# "Drawing Parallels between Share Price of Packaging Companies and Base Rate in India"

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**ABSTRACT:** This paper is on "Drawing Parallels Between Share Price Of Packaging Companies And Base Rate In India" focuses on checking if there is any significant relationship between the share price of packaging companies and base rate. For this study the top 10 listed packaging companiesare considered. The companies are chosen based on their turnover (net sales). These top 10 companies have the highest turnover. The period chosen for this study is 5 years. The selected companies for this research are

Uflex, Jindal PolyFilm, Huhtamaki PPL, Time Techno, FlexituffVentu, Polyplex Corp, Essel Propack, Garware Poly, Ester Ind and Everest Kanto.

**KEYWORDS:** Base Rate, BPLR, Packaging, RBI, Packaging companies and Share price

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#### **Understanding Base Rate**

## I. INTRODUCTION

The base rate system was introduced in India in the scarcest degree across all banks on 1<sup>st</sup> July 2011. Before the idea of base rate framework was presented, the Benchmark Prime Loaning Rate or BPLR for short was followed by banks. Due to the presentation and execution of base rate as a uniform system across all banks; the credit evaluation by investors has seen tremendous clarity. The minimum rate of interest that a bank is allowed by RBI to grant/concede a credit is known as Base rate. When the base rate is announced by RBI, none of the banks are permissible to grant credit to its clients at a rate that is lower or not up to the base rate that has been presented on that date. The base rate system was executed by the RBI as a means to ensure pellucidity in the credit market of India.

#### **Connotation of Packaging:**

Packaging is considered an art and science of encompassing and safeguarding products for the purpose of sale, storage and consumption. This art plays a vital role in almost all industries. Packaging is considered an ancient phenomena and dwells back to the 18<sup>th</sup> Century. The packaging sector is evergreen sector as with time and improvements in technology packaging industry will always boom. Packaging is a complex process and is carried out uniquely for different products. In the epoch of the 21<sup>st</sup> Century, the common packaging methods that are carried out across the globe are as follows:

#### <u>Anti-corrosive packaging</u>

This is a type of packaging that is predominately used to protect metals from rusting or corroding. Anti-corrosive packaging ensures that the properties of the metal are not impaired before its actual use or consumption.

#### <u>Pharma packaging</u>

Pharma packaging involves the packaging of pharmaceutical products and drugs. This packaging technique is carried out to ensure that the pharma products are easy to consume and deliver.

#### <u>Plastic Packaging</u>

This is the most common and widely used method of packaging. This is used to produce a large variety of products and consumables which includes perishable, fragile and non-perishable products.

# <u>Flexible Packaging</u>

This is a kind packaging that is carried out using materials that are easy to yield and are quite flexible in nature. It is carried out to lock the flavor and freshness of its contents.

## An Understanding of Packaging Industry in India

Packaging industry plays a crucial as well as a vital role in adding value to various sectors of the economy namely manufacturing, agriculture and FMCG. In the recent epoch, the packaging industry has faced oddles of hurdles and roadblocks predominately due to changes in consumer patterns and government policies. These changes have brought in more innovative modes of packaging.

Manufactures in India have been producing innovative packaging in order to boost the interest in their products. The Packaging industry is the 5<sup>th</sup> largest sector in the Indian economy with flexible packaging being the biggest segment followed by plastics, pharma, and anti-corrosive packaging. This industry has helped in the preservation of quality of consumer products over a lifetime. (IBEF, 2012)

The Packaging industry is growing at a healthy pace in India. Flexible packaging will see steady growth of 8.9% CARG with the overall industry expected to grow at 9.2% CAGR, which is a 48.3% increase as compared to 2011-2016. This growth is mainly due to the contributions of the food, cosmetic and household industries which are developing the modern packaging at low cost, convince and increased flexibility.

The growth can also be attributed to the greater sophistication, specialization and eco-friendly packaging seen amongst Indian manufactures. The number of units is expected to rise from 282,149.4 million units in 2017 to 369,982.8 million units in 2022. (GlobalData, 2017)

Therefore, there is a keen interest amongst investors in the packaging industry especially with the increase in investments by both domestic and foreign companies in the Indian food processing sector.

