

An Econometric Analysis of World GDP Share of India during 1960-2015

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Abstract

In this paper author attempted to analyse India's international GDP share during 1960-2015 with the help of econometric models taking the data from the World Bank. Semilog linear trend model and exponential trend model were used to find the trend of growth. Variance ratio test was used to show random walk. AR(1) model was used to show stationary, convergence and oscillations. ARIMA (1,1,1) model was tested for the stationary of the series. Forecast for 2035 of the AR(1) and ARIMA(1,1,1) models verified stationary long term patterns. Bai-Perron (2003) model explained to show structural breaks and the study of Bartoletto, Chiarini, Marzano & Piselli (2015) was followed to compute peaks, troughs, durations of cycles, amplitudes and slopes of both the short and medium cycles during 1960-2015. Hodrick-Prescott Filter (1997) model minimized the cycles for smoothness of trend of GDP share. The paper concludes that international GDP share of India has decreased at the rate of 0.459% per year during 1960-2015 and declined exponentially at the rate 0.259% per year significantly. The growth rate of the GDP share is downward sloping significantly till 2030. It follows random walk without drift. Its AR(1) is stable, convergence and stationary. Forecast for 2035 of AR(1) is also converging. ARIMA(1,1,1) is stable and non-stationary and suffers from AC and PAC problems. Its forecast model for 2035 is tending towards stationary insignificantly. GARCH (1,1) showed excessive volatility. It has two downward structural breaks in 1968 and 1988 and one upward break in 2006 which are significant. The paper verified short and medium cycles to calculate peaks and troughs, duration of downturn and upturn, amplitude and slope of the cycles respectively. HP filter model makes the cycle more smooth with only one trough assuming lamda comprises 1600 but symmetric and asymmetric filter showed two peaks and two troughs. The frequency response function clarified its peaks and amplitude of cycle clearly.

Keywords: international GDP share, exponential growth, structural break, non-stationary, HP filter, peaks, trough.

JEL Classification: N13, N15, O21, O24, O57, O10.

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1. Introduction

The world's GDP share of India is an important indicator which can explain the nature of Indian economic development in comparison to other international economies. During ancient past of economic development of India, it was evident that India's world GDP share was highest till 1500 AD and India was the dominant country. During 1500-1650, China was dominant followed by India, and then during 1650-1750, India was dominant followed by China. Since 1870, the world scenario changed rapidly due to rise in western civilization and industrial revolution where Europe was the dominant country and India and Chinese GDP started to decline rapidly. After the First and the Second World Wars, USA's dominance in trade, finance and commerce outweigh UK dominance and USA became the largest GDP share holder in the world up till now. And India's share has been falling till 1993, and then upswing started in but it is too little in comparison to other nations. During 1AD, India's share was 33%, followed by 30% in 1000AD, 24% in 1500-1700AD, 17% in 1820AD, 7% in 1913, and now it is 2.79% in 2015 respectively. But, within 2025, China will recover his previous historical dominance in terms of GDP in the world. In Figure 1, India, China and other nations' world GDP shares are plotted during 1AD-2008AD for comparative study.

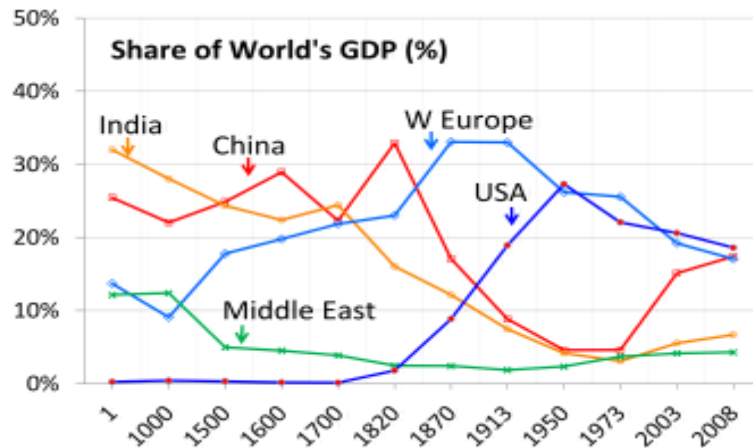


Figure 1. Share of world's GDP (%)

Source: plotted by author.

According to economic historian Angus Maddison's book titled "The World Economy: A Millennial Perspective, India" was the richest country in the world and had the world's largest economy until the 17th century AD. During the Mughal period (1526–1858), the gross domestic product of India was estimated at about 25.1% of the world economy. The estimation of India's pre-colonial economy puts the annual revenue of Emperor Akbar's treasury in 1600 at £17.5 million (in contrast to the entire treasury of Great Britain two hundred years later in 1800, which totaled £16 million). The gross domestic product of Mughal India in 1600 was estimated at about 24.3% of the world economy, the second largest in the world.

By the late 17th century, the Mughal Empire was at its peak and had expanded to include almost 90% of South Asia, and enforced a uniform customs and tax-administration system. In 1700 the exchequer of the Emperor Aurangzeb reported that India earned annual revenue of more than £100 million.

PWC (Price Waterhouse Coopers) projected India's GDP for 2050 and indicated that even more significant changes could be ahead. PWC expects China to have GDP of \$61 trillion (US\$2014). India is projected to be restored to its previous second place, at \$42 trillion, just ahead of the United States (\$41 trillion). By 2050, the E7 economies could have increased their shares of world GDP from around 35% to almost 50%. China could be the largest economy in the world, accounting for around 20% of world GDP in 2050, with India in second place around 15% followed by USA comprising 12% share of the world and Indonesia is in fourth place (based on GDP at PPPs). They project Vietnam, India and Bangladesh to be three of the world's fastest growing economies over this period. By another forecast estimates it is pointed out that India's share in world output is projected to jump from 5% as of today to 20.8% by 2040 as per one estimate. PWC also estimated that during 2016-2050, India's population will grow at the rate of 0.7%, and GDP growth rate will be 4.9% respectively. In context of India's GDP growth rate, it was observed that the average India's GDP growth rate was 0.38% during 1820-1870, 0.97% during 1870-1913 and 0.23% during 1913-1950 respectively. On an average, the Indian economy grew at about 1% per year from 1880 to 1920.

Therefore, the author intended to study the nature of India's share in world GDP from 1960-2015 through econometric models to find significant knowledge about its role on the economic development in the Indian economy.

