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STRIDES – A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

ISSN 2581-4931 (PRINT)

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides – A Students' Journal of Shri Ram College of Commerce'.

ABOUT THE JOURNAL

It is a double blind reviewed bi-annual Journal launched exclusively to encourage students to pursue research on the contemporary topics and issues in the area of commerce, economics, management, governance, polices etc. The journal provides an opportunity to the students and faculty of Shri Ram College of Commerce to publish their academic research work.

PUBLICATION POLICY

Shri Ram College of Commerce is committed to upholding the high academic standards. Therefore, the Committee On Publication Ethics (COPE) follows a 3-Stage Selection Process while approving a paper for publication in this Journal. The policy is as follows:

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To maintain high academic standards, academic ethics and academic integrity each research paper received by COPE (Committee On Publication Ethics) is sent for screening of plagiarism on "Turnitin". The committee adheres to the maximum tolerance limit of 25%.

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The journal adheres to a rigorous double-blind review policy. Each research paper received by COPE is sent for review to the *Referee* (Subject Expert). The reports submitted by the *Referees* are sent to the respective students for improvement (if any, suggested by the *Referees*). After reporting all the suggestions recommended by the *Referees*, the revised and improved version of the papers are re-submitted by the students to the COPE.

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The following guidelines are to be carefully adhered by the students before final submission of the manuscript. The submitted manuscripts not conforming to the following guidelines are not taken into consideration for any further processing.

Format

Format of the article on the front page should be:

a) Title
b) Name(s) of the student(s) and mentor along with their details
c) Abstract
d) Keywords

Abstract

The abstract should capture the essence of the article and entice the reader. It should typically be of 100 -150 words, and in Italics.

Font type and word limit

The research paper is to be typed on A-4 size paper with single line spacing. The complete length of the paper should not exceed 5000 words including endnotes and references. The font size should be 12 and font style should be Times New Roman.

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Endnotes

Endnotes should be serially arranged at the end of the article well before the references and after conclusion.

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The first letter of the caption for table, figure, graph, diagram, picture etc. should be in capital letter and the other words should be in small letter - e.g. Table-1: Demographic Data of Delhi, Figure-1: Pictorial Presentation of Population etc.

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Declaration

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The student(s) remain the whole and sole author of their respective research papers published in 'Strides – A Students' Journal of Shri Ram College of Commerce' and hold its copyright. Also, the 'author' is wholly and solely responsible for plagiarism caught after publication (if any). The Editor, Referees, Mentors, COPE, SRCC, Printer, Publisher and Printing Press shall not be responsible for any plagiarism.

AWARD

The authors of best three papers from every Issue are awarded – First Prize, Second Prize and Third Prize on the SRCC Annual Day.

Principal's Message

The mission statement of the college signifying the existence and its road map to the achievement of its vision, reads as:

"To achieve and sustain excellence in teaching and research, enrich local, national and international communities through our research, improve skills of alumni, and to publish academic and educational resources"

To achieve and promote excellence in publications and applied research, the college has taken the initiative to launch a new journal exclusively to publish students' research papers and articles. It will be an add-on to the enriched catalogue of college publications and academic literature.

The Journal has provided an opportunity to the students of our college to focus on research. Since the students were not opened to the research methodologies at the undergraduate level, they were mentored by experienced faculty of our college. Simultaneously, their articles were also reviewed by the referees and tested for plagiarism before publication. After reporting all the suggestions recommended by the referees, the articles were revised and then finally published. The college had successfully released the foundation issue of the Journal **"Strides - A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** on the occasion of 91st Annual Day of the College held on 13th April, 2017. The Journal was released by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India.**

I would like to congratulate the students whose papers are published in this issue of the journal and simultaneously encourage all the students to contribute their research papers and articles for the successive issues of the Journal.

Best wishes for their future endeavors.

Prof. Simrit Kaur
Principal

Editor's Message

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides - A Students' Journal of Shri Ram College of Commerce' to encourage students to pursue research under the guidance of the faculty of Shri Ram College of Commerce.

It is a bi-annual Journal launched exclusively to publish academic research papers and articles by the students on contemporary topics and issues in the area of commerce, economics, management, governance, policies etc.

In order to maintain the high standards of publication, COPE (Committee On Publication Ethics) has been constituted. The COPE shall be the apex authority to take all the decisions related to the publication of research papers and articles in Strides. The decision of COPE shall be final and binding.

To maintain the high academic standards, academic ethics and academic integrity, a rigorous process of double blind review of research papers is followed along with screening of plagiarism of each manuscript received by the COPE

for publication. The research work published in Strides is original and not published or presented at any other public forum.

The foundation issue of the Journal **"Strides - A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** was successfully released on 91st Annual Day of SRCC held on 13th April, 2017 by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India.**

The successive Issues of 'Strides - A Students' Journal of Shri Ram College of Commerce' shall be bi-annually released.

I congratulate all the students whose research papers are published in this Issue of Strides and express my sincere thanks to their mentors and referees.

