COVID-19 AND GLOBAL FINANCIAL MARKETS WITH SPECIAL FOCUS TO GDP GROWTH PROJECTION, CAPITAL MOBILIZATION AND PERFORMANCE OF STOCK MARKET

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ABSTRACT

As the corona virus epidemic spread globally, the possibility of a global economic recession has strengthened. The novel corona virus, or covid-19, which initially emerged in China in late December 2019 and which was largely restricted to China till January 2020, has now spread to more than 213 countries and territories around the world. At the end of May 2020, there were more than 60,49,099 infections globally and more than 3,67,230 deaths[1]. As the speed of infections increased exponentially, many countries implemented strict closures and lockdowns to contain the transmission, exacerbating supply chain disruptions and causing slowdown in the consumption and aggregate demand. Outbreak, which was declared a Public Health Emergency of International Concern on 30 January 2020, was characterized as pandemic on March 11, 2020. This triggered panic amongst investors, and caused widespread sell-offs in the equity markets across the globe. The stock markets hit circuit filters multiple times in many countries (including 4 times in USA and 3 times in India), as stocks witnessed wild swings. Hence this study recapitulates the facts and hits behind this global pandemic in terms of financial markets.

Key Words: *Impact of COVID-19, International Financial Markets, Economic Indicators, Stock Market Performance, Market Capitalization.*

INTRODUCTION

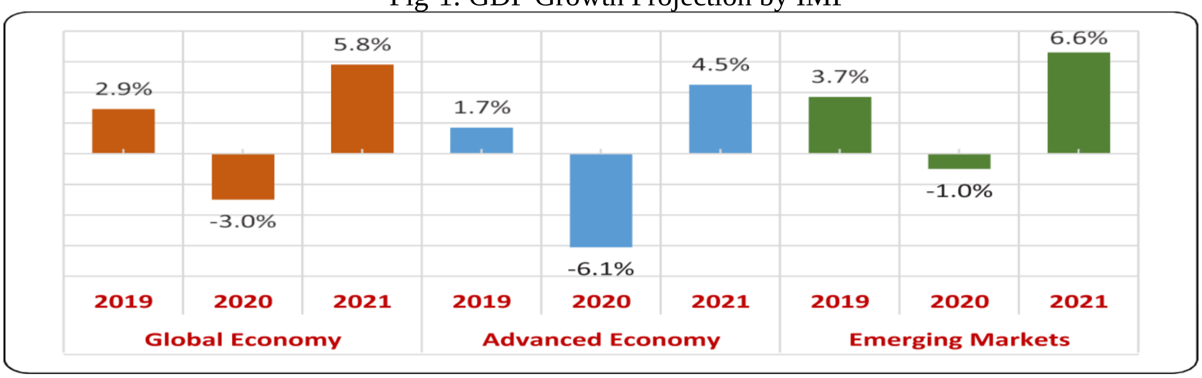
The financial markets witnessed an unprecedented volatility across the globe, last seen only during the global financial crisis of 2008-09. In USA, the CBOE VIX Index jumped up from 40.1 at the end of February 2020 to 82.7 on March 16, 2020, before settling at 53.4 at the end of March 2020. The bond yields of many developed as well as emerging markets fell as recession fears grew stronger. In USA, the yield on 10-year government bond declined from 1.16 per cent in February to 67 per cent in March 2020. On the commodities front, the Crude oil prices almost halved in March 2020, amid the growing concerns over spread of the corona virus globally and on supply concerns after Saudi Arabia and Russia failed to