2. Literature review

There are a few researches on India's world GDP share for analyzing growth. However, many academicians have explained the process of growth and GDP trend with econometric models. Agarwal and Ghosh (2015) performed structural break analyses of several macroeconomic variables for the Indian economy to have a clear picture about the evolution of the economy from various dimensions, analyzing the components of GDP, interestingly, though GDP and GDP per capita series exhibit of multiple structural breaks, they do not find any statistically significant structural break in the Indian GDP growth rate. Papola (2012) highlighted the major structural aspects of India's economic growth specially over the past three decades from the viewpoint of its long-term sustainability. It reviews the trends in sectoral patterns of GDP growth, employment,

trade, industry and inter-regional and inter-class disparities and brings out implications of these trends for a sustainable and equitable growth. Dua and Banerjee (2012) described business and growth rate cycles with special reference to the Indian economy. They used the classical NBER approach to determine the timing of recessions and expansions in the Indian economy, as well as the chronology of growth rate cycles, viz., the timing of speedups and slowdowns in economic growth. They showed peaks and trough as well as recession and expansion since 1960. Dua and Banerji (1999) showed that, over the last four decades, India has experienced six business cycle recessions characterized by pronounced, pervasive and persistent declines in output, income, employment and trade. Mohanty, Singh and Jain (2003) verified that the cyclical behaviour of the Indian economy showed that the economy has transited through thirteen growth cycles of various amplitudes and periodicity during the last three decades with average duration of cycle approximating 27 months. While the recessions persist for the average duration of 16 months, the expansion phase is of relatively shorter duration averaging 12 months. This is in contrast to the general proposition that expansionary phase in the business cycle is larger than the contractionary phase. Virmani (2005) using HP filter series showed two phases of growth rate such as 1971-1974 (3.3%) and 1994-1996 (6.1%) and there is clear break in mean and coefficient of variation if phase one ends in 1978-1979 (phase-1 from 1950-1951-1978-1979, and phase 2 from 1978-1979 to 2002-2003). It was verified that 45% variation of India's GDP growth is explained by fluctuations in rainfall during 1950-2002 with a break in 1980-1981 and there is no break in the effects of rainfall on the growth rate from 1980-1981 onwards. Nayyar (2008) attempts to analyse the economic implications of the rise of China, India, Brazil and South Africa, for developing countries situated in the wider context of the world economy. It considers the main channels of transmission, to focus on international trade, investment, finance and migration. The rapid growth in these large emerging economies is already beginning to change the balance of economic power in the world. Wolf, Larson & Huang (2011) assess the prospects of India and China through 2025 in four domains: demography, macroeconomics, science and technology, and defense spending and procurement. They try to assess the balance between advantages and disadvantages that China and India will possess 15 years hence. This balance is relevant for potential cooperation between the two countries, no less than for their potential competition and rivalry. They repeatedly acknowledge the uncertainties created for the assessment by such qualitative unknowns as whether or not each country may encounter internal civil unrest, political disruption, external conflict, or natural disasters. In addition to those, Nayyar (2008), Paul & Mas (2016) and Wolf, Larson & Huang (2011) discussed about Indian and Chinese role in the world economy.

3. Data and methodology

The data of India's GDP and world GDP have been collected from the World Bank from 1960 to 2015. The linear and exponential trends have been computed by semilog linear and exponential regression models. The forecast for 2035 trend line was also calculated. Variance ratio test was used to verify random walk of the model. AR(1), ARIMA(1,1,1) models were used to compute stationary, stability and convergence of the models. AR(1) forecast model for 2035 were also applied here to check stationary. ARIMA(1,1,1) forecast for 2035 model was used to tend the system into stationary. Bai-Perron (2003) model was used to verify the structural breaks of the system and HP filter (1997) model was taken to modify the cyclical trend into smooth cycle whether it is symmetry or asymmetry. The study of Bartoletto, Chiarini, Marzano, & Piselli (2015) was followed to compute peaks, troughs, durations of cycles, amplitudes and slopes of both the short and medium cycles during 1960-2015. Assume, y is India's world GDP share, t is the year.

4. Econometric observations

World's GDP share of India has been declining at the rate of 0.459% per year during 1960-2015 significantly. The estimated trend line through semi-log linear regression model is given below.

$$\text{Log}(y) = 0.7538 - 0.00459t$$

$$(10.61)^* \quad (-2.12)^*$$

$R^2 = 0.07$, $F = 4.50^*$, $DW = 0.1133$, $*$ = significant at 5% level.

where Y is India's international GDP share (%), t is the year.

In Figure 2, the declining fitted trend line is plotted clearly. It is shown below. Besides, the actual trend of $\log(y)$ has clear downward movement with some expansions and contractions before 1992 and then it shows steady upward trend.



Figure 2. Trend line

Source: plotted by author.

The forecast model of $\log(y) = 0.7538 - 0.00459t$ for 2035 has been declining significantly which is seen in Figure 3.

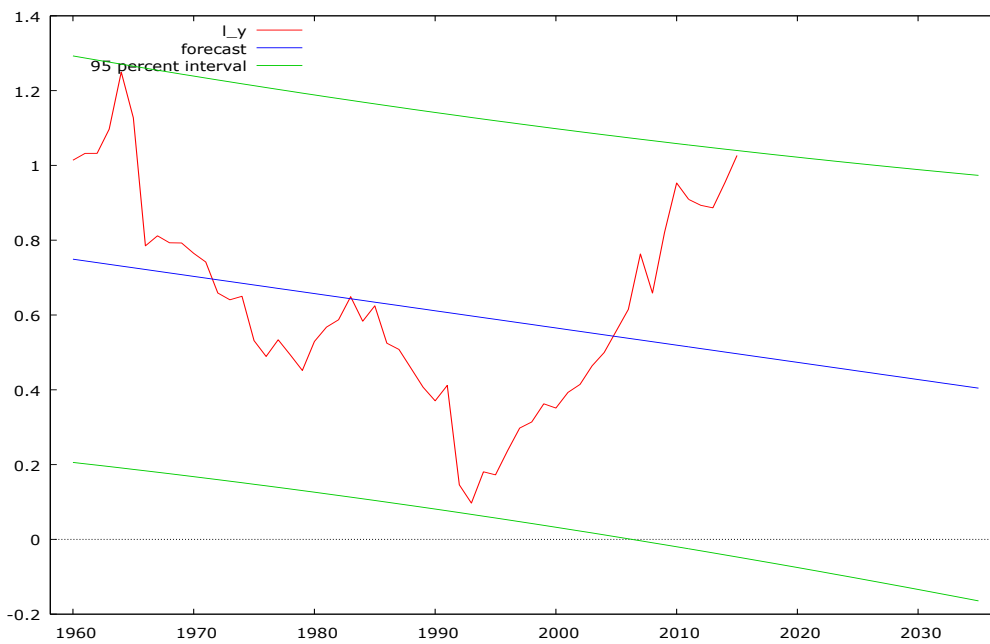


Figure 3. Forecast for 2035

Source: plotted by author.

