# Impact of Bullion fluctuations in Indian Economy

**Ms.Pallabi Mukherjee**
Assistant Professor, IBMR, IPS Academy, Indore, MP.

## ABSTRACT

India's share in the world trade of gold is as less as 2% but its demand for gold is surged pretty high up to 25%. The increasing and surging demand for gold is very high and a hindrance for policy makers as this leads to decrease in FOREX reserves due to increase in Imports..Current fiscal year's first foreign trade showed that trade deficit was $17.7 billion, which registered an increase by 26% approx than the last year. The data knocked 430.65 points off the Bombay Stock Exchange Sensitive Index (BSE Sensex).India due to its cultural demographic and social demands have never stopped buying gold where the rise in purchasing of gold has been backed up by increase in bullion prices which has in turn weakened rupee in terms of dollars. The combined impact has made current account deficit pretty eminent. The aim of the study is to evaluate the impact of bullion fluctuation in Indian economy and to study the various factors which affect the price of bullion in India.

**Key Words:** Bullion, Indian Economy, CAD, Inflation, Gold Price

**INTRODUCTION :**

In the last few years rising gold imports has been accompanied with the rise in prices of the yellow metal as well. This has in turn impacted the rupee negatively and weakened it and thus surged the current account deficit in turn. China being the no. 1 country of gold production in the world along with 14 more other nations accounted for 3 quarters of global output generating $78.4 billion US. Tanzania and Ghana has exported more than 36% and 26% of their total exports. India ranks the second on gold consumption (buying 715 tonnes) in the world followed by China who bought 798 tonnes In 2013.The average amount of economic value added of gold is highest in China followed by USA, Peru and United States of America. Thirteen largest gold consuming countries in the world have accounted for 75% gold for fabrication and 80% for final consumption. Gross value added associated with the fabrication of gold bars and coins is estimated to be US$13.3 billion and top consuming country is India. Gold reserves of India can make India a golden bird again. The largest proportion of gold fabrication and consumption demand in case of Jwellery is done by India and China. For Technology fabrication demand China ranks first followed by USA and India ranks 6th.Gold purchase in India is eminent because a Study by the Reserve bank of India shows that gold is a long term hedge to inflation.

**India and Gold Fever**

India produces not even 0.5% of gold what it consumes. Gold is not only a symbol of good fortunes but almost 13% of household savings is in physical assets like gold. In spite of Indian policy advisors discouraging purchases of gold, gold consumption has not considerably decreased in India.

**Factors affecting bullion fluctuation in India**

1) Production of gold-If the production of gold is reduced in world market this affect the price of gold so the production of gold is negatively correlated with the price of gold.

2) Import duty on gold- Government imposed import duty to reduce the import burden of gold because higher import of gold cause current account deficit. This is an important policy implication of the government to manage their balance of trade.

3) International price of gold- Today gold prices in domestic country is interlinked with international bullion market. So the price change in London bullion market can also affect the price of Indian bullion market.

4) Demand and supply of gold- Demand of gold has always been high in India and the supply of it usually does not impact the quantity demand but it increases the price of gold and hence value of money decreases. The same amount of money thus buys less gold.

5) Savings in India-In India gold has taken as a safest investment avenue and Indian people are investing in gold more than any other avenue because the can earn good rate of return by investing in gold.

6) Oil prices- Crude oil prices definitely have an impact on gold. As the crude oil prices increases then there is a chance for the advent of inflation in the economy. Because of increase in prices it is thus eminent that demand for gold is going to decrease.

7) Inflation- Gold is considered to be a hedge to inflation. As inflation surges in the economy the general price level increases which thus in turn reduces the value of money. But the value of money saved in form of gold increases hence the gold containing people become wealthier in real terms.

8) Fluctuating foreign exchange-If the value of dollar increases then we have to p[ay more of it for importing the same amount of gold. This will in turn increase the price of gold.

9) Hoarding and disposing- Fluctuations exist in the commodity market where speculations are done on prices of gold thus in speculative market hoarding and disposing of some amount of gold creates fluctuations in its prices.

10) The Indian love for gold-Indians doesn't trust their economy so they love to invest in something which has a universal identity. Indians are fascinated with gold may it be jwellery or coins.

**LITERATURE REVIEW :**

**Kumar A. (2012)** discussed the significance of gold in Indian traditions, changing tendency in gold price over a phase, factors influencing the fluctuation in gold prices and the outcome of the change in gold price in Indian economy.

