

Application & Growth of Commercial Paper in India

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Abstract: Money is defined as any asset that is acceptable as a medium of exchange in payment for goods and services. Finance is a part of money and all the activities are related to obtain it and to use it effectively. Financial market is an area where the sources of finance are available in two format i.e. Long term & Short term. By understanding to these subjects and financial market, the further emphasis can be laid on to its sub-part i.e. money market (Short term). EVERY country with a monetary system of its own does have some kind of market in which dealers in short-term credit can buy and sell. It is a market of short-term funds with maturity ranging from overnight to one year and includes financial instruments that are deemed to be close substitutes of money. One of the major components or instrument of Indian Money Market is Commercial Papers. This paper examines the trend and growth of Commercial papers in Indian economy over a period of 10 years. It emphasize on how the share of this particular instrument has grown with respect to the changes in interest rates over the same period and to analyse the reasons behind such changes.

Keywords: Commercial Paper, Finance, Growth, Money, Market

I. Introduction

Any organization, firm or economy or system requires funding for day-to-day business activities in operating financial necessities. Liquidity is of utmost important in any form of organization. Stable source of funding is quite often a challenge for government as well as private sectors. In any economy to fulfill this criteria there is a market that handles short term funds and requirements briefly known as Money market. Money market can be defined as a market for short-term funds with maturities ranging from overnight to one year and includes financial instruments that are considered to be close substitutes of money (Mohanty, Money Market and Monetary Operations in India, 2015). Considering different requirements of different financial institutions there are different instruments available in money market such as Treasury Bills (TBs), Certificate of deposit (CDs), Commercial paper (CPs), and Call/notice

money market. And the commercial paper, obviously, is a low-cost alternative to conventional resource mobilization drive for Financial Institutions or corporates.

Commercial Paper (CP) is an unsecured money market instrument issued in the form of a promissory note. CP, as a privately placed instrument, was introduced in India in 1990 under the chairmanship of Mr. Vaghul with a view to enable highly rated corporate borrowers to diversify their sources of short-term borrowings and to provide an additional instrument to investors (India, 2015). It was launched in India with an idea to enable highly rated corporate borrowers to fulfill their short term borrowings and an additional avenue of investment for potential investors. Consequently primary dealers and all-India financial institutions were allowed to issue CP to meet their liquidity requirements. Table 1 shows the details about commercial paper at an instance.

Table 1 Commercial Paper

Instrument	Product	Reason	Issuers & Investors	Features	Growth
Commercial Paper	CP, as a privately placed instrument, was introduced in India in 1990. It is unsecured discounted money market Instrument	It was introduced to allow highly rated corporate borrowers to expand their sources of short term borrowings by providing them additional instrument. With them even the Primary Dealers and All India FIs were also allowed to issue CP and allow them to meet short term funding.	Issuers: Corporate, primary dealers and All India Financial institutions Users: Individuals, banking companies, N R I , corporate bodies registered in India, Foreign Institutional Investors. (FII)	They may be able to borrow at a lower rate by selling commercial paper. Commercial paper is sold to provide seasonal and working capital for corporations, to provide bridge financing until longer term securities are sold or until money is expected to be received, such as tax receipts, and to finance the purchase of other securities.	The average fortnightly issuance of commercial papers (CPs) increased by 58 per cent to Rs. 47,900 crore during 2014-15, reflecting substitution of short-term bank credit by market based funding on account of the cost effectiveness of CPs for raising funds on the back of significant easing of yields on corporate bonds. Consequently, the outstanding amount of CPs stood higher at Rs. 1.93 lakh crore at end-March 2015 as compared to Rs. 1.06 lakh crore at end-March 2014.

Source: Master Circular -Guidelines for issue of commercial paper by Reserve bank of India-July 1, 2015.

II. Review of literature

(Zee Business, 2017) The article throws light on the performance of commercial papers as for the year 2017 and it is reported that the outstanding amount of CDs has declined by 59.6%. It has also quoted that with the weak credit growth from the banking sector and post demonetisation the reliance on borrowing through CDs has been on decline. The article also mentions that with the recent reduction in statutory liquidity ratio by RBI from 20% to 19.5% and with that 7-8% credit growth of banking sector will be affected leading to CD volumes to be subdued.

(Singh & Raja, 2014) Their research determines that Short term interest rate requirement, credit rating and market liquidity condition plays a prominent role in the Indian CP market

movements. The empirical finding shows that CP issuance yield depends on different or changing credit quality across different issuers of CPs ascertaining market situations also. Credit rating and market liquidity condition are most influencing factors in CPs market dynamics. Such comfortable market conditions of liquidity makes availability of funds very easy in market at lower borrowing costs and therefore corporates prefer CPs route for borrowing their working capital. This article also states that commercial paper in Indian Market is still in its emerging stage of evolution in terms of borrowing activity in primary CPs market and also trading in secondary market.

(Singhania, Singh, & Prajapat, 2016) Communicates in their research that Commercial

Papers are issued by a large number of industrial firms which has seasonal needs of funds. The success of this invention is because of negotiability through this process, a person can pass on—in most cases—better title to receive payment than he had; thus the transferee of such paper will most likely get paid by the obligor and will not be subject to most defences of any prior holders.

(Rao & Pillai, 2011) The analysis done by them portrays CP discount rate (return) and their deviations (risk) are performing outstandingly against the background of Global Financial Crisis. In the first period of their study CP discount rates in India were exceptionally high which eventually affects the reduction in issuances there by decreasing total outstanding. During the second period the CP rates came down which increased the issuances. There were different steps taken by government of India to improve liquidity such as decrease in lending rates, deposit levels to be maintained by the banks and tried to stabilize the market and provide liquidity. But after the financial crisis the CP market was severely affected which concluded CP is not absolutely risk free and there are certain risks attached to it such as credit risk and liquidity risk.

Understanding and analysing the literature review based on commercial papers the area identified was the real growth which has been duly explained in this article with its consistency over a period of 10 years including the trend and absolute growth.

