Impact of Fiscal Policy Initiatives on Inflation in India

Amrendra Pandey and Jagdish Shettigar

Abstract This paper examines the impact of fiscal policy initiatives on wholesale price index (WPI) based inflation in India. Total central government expenditure has been taken as the proxy for fiscal policy initiatives. The models used are VECM and ARDL-bound testing for estimating long run relationship. The results show that there is long run relationship between total central government expenditure and inflation in India. The IRF shows that if fiscal expenditure is given a positive shock of 100.0%, its cumulative impact on WPI in 5 years will be 14.0%.

1 Introduction

The relationship between fiscal policy and inflation is one of the widely debated topic among economists and policy makers around the world. The Reserve Bank of India (RBI) and the central government signed the ways and means advances (WMA) agreement in March 1997, which put the issuance of ad hoc T-bills to an end. At the same time the Government of India and state governments since 2004, after signing the Fiscal Responsibility and Budget Management Act, 2003 (FRBMA) have been adhering to consolidation norms though there have been instances of lapse in between. Even after these measures the RBI has not been able to consistently achieve its inflation target range. One of the causes could have been relaxation in terms of fiscal policy of the government due to lack of coordination with the monetary policy which resulted in neutralizing monetary policy initiatives. Keeping this hypothesis in mind *the following research questions would be tested empirically in this research paper: (i) what has been the impact of the fiscal policy on inflation in India since the beginning of the liberalization period? And (ii) if there is such relationship then how much fluctuation in inflation can be explained by fiscal policy variable?* This paper attempts to find answer of these questions.

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India's fiscal position since 1980s has been one of concern, then hope and then confusion. Over the years the combined central and state government fiscal deficit kept increasing which hit 9.57% of the gross domestic product (GDP) in 2001–02, which was a record since 1980. But from this peak the centre and states brought down their combined fiscal deficit to 4.57% by 2007–08, mainly due to the FRBM Act, introduced by the then finance minister Yashwant Sinha in 2003. The act required the government to live within its means. But, a pause button was pressed on this fiscal consolidation in 2008 in the wake of the global financial crisis mainly due to expanding fiscal expenses and increasing global oil price. This caused doubling of fiscal deficit of central and state government combined to 8.4% of GDP. Fiscal deterioration continued well till 2013 and only when the 'taper tantrum' of the Federal Reserve Board of the U.S. threaten India's external account the central government put in place a solid fiscal consolidation plan by phasing out different subsidies on petroleum and fertilizer products.

Fiscal policy and its relationship with inflation is an issue of contention between central banks and governments. Many researchers have studied this relationship, out of which some important studies are discussed below:

Friedman (1968) had pointed out that fiscal deficit was inflationary to the extent of its monetization. Bond financed fiscal deficit would be inflationary only if monetary authorities followed interest rate stabilization strategy, because this would require increasing money supply in cases where government debt demand driven up interest rate. But, Sargent and Wallace (1981) said that fiscal deficit was always inflationary because the central bank would monetize the deficit either now or in the long run.

Hamburger and Zwick (1981) and Darrat (1985) suggested that inflationary surge of the U.S. in 1970s was caused mainly by expansionary fiscal and monetary policy.

Dwyer (1982) using the U.S. data from 1952 to 1978 and a vector autoregression (VAR) found no evidence of the relationship between government deficit, inflation and money supply.

Miller (1983) on the other hand argued that even if the deficit was not financed by monetization, deficit was inflationary as it would crowd out the private investment, which would reduce the real growth of the economy. At the same time higher interest rate would force the financial market to innovate the payment system so that government bonds could be used as a substitute for money.

Krishnamurty et al. (1984) had noted that inflation was the result of conflicts between different economic agents of an economy in their attempt to garner to itself a larger share of resources available at any time. The authors using the data of the Indian economy for the sample period, 1961–80, showed that government's effort in its developmental endeavor of the economy had resulted in it taking the larger share of economic resources than the society was willing to give it. This according to the authors, resulted in budgetary deficit and monetary expansion on one hand, and the expansion of parallel economy on the other. Both of these phenomenon fed inflation. The authors concluded that rapid inflation was always a fiscal phenomenon.