**Jagan, Rabi (2012)** analyzed the inter-linkages connecting domestic and worldwide gold prices and then it examines the 20 year fluctuations in gold prices (international) due to factors affecting them. There is a inter-linkage between domestic and international gold prices and the validity has been proved.

**Sindhu (2013)** studied impact of crude oil, repo rate and inflation on gold prices. US dollar and gold prices are inversely related. Gold price is a dependent variable and crude oil price is independently impacting it. Gold prices repo rate and inflation all have a relationship amongst themselves.

**Amutha, Vijaylaxmi (2014)** In the Indian culture, life's income are depleted in big fat weddings and 35-50 per cent of the spending spent for a marriage goes into the buy of gold and other jewellery. As a tradition, the gold jewellery gifted to the bride is also displayed in the marriage which symbolizes the standing of the family. It is measured as a venture and investments which may come to liberate during a huge monetary crisis of the family.

**Sherman (1983)** in his study on a gold pricing model has concluded that gold price has a significant positive relationship with unexpected inflation. Similar study is carried out by Moore (1990) that the gold price movements are predicted by a leading indicator of inflation. A research study by Larson & Mc Queen (1995) concluded that there is coefficient of unexpected inflation for gold price is significant. Adrangi et al. (2003) concluded that gold has a positive relationship with expected inflation; there exists no relationship with unexpected inflation.

**Blose (2010)** has concluded that unexpected changes in CPI do not affect gold spot prices and investors cannot determine market inflation expectations by examining the price of gold.

**Frankel, (2011)** analyzed that Gold can neither be repudiated, nor its value undermined by inflation rate. It provides a strong and better hedge against declining currency as compared to any other commodity. Gold has been considered as desirable element in an investment portfolio. It holds its value even during inflation rate.

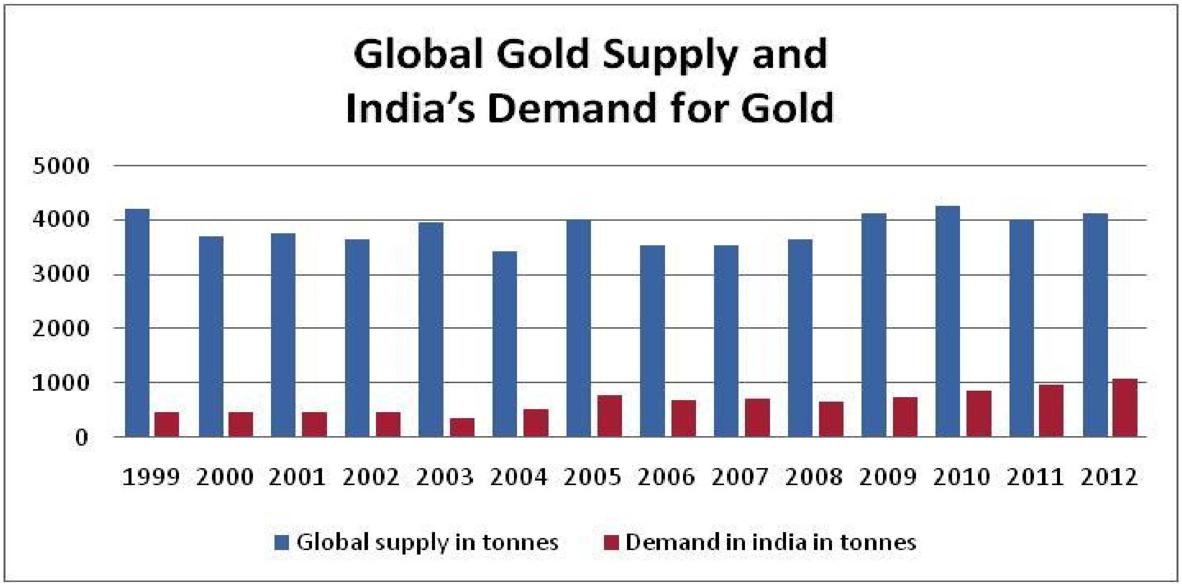
**OBJECTIVES :**

1) To study the impact of bullion fluctuations in Indian Economy.
2) To study the various factors which cause fluctuation in bullion price.
3) To study the impact of gold import on CAD in India.
4) Comparative analysis between gold prices and inflation in India.