III. Objectives of the study

The study has mainly focussed on the growth of commercial papers but with another set of objectives as well such as:

- To study the trend of commercial papers in India
- To examine consistency of commercial papers in India
- To analyze the absolute growth trend of commercial papers in India
- To analyze the real growth trend of commercial papers in India

IV. Research methodology

Sample size

Only Commercial Paper from Indian Money Market has been considered.

Duration

The time period considered is of 10 years from 2006-07 up to 2015-16.

Data collection

There are basically two types of data - (a) Primary (b) secondary. In this study secondary data will be obtained from the published data of Reserve bank of India (RBI).

Tools and techniques

In this type of study two types of techniques can be applied. In this study both the techniques are used in following manner.

Accounting Technique

Under this technique Ratio analysis and common size financial statement will be prepared through which the trend of selected financial instrument will be observed and subsequently will be compared.

Economic Analysis

Computation of Real Growth Rate v/s Nominal growth

Real amount of Source of money market =
Actual amount * 100 / 100 + Inflation Rate

OR

Real amount of Source of money market =
Actual amount * Index of base year / Current index

So arrived real amount will be applied in common size financial statement to investigate the trend of the respective money market instrument and subsequently will be compared.

V. Limitations of study

- There are different financial instruments which are used to meet short term funds requirement of different issuers. In this study only 1 instruments is selected.
- Collection of data is confined to 10 years only.
- Only common size financial statements, standard deviation, coefficient of variation and computation of real growth rate of each instrument s data analysis tool has been considered.

VI. Data analysis and Interpretations

The data of commercial papers has been taken over of 10 years to understand the trend and growth of commercial papers.

Table 2

Commercial Papers (2006-2007)					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-06	129.68	0 (Base)	0 (Base)	6.77	8.95	2.18
2	30-Apr-06	165.50	35.82	27.62	6.35	9.25	2.9
3	15-May-06	172.64	7.14	4.31	6.32	7.95	1.63
4	31-May-06	170.67	-1.97	-1.14	6.4	9.25	2.85
5	15-Jun-06	189.33	18.66	10.93	6.44	9.25	2.81
6	30-Jun-06	196.50	7.17	3.79	6.59	9.25	2.66
7	15-Jul-06	216.52	20.02	10.19	6.25	8.3	2.05
8	31-Jul-06	211.10	-5.42	-2.50	6.5	8.25	1.75
9	15-Aug-06	230.84	19.74	9.35	6.25	8.1	1.85
10	31-Aug-06	232.99	2.15	0.93	6.6	9	2.4
11	15-Sep-06	240.11	7.12	3.06	6.4	8.17	1.77
12	30-Sep-06	244.44	4.33	1.80	7.1	9.25	2.15
13	15-Oct-06	235.21	-9.23	-3.78	7.2	8.65	1.45
14	31-Oct-06	231.71	-3.50	-1.49	7	8.75	1.75
15	15-Nov-06	234.50	2.79	1.20	7.25	9.25	2
16	30-Nov-06	242.38	7.88	3.36	7.5	9.5	2
17	15-Dec-06	238.27	-4.11	-1.70	7.5	8.75	1.25
18	31-Dec-06	235.36	-2.91	-1.22	7.74	10	2.26
19	15-Jan-07	237.58	2.22	0.94	8.3	9.58	1.28
20	30-Jan-07	243.98	6.4	2.69	8.25	10.5	2.25
21	15-Feb-07	239.99	-3.99	-1.64	8	11.25	3.25
22	28-Feb-07	211.67	-28.32	-11.80	8.7	12	3.3
23	15-Mar-07	191.02	-20.65	-9.76	7.5	13.35	5.85
24	30-Mar-07	178.38	-12.64	-6.62	10.25	13	2.75
		5,120.37					

During the first year of the study total outstanding amount of CP is reported to be Rs 5120.37 billion. As seen in Table 2, during first fortnight of the year i.e. 15th April 2006, Rs 129.68 billion Commercial paper were outstanding and as it is the first fortnight it can be assumed that in the initial period the use of this instrument may be at minimum level. In the 12th fortnight period (30th September 2006) maximum outstanding amount is reported which is Rs 244.44 billion and this time period is almost in the middle of financial year. In the second fortnight of this year there is a significant increase in the outstanding amount which is 27.62% and the reduction in the outstanding amount is 11.80% in the 22nd fortnight.

During the study it is found that lowest discount range is in the range of 6.32-7.95. The difference of range is minimum 1.63 in the third fortnight period while highest discount range is of 7.52-13.35 and the difference of range is maximum i.e. 5.85. From this data it can be said that lowest discount range was in the 3rd fortnight and on the other hand maximum discount range is in 23rd fortnight.

Observations of data

In the initial period of this financial year, discount rate range difference is minimum 1.63 and it indicates that corporates are not in the need of commercial paper and it can be further assumed that demand may be less therefore this is found

to be lowest. On the other hand at the end of the Financial Year discount rate range difference is highest i.e. 5.85. It indicates that corporates are in the need of the commercial papers and can be

further assumed that demand may be high but supply of funds could be low and it might lead to higher discount rates