Dr. Santosh Kumari
Editor

STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

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RESEARCH PAPERS

Exploring the Role of Savings in Economic Growth

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Abstract

This paper econometrically analysis the relationship between savings and gross domestic product (GDP)[1] of the Indian economy. Theories on the relationship between savings and GDP that are discussed in this paper are the classical model, Keynesian model, Solow, and Harrod-Domar model. Using a single equation regression model it is deduced that the variation in GDP can be explained by the variation in savings and investment. By finding the statistical correlation coefficient, a positive correlation between savings and investment is also portrayed. This paper aims to analyze how the pattern exhibited by India's saving rate is related to GDP over the years and draw consensus on the results. Analyzing the trend of savings and investment in India from 1975 to 2016, the paper discusses the reasons behind the slowdown in that specific period and suggests some steps that the policymakers should keep in mind to maintain the virtuous relationship between savings and GDP.

Keywords – Savings, Investment, Gross Domestic Product, Time Series Data, Single Equation Regression Model

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[1] Gross Domestic Product (GDP)-It is the monetary measures of the market value of all the final goods and services produced in an economy in a specific time period.

INTRODUCTION

A country's worth and progress these days are measured in terms of the goods they produce, net exports that they have, foreign currency reserves that they possess, consumer price index, birth rate, unemployment rate, etc. Being a predominant measure for a nation's growth GDP is given great importance and factors affecting the GDP of a country are therefore vital subjects to analyze. One of the determinants of the estimate is the amount of money the citizens save. Saving rates are the money value or percentage of the income people save after carrying out consumption expenditure. Since savings play a key role in determining the GDP of a country it is essential to analyze how the change in savings and the GDP of a nation are correlated. Harrod (1939), Domer (1946) and Solow (1956) suggested that there was a positive relationship between savings and GDP because savings leads to a capital increase, which results in economic growth. However, Keynes (1936) concluded that savings are a function of income and that they are advantageous for individuals but not for the economy as a whole.

According to various researches conducted in the past, we conclude that savings play a determining role in the GDP of a nation. Hence, it is essential to scrutinize the cause and effect relationship of savings and economic growth, examine the trend of fluctuations of both the variables over a certain time frame and device policies accordingly for achieving the stipulated development goals. This paper aims to empirically examine the trend in India by finding out the relationship between GDP and savings using WDI[2]'s time-series data from 1975-2016. This study contains a single equation regression model performed on the above-mentioned data to statistically examine the behavior of the GDP of India based on the fluctuations in savings and investment.

It is essential for India, being a developing nation, to comprehensively analyze and understand the movement of economic growth with the fluctuations in savings and investment of the country to device policies and reforms that maintain a virtuous relationship between them and leads to an increase in the economic development of the country.

LITERATURE REVIEW

Across the globe, there have been several studies scrutinizing the impact of savings on the economic growth of a country. Some studies conclude that saving

[2] World Development Indicators (WDI) - It is the World Bank's premier compilation of international statistics on global development.

has a positive correlation with the GDP of a nation which is used to estimate its growth rate. The early Harrod (1939), Domer (1946) and Solow (1956) were the first ones to state the positive relationship of savings with the GDP of a country. They argued that a rise in income leads to an increase in savings which results in a boost in investment. Researching about the theory of these were Bacha (1990), Barro (1990), and DeGregorio (1992), who also came to the same conclusion that savings have a positive impact on the economic growth. Later Jappelli and Pagano (1994), and Lucas (1988) verified that as savings increase, GDP increases.

Sinha, (1998) tested the long-run relationship between per capita GDP and total saving in Thailand using time series data for 1950-96 by causality test but the test didn't run in any direction. Although it was found that gross domestic saving and gross domestic private savings are integrated with GDP. He has conducted extensive research to examine the relationship between savings and GDP in various countries like Pakistan, Mexico, and the Philippines, Sri Lanka. Haque and Sharma (1999), examined the extent to which cross country studies of private spendings are sturdy to allow for the heterogeneity of saving behavior across countries. Their results indicated that the general government surplus as the proportion of GDP to the ratio of government consumption of GDP is one of the key determents of the private saving rates in various countries. Yuansheng J.(2015), provided empirical evidence that domestic savings played an important role in the economic growth go Pakistan over the period 1977-2013 by using the Autoregressive Distributed Lag (ARDL) approach to co-integration.

Samantaraya and Patra (2014), using the ARDL approach, empirically studied the role of various components of household savings in India with time-series data. The result indicated that GDP and interest rates have an influence on household savings in the short-run as well as the long run. Hashmi and Sedai (2016), confirmed that there exists a bi-directional Granger causality between the domestic savings rate and GDP growth of India. There are only a few researches conducted that target the total savings rate of India and provide empirical results to support the claim that savings and rate of growth of the Indian economy is positively correlated. There have been similar studies conducted about the causal relation of savings and GDP of various countries but the results have varied because of the specification of the data and variable as well as the different methodologies and approaches used.

Several studies explaining the trend of savings have been conducted. Mohan (2008) studied the relationship between savings and economic growth of some countries by bifurcating them according to the income range, using the time series data from 1960-2001. The results showed that economic growth has a direct effect on savings. Minsky, in the economic survey of 2017-2018, worked on the pattern of investment and saving slowdowns as well as recoveries to obtain policy lessons for India. A lot of studies have highlighted the reasons for the fluctuations of the savings rate in the Indian economy and its effect on GDP along with suggesting possible policy changes the government should consider. However, more focus is given to the role of investments in the same.