**RESEARCH METHODOLOGY :**

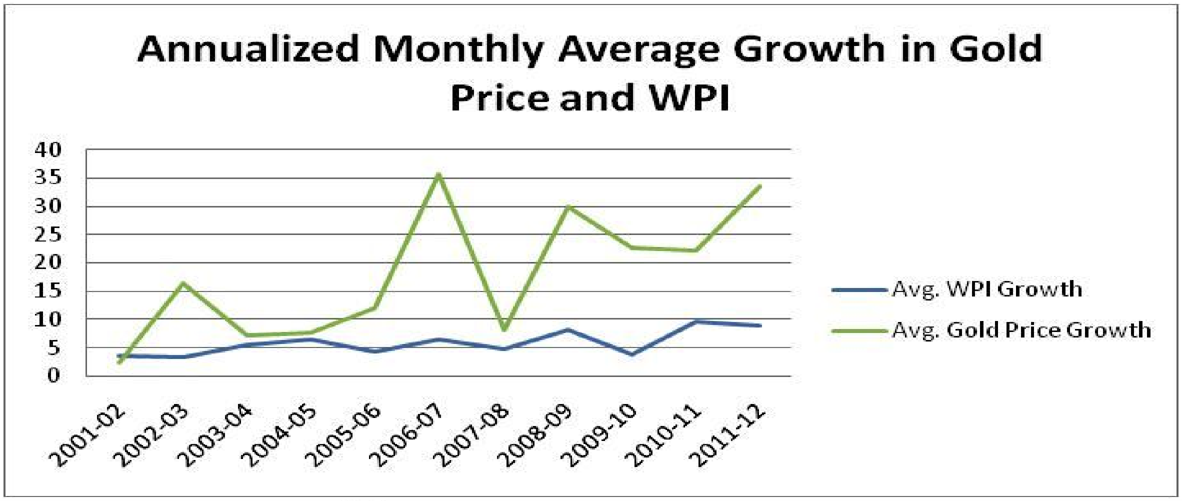
This is a descriptive study followed by empirical calculation. This study is based on secondary data and the data has been collected from data book of RBI and planning commission database. The data was collected from the year 1999 to 2012 for analysis. Statistical technique like descriptive statistics, percentage analysis and regression analysis has been used.

