LIST OF REFERENCES

Adrangi, B(2003), Inflation Economic activity, hedging: The case of gold, and silver investments, Gold price modeling using system dynamics, *The journal of wealth management* 6.

Baguley, T.,(2012), Serious Stats: A guide to advanced statistics for the behavioral Sciences, *Palgrace Macmillan*, pp 402.

Banumathy, K., Azhagaiah, R. (2015), Long- run and short-run causality between stock price and gold price: Evidence of VECM analysis from India, *Management studies and Economics Systems (MSES).*-1(4), 247-256.

Bilal, A.R., Talib, N.B.A., Haq I.U., Khan, M.N. and Naveed, A.A., (2013), How gold prices correspondence to stock index: A comparative analysis of Karachi stock exchange and Bombay stock exchange, *World Applied Sciences* 21(4) pp 1818-4952.

Bisgaard, S. and Kulahci, M. (2011), Time series analysis and forecasting by example, *Wiley and Sons, Inc.*

Bishnoi, R. and Lan, J. (2014), An empirical analysis of factors affecting gold prices, *IJHPD 3*, *No.*2.

Capie, F., Terence, C.M. and Wood, G. (2015), Gold as a hedge against the dollar, *International Financial Markets, Institution and Money 15, 343*.

Cochrane, J.H.(1997), Time series for macroeconomics and finance, *Graduate School of Business, University of Chicago*.

Deshmukh, R.B. and Pawar, D.D.(2017), Prediction of gold prices using time series analysis, *Bulletin of Mathematics and Statistics research*, A peer reviewed international research journal Vol.5, Issue 1, 40-44.

Dhanalakshmi, P.M. and Reddy, R.R.S.(2016), An analytical study on forecasting model with special attention to gold price, *International Journal of Advanced Research, Ideas and Innovations in Technology, Volume 2, Issue 3*.

Sepanek, E., How these 10 factors regularly influence on gold prices, www.sbcgold.cm/blog/10-factors-regularly-influence-gold-prices/(2014).

Gangopadhyay, K. Jangir, A. and Sensarma, R. (2015), Forecasting the price of gold; an error correction approach, *IIMB Management Review*.

Guha, B. and Bandyopadhyay, G.(2016), Gold price forecasting using arima model, *Advanced Management Science 4*, No.2, 117.

Hipel, K.W. and Mcleod, A.I. (1994), Time series modeling of water resources and environmental systems, *Amsterdam, Elsevier*.

Ibrahim, S.N., Kamaruddin, N.I. and Hasan, R. (2014), The determinants of gold prices in Malaysia, *Journal of Advanced Managment Science*, Vol. 2, No.1.

Ismail, Z., Yahya, A. and Shabri,(2009), Forecasting gold prices using multiple linear regression method, *American Journal of Applied Sciences 6*, *No.8*, *1509*.

Khan, M.M.A.(2013), Forecasting of gold prices (box jenkins approach), *International Journal of Emerging Technology and Advanced Engineering 3*, pp 662-670.

Kirkemo, H., Newman, W.L. and Ashley, R.P., A brief history of gold uses, prospecting, mining and production, *Republished from a USGS general interest publication*(2005-2017).

Kumari, K.W.S.N. and Tan, A.(2014), Modeling volatity series: with reference to gold price, *Proceedings of the Peradeniya Univ, International Research Sessions, Sri Lanka 18*, pp 391.

Mombeini, H. and Chamzini, A.Y. (2015), Modeling gold price via artificial neural network, *Journal of Economics, Business and Management, Vol.3, No.7*.

Montgomery, D.C., Jennings, C.L. and Kulahci, M. (2015), Introduction to time series analysis and forecasting, *Wiley and Sons, Inc.*

Moore, G. H. (1990), Gold prices and a leading index of inflation, Challenge 33 3, No.7

Nair, G. K., Choudhary, N. and Purohit, H. (2015), The relationship between gold prices and exchange value of us dollar in India, *Emerging Markets Journal 5, No.1*.

Navin and Vadivu, G.(2015), Big data analytics for gold price forecasting based on decision tree algorithm and support vector regression(SVR), *International Journal of Science and Research(IJSR)*, *Volume 4*, *Issue 3*.

Pitigalaarachchi, P.A.A.C., Jayasundara, D.D.M. and Chandarasekara, N.V.(2015), Forecasting Sri Lankan gold prices using time series analysis, Proceedings of the Peradeniya University International Research sessions, Sri Lanka, Volume 19.

