AN OVERVIEW OF RETAIL INDUSTRY AND DETERMINANTS OF FDI IN SELECT MACRO-ECONOMIC VARIABLES IN HOST COUNTRIES OF INDIA AND UNITED SATES

Dr.N.PONSABARIRAJ
Assistant Professor, School of Commerce, Sree Saraswathi Thyagaraja College (Autonomous), Pollachi – 642 107. Tamil Nadu, India.

Received: January 11, 2019 Accepted: February 22, 2019

ABSTRACT: *The paper aims to analyze the impact of FDI in retail sector in India and United States. In India, the retail business activity following traditional and oldest sector when compare with the other sectors. The permission of FDI in India was creating more impact on various segments in retail sector such as organized stores developed to mall, increasing consumable pattern, changing of buying behaviour, increase cost of living and also consumer shift to branded items these factors it may be impact to the country economy. The paper has to measure the impact of FDI in retail sector with the help of select macro-economic variables. For the purpose of the researcher selecting the macro-economic variables is an economic indicator for reflecting thewhole economic growth. The country of United State having the 85 per cent of organized retail store format compare with other developed countries and also the country was attracting more FDI in retail sector. Hence, the researcher wants to compare impact of FDI retail growth in Indian retail context. The article purely based on the secondary datafor the period of fourteen years from 2000 Q1 to 2014 Q4. The collected data have been analyzed with the help of econometric analysis namely descriptive statistics, CAGR, Augmented Dickey–Fuller (ADF) test, Panel Least Squares analysisandPairwise Granger Causality Tests.*

Key Words: *FDI in retail Impact of macro-economic variables and cause and effect of FDI in retail in India and United States.*
JEL Classification Code: G14, L1, L5 and L6.

INTRODUCTION

Thispaper compares with the overview of retail industry anddeterminants of FDIin macro-economic variables in select countries. The performance of FDI in retail industry explores and compare with the five countries along with India. The country of United Sate following the macro-economic variables have been used to measure the impact of FDI in retail sector. Before carrying the analysis the select variables are consider to log (L) value for the reason getting similar value for all the variables namely, LBOT (Balance of Trade), LCPI (Consumer Price Index), LEXRATE (Exchange Rate), LGDP (Gross Domestic Product), LIIP (Industrial Investment Production), LINFL (Inflation Rate), LIR (Interest Rate), LPPI (Producer Price Index), LTR (Total Reserve) and LUR (Unemployment Rate) for using this study.

RETAIL

The word 'Retail' comes from French word 're-trailer' meaning 'cutting off, clip and divide' in terms of tailoring in 1365. It was first recorded as a French noun with the meaning 'Sale in small quantities' in 1433. In simple terms, it implies a first-hand transaction with the customer. Retailing can be defined as the buying and selling of goods and services. It can also be defined as the timely delivery of goods and services demanded by consumers at prices that are competitive and affordable. Retailing involves a direct interface with the customer and the coordination of business activities from end to end- right from the concept or design stage of a product or offering, to its delivery and post-delivery service to the customer. The industry has contributed to the economic growth of many countries and is undoubtedly one of the fastest changing and dynamic industries in the world today. A retailer is involved in the act of selling goods to the individual consumer at a margin of profit.*(ManjuSmita Dash)*

SAMPLE OF EARLIER STUDIES

The author argued with entitled on *"The FDI permit for Multi Brand retail trading in India- Green signal or Red signal",* in her study the author asserted the variables that are suppliers pricing, middlemen, employment, fresh product, local economy and efficient supply chain. However, the author using SWOT analysis to measure the challenges and issues on FDI in multi- brand retailing. From her study the result highlighted that weakness of multi brand retail trading is does not having any business models, lack of motivated manpower, supply chain and innovative management system and losses in store. So, it does a

right time to FDI enter in retail trading and also it's given a positive growth in India. Finally, the study recommended to encouraging co-operative stores and unorganized retail stores by the way of direct procurement from suppliers and farmers. *(KamaladeviBaskaran, 2012)*.

A study conducted on *"A review of the impact of Foreign Direct Investment on Indian retailing",* the study review the impact of FDI in Indian retailing sector measure with the factors such as consumption, operational efficiency, potential migration of customers, effective supplier's and access new technology capital by the retailers. On this note, sample of country which include in his study are China, Thailand, Chile, Indonesia and Brazil comparing with India. The final results empirically explores the country wise analysis FDI has proved to stimulate growth and development of the countries. In addition the author given some more suggestions towards the FDI can increase direct capital financing, sources of valuable technology and know-how while fostering linkages with local firms and promote competitive markets. The modernization retail process has been made positive impact on independent retailers who have also upgraded in terms of assortment delivery and ambiance in retail sector *(SheetalMundra, MukeshMundra and et., all, 2013)*.