Actually, the world's share of GDP of India during 1960-2015 follows exponential relation which states that the share has been decreasing exponentially at the rate of 0.259 per cent per year which is significant at 5% level. The estimated equation is given below.

$$y = e^{0.18776 + t^{-0.259298}}$$

The t values of 0.18776 and -0.259298 are 1.6311 and -2.888 respectively. The estimated exponential trend line is plotted below.

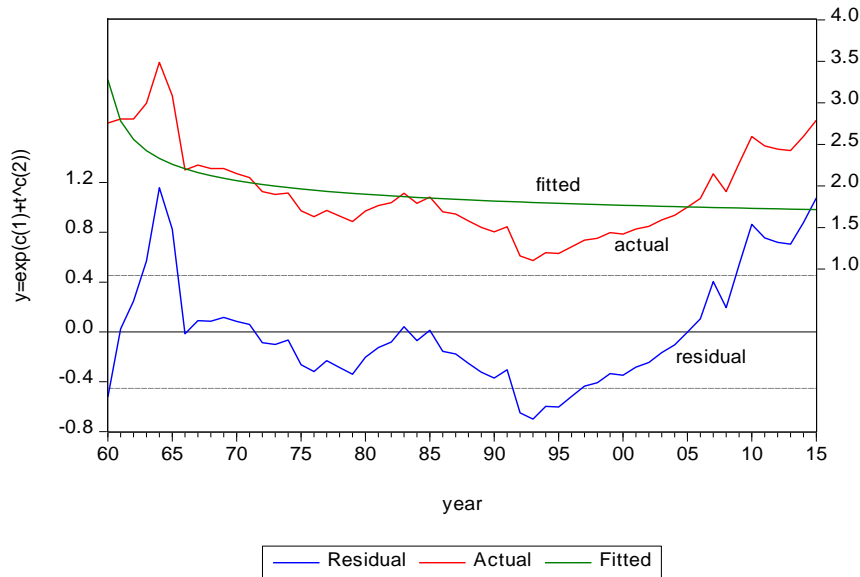


Figure 4. Exponential series

Source: plotted by author.

Assume $x = (y_t - y_{t-1}) / y_{t-1} \times 100 =$ percentage change of India's international GDP share = growth rate (%), then the estimated value of $\log x$ is given below.

$$\text{Log}(x) = 0.00936811 - 0.0097803t$$

(0.0506) (-1.749)

$$R^2 = 0.0545, F = 3.06, DW = 0.149.$$

The estimation is not a good fit because of very low R^2 and F . The estimated equation states that the growth rate of India's World GDP share is declining steadily at the rate of 0.978% per year insignificantly during 1960-2015 which is also plotted in Figure 5.

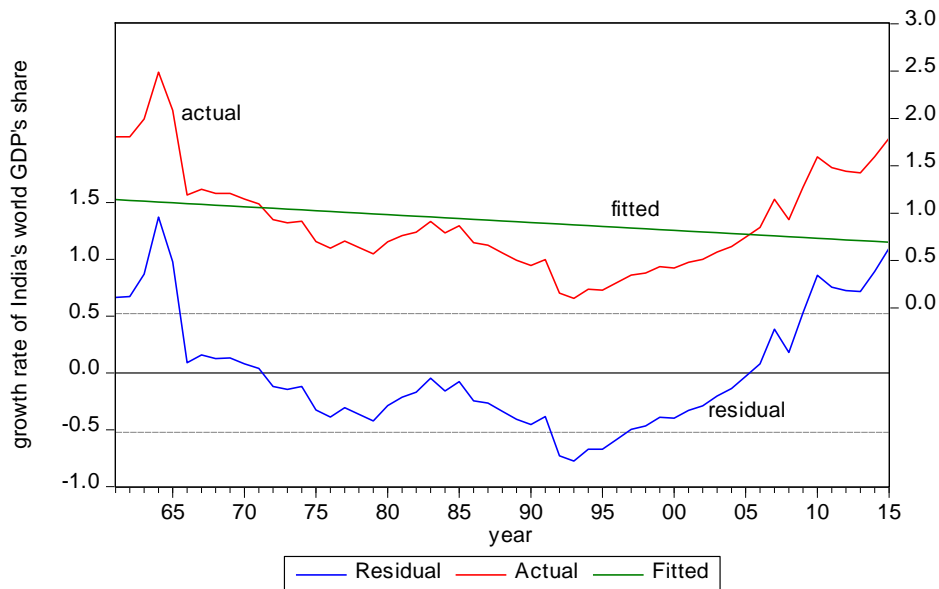


Figure 5. Growth rate of GDP share

Source: plotted by author.

The above forecast model states that the growth rate of India's world share of GDP will decrease at the rate of 68.50% in 2030 as forecasted by this estimated line which is shown in Figure 6.

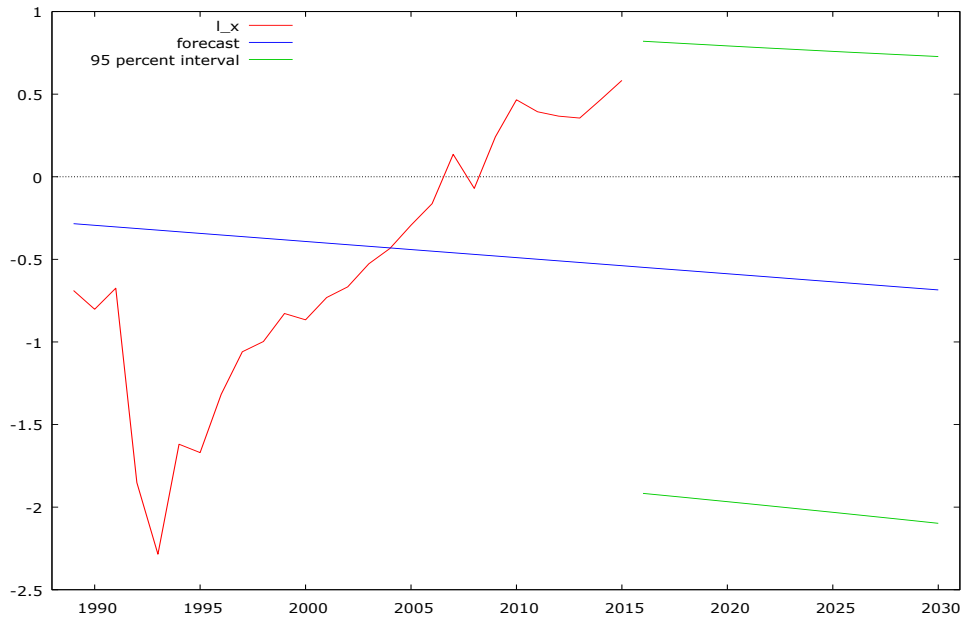


Figure 6. Forecast of growth of share for 2030

Source: plotted by author.