Table 3

Commercial Papers (2007-2008)					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-07	190.13			10	14	4
2	30-Apr-07	187.59	-2.54	-1.34	9.65	11.75	2.1
3	15-May-07	192.88	5.29	2.82	9.25	11.45	2.2
4	31-May-07	220.24	27.36	14.18	8.71	12	3.29
5	15-Jun-07	255	34.76	15.78	7	10.8	3.8
6	30-Jun-07	262.56	7.56	2.96	7.35	12	4.65
7	15-Jul-07	281.29	18.73	7.13	4	11.5	7.5
8	31-Jul-07	306.31	25.02	8.89	2.25	11.5	9.25
9	15-Aug-07	317.84	11.53	3.76	6.25	13.5	7.25
10	31-Aug-07	315.27	-2.57	-0.81	6.8	10.25	3.45
11	15-Sep-07	332.27	17	5.39	6.35	10.9	4.55
12	30-Sep-07	336.14	3.87	1.16	7.7	12	4.3
13	15-Oct-07	384.95	48.81	14.52	7	13	6
14	31-Oct-07	421.83	36.88	9.58	6.7	12	5.3
15	15-Nov-07	416.78	-5.05	-1.20	7.5	12	4.5
16	30-Nov-07	413.08	-3.7	-0.89	8.05	11.5	3.45
17	15-Dec-07	409.14	-3.94	-0.95	8.22	11.5	3.28
18	31-Dec-07	402.43	-6.71	-1.64	7.6	12	4.4
19	15-Jan-08	423.92	21.49	5.34	7.35	12.5	5.15
20	31-Jan-08	500.62	76.7	18.09	7.55	16	8.45
21	15-Feb-08	439.7	-60.92	-12.17	6.95	11	4.05
22	28-Feb-08	406.42	-33.28	-7.57	7.4	11	3.6
23	15-Mar-08	372.83	-33.59	-8.26	9.5	11	1.5
24	31-Mar-08	325.92	-46.91	-12.58	9.5	14.25	4.75
		8115.14					

During the second year of the study in Table 3 total outstanding amount of CP is reported to be Rs 8115.14 billion. During second fortnight of the year i.e. 30th April 2007, Rs 187.59 billion Commercial paper were outstanding and as it is the second fortnight it can be assumed that in the initial period the use of this instrument may be at minimum level. In the 20th fortnight period (31st January 2008) maximum outstanding amount is reported which is Rs 500.62 billion and this time

period is almost in the end time of financial year or beginning of calendar year.

In the 20th fortnight of this year there is a significant increase in the outstanding amount which is 18.09% and the reduction in the outstanding amount is 12.58% in the 24th fortnight and it can be concluded that it has increased compared to the last year.

During the study it is found that lowest discount range is in the range of 6.25-13.5. The difference of range is 7.25 in the ninth fortnight period while

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highest discount range is of 7.55-16 and the difference of range is 8.45. From this data it can be said that the difference of both lowest and highest discount range is not exactly the minimum and maximum, which means there have been other fortnights also where the difference has been less or more than these ranges.

Observations of data

In the initial period and the final period of this financial year i.e. 2nd and 23rd fortnight discount rate range difference is minimum and ranges between 1.5 to 2.1 and it indicates that corporates

are not in the need of commercial paper at that particular time period which is contradictory to our previous years' result. So, it can be further assumed that demand may be less therefore this is found to be lowest.

On the other hand at the end of the Financial Year discount rate range difference is highest i.e. 8.45. It indicates that corporates are in the need of the commercial papers and can be further assumed that demand may be high but supply of funds could be low and it might lead to higher discount rates.

Table 4

Commercial Papers (2008-2009)						Rs in billion	Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-08	357.94			7.74	10.25	2.51
2	30-Apr-08	376.44	18.5	5.17	7.35	10.1	2.75
3	15-May-08	410.06	33.62	8.93	7.15	10.75	3.6
4	31-May-08	420.32	10.26	2.50	7.7	10.5	2.8
5	15-Jun-08	459.83	39.51	9.40	8.25	11.6	3.35
6	30-Jun-08	468.47	8.64	1.88	9	12.25	3.25
7	15-Jul-08	483.42	14.95	3.19	9.5	12.25	2.75
8	31-Jul-08	515.69	32.27	6.68	9.6	12	2.4
9	15-Aug-08	528.31	12.62	2.45	9.54	12.5	2.96
10	31-Aug-08	550.36	22.05	4.17	10.2	14.75	4.55
11	15-Sep-08	541.82	-8.54	-1.55	10.25	14.25	4
12	30-Sep-08	520.38	-21.44	-3.96	11.4	13.95	2.55
13	15-Oct-08	493.59	-26.79	-5.15	11.9	17.75	5.85
14	31-Oct-08	484.42	-9.17	-1.86	11.55	16.9	5.35
15	15-Nov-08	453.82	-30.6	-6.32	11.5	15.5	4
16	30-Nov-08	444.87	-8.95	-1.97	9	15.5	6.5
17	15-Dec-08	402.7	-42.17	-9.48	10.4	16	5.6
18	31-Dec-08	403.91	1.21	0.30	8.25	14	5.75
19	15-Jan-09	408.03	4.12	1.02	7.75	14	6.25
20	31-Jan-09	516.68	108.65	26.63	6.75	13	6.25
21	15-Feb-09	536.15	19.47	3.77	5.25	12.5	7.25
22	28-Feb-09	525.6	-10.55	-1.97	5.8	11.75	5.95
23	15-Mar-09	499.53	-26.07	-4.96	7.5	12.5	5
24	31-Mar-09	441.71	-57.82	-11.57	6.4	12.5	6.1
		11244.1					

During the third year of the study total outstanding amount of CP in Table 4 is reported

to be Rs 11244.1 billion. During first fortnight of the year i.e. 15th April 2007, Rs 357.94 billion

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Commercial paper were outstanding and as it is the first fortnight it can be assumed that in the initial period the use of this instrument may be at minimum level. In the 10th fortnight period (31st August 2008) maximum outstanding amount is reported which is Rs 550.36 billion and this time period is almost in the mid time of financial year so may be investors might have been able to finance.

In the 20th fortnight of this year there is a significant increase in the outstanding amount which is 26.63% which is higher compared to last year and the reduction in the outstanding amount is -11.57% in the 24th fortnight and it can be concluded that it has also been decreased compared to last year.

During the study it is found that lowest discount range is in the range of 5.25-12.5. The difference

of range is 7.25 in the 21st fortnight period while highest discount range is of 11.9-17.75 and the difference of range is 5.85.

Observation of data

In between 1st to 12th fortnight there have been many fortnights where the difference of discount rate is minimum which ranges from 2-2.96, which is still higher compared to last year. But still it could be said that the demand of such instruments may be less compared to other section of year.

On the other hand when we see the difference of discount rate under maximum range it is visible in 16th to 21st fortnight which ranges between 5.5-7.25 which tells us that the demand of papers are more in the later part of financial year and is responsible for such high range differences.