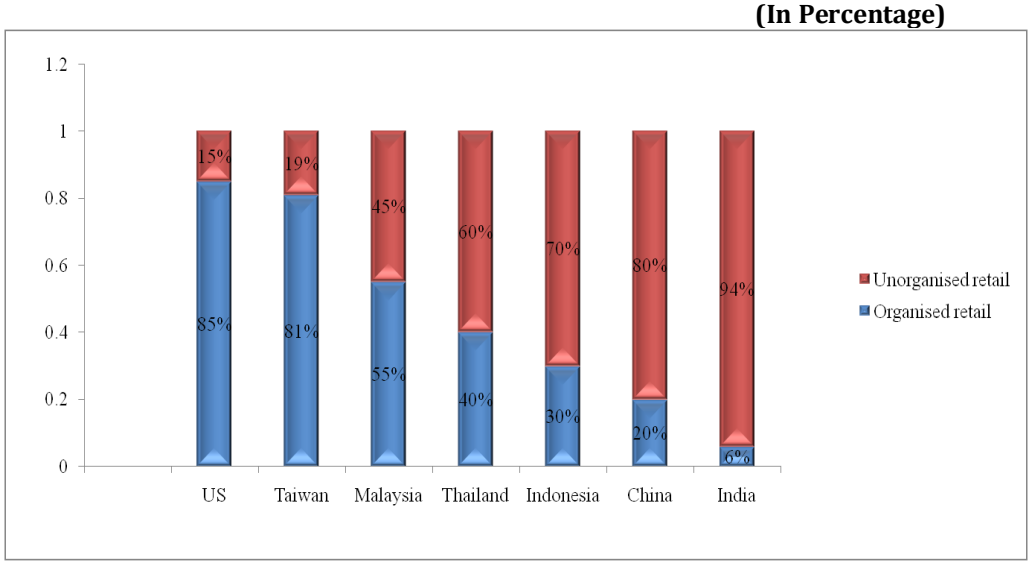
RETAIL INDUSTRY PERFORMANCE IN GLOBAL LEVEL

The global economy has changed; to create consumer demand has shifted, to the retailers' operating today it is infused with far more technology than was the case six years ago. Since the mid-1990s, numerous governments have opened up their economies as well,the global retail industry has traveled a long way from a small beginning to an industry where the worldwide retail sale alone is valued at $ 7 trillion in 2011. The top 200 retailers alone account for 30 per cent of worldwide creation of demand. Retail sales being generally driven by people's ability (disposable income) and willingness (consumer confidence) to buy, compliments the fact that the money spent on household consumption worldwide increased 68 per cent between 1980 and 2013. The leader has indisputably been the USA where about 40 per cent of that ($ 3 trillion) is spending on discretionary products and services. Retail turnover is approximately Euros 2000 billion and the sector average growth looks to be following an upward pattern. The Asian economies (excluding Japan) are expected to grow at 6per cent consistently till 2005-06. Positive forces at work in retail consumer markets today include high rates of personal expenditures, low interest rates, low unemployment and very low inflation. Negative factors that hold retail sales back involve weakening consumer confidence.

Exibit-1

Global Level Retail Industry Performance during the Period from 2014-2015

(In Percentage)



RETAIL INDUSTRY PERFORMANCE IN INDIA

The scope in the Indian retail market is mainly due to the change in the consumer's behavior along with the fast growth in the service sector. For the new generation have preference towards luxury commodities which have been due to the strong increase in income, changing lifestyle and demographic patterns which are favorable. Shopping in India has witnessed a revolution with the change on the consumer buying behavior and the whole format of shopping. Industry of retail in India which has become modern can be seen from the fact that there are multi-stored malls, big shopping centers and sprawling complexes which offer food, shopping and entertainment all under the same roof.**1**

Retailing is one of the pillars of the economy in India and accounts for 13 per cent of GDP. The retail industry is divided into organized and unorganized sectors. Over 12 million outlets operate in the country and only 4 percent of them being larger than in size. Organized retailing refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax, etc.,These include the corporate backed hypermarkets, retail chains and also the privately owned large retail business,shopping malls, Multi-store mall and huge complexes that offers a large variety of products in terms of quantity and value of money. Unorganized retailing, on the other hand, refers to the traditional formats of low-cost retailing (i.e) local kirana shops, owner manned general stores, paan/beedi shops, convenience stores, hand cart and pavement vendors etc., According to the Indian Council for Research on International Economic Relations (ICRIER), India is the seventh-largest retail market in the world, and is expected to grow at CAGR of over 13 per cent till date. During the last few years, the Indian retail market has seen considerable growth in the organized segment. Major domestic players have entered the retail arena and have ambitious plans to expand in the future years across vertical, formats and cities. The growth rate of super market sales has been significant in recent years because greater numbers of higher income Indians prefer to shop at super markets due to higher standards of hygiene and attractive ambience. With growth in income levels, Indians have started spending more on health and beauty products. Here also small, single-outlet retailers dominate the market. In recent years, a few retail chains specialized products have come into the market. In recent years, a few retail chains specialized products have come into the market. Although these retail chains account for only a small share of the total market, their business is expected to grow significantly in the future due to the growing quality consciousness of buyers for these products.

FUNCTIONAL CHART OF RETAIL INDUSTRY IN INDIAN CONTEXT

EMPIRICAL DISCUSSION

Panel Data Regression Analysis*

Panel Data Regression is a new method of econometric analysis to identify the how dependent variable has impact/influenced by the independent variables. So, in connection with the same regression analysis has been carry out for six host countries like Brazil, China, Indonesia, United Kingdom and United Sates along with India to define how FDI in retail its impact to sucha countries.Since, FDI in retail sector data is not explicitly available for any country, the data about its presence or absence has been indicated by a dummy variable FDI in a binary format. A value of 1 indicates FDI in retail sector was present in a particular country while a 0 indicates it was absent.Hence all the ten macro-economic variables have been analyzed with respect to FDI in retail and other significant factors individually.

3.8 MODEL FIT FOR THE STUDY

(a) Impact of FDI in Retail on Macro-Economic Factors Using Panel Least Square Analysis

$$FDI_{it} = \beta_0 + \beta_1 BOT_{it} + \beta_2 CPI_{it} + \beta_3 EXRATE_{it} + \beta_4 GDP_{it} + \beta_5 IIP_{it} + \beta_6 INFL_{it} + \beta_7 IR_{it} + \beta_8 PPI_{it} + \beta_9 TR_{it} + \beta_{10} UR_{it} + \varepsilon_{it} \quad \text{.....(Model-1)}$$