The world's GDP share of India during 1960-2015 follows random walk as suggested by variance ratio test where joint test and individual test of z statistic are insignificant. The Null Hypothesis $H_0 = \text{Log}(y)$ is martingale and is rejected. Their values are shown in Table 1.

Table 1. Variance ratio test

Null Hypothesis H_0 : $\log(y)$ is martingale, lags specified as grid, min = 2, max = 16, step = 1

Joint test	Value	Df		Probability
Max Z at period15	2.189	55		0.35
Individual test				
Period	Variance ratio	SE	z-statistic	prob
2	1.112	0.148	0.753	0.45
3	1.101	0.225	0.452	0.65
4	1.198	0.279	0.709	0.47
5	1.289	0.317	0.909	0.363
6	1.411	0.346	1.185	0.235
7	1.541	0.370	1.460	0.144
8	1.625	0.391	1.579	0.110
9	1.744	0.409	1.815	0.069
10	1.837	0.426	1.965	0.049
11	1.926	0.441	2.098	0.035
12	1.986	0.456	2.162	0.030
13	2.007	0.469	2.144	0.032
14	2.046	0.482	2.168	0.030
15	2.083	0.494	2.189	0.028
16	2.044	0.506	2.063	0.039

Source: calculated by author.

But it follows random walk without a drift because coefficients are not significant where the estimate is calculated by the method of least squares with Gauss-Newton/Marquardt steps.

$$d\log(y_t) = -0.028429 - 0.022965\log(Y_{t-1}) + 0.001476t$$

$$(-0.654) \quad (-0.494) \quad (1.907)$$

$$R^2 = 0.0895, F = 2.557, AIC = -2.023, SC = -1.914, DW = 1.96$$

But the model is not stable because the coefficient -0.022965 for confidence ellipse does not lie within the confidence limit but other's lie in the confidence limit of 5%. It is shown in the Figure 7.

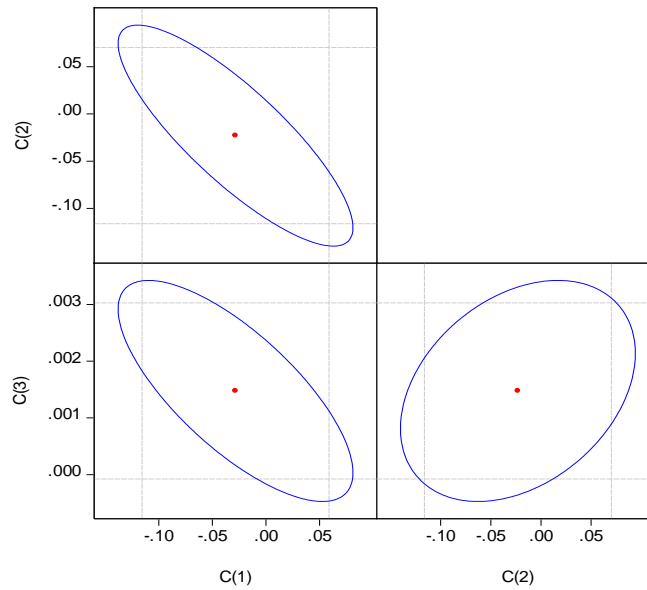


Figure 7. Confidence ellipse

Source: plotted by author.

Auto Regression (1) of India's GDP share is estimated below which is significant at 5% level. This model is stationary, stable and convergent.

$$\text{Log}y_t = 0.798 + 0.9569\text{log}y_{t-1} + 0.0074\sigma^2$$

(3.046)* (25.36)* (7.79)*

$R^2 = 0.89$, $F = 229.59^*$, $DW = 1.77$, $SC = -1.80$, $AIC = -1.91$, $AR\ root = 0.96$, * = significant at 5% level.

The solution of the above estimated equation is given below.

$$\text{log}Y_t = Y^* + (0.95)^t y_0$$

If t tends to infinity then $\text{log}Y_t$ tends to equilibrium Y^* , which is convergent and stationary where $Y^* = 1.86$ and $\sigma^2 = 1$ and y_0 is initial income.

The forecast fitted model of Auto Regression (1) for 2035 is calculated as shown below.

$$\text{Log}y_t = 0.798 + 0.9569\text{log}y_{t-1} + 0.0074\sigma^2$$

This estimated forecast line is moving towards stationary level as shown in Figure 8.

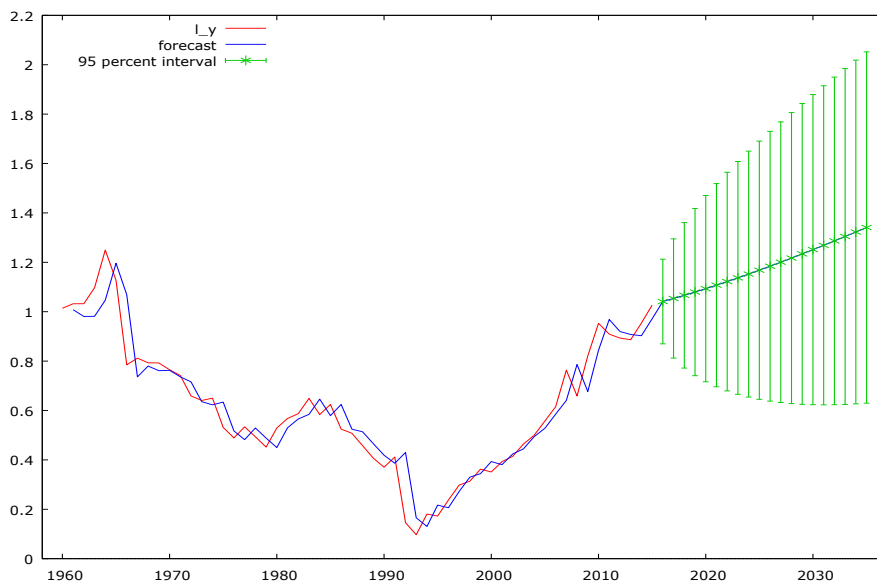


Figure 8. Forecast AR(1)

Source: plotted by author.

The estimated ARIMA(1,1,1) model showed that Auto Regressive process is significant but Moving Average process is insignificant whose coefficients confirmed that it is non-stationary, stable and divergent. The estimated equation is given below.

$$\log Y_t = 0.776 + 0.9453 \log Y_{t-1} + \epsilon_t + 0.12975 \epsilon_{t-1} + 0.00733 \sigma^2$$

(3.39)* (21.45)* (1.10) (7.36)*

$R^2 = 0.89$, $F = 152.20^*$, $DW = 1.97$, AR root = 0.95, MA root = -0.13, * = significant at 5% level.

Yet, the ARIMA(1,1,1) forecast model for 2035 is moving towards stationary level which is plotted in Figure 9.