Poonam, B. and Sharma, B.(2014), Impact of crude oil and us dollar on gold prices in India, *Asia Pacific journal of Research*, 60-66, Vol:1, Issue XV.

Prakash, P. and Sundararajan, S. (2014), An empirical analysis on the relationship between gold and silver with special reference to the national level commodity exchanges India.

Shafiee, S. and Topal, E. (2010), An overview of global gold market and gold price forecasting, *Resources Policy 35*, 178-189.

Sherman, E. J. (1983), A gold pricing model, Journal of portfolio management 9.

Simakova, J. (2011), Analysis of the relationship between oil and gold prices, *pp 651-662*.

Sindhu (2013), A study on impact of select factors on the price of gold, *IOSR Journal* of Business and Management (IOSR-JBM) 8, PP 84-93.

Jadhav, S., Kakade, S, Utpat, K. and Deshpande, H.(2015), Indian share market fore-casting with arima model, *International Journal of Advanced Research in Computer and Communication Engineering*, Vol.4, Issue 11.

Sparks, J.J. and Yurova, Y.V. Comparative performance of arima and ARCH/GARCH models on time series of daily equity prices for large companies.

Tharmmaphornphilas, W., Lohasiriwat, H. and Vannasetta, P.(2012), Gold price modeling using system dynamics, *Engineering Journal 16*, *Issue.5*.

Tripathi, L.K., Parashar, A. and Singh, R. (2014), Global factors and gold price in India causal study, *International Journal of Advanced Research in Management and Social Sciences 3, No.7.*

Woodward, W.A., Gray, H.L. and Elliott, A.C. (2003), Applied time series analysis, *Pearson Education Pte, Ltd. Indian Branch*.

Perera, W.T.K, Impact of Petroleum Prices on Inflation in Sri Lanka, Staff Study, Central Bank of Sri Lanka.

Yaffee, R.A. and Mc Gee, M.(2003), Introduction to time series analysis and forecasting, with applications of SAS and SPSS, *Academic Press, INC*.

Appendix A

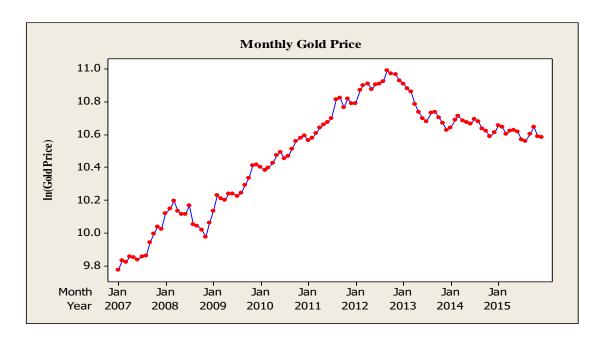


Figure A1: Log value of monthly gold price

ncluded observations: 104 Q-statistic probabilities adjusted for 2 ARMA term(s)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.181	0.181	3.5024	
10 1	'[] '	2 -0.074	-0.111	4.0983	Latification.
1 1		3 -0.021	0.015	4.1448	0.042
1 1		4 -0.024	-0.033	4.2095	0.122
ı b ı		5 0.139	0.156	6.3669	0.095
· 🗖		6 0.199	0.144	10.806	0.029
1 j i 1		7 0.055	0.018	11.151	0.048
1 0 1	'['	8 -0.100	-0.092	12.303	0.056
10 1	1 1	9 -0.054	-0.008	12.644	0.081
1 j a 1		10 0.071	0.065	13.229	0.104
ı 🗀 ı	<u> </u>	11 0.145	0.086	15.732	0.073
1 j i 1		12 0.046	-0.030	15.991	0.100
' ['	'd '	13 -0.117	-0.110	17.650	0.090
10 1		14 -0.079	-0.003	18.410	0.104
1 1		15 0.001	0.014	18.411	0.143
1 b 1		16 0.076	0.028	19.136	0.160
1 b 1		17 0.072	-0.003	19.787	0.180

Figure A2: Correlogram of D[GOLD PRICE]

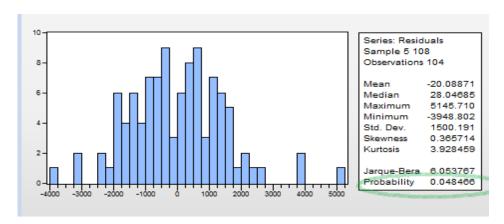


Figure A3: The histogram of residuals of *D*[*GOLD PRICE*]