(b) Impact of FDI in Retail on Macro-Economic Factors Using Panel Data Regression Analysis

$$BOT_{it} = \beta_{11} + \beta_{12} CPI_{it} + \beta_{13} EXRATE_{it} + \beta_{14} GDP_{it} + \beta_{15} IIP_{it} + \beta_{16} INFL_{it} + \beta_{17} IR_{it} + \beta_{18} PPI_{it} + \beta_{19} TR_{it} + \beta_{20} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-2)}$$

$$CPI_{it} = \beta_{21} + \beta_{22} BOT_{it} + \beta_{23} EXRATE_{it} + \beta_{24} GDP_{it} + \beta_{25} IIP_{it} + \beta_{26} INFL_{it} + \beta_{27} IR_{it} + \beta_{28} PPI_{it} + \beta_{29} TR_{it} + \beta_{30} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-3)}$$

$$EXRATE_{it} = \beta_{31} + \beta_{32} BOT_{it} + \beta_{33} CPI_{it} + \beta_{34} GDP_{it} + \beta_{35} IIP_{it} + \beta_{36} INFL_{it} + \beta_{37} IR_{it} + \beta_{38} PPI_{it} + \beta_{39} TR_{it} + \beta_{40} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-4)}$$

$$GDP_{it} = \beta_{41} + \beta_{42} BOT_{it} + \beta_{43} CPI_{it} + \beta_{44} EXRATE_{it} + \beta_{45} IIP_{it} + \beta_{46} INFL_{it} + \beta_{47} IR_{it} + \beta_{48} PPI_{it} + \beta_{49} TR_{it} + \beta_{50} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-5)}$$

$$IIP_{it} = \beta_{51} + \beta_{52} BOT_{it} + \beta_{53} CPI_{it} + \beta_{54} EXRATE_{it} + \beta_{55} GDP_{it} + \beta_{56} INFL_{it} + \beta_{57} IR_{it} + \beta_{58} PPI_{it} + \beta_{59} TR_{it} + \beta_{60} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-6)}$$

$$INFL_{it} = \beta_{61} + \beta_{62} BOT_{it} + \beta_{63} CPI_{it} + \beta_{64} EXRATE_{it} + \beta_{65} GDP_{it} + \beta_{66} IIP_{it} + \beta_{67} IR_{it} + \beta_{68} PPI_{it} + \beta_{69} TR_{it} + \beta_{70} UR_{it} + \varepsilon_{it} \text{.....} \quad \textbf{(Model-7)}$$

$$IR_{it} = \beta_{71} + \beta_{72} BOT_{it} + \beta_{73} CPI_{it} + \beta_{74} EXRATE_{it} + \beta_{75} GDP_{it} + \beta_{76} IIP_{it} + \beta_{77} INFL_{it} + \beta_{78} PPI_{it} + \beta_{79} TR_{it} + \beta_{80} UR_{it} + \varepsilon_{it} \quad \text{.....} \quad \textbf{(Model-8)}$$

$$PPI_{it} = \beta_{81} + \beta_{82} BOT_{it} + \beta_{83} CPI_{it} + \beta_{84} EXRATE_{it} + \beta_{85} GDP_{it} + \beta_{86} IIP_{it} + \beta_{87} INFL_{it} + \beta_{88} IR_{it} + \beta_{89} TR_{it} + \beta_{90} UR_{it} + \varepsilon_{it} \quad \text{.....} \quad \textbf{(Model-9)}$$

$$TR_{it} = \beta_{91} + \beta_{92} BOT_{it} + \beta_{93} CPI_{it} + \beta_{94} EXRATE_{it} + \beta_{95} GDP_{it} + \beta_{96} IIP_{it} + \beta_{97} INFL_{it} + \beta_{98} IR_{it} + \beta_{99} PPI_{it} + \beta_{100} UR_{it} + \varepsilon_{it} \quad \text{.....} \quad \textbf{(Model-10)}$$

$UR_{it} = \beta_{101} + \beta_{102} * BOT_{it} + \beta_{103} * CPI_{it} + \beta_{104} * EXRATE_{it} + \beta_{105} * GDP_{it} + \beta_{106} * IIP_{it} + \beta_{107} * INFL_{it} + \beta_{108} * IR_{it} + \beta_{109} * PPI_{it} + \beta_{110} * TR_{it} + \varepsilon_{it}$..... **(Model-11)**

FDI Impact on United States

H_{o1} (a): There is no significance relationship between thenormal distributions of select macro-economic variables in United States.

Table-1

Summary of Augmented Dickey–Fuller (ADF) Tests of United States during the Study Period from 2000 Q1 to 2014Q4

Macro Economic Variables	Level	1St Difference	2nd Difference
BOT	-6.279843		
CPI		-8.556292	
EXRATE			
GDP	-8.419817		
IIP		-6.124736	
INFL	-4.675575		
Interest Rate		-3.218612	
PPI		-6.073589	
Total Reserve		-6.952274	
UR			-3.822297

Note: Significant level is 0.05 per cent.

Source: Compiled and Calculated from the data published in various report.

Table-1shows the summary of Augmented Dickey-Fuller test*of*select macro-economic variables inUnited Statesduring the study period from2000Q1 to 2014 Q4. The country select macro-economic variables showsthe time series is stationary with various stagesduring the study period. In United Statesthe selected macro-economic variable such as BOT, GDP and INFL are stationary at level. The CPI, IIP, IR, PPI and TR have the stationary at first difference whereas; UR has the stationary at second difference.

Table-2

Summary of Descriptive Statistics of select macro-economic variables of United Statescountry during the Study Period from 2000 Q1 to 2014Q4

(In Percentage)

	LBOT	LCPI	LEXRATE	LGDP	LIIP	LINFL	LINTEREST_RATE	LPPI	LTOTAL_RESERVE	LUR	FDI
Mean	0.101911	-0.06584	0.01	-0.67593	-0.8165	0.755355	-6.1924	4.503642	4.400044	2.223178	1.000000
Std. Dev.	2.708767	0.103441	0.01	0.855237	0.023381	0.682860	0.660658	0.165267	0.371389	0.297723	0.01
CV	1.436853	0.01	1.284541	1.140233	1.565026	1.16092	1.073263	1.165201	1.213358	1.14515	0.01
CAGR	0.015031	0.01	-0.02246	0.007876	-0.08953	0.003302	0.016553	0.007584	-0.04176	0.010466	0.01

Source: Compiled and Calculated from the data published in various report.