Table 5

Commercial Papers (2009-2010)					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-09	465.51			6	12.5	6.5
2	30-Apr-09	528.81	63.3	13.60	3.3	10.25	6.95
3	15-May-09	578.45	49.64	9.39	2.83	9.9	7.07
4	31-May-09	607.4	28.95	5.00	3.32	9	5.68
5	15-Jun-09	672.39	64.99	10.70	3.5	9.15	5.65
6	30-Jun-09	687.21	14.82	2.20	3.2	12	8.8
7	15-Jul-09	775.6	88.39	12.86	3.04	8.85	5.81
8	31-Jul-09	795.82	20.22	2.61	3.25	8.9	5.65
9	15-Aug-09	773.52	-22.3	-2.80	3.43	9.2	5.77
10	31-Aug-09	830.26	56.74	7.34	3.05	9.35	6.3
11	15-Sep-09	881.6115	51.3515	6.18	3.2	9.05	5.85
12	30-Sep-09	792.281	-89.3305	-10.13	3.9	8.35	4.45
13	15-Oct-09	919.3	127.019	16.03	2.98	9	6.02
14	31-Oct-09	988.35	69.05	7.51	3.07	7.9	4.83
15	15-Nov-09	1033.15	44.8	4.53	3	8.85	5.85
16	30-Nov-09	1039.15	6	0.58	2.85	8.4	5.55
17	15-Dec-09	1066.765	27.615	2.66	3	9.25	6.25
18	31-Dec-09	903.05	-163.715	-15.35	3.72	10	6.28
19	15-Jan-10	923.63	20.58	2.28	3.15	7.55	4.4
20	31-Jan-10	915.64	-7.99	-0.87	3.35	7.5	4.15
21	15-Feb-10	961.52	45.88	5.01	3.3	8	4.7
22	28-Feb-10	970	8.48	0.88	3.2	8.5	5.3
23	15-Mar-10	910.25	-59.75	-6.16	4	8.9	4.9
24	31-Mar-10	755.06	-155.19	-17.05	5.3	9	3.7
		19774.7275					

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As we progress to fourth year of the study total outstanding amount of CP is reported to be Rs 19774.72 billion in Table 5. During first fortnight of the year i.e. 15th April 2009, Rs 465.51 billion Commercial paper were outstanding and as it is the first fortnight it can be assumed that in the initial period the use of this instrument may be at minimum level. In the 17th fortnight period (15th December 2009) maximum outstanding amount is reported which is Rs 1066.77 billion and this time period is the end of calendar though not financial year still there is a possibility that corporates might be in need of finance during that duration and it matched the investors demand as well. In the 13th fortnight of this year there is a significant increase in the outstanding amount which is 16.03% which is lower compared to last year and the reduction in the outstanding amount is -17.05% in the 24th fortnight and it can be concluded that it has also been decreased negatively compared to last year.

During the study it is found that lowest discount range is in the range of 2.83-7.5. The difference of range is 7.07 in the 3rd fortnight period while highest discount range is of 6-12.5 and the difference of range is 6.5.

Observation of data

In the fourth year while analysing the difference between the low and high range of discount the minimum difference is 3.7 which tends to be the last fortnight of the year so one can assume the demand of commercial papers at the end of the year turns out to be less.

The maximum range of difference is 7.07 which is seen in the 3rd fortnight of the year which means that the need of finance would be more by the corporates during the initial period of the year and so demand of this instrument also might be higher at this moment of year leading to hike in the discount range.

Table 6

Commercial Papers (2010-2011)					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-10	831.65			3.85	8.4	4.55
2	30-Apr-10	987.69	156.04	18.76	3.97	9.4	5.43
3	15-May-10	1003.64	15.95	1.61	3.85	8.45	4.6
4	31-May-10	1090.39	86.75	8.64	4.5	9.45	4.95
5	15-Jun-10	1065.8	-24.59	-2.26	4.75	8.65	3.9
6	30-Jun-10	997.92	-67.88	-6.37	6	8.5	2.5
7	15-Jul-10	1077.55	79.63	7.98	6.02	8.75	2.73
8	31-Jul-10	1127.04	49.49	4.59	6.1	9	2.9
9	15-Aug-10	1272.71	145.67	12.93	4.65	9.1	4.45
10	31-Aug-10	1265.49	-7.22	-0.57	4.4	9.6	5.2
11	15-Sep-10	1232.25	-33.24	-2.63	5.4	9.25	3.85
12	30-Sep-10	1120.03	-112.22	-9.11	6.65	9.9	3.25
13	15-Oct-10	1320.93	200.9	17.94	6.5	10	3.5
14	31-Oct-10	1496.2	175.27	13.27	7	18	11
15	15-Nov-10	1231.08	-265.12	-17.72	6.3	13	6.7
16	30-Nov-10	1177.93	-53.15	-4.32	6.32	18	11.68
17	15-Dec-10	1021.56	-156.37	-13.27	8	16	8
18	31-Dec-10	825.42	-196.14	-19.20	8	12.1	4.1
19	15-Jan-11	989.13	163.71	19.83	6.6	11.95	5.35
20	31-Jan-11	1017.52	28.39	2.87	6.94	12.5	5.56
21	15-Feb-11	1037.26	19.74	1.94	6.3	12.3	6
22	28-Feb-11	1012.91	-24.35	-2.35	6.32	13.05	6.73
23	15-Mar-11	964.87	-48.04	-4.74	7.2	13.5	6.3
24	31-Mar-11	803.05	-161.82	-16.77	7.93	15	7.07
		25970.02					

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Coming to fifth year of the study total outstanding amount of CP is reported to be Rs 25970.02 billion. During last fortnight of the year in Table 6 i.e. 31st March 2011, Rs 803.05 billion Commercial paper were outstanding and as it is the last fortnight and can be said period the use of this instrument may be at minimum level. In the 14th fortnight period (31st October 2010) maximum outstanding amount is reported which is Rs 1496.2 billion and this time period is the end of calendar though not financial year still there is a possibility that corporates might be in need of finance during that duration and it matched the investors demand as well. In the 13th fortnight of this year there is a significant increase in the outstanding amount which is 16.03% which is lower compared to last year and the reduction in the outstanding amount is -17.05% in the 24th fortnight and it can be concluded that it has also been decreased negatively compared to last year.