[1] https://www.worldometers.info/coronavirus/coronavirus-death-toll/

reach deal on cutting down on production of oil to support prices. WTI crude oil price declined by 54 per cent from US$ 44.76 at the end of February 2020 to US$ 20.48 at the end of March 2020, experiencing its deepest monthly drop since the global financial crisis starts from 2008. The OPEC Reference Basket (ORB) dropped by $21.61, or 38.9per cent, m-o-m, to stand at $33.92/b, its lowest monthly value since September 2003. In a span of a few months as lockdowns designed to contain the spread of COVID-19, economic activity dampened and commodity prices tumbled, signaling worst recession since great depression of 1930s (during which global GDP drop by 15 per cent in the span of three years) and eclipsing global financial crisis of 2008-2009 (during which global GDP drop by just by 0.1 per cent in 2009). According to OPEC, the world economy is estimate to confront a serious downturn in 2020, declining by 1.5 percent, following worldwide economic development of 2.9 percent in the earlier year. Following delicate indications of progress toward the start of the year, desires for worldwide economic growth were immediately troubled by the solid effect of the COVID-19 pandemic.

GDP GROWTH PROJECTIONS

Fig-1: GDP Growth Projection by IMF[2]



Interpretations: GDP growth of China slowed down to 6 per cent year-on-year in Q4 of 2019. In the 2019, the Chinese economy expanded by 6.1 per cent year- on-year which is expected to slow down to 1.2per cent in 2020 before recovering to strong growth of 9.2per cent in 2021, according to IMF projections.

India's GDP growth slowed down to 4.7per cent in December 2019 quarter after 5.1per cent (upwardly revised from 4.5per cent) growth in the September 2019 Quarter. India's Index of Industrial Production (IIP) rose by 4.5per cent in February 2020, highest in seven months. The capital goods and consumer durables industry declined further by 9.7per cent and 6.4per cent respectively, signaling slowdown in investment and consumer demand even prior to the lockdown. Retail inflation in India eased to 5.91per cent in March 2020, lowest in four months, especially due to lower food prices.

[2] MF's World Economic Outlook, April 2020

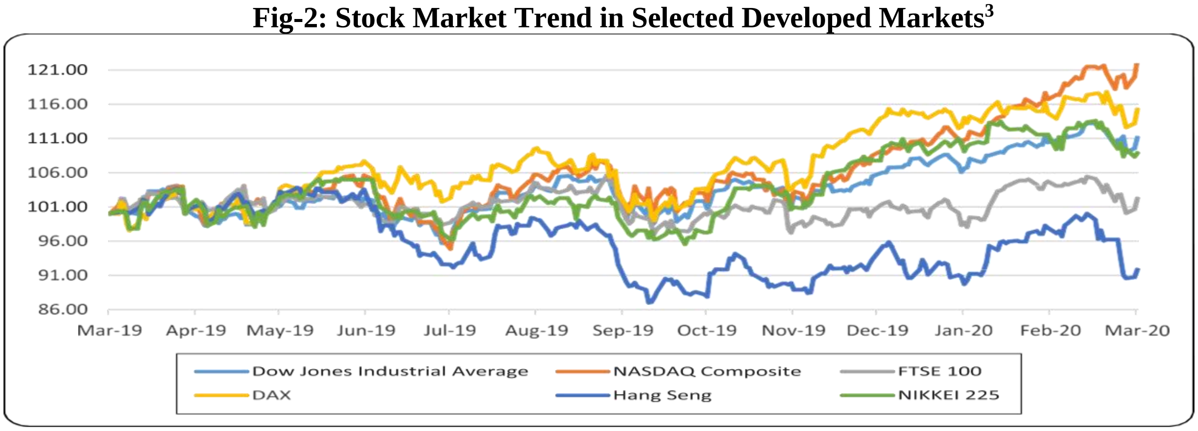
The IMF has decreased India's GDP development gauges for 2020-21 to 1.9 percent, the slowest development rate recorded since the economic reforms of 1991, from 4.8 percent estimate gave before in January 2020. The World Bank anticipates that the Indian economy should develop at 1.5 to 2.8 percent in FY21. Asian Development Bank (ADB) estimate GDP development rate to 4 percent in FY21 from 6.5 prior, referring to a feeble worldwide condition and proceeded with endeavors to contain the COVID-19 episode inside the nation.

