# An Analytical Study on Trends of Macroeconomic Factors in Context of Indian Banking Industry

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#### Abstract

This research paper explores the different macroeconomic and financial performance variables of Indian banking sector. For this a trend analysis has been performed on specific macroeconomic variables such as GDP, inflation, exchange rate and lending interest rate. To explore the trends data set of Indian banks has been collected from 2010 to 2017. This paper highlights interesting trends of macroeconomic and financial performance indicators of Indian banking sector.

**Keywords:** Macroeconomic Factors, Indian Banking Industry, Financial Performance.

## Introduction

Financial sector is the life blood for the accelerating the wheel of any country. Indian banking sector is playing a crucial role in growth of Indian economy by transforming illiquid assets into liquid assts. They are playing the role of intermediaries between the deposits and investment. Banking sector support the Indian economy by providing financial assistance as well as playing the role of transaction agent. In today's era the matter of concern is on liquidity. India is strongly recovering from the recent crisis and banking frauds and boasting a real Gdp growth of 8.2% Apr-Jun'18 (Q2 2018). The Indian economy recovered itself from the growth rate of 5.6% in the corresponding last year. In this growing era both the industry with 10.3% and service sector with 7.4% supporte in output growth. Financial service sector growth helped in the fastest expansion of Indian economy.

## What is 'Macroeconomics'

Macroeconomics is a branch of the economics that studies how the aggregate economy behaves. In macroeconomics, a variety of economy-wide phenomena is thoroughly examined such as inflation, price levels, rate of growth, national income, gross domestic product (GDP) and changes in unemployment.

## **Breaking Down 'Macroeconomics'**

There are two sides to the study of economics: macroeconomics and microeconomics. As the term implies, macroeconomics looks at the overall, big picture scenario of the economy. Put simply, it focuses on the way the economy performs as a whole. This includes looking at variables like unemployment, GDP and inflation. The government uses these factors and models to help develop its own economic policies. Through central banks, the government will come up with its fiscal and monetary policies to keep the economy in check. On the other hand, microeconomics looks at the behavior of individual factors in an economy (like people, households, industries, etc). We'll look at the differences a bit more later. The relationships between various macroeconomic factors are extensively studied in the field of macroeconomics. macroeconomics is While concerned with the economy as a whole, microeconomics is concerned with the study of individual agents, such as consumers and businesses and their economic decision making.

A macroeconomic factor can include anything that influences the direction of a particular large-scale market; for example, fiscal policy and various regulations can impact the economy of a state or nation and can even have international implications. Not all macroeconomic factors are negative; some promote economic growth.

## **Negative Macroeconomic Factors**

Negative macroeconomic factors include events that may put a national or international economy in jeopardy. A sense of political instability caused by a nation's involvement in either civil or international wars will cause economic turbulence. This turbulence could be due to the reallocation of resources, which is common in war-time economies, or it could be caused by damage to property, assets and livelihoods. Unanticipated events, such as the debt crisis that began in 2008 within the United States and had cascading implications across the globe, would qualify as a macroeconomic factor along with significant national disasters such as earthquakes, tornadoes and flooding.

## Neutral Macroeconomic Factors

Certain economic shifts are neither positive nor negative. Instead, the exact implications are determined by the intent of the action. This can include trade regulation across state or national borders. The nature of the change, such as enacting or rescinding a trade embargo, will have a variety of effects depending on which economy is being examined.

## **Positive Macroeconomic Factors**

Positive macroeconomic factors include events that lead to prosperity within a nation or multiple nations. For example, a decrease in fuel prices within the United States might drive consumers to purchase more retail goods and services. As the demand for goods and services increases, suppliers of those items, both nationally and internationally, will see increased revenue from the heightened consumer activity. In turn, these increased profits may cause an increase in stock prices.

### The Study of Macroeconomics

Those working in the field of macroeconomics study aggregated indicators such as unemployment rates, GDP and price indices, and then analyze how different sectors of the economy relate to one another to understand how the economy functions.

Macroeconomists develop models explaining relationships between a variety of factors such as consumption, inflation, savings, investments, international trade and finance, national income and output. Such macroeconomic models, and what the models forecast, are used by government entities to aid in the construction and evaluation of economic policy.