During the study it is found that lowest discount range is in the range of 3.85-8.4. The difference of range is 4.55 in the 1st and 3rd fortnight period while highest discount range is of 8-18 and the difference of range is 11.68.

Observation of data

In the fourth year while analysing the difference between the low and high range of discount the minimum difference is 2.5 which tends to be the sixth fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 11.68 which is seen in the 16th fortnight of the year which means that the need of finance would be more by the corporates during the middle period of the year and so demand of this instrument also might be higher at this moment of year leading to hike in the discount range.

Table 7

Commercial Papers						Rs in billion	Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-11	1055.18			7.15	12.3	5.15
2	30-Apr-11	1249.91	194.73	18.45	6.39	12.5	6.11
3	15-May-11	1268.35	18.44	1.48	7.01	13.5	6.49
4	31-May-11	1212.21	-56.14	-4.43	7.61	12.75	5.15
5	15-Jun-11	1234	21.79	1.80	8.25	13	4.75
6	30-Jun-11	1046.89	-187.11	-15.16	8.35	13.5	5.15
7	15-Jul-11	1283.47	236.58	22.60	8.11	13.25	5.15
8	31-Jul-11	1336.91	53.44	4.16	7.06	14.5	7.44
9	15-Aug-11	1424.52	87.61	6.55	8.51	13.85	5.35
10	31-Aug-11	1488.12	63.6	4.46	7.67	14.5	6.83
11	15-Sep-11	1597.01	108.89	7.32	8.47	14	5.53
12	30-Sep-11	1446.21	-150.8	-9.44	7.83	14.5	6.67
13	15-Oct-11	1664.62	218.41	15.10	8.75	13.5	4.75
14	31-Oct-11	1687.69	23.07	1.39	7.75	14.5	6.75
15	15-Nov-11	1760.69	73	4.33	8.78	13.55	4.77
16	30-Nov-11	1734.76	-25.93	-1.47	8	14.5	6.5
17	15-Dec-11	1775.21	40.45	2.33	9.1	14.5	5.4
18	31-Dec-11	1341.485	-433.725	-24.43	8.38	14	5.62
19	15-Jan-12	1,528.3	186.8	13.93	9	14.5	5.5
20	31-Jan-12	1,498.8	-29.5	-1.93	8.66	13.25	4.59
21	15-Feb-12	1,613.9	115.1	7.68	7.75	14.65	6.9
22	28-Feb-12	1,617.6	3.6	0.23	8.47	14.75	6.28
23	15-Mar-12	1,335.3	-282.3	-17.45	9.63	14.9	5.27
24	31-Mar-12	911.9	-423.4	-31.71	9.75	15.25	5.5
		34,113.0					

Application & Growth of Commercial Paper in India

As seen above in sixth year of the study in Table 7 total outstanding amount of CP is reported to be Rs 34113 billion. During last fortnight of the year i.e. 31st March 2012, Rs 911.9 billion Commercial paper were outstanding and as it is the last fortnight and can be said period the use of this instrument may be at minimum level. In the 17th fortnight period (15th December 2011) maximum outstanding amount is reported which is Rs 1775.21 billion and this time period is the end of calendar though not financial year still there is a possibility that corporates might be in need of finance during that duration and it matched the investors demand as well.

In the 7th fortnight of this year there is a significant increase in the outstanding amount which is 22.60% as compared to last fortnight which is higher compared to last year and the reduction in the outstanding amount is -31.71% in the 24th fortnight and it can be concluded that it has also

been decreased negatively compared to last year may be because of the last fortnight of the year. During the study it is found that lowest discount range is in the range of 6.39 to 12.3. The difference of range is 6.11 in the 2nd fortnight period while highest discount range is of 9.75 to 15.25 and the difference of range is 5.5.

Observation of data

In this year while analyzing the difference between the low and high range of discount the minimum difference is 4.59 which tends to be the 20th fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 7.44 which is seen in the 8th fortnight of the year which means that the need of finance would be more by the corporates during the middle period of the year and so demand of this instrument also might be higher at this moment of year leading to hike in the discount range.

Table 8

Commercial Papers (2012-2013)					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-2012	1,103.5			8.51	14.5	5.99
2	30-Apr-2012	1,310.0	206.5	18.72	8.02	14.25	6.23
3	15-May-2012	1,443.5	133.4	10.18	8.68	15	6.32
4	31-May-2012	1,498.0	54.6	3.78	7.9	15	7.1
5	15-Jun-2012	1,634.8	136.8	9.13	8.85	14.75	5.9
6	30-Jun-2012	1,258.1	-376.7	-23.04	8.24	15.25	7.01
7	15-Jul-2012	1,647.3	389.2	30.93	8.43	14.38	5.95
8	31-Jul-2012	1,732.3	85.0	5.16	7.43	14.5	7.07
9	15-Aug-2012	1,830.2	98.0	5.66	8.35	14.23	5.88
10	31-Aug-2012	1,878.9	48.7	2.66	8.21	13.96	5.75
11	15-Sep-2012	1,947.9	69.0	3.67	7.37	14.5	7.13
12	30-Sep-2012	1,705.8	-242.2	-12.43	8.33	14.5	6.17
13	15-Oct-2012	1,961.3	255.5	14.98	7.99	14.47	6.48
14	31-Oct-2012	1,941.1	-20.2	-1.03	8.05	12.59	4.54
15	15-Nov-2012	2,040.1	99.0	5.10	7.64	12.67	5.03
16	30-Nov-2012	1,994.3	-45.8	-2.24	7.92	14	6.08
17	15-Dec-2012	2,152.4	158.1	7.93	8.05	14.46	6.41
18	31-Dec-2012	1,817.7	-334.7	-15.55	8.36	14.6	6.24
19	15-Jan-2013	2,117.50	299.84	16.50	8.05	13.45	5.4
20	31-Jan-2013	1,998.42	-119.08	-5.62	7.97	13.37	5.4
21	15-Feb-2013	2,095.58	97.16	4.86	7.88	14.96	7.08
22	28-Feb-2013	1,923.40	-172.18	-8.22	8.02	13.96	5.94
23	15-Mar-2013	1,810.72	-112.68	-5.86	7.9	13.61	5.71
24	31-Mar-2013	1,092.55	-718.17	-39.66	8.05	13.42	5.37
		41,935.25					