Scarth (1987) and Langdana (2002) had shown that if time path of fiscal expenditure and taxes were exogenous, fiscal deficit even if bond financed would not be

sustainable since increasing interest rate would force the central bank to increase money supply which in turn would fuel inflation.

Rangarajan and Arif (1990) after analyzing the pre-reform macroeconomic conditions concluded that the inflationary impact of fiscal deficit had been worse in the cases when larger share of the deficit was met by the RBI borrowing. And, their model summarized that inflation impacted the increase in reserve money base which increased to accommodate fiscal deficit.

Fischer and Easterly (1990) argued that the extent of inflationary tendency of fiscal deficit depended upon the size and growth of the economy. If the growth rate was high, government could obtain more revenue by printing money. The authors also pointed out that this logic explained the high deficit, but single digit inflation in countries like India, Malaysia, Pakistan and Thailand, where the growth was at or above 5.0% over 1980–86, whereas Argentina and Brazil with negligible growth but with comparable inflation-adjusted deficits had quadruple-digit inflation during the period.

Easterly and Schmidt-Hebbel (1993) using the data of ten diverse countries from 1978–88, pointed out that for the countries with moderate inflation, like India, to generate an additional percentage of the long-run seigniorage revenue to meet government deficit, it would require 15.0–20.0% of inflation. It meant that inflation and the long run fiscal deficit had strong relationship. Similarly, Dogas (1992) and Darrat (2000) had found that fiscal deficit impacted inflation in Greece.

Shabbir et al. (1994) using the data of Pakistan from 1971–72 to 1987–88 had found, that 1.0% increase in budget deficit led to 6.0% increase in inflation, which they attributed to the fact, that budget deficit led to the formation of inflation expectations.

Similarly, Ansari (1997) using a VAR model and annual data from 1963 to 1993 for government expenditure, M_1, GDP deflator and GDP of India had shown that fiscal deficit contributed positively in price rise. From the variance decomposition the author had shown, that after 6 month, government expenditure explained 44.0% of variation in prices.

Özatay (1997) using the data from 1977 to 1995 had found that before the 1994 turkish financial crisis, the fiscal policy was unsustainable which made the inflation targets unachievable.

Similarly, Metin (1998) using the annual data of Turkey from 1950 to 1987 and Johansen cointegration test had shown that increased in budget deficit immediately increase inflation and the effect was significant.

Mohanty et al. (2000) noted that due to high fiscal deficit during 1993–96, where the central government gross fiscal deficits were 5.7%, 7.4% and 6.1% in 1992–93, 1993–94 and 1994–95 respectively, WPI inflation remained close to double digit reflecting the effect of fiscal deficit on inflation.

Mohanty et al. (2001) observed that a sustainable decline in inflation required long-term improvement in the fiscal balance and monetary growth, so that actual output was matched closer to the potential. The authors recommended better coordination between monetary and fiscal policies.

Neyapti (2003) using panel data of 54 developed and less developed countries had found that budget deficits exerted significant positive influence on inflation.

Alavirad and Athawale (2005) using a autoregressive distributed lag model (ARDL) and data of Iranian government deficit and inflation from 1963–99, had shown that the budget deficit and inflation shared a long run relation and the relationship was positive, i.e., in the long run government budget deficit had positive impact on inflation.

Catao and Terrones (2005) using the data of 107 countries from 1960–2001 and ARDL model had shown that budget deficit had strong positive impact on inflation in most of the countries except low inflation countries and advanced economies. The authors had pointed out that for the countries having more than 15.5% average ratio of M_1/GDP, 1.0% reduction in budget deficit lowered inflation by 9.25%.