Table 1: The summary of GDP forecasts by select multi-lateral agencies.

Organization	FY-21 (2020-21) GDP Growth Forecast
IMF	1.9% (earlier 4.8%)
World Bank	1.5-2.8% (4.8 - 5 %)
ADB	4.0% (earlier 6.5%)
Moody's	2.5% (earlier 5.3%)
S&P	2.5% (earlier 5.2%)
Fitch	2.0% (earlier 5.1%)
ICRA	2.0% (earlier 4.7-5.2%)

The Eurozone economy expanded by 0.1 percent in the last three months of 2019, the weakest since early 2013. In the 2019, the Eurozone economy expanded by 1.2 percent and is expected to contract by 7.5 per cent in 2020 before recovering to 4.7 per cent in 2021, according to IMF projections. The European Central Bank (ECB) reduces the interest rate on its Targeted Long-Term Refinancing Operations (TLTROs) - cheap loans to banks - by 25 basis points to -0.75per cent on March 12. It announced additional LTROs to support banking liquidity. Further, the ECB expanded its asset purchase program by 120 billion euros per year (on March 12) and additional 750 billion euros per year (on March 19) to the existing 240 billion euros per year asset purchase program, provisioning the total to about 1.1 trillion euros in QE program in the year 2020. Meanwhile, the European Union announced a total fiscal stimulus package worth 3.2 trillion euros for the 16 member countries.

Fig-2: Stock Market Trend in Selected Developed Markets[3]

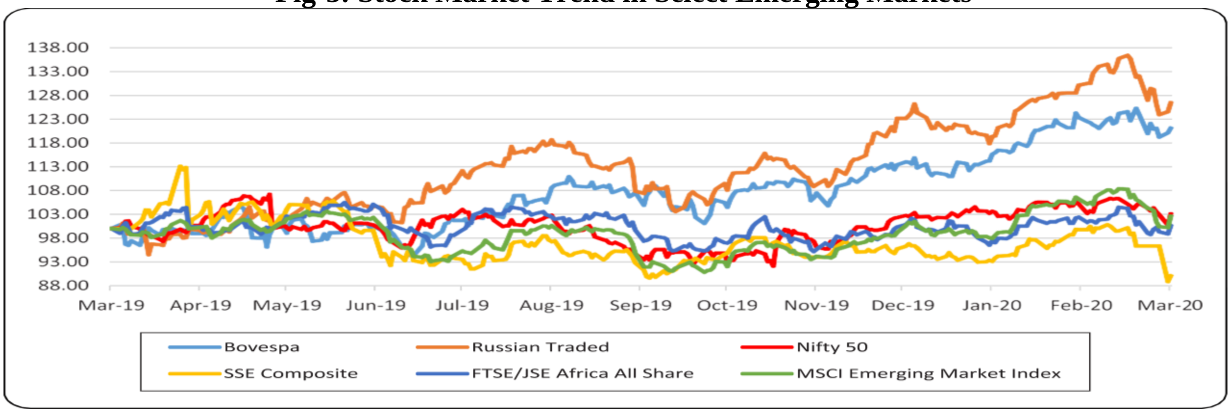


10-year bond yield showed a downward trend over the year except for Japan in developed economies (Chart 3). At Japan, it was largely flat barring a small dip during Oct-19. Among the BRIC nations (Chart 4) it showed a downward trend for all countries except China, where it was largely flat.

[3] All indices have been normalized to 100 on 28 February, 2019

U.S. Treasury yields exhibited volatile trend in the month of March. Risk aversion and fear of recession resulted into 10-year U.S. Treasury yield of below 0.6 per cent. However, investors' desperation to raise cash has forced investors to sell these treasuries resulting into higher yields. Yield curve of U.S. treasuries also steepen since the Fed has been aggressively injecting cash into the financial system, hence pushing short-term interest rates lower.

