HETROGENITY IN FINANCIAL REPORTING FREQUENCY: INTERNATIONAL CAPITAL MARKET IMPLICATIONS

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ABSTRACT

The aim of this study is to examine the level to which the regular reporting of financial results can change stock price and market behaviour. To observe the amount to which the regularity of financial reporting influences the explosive nature of stock price. The study considered four countries with different reporting practices; The United States and India with quarterly reporting, and UK and Australia with semi-annual interim reporting. The researcher has taken some economic indicators as independent variables and stock prices as dependent variables to judge the real impact of these practices on economic scenario of a country with reference to their investors near by the time period of financial result announcements. Vector-auto regression and Causality test approach applied for analysis of dataset. The results shows that reporting based on quarterly practices is more effective than biannual reporting practices as the real time influence of this reporting pattern is much more significant for all parties of economy.

Keywords: Financial Reporting, Stock Market Volatility, BSE, NYSE, LSE, XAO.

JEL Classification : C 3, C 5, C 22, G 14.

INTRODUCTION

"An interim financial report is a financial report that contains either a complete or condensed set of financial statements for a period shorter than an entity's full financial year." (IAS - 34)

Interim reporting is a means of informing legal entities about business results on a regular and regular basis. Recently, corporate quarterly indicators are central to the stock market. The quarterly results have the great utility for investing community. Investors deliberate that the interim reports have more significance as financial information enables them to analyse the actual performances and also swot their prognoses.

Interim Financial Report provides price sensitive data to investors. The considerable efforts are in line at an international level to match and execute International Financial Reporting Standards (IFRS). There is not any noticeable attempt to synchronize interim reporting rules globally as the frequency of interim reporting is still varies from country to country.

The utility of reported information can be influenced with the selection of reporting intervals. The deficient comparability of IFR accounting records obscures cross-country examination and venture decisions. In this way, the role of interim reporting is significant when it comes to the timeliness; Interim and Quarterly. This study is concerned with these two different regimes adopted by different countries; India & USA (Quarterly) and UK & Australia (Interim or Biannual).

Hereinafter, the rest paper is divided in different sections; (i) Literature Review, (ii) Research Methodology, (iii) Empirical Analysis and (iv) Conclusion.

REVIEW OF LITERATURE

Panizzolo, D et al. (2017) investigated the reporting phenomenon focusing on its level and analysing the variables explaining the reasons that push Italian SMEs to use, in their abbreviated financial statements, non-compulsory tables that are proper of the standard ones.

Arif and George (2015) provided evidence on whether financial reporting frequency impacts investor responses to news about global industry earnings by exploiting variation in firm-level reporting frequency across 32 countries. The findings suggested that low reporting frequency intensify information spill-over and dropped new light on the consequences of infrequent financial reporting from a global perspective.

Kraft, Vashishtha et.al (2014) established causal evidence on the effects of increased reporting frequency on firms' investment decisions.

Results revealed that increased reporting frequency is associated with an economically large decline in investments. Don, Zou et.al (2013) examined firms' financial reporting choices relate to individual shareholders by using a large hand-collected sample of all block holders of S&P 1500 firms for the years 2002–2009. Researchers attempted to understand distinct chunk owners' paraphernalia on financial reporting quality using several block holder characteristics.

These results highlighted the highly individualized effects of block holders and the need for research to further understand the mechanisms through which shareholders impact financial reporting.

A study conducted by Gallery, Artiach et.al (2013) addressed the issue of how interim financial reporting regulation varies across the Asia- Pacific region. The study investigated the relevant regulations in eight selected countries in the Asia-Pacific region which differ in a number of country-level attributes. Darjezi and Khansalar (2013) examined the arrangement of interim reports and accounting standards for interim reporting. The study also discussed the main purpose of interim reports, and the benefits of reporting frequency.