Kia (2006) using the data of Iran from the period 1970:Q_1 to 2002:Q_4 had empirically found that fiscal policy was positively related to inflation in Iran, but if there was unanticipated change in fiscal policy it would cause negative impact.

Mohan (2008) noted that the growing fiscal deficit of the Indian government from the 1970s, 1980s and 1991–1997 were responsible for inflationary pressure in the economy which reached 9.0%, 8.0% and 10.0% respectively in these three decades from 6.4% in 1960s and 1.2% in 1950s.

Khundrakpam and Pattanaik (2010) using the data for the period of 1953–2009 of India showed that 1.0% increase in the level of fiscal deficit caused 0.25% increase in the wholesale price index (WPI). They also found significant short run relationship, but the error correction term was small.

Patra and Ray (2010) found that the role of fiscal policy in shaping inflation expectation in India was marginal and negative, i.e., an increase in real government expenditure lowered inflation expectations. The authors attributed this to the strong fiscal responsibility legislation in 2004, after which it was expected that any increase in fiscal expenditure would be offset by increase in taxes and other revenues, so lowering inflation expectation.

Lin and Chu (2013) using the data of 91 countries from 1960 to 2006, showed that the effect of fiscal deficit on inflation was higher during the high-inflation period because of faster money creation during the inflationary period. Hence, they postulated that the fiscal deficit-inflation relationship varied across countries with varying level of inflation.

2 Impact of Government Expenditure on Inflation

Growth in the central government's total expenditure and growth in WPI based inflation index is summarized in Table 1 and Fig. 1. From the figure it becomes clear that the central government expenditure generally follows political cycle rather than economic cycle. Just preceding the election years the expenditure growth followed positive path but in subsequent years it showed negative growth. After external payment crisis and subsequent deal with International Monetary Fund (IMF) the government expenditure management mainly concerned with reducing subsidies leak and non capital expenditure in the economy. But, a component of the expenditure was on

Table 1 Trend in government expenditure growth and WPI inflation rate, April 1991–92 to March 2014–15)

Year	Total gov. exp. (growth) (%)	Inflation rate (%)
1991–92	5.8	16.0
1992–93	10.1	10.1
1993–94	15.7	8.4
1994-95	13.3	12.4
1995–96	10.9	8.0
1996–97	12.8	4.6
1997–98	15.5	4.4
1998–99	20.4	5.9
1999–2000	6.7	3.3
2000–01	9.2	7.2
2001–02	11.3	3.6
2002–03	14.1	3.4
2003–04	14.0	5.5
2004–05	5.7	6.5
2005–06	1.5	4.4
2006–07	15.4	6.6
2007–08	22.1	4.7
2008–09	24.0	8.1
2009–10	15.9	3.8
2010–11	16.9	9.6
2011–12	8.9	8.9
2012–13	8.1	7.4
2013–14	10.6	6.0
2014–15	14.0	2.0

(Compiled by the researcher from the Reports of the RBI and World Bank databse. Data Retrieved from www.rbi.org.in/Scripts/AnnualReportMainDisplay.aspx. and http://data.worldbank.org/country/india)

account of interest payment which constituted 36.0% of the central government's revenue expenditure in 1995–96 which remained at the same level until 2000–01. While, at the same time subsidies expenditure increased from 9.0% in 1995–96 to 10.0% in 2000–01. This shows how difficult it is to change the composition of government expenditure. Subsidies further increased to 11.0% in 2005–06, while expenditure on account of interest payments decreased to 30.0%. The Fiscal Responsibility and Budget Management (FRBM) Act which was adopted in 2003 after 3 years of deliberation set medium term target of phased reduction of the gross fiscal deficit (GFD) to 3.0% of GDP. This brought the fiscal discipline in the government expenditure. This fact can also be observed from Table 1 which shows, that growth in total fiscal expenditure followed negative path successively for 3 years from 2003–04 to 2005–06. This helped in containing GFD to 3.2% of GDP in 2006–07.