## **Specific Areas of Research**

Macroeconomics is a rather broad field, but two specific areas of research are representative of this discipline. One area involves the process of understanding the causation and consequences of short-term fluctuations in national income, also known as the business cycle. The other area involves the process by which macroeconomics attempts to understand the factors that determine long-term economic growth, or increases in the national income.

A macroeconomic factor is one that is related to the broad economy at the regional or national level and affects a large population rather than a few select individuals. Examples of macroeconomic factors are economic output, unemployment, inflation, savings, and investments, and they are key indicators of economic performance that are closely monitored by governments, businesses and consumers.

**GDP:** basket of goods and services priced is a sample of all those that are a part of final expenditure: household consumption, government services, capital formation and net exports, covered by GDP. This indicator is measured in terms of national currency per US dollar. GDP is considered proxy for business cycle. Moussa (2015), Bunda and Desquilbet (2008) and Choon et al. (2013) found a positive impact of GDP on bank liquidity while Valla et al. (2006), Dinger (2009), Vodova (2011) and Aspachs et al. (2005) established negative relationships between the two. According to Aspachs et al. (2005), UK banks seemed to hold smaller amounts of liquidity when GDP increased

**NPA:** Money or Assets provided by banks to companies as loans sometimes remain unpaid by borrowers. This late or non-payment of loans is defined as Non-Performing Assets (NPA). They are also termed as bad assets. In India, the RBI monitors the entire banking system and, as defined by the country's central bank, if for a period of more than 90 days, the interest or installment amount is overdue then that loan account can be termed as a Non-Performing Asset.

Indian banks' gross non-performing assets (NPAs), or bad loans, stood at Rs 10.25 lakh crore as on 31 March 2018. On quarter, the pile has grown by Rs 1.39 lakh crore or 16 percent from Rs 8.86 lakh crore as on 31 December 2017. This chunk now accounts for 11.8 percent of the total loans given by the banking industry. For financial year 2018, the total bad loans of these banks rose by a whopping Rs 3.13 lakh crore.

**Exchange rate**: An exchange rate is the price of a nation's currency in terms of another currency. Thus, an exchange rate has two components, the domestic currency, and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. Exchange rates are quoted in values against the US dollar. However, exchange rates can also be quoted against another nation's currency, which is known as a cross currency, or cross rate.

## **Review of Literature**

**Demirguc-Kunt and Huizinga (1999)** used linear regression on commercial bank data for 80 countries. In the study they stated a positive but insignificant impact of macroeconomic factors on profitability of banks.

**Naceur (2003)** studied into the profitability of the Tunisian banking sector. Balanced panel data of ten

major deposit banks was sampled for 1980 -2000 period. It was revealed from the study that annual growth rate and inflation rate has no or insignificant impact on Tunisian banks.

**Bashir** (2003) evaluated data of 14 Islamic banks earning profits across 8 Middle Eastern countries during years 1993 to 1998. In the study a linear estimation was used and a strong positive impact of variables was analyzed. Hassan and Bashir (2003) pooled 8 years financial data of 43 Islamic banks and revealed a significant positive impact on profitability ratios.

**Haron and Azmi (2004)** in their research work studied the 5major Islamic banks during 1984-2002 and proved the direct relationship of inflation rate and indirect relationship of real interest rate on ROA. **Staikouras and Wood (2004)** reviewed the performance of European Banking industry for years 1994-1998. Using ordinary least square method it was found out that GDP exerts significant negative impact on ROA. Goddard, Molyneux, and Wilson (2004) also estimated the profitability of 583 European Union domestic banks. In the study a cross sectional regression model was used and it was found a significant positive effect of GDP on profits.

Athanasoglou, Delis and Stakouras (2006) have analyzed the effect of selected set of determinants on banks profitability in the South Eastern European region over 1998-2002 period. It is found that concentration is positively correlated with bank profitability and inflation has a strong effect on profitability while banks profits are not significantly affected by real GDP per capita fluctuations.

**Ghazali (2008)** in his research work considered six years data of 60 Islamic banks operating in 18 countries Results of the study ascertain that GDP and inflation rate positively influence the revenue of the banks. Aburime (2008) revealed out the profitability of Nigerian banks concluded that real interest rate and inflation rate have a substantial link with ROA and positively influence bank profitability.