Fig-3: Stock Market Trend in Select Emerging Markets



Interpretation: As per International Monetary Fund note, both developed markets and emerging market are in recession for the first time since the great depression of 1930. For 2020, growth in advanced economies is projected to grow at -6.1 percent. Emerging market and developing economies with normal growth levels well above advanced economies are also projected to have negative growth rates of -1.0 percent in 2020. The US economy grew by 2.1 percent in Q4 of 2019, the same as in Q3 of 2019. The unemployment rate for March 2020 jumped to 4.4 percent from 3.5 percent in February 2020. The analysts and economists are predicting unemployment rate to peak around 13 per cent to 20 per cent until June 2020, as USA reported the highest ever unemployment claims for the weeks ending March 21 (3.3 million) and March 28 (6.65 million). Before March 21, the sharpest rise in unemployment claims was in 1982 when filings rose by 695,000. In the 2019, US economy grew by 2.9 percent and is expected to contract by 5.9 per cent in 2020 before recovering to 4.7 per cent in 2021, according to IMF projections.

PERFORMANCE OF STOCK MARKET INDICES

Table 2: Performance of Stock Indices

Country	Name of the Index	Closing Value as on 31-Mar-20	Closing Value before				Monthly Volatility (Annualised)	P/E Ratio
			1-Month	3-Month	6-Month	1-Year		
BRICS Nations								
Brazil	BRAZIL IBOVESPA	73019.8	104171.6	115645.3	104745.3	95415	123.7	13.6
Russia	RUSSIAN TRADED	1383.6	1856.2	2260.4	1949.7	1758.9	108	3.8
India	Nifty 50	8597.8	11201.8	12168.5	11474.5	11624	79	19.4
India	S&P BSE SENSEX	29468.5	38297.3	41253.7	38667.3	38673	81	17.8

China	SHANGHAI SE COMPOSITE	2750.3	2880.3	3050.1	2905.2	3090.8	27.1	13
South Africa	FTSE/JSE AFRICA ALL SHR	44490.3	51038.2	57084.1	54825	56463	75.1	12.6
Developed Markets								
USA	NASDAQ COMPOSITE	7700.1	8567.4	8972.6	7999.3	7729.3	90.3	48.2
USA	DOW JONES INDUS. AVG	21917.2	25409.4	28538.4	26916.8	25929	99.3	15.6
France	CAC 40	4396.1	5309.9	5978.1	5677.8	5350.5	76.9	16
Germany	DAX	9935.8	11890.4	13249	12428.1	11526	74.7	17.2
UK	FTSE 100	5672	6580.6	7542.4	7408.2	7279.2	69.5	16.3
Hong Kong	HANG SENG	23603.5	26129.9	28189.8	26092.3	29051	45.4	9.6
South Korea	KOSPI	1754.6	1987	2197.7	2063.1	2140.7	66.4	25.1
Japan	NIKKEI 225	18917	21143	23656.6	21755.8	21206	55.5	18
Singapore	STRAITS TIMES STI	2481.2	3011.1	3222.8	3120	3212.9	57.8	9.6
Taiwan	TAIWAN TAIEX	9708.1	11292.2	11997.1	10829.7	10641	47.8	15.5

