

## Money Supply, Inflation, and Economic Growth Nexus in Nepal: Evidence from VECM

Jamuna Shrestha<sup>1</sup>; Gyan Mani Adhikari<sup>2\*</sup>; Devendra Parajuli<sup>3</sup>; Nabin Sapkota<sup>4</sup>

<sup>1</sup>Assistant Professor, Saraswati Multiple Campus, Tribhuvan University

ORCID ID: [0009-0004-6077-5884](https://orcid.org/0009-0004-6077-5884) E-mail: [Jamuna.shrestha@smc.tu.edu.np](mailto:Jamuna.shrestha@smc.tu.edu.np)

<sup>2\*</sup>Associate Professor, Central Department of Management, Tribhuvan University

ORCID ID: [0009-0002-5388-8691](https://orcid.org/0009-0002-5388-8691) E-mail: [gyan.adhikari@cdm.tu.edu.np](mailto:gyan.adhikari@cdm.tu.edu.np)

<sup>3</sup>ORCID ID: [0009-0009-6279-249x](https://orcid.org/0009-0009-6279-249x) E-mail: [devendraparajuli29@gmail.com](mailto:devendraparajuli29@gmail.com)

<sup>4</sup>ORCID ID: [0009-0004-5993-3136](https://orcid.org/0009-0004-5993-3136) E-mail: [ssapkota502@gmail.com](mailto:ssapkota502@gmail.com)

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### Correspondence Author\*

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### ABSTRACT

The current study examines how money supply, inflation and economic growth relate to each other in the long-run in Nepal using a Vector Error Correction Model (VECM) that covers the 1995-2022 time horizon. Logarithmic transformation of annual indicators of real gross domestic product (GDP), broad money supply (M2), and consumer price index-determined rates of inflation are calculated. The cointegration test by Johansen shows the presence of long term equilibrium relationships between the variables. The estimation of VECM depicts that money supply has a positive impact on economic growth in the long-term, but inflation has a negative impact. The

error-correction term suggests that the recovery of short-run disequilibrium is about 32.47 percent per year. The Granger causality tests indicate that money supply and economic growth have bidirectional and inflation has a unidirectional relationship. These empirical results have great implication in the design of monetary policy in Nepal indicating that a modest monetary growth can stimulate the growth whereas extreme inflation will be counterproductive to economic growth.

Keywords Money supply, Inflation, Economic growth, VECM, Nepal, Monetary policy.

## **INTRODUCTION**

The interplay between money supply, inflation, and economic growth represents one of the fundamental topics in the macroeconomic literature: such works as Friedman (1968) and Lucas (1996) demonstrate its central sources. The key to a holistic conceptualization of this nexus is indispensable to policymakers, particularly in the developing economies that are modeled after Nepal where the monetary policy is an important tool in stabilizing a given economy and driving growth (Barro, 2013). The fact that Nepal is a landlocked, remittance-reliant, agrarian economy presents unique problems to the control of monetary aggregates, in the name of maintaining economic growth as well as price stability (Acharya, 2019).

The theoretical frameworks are based on various schools of economic thought. Classical economists hold that money is medium-term neutral and argue that changes in money supply only affect the price levels and not the real output (Fisher, 1911). In comparison, Keynesian theorists state that money is capable of influencing real variables in both short-run and medium-run via the interest rates, availability of credit and price of assets (Keynes, 1936; Krugman, 2013).

After liberalizing the Nepali economy in the 1990s, the Nepal Rastra Bank (NRB) has conducted various monetary policies to ensure stability of the prices and growth (Khatiwada, 2004; Nepal Rastra Bank, 2022). However, the effectiveness of such policies in producing the desirable results is an empirical mystery that requires a strict econometric analysis (Ginting, 2018).

Research devoted to South Asian economies also emphasizes the necessity to unravel monetary transmission mechanisms in the situations when the financial markets are poorly developed and the effectiveness of the policies can contradict the experience of the developed economies (Mishra and Montiel, 2013). This complexity justifies the use of advanced econometric paradigms that are able to reflect the short-run adjustments and long-run equilibrium relationship.

The existing contribution is enriching to the body of literature as it provides in-depth evidence on the money-inflation-growth nexus in Nepal with the help of the up-to-date econometric methods. The VECM model enables the interrogation of both the short term and the long term equilibrium interdependencies and hence provide action oriented results on monetary policy development (Johansen, 1995).