RELATIONSHIP BETWEEN GROWTH AND SAVINGS

Several studies have scrutinized the fact that savings of a country have a significant impact on its economic growth. Some theories support the positive relationship between the two whereas some advocated that a significant increase in savings leads to a decline in the growth of the economy.

CLASSICAL MODEL

In the late 18th century, before the great depression, Adam Smith and David Ricardo among few other economists provided the classical theory. The model is based on Say's law of market and wage-price flexibility. Another assumption made by classical economists is 'laissez-faire' which means no government intervention or any trade union intervention. Classical theory suggests that the economy having full employment resources will automatically achieve the natural level of output and real GDP that is the economy will self correct itself in the case of any disequilibrium (Jean-Baptiste Say,1803). Say's law states that supply creates its own demand. This meant there was no problem with the production and underutilization of resources. Assuming that the income generated by producing the total output of the country is sufficient enough to purchase them. However, people don't use all of their income on consumption, some save a part of their income. This creates a decrease in the demand for goods, resulting in a cut back in production. Since the supply decreases, employment also decreases resulting in a disequilibrium, taking away from the full employment level.

The classical claim that the savings are borrowed and returned to the economy in the form of investments. Hence savings are equal to investment which is a constituent of the real GDP. Thus in this way, the level of real GDP automatically adjusts itself. Hence, this theory believes that savings is necessary for investment, and the interest rate is the price equating them. According to classical economists, greater savings lead to greater prosperity of the nation.

KEYNESIAN MODEL

Keynes's theory emerged in the 20th century from Keynes's book 'The General Theory of Employment, Interest and Money' which defied the fundamental assumption of classicists that is the economy operates at the full employment level. The theory stated that it was rare to have a full-employment level in the economy rather the concept of underemployment seems more believable. Secondly, another reason for disagreement was the utilization of income. Classical believed that the income was either used for consumption expenditure or was saved and used as an investment. However, people saved to increase their cash balances also. Classicists think that saving depends on the rate of interest,

$$S = f(r)$$

But Keynesian theory explained that the relationship between savings and investment is determined by income rather than interest rates. He wrote that saving and investment are always and necessarily equal but only when the economy is taken as a whole. He stated that savings is a stable function of income and it varies directly with income, where income constitutes savings and consumption. (Keynes, General Theory 1936)

$$S = f(Y)$$

Where,

S is saving

Y is income

r is interest rate

According to Keynes savers and investors are two different sets of people in the economy. When an individual decides to save more and reduce his consumption, the income of the person he is buying from decreases. Since, his income decreases his savings decrease (Keynes,1936). His decision to save lead to the decline of the actual savings and national income, thus reducing the GDP of the nation. This paradox is called 'the paradox of thrift'. The basic concept is that if the economy saves more during a recession, the aggregate consumption decreases, forcing the aggregate demand to fall and thus slowing the process of economic growth (N. Gregory Mankiw, 2008). Savings are advantageous for an individual but not the whole economy.

SOLOW MODEL

Solow (1956) designed a model to show how growth in capital stock, labor force, and advancement in technology interact in the economy and affect it. He started with the assumption with a neoclassical production function with decreasing returns to capital. In the Solow model, the demand for goods comes from consumption and investment.

$$y = c + i \text{ .... } (1)$$

Where,

y = output per worker

I = investment per worker

c = consumption per worker

The model assumes that a fraction of income is saved and remaining fraction is spent on consumption.

$$c = (1 - s)y \text{ ....}(2)$$

Hence, from substituting (2) in (1) we get :

$$y = (1 - s)y + i$$

$$Sy = I$$

In the basic Solow model, two factors influence capital stock, investment, and depreciation. When the amount of investment in the economy is equal to the depreciation of the capital stock i.e, we are just investing enough to cover depreciation and aren't adding any new stock, then the economy has attained a steady state.

$$\Delta k = \text{investment} - \text{depreciation}$$

$$\Delta k = i - ðk$$

$$\Delta k = sy - ðk$$

$$sy = ðk \text{ ....}(\Delta k = 0 \text{ at steady state})$$

Solow model shows that the savings rate is an important factor that determines steady state[3] capital stock. If the savings rate is high then the economy will have large capital stock per person and a high level of output in a steady state. On the other hand, if the savings rate is low then the economy will have small capital stock per person and a low level of output at a steady state. Hence, this theory concludes that when saving rates are higher there is faster economic growth.

Although a higher savings rate leads to faster growth in the Solow model, it is only temporary because once the economy attains a new steady-state, growth eventually stops. However, with a higher savings rate, the level of output and level of capital will be higher. Therefore savings rate has only level effect[4] and not growth effect[5]. The basic Solow model shows that capital accumulation by itself doesn't explain sustained economic growth. Higher the savings rate higher the growth but only temporary. The economy eventually attains a new steady-state capital per worker. However, population growth and technological progress can explain sustained growth and permanent rising in living standards.

HARROD-DOMAR MODEL

Roy Harrod (1939) and Evsey Domar (1946) suggested that for a capitalist economy the investment should increase at a specific rate for uniform economic growth. This model argued that a higher savings rate leads to increased investment since investment is equal to savings and this intern increases the output of the country. Harrod-Domar model was released much before the Solow model. Countries like China and India had started formulating policies that encouraged people to save and invest more. According to this model economic growth is a process of capital accumulation and it depends on two factors savings rate and capital-output ratio.

$$S = I$$

$$sy = \Delta k$$

$$sy = ç\Delta y \text{ …… (ç is capital output ratio)}$$

$$s/ç = \Delta y/y$$

[3] Steady state-It is a state in which investment is equal to depreciation. It means no new capital is being created and the investment is being used only to repair and replace the existing capital stock.