**Data Interpretation :**



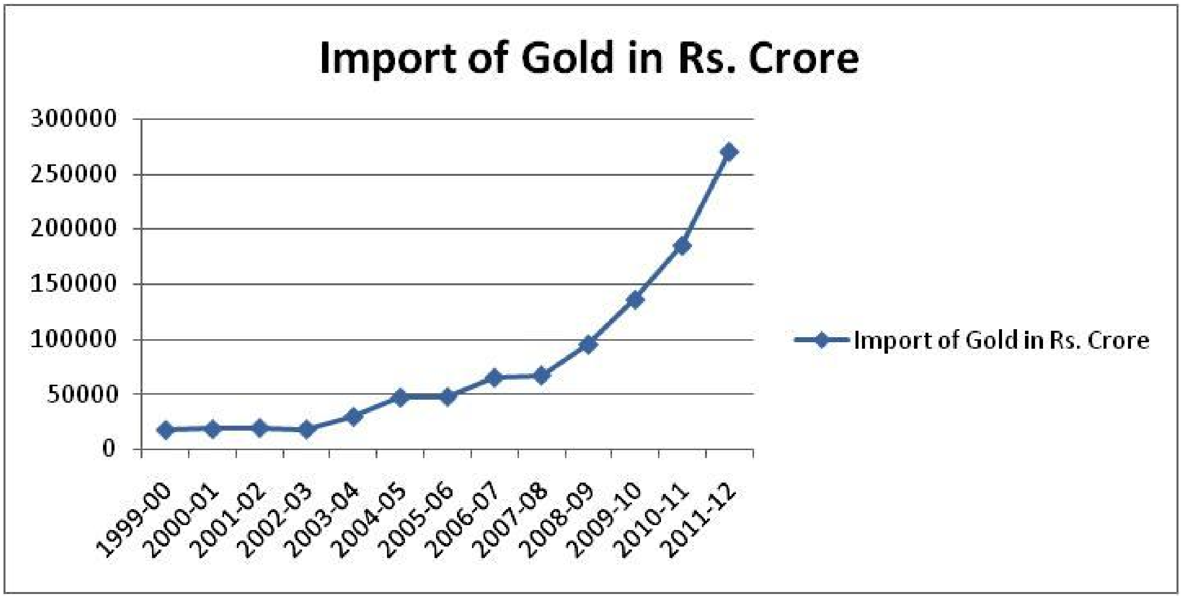

**Interpretation**

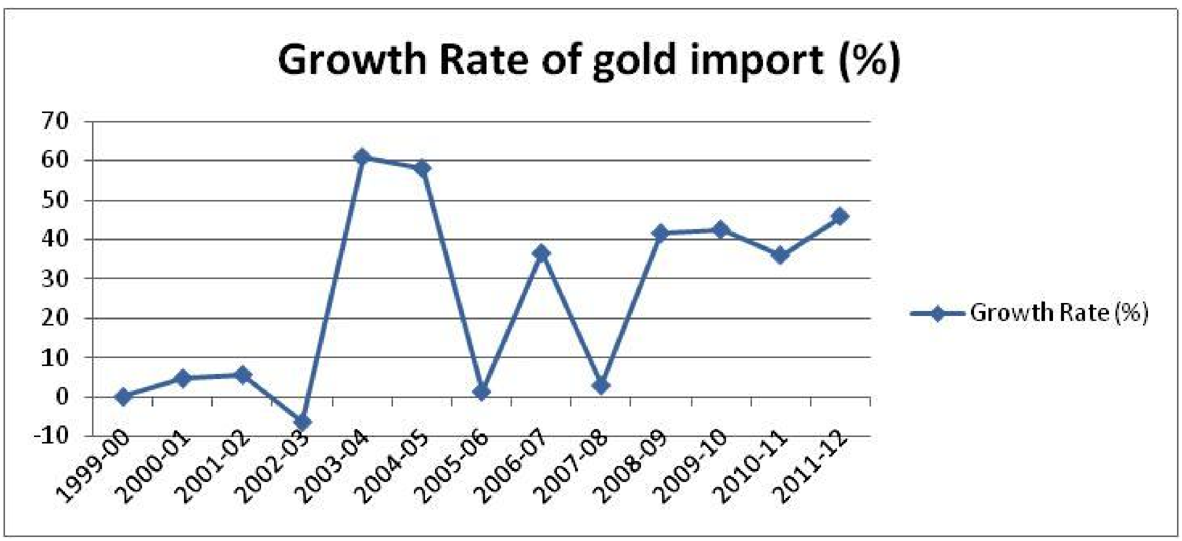
The comparative analysis done between global supply of gold from the 15 major gold exporting nations and the demand of gold in India shows that the supply has in general no significant impact on the demand for gold done by the Indians. In spite of the supply being high the demand in 1999 was pretty less and in spite of the supply of gold being moderate the demand has been registered as to increase in 2012.We can interpret only one thing from here that the demand of gold may it be in fabricated form or bars and coins has risen considerably in due course of time.



**Interpretation**

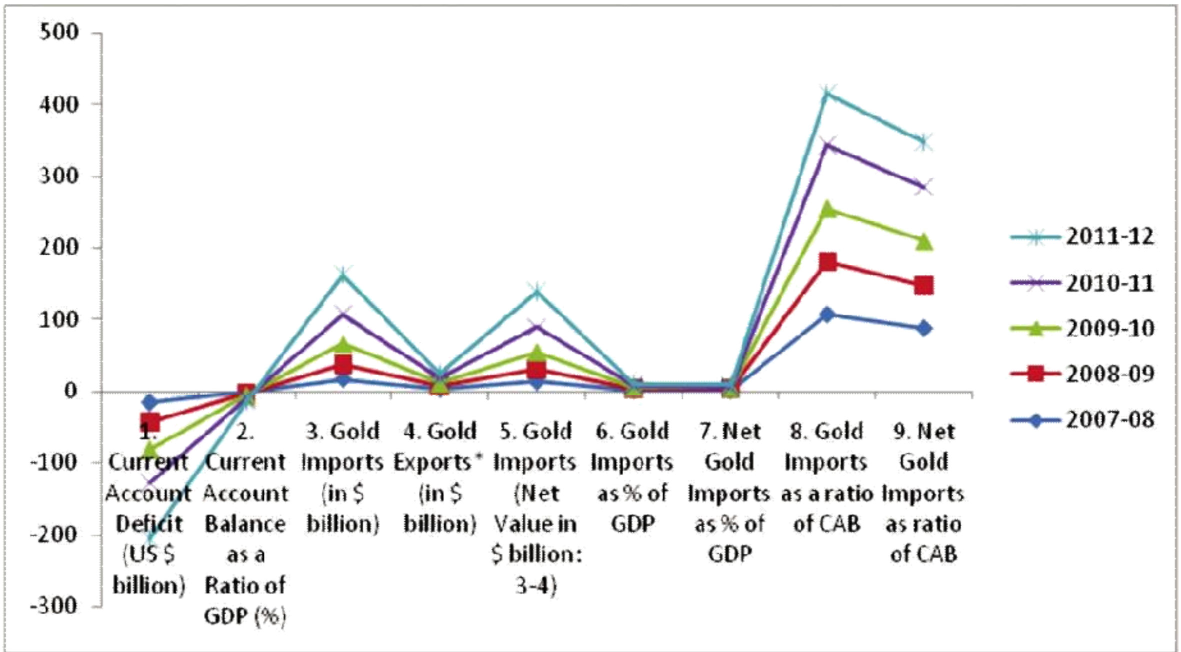
Our one of the major objectives was to find the relationship between the gold prices and inflation in India. It has been thus found out that both are positively related to each other. Increase in general price level is what is meant by inflation. Hence when there is increase in general price level then prices of gold might also increase and vice versa. Gold is considered to be a hedge to inflation. As inflation occurs and price level increases the value of money decreases but the price of gold increases.