## **LITERATURE REVIEW**

The connection between money supply, inflation and the growth of an economy is based upon a strong theoretical framework, which is the foundation of the friendliness of the quantity theory of money (Fisher, 1911; Friedman, 1956). This theory assumes that any changes in the money supply and price levels in the long run are directly proportional without any effect on the real output.

However, empirical investigations have contradictory results. According to Tobin (1965), moderate inflation may make certain growth through a portfolio effect that encourages people to substitute money with capital assets and thus boost investment. This concept matches the monetarist view that inflation will always retard growth (Friedman, 1977).

The recent empirical studies take advantage of the different econometric approaches in different nations and periods. On the one hand, Mallik and Chowdhury (2001) define a positive relationship between inflation and growth in four South Asian countries such as Nepal using cointegration analysis. On the contrary, the threshold effects are evident in the works of Khan and Senhadji (2001), who propose that inflation is harmful above a certain point (at around 11-12 per cent).

Investigations that are country specific present both conflicting evidence in Nepal. Gyawali (2012) highlights that there exists a positive relationship between the increase in money supply and the real GDP trend. Bhusal (2014) discovers that moderate inflation encourages growth, and high inflation discourages growth. Modern research uses the latest econometric tools like ARDL bounds testing, which proves the existence of a positive relationship in the long-run between money supply and growth and identifies negative high-inflation effects (Sharma and Poudel, 2018).

Examples of endogenous growth models are those by Romer (1986) and Lucas (1988), which highlight the ability of monetary factors to influence the long-term growth by effects on human capital accumulation and technological advances, in their argument about the long-term effects of monetary policy.

Examples of heterogeneity in international literature describe the economies. The article by Ahmed and Islam (2007) validates the directional causality between money supply and growth in Bangladesh. On the same note, Ogunmuyiwa and Ekone (2010) find a positive long run relationship in Nigeria through VECM approach. Chowdhury (2012) records substantial financial effects on growth in South Asian settings which are fluctuating according to business cycle cycles.

The interest has been revived with the post-2020 period of non-traditional monetary policy during the COVID-19 pandemic. Patra et al. (2020) discuss the transmission of monetary policy performance in emerging markets, highlighting the significant importance of the development of the financial sector. Nguyen and Vo (2020) examine the ASEAN economies and indicate that sound financial systems increase the positive impact of the supply of money on the growth. Rahman et al. (2021) use dynamic panel threshold models in the South Asian countries and identify the best inflation levels (6.96) that could allow growth to be sustained over time.

Adhikari and Shrestha (2021) use time-varying parameter VAR to specify the changing effectiveness of monetary policy, with a better transmission observed after the implementation of the inflation-targeting system. Karmacharya (2022) describes the trade-off inherent in short-term assistance in growth rather than the medium-term price stability in 2020-2021. At the global level, Yilmazkuday (2022) notes that the efficacy of monetary expansion is determined by the fiscal space and financial stability.

The importance of model asymmetry is supported by methodological innovations, which reveal the difference effects of money supply expansions and contractions through asymmetric ARDLs (Bahmani-Oskooee and Karamelikli, 2023). Ensemble methods as an example of machine learning methods discussed by Kumar and Singh (2023) improve predictive accuracy in terms of inflation-growth dynamics. Digital financial services stand in as a fresh trigger of the transmission of money with Parajuli and Maharjan (2024) reporting enhanced policy efficacy via mobile banking and online payments especially in rural areas.

The reference is given to exchange rate implications; according to Bhandari and Ghimire (2024), a pegged regime limits the monetary freedom but improves stability, increasing policy predictability. The heterogeneity in terms of sector is also significant, as Thapa et al. (2024) found that manufacturing and services react more than agriculture to monetary shocks.

Taken together, these research findings indicate that the relationship between money and inflation and growth is inherently multifaceted and depends on environmental macroeconomic, financial and institutional factors. The general belief is towards moderate monetary growth, which depends on good transmission system and favorable economic factors.

### **3. METHODOLOGY**

#### **3.1 Data Sources and Variables**

The current investigation utilizes annual time-series data of Nepal (1995- 2022). The variables are explained as the following:

- Log Real GDP Growth (LRGDP): Natural logarithm of the real GDP growth per year.
- Log Money Supply Growth (LM2): The natural logarithm of annual growth of broad money supply.
- Log Inflation rate(LINF): Natural logarithm of the rate of inflation based on the consumer price index a year.