Interpretations (Equity Markets): In the month of March 2020, highest annualized volatility amongst the BRICS countries was observed in Brazil (123.7), Russia (108), India Sensex (81) and India Nifty (79). The lowest annualized volatility was observed among BRICS was in China (27.1). Among the developed markets lowest annualized volatility was observed for Hong Kong (45.4) and the highest was observed at USA Dow Jones (99.3). Highest monthly fall in securities market during March was observed for Brazil Ibovespa (-29.30) followed by Russia (-25.46 per cent), India (-23.25 Nifty, -23.05 Sensex per cent). The lowest monthly decline was observed in Shanghai Composite (-4.51 per cent). Among the developed economies, in the month of March, highest decline was observed in Singapore STI (-17.60 per cent) followed by CAC 40(-17.21 per cent) and DAX (-16.44 per cent). The S&P 500 lost 12.5per cent in the month of March 2020. It went to a low of 2,191, 35.4per cent below its all-time high set in mid-February. The circuit breaker was triggered four times, and the VIX index, reflecting market volatility, hit its all-time high of 82.7. On 12 March 2020, the Dax, Dow Jones Industrial Average, Nasdaq Composite and FTSE 100 dropped 12 per cent, 10 per cent, 9.4 per cent and 11 per cent respectively as the coronavirus outbreak spread deteriorated. Other benchmark index in Europe viz CAC Index declined by 12.2 per cent.

DOMESTIC MARKET CAPITALIZATION

Table-3: Domestic Market Capitalization of Major Exchanges (USD million)

Markets	Country	Feb-20	Mar-20	% Change MoM
Developed Markets	USA	31,494	27,474	-13%
	UK	2,899	2,322	-20%
	Germany	2,015	1,685	-16%
	France	651	506	-22%
	Japan	5,522	5,175	-6%
	Singapore	443	355	-20%

	Hong Kong	5,194	4,764	-8%
	South Korea	1,250	1,102	-12%
	Australia	1,202	919	-24%
BRICS	Brazil	903	575	-36%
	Russia	637	469	-26%
	India	1,994	1,486	-25%
	China	7,464	6,952	-7%
	South Africa	346	246	-29%

Source: World Federation of Exchanges

Interpretations: All the analyzed markets including developed markets and BRICS showed a decline in market capitalization in the month of March 2020 as compared to February 2020. Among the developed markets maximum decline was observed in Australia (24 per cent) followed by France (22 per cent), UK (20 per cent) and Singapore (20 per cent) in March 2020 as compared to February 2020. Among BRICS nations maximum decline was observed in Brazil's market capitalization (36 per cent), followed by S. Africa (29 per cent) and Russia 26 (per cent). India's market capitalization declined by 25 per cent and China's market capitalization declined by 7 per cent during March 2020, Some of the major exchanges fund mobilization has slowly stopped in Jan-20 and except few exchanges, all other major exchanges have lost the fund mobilization during Mar020 and gives the halt for the international security market as we have seen in the above table-3.

FUND MOBILIZATION THROUGH EQUITY AND BOND IN MAJOR EXCHANGES

Table -4: Fund Mobilization by issuance of Equity and Bond in Major Exchanges (US$ Million)

Month	**Jan-20**			**Feb-20**		
Exchange Name	**Bond**	**Equity**	**Total**	**Bond**	**Equity**	**Total**
B3 - Brasil Bolsa Balcão	0	51	51	NA	NA	0
Nasdaq – US	0	0	0	0	0	0
NYSE	0	0	0	NA	NA	0
ASX Australian Securities Exch	NA	NA	0	NA	NA	0
Hong Kong Exchanges	NA	NA	0	NA	NA	0
Japan Exchange Group	4,482	294	4,775	0	0	0
Korea Exchange	44,819	18	44,836	56,988	0	56,988
National Stock Exchange of India	48,907	3,023	51,930	30,111	4	30,115
Shanghai Stock Exchange	0	8,995	8,995	0	4,360	4,360
Shenzhen Stock Exchange	32,202	5,335	37,536	4,471	3,787	8,258
Singapore Exchange	36,792	12	36,803	54,882	68	54,950
BME Spanish Exchanges	45,680	891	46,571	0	0	0
Deutsche Boerse AG	33,989	0	33,989	NA	NA	0
Euronext	0	2,623	2,623	NA	NA	0
Johannesburg Stock Exchange	4,626	81	4,707	3,534	767	4,301
LSE Group	55,082	497	55,579	51,442	781	52,223