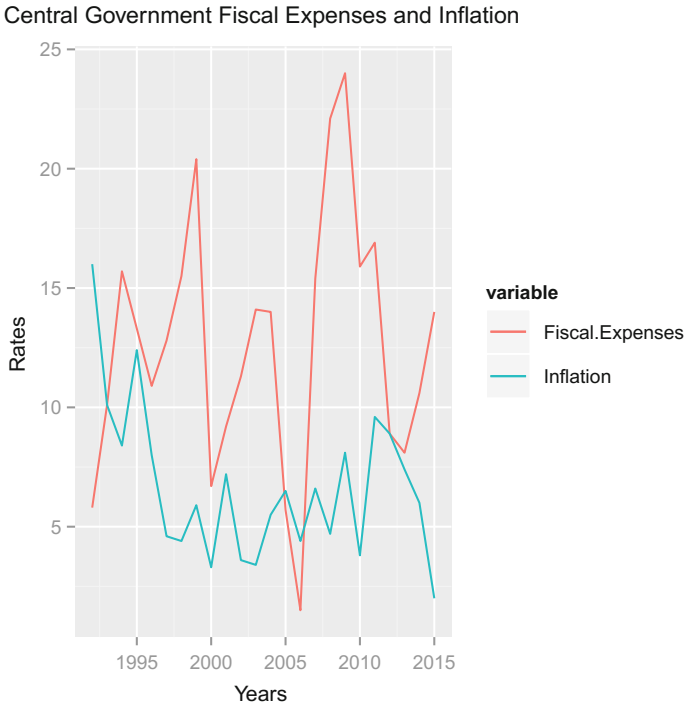

Fig. 1 Fiscal policy and inflation (WPI), 1991–92 to 2014–15 (Drawn by the researcher from the Table 1)

Just before the mortgage crisis hit the global economy in 2008 the government expenditure was already on expansionary mode with rural farm loan waiving scheme, expansion of the National Rural Employment Guarantee Act (NAREGA), 2005 and implementation of Sixth Pay Commission recommendations. This led to increase in the total central government expenditure by 24.0% in 2008–09. In 2008–09 WPI based inflation too increased to 8.1% from 4.7% in the previous year. To boost the domestic demand under the bearish global demand conditions the central government announced many stimulus packages, like, reduction in excise duty, increasing planned expenditure, reduction in service tax and interest subsidies for export. All these led to increase in the fiscal deficit to 6.5% of GDP in 2009–10. Similarly, WPI also increased by 9.6% in 2010–11.

Emphasizing the need to return to fiscal prudence the Thirteenth Finance Commission report reiterated strict adherence to the fiscal deficit targets. The fiscal policy adopted exit approach from the fiscal stimulus and the result was evident from negative path in total expenditure growth which grew by only 8.9% in 2011–12 as compared to 16.9% growth in 2010–11. The downward growth trend continued even in 2012–13 when the expenditure grew by only 8.1%. During these 2 years the inflation also followed downward growth path and it decreased from 9.6% in 2010–11 to

8.9 and 7.4% in 2011–12 and 2012–13 respectively. In the financial year 2013–14 the government's budgeted increase in planned expenditure was 6.6%. The focus of the policy during that year was to help the economy in revival as well as to decrease the GDF to GDP ratio 4.8%. The actual total expenditure of the government grew by 10.6% during that year and inflation decelerated to 6.0%. Similarly, in the financial year 2014–15 the government expenditure grew by 14.0% while inflation measured as growth in WPI index increased by merely 2.0%.