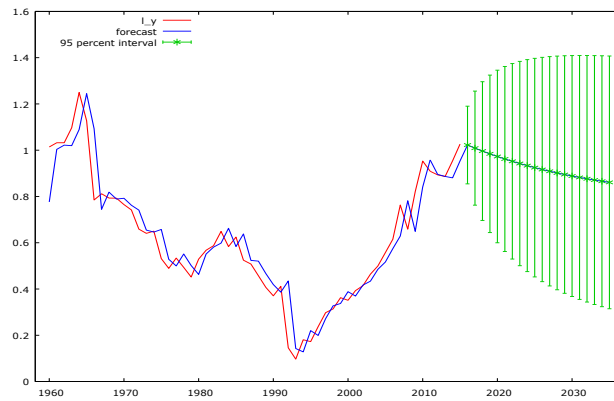


Figure 9. ARIMA forecast model

Source: plotted by author.

The residual test for ARIMA(1,1,1) model suffers from Auto Correlation and Partial Auto Correlation problems which are confirmed by Figure 10 where the ACF and PACF are not declining uniformly. This also confirms that ARIMA(1,1,1) model is non-stationary.

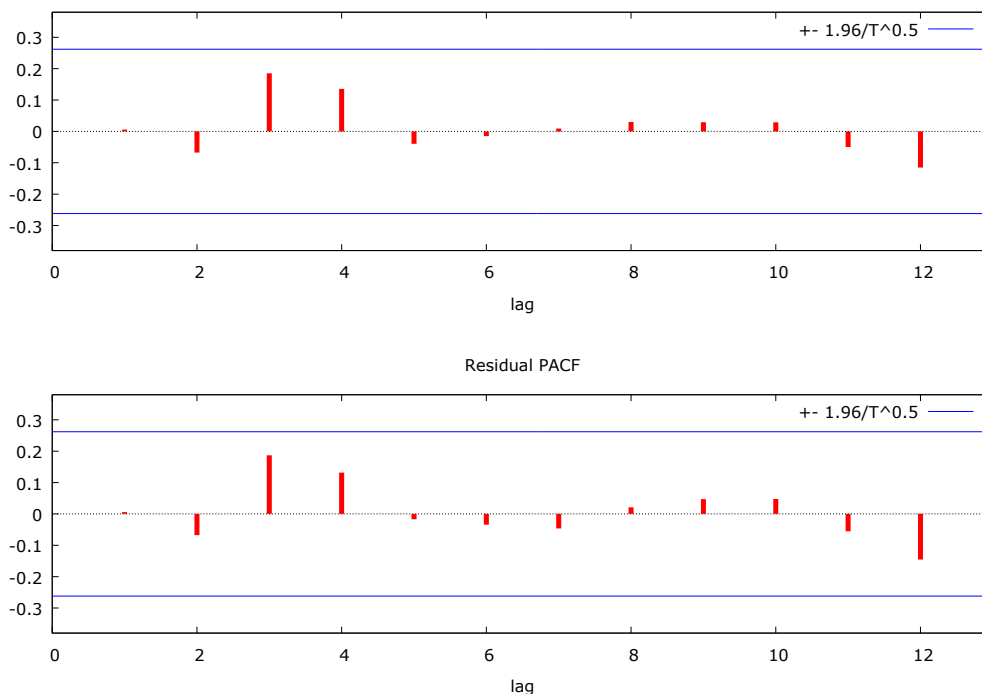


Figure 10. AC and PAC problems

Source: plotted by author.

The ARIMA(1,1,1) model is stable since two roots are less than one and they reside inside the unit circle which is shown in Figure 11.

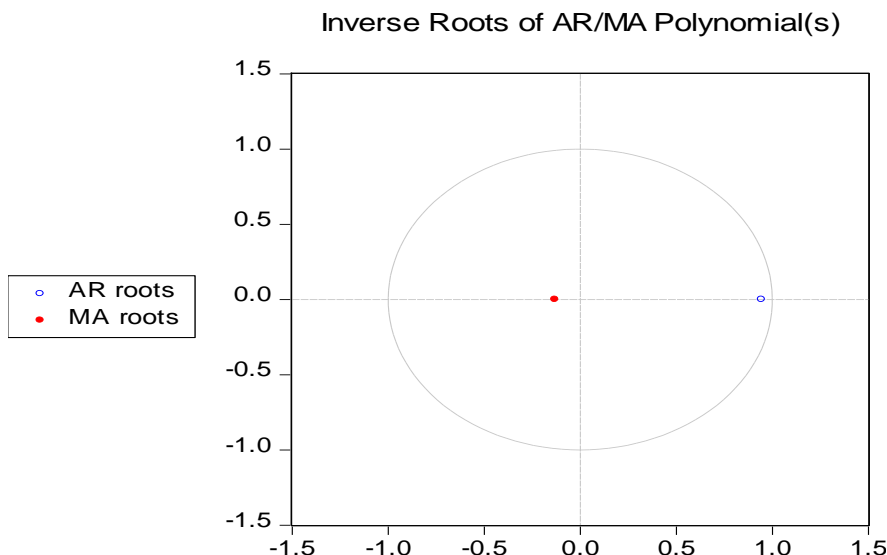


Figure 11. Unit circle

Source: plotted by author.

Both the Impulse Response Functions have been tending towards divergent and nonstationary level due to external shocks. It is plotted in Figure 12.

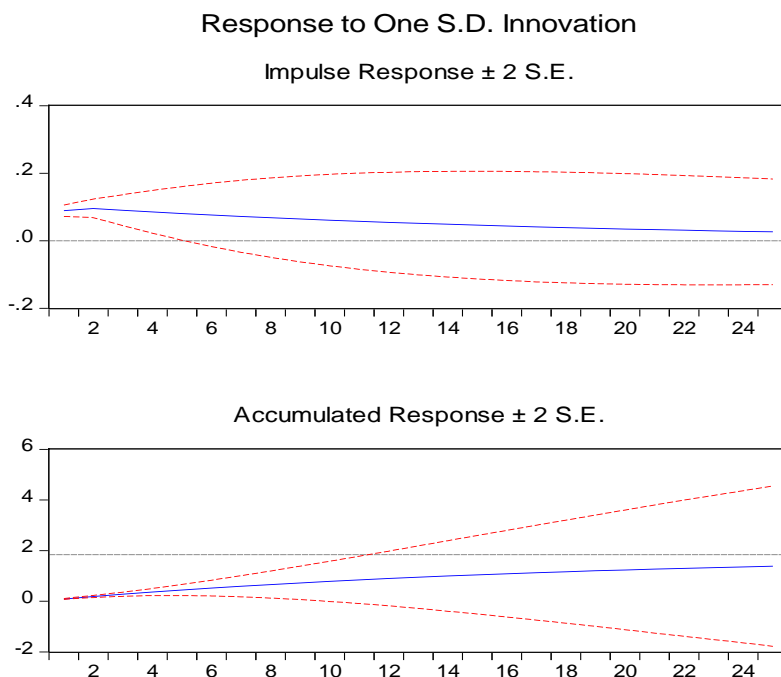


Figure 12. Impulse response functions

Source: plotted by author.