# Trends of macroeconomic variables

Year	GDP	GDP per capita	GDP growth	Inflation rate	Exchange rate	Gross NPAs Amount( in Rs. Billion public sector bank
	(in Bil. US\$ PPP)	(in US\$ PPP)	(real)	(in Percent)	1 USD TO INR	
2000	2,077.90	2,018	4.0 %	5.6 %	44.94	530.33d
2001	2,230.40	2,130	4.9 %	4.3 %	47.19	546.72
2002	2,353.10	2,210	3.9 %	4.0 %	48.61	564.73
2003	2,590.70	2,395	7.9 %	3.9 %	46.58	540.9
2004	2,870.80	2,612	7.8 %	3.8 %	45.32	515.37
2005	3,238.30	2,901	9.3 %	4.4 %	44.1	483.99
2006	3,647.00	3,218	9.3 %	6.7 %	45.31	413.58
2007	4,111.10	3,574	9.8 %	6.2 %	41.35	389.68
2008	4,354.80	3,731	3.9 %	9.1 %	43.51	404.52
2009	4,759.90	4,020	8.5 %	11.0 %	48.41	449.57
2010	5,312.40	4,425	10.3 %	9.5 %	45.73	599.26
2011	5,782.00	4,750	6.6 %	9.5 %	46.67	746
2012	6,209.90	5,034	5.5 %	10.0 %	53.34	1941
2013	6,713.10	5,371	6.4 %	9.4 %	56.57	2644
2014	7,340.00	5,797	7.4 %	5.8 %	62.33	3233
2015	8,024.60	6,255	8.2 %	4.9 %	62.97	6119
2016	8,705.00	6,697	7.1 %	4.5 %	66.46	7918
2017	9,459.00	7,183	6.7 %	3.6 %	70.09	



<sup>(</sup>Figure 1)

<sup>(</sup>Figure 2)



(Figure 3)

# India – Contributions to GDP Growth

Year-ended



\* Equal to difference between total GDP and the sum of its components Sources: CEIC Data; RBA

(Figure 4)

MACROECONOMIC AGGRREGATES (At Current Prices) Base Year: 2011-12 (Rupees Billion)							
Year	Gross domestic product	Net Domestic product	Net Savings	Gross Capital	Net Capital	Per Capita GDP	
2017-18	167731.45	150349.12	30205.4	47854.25	32754	127456	
2016-17	152537.14	136689.87	29878.5	46714.26	30867	117427	
2015-16	137640.37	123138.13	28517.2	44423.47	29921.2	107280	
2014-15	124679.59	111256.68	26776.7	41797.79	28374.9	98405.4	
2013-14	112335.22	100375.47	24122.2	37941.35	25981.6	89796.3	
2012-13	99440.13	88831.08	23083	38471.22	27862.2	80518.3	
2011-12	87363.29	78191.54	21096.6	34030.08	24858.3	71609	

Source: Central Statistics Office (CSO).

# (Figure 5)

SCHEDULED COMMERCIAL BANKS - RATIOS							
As per cent to GDP							
Year	Credit	Total Investments	Investment in Government securities	Aggregate Deposits			
2017-18	51.42	19.78	19.78	68.12			
2016-17	51.41	19.87	19.86	70.52			
2015-16	52.67	19.08	19.06	67.77			
2014-15	52.43	19.99	19.97	68.44			
2013-14	53.36	19.7	19.68	68.59			
2012-13	52.9	20.17	20.15	67.88			
2011-12	52.79	19.89	19.86	67.64			
2010-11	50.6	19.3	19.3	66.9			
2009-10	50.1	21.4	21.4	69.4			
2008-09	49.3	20.7	20.7	68.1			
2007-08	47.4	19.5	19.5	64.1			
2006-07	45	18.4	18.4	60.8			
2005-06	40.8	19.4	19.4	57.1			
2004-05	33.9	22.8	22.8	52.4			
2003-04	29.6	23.9	23.9	53			
2002-03	28.8	21.6	21.6	50.6			
2001-02	25.1	18.7	18.7	47			
2000-01	23.6	17.1	17.1	44.4			
1999-00	21.7	15.4	15.4	40.4			

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