Application & Growth of Commercial Paper in India

As seen above in seventh year of the study in Table 8 total outstanding amount of CP is reported to be Rs 41935.25 billion. During last fortnight of the year i.e. 31st March 2013, Rs 1092.55 billion Commercial paper were outstanding and as it is the last fortnight and can be said period the use of this instrument may be at minimum level. In the 19th fortnight period (15th January 2013) maximum outstanding amount is reported which is Rs 2117.50 billion and this time period is the end of calendar though not financial year still there is a possibility that corporates might be in need of finance during that duration and it matched the investors demand as well. In the 7th fortnight of this year there is a significant increase in the outstanding amount which is 30.93% as compared to last fortnight which is higher compared to last year and the reduction in the outstanding amount is -39.66% in the 24th fortnight and it can be concluded that it has also

been decreased negatively compared to last year may be because of the last fortnight of the year. During the study it is found that lowest discount range is in the range of 7.37 to 12.59. The difference of range is 6.11 in the 11th fortnight period while highest discount range is of 8.51 to 15.25 and the difference of range is 7.01.

Observation of Data:

In this year while analyzing the difference between the low and high range of discount the minimum difference is 4.54 which tends to be the 14th fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 7.08 which is seen in the 21st fortnight of the year which means that the need of finance would be more by the corporates during the end period of the year and so demand of this instrument also is very changing at this moment of year leading to decrease & hike in the discount range.

Table 9

Commercial Papers					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-2013	1,503.55			7.8	13.25	5.45
2	30-Apr-2013	1,574.91	71.36	4.75	7.85	13.3	5.45
3	15-May-2013	1,755.75	180.84	11.48	7.7	12.77	5.07
4	31-May-2013	1,732.48	-23.27	-1.33	7.7	13.3	5.6
5	15-Jun-2013	1,702.46	-30.02	-1.73	7.57	12.79	5.22
6	30-Jun-2013	1,355.88	-346.58	-20.36	7.58	12.71	5.13
7	15-Jul-2013	1,694.26	338.38	24.96	7.36	12.62	5.26
8	31-Jul-2013	1,495.81	-198.45	-11.71	7.43	12.36	4.93
9	15-Aug-2013	1,363.40	-132.41	-8.85	7.82	12.84	5.02
10	31-Aug-2013	1,182.90	-180.50	-13.24	9.5	14.31	4.81
11	15-Sep-2013	1,081.87	-101.03	-8.54	8.17	13.8	5.63
12	30-Sep-2013	986.38	-95.49	-8.83	9.5	13.57	4.07
13	15-Oct-2013	1,363.12	376.74	38.19	8.03	12.53	4.5
14	31-Oct-2013	1,574.49	211.37	15.51	8.63	12.39	3.76
15	15-Nov-2013	1,725.15	150.66	9.57	8.44	12.75	4.31
16	30-Nov-2013	1,756.37	31.22	1.81	8.74	12.46	3.72
17	15-Dec-2013	1,875.36	118.99	6.77	8.05	12.7	4.65
18	31-Dec-2013	1,403.58	-471.78	-25.16	8.38	12.63	4.25
19	15-Jan-2014	1,721.03	317.45	22.62	8.33	12.52	4.19
20	31-Jan-2014	1,641.73	-79.30	-4.61	7.99	12.5	4.51
21	15-Feb-2014	1,767.09	125.36	7.64	8.33	12.7	4.37
22	28-Feb-2014	1,646.03	-121.06	-6.85	7.84	13.06	5.22
23	15-Mar-2014	1,653.43	7.40	0.45	7.96	14.18	6.22
24	31-Mar-2014	1,066.14	-587.29	-35.52	8.64	12.61	3.97
		36,623.17					

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Coming to eight year of the study total outstanding amount of CP is reported to be Rs 36623.17 billion. During 12th fortnight of the year i.e. 30th September 2013, Rs 986.38 billion Commercial paper were outstanding as compared to previous year as seen in Table 9. In the 17th fortnight period (15th December 2013) maximum outstanding amount is reported which is Rs 1875.36 billion which has decreased as compared to previous year. Statistics of this year shows that the total amount of commercial papers launched has decreased compared to previous year and the changes or fluctuations are seen majorly between 12th to 17th fortnights which could be because of short term requirements of corporates.

In the 13th fortnight of this year there is a significant increase in the outstanding amount which is 38.19% as compared to last fortnight which is higher compared to last year and the reduction in the outstanding amount is -35.52% in the 24th fortnight and it can be concluded that it has also been decreased negatively compared to

last year may be because of the last fortnight of the year.

During the study it is found that lowest discount range is in the range of 7.36 to 12.39. The difference of range is 5.26 in the 7th fortnight period while highest discount range is of 9.5 to 14.31 and the difference of range is 4.81.

Observation of data

In this year while analyzing the difference between the low and high range of discount the minimum difference is 3.72 which tends to be the 16th fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 6.22 which is seen in the 23rd fortnight of the year which means that the need of finance would be more by the corporates during the end period of the year and so demand of this instrument also is very changing at this moment of year leading to decrease & hike in the discount range.