Mathuva (2012) carefully examined the determinants of forward-looking disclosures (FLD) in the interim financial statements (IFR) of non-financial companies listed on the Nairobi Securities Exchange. Finally, the document recommends that companies offer comprehensive FLD in the future to effectively mitigate information asymmetries between the administration and the owners of the companies, especially the companies with greater foreign participation.

Verdi (2012) explained the evidence of large economic benefits from increasing reporting frequency.

Mensah and Werner (2006) inspected the amount to which the regularity of interim financial reporting affects stock price volatility over the course of the fiscal year in selected countries with different interim reporting patterns and suggested stock prices reflect more timely information in quarterly reporting. XBRL a reporting practice found to contribute to transparency and monitoring, improve the information efficiency and provide better information content in the study conducted by Efendi, J., Park, J. D., & Subramaniam, C. (2016).

After reviewing the concerned literature researcher found that most of the studies reflected investors' behaviour with respect to reporting announcements. But not an enough literature was there to find out the behaviour of Indian market with

reporting frequency. This study is an effort to find out the pattern of stock market behaviour in Indian scenario with other countries having different reporting patterns.

RESEARCH METHODOLOGY

Research Question: To study the amount to which the regularity of financial reporting influence the explosive nature of stock price, in the form of investments.

Hypothesis

H0: There is no significant difference in stock market volatility in countries having Quarterly reporting regime and the countries having Interim reporting practices.

Sources of Data: For the purpose of the study, four countries have been considered having different reporting frequency; Quarterly (India and USA), Biannual (Australia and UK). Stocks Market Indices (Benchmarks) have been taken into consideration as per the companies listed with respective stock exchanges viz., Bombay Stock Exchange (India), New York Stock Exchange (USA), London Stock Exchange (UK) and Australian Securities Exchange (ASX).Major macroeconomic indicators like GDP (Real Time), Exchange Rate (Conversion with US $), Long Term Interest Rate (Govt. Bonds) and CPI (Inflation) are considered to check the impact of these variables on stock market performance during the financial reporting periods.

The data have been collected from the websites of concerned stock exchanges, Government bodies of selected countries and some hardbound data sources have also been used.

Duration of Study: For analysis of the data, a period of Six year has been considered from financial year 2011-12 to 2016-17.

Tools and Techniques Used: The researcher has employed Causality analysis to fulfill the study requirements. The study assessed causal link between different stock markets using the Granger Causality Test with a Vector Autoregressive (VAR) framework along with the testing of stationary process of data.

EMPIRICAL ANALYSIS & RESULTS

To fulfil the objective of study, researcher has taken different macroeconomic indicators as Independent Variables and Stock Market Indices as Dependent Variable. (Table 1: Data Description)

Table 1		DATA DESCRIPTION	
	STMIX *Monthly End*	***Stock Market Index : Dependent Variable***	
		Australia : All Ordinaries Index	XAO
		UK : FTSE 100	FTSE
		USA : Dow Jones Industrial Average	DJIA
		India : S & P BSE Sensex	BSEN
INDEPENDENT VARIABLES	GDP	Quarterly Estimates of Gross Domestic Product (all countries)	
	CPI	Quarterly Consumer Price Index – Monthly Average (all countries)	
	FXRT	Monthly Foreign Exchange Rate (Currency conversion = US $)	
	LTIR	Monthly Long Term Int. Rate (Govt. Bond: 10 years) all countries	

To test the stationarity of time series data and to find out whether a time series variable is non-stationary Unit Root Test is applied. Augmented Dickey-Fuller (ADF) test is the most popular unit root test to test the stationarity. ADF model is:

$$\Delta Y_t = \alpha + \beta_{T-1} + \gamma Y_{t-1} + \delta_1 \Delta Y_{t-1} + \delta_2 \Delta Y_{t-2} + \cdots + \delta_p \Delta Y_{t-p} + \varepsilon_t$$

The test is based on the null hypothesis (Ho) that the variable contains a unit root or non-stationary, and alternative hypothesis (H_1) is that the variables are generated by a stationary process. Table 2 and Table 3 are having the outcomes of this analysis. This testing of unit root hypothesis discloses that the selected datasets (variables series) are stationary. Researcher has rejected the null hypothesis at different levels of significance; 1%, 5% and 10%.