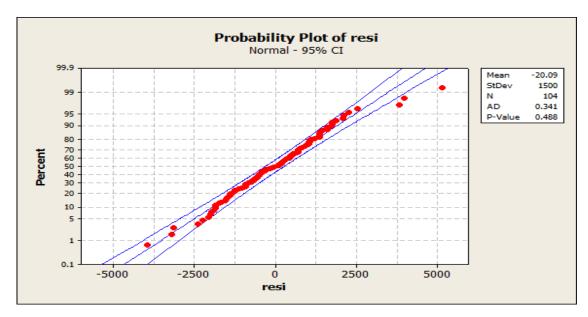


Figure A4: Normal probability plot of residuals of *D*[*GOLD PRICE*]

Sample: 4 108 Included observations: 105 Q-statistic probabilities adjusted for 2 ARMA term(s)

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.199	0.199	4.2728	
10 1	101	2 -0.068	-0.112	4.7814	A COLUMN TO A STATE OF THE PARTY.
10 1		3 -0.080	-0.044	5.4789	0.019
1 1	1 1	4 -0.014	0.005	5.5012	0.064
ı b ı		5 0.111	0.107	6.8748	0.076
ı 🛅 ı		6 0.124	0.079	8.6256	0.071
1 1		7 -0.013	-0.042	8.6439	0.124
10 1		8 -0.096	-0.062	9.7178	0.137
1 (1	1 1	9 -0.027	0.016	9.8041	0.200
1 j i 1		10 0.070	0.055	10.383	0.239
· 🗀		11 0.195	0.152	14.912	0.093
1 1	101	12 0.002	-0.074	14.913	0.135
' <u> </u> '	101	13 -0.132	-0.081	17.046	0.107
10 1		14 -0.057	0.014	17.454	0.133
ı <u>b</u> ı		15 0.099	0.099	18.685	0.133
' þ i		16 0.124	0.035	20.632	0.111

Figure A5: Correlogram of *D*[*Ln*[*GOLD PRICE*]]- Model 1

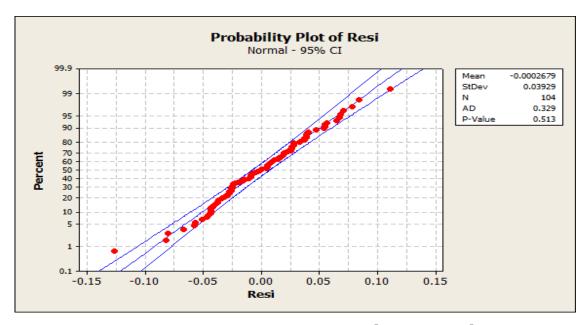


Figure A6: Normal probability plot of residuals of $D[Ln[GOLD\ PRICE]]$ -Model 1

Appendix B

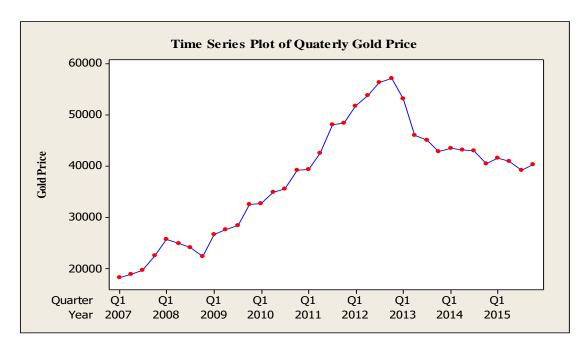


Figure:B1 Time Series plot of quarterly gold price from 2007, January to 2015, December

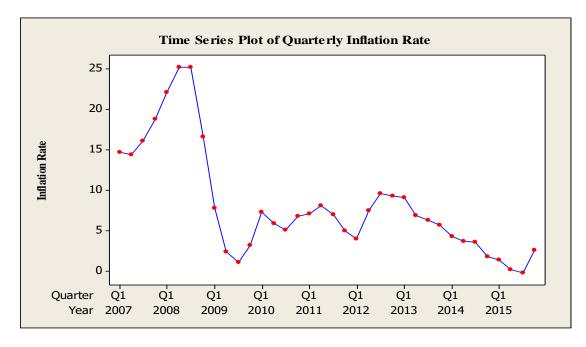


Figure:B2 Time Series plot of quarterly of inflation rate from 2007, January to 2015, December