Table-2 reveals*the* summary of descriptive statisticsof select macro-economic variables inUnited States during the study period from2000 Q1 to 2014Q4. The average of country select macro-economic variables shows a fluctuating trend during the study period;this has been due to hugeinvestment of various countries and high cost of inflation rate. The producer price index has the highest average of 4.50 per cent; followed by total reserve which has the average of 4.40 per cent. The interest rate has the negative average of 6.19 per cent. The balance of trade has the highest standard deviation of 2.70 per cent and the FDI has the lowest standard deviation of 0.01 per cent.The industrial investment production has the highest coefficient of 1.56 per cent and The FDI has the less coefficient of variance of 1.02 per cent and it is found that there is more consistency when compared to other select macro-economic variables in United States. The LIIP and LTR has negative compound annual growth rate of 0.08 and 0.04 and other select variable has positive growth.

$H_{o2\ (a)}$: There is no significant relationship between FDI in retail sector and its impact on the select macro-economic variables in United States.

Table-3

Panel Least SquaresAnalysis of United Statesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LBOT	**-6.0115**	**2.2815**	**-2.635031**	**0.0112**
LCPI	6.2313	5.3413	1.166203	0.2491
LEXRATE	-2.1215	6.8415	-0.310558	0.7574
LGDP	**-5.2312**	**8.1213**	**-6.439913**	**0.0000**
LIIP	-1.3614	1.2514	-1.088037	0.2818
LINFL	-1.3114	1.6114	-0.812533	0.4203
LINTEREST_RATE	4.4513	2.8513	1.561452	0.1247
LPPI	**1.5413**	**3.5414**	**4.340341**	**0.0001**
LTOTAL_RESERVE	**-5.8013**	**8.7414**	**-6.635622**	**0.0000**
LUR	**1.000000**	**1.4012**	**7.160011**	**0.0000**
C				
R-squared	**0.815712**	**Adjusted R-squared**		**0.974428**
F-statistic	**38.07309**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**0.901242**		

Note: Significant level is 0.05(*).and Dependent Variable: FDI.
Source: Compiled and Calculated from the data published in various report.

From table-3describe the Panel Least Squaresanalysisof Select macro-economic variables in United Stateduring the study period from2000 Q1 to 2014Q4. The relationship between the FDI and the other independent variables which are found to be R^2= 0.81. It means that all the independent variables have contributed (Influenced) 81 per cent on the dependent variable on FDI for the country. The regression ANOVA indicates the calculated value of F is less than the table value and its significance. The regression coefficients variables are LBOT, LGDP, LPPI and LTR calculated valuesare significant so, the null hypothesis is rejected.Hence there is a significant relationship between the FDI in retail sector and its impact on the select macro-economic variables in United State. The Durban-Watson statistics value of 0.90 indicates the positive autocorrelation among the independent variables.

$H_{o3\ (a)}$: There is no cause and effect between FDI in retail sector and select macro-economic variables in United States.

Table-4

Pairwise Granger Causality Tests of United Statesduring the Study Period from 2000 Q1 to 2014Q4

Null Hypothesis	Obs	F-Statistic	Prob.
LCPI does not Granger Cause LBOT	58	0.62768	0.5378
LBOT does not Granger Cause LCPI		1.15242	0.3237
LGDP does not Granger Cause LBOT	58	0.62570	0.5388
LBOT does not Granger Cause LGDP		0.73305	0.4852
LIIP does not Granger Cause LBOT	58	0.39800	0.6737
LBOT does not Granger Cause LIIP		0.31295	0.7326
LINFL does not Granger Cause LBOT	58	0.02051	0.9797
LBOT does not Granger Cause LINFL		2.36173	0.1041
LINTEREST_RATE does not Granger Cause LBOT	58	2.02162	0.1425
LBOT does not Granger Cause LINTEREST_RATE		0.16721	0.8465

LPPI does not Granger Cause LBOT	58	0.73399	0.4848
LBOT does not Granger Cause LPPI		0.00096	0.9990
LTOTAL_RESERVE does not Granger Cause LBOT	58	0.36897	0.6932
LBOT does not Granger Cause LTOTAL_RESERVE		0.73238	0.4856
LUR does not Granger Cause LBOT	58	0.68818	0.5069
LBOT does not Granger Cause LUR		2.15843	0.1256
FDI does not Granger Cause LBOT	58	NA	NA
LBOT does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LBOT	58	NA	NA
LBOT does not Granger Cause EXRATE		NA	NA
LGDP does not Granger Cause LCPI	58	0.12833	0.8798
LCPI does not Granger Cause LGDP		0.09491	0.9096
LIIP does not Granger Cause LCPI	58	0.02576	0.9746
LCPI does not Granger Cause LIIP		2.42623	0.0981
LINFL does not Granger Cause LCPI	58	0.97848	0.3826
LCPI does not Granger Cause LINFL		22.5111	8.0008
LINTEREST_RATE does not Granger Cause LCPI	58	0.03195	0.9686
LCPI does not Granger Cause LINTEREST_RATE		0.34904	0.7070
LPPI does not Granger Cause LCPI	58	1.27997	0.2865
LCPI does not Granger Cause LPPI		**4.04295**	**0.0232**
LTOTAL_RESERVE does not Granger Cause LCPI	58	0.03360	0.9670
LCPI does not Granger Cause LTOTAL_RESERVE		0.99258	0.3774
LUR does not Granger Cause LCPI	58	0.06520	0.9370
LCPI does not Granger Cause LUR		**5.30075**	**0.0080**
FDI does not Granger Cause LCPI	58	NA	NA
LCPI does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LCPI	58	NA	NA
LCPI does not Granger Cause EXRATE		NA	NA
LIIP does not Granger Cause LGDP	58	0.36440	0.6963
LGDP does not Granger Cause LIIP		0.21786	0.8050
LINFL does not Granger Cause LGDP	58	0.41354	0.6634
LGDP does not Granger Cause LINFL		0.22514	0.7992
LINTEREST_RATE does not Granger Cause LGDP	58	1.97996	0.1482
LGDP does not Granger Cause LINTEREST_RATE		0.16722	0.8465
LPPI does not Granger Cause LGDP	58	0.08818	0.9157
LGDP does not Granger Cause LPPI		0.18773	0.8294
LTOTAL_RESERVE does not Granger Cause LGDP	58	0.38529	0.6821
LGDP does not Granger Cause LTOTAL_RESERVE		0.55710	0.5762
LUR does not Granger Cause LGDP	58	0.25929	0.7726
LGDP does not Granger Cause LUR		1.44180	0.2456