[4] Level effect-When the variable (output, capital etc) attains a new level but doesn't experience continuous growth.

[5] Growth effect-When the rate by which a variable (output, capital etc) is increasing continuously rises.

Hence, the growth rate of an economy is directly related to the savings rate of the economy but inversely related to the capital-output ratio. This argument has been supported by the Solow model as well. The warranted growth rate as defined by Harrod - Domer is the full capacity rate of growth of income which will fully utilize a growing stock of capital that will satisfy the producers with the amount of investment made. It is the value of ΔY/Y. Hence, the warranted growth rate is equal to s/ç.

$$Gt = [Yt - Y(t-1)] / Yt \quad \text{(actual growth rate)}$$

$$Gr = [Xt - Y(t-1)] / Xt \quad \text{(warranted growth rate)}$$

Harrod-domer gave the relationship of actual growth rate and warranted growth rate as,

$$Gt = 1 - [(1 - Gr) / Gr]. s/ç$$

Hence, according to Harrod-Domer model savings plays an important role in increasing the rate of growth of the countries economy. An increase in aggregate savings gives rise to higher investment which leads to an expansion in the accumulation of wealth and higher GDP growth. The savings rate is directly proportional to the growth rate whereas in the Solow model it is argued that the rate of savings doesn't have any impact on sustained economic growth.

METHODOLOGY

This paper uses the WDI's time-series data from 1975-76 to 2015-16 of the growth rate in gross domestic product per capita, savings and investment of India at current US dollars. According to table 1 sample size of the data available is 42.

Table 1: Time Series Data of Savings, GDP per capita and Investment in India at current US$

Year	GDP (in millions dollars)	Savings (in millions dollars)	Invest-ment (in millions dollars)	Year	GDP (in millions dollars)	Savings (in millions dollars)	Invest-ment (in millions dollars)
1975	158.0	5479.8	17444.1	1996	400.0	64961.3	96357.1
1976	161.1	8656.9	18991.3	1997	415.5	71683.7	105422.6
1977	186.2	10032.5	22827.7	1998	413.3	66567.4	107270.8
1978	205.7	10266.4	26626.0	1999	442.0	72234.1	126336.6

1979	224.2	11065.3	31140.4	2000	443.3	73905.1	121884.7
1980	266.6	11429.2	36661.8	2001	451.6	75131.7	145303.7
1981	270.5	13999.0	38441.2	2002	471.0	88954.4	145894.9
1982	274.1	13577.3	42179.3	2003	546.7	119072.5	172190.5
1983	291.2	14360.5	44894.5	2004	627.8	161248.0	217766.3
1984	276.7	14213.9	44235.9	2005	714.9	195696.6	268718.7
1985	296.4	16764.2	50695.2	2006	806.8	243988.7	315785.2
1986	310.5	14989.0	57020.0	2007	1028.3	323170.4	435747.9
1987	340.4	20574.9	68205.9	2008	998.5	306410.8	416232.0
1988	354.1	25807.8	69911.8	2009	1102.0	332444.5	455592.3
1989	246.1	31204.7	72757.7	2010	1357.6	432555.4	556807.2
1990	367.6	38020.0	83718.2	2011	1458.1	448929.0	625550.7
1991	303.1	32193.7	66403.5	2012	1443.9	448760.3	611106.0
1992	317.0	38362.0	72310.0	2013	1449.6	438974.2	581076.1
1993	301.2	39042.3	66103.5	2014	1573.9	462376.0	613374.3
1994	346.1	52000.0	76447.9	2015	1605.6	460737.1	604426.9
1995	373.8	59947.7	90563.7	2016	1729.3	472088.4	646322.4

I. To analyze the relationship between GDP, savings, and investment the Single equation regression is applied to the log-log form of these variables. To conduct this research, the natural log (ln) has been taken. The general equation can be explained by the following formula:

$$\ln Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 \quad \text{(log-log regression function)}$$

Where,

X_1: Independent variable (savings at current US dollars)

X_2: Independent variable (investment at current US dollars)

Y: Dependent variable (GDP of India at current US dollars)

To interpret the results :

- Gauss Markov Assumptions hold
- The coefficient estimate is statistically and practically significant
- All other independent variables are held constant

To conduct the research, a simple equation regression method is used taking the dependant variable to be the log transformation of GDP at current US dollars and the independent variables as the log transformation of savings at current US dollars and the log transformation investment in current US dollars. A linear relationship is hypothesised between a log-transformed outcome variable (GDP) and a group of predictor variables (Savings and Investment) is given by:

$$\ln GDP = \beta_0 + \beta_1 \ln(S) + \beta_2 \ln(I)$$

Where,

S : Savings at current US dollars

I : Investment at current US dollars

II. Correlation tests are used to find the associations between investment and savings. A positive correlation will indicate that as one variable increases the other also increases whereas a negative correlation will indicate that as one variable increases the other decreases or vice versa. If the correlation happens to be zero then it would mean that the variables don't have any effect on each other. Using the correlation formula :

$$R = \frac{\sum [(X\text{-mean}(X)).(Y\text{-mean}(Y))]}{\surd [\sum(X\text{-mean}(X))\ \hat{}2\ \sum(Y\text{-mean}(Y))\hat{}2]}$$

Where,

R = Correlation Coefficient

X = first variable

Y = second variable

Substituting the values of mean and standard deviation from table 2, the get the values of correlation between the two respective variables taken.