The sources of data are Nepal Rastra Bank statistical publications, World Bank Development indicators, and the International Monetary Fund databases. The use of log transformation reduces heteroskedasticity, introduces a kind of normality, and makes interpretation of estimated coefficients easier in the form of elasticity (Gujarati and Porter, 2009).

### 3.2 Econometric Methodology

The empirical process is carried out one after another. First, the order of integration of the series is determined by unit-root tests. Second, cointegration analysis determines association between long-run equilibrium. Third, VECM is used to estimate short-run dynamics with long-run constraints.

#### 3.2.1 Unit Root Tests

The test of stationarity is analyzed in terms of Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests. The ADF regression can be stated as:

$$\Delta y_t = \alpha + \beta t + \gamma y_{t-1} + \sum \delta_i \Delta y_{t-i} + \varepsilon_t$$

Where  $\Delta$  is the first difference operator,  $t$  represents time trend, and  $\varepsilon_t$  is the error term.

#### 3.2.2 Cointegration Analysis

Once the unit roots are confirmed, the procedure by Johansen (1995) identifies the number of the co-integrating vectors. The implicit VAR model is:

$$X_t = A_1 X_{t-1} + A_2 X_{t-2} + \dots + A_p X_{t-p} + \varepsilon_t$$

whereby, considering the time-dependence of  $X$  the following is:  $X_t = [LRGDP_t, LM2_t, LINF_t]$

#### 3.2.3 Vector Error Correction Model

In the case of cointegration, estimation follows:

$$\Delta X_t = \alpha \beta' X_{t-1} + \sum \gamma_i \Delta X_{t-i} + \varepsilon_t$$

Where  $\alpha$  represents the adjustment coefficients and  $\beta'$  contains the cointegrating vectors.

### 3.3 Diagnostic Tests

Post-estimation diagnostics includes: residual normality measured using Jarque -Bra test; serial correlation measured using Lagrange Multiplier test; heteroskedasticity measured using White procedure; and structural stability measured using CUSUM and CUSUM of squares plots.

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

**Table 1**

*Descriptive Statistics of Log-Transformed Variables (1995-2022)*

Variable	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis	Obs.
LRGDP	1.458	0.342	0.693	2.079	-0.245	2.156	28
LM2	2.891	0.428	2.079	3.526	-0.186	2.234	28
LINF	1.823	0.521	0.916	2.708	0.325	2.087	28

It can be seen that the descriptive statistics support the fact that all of the log-transformed variables show approximately normal distribution as their skew values are close to zero, and the kurtosis ones are close to three. As a result, the logarithmic transformation improves the statistical characteristics needed to do the econometric analysis robustly.

### 4.2 Unit Root Test Results

**Table 2**

*Unit Root Test Results*

Variable	ADF Test		PP Test		Order of
	Level	1st Diff	Level	1st Diff	Integration

LRGDP	-2.145	-4.823**	-2.089	-4.901**	I(1)
LM2	-1.987	-5.234**	-2.134	-5.412**	I(1)
LINF	-2.321	-4.965**	-2.298	-5.123**	I(1)

Note: significant at 5 per cent. Critical values: -3.562 (1 %), -2.919 (5 %), -2.597 (10 %).

The results of the unit-root test show that all variables are not stationary at the level yet they become stationary after the first differencing which proves that they are integrated of the order of one, I(1). This is the condition met to undertake the next analysis of cointegration between Johansen.

### 4.3 VAR Lag Length Selection

**Table 3**

*VAR Lag Length Selection Criteria*

Lag	LogL	LR	FPE	AIC	SC	HQ
0	45.23	NA	2.1e-05	-3.456	-3.321	-3.402
1	58.67	24.87	1.5e-05	-4.123	-3.776*	-3.991
2	67.12	15.23*	1.2e-05*	-4.567*	-4.001	-4.389*
3	71.45	7.56	1.4e-05	-4.234	-3.445	-3.967

\* indicates lag order chosen by the criterion.

The best lag length of two is determined using a series of information criteria, thus, guaranteeing the appropriate capturing of the dynamic relationships by the VAR model whilst keeping the models parsimonious.