FDI does not Granger Cause LGDP	58	NA	NA
LGDP does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LGDP	58	NA	NA
LGDP does not Granger Cause EXRATE		NA	NA
LINFL does not Granger Cause LIIP	**58**	**9.00070**	**0.0004**
LIIP does not Granger Cause LINFL		**3.13305**	**0.0518**
LINTEREST_RATE does not Granger Cause LIIP	58	2.78653	0.0707
LIIP does not Granger Cause LINTEREST_RATE		0.35523	0.7027
LPPI does not Granger Cause LIIP	58	1.71305	0.1901
LIIP does not Granger Cause LPPI		0.09738	0.9074
LTOTAL_RESERVE does not Granger Cause LIIP	**58**	**4.63494**	**0.0140**
LIIP does not Granger Cause LTOTAL_RESERVE		**4.82086**	**0.0119**
LUR does not Granger Cause LIIP	**58**	**8.30530**	**0.0007**
LIIP does not Granger Cause LUR		27.9779	5.E-09
FDI does not Granger Cause LIIP	58	NA	NA
LIIP does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LIIP	58	NA	NA
LIIP does not Granger Cause EXRATE		NA	NA
LINTEREST_RATE does not Granger Cause LINFL	**58**	**4.72424**	**0.0129**
LINFL does not Granger Cause LINTEREST_RATE		0.17914	0.8365
LPPI does not Granger Cause LINFL	58	41.6036	1.0011
LINFL does not Granger Cause LPPI		**3.11501**	**0.0526**
LTOTAL_RESERVE does not Granger Cause LINFL	58	0.34776	0.7079
LINFL does not Granger Cause LTOTAL_RESERVE		31.1668	1.0009
LUR does not Granger Cause LINFL	58	1.08905	0.3439
LINFL does not Granger Cause LUR		1.05558	0.3552
FDI does not Granger Cause LINFL	58	NA	NA
LINFL does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LINFL	58	NA	NA
LINFL does not Granger Cause EXRATE		NA	NA
LPPI does not Granger Cause LINTEREST_RATE	58	0.23777	0.7892
LINTEREST_RATE does not Granger Cause LPPI		0.20487	0.8154
LTOTAL_RESERVE does not Granger Cause LINTEREST_RATE	58	0.11657	0.8902
LINTEREST_RATE does not Granger Cause LTOTAL_RESERVE		**3.00877**	**0.0579**
LUR does not Granger Cause LINTEREST_RATE	58	1.95654	0.1514
LINTEREST_RATE does not Granger Cause LUR		12.2878	4.0005
FDI does not Granger Cause LINTEREST_RATE	58	NA	NA
LINTEREST_RATE does not Granger Cause FDI		NA	NA

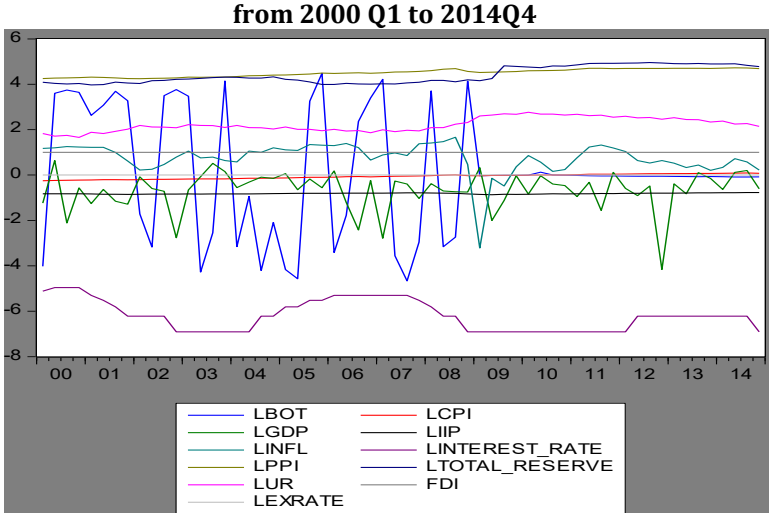
EXRATE does not Granger Cause LINTEREST_RATE	58	NA	NA
LINTEREST_RATE does not Granger Cause EXRATE		NA	NA
LTOTAL_RESERVE does not Granger Cause LPPI	58	1.16825	0.3188
LPPI does not Granger Cause LTOTAL_RESERVE		0.32503	0.7239
LUR does not Granger Cause LPPI	58	1.33548	0.2717
LPPI does not Granger Cause LUR		**4.75411**	**0.0126**
FDI does not Granger Cause LPPI	58	NA	NA
LPPI does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LPPI	58	NA	NA
LPPI does not Granger Cause EXRATE		NA	NA
LUR does not Granger Cause LTOTAL_RESERVE	58	11.7827	6.0005
LTOTAL_RESERVE does not Granger Cause LUR		**4.70981**	**0.0131**
FDI does not Granger Cause LTOTAL_RESERVE	58	NA	NA
LTOTAL_RESERVE does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LTOTAL_RESERVE	58	NA	NA
LTOTAL_RESERVE does not Granger Cause EXRATE		NA	NA
FDI does not Granger Cause LUR	58	NA	NA
LUR does not Granger Cause FDI		NA	NA
EXRATE does not Granger Cause LUR	58	NA	NA
LUR does not Granger Cause EXRATE		NA	NA
EXRATE does not Granger Cause FDI	58	NA	NA
FDI does not Granger Cause EXRATE		NA	NA

Note: Significant level is 0.05(*) and Lags: 2
Source: Compiled and Calculated from the data published in various report..