Moscow Exchange	22,797	0	22,797	NA	NA	0
Grand Total	**3,29,373**	**21,820**	**3,51,193**	**2,01,428**	**9,767**	**2,11,195**
Source: World Federation of Exchanges						

Interpretations: There was a 40 per cent reduction in the fund mobilization by the selected exchanges world-wide during Feb-20 (at 2,11,195 million USD) against Jan-20 (at 3,51,193 million USD) for the analyzed exchanges world over. Only 5 per cent of the total fund mobilization in Feb 2020 was in equity and remaining was in debt. As per the WFE data, maximum amount mobilized through equities and bonds in February 2020 was by Korea Exchange (56,988 million USD) followed by Singapore (54,950 million USD) and LSE Group (52,223 million USD). At Korean Stock Exchange, the entire amount mobilized in February 2020 is through bonds only whereas in Singapore Exchange and LSE group equity comprises of 68 million and 781 million USD respectively. Maximum fund mobilization through equities is by Shanghai S.E. (4,360 million USD) and Shenzhen S.E. 3,787 million USD).

CONCLUSION

Quickening combination and globalization in Financial Market Fostered by Liberalization of business sectors, Rapid innovative advancement, significant advances in telecommunications, made new venture and financing open doors for organizations and individuals, simpler access to worldwide financial markets lead to an increasingly proficient allocation of capital, promote economic growth and success, expanded securitization, prodded by the surge in mergers and acquisitions and leveraged buy-outs, increment in corporate bond issuance, decreasing gracefully of government securities in numerous nations, especially in the United States and proceeded with extension of derivatives markets and procedure of integration in European financial markets agreed with the pattern towards globalization. In January 1999, remote trade and interbank markets quickly switched over to the euro. The circumstance is described by frail economic condition, low liquidity and consistently changing debt market. The year 2008-2009 ended up being a year hard it by worldwide financial emergency. It set off a chain response of economic, financial and psychological emergency in whole globe. The financial emergency, however began in the primary quarter of 2006, accumulated energy just in September 2008 when one of the greatest American venture bank, Lehman Brothers fallen. September 2009 denoted the principal commemoration of worldwide financial emergency. Today world is confronting the most noticeably awful financial emergency ever since the time the great depression of 1929. It infers unexpected disintegration of a huge piece of the estimation of some financial foundations or financial assets. It alludes to lost trust in a nation currency or other financial assets making international investors to pull back their funds from the nation. It is characterized as a circumstance wherein the supply of money is outpaced by demand for money. This implies liquidity is immediately dissipated on the grounds that accessible cash is pulled back from banks (called a run) driving banks to offer different ventures to compensate for the deficit or to crumple. It prompts a sharp disintegration of a group of financial indicators. Hence, large amount of economic easing packages to the organizations and individuals helps to spend more and refurbish the economy as well.

REFERENCE

1) *Bollen, N. P. B. And Whaley, R. E., 2004, Does Net Buying Pressure Affect the Shape of Implied Volatility Functions? The Journal of Finance, Vol. 59, No. 2, pp. 711-753*