From Table 1 and Fig. 1, it becomes clear that generally whenever there is shock in the government expenditure, WPI has responded either immediately or with a lag, e.g, 1993–94, 1998–99, 2005–06 and 2007–08. Analysis of the total government expenditure during the 24 years showed positive path in 14 years, while it has shown negative path in the remaining 10 years. Similarly, WPI has followed positive path in 9 years and negative path in 15 years. When we look at the same path followed by both the fiscal expenditure and WPI, both have followed same path in 11 years while they have followed opposite path in 13 years. So, when we look at the shock to the fiscal policy there seems to be strong relationship between fiscal policy and inflation but when we look at the same path followed by both the variables the relationship seems to be weak.

3 Models and Data

It is possible that the time series data being considered in the study will not be stationary individually, but when one or more of the time series data will be regressed on another time series data, the combination may be stationary, i.e., their linear combination will cancel out stochastic trend. This econometric phenomenon is called *cointegration* and in economic terms it implies that the time series variables have a long run, or equilibrium relation between them.

Before doing further analysis with the time series, stationarity of the time series variables will be tested for which two tests, namely, Augmented Dickey Fuller (ADF) test and Kwiatkowski-Phillips Schmidt Shin Test (KPSS) will be used. After testing the stationarity if the data set is found to be non stationary then cointegration relationships among the time series variables will be checked. If there has been cointegration then Impulse Responsive Function (IRF) and Forecast Error Variance Decomposition (FEVD) has been used to analyze the results.

Vector Error Correction Model (VECM)

Johansen (1988), Johansen and Juselius (1990) and Johansen (1991) developed maximum likelihood estimators of cointegrating vectors for an autoregressive process. This approach uses canonical correlation analysis. In the VECM the variables adjust to their existing long run relationship. It also explains how long run error correction term explains the movement in the short run. The general structure of the VECM model used for the analysis is as follows:

$$\Delta y_t = \mu + \alpha\beta' y_{t-1} + A_1 \Delta y_{t-1} + \cdots + A_{p-1}\Delta y_{t-p+1} + \epsilon_t \tag{3.1}$$

where

$$y_t = \begin{bmatrix} WPI_t \\ FE_t \end{bmatrix} \tag{3.2}$$

y_t denotes the variables under consideration. Where WPI_t denote inflation rate and FE denotes fiscal expenses.

Also α denote the vector of adjustment parameter and β is the cointegrating vector and A_i,$i = 1, \ldots, p-1$ are the short run impact parameters.

Autoregressive Distributed Lag Model (ARDL)—Bound test

Pesaran et al. (1999) and Pesaran et al. (2001) developed ARDL—bound testing to test the cointegration in a set of time series variables. It has certain advantages over VECM. The advantages are as follows;

- If some of the variables are I(0) whereas others are I(1) ARDL can be applied.
- There is only single—equation to solve, which makes it simple to interpret.
- One of the biggest advantages over other cointegrating tests is that different variables can enter in the equation with different lags.

The steps of the analysis are as follows:

1. This step will involve testing the stationarity of the variables. The variables must not be I(2).
2. Then if the variables are either I(1) or a mix of I(0) and I(1), an unrestricted ECM (UECM) will be estimated. The generic UECM is as follows:

$$\Delta y_t = B_0 + \sum_{i=1}^{p} B_i \Delta y_{t-i} + \sum_{i=0}^{q} Y_j \Delta x_{1t-j} + \sum_{i=0}^{r} \delta_k \Delta x_{2t-k} + \phi_0 y_{t-1} + \phi_1 x_{1t-1} + \phi_2 x_{2t-1} + \varepsilon_t \tag{3.3}$$

3. In the next level appropriate lag length of the of p, q and r in the Eq. 4.4.20 will be selected using Akaike Information Criteria (AIC) and Schwarz Criterion (SC).
4. After selecting the lag lengths the Eq. 4.4.20 will be estimated and then the residuals of the model will be tested for the serial correlation independence. The test used for this purpose will be Breusch-Godfrey (B-G) test.
5. After ascertaining that the residuals of Eq. 4.4.20 are serially not correlated, 'bound testing' is performed. For this Wald testing is used. The null hypothesis in the test is, H_0: $\phi_0 = \phi_1 = \phi_2 = 0$ (where ϕ_0, ϕ_1 and ϕ_2 are from Eq. 4.4.20). The critical F values for this test is taken from Pesaran et al. (2001).
   As a cross check 'bound t-test' of $H_0 : \phi_0 = 0$ is also performed. Critical t-values are again taken from Pesaran et al. (2001).