Table 2	UNIT ROOT TEST : ADF	
Variables	**Augmented Dickey Fuller (ADF) Test**	
	Z (t)	**t statistics**
BSE Sensex	-14.067	-2.580*
		-1.950**
		-1.620***
DJIA	-14.089	-3.960*
		-3.410**
		-3.120***
FTSE 100	-14.380	-2.580*
		-1.950**
		-1.620***
XAO	-14.492	-3.960*
		-3.410**
		-3.120***
Note: **(a)** Lag length for case is 3. **(b)** Probability for all cases is 0.000. **(c)** *, **, *** represents the rejection of Null Hypothesis at 1%, 5%, 10% levels.		

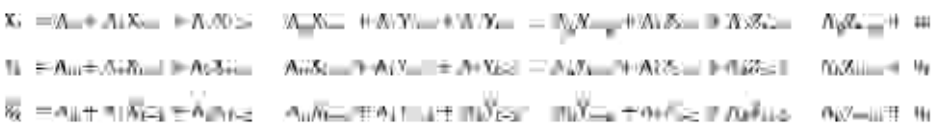
Augmented dickey fuller test reveals that the data set is stationary. All variables are negative, probabilities for all cases are 0.000 and hull hypotheses are rejected at 1%, 5% and 10% levels of significance.

Table 3		**UNIT ROOT TEST : ADF**	
Variables		**Augmented Dickey Fuller (ADF) Test**	
		Z (t)	**t statistics**
IND	GDP	-9.324	-5.513*
	CPI	-10.550	-5.324*
	LTIR	-8.764	-3.680*
	EXRT	-11.858	-3.595*
US	GDP	-10.660	-2.887*
	CPI	-11.883	-3.668*
	LTIR	-11.664	-3.227*
	EXRT	-10.640	-4.805*
UK	GDP	-12.342	-3.482*
	CPI	-8.520	-3.776*
	LTIR	-9.664	-4.087*
	EXRT	-10.551	-3.885*
AUS	GDP	-13.188	-3.600*
	CPI	-10.442	-3.206*
	LTIR	-12.033	-3.540*
	EXRT	-12.451	-3.494*

Note: **(a)** Lag length for case is 3. **(b)** Probability for all cases is 0.000. **(c)** * represents the rejection of Null Hypothesis at 5% level.

To test this hypothesis related to unit root testing, researcher has employed Augmented Dickey Fuller (ADF) tests of unit root. Table 3 shows the results of this analysis. This testing of unit root hypothesis reveals that the selected datasets are stationary. Researcher has rejected the null hypothesis at 5% levels of significance.

After unit root testing, the study further moves towards the multivariate VAR framework. The VAR model is a multi-equation system where all the variables are treated as endogenous variable. There is thus one equation for each variable as dependent variable. These models are used for analyzing causal relationship among time series variables. A multivariate VAR model for the variables *X*, *Y* and *Z* can be framed as:



After framing this equation, Granger Causality Test has been applied to check the causal impact of dependent and independent variable during the reporting periods. Results are quite differ for all selected countries. As the countries having quarterly reporting practices have significant relationship or causal link than the countries having bi annual reporting patterns. The study has been divided in two groups of nations considering their reporting practices followed by the companies listed in the stock markets. USA and India are following quarterly reports and seems to be very much cohesive with stock market changes and economic changes. Whereas Australia and UK are practices Bi annual reporting patterns and not so much significantly related with economic changes but up to some extent they face fluctuations in market due to economic shuffle. Table 4 depicts the results of Granger test of Causality which has 32 combinations of null hypothesis.