The world’s share of GDP of India during 1960-2015 contains excessive volatility as shown by the estimated GARCH (1,1) model which is given below.

$$\sigma_t^2 = 0.019797 + 1.148241h_{t-1}^2 - 0.18379\sigma_{t-1}^2$$

(0.092) (0.39069) (-0.0759)

$R^2 = -5.405$, $DW = 0.016$, $AIC = 1.8123$, $SC = 1.9208$, h_t = conditional variance, σ^2 = variance

Since all the z-statistic of the coefficients of GARCH (1,1) are insignificant then excessive volatility is proved by this estimated model. The volatility is shown with the help of conditional variance as observed in Figure 13. The cyclical behavior of India’s International GDP share is fully supported by this conditional variance.

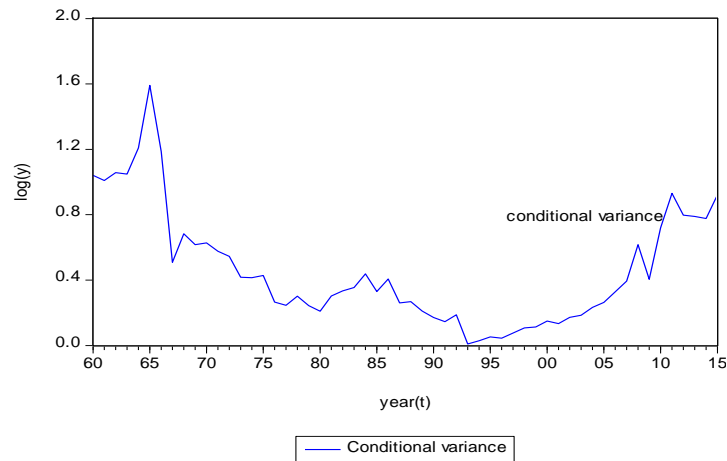


Figure 13. Conditional variance

Source: plotted by author.

Bai-Perron(2003) test verified that India’s GDP share has three distinct structural breaks in 1968,1988 and 2006 respectively which are significant. In Table 2, the values of coefficients, standard error, *t*-statistic and probability have been arranged. The first two structural breaks are downward and the third one is upward. The test assumed *L+1* vs *L* sequentially determined breaks which was found significant at 5% level and sequential *F*-statistic of break test are significant for those three breaks. HAC standard errors and covariance (Bartlett Kernel, Newey-West fixed bandwidth = 3.0, Trimming 0.15) technique was applied.

Table 2. Structural breaks

Variable	Coefficients	Standard error	t-statistic	Probability
		1960-1967 = 8obs		
<i>C</i>	1.0186	0.0543	18.75	0.00
		1968-1987 = 20obs		
<i>C</i>	0.6057	0.0396	15.27	0.00
		1988-2005 = 18obs		
<i>C</i>	0.3407	0.0499	6.8208	0.00
		2006-2015 = 10obs		
<i>C</i>	0.8480	0.0580	14.615	0.00
		$R^2 = 0.79, F = 67.60^*$	$AIC = -1.24,$	$SC = -1.09, DW = 0.99$

Source: calculated by author.

In Figure 14, two downward structural breaks in 1968 and 1988 and one upward structural break in 2006 have been plotted clearly through estimated break line. Now, it is clear that the world’s share of GDP of India during 1960-2015 contains cyclical behavior which showed that it has clearly 9 peaks and 8 troughs which are visible in the Figure 15 when the cycles are considered in the concept of both short and medium cycles respectively. The axioms of short and medium cycles are listed below.

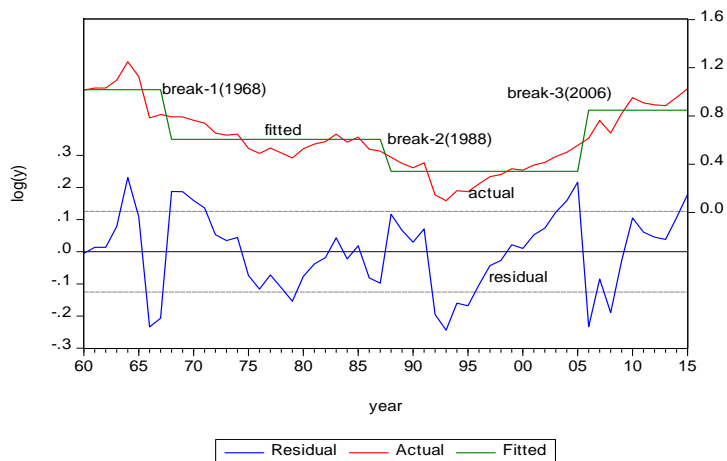


Figure 14. Structural breaks

Source: plotted by author.

Short cycle implies:

1. Short cycle peak in y_t if $\Delta y_t > 0, \Delta y_{t+1} < 0$.
2. Short trough in y_t if $\Delta y_t < 0$ and $\Delta y_{t+1} > 0$.
3. Minimum length of the cycle equals to 2 years.
4. Minimum length of the each phase comprises 1 year.

And medium cycle implies:

1. Medium cycle peak in y_t if $\Delta y_t > 0, \Delta^2 y_t > 0$ and $\Delta y_{t+1} < 0$ and $\Delta^2 y_{t+1} < 0$.
2. Medium trough in y_t if $\Delta y_t < 0, \Delta^2 y_t < 0$ and $\Delta y_{t+1} > 0$ and $\Delta^2 y_{t+1} > 0$.
3. Minimum length of the cycle is 4 years.
4. Minimum length of the each phase is 2years.