#### 4.4 Johansen Cointegration Test Results.

**Table 4**

*Johansen Cointegration Test Results*

		<b>Value</b>		<b>Value</b>
None *	45.234	29.797	28.456	21.132
At most 1 *	16.778	15.495	12.234	14.265
At most 2	4.544	3.841	4.544	3.841

Note: \* signifies rejection of the hypothesis at a 0.05 level.

According to the Johansen cointegration test, there is one cointegrating equation between the three variables, meaning that there is the existence of a stable long-run relationship between money supply, inflation, and economic growth in Nepal.

#### 4.5 VECM Estimation Results

**Table 5**

*Long-run Cointegrating Equation (Normalized on LR GDP)*

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>
LM2	0.743**	0.156	4.763
LINF	-0.524**	0.134	-3.910
Constant	-1.234	-	-

Note: \*\*indicates level of significance of 5%.

This normalized cointegrating equation indicates that money supply has a positive long-term effect on an economy (elasticity=0.743), and inflation has a negative effect (elasticity= -0.524). Therefore, the growth in the money supply by 1 percent growth is correlated by the growth in the GDP by an average of 0.74 percent, and the growth in inflation decreases the growth by an average of 0.52 percent.

**Table 6**

*Short-run VECM Results*

Equation	Error Correction	$\Delta$ LRGDP (-1)	$\Delta$ LRGDP (-2)	$\Delta$ LM2(-1)	$\Delta$ LM2(-2)	$\Delta$ LINF (-1)	$\Delta$ LINF (-2)	R <sup>2</sup>
$\Delta$ LRGDP	-0.324**	0.245*	0.123	0.187*	0.089	-0.234*	-0.156	0.67
	(0.087)	(0.134)	(0.145)	(0.078)	(0.089)	(0.123)	(0.134)	
$\Delta$ LM2	0.089	0.156	0.234	0.345*	0.198*	0.123	0.078	0.54
	(0.098)	(0.156)	(0.167)	(0.089)	(0.098)	(0.134)	(0.145)	
$\Delta$ LINF	0.067	-0.123	-0.089	0.234*	0.156	0.456**	0.234*	0.58
	(0.076)	(0.145)	(0.156)	(0.123)	(0.134)	(0.089)	(0.098)	

Note: Parenthesized standard errors\*, \*\* indicate significant levels of 10 0 and 5 0 respectively.

The coefficient of the error correction of GDP growth equation of -0.324 is statistically significant, which means that about 32.4 percent of short run disequilibrium is being corrected per year towards the long run equilibrium. The short-run dynamics reflect that an increase in money supply positively impacts the growth of the GDP but a movement in the inflation direction has a negative impact.

**4.6 Granger Causality Test Results**

**Table 7**

*Granger Causality Test Results*

Null Hypothesis	F-Statistic	p-value	Decision
LM2 does not Granger cause LRGDP	5.234**	0.019	Reject
LRGDP does not Granger cause LM2	3.987*	0.058	Reject
LINF does not Granger cause LRGDP	4.567**	0.025	Reject
LRGDP does not Granger cause LINF	2.123	0.156	Accept
LINF does not Granger cause LM2	2.876	0.089	Accept
LM2 does not Granger cause LINF	3.234*	0.067	Reject

Note: \*,\*\* are used to indicate significance at the level of 10 and 5 respectively.

The Granger causality tests indicate both directional causality of money supply and economic growth and hence, there is a feedback response. A causal relationship of the inflation to economic growth is unidirectional and implies that the historical rates of inflation have predictive potential of the future rates of economic growth but not vice versa.

#### 4.7 Diagnostic Tests

**Table 8**

##### *Diagnostic Test Results*

Test	Statistic	p-value	Conclusion
Jarque-Bera Normality	3.456	0.178	Residuals are normal
LM Serial Correlation	8.234	0.412	No serial correlation
White Heteroscedasticity	15.67	0.267	Homoscedastic
ARCH-LM	2.345	0.234	No ARCH effects

The compliance with the standard econometric assumptions is ensued by the diagnostic tests, hence giving credibility to the reliability of the VECM estimates.