**Interpretation**

Indian is the largest importer of gold coins and bars in the world. The cultural demographic and physical needs make Indians real admirers of gold purchases. The data shows us the there is a considerable increase in gold imports in India since 1999.There is a 500% increase in gold imports in India in a matter /duration of 12 years. The growth rate of imports of gold in India has shown a remarkable downfall in the year 2006 and again has increased in 2007.But the global economic crisis in 2008 has led a downfall in growth rate of imports of gold.But it has again surged up here after.




**Interpretation**

In order to show the relationship between Current account deficit and gold imports, it is clearly visible from the data that as the gold imports has increased considerably during years altogether and as a result the current account deficit has increased as well. The major part of current account deficit is constituted by the rising imports of gold in our nation. Many policy implications have been made in order to reduce gold imports and thereby reduce Current account deficit.

**Relationship between CAD and gold Import**

There is positive correlation between these two as Gold imports increase the current account deficit is about to increase as well. Applying regression to this relationship and data we found he value of intercept to be 1.3 which shows that if there is no gold imports the CAD will still have a value of 1.3.Apart from that value of the beta coefficient is pretty high indicating that current account deficit is majorly constituted by gold imports in our nation.

## SUGGESTION

The financial crisis rocked global markets at the end of 2008. A trend started to develop enticing regular investors allocating a certain amount of their portfolios into gold. Gold is a hedge against all kinds of uncertainties. Gold comes to recue even in the prevailing global and financial uncertainty. However, the government needs to take strict measures to control the increasing prices of gold and help investors overcome the losses due to uncertainties in other markets. Government should take some initiative to reduced the gold import by this we would be able to reduce the current account deficit in India.

## CONCLUSION

The present paper makes a modest attempt to explore the causal relationship between gold prices and macroeconomic variables in the Indian economy. The study primarily revolved around two major questions first; do macroeconomic variables impact on gold prices? Answer to this question is that, exchange rate, import duty inflation rate are independently affecting gold prices at large. Secondly, does there exists any interactive cause and effect relationship between macroeconomic variables and gold prices? Answer to this question is that, there are so many factors that affect gold price and there is an impact of bullion fluctuation in Indian economy.

**ANNEXURE**

**Table1.1 : Global Gold Supply and India's Demand for Gold**

| Year | Global Gold Supply $ (Tonnes) | Gold Demand from India @ (Tonnes) | Growth of Global Gold Supply (%) | Growth of Gold Demand from India (%) |
|---|---|---|---|---|
| 1999 | 4206 | 486 | … | … |
| 2000 | 3704 | 462 | -11.9 | -4.9 |
| 2001 | 3764 | 471 | 1.6 | 2.0 |
| 2002 | 3667 | 467 | -2.6 | -0.9 |
| 2003 | 3953 | 367 | 7.8 | - 21.3 |
| 2004 | 3426 | 537 | -13.3 | 46.1 |
| 2005 | 4034 | 792 | 17.7 | 47.5 |
| 2006 | 3559 | 707 | -11.8 | -10.7 |
| 2007 | 3554 | 716 | -0.1 | 1.3 |
| 2008 | 3657 | 679 | 2.9 | -5.1 |
| 2009 | 4146 | 743 | 13.4 | 9.4 |
| 2010 | 4274 | 871 | 3.1 | 17.2 |
| 2011 | 4030 | 975 | -5.7 | 11.9 |
| 2012 | 4130* | 1079* | 2.5 | 10.7 |