Table 2 : Mean and Standard deviation

	Savings (in million dollars)	Investment (in million dollars)
Average / mean	139092.3	201589.2
Standard deviation	165255.2	212815.2

RESULT

The regression model accounts for a high value of R^2, which implies that approximately 98.28% variation in GDP can be explained by variation in saving and investment. Thus savings and investment have a significant impact on the GDP. From the results (table 3) we observe that the coefficient of the log transformation of the savings (current US$) is negative 23.53% and the coefficient of the log transformation of the investment (current US$) is positive 92.04%. This observation signifies that :

- With 1% increase in savings, we can expect the GDP to decrease by 23.53%
- With 1% increase in investments, we can expect the GDP to increase by 92.04%

The log-log regression equation is observed to be the following :

$$\textbf{ln GDP} = -11.4413 - 0.2352961 \ln(S) + 0.9203618 \ln(I)$$

Where,

S : Savings at current US dollars

I : Investment at current US dollars

Table 3: Single Equation Regression Result table

```
. reg  lngdp lns lni
```

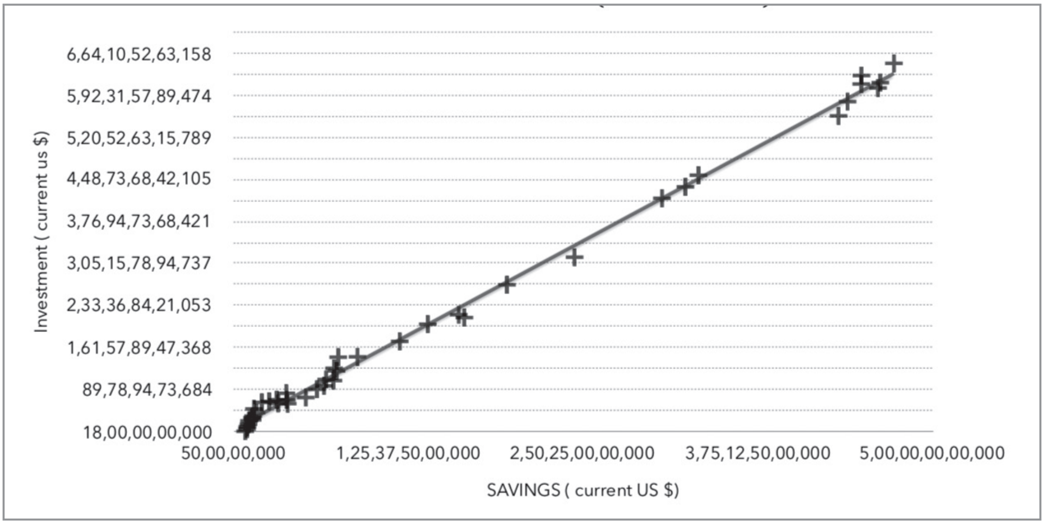
Source	SS	df	MS
Model	19.081433	2	9.54071651
Residual	.333287274	39	.008545828
Total	19.4147203	41	.473529763

Number of obs =	42
F(2, 39) =	1116.42
Prob > F =	0.0000
R-squared =	0.9828
Adj R-squared =	0.9820
Root MSE =	.09244

lngdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lns	-.2352961	.0720447	-3.27	0.002	-.3810202	-.089572
lni	.9203618	.0916127	10.05	0.000	.7350576	1.105666
_cons	-11.4413	.62011	-18.45	0.000	-12.69559	-10.18701

However, investment is a function of savings. When savings increase the investment also increases, this in turn leads to a rise in the GDP of the country. The correlation coefficient of savings and investment calculated from Table 2 is 0.9651. From this observation it can be inferred they are positively correlated to each other. According to Figure 1, savings (current US$) and investment (current US$) of India are positively correlated which means that when there is an increase in the savings rate of the country the investments in the economy will also increase. The increased investment rate of India over time leads to an increase in the savings rate of the country. As discussed in the Harrod-Domer model above, a higher savings rate leads to increased investment, and thus the rate of growth increases. Even though the empirical results show that the increase in savings decreases GDP and the increase in investment leads to an increase in GDP, but savings should still be encouraged for its desired level effects. We should take into consideration the fact that savings and investment are interdependent. They have a positive correlation. When we take both savings and investment together we notice that any variation in both savings and investment highly affects the GDP.

Figure 1: Correlation between Savings (current US$) and Investment (current US$)



However, using single equation regression model is not the best method to find empirical method to analyse the relationship between savings, investment and GDP. To capture the impact of savings and investment on GDP empirically better models can be used like simultaneous regression model.