# II. REVIEW OF LITERATURE

- A. Packaging is a booming industry in India. On study the demographics, it can be concluded that the India packaging Industry is predominately controlled bydomestic players. Although there are a few global leaders such as WestRock, Alpa, Amcor, Toppan etc. which has made their presence in this sector through the means of acquisition. (Avendus)
- B. At large the Indian packaging sector is considered to be one of the most dynamic industry which tends to influence numerous other industries and sectors directly or indirectly. Over the years, this industry is only going to grow, this is mainly because of the rise in the middle-class society, exports and e-commerce. (Panchal, et al., 2016)
- C. As per the reports by WEDC(Wisconsin Economic Development Corporation, 2017), the packaging industry of India comprises of only 4% of the global packaging industry, thereby providing higher scope for business opportunity as this industry is quite underpenetrated. At a globe stance, the per capita packaging consumption of India is only 10.5 kg per annum as compared to US, Europe, China and Brazil which are 109kg, 65kg, 45kg and 32 kg respectively. This is predominately the reason why higher growth can be visible in the packaging sector in India in the near future.
- D. The growth of the packaging industry is clearly expressed in the report published by FCCI and Tata Strategic Management(Panchal, et al., 2016), which states that the industry is expected to reach USD 73 Billion in the year 2020 as compared to the USD 32 Billion in the year 2015. This report also highlights few hurdles that will be witnessed by the packaging industry which is high inflation, absence of skilled workforce, rising prices, environmental issues, etc.
- E. As one is aware that packaging serves to be of utmost importance to protect various contents but due to the significant increase in competition in recent times the purpose of packaging has shifted a little bit. Now packaging not only protects or safeguards various contents or materials but also serves as a tool to attract customers. As per the Satyendra Singh(Singh S., 2006), an individual within 90 seconds make up their mind on whether or not to carry out a purchase. During this time around 60% to 90% of the decision is influenced solely by the color and needs to be incorporated into the packaging.
- F. Another article on the role and impact of the packaging effect on consumer buying behavior(Zekiri & Hasani, 2015)penned down that, elements such as color, quality of packaging material, label, printed information, language used, innovation, quality of packaging etc. play a vital role in attracting consumers.
- G. A study of Ernst and Young(Boss & Brooks, 2013), highlighted that there are only seven factors that need to be taken care of by any packaging company to be successful. These seven factors were determined by them after advising oodles of companies in the packaging companies during the course of their work. The factors are innovation, supply chance management at a global level, proper management of inflation of raw material, reduction in waste, management of customer and product profitability, effective capital expenditure and measurement of operational performance.

- H. This research paper looks at two broad areas which are packaging sector and base rate. In simple words, the base rate is the minimum rate set by the RBI for lending loans and needs to be adhered to by the commercial banks. This is quite a fresh reform in the Banking Sector of the India Economy. RajrishiSinghal's article on Base rate gives adeeper and more insightful understanding of base rate in the Indian context. (Singhal, 2010)
- I. Base rate is an upgraded version of BPLR which itself is an upgraded version of PLR. A paper on a journey of lending rates in Indi-PLR to Base Rate concludes that base rate turns to be more beneficial to the India Economy. This is because the base rate turns out to be a more transparent and responsive lending rate thereby improving monetary policy transmission. (Singh & Punjabi, 2017)

# III. RESEARCH DESIGN

#### **Statement of Problem**

Base Rate is one of the recent developments of the Indian Economy. This fresh concept came into existence on 1<sup>st</sup> July 2011. The concept was developed and issued by the RBI, 8 years ago. As it is a relatively recent buildout of the Indian Economy; this conceptual area is quite unexplored. On understanding base rate, it can be observed that base rate has a significant effect on loan borrowers. Since the packaging companies in India are highly dependent on loan as a source of finance, the movements in base rate could potentially have an effect on the share prices of packaging companies. This paper helps to draw parallels between base rate and share price of packaging companies, thereby aiding investors in making a competent and informed decision.

#### Sources of data

The data such as the share price of packaging companies and base rate are taken to carry out this research are from secondary sources and have been extracted from the following websites:

- <u>https://dbie.rbi.org.in/DBIE/</u>
- <u>https://www.nseindia.com/</u>
- <u>https://in.finance.yahoo.com/</u>

#### Hypothesis

Null Hypothesis (H0): There exists no relationship between the share price of packaging companies and base rate.

Alternative Hypothesis (H1): There exists a relationship between the share price of packaging companies and base rate.