From the table – 4 explicit the Pairwise Granger Causality Tests of Brazil during the study period from 2000 Q1-2014Q4. There is a Bi-directional (significant) between LINFL and LIIP, LTR and LIIP. There is a Uni-directional (significant) between LCPI andLIIP, LCPI and LUR, LUR and LIIP, LIR and LINFL, LINFL and LPPI, LIR and LTR, LPPI and LUR, LTR and LUR.

Exhibit- 2

Summary of Select Macro-Economic Variables Performance of United Statesduring the Study Period from 2000 Q1 to 2014Q4



$H_{o4\ (a)}$: There is no significant relationship between balance of trade and its impact on the select macro-economic variables.

Table-5

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LCPI	-3028.876	4554.342	-0.665052	0.5065
LEXRATE	-0.249188	0.181162	-1.375498	0.1699
LGDP	0.266610	0.694097	0.384111	0.7011
LIIP	-0.634779	0.795854	-0.797607	0.4256
LINFL	3024.648	4555.210	0.663998	0.5071
LINTEREST_RATE	-0.031546	0.182983	-0.172400	0.8632
LPPI	-4.589493	5.593631	-0.820485	0.4125
LTOTAL_RESERVE	-0.927554	1.725196	-0.537652	0.5912
LUR	-2.218911	1.472619	-1.506779	0.1328
FDI	1.080666	0.697562	1.549203	0.1222
C	57.16568	44.68239	1.279378	0.2016
R-squared	**0.074632**	**Adjusted R-squared**		**0.048117**
F-statistic	**2.814739**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.002269**	**0.468917**		

Note: Significant level is 0.05(*).and Dependent Variable:BOT.
Source: Compiled and Calculated from the data published in various reports.

From table-5 describe the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the BOT and the other independent variables which are found to be R^2= 0.07. It means that all the independent variables have contributed (Influenced) 7 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is more than the table value and it's not significance. So, the null hypothesis is accepted and hence there is no significant relationship between the BOT and its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 0.46 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (b)}$: There is no significant relationship between consumer price index and its impact on the select macro-economic variables.

Table-6

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LEXRATE	-2.6207	2.1306	-0.122775	0.9024
LGDP	**2.1505**	**8.0706**	**2.667284**	**0.0080**
LIIP	-1.6005	9.3206	-1.721494	0.0860
LINFL	**1.000187**	**0.000102**	**9802.856**	**0.0000**
LINTEREST_RATE	**5.1706**	**2.1306**	**2.424553**	**0.0158**
LPPI	-1.5705	6.5805	-0.238862	0.8114
LTOTAL_RESERVE	1.9905	2.0205	0.983422	0.3261
LUR	**3.5105**	**1.7305**	**2.036985**	**0.0424**
FDI	-1.0205	8.2006	-1.243619	0.2145
LBOT	-4.1807	6.2807	-0.665054	0.5065
C	-0.001044	0.000523	-1.994989	0.0468
R-squared	**0.984632**	**Adjusted R-squared**		**0.99000**
F-statistic	**4.870008**	**Durbin-Watson stat**		

Prob(F-statistic)	**0.000000**	**2.652284**

Note: Significant level is 0.05(*).and Dependent Variable:CPI.
Source: Compiled and Calculated from the data published in various reports.

Table-6 reveals the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the CPI and the other independent variables which are found to be R^2= 0.98. It means that all the independent variables have contributed (Influenced) 98 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the CPI and its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 2.65 indicates the negative autocorrelation among the independent variables.

$H_{o4\ (c)}$: There is no significant relationship between exchange rate and its impact on the select macro-economic variables.

Table-7

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LGDP	**-2.030970**	**0.173300**	**-11.71939**	**0.0000**
LIIP	**1.197217**	**0.225816**	**5.301747**	**0.0000**
LINFL	161.3655	1343.135	0.120141	0.9044
LINTEREST_RATE	0.040852	0.053879	0.758227	0.4488
LPPI	-0.336204	1.649802	-0.203784	0.8386
LTOTAL_RESERVE	**-3.776507**	**0.466683**	**-8.092229**	**0.0000**
LUR	-0.623554	0.434074	-1.436516	0.1518
FDI	-0.129278	0.206145	-0.627123	0.5310
LBOT	-0.021638	0.015731	-1.375498	0.1699
LCPI	-164.8719	1342.881	-0.122775	0.9024
C	65.17208	12.72826	5.120265	0.0000
R-squared	**0.575774**	**Adjusted R-squared**		**0.563618**
F-statistic	**47.36744**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**1.967749**		

Note: Significant level is 0.05(*).and Dependent Variable:EXRATE.
Source: Compiled and Calculated from the data published in various reports.

Table-7 shows the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the EXRATE and the other independent variables which are found to be R^2= 0.57. It means that all the independent variables have contributed (Influenced) 57 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the EXRATEand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 1.96 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (d)}$: There is no significant relationship between GDP and its impact on the select macro-economic variables.