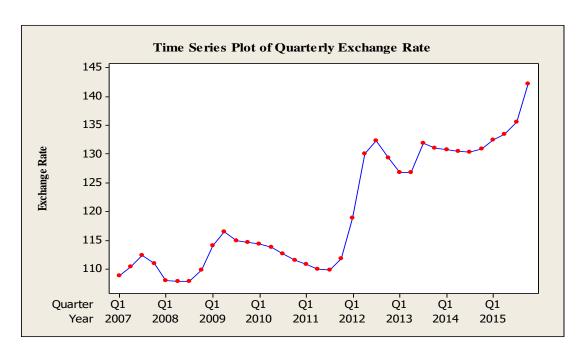


Figure:B3 Time Series plot of quarter values of exchange rate from 2007, January to 2015, December

Variable	Coefficient	Std. Error	d. Error t-Statistic		
C EX IR	-19731.58 504.9510 -414.7010	22630.05 176.5174 272.3866	-0.871920 2.860629 -1.522472	0.3896 0.0073 0.1374	
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.422910 0.387935 8717.890 2.51E+09 -376.1484 12.09173 0.000115	Mean depende S.D. depende Akaike info cr Schwarz crite Hannan-Quin Durbin-Watso	37515.66 11143.27 21.06380 21.19576 21.10985 0.136598		

Figure:B4 Regression model results for quarterly values of three variables

Appendix C

Critical Values of the Durbin-Watson Statistic

	Probability in		k = Number of Regressors (Excluding the Intercept)								
Sample (S	Lower Tail (Significance	1		2		3		4		5	
	Level = α)	$d_{\rm L}$	d_{U}	$d_{\rm L}$	d_{U}	$d_{ m L}$	d_{U}	$d_{\rm L}$	d_{U}	$d_{\mathbb{L}}$	$d_{\mathbb{U}}$
	0.01	0.81	1.07	0.70	1.25	0.59	1.46	0.49	1.70	0.39	1.96
15	0.025	0.95	1.23	0.83	1.40	0.71	1.61	0.59	1.84	0.48	2.09
	0.05	1.08	1.36	0.95	1.54	0.82	1.75	0.69	1.97	0.56	2.21
	0.01	0.95	1.15	0.86	1.27	0.77	1.41	0.63	1.57	0.60	1.74
20	0.025	1.08	1.28	0.99	1.41	0.89	1.55	0.79	1.70	0.70	1.87
	0.05	1.20	1.41	1.10	1.54	1.00	1.68	0.90	1.83	0.79	1.99
	0.01	1.05	1.21	0.98	1.30	0.90	1.41	0.83	1.52	0.75	1.65
25	0.025	1.13	1.34	1.10	1.43	1.02	1.54	0.94	1.65	0.86	1.77
	0.05	1.20	1.45	1.21	1.55	1.12	1.66	1.04	1.77	0.95	1.89
	0.01	1.13	1.26	1.07	1.34	1.01	1.42	0.94	1.51	0.88	1.61
30	0.025	1.25	1.38	1.18	1.46	1.12	1.54	1.05	1.63	0.98	1.73
	0.05	1.35	1.49	1.28	1.57	1.21	1.65	1.14	1.74	1.07	1.83
	0.01	1.25	1.34	1.20	1.40	1.15	1.46	1.10	1.52	1.05	1.58
40	0.025	1.35	1.45	1.30	1.51	1.25	1.57	1.20	1.63	1.15	1.69
	0.05	1.44	1.54	1.39	1.60	1.34	1.66	1.29	1.72	1.23	1.79
50	0.01	1.32	1.40	1.28	1.45	1.24	1.49	1.20	1.54	1.16	1.59
	0.025	1.42	1.50	1.38	1.54	1.34	1.59	1.30	1.64	1.26	1.69
	0.05	1.50	1.59	1.46	1.63	1.42	1.67	1.38	1.72	1.34	1.77
60	0.01	1.38	1.45	1.35	1.48	1.32	1.52	1.28	1.56	1.25	1.60
	0.025	1.47	1.54	1.44	1.57	1.40	1.61	1.37	1.65	1.33	1.69
	0.05	1.55	1.62	1.51	1.65	1.48	1.69	1.44	1.73	1.41	1.77
80	0.01	1.47	1.52	1.44	1.54	1.42	1.57	1.39	1.60	1.36	1.62
	0.025	1.54	1.59	1.52	1.62	1.49	1.65	1.47	1.67	1.44	1.70
	0.05	1.61	1.66	1.59	1.69	1.56	1.72	1.53	1.74	1.51	1.77
	0.01	1.52	1.56	1.50	1.58	1.48	1.60	1.45	1.63	1.44	1.65
100	0.025	1.59	1.63	1.57	1.65	1.55	1.67	1.53	1.70	1.51	1.72
	0.05	1.65	1.69	1.63	1.72	1.61	1.74	1.59	1.76	1.57	1.78