IDENTIFYING INVESTMENT AND SAVING SLOWDOWNS

Although it is believed that the Indian economy witnessed stagflation till 1990, the Indian economy faced a Balance of Payments (1990-91) crisis, rising debt burden, widening budget deficit, recession in the industry, and rising inflation wrought by the unsustainable macroeconomic policies of 1990-2000. Due to the impact of the industrial slowdown and the Fifth Pay Commissions, the fiscal deficit in 1996-

97 was reduced increasing the savings of the nation. Due to the stagnation in fiscal deficits and rising public debt over the period 2002-03, and its adverse impact on public investment and growth, the emphasis was laid on ameliorating the health of public finances. The Fiscal Responsibility and Budget Management (FRBM) Act, 2003 was passed at the centre and similar fiscal responsibility legislations at the state-levels to boost the public finance sector and reduce the fiscal deficit. It brought pellucidity and answer ability in the conduct of the fiscal and monetary actions of the government. Since then significant gains were there in the fiscal consolidation process. From 2002-2007, the economy of India witnessed a rapid increase in economic growth and savings (Fig 2, Fig 3).

Figure 2 : Savings (Current US$) of India from 1975-2016

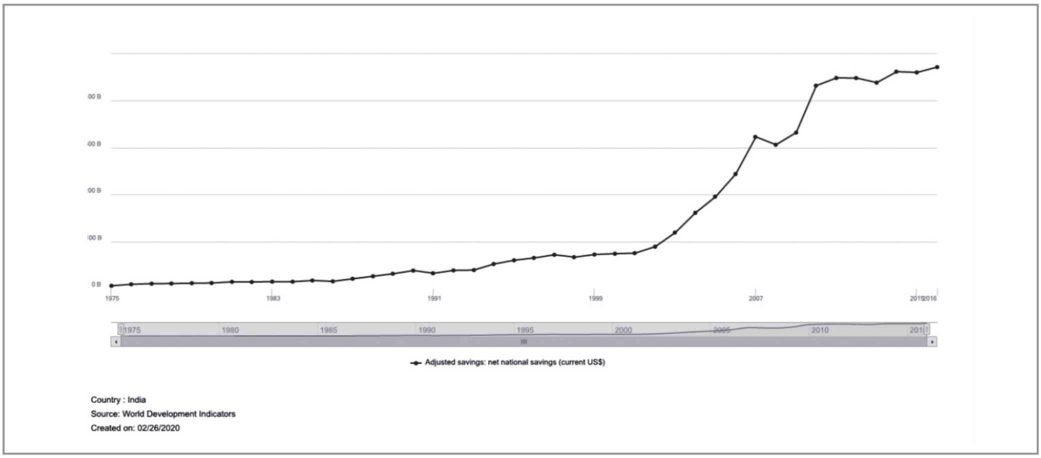
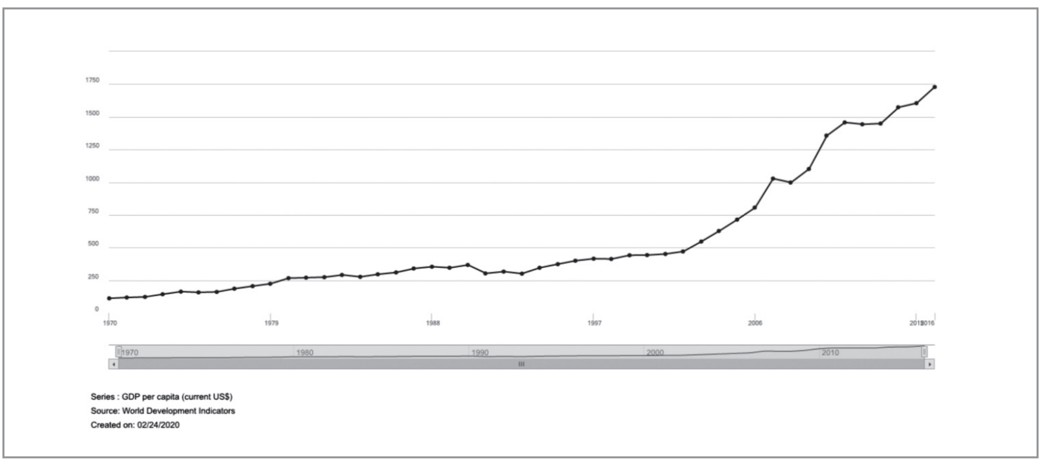
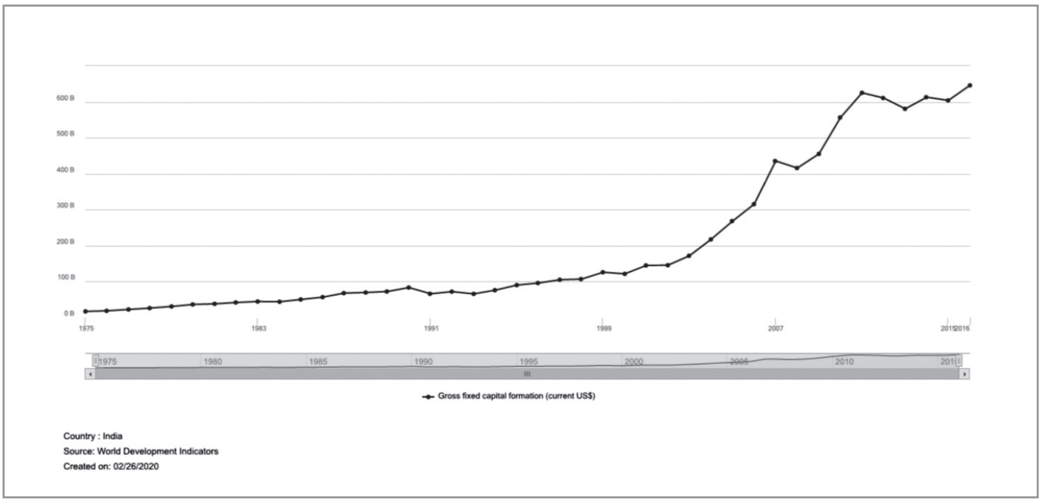


