

STRATEGIC EVALUATION OF MACROECONOMIC PERFORMANCE OF USA: 1929-2008

Nurul Mohammad Zayed, Daffodil International University

Md Kamruzzaman, Daffodil International University

Fahmida Emran Mumu, Daffodil International University

K.B.M. Rajibul Hasan, Agrani Bank Limited

Md. Sariful Islam, Daffodil International University

ABSTRACT

This paper addressed strategic evaluation of macroeconomic variables regarding federal budget, consumer pricing index, inflation, net export, real GDP and unemployment rate by employing Augmented Dickey Fuller (ADF) test, Johansen Long Run Co integration test and Vector Error Correction Model (VECM) during 1929-2008 in USA. This study found a long run correlation among these variables where real GDP is the dependent variable and other variables are independent variables. Health services, educational services, employment rate, inflation rate, economic efficiency and trading performance are key variables to improve the macroeconomic performances of USA.

Keywords: Augmented Dicky Fuller (ADF), Johansen Test, VECM Test, Macroeconomic Performance, Inflation and Unemployment Rate.

INTRODUCTION

Personal Income Distribution (PID) is the key microeconomic model in USA. Work experience and size of earning money are given priority in determining the macroeconomic performance in USA in two mutually exclusive regimes. Money earning along with its production are main determinants of this model and the assumption is there is no fundamental differences between these two factors in this model. As there is no differences, earning of a person is equal to money produces from goods or services precisely by a person whereas PID is fixed regarding duration of several years. The purpose of macroeconomic policies is to exploits the level of nationwide income, giving the economic growth to move up the utility and standard of living of contributors in the economy. Secondary objectives of this manuscript are which are held to guide the maximization of income over the extensive period. Though these objectives widely vary among national and international entities, but mostly these are sustainability of growth rate, ensuring the full employment, stability of the price level, equilibrium in the external balance (balance of payments), and increasing productivity.

LITERATURE REVIEW

Barrell et al. (2009) estimated the impressions on costs can be seen as a higher jump as the makeup of portfolios and relative prices may change if regulations considerably enhance liquidity requirements and capital. They indicate the Macroeconomic Assessment Group (MAG) envisages the macroeconomic costs of this transition, but not its profits. Cline (2016) studied first

enumerates frequency of banking crises and expected costs, paying special concentration to avoiding exaggeration of recession losses if the economy has an indefensible positive output gap prior to the crisis. Covas & Driscoll (2013) considered the macroeconomic impact of begins a minimum liquidity standard for banks on peak of accessible capital sufficiency requirements in a dynamic all-purpose equilibrium model. They calibrated this paper that vibrant general equilibrium model in which banks are topic to both liquidity regulations and capital. Repullo & Saurina (2011) showed that the correlation between generally the negative GDP growth rate and the credit-to-GDP gap which means when GDP growth is high then the credit-to-GDP gap would be inclined to signal to reduce capital requirements and when GDP growth is low that capital requirements is increased. Bourguignon & Morrisson (1998) studied to the old strand of literature on the experiential approach to the relationship between inequality, development-related macroeconomic variables and as observed in microeconomic data. They contrast with, more standard cross-sectional illustrative variables like education or GDP per capita, the part of which looks to have become less significant over time. Bourguignon et al. (1989) presented a macro simulation replica to quantify the outcomes of stabilization communications on the allocation of income as well as wealth. It's a model of macro-micro since it merges macroeconomic features with the microeconomic optimizing actions qualitative of computable universal equilibrium models. Dollarand & Gatti (1999) found that the data is quite strong that enlarges in per capita income lead to decreases in gender inequality. They found the result is that there is well-built and dependable evidence that increases in per capita income guide to developments in different events of gender equality. Kiyotaki & Moore (1997) implicated taken the position that debt contract be capable of freely traded by creditors-because the worth of a debt contract equals the worth of the land, collateral, which is fees in a market. They construct a model of a dynamic economy in which credit constraints take place obviously. Abramitzky (2015) discussed how the study of the precedent has added to economics by giving ground to test economic theory, understand economic mechanisms, answer big economic questions and pick up economic policy. Lindbeck (1983) showed how macroeconomic disturbances and policies during the seventies-partly induced by the dramatic price increases of oil and raw materials - helped to bring about an abrupt slowdown of productivity growth.

OBJECTIVES

The objectives of this research is to evaluate the macroeconomic performance of USA during 1929-2008 by applying Johansen test, ADF test & VECM model and to analyze the long run relationship among federal budget, consumer pricing index, inflation, net export, real GDP and unemployment rate of USA. This paper also comes up with few strategic recommendations to improve the macroeconomic conditions of USA during the analyzed period.

METHODOLOGY

The paper is qualitative in nature whereas data is quantitative. Secondary data, which has been collected from different sources, has been used. ADF test has been applied to test the stationary state of the data set. Johansen test has been used test the long run relationship among the variables. Finally, VECM has been applied to test stability of the relationship among the variables.

RESULTS & DISCUSSIONS

From Table 1 Augmented Dicky Fuller (ADF) unit root test, it can be said that all these USA macroeconomics variables are stationary. By testing Johansen Test for Con-integrating (Table 2) it has been estimated that at least there has 1 co integrating equation in this model, Trace statistic and Max-Eigen Statistics also support this co-integrating equation. From Table 3, it is very clear that the relationship among all those macroeconomic variables were not stable during 1976-2017. From R-squared value it is worth of saying that the data sets is relatively good for this work. Here real exchange can be explained properly because F-Statistic is robust enough at 5%.