Table 4	**Granger Causality Test for Market and Macroeconomic Variables**				
S.N.	**Null Hypothesis**	**F stat.**	**P val.**	**Reject/Accept**	**Causality**
1	BSen does not granger cause GDP	1.019	0.399	Accepted	
2	GDP does not granger cause BSen	0.912	0.458	Accepted	Exogeneity
3	BSen does not granger cause CPI	1.637	0.168	Accepted	
4	CPI does not granger cause BSen	4.521	0.001*	Rejected	Unidirectional
5	BSen does not granger cause LTIR	1.629	0.169	Accepted	
6	LTIR does not granger cause BSen	3.874	0.005*	Rejected	Unidirectional
7	BSen does not granger cause EXRT	8.225	0.000*	Rejected	
8	EXRT does not granger cause BSen	5.026	0.000*	Rejected	Bidirectional
9	FTSE does not granger cause GDP	2.208	0.201	Accepted	
10	GDP does not granger cause FTSE	1.109	0.207	Accepted	Exogeneity
11	FTSE does not granger cause CPI	0.881	0.302	Accepted	
12	CPI does not granger cause FTSE	1.428	0.178	Accepted	Exogeneity
13	FTSE does not granger cause LTIR	1.771	0.311	Accepted	
14	LTIR does not granger cause FTSE	1.875	0.206	Accepted	Exogeneity
15	FTSE does not granger cause EXRT	2.605	0.572	Accepted	
16	EXRT does not granger cause FTSE	4.110	0.002*	Rejected	Unidirectional
17	DJ does not granger cause GDP	3.019	0.379	Accepted	
18	GDP does not granger cause DJ	1.912	0.558	Accepted	Exogeneity
19	DJ does not granger cause CPI	1.547	0.258	Accepted	
20	CPI does not granger cause DJ	1.627	0.495	Accepted	Exogeneity
21	DJ does not granger cause LTIR	3.830	0.005*	Rejected	
22	LTIR does not granger cause DJ	3.774	0.004*	Rejected	Bidirectional
23	DJ does not granger cause EXRT	6.008	0.557	Accepted	
24	EXRT does not granger cause DJ	7.116	0.000*	Rejected	Unidirectional
25	XAO does not granger cause GDP	4.473	0.000*	Rejected	
16	GDP does not granger cause XAO	6.211	0.102	Accepted	Unidirectional
27	XAO does not granger cause CPI	3.164	0.000*	Rejected	
28	CPI does not granger cause XAO	6.091	0.107	Accepted	Unidirectional
29	XAO does not granger cause LTIR	3.558	0.000*	Rejected	
30	LTIR does not granger cause XAO	2.313	0.510	Accepted	Unidirectional
31	XAO does not granger cause EXRT	8.375	0.285	Accepted	
32	EXRT does not granger cause XAO	11.269	0.106	Accepted	Exogeneity
**Null hypotheses rejected at 5% level of significance.*					

The finding shows that Indian and US Stock Market has significant Unidirectional and Bidirectional relationship with major economic indicators except GDP (exogeneity). This means null hypothesis are rejected at 5% level of significance. UK and Australian market has independence relationship and more fluctuating trend in market due to economic changes. But those fluctuations were not caused significantly by economic variables. In nutshell its can be stated that reporting practices has their real time influence of stock market in terms of economic developments.

Audited financial statements that provide accurate, high-quality financial reports in a timely manner are critical to the development of capital markets, especially in emerging capital markets, because the right investment decisions are based on high-quality corporate financial information.

CONCLUSION

The study has examined that different interim reporting systems have diverse effects on the Stock or capital markets, with the help of explosiveness and timeliness of stock prices. The findings show that trimestral reporting seems to emphasise stock market instability in the United States and India other than the capital markets in UK and Australia. Simultaneously, quarterly reporting also clues to the previous replication of the attainable upcoming returns in existing values. The findings suggested that the countries should adopt quarterly reporting as it has significant influence of investors' perception which is directly related to the economic changes of any country.

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