Figure 3 : GDP Per Capita (Current US$) of India from 1975-2016



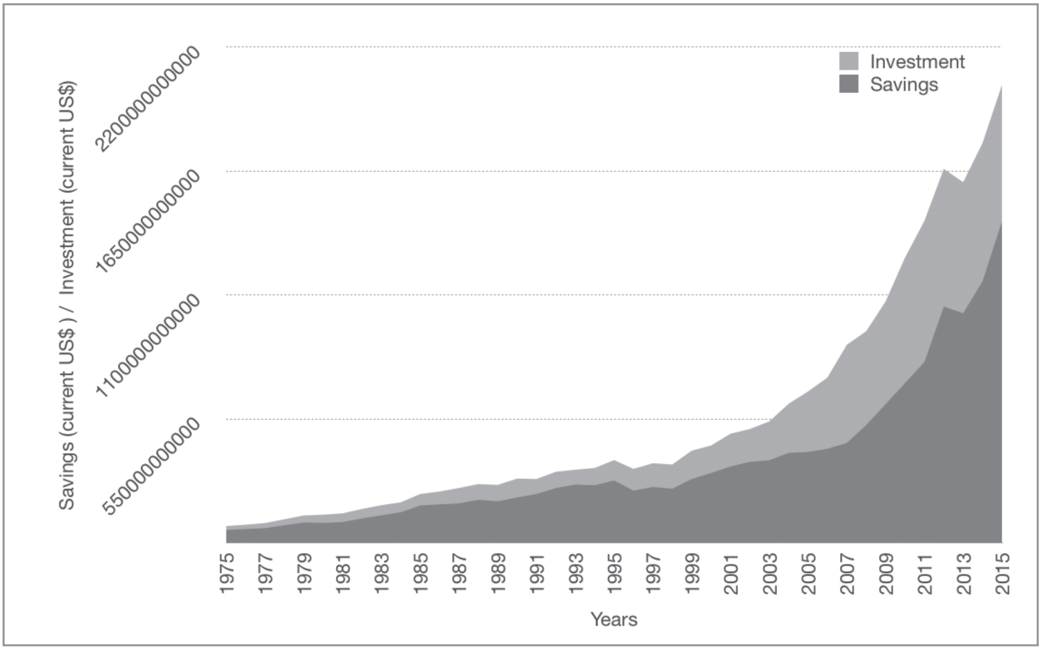
When Prime Minister P. V. Narasimha Rao came to power he worked towards bringing wide-ranging structural and economic reforms and financial liberalization in our country. By the reorganization and strengthening of measures in the domestic industrial sector, there was a decline in both real and nominal interest rates, improving the rate of growth of investments and corporate profitability (Fig 4). This led to private corporate savings being stable in the range of 2-4 percent till 2002 picked up a pace and increased subsequently up to 9 percent by 2007 (Ashish, 2018).Public sector savings were low in 2001 but gradually increased from 2003 to 2007. There was an 8.8 percent annual growth of manufacturing during the five years. The fiscal policy implication and the rising investments lead to higher GDP growth of the country. India's high savings rate has been a crucial driver of its economic boom, supplying productive capital, it helped to stimulate a virtuous cycle of higher growth, higher income, and higher savings. Since then India's domestic output grew at 8.7 percent, making it the world's second fastest growing economy after China. India witnessed an impressive investment boom complimented with a rise in the domestic savings rate. It became the highest investment rates India had noticed.

Figure 4 : Investment (Current US$) of India From 1975-2016



Gross savings in financial assets reached its peak in 2007 and then slowed down in 2008 as illustrated in Figure 4. The global recession in 2008 lead to the decline of growth rate and increased market volatility sharp which in turn resulted in the downfall in life insurance fund along with the Indian stock market. Due to the rapid corrections in the stock prices, investors suffered huge losses. A sharp decline in public sector savings was seen in 2008 largely on account of sixth pay commission arrear and fiscal stimulus measures due to the global economic slowdown of 2008 (Mohan, 2008). Domestic savings took time to catch up to public savings. However, coordinated fiscal and monetary actions reinstate the savings rate in the economy. To better, the situation government increased its expenditure (especially on infrastructural activities) and cut indirect taxes. This decision of the government was complimented with the reserve bank of India by the change in the existing monetary policy and repo rates were decreased to increase private sector investment. Thus both savings and investments were rehabilitated in the economy (Fig 5).

Figure 5: Relation between savings (current US$) and investment (current US$) of India from 1975-2016



From a peak of GDP in 2010, the savings rate had fallen and remained below for the fourth consecutive year. One reason for the decline is the increase in the current account deficit due to the uncontrollable demand for gold. Growth in life insurance funds along with savings of financial assets declined between 2011 and 2013. People who saved their money moved it to a small saving scheme where the nominal rate of interest was higher than the interest on offer on fixed deposits. The government brought down interest on small savings schemes to increase the savings. In 2014, the domestic and global economy recovered because of the boost in the public sector savings which further reached above

3 percent in 2015. In 2015-16, the economy grew by 7.9 percent. India became the fastest growing economy having a five-year high growth rate of 7.6 percent.