**Table 1 .2: Annualized Monthly Average Growth in Gold Price and WPI**

| Period | Avg. WPI Growth | Avg. Gold Price Growth |
|---|---|---|
| 2001-02 | 3.64 | 2.44 |
| 2002-03 | 3.38 | 16.51 |
| 2003-04 | 5.48 | 7.24 |
| 2004-05 | 6.51 | 7.63 |
| 2005-06 | 4.44 | 12.17 |
| **Average of 2001-02 to 2005-06** | **4.69** | **9.20** |
| 2006-07 | 6.59 | 35.68 |
| 2007-08 | 4.74 | 8.30 |
| 2008-09 | 8.09 | 29.83 |
| 2009-10 | 3.86 | 22.69 |
| 2010-11 | 9.57 | 22.08 |
| **Average of 2006-07 to 2010-11** | **6.57** | **23.72** |
| 2011-12 | 8.96 | 33.54 |

| Table 1.3: Trends in Gold Imports | | |
|---|---|---|
| **Year** | **Import of Gold in Rs. Crore** | **Growth Rate (%)** |
| **1999-00** | 17991 | … |
| **2000-01** | 18829 | 4.7 |
| **2001-02** | 19889 | 5.6 |
| **2002-03** | 18608 | -6.4 |
| **2003-04** | 29946 | 60.9 |
| **2004-05** | 47348 | 58.1 |
| **2005-06** | 47951 | 1.3 |
| **2006-07** | 65440 | 36.5 |
| **2007-08** | 67330 | 2.9 |
| **2008-09** | 95324 | 41.6 |
| **2009-10** | 135878 | 42.5 |
| **2010-11** | 184742 | 36.0 |
| **2011-12** | 269563 | 45.9 |

| Table 1.4: Gold Imports and Current Account Balance | | | | | |
|---|---|---|---|---|---|
| **Items/Year** | **2007-08** | **2008-09** | **2009-10** | **2010- 11** | **2011-12** |
| **1. Current Account Deficit (US $ billion)** | **-15.7** | **-27.9** | **-38 .2** | **-46.0** | **-78.2** |
| **2. Current Account Balance as a Ratio of GDP (%)** | **-1.3** | **-2.3** | **-2.8** | **-2.7** | **- 4.2** |
| **3. Gold Imports (in $ billion)** | **16.7** | **20.7** | **28.6** | **40.5** | **56.2** |
| **4. Gold Exports* (in $ billion)** | **3.0** | **4.2** | **4.3** | **6.1** | **7.0** |
| **5. Gold Imports (Net Value in $ billion: 3-4)** | **13.7** | **16.5** | **24.3** | **34.4** | **49.2** |
| **6. Gold Imports as % of GDP** | **1.3** | **1.7** | **2.1** | **2.4** | **3.0** |
| **7. Net Gold Imports as % of GDP** | **1.1** | **1.3** | **1.8** | **2.0** | **2.7** |
| **8. Gold Imports as a ratio of CAB** | **106.4** | **74.2** | **74.9** | **88.0** | **71.9** |
| **9. Net Gold Imports as ratio of CAB** | **87.3** | **59.1** | **63.6** | **74.8** | **62.9** |

*: Imputed Figure consists of 15% of exports of 'Gems and Jewellery'

SUMMARY OUTPUT

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.932715 |
| R Square | 0.869957 |
| Adjusted R Square | 0.804935 |
| Standard Error | 0.365984 |
| Observations | 4 |

ANOVA

| | *df* | *SS* | *MS* | *F* | *Significance F* |
|---|---|---|---|---|---|
| Regression | 1 | 1.792111 | 1.792111 | 13.37951 | 0.067285226 |
| Residual | 2 | 0.267889 | 0.133944 | | |
| Total | 3 | 2.06 | | | |

| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *95%(L)* | *95%(U)* | *95%(L)* | *95%(U)* |
|---|---|---|---|---|---|---|---|---|
| Intercept | 0.245556 | 0.90597 | 0.271042 | 0.81177 | -3.652519092 | 4.14363 | -3.65252 | 4.143630203 |
| 1.3 | -1.41111 | 0.385781 | -3.6578 | 0.067285 | -3.070993791 | 0.248772 | -3.07099 | 0.248771568 |

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