#### Data Analysis Tool

In order to analyze the data, the statistical tool that has been used is the Statistical Package for Social Sciences (SPSS).

#### Expected Outcome

There is a significant relationship between the share price of packaging companies and base rate.

#### Limitations

- 1. The Packaging companies share prices are affected by multiple factors; only base rate has been considered in this study.
- 2. The dependability of the information relies on the unwavering quality of the secondary sources which includes, RBI and NSE.
- 3. The scope of the study includes just 10 Packaging companies on the basis of net sales. This constrains the precision of the study.
- 4. It has been presumed that the prevailing economic circumstances are and shall be stable.
- 5. The time frame of historical data is 5 years which does not give a complete picture of the relationship.
- 6. The study does not use any other statistical tool apart from paired sample t-test.

# IV. DATA ANALYSIS AND INTERPRETATION

The data used for analysis consisted of the share price of the top ten listed packaging companies. The adjusted close share price was used for more apt analysis. The companies werechosen on the basis of highest overall turnover of packaging industries in India. The share price was paired with the base interest rate at the date of the announcement. Paired Sample T-Test was the statistical tool used to verify whether or not a parallel or relationship between share price of packaging companies and base rate existed. The outcome of the test is shown below –

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	BaseRate - UFLEX	-192.9094676	121.7152345	7.260922150	-207.2023932	-178.6165420	-26.568	280	.000
Pair 2	BaseRate - JindalPoly	-290.7090558	115.2833786	6.877229790	-304.2466935	-277.1714181	-42.271	280	.000
Pair 3	BaseRate - Huhtamaki	-191.9127516	89.06241371	5.313018168	-202.3712817	-181.4542214	-36.121	280	.000
Pair 4	BaseRate - TimeTechno	-72.78589542	53.55214343	3.194653043	-79.07448208	-66.49730876	-22.784	280	.000
Pair 5	BaseRate - Flexituff	-166.9403507	66.47156134	3.965360900	-174.7460546	-159.1346468	-42.100	280	.000
Pair 6	BaseRate - Polyplex	-258.7681855	133.8540196	7.985061355	-274.4865592	-243.0498118	-32,407	280	.000
Pair 7	BaseRate - Essel	-140.1174837	83.30519719	4.969571424	-149.8999483	-130.3350190	-28.195	280	.000
Pair 8	BaseRate - Garware	-113.2176471	44.33667186	2.644904099	-118.4240681	-108.0112261	-42.806	280	.000
Pair 9	BaseRate - Ester	-25.65737844	20.29379056	1.210626048	-28.04046252	-23.27429436	-21.193	280	.000
Pair 10	BaseRate - EverestKanto	-14.83640536	14.34769405	.855911669	-16.52124395	-13.15156678	-17.334	280	.000

#### Paired Samples Test

The above table shows the significance level is .000 across all 10 pairs with a confidence level of 95%. As the significance level is less than 0.05, we reject the null hypothesis; this implies that there is a significant relationship between the share price of packaging companies and base rate in India.

#### V. FINDINGS

The concept of base rate was brought in by the RBI to ensure a transparent lending rate. The base rate sets the minimum amount of interest that can be charged by the commercial banks. Since the packaging industry as a whole is highly depended on external borrowings, the base rate could perhaps have an impact on the share prices of packaging companies. This was proven to be the case as the results of the paired sample t-test explicitly depicted the same. On analyzing the share price of the packaging companies on the day the base rate was announced by RBI, it was found that there exists parallels or significant relationship between the two components.

#### VI. CONCLUSION

It is observed that the base rate set by the RBI has impacted the share price of Packaging companies. This is observed by using the Paired T-Test which shows a significant relationship between the two. The RBI had introduced the base rate as a means to define the minimum rate of interest to grant loans. It was because of the much-needed clarity to the credit market that the base rate was introduced in 2011. Transparency, therefore, was created as investors were now aware of how much ROI can be really charged for a loan. This brings about uniformity and acceptance among banks in the country. Packaging industry being loan-driven often tend to borrow from listed banks. Hence it is of importance to shareholders, as banks are able to charge a lower rate of interest on their lending's when they are permitted to do so by the RBI. Thus, simple statistical tools can be used by analysts to predict share prices and make one's earnings grow through better investment decisions. Hence it is important for investors to understand such a relationship, especially with the growing rate of the packaging industry in India.

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