CONCLUSION

India has shown a healthy growth rate since the past decade. This paper evaluated different theories that show whether or not the savings rate is one of the factors contributing to the growth rate of the economy. Examining the Solow and the Harrod-Domer model, two different hypotheses Solow claims that an increase in saving rate increases the output per worker but has very little to do with the sustained economic growth. Whereas Harrod-Domer says that a high savings rate leads to increased investment which results in the rapid growth rate of a nation. By applying the single equation regression model, using the WDI's time-series data from 1975-2016 of GDP per capita, savings, and investment of India to current US dollars, this paper concludes that the variation in GDP can be explained by the variation in savings and investment. Although the regression results suggest that an increase in savings leads to a decrease in GDP but the correlation results show that savings and investment are positively correlated. Hence the increase in savings leads to a rise in investments which results in the economic growth of the country.

Initially, the growth rate of the Indian economy didn't have many fluctuations. The saving rate and investment rate started ascending from 2002 majorly due to economic reforms and financial liberalization. The reduction of government fiscal deficit resulted in increased savings in 2003 onwards. In 2008 the GDP growth declined due to the global financial crisis. However, the damage was taken care of by the government in power by implementing expansionary fiscal policy and measures taken by the Reserve Bank of India. The use of fiscal stimulus can boost investments and savings in the economy. Hence the government should focus on increasing government expenditure and cut back taxes by some margin. An increase in the domestic saving rates resulted in accelerated growth in India after the 2008 crisis indicating that domestic savings along with private savings in essential to maintain and sustain a macroeconomic equilibrium. Reviving investments along with mobilizing savings would also lift the GDP numbers. Contemporary steps on the part of government should be taken to provide incentives in the form of rebates to both the formal and informal sectors. Easing the costs of doing business, and creating a clear, transparent, and stable tax and regulatory environment has to be promoted for the growth and betterment of the nation (Minsky, 2017-18).

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HISTORY OF THE JOURNAL

The idea to launch this Journal was discussed in December 2016 by the former Officiating Principal, **Dr. R. P. Rustagi** with **Dr. Santosh Kumari,** the Editor of the Journal. Since the idea appealed to **Dr. Santosh Kumari**, she took the initiative to contribute to SRCC by creating this new academic research Journal and took the responsibility for its Creation, Registration, License and ISSN (International Standard Serial Number) etc. along with *Editorship*. Therefore, **Dr. Santosh Kumari, Assistant Professor in the Department of Commerce, Shri Ram College of Commerce** was appointed as the Editor of the Journal vide. Office Order – SRCC/AD-158/2017 dated March 14, 2017. She meticulously worked hard in creating the concept and developing the structure of the Journal. She introduced the concept of COPE (Committee On Publication Ethics) to maintain the high academic standards of publication.

On behalf of SRCC, **Dr. Santosh Kumari** made every effort in seeking License from Deputy Commissioner of Police (Licensing), Delhi to register the Journal at "The Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India". The paper work for seeking license started under the former Officiating Principal, **Dr. R.P. Rustagi** on March 27, 2017. The foundation Issue of the Journal "**Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17**" was successfully released on the 91st Annual Day of SRCC held on April 13, 2017 by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India**. The title of the Journal got verified and approved by the Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India on April 21, 2017. On September 1, 2017, **Prof. Simrit Kaur** joined SRCC as Principal and signed each and every legal document required for further processing and supported **Dr. Santosh Kumari**.

On December 18, 2017, the College got the license "**License No. - DCP / LIC No. F. 2 (S / 37) Press / 2017"** to publish 'Strides – A Students' Journal of Shri Ram College of Commerce'. Due to change of Printing Press, the License got updated on March 09, 2018. On April 26, 2018, the SRCC Staff Council unanimously appointed **Dr. Santosh Kumari as the 'Editor of Strides**' for the next two academic years.

On April 27, 2018 (The Foundation Day of the College), **Dr. Santosh Kumari** submitted the application for the registration of the Journal. On May 04, 2018, the SRCC received the '**Certificate of Registration**' for ***"Strides – A Students' Journal of Shri Ram College of Commerce"*** and got the **Registration No. DELENG/2018/75093** dated May 04, 2018. ***On behalf of Shri Ram College of Commerce, it was a moment of pride for Dr. Santosh Kumari to receive the 'Certificate of Registration' on May 04, 2018 at the Office of Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India (website - www.rni.nic.in).***

On May 07, 2018, **Dr. Santosh Kumari** submitted the application for seeking ISSN (International Standard Serial Number) at "ISSN National Centre – India, National Science Library, NISCAIR (National Institute of Science Communication and Information Resources). Weblink - http://nsl.niscair.res.in/ISSNPROCESS/issn.jsp". Finally, the College received the International Standard Serial Number "**ISSN 2581-4931 (Print)**" **on June 01, 2018.**

We are proud that this journal is an add-on to the enriched catalogue of SRCC's publications and academic literature.

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RELEASE OF FOUNDATION ISSUE OF STRIDES

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