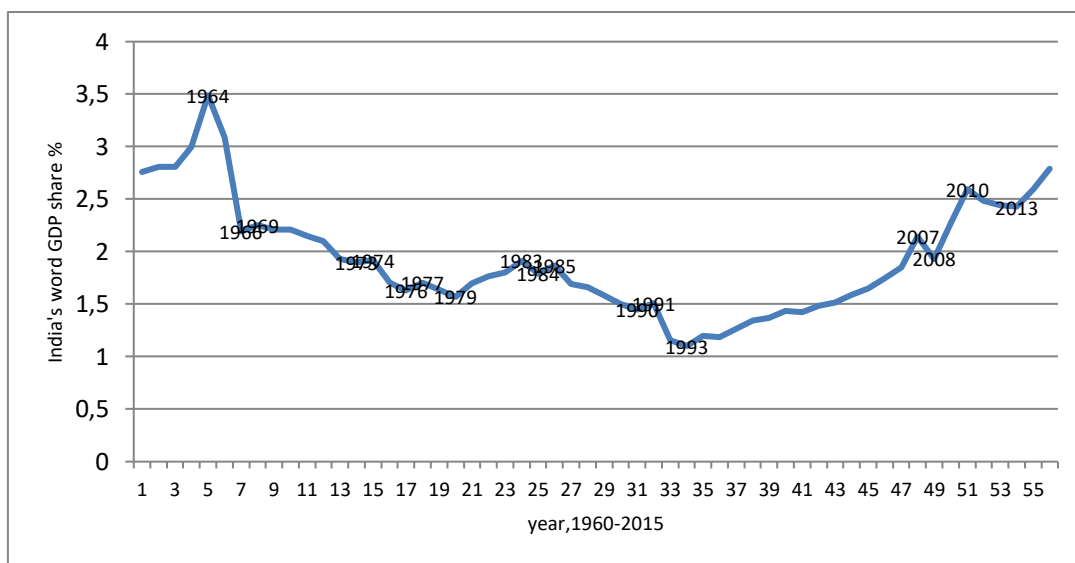


Figure 15. Peaks and troughs of India’s world’s GDP share

Source: plotted by author.

In Table 3, following Bartoletto, Chiarini, Marzano & Piselli (2015), author computed peaks and troughs in both short and medium cycles from the series of India’s world share of GDP from 1960 to 2015 where the duration of a downturn is the number of years between a peak and the next trough. Likewise, the duration of an upturn is the number of years from the trough to the subsequent peak. The amplitude measures the percentage change from peak to the next trough (downturn) or from a peak to the previous trough (upturn). The slope is the annual average (GM) growth rate. The slope measures the intensity of recovery or the violence of a recession. The amplitudes and slopes have been fluctuating from time to time.

Table 3. Basic features of cycles: peaks, troughs, duration, amplitudes and slopes

	Turning point			Duration(years)			Amplitude		Slope	
	Peak-1	Peak-2	trough	downturn	upturn	cycle	downturn	upturn	downturn	upturn
Medium cycles	1964	1967	1966	2	1	3	-31.26	2.736	-15.63	2.736
	1967	1974	1973	6	1	7	-18.67	1.05	-3.12	1.05
	1974	1977	1976	2	1	3	-10.62	4.55	-5.31	4.55
	1977	1983	1979	2	4	6	-8.54	21.80	-4.27	5.45
	1983	1985	1984	1	1	2	-6.35	4.18	-6.25	4.18
	1985	1991	1990	5	1	6	-22.43	4.21	-4.48	4.21
	1991	2007	1993	2	14	16	-26.65	94.71	-13.32	6.76
	2007	2010	2008	1	2	3	-9.43	34.23	-9.937	17.11

Source: calculated by author.

The nature of cycles of the world's GDP share of India during 1960-2015 could be judged by the Hodrick-Prescott filter model which minimizes the variance of trend line around smooth series subject to a penalty that constraints second difference of smooth series. The penalty parameter lamda controls the smoothness of the variance series where larger is the Lamda the smoother is the variance. We assumed lamda is 1600 and found that smooth cycle has one distinct trough in a cycle which is shown in Figure 16.

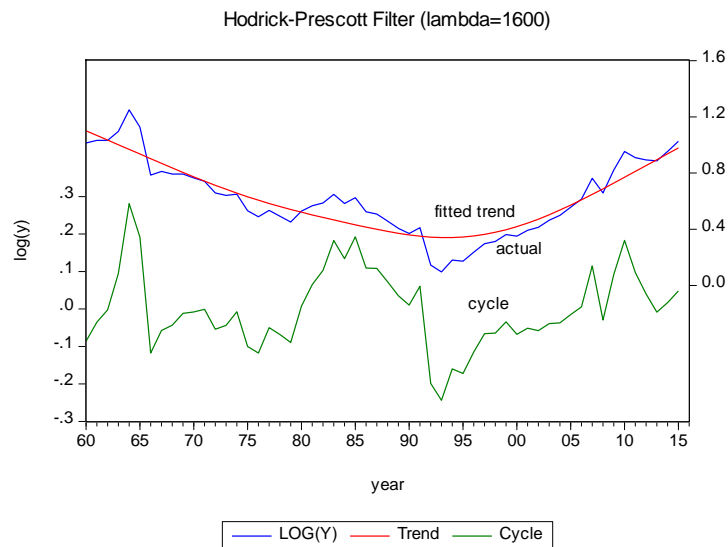


Figure 16. Smooth cycle

Source: plotted by author.

Hodrick-Prescott Filter asymmetric or symmetric tests clearly showed that cyclical phases have been turned smoothed cycles into two peaks and two troughs assuming lamda is 100 which is shown in Figure 17.

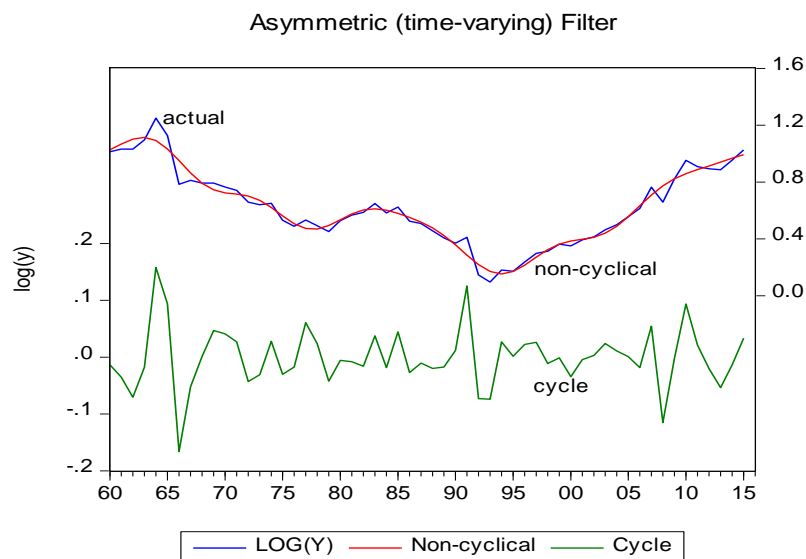


Figure 17. Asymmetric filter

Source: plotted by author.

In Figure 18, applying the symmetric test using fixed length Christiano-Fitzgerald model (2003), we found two smooth peaks and troughs each throughout the study period when after 1993 trough India's GDP share has been hiking unbreakably which was also observed in Bai-Perron test.

Frequency Response Function showed the peak of the amplitude and damping of the cycle (assuming one cycle per period).