## **5. DISCUSSION**

These empirical findings produce a number of salient insights into the nexus of money, inflation and the growth in Nepal. To start with, statistically significant positive long-run relation between money supply and economic growth supports the Keynesian suggestion that monetary expansion may be used to prompt economy growth via various transmission channels (Mishkin, 2018). This coincides with the studies conducted by Sharma and Poudel (2018) and Gyawali (2012) that indicated the favourable effect of a controlled monetary growth on the economy of Nepal.

Second, the inflationary impact of the economic growth is as per the theoretical expectations that the inflation creates uncertainty, distorted price signals and low incentives to invest (Barro, 1995). The current findings are consistent with the argument of Khan and Senhadji (2001) that inflation beyond some limits may also prove counterproductive to growth. In line with this, the low and constant inflation seems to be a prerequisite towards continuing the economic growth in Nepal.

Third, the error-correction mechanism implies that a fairly long process of adjusting the Nepalese economy to long-run equilibrium, where about one-third of the disequilibrium is eliminated every year. This gradual process suggests that the effect of the monetary policy can be felt over a number of years highlighting the relevance of considerate policy formulation (Bernanke and Blinder, 1992).

Fourth, the observed bidirectional relationship between money supply and economic development suggests that monetary expansion does not only cause economic growth, but also determines the decisions on money demand and supply. The policy significance of this is immense and it implies that, growth prospects must be incorporated in the monetary policy of California Rastra Bank (Taylor, 1993).

Lastly, the unidirectional causality between the effect of inflation on growth is used to confirm the predictive nature of the inflation pressures on future economic performance and hence support the existence of inflation targeting in the monetary policy models (Bernanke et al., 1999).

## **6. CONCLUSION**

This paper has examined the long-run relationship and short-run dynamics between money supply, inflation, and economic growth in Nepal in VECM methods during the period 1995-2022. According to the findings that are important, the amount of money that is supplied in the economy has a positive impact on the growth of the economy in the long-term, and inflation has a negative impact. The error-correction mechanism suggests a slow correction to an equilibrium, and it averages around 32.4% of short-run disequilibrium in one year.

The results do have policy implications to the monetary authorities of Nepal. Planned monetary growth can be a good catalyst in growth but policy makers should be cautious to reduce the chances of inflation. The adjustment effects are too persistent and this implies that policy timing and scale should be considered carefully. The two-way causality of money supply and growth is the reason why monetary and fiscal policies should be coordinated to achieve the best results and the one-way causality of the inflation to growth emphasizes the need to have price stability to ensure sustainable growth.

The potential future research directions are the study of threshold effects of inflation-growth relationship, the importance of financial development in the transmission process, and the integration of external factors like remittances and trade dynamics as ways to further develop the knowledge on the effectiveness of monetary policy in the unique economic context of Nepal.

The research contribution to the growing literature on monetary economics in developing economies gives empirical evidence that knowledgeable policy-making in Nepal with focused attention on balanced monetary policy that drives the growth and simultaneously maintains price stability.

## **REFERENCES**

**Academia Journal of Research and Innovation**  
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**DOI: <https://doi.org/10.3126/ajri.v2i1.91183>**

- Acharya, S. (2019). Monetary policy transmission in Nepal: A review. *Nepal Rastra Bank Economic Review*, 31(1), 15-32. <https://doi.org/10.3126/nrber.v31i1.29031>
- Ahmed, S., & Islam, M. E. (2007). The monetary transmission mechanism in Bangladesh: Bank lending and exchange rate channels. *Bangladesh Bank Working Paper Series*, WP-0805. <https://doi.org/10.2139/ssrn.1152515>
- Barro, R. J. (1995). Inflation and economic growth. *Bank of England Quarterly Bulletin*, 35(2), 166-176. <https://doi.org/10.3386/w5326>
- Barro, R. J. (2013). *Macroeconomics: A modern approach*. Cengage Learning.
- Bernanke, B. S., & Blinder, A. S. (1992). The federal funds rate and the channels of monetary transmission. *American Economic Review*, 82(4), 901-921. <https://doi.org/10.2307/2117350>
- Bernanke, B. S., Laubach, T., Mishkin, F. S., & Posen, A. S. (1999). *Inflation targeting: Lessons from the international experience*. Princeton University Press. <https://doi.org/10.1515/9780691186689>
- Bhusal, T. P. (2014). Inflation and economic growth in Nepal: An empirical analysis. *Nepal Journal of Economics*, 3(1), 45-62. <https://doi.org/10.3126/nje.v3i1.18214>
- Chowdhury, A. R. (2012). Money, prices and output in South Asia: Evidence from selected countries. *South Asian Survey*, 19(2), 233-254. <https://doi.org/10.1177/0971523112469655>
- Fisher, I. (1911). *The purchasing power of money*. Macmillan. <https://doi.org/10.1037/13991-000>
- Friedman, M. (1956). The quantity theory of money: A restatement. In M. Friedman (Ed.), *Studies in the quantity theory of money* (pp. 3-21). University of Chicago Press.
- Friedman, M. (1968). The role of monetary policy. *American Economic Review*, 58(1), 1-17. <https://doi.org/10.1257/aer.103.4.1476>
- Friedman, M. (1977). Nobel lecture: Inflation and unemployment. *Journal of Political Economy*, 85(3), 451-472. <https://doi.org/10.1086/260579>
- Ginting, A. M. (2018). The effects of monetary policy on economic growth in South Asian countries. *Journal of Economic Development*, 43(2), 87-110. <https://doi.org/10.35866/caujed.2018.43.2.004>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.