Table-8

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LIIP	0.438699	0.056753	7.730004	0.0000
LINFL	-934.2020	347.8703	-2.685489	0.0076
LINTEREST_RATE	-0.081914	0.013411	-6.108131	0.0000
LPPI	-2.926878	0.402273	-7.275857	0.0000
LTOTAL_RESERVE	-0.291566	0.132156	-2.206236	0.0280

LUR	-0.744424	0.106716	-6.975746	0.0000
FDI	0.202252	0.052872	3.825298	0.0002
LBOT	0.001585	0.004126	0.384111	0.7011
LCPI	927.8216	347.8524	2.667286	0.0080
LEXRATE	-0.139047	0.011865	-11.71939	0.0000
C	47.58775	2.331545	20.41039	0.0000
R-squared	**0.918513**	**Adjusted R-squared**		**0.916178**
F-statistic	**393.3870**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**1.654494**		

Note: Significant level is 0.05(*).and Dependent Variable: GDP.
Source: Compiled and Calculated from the data published in various reports.

Table-8 reveals the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the GDP and the other independent variables which are found to be R^2= 0.91. It means that all the independent variables have contributed (Influenced) 91 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the GDPand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 1.65 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (e)}$: There is no significant relationship between IIP and its impact on the select macro-economic variables.

Table-9

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LINFL	528.2147	304.9871	1.731925	0.0842
LINTEREST_RATE	0.074355	0.011635	6.390777	0.0000
LPPI	1.050849	0.372016	2.824742	0.0050
LTOTAL_RESERVE	-0.142058	0.115729	-1.227512	0.2205
LUR	0.687724	0.092201	7.458942	0.0000
FDI	0.175121	0.046092	3.799347	0.0002
LBOT	-0.002866	0.003594	-0.797607	0.4256
LCPI	-524.9593	304.9453	-1.721487	0.0860
LEXRATE	0.062259	0.011743	5.301748	0.0000
LGDP	0.333221	0.043107	7.730002	0.0000
C	-17.18058	2.865659	-5.995334	0.0000
R-squared	**0.439978**	**Adjusted R-squared**		**0.423932**
F-statistic	**27.41903**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**1.030075**		

Note: Significant level is 0.05(*).and Dependent Variable: IIP.
Source: Compiled and Calculated from the data published in various reports.

From table-9 describe the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the IIP and the other independent variables which are found to be R^2= 0.43. It means that all the independent variables have contributed (Influenced) 43 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the IIPand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 1.03 indicates the positive autocorrelation among the independent variables.

$H_{04\ (f)}$: There is no significant relationship between inflation and its impact on the select macro-economic variables.

Table-10

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LINTEREST_RATE	-5.2106	2.1306	-2.443148	0.0151
LPPI	1.5005	6.5705	0.228853	0.8191
LTOTAL_RESERVE	-1.9405	2.0205	-0.960429	0.3375
LUR	-3.5605	1.7205	-2.062531	0.0399
FDI	1.0305	8.2006	1.261683	0.2079
LBOT	4.1707	6.2807	0.663999	0.5071
LCPI	0.999810	0.000102	9802.856	0.0000
LEXRATE	2.5607	2.1306	0.120141	0.9044
LGDP	-2.1705	8.0706	-2.685488	0.0076
LIIP	1.6105	9.3106	1.731932	0.0842
C	0.001058	0.000523	2.023268	0.0438
R-squared	**1.000000**	**Adjusted R-squared**		**1.000000**
F-statistic	**4.880008**	**Durbin-Watson stat 2.651938**		
Prob(F-statistic)	**0.000000**			

Note: Significant level is 0.05(*).and Dependent Variable: INFL.

Source: Compiled and Calculated from the data published in various reports.

Table-10 reveals the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the INFL and the other independent variables which are found to be R^2= 1.00. It means that all the independent variables have contributed (Influenced) 100 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the INFLand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 2.65 indicates the negative autocorrelation among the independent variables.

$H_{04\ (g)}$: There is no significant relationship between interest rate and its impact on the select macro-economic variables.

Table-11

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LPPI	-15.20474	1.421301	-10.69776	0.0000
LTOTAL_RESERVE	1.697406	0.496624	3.417893	0.0007
LUR	-5.850392	0.297828	-19.64356	0.0000
FDI	-0.393110	0.203669	-1.930141	0.0544
LBOT	-0.002699	0.015658	-0.172400	0.8632
LCPI	3205.279	1322.007	2.424555	0.0158
LEXRATE	0.040257	0.053094	0.758227	0.4488
LGDP	-1.179029	0.193026	-6.108131	0.0000
LIIP	1.408997	0.220473	6.390778	0.0000
LINFL	-3230.059	1322.088	-2.443150	0.0151
C	169.0293	9.475052	17.83940	0.0000
R-squared	**0.791149**	**Adjusted R-squared**		**0.785164**
F-statistic	**132.2044**	**Durbin-Watson stat 1.523186**		
Prob(F-statistic)	**0.000000**			

Note: Significant level is 0.05(*).and Dependent Variable: IR.
Source: Compiled and Calculated from the data published in various reports.

Table-11 shows the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the IR and the other independent variables which are found to be R^2= 0.79. It means that all the independent variables have contributed (Influenced) 79 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the IRand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 1.52 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (h)}$: There is no significant relationship between PPI and its impact on the select macro-economic variables.

Table-12
Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LTOTAL_RESERVE	0.104092	0.015531	6.702135	0.0000
LUR	-0.135604	0.012117	-11.19160	0.0000
FDI	-0.038253	0.006371	-6.004329	0.0000
LBOT	-0.000419	0.000511	-0.820485	0.4125
LCPI	-10.40610	43.56533	-0.238862	0.8114
LEXRATE	-0.000354	0.001737	-0.203784	0.8386
LIIP	0.021270	0.007530	2.824741	0.0050
LGDP	-0.044999	0.006185	-7.275857	0.0000
LINFL	9.971970	43.57383	0.228852	0.8191
LINTEREST_RATE	-0.016241	0.001518	-10.69776	0.0000
C	5.575505	0.307029	18.15955	0.0000
R-squared	**0.865500**	**Adjusted R-squared**		**0.861646**
F-statistic	**224.5797**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**0.721554**		

Note: Significant level is 0.05(*).and Dependent Variable: PPI.
Source: Compiled and Calculated from the data published in various reports.