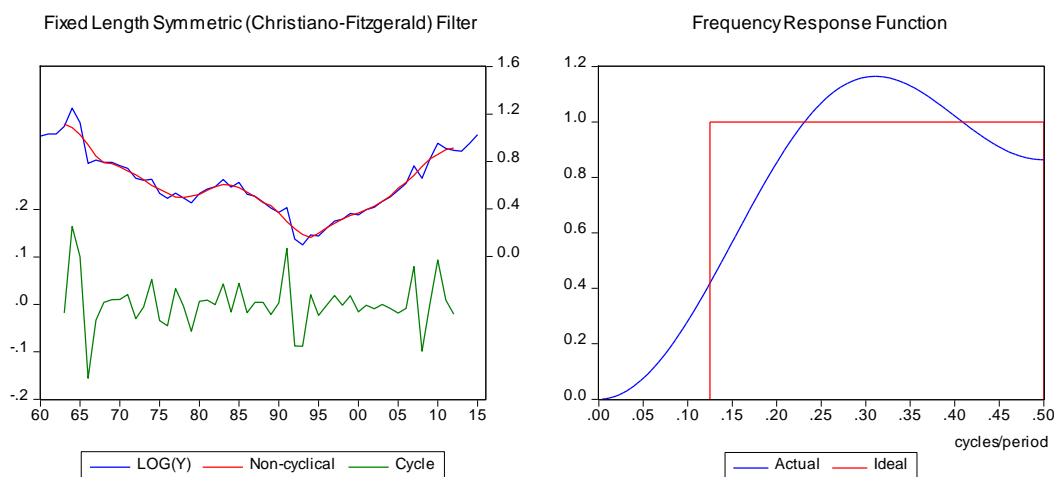


Figure 18. HP filter with symmetric test

Source: plotted by author.

Therefore, it is clear that India's international competitiveness in terms of GDP share is not favourable throughout the study period rather India's share showed cyclical patterns containing upswings and downswings or expansions and contractions which are required strong anticyclical fiscal and monetary policy with strong macro fundamentals to combat cycles. But, India had been confronting with current account deficits, high debt burdens, huge fiscal deficits, high inflation rate with unfavourable exchange rate since the planning periods which have been hindering India's development process and competitiveness.

5. Limitations of the study

The calculations of behavior of peaks, troughs, duration, amplitudes and slopes are essentially suitable for monthly or quarterly data where explanations will be more analytical and ARIMA (1,1,1) forecast model is mostly applicable. Our study is limited to yearly data. How much international GDP share of India is influential in explaining sustainable developmental patterns is a great scope in this paper in future.

6. Suggested policies

The following are the important policies which can be conducted to enhance world's GDP share of India.

1. To increase world's GDP share, India needs to hike India's international export share.
2. India should reduce its external debts, negative current account balance as percent of GDP and fiscal deficit as percent of GDP respectively.
3. India's NEER and REER of Rupee should be downward trends.
4. India's openness index and the speed of financial integration should be enhanced gradually.
5. To check cyclical behavior of growth, India should apply appropriate expansionary and contractionary monetary and fiscal policy.
6. India's agri-exports have good prospect in which agricultural share in GDP should be given more importance so that India's World's GDP share may increase.

7. Conclusion

The paper concludes that international GDP share of India has decreased at the rate of 0.459% per year during 1960-2015 and declined exponentially at the rate 0.259% per year significantly. The growth rate of the GDP share is downward sloping significantly till 2030. It follows random walk without drift. Its AR(1) is stable, convergent and stationary. Forecast for 2035 of AR(1) is also converging. ARIMA (1,1,1) is stable and nonstationary and suffers from AC and PAC problems. Its forecast model for 2035 is tending towards stationary level insignificantly. GARCH (1,1) showed excessive volatility. It has two downward structural breaks in 1968 and 1988 and one upward break in 2006 which are significant. The paper also verified short and medium cycles to calculate peaks and troughs, duration of downturn and upturn, amplitude and slope of the cycles respectively. HP filter model makes the cycle more smooth with only one trough assuming lamda is 1600 but symmetric and asymmetric filter showed two peaks and two troughs. The frequency response function clarified its peaks and amplitude of cycle clearly. Suggested policy recommendations may increase India's GDP share in the offing.

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Appendix

Table 1. GDP of World and India, & India's GDP share in the world

Year	India's GDP in US\$ at current prices (in trillion)	World GDP in US\$ at current prices (in trillion)	India's share in the world %
1960	0.03768	1.367	2.7564
1961	0.03992	1.422	2.8073
1962	0.04290	1.528	2.8075
1963	0.04927	1.645	2.9951
1964	0.05747	1.802	3.1892
1965	0.06060	1.963	3.0871
1966	0.04667	2.129	2.1921
1967	0.05101	2.265	2.25209
1968	0.05402	2.444	2.2103
1969	0.05947	2.692	2.2091
1970	0.06352	2.956	2.1488
1971	0.06853	3.264	2.0995
1972	0.07272	3.763	1.93250
1973	0.08701	4.585	1.8977
1974	0.1013	5.288	1.9156
1975	0.1002	5.889	1.7014
1976	0.1045	6.407	1.63102
1977	0.1236	7.247	1.70553
1978	0.1397	8.529	1.6379
1979	0.1557	9.91	1.5711
1980	0.1896	11.156	1.6995
1981	0.1969	11.448	1.764
1982	0.2042	11.347	1.799
1983	0.2221	11.606	1.9136
1984	0.2159	12.047	1.7921
1985	0.2366	12.67	1.8674
1986	0.2534	14.995	1.6898
1987	0.2859	17.098	1.6616
1988	0.3018	19.099	1.5801
1989	0.3012	20.05	1.5022
1990	0.3266	22.548	1.4484
1991	0.2748	23.876	1.5094
1992	0.2933	25.35	1.1570
1993	0.2842	25.794	1.1018
1994	0.333	27.751	1.1981
1995	0.3666	30.851	1.18829
1996	0.3998	31.532	1.26791
1997	0.4232	31.415	1.34669
1998	0.4287	31.319	1.3688
1999	0.4669	32.491	1.43701
2000	0.4766	33.551	1.4205
2001	0.494	33.346	1.4814
2002	0.524	34.621	1.5135
2003	0.6184	38.879	1.5905
2004	0.7216	43.782	1.6481
2005	0.8342	47.394	1.74588

Table 1 (cont.). GDP of World and India, & India's GDP share in the world

Year	India's GDP in US\$ at current prices (in trillion)	World GDP in US\$ at current prices (in trillion)	India's share in the world %
2006	0.9491	51.312	1.84966
2007	1.239	57.757	2.14541
2008	1.224	63.346	1.9322
2009	1.365	60.046	2.2732
2010	1.708	65.853	2.5936
2011	1.816	73.17	2.48189
2012	1.825	74.694	2.4433
2013	1.863	76.77	2.4267
2014	2.042	78.658	2.59604
2015	2.074	74.292	2.79168

Source: World Bank.