- Gyawali, B. R. (2012). Impact of monetary policy on economic growth in Nepal. *Economic Journal of Development Issues*, 15-16(1-2), 54-74.  
<https://doi.org/10.3126/ejdi.v15i1.8084>
- Johansen, S. (1995). *Likelihood-based inference in cointegrated vector autoregressive models*. Oxford University Press. <https://doi.org/10.1093/0198774508.001.0001>
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. Macmillan.  
<https://doi.org/10.1007/978-3-319-70344-2>
- Khan, M. S., & Senhadji, A. S. (2001). Threshold effects in the relationship between inflation and growth. *IMF Staff Papers*, 48(1), 1-21. <https://doi.org/10.2307/4621658>
- Khatiwada, Y. R. (2004). Financial sector reforms in Nepal: An evaluation. *Economic Review*, 16, 32-55. <https://doi.org/10.3126/er.v16i0.30326>
- Krugman, P. (2013). *End this depression now!* W. W. Norton & Company.
- Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, 22(1), 3-42. [https://doi.org/10.1016/0304-3932\(88\)90168-7](https://doi.org/10.1016/0304-3932(88)90168-7)
- Lucas, R. E. (1996). Nobel lecture: Monetary neutrality. *Journal of Political Economy*, 104(4), 661-682. <https://doi.org/10.1086/262037>
- Mallik, G., & Chowdhury, A. (2001). Inflation and economic growth: Evidence from four South Asian countries. *Asia-Pacific Development Journal*, 8(1), 123-135.  
<https://doi.org/10.18356/2076899x-2001-8-1-6>
- Mishkin, F. S. (2018). *The economics of money, banking, and financial markets* (12th ed.). Pearson.
- Mishra, P., & Montiel, P. J. (2013). How effective is monetary transmission in low-income countries? A survey of the empirical evidence. *Economic Systems*, 37(2), 187-216.  
<https://doi.org/10.1016/j.ecosys.2012.12.001>
- Nepal Rastra Bank. (2022). *Monetary policy for 2022/23*. Nepal Rastra Bank.
- Ogunmuyiwa, M. S., & Ekone, A. F. (2010). Money supply-economic growth nexus in Nigeria. *Journal of Social Sciences*, 22(3), 199-204.  
<https://doi.org/10.1080/09718923.2010.11892805>
- Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 94(5), 1002-1037. <https://doi.org/10.1086/261420>

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**DOI: <https://doi.org/10.3126/ajri.v2i1.91183>**

Sharma, K., & Poudel, R. L. (2018). Money supply and economic growth nexus in Nepal: An ARDL bounds testing approach. *Nepal Economic Review*, 5(1), 78-95.

<https://doi.org/10.3126/ner.v5i1.21321>

Taylor, J. B. (1993). Discretion versus policy rules in practice. *Carnegie-Rochester Conference Series on Public Policy*, 39, 195-214. [https://doi.org/10.1016/0167-2231\(93\)90009-L](https://doi.org/10.1016/0167-2231(93)90009-L)

Tobin, J. (1965). Money and economic growth. *Econometrica*, 33(4), 671-684.

<https://doi.org/10.2307/1910352>