Variable	C (constant) AND T (trend) in the equation	ADF statistics	Optimum lag
g	C & T	-0.382329	0
b	C & T	-1.205164	9
c	C & T	0.839211	2
i	C & T	-2.541723	2
exp	C & T	0.00653	0
un	C & T	0.07085	2

Sources: Estimated.

Hypothesized No. of CE(s)	Trace statistic	Critical Value (0.05)	Eigen value	Hypothesized No. of CE (s)	Max-Eigen Statistics	Critical Value (0.05)	P-value
None *	221.907	95.753	0.94	None *	123.885	40.077	0
At most 1	98.021	69.818	0.724	At most 1	56.658	33.876	0
At most 2	41.363	47.856	0.423	At most 2	24.217	27.584	0.177
At most 3	17.145	29.797	0.187	At most 3	9.14	21.131	0.629
At most 4	8.005	15.494	0.131	At most 4	6.225	14.264	0.464
At most 5	1.78	3.841	0.039	At most 5	1.78	3.841	0.182

Sources: Estimated.

Resource allocation is major concern in microeconomics. Government always shapes regulation and taxes in this regard. Price levels are determines with the interaction of demand and supply in the economy (Barrell et al., 2009). Production and capacity should be maximized in this regard by any organization. On the other hand, macroeconomic performance is evaluated on the whole economy, where it's affected by growth rate, unemployment, price level, national income and GDP, rather than focusing in particular industry. In this research, the macroeconomic performance of USA was also affected by federal budget, consumer pricing index, inflation, net export, real GDP and unemployment rate during the analyzed period (Cline, 2016).

Variable	Coefficient	Standard Error	t-value			
Constant	6.047	0.913	6.621			
D(CPI(-1))	0.281	0.311	0.904			
D(CPI(-2))	-0.697	0.333	-2.093			
D(FEDERAL_BUDGET(-1))	-0.005	0.004	-1.379			
D(FEDERAL_BUDGET(-2))	0.006	0.004	1.484			
D(INFLATION(-1))	-0.581	0.297	-1.959			
D(INFLATION(-2))	-0.255	0.15	-1.698			
D(NET_EXPORTS(-1))	-0.009	0.009	-0.995			
D(NET_EXPORTS(-2))	-0.006	0.009	-0.699			
D(REAL_GDP(-1))	-0.002	0.002	-1.003			
D(REAL_GDP(-2))	0.002	0.002	1.02			
D(UNEMPLOYMENT(-1))	-0.18	0.119	-1.518			
D(UNEMPLOYMENT(-2))	0.607	0.142	4.271			
	D(CPI)	D(FEDERAL_BUDGET(-1))	D(INFLATION(-1))	D(NET_EXPORTS(-1))	D(REAL_GDP(-1))	D(UNEMPLOYMENT(-1))
R-squared	0.641	0.448	0.783	0.477	0.638	0.93
Adj. R-squared	0.48	0.201	0.686752	0.243	0.469	0.899
Sum sq. resids	60.308	127076.5	44.561	34052.64	882434.2	18.651
S.E. equation	1.442	66.196	1.239	34.267	174.438	0.801
F-statistic	3.994	1.814	8.083	2.039	3.861	29.984
Log likelihood	-68.182	-232.828	-61.781	-204.515	-274.493	-43.056
Akaike AIC	3.827	11.48	3.524	10.163	13.418	2.653
Schwarz SC	4.4	12.053	4.098	10.736	13.991	3.227
Mean dependent	4.702	-10.567	0.127	-16.946	249.193	-0.265
S.D. dependent	2.001	74.071	2.214	39.397	239.544	2.532

Sources: Estimated.

CONCLUSIONS & POLICY RECOMMENDATIONS

Improvements and macroeconomic policy enhancement were ensured by USA during 1929-2008. Real GDP and its effect on living standard were the key determinants of the evaluation of macroeconomic performance of USA (Covas & Driscoll, 2013). Trading performance, economic efficiency, inflation rate and employment rate along with educational services and health services should be taken into consideration to improve the macroeconomic performances of USA (Lindbeck, 1983).

REFERENCES

- Abramitzky, R. (2015). Economics and the modern economic historian. *The Journal of Economic History*, 75(4), 1240-1251.
- Barrell, R., Davis, E. P., Fic, T., Holland, D., Kirby, S., & Liadze, I. (2009). Optimal regulation of bank capital and liquidity: how to calibrate new international standards. *FSA Occasional Paper*, 38.
- Bourguignon, F., & Morrisson, C. (1998). Inequality and development: the role of dualism. *Journal of Development Economics*, 57(2), 233-257.
- Bourguignon, F., Branson, W. H., & De Melo, J. (1989). Macroeconomic Adjustment and Income Distribution. A Macro- Micro Simulation Model (Paris: OECD Development Centre)
- Cline, W. R. (2016). Benefits and costs of higher capital requirements for banks. *Peterson Institute for International Economics Working Paper*, (16-6).
- Covas, F., & Driscoll, J. C. (2013). *The macroeconomic impact of adding liquidity regulations to bank capital regulations*. Federal Reserve Board, March.
- Dollar, D., & Gatti, R. (1999). *Gender inequality, income, and growth: are good times good for women?* (Vol. 1). Washington, DC: Development Research Group, The World Bank.
- Kiyotaki, N., & Moore, J. (1997). Credit cycles. *Journal of Political Economy*, 105(2), 211-248.
- Lindbeck, A. (1983). The recent slowdown of productivity growth. *The Economic Journal*, 93(369), 13-34.
- Repullo, R., & Saurina Salas, J. (2011). The countercyclical capital buffer of Basel III: A critical assessment.