Table-12 reveals the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the PPI and the other independent variables which are found to be R^2= 0.86. It means that all the independent variables have contributed (Influenced) 86 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the PPIand its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 0.72 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (i)}$: There is no significant relationship between total reserve and its impact on the select macro-economic variables.

Table-13
Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LUR	0.312633	0.042656	7.329165	0.0000
FDI	-0.093974	0.021118	-4.449927	0.0000
LBOT	-0.000892	0.001659	-0.537652	0.5912
LCPI	138.8062	141.1462	0.983421	0.3261
LEXRATE	-0.041835	0.005170	-8.092229	0.0000

LGDP	-0.047176	0.021383	-2.206235	0.0280
LIIP	-0.030261	0.024653	-1.227512	0.2205
LINFL	-135.5949	141.1818	-0.960427	0.3375
LINTEREST_RATE	0.019081	0.005583	3.417894	0.0007
LPPI	1.095479	0.163452	6.702135	0.0000
C	-8.056029	1.320430	-6.101066	0.0000
R-squared	**0.953054**	**Adjusted R-squared**		**0.951709**
F-statistic	**708.5147**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**0.780694**		

Note: Significant level is 0.05(*).and Dependent Variable: TR.
Source: Compiled and Calculated from the data published in various reports.

From table-13 describe the Panel Data Regressionanalysisof Select *macro-economic variables in*select countries during the study period from2000 Q1 to 2014Q4. The relationship between the TR and the other independent variables which are found to be R^2= 0.95. It means that all the independent variables have contributed (Influenced) 95 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the TR and its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 0.78 indicates the positive autocorrelation among the independent variables.

$H_{o4\ (j)}$: There is no significant relationship between unemployment rate and its impact on the select macro-economic variables.

Table-14

Panel Data RegressionAnalysis Selected Countriesduring the Study Period from 2000 Q1 to 2014Q4

Variables	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LBOT	-0.002913	0.001933	-1.506779	0.1328
LCPI	334.3574	164.1435	2.036983	0.0424
LEXRATE	-0.009427	0.006562	-1.436516	0.1518
LGDP	-0.164380	0.023564	-6.975746	0.0000
LIIP	0.199929	0.026804	7.458943	0.0000
LINFL	-338.5642	164.1501	-2.062528	0.0399
LINTEREST_RATE	-0.089752	0.004569	-19.64355	0.0000
LPPI	-1.947608	0.174024	-11.19160	0.0000
LTOTAL_RESERVE	0.426653	0.058213	7.329165	0.0000
FDI	-0.005389	0.025359	-0.212510	0.8318
C	24.28220	0.971454	24.99572	0.0000
R-squared	**0.891841**	**Adjusted R-squared**		**0.888742**
F-statistic	**287.7722**	**Durbin-Watson stat**		
Prob(F-statistic)	**0.000000**	**1.298482**		

Note: Significant level is 0.05(*).and Dependent Variable: UR.
Source: Compiled and Calculated from the data published in various reports.

Table-3.38 reveals the Panel Data Regressionanalysisof Select macro-economic variables in select countries during the study period from2000 Q1 to 2014Q4. The relationship between the UR and the other independent variables which are found to be R^2= 0.89. It means that all the independent variables have contributed (Influenced) 89 per cent on the dependent variable on select countries. The regression ANOVA indicates the calculated value of F is less than the table value and it is significance. So, the null hypothesis is rejected and hence there is a significant relationship between the UR and its impact on the select macro-economic variables in select countries. The Durban-Watson statistics value of 1.29 indicates the positive autocorrelation among the independent variables.

STUDY LIMITATIONS

- ✓ For this study the performance of FDI consist during specific period from 2000 Q1 to 2014 so findings and suggestion based on that.
- ✓ The study is confined only to the India and US retail context, the result does not applicable to any other countries.
- ✓ The study is based on the official sources of websites as such. Thefindings depend entirely on the accuracy of such data.

SCOPE FOR FURTHER RESEARCH

- ✓ Impact of FDI in Retail Sector - A Comparative Study in India and Developing Countries.
- ✓ Determinants of Foreign Direct Investment (FDI) on Select Indian Retail Industry- An Econometric Analysis

REFERENCE

1. Janardhan and FerozZaheer, **"FDI in Retail The Big Push",** Chartered Financial Analyst, April 2006, P 25.
2. **KamaladeviBaskaran (2012)**"The FDI permit for Multi Brand retail trading in India- Green signal or Red signal", Intelligence Journal, Vol.5, No-1, January, Pp. 176-186.
3. **SheetalMundra, MukeshMundra and et., all (2013),**"A review of the impact of Foreign Direct Investment on Indian retailing", International Journal of Science: Basic and Applied Research (IJSBAR), Vol.10, No.1, Pp.01-18.
4. **NidhiBagaria and SwarupSantra (2014)**"Foreign Direct investment in Retail market in India", Research Jnuli's Journal of Economics, Vol.2, No-1, Issue-1 January, Pp. 1-10.
5. Secondary data retrieved from ;
   - ✓ Organisation for Economic Co-operation and Development (OCED) http://www.oecd.org/india/
   - ✓ Reserve Bank of India (RBI) http://www.rbi.org/in/
   - ✓ EconomicResearchhttp://research.stlouisfed.org/fred2/series/CHNCPIALLQINMEI#
   - ✓ International Monetary Fund (IMF) http://www.imf.org/
6. **"The Indian Retail the Next Growth Story"**, KPMG, 2014.