Table 10

Commercial Papers					Rs in billion		Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-2014	1,421.34			8.44	12	3.56
2	30-Apr-2014	1,538.12	116.78	8.22	8.58	13.3	4.72
3	15-May-2014	1,825.92	287.80	18.71	8.48	12.65	4.17
4	31-May-2014	1,824.19	-1.73	-0.09	8.35	12.87	4.52
5	15-Jun-2014	1,969.22	145.03	7.95	8.14	12.54	4.4
6	30-Jun-2014	1,705.70	-263.52	-13.38	8.29	14.02	5.73
7	15-Jul-2014	2,024.23	318.53	18.67	8.16	12.42	4.26
8	31-Jul-2014	2,015.00	-9.23	-0.46	8.12	11.77	3.65
9	15-Aug-2014	2,184.63	169.63	8.42	7.36	11.96	4.6
10	31-Aug-2014	2,111.95	-72.68	-3.33	8.26	12.62	4.36
11	15-Sep-2014	2,329.87	217.92	10.32	8.26	12	3.74
12	30-Sep-2014	1,843.53	-486.34	-20.87	8.44	12.6	4.16
13	15-Oct-2014	2,241.77	398.24	21.60	8.34	11.62	3.28
14	31-Oct-2014	2,185.26	-56.51	-2.52	7.55	11.75	4.2
15	15-Nov-2014	2,287.47	102.21	4.68	8.13	11.76	3.63
16	30-Nov-2014	2,253.80	-33.67	-1.47	8.05	12.48	4.43
17	15-Dec-2014	2,342.33	88.53	3.93	8.02	11.58	3.56
18	31-Dec-2014	2,082.48	-259.85	-11.09	7.98	12.61	4.63
19	15-Jan-2015	2,528.71	446.23	21.43	8.06	11.73	3.67
20	31-Jan-2015	2,376.12	-152.59	-6.03	7.95	13.21	5.26
21	15-Feb-2015	2,574.85	198.73	8.36	7.86	12.21	4.35
22	28-Feb-2015	2,493.51	-81.34	-3.16	8.04	12.19	4.15
23	15-Mar-2015	2,561.15	67.64	2.71	7.91	13.06	5.15
24	31-Mar-2015	1,932.68	-628.47	-24.54	7.44	14.92	7.48
		50,653.83					

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In the ninth year of the study total outstanding amount of CP is reported to be Rs 50653.83 billion. During 1st fortnight of the year i.e. 15th April 2014, Rs 1421.23 billion Commercial paper were minimum outstanding due to the beginning of any financial year but has increased compared to previous year as seen in Table 10. In the 21st fortnight period (15th February 2015) maximum outstanding amount is reported which is Rs 2574.85 billion which has increased as compared to previous year. In this the minimum and maximum outstanding amounts are seen in the beginning and end of year which could tell us that demand of commercial papers might be low in the beginning but has increased by the end of the term.

In the 13th fortnight of this year there is a significant increase in the outstanding amount which is 21.6% as compared to last fortnight which is higher compared to last year and the reduction in the outstanding amount is -24.54% in the 24th fortnight and it can be concluded that

it has not decreased that much significantly compared to last year may be because of the last fortnight of the year.

During the study it is found that lowest discount range is in the range of 7.36 to 11.62. The difference of range is 4.6 in the 7th fortnight period while highest discount range is of 8.58 to 14.92 and the difference of range is 7.48.

Observation of data

In this year while analyzing the difference between the low and high range of discount the minimum difference is 3.28 which tends to be the 13th fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 7.48 which is seen in the 24th fortnight of the year which means that the need of finance would be more by the corporates during the end period of the year and so demand of this instrument also is very changing at this moment of year leading to decrease & hike in the discount range.

Table 11

Commercial Papers						Rs in billion	Difference
Sl. No	Fortnight Ended	Total Outstanding	Changes in outstanding	Changes in %	Range of discount		
					Low	High	
1	15-Apr-2015	2,443.18			7.78	11.36	3.58
2	30-Apr-2015	2,682.72	239.54	9.80	7.84	12.03	4.19
3	15-May-2015	2,905.12	222.40	8.29	8	11.91	3.91
4	31-May-2015	2,986.68	81.56	2.81	7.79	12.11	4.32
5	15-Jun-2015	3,126.92	140.24	4.70	7.07	13.06	5.99
6	30-Jun-2015	2,706.13	-420.79	-13.46	7.39	11.56	4.17
7	15-Jul-2015	3,185.93	479.80	17.73	7.45	11.52	4.07
8	31-Jul-2015	3,149.39	-36.54	-1.15	7.36	11.76	4.4
9	15-Aug-2015	3,232.58	83.19	2.64	7.09	12.24	5.15
10	31-Aug-2015	3,094.64	-137.94	-4.27	7.33	12.29	4.96
11	15-Sep-2015	3,255.95	161.31	5.21	7.19	13.06	5.87
12	30-Sep-2015	2,684.23	-571.72	-17.56	7.29	11.53	4.24
13	15-Oct-2015	3,226.35	542.12	20.20	6.99	11.54	4.55
14	31-Oct-2015	3,231.01	4.66	0.14	7.02	11.55	4.53
15	15-Nov-2015	3,443.60	212.59	6.58	6.52	11.18	4.66
16	30-Nov-2015	3,273.79	-169.81	-4.93	7.07	11.66	4.59
17	15-Dec-2015	3,802.80	529.01	16.16	7.08	12.13	5.05
18	31-Dec-2015	3,085.09	-717.71	-18.87	7.23	11.79	4.56
19	15-Jan-2016	3,643.72	558.63	18.11	6.89	11.42	4.53
20	31-Jan-2016	3,553.80	-89.92	-2.47	7.3	11.18	3.88
21	15-Feb-2016	3,876.05	322.25	9.07	7.14	11.31	4.17
22	29-Feb-2016	3,557.83	-318.22	-8.21	7.33	12	4.67
23	15-Mar-2016	3,455.90	-101.93	-2.86	7.27	13.09	5.82
24	31-Mar-2016	2,602.44	-853.46	-24.70	7.35	13.14	5.79
		76,205.85					

In the tenth year of the study total outstanding amount of CP is reported to be Rs 76205.85 billion in Table 11. During 24th fortnight of the year i.e. 31st March 2016, Rs 2602.44 billion Commercial paper were minimum outstanding due to the end of any financial year but has increased compared to previous year. In the 21st fortnight period (15th February 2015) maximum outstanding amount is reported which is Rs 3876.05 billion which has increased as compared to previous year. In this the minimum and maximum outstanding amounts are seen in the end fortnights of year which could tell us that demand of commercial papers might have huge changes in the end fortnights of the year. In the 13th fortnight of this year there is a significant increase in the outstanding amount which is 20.20% as compared to last fortnight which is higher compared to last year and the reduction in the outstanding amount is -24.70% in the 24th fortnight and it can be concluded that it has not decreased that much significantly

compared to last year may be because of the last fortnight of the year.