2) *Govindasamy,P., Premraj,H., Kalainesan. (2020). CASE ANALYSIS ON CONSTRUCTING AND ADMONISHING FINANCIAL PORTFOLIOS AND INVESTMENT STRATEGIES. Adalya Journal ISSN: 1301-2746. Vol: 9, Issue: 4, April-2020, pp.699-706. https://drive.google.com/file/d/17uQLQAsoKLPD5kkzB9-ybBCIVdAs5w88/view*
3) *Ashutosh Vashistha and Satish Kumar (2010), "Development of Financial Derivatives Market in India-A Case Study ", International Research Journal of Finance and economics, Issue 37*
4) *Govindasamy,P., Premraj, Ravimohan, (2020). Au courant Households Investments Planning And Execution Modeling. WAFFEN-UND KOSTUMKUNDE JOURNAL. ISSN:0042-9945, Vol:XI, Issue: IV, pp.267-272, April-2020, http://www.druckhaus-hofmann.de/gallery/29-wj-april-2209.pdf*
5) *Michael L. Hemler and Thomas W. Miller (2015),"The Performance of Options-Based Investment Strategies: Evidence for Individual Stocks During 2003–2012*
6) *Govindasamy,P., Premraj.H., (2019). An Analytical Study on Financial Study on Financial Planning and Strategy Formulation. Restaurant Business, Vol:15, pp.28-34. https://journals.eduindex.org/index.php/rb/article/view/7922*
7) *Tom Preston (2008), "Vertical spreads and Time decay", Winning options, Equities, Equities magazine, March 2008*
8) *Govindasamy,P., et.al. (2019). Economic Environment and Investment Climatic Conditions – an empirical study. International Journal of Research in Engineering IT & Social Sciences, 9, 2, pp.9-16. http://indusedu.org/pdfs/IJREISS/IJREISS_2657_93946.pdf*
9) *Govindasamy,P., et.al., (2020). Exhilarating Challenges of Rural Credit and Microfinance Modeling. Mukt Shabd Journal. Vol.IX, Issue.IV., pp.211-218. http://shabdbooks.com/gallery/22.pdf*
10) *Govindasamy,P. Viswanathan,E. (2015). Study on Investors Attitude towards Mutual Fund with Special Reference to Sharekhan Ltd, Chennai. HCTL Open International Journal of Technology Innovations and Research, e-ISSN:2321-1814, pp.1-11. July-2015. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.695.5283&rep=rep1&type=pdf*
11) *Viswanathan,E. et.al. (2017). The impact of retail investors behaviour on equity shares in Chennai city – An empirical study. Emperor International Journal of Finance and Management Research ISSN No.2395-5929, 3, 2, pp.33-46. http://www.eijfmr.com/2017/feb_2017/Feb-2017-05.pdf*
12) *Govindasamy,P. Viswanathan,E. Gunaseakar,K. (2018). Price volatility of the gold commodity using technical analysis with reference to Rayalaseema Bullion Commtrade Pvt Ltd, Chennai City – An analytical Study. International Journal of Mechanical and Production Engineering and Research and Development, pp.423-440, http://www.tjprc.org/download-coference_files.php?fname=9e3cfc48eccf81a0d57663e129aef3cb*
13) *Govindasam,P. Kalainesan, N. (2020). Options pricing under multiple sources of uncertainity - case analysis. PURAKALA Journal, ISSN: 0971-2143. Vol.31, Issue.18, pp.341-351. https://www.purakala.com/index.php/0971-2143/article/view/1000/905*
14) *Govindasamy,P. Ramakrishnan,P.R. (2020). MARKET MOVEMENTS OF EQUITY AND CURRENCY DERIVATIVES – AN EMPIRICAL ANALYSIS. UGC Care Group-I: Alochana Chakra Journal ISSN: 2231-3990. Vol:IX, Issue: IV., April-2020, pp.3166-3171. http://www.alochanachakra.in/gallery/353-acj-april-1480.pdf*
15) *Govindasamy,P. Chitra,V. (2020). DATA MODELING OF OPTIONS TRADING IN THE*

CONTEXT OF BUYERS AND SELLERS., International Journal of Disaster Recovery and Business Continuity, ISSN:2005-4289, Vol:11 No.1 (2020) pp.1446-1454, http://sersc.org/journals/index.php/IJDRBC/article/view/19354

16) "Contemporary Contemplation on Integrated Global Financial Climate", International Journal of Recent Technology and Engineering, 2019
17) "Quarterly Chronicle and Documentation (July–September 2004)", The China Quarterly, 2005
18) www.usnews.com
19) www.researchsquare.com
20) www.jklakshmicement.com
21) www.instaforex.com
22) www.gurufocus.com
23) www.eurasiareview.com
24) www.tiede.fi