s. India needs to carry the liberalization forward. India has the possibility to achieve long-term growth just like the East Asian tigers in the 1960s and 1970s, if policies are passed that favor more integration with the world markets. India already has a booming informational technology sector that has played a vital role in its economic growth. Now, India needs to focus on opening its borders even more to encourage further foreign investment. This will provide further investment opportunities internally and help the country to achieve an unprecedented economic success.

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