During the study it is found that lowest discount range is in the range of 6.89 to 11.18. The difference of range is 4.53 in the 7th fortnight period while highest discount range is of 8 to 13.14 and the difference of range is 5.79.

Observation of data

In this year while analyzing the difference between the low and high range of discount the minimum difference is 3.58 which tends to be the 1st fortnight of the year so one can assume the demand of commercial papers at that time of the year turns out to be less.

The maximum range of difference is 5.99 which is seen in the 5th fortnight of the year which means that the need of finance would be more by the corporates during the end period of the year and so demand of this instrument also is very changing at this moment of year leading to decrease & hike in the discount range.

Table 12: Real growth and absolute growth of commercial papers

SI No	Time period	Total Outstanding amount	WPI (all commodities)	Real Growth	Absolute growth (%)	Real Growth (%)
1	2005-2006	4446.21	104.47	0 (BY)
2	2006-2007	5120.37	111.35	4804	15.16
3	2007-2008	8115.14	116.63	7269.04	58.49	51.31
4	2008-2009	11244.1	126.02	9321.31	38.56	28.23
5	2009-2010	19774.7	130.81	15792.9	75.87	69.43
6	2010-2011	25970	143.32	18930.3	31.33	19.87
7	2011-2012	34113	156.13	22825.8	31.36	20.58
8	2012-2013	41935.25	167.62	26136.4	22.93	14.50
9	2013-2014	36623.17	177.64	21538.1	-12.67	-17.59
10	2014-2015	50653.83	181.19	29205.8	38.31	35.60
11	2015-2016	76205.85	176.67	45062.7	50.44	54.29

Source: Self calculated

Inflation is significant factor for any economy and for the measurement of economic development the elimination of inflation gives true growth of respective source of money market. Thus in this case nominal v/s real growth

will be measured with the help of following formula with the values calculated in Table 12.

Real amount of Source of money market = Actual amount * 100 / 100 + Inflation Rate

OR

Real amount of Source of money market = Actual amount * Index of base year / Current index
Real amount of TB = 2994.77*104.47/116.63 =7269.04

In the year 2005-2006 the use of Commercial Papers was Rs 4446.21 Billion and it was increased to Rs 8115.14 Billion in the year 2007-2008 so it showed increase of Rs 2994.77 Billions. When the influence of inflation is introduced the amount which arrived is of is Rs 7269.04 Billions. Thus real growth witnessed here is less than nominal growth i.e. the actual outstanding amount in terms of absolute growth is 58.49% (8115.14 billion Rs) while actually the real growth is 51.31% (7269.04 billion Rs). This tell us that the difference is because of the inflation. As the time passes by we can see that even after eliminating the effect of inflation but still there is growth in the commercial papers except in the year of 2013-2014. This could be because of recession leading to less demand of Commercial papers in the market.

VII. Conclusion

Short-term interest rate environment, credit rating and market liquidity condition play a dominant role in the Indian Money Market especially in Commercial Paper activity. Comfortable market liquidity makes availability of funds easy in the open market at lower borrowing costs and hence corporates prefer CPs route for borrowing their working capital and vice versa. (SIngh & Raja, 2014)

According to the first objective of the study the trend of commercial papers over a period of 10 years has been positive i.e. in the year 2006-07 the total outstanding amount was ¹ 5120.37 billion which has been increased to ¹ 76,205.85 billion. Through this observation one could conclude that there is growing trend for commercial papers and corporates are using this particular instrument to raise short term capital funds instead of approaching another sources.

The minimum and maximum range of discount for commercial papers has been as low as 2.83 and 12.5 but has been increasing and moved till 7.36 to 15.25 this particular observation shows that this sharp rise in issuance of commercial

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papers and increase in discount range is due to removal of sub-prime lending rate and introduction of minimum base rate for banks to provide finance to companies due to which preference towards commercial papers has been seen.

Another objective of the study was to study the absolute and real growth of commercial papers which has been analyzed that the real growth is less than the absolute growth. The absolute growth is 58.49% while the real growth is 51.31% which is basically because of inflation. But even after eliminating the inflation one could observe positive growth in commercial papers over the period of 10 years.

References

- India, R. B. (2015) *Master Circular - Guidelines for Issue of Commercial Paper*. Retrieved from www.rbi.org.in.
- Mohanty, D. (2015) *Money Market and Monetary Operations in India. Speeches*. Mumbai: Reserve Bank of India.
- Mohanty, D. (2015) *Money Market and Monetary Operations in India*. Mumbai: Speeches: Reserve Bank of India.
- Rao, M. S., & Pillai, R. K. (2011). Risk and Return Analysis of Commercial Paper. *Asia Pacific Business Review*, VII(4), 40-49.
- RBI. (2014). *Master Circular - Guidelines for Issue of Commercial Paper*. Retrieved from www.rbi.org: https://www.rbi.org.in/scripts/BS_ViewMasCirculardetails.aspx?id=9034
- SIngh, S., & Raja, N. A. (2014). *Indian Commercial Paper Market: An Insightful Investigation*. Mumbai: CCIL.
- Singhania, N., Singh, A., & Prajapat, J. (2016). A STUDY ON COMMERCIAL PAPER IN INDIAN MONEY MARKET. *International Journal of Science technology & Management*, 88-94.
- Zee Business. (2017) Certificate of Deposits fall below Rs 1 lakh crore for the first time in a decade. Mumbai, India.