6. In step 5 if the null hypothesis is rejected then it will be concluded that there is cointegrating relationship between Y, X_1 and X_2. In this case long run relationship can be meaningfully estimated between the variables:

$$y_t = a_0 + a_1 x_{1t} + a_2 x_{2t} + v_t \tag{3.4}$$

7. Now usual ECM will be estimated:

$$\Delta y_t = B_0 + \sum_{i=1}^{p} B_i \Delta y_{t-i} + \sum_{i=0}^{q} Y_j \Delta x_{1t-j} + \sum_{i=0}^{r} \delta_k \Delta x_{2t-k} + \varphi v_{t-1} + \varepsilon \tag{3.5}$$

where v_{t-1} are the lagged residuals of OSL regression 4.4.21

To answer the research questions raised above the monthly fiscal expenses of the central government has been taken as the fiscal policy variable. Similarly, inflation indicator is the wholesale price index (WPI). WPI series have been converted to the base year of 1981–82 using conversion rate at 2.478 for 1993–94 base year and 1.875 for 2004–05 base year index as provided by the office of Economic Adviser, Govt. of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion (DIPP).

The sample period for the study is from April 1997 to June 2015, since monthly data of the total fiscal expenses is available from this period on the World Bank database website. The total fiscal expenditure of the central government has been taken because it is the direct result of fiscal policy decisions. At the same time in all the years analyzed the government has always run in fiscal deficit, i.e., it has borrowed from the market to finance its expenditure need, so the total government expenses can be taken as a proxy for fiscal policy.

4 Empirical Analysis

For estimating the impact of fiscal policy on inflation in India, the present model has included monthly fiscal expenditure and WPI. Before testing the stationarity of the time series variables, logs of monthly central government's total fiscal expenditure and WPI have been taken. The stationarity of the time series variables have been tested using ADF and KPSS tests. Both of these tests indicate that both the series variables are non-stationary in level form, but stationary in first difference, i.e., they all are $I(1)$ (Table 2).

First, the cointegration relation has been tested using the Johansen cointegration test, for which lag length has been selected using the diagnostics of residuals of the VAR model. Then if the vector error correction model (VECM) suggested cointegration relation, the autoregressive distributed lag model (ARDL) bound test has been used to recheck the cointegration relation and to find out the best fitted regression model.

Table 2 Stationarity and integration of total government expenditure and WPI: ADF and KPSS test, April 1997–98 to June 2015–16

Variable	In level form		Stationarity	First difference		Stationarity
	ADF	KPSS	Result	ADF	KPSS	Result
WPI	−1.79	5.518	Non stationary	−4.00	0.08	Stationary
Gov. exp.	−1.16	5.80	Non stationary	−8.82	0.02	Stationary

Where ADF and KPSS critical values at 95% are −3.42 and 0.46 respectively

Table 3 Cointegration rank (Johansen cointegration test-eigenvalue statistics, with linear trend in cointegration)-total expenditure and WPI, April 1997–98 to June 2015–16

Cointegration rank				
Cointegration rank	Test statistics	10%	5%	1%
$r \leq 1$	0.0	6.50	8.18	11.65
$r \leq 0$	138.85	12.91	14.90	19.19

Diagnostics of VAR model have suggested using lag length of 11 (B-G LM test p-value = 0.18). After selecting the lag, the cointegration rank has been estimated, the result of which has been shown in Table 3. The table suggests the cointegration rank of 1 at 5.0% level of significance.

The results of the restricted VECM is reported in Table 4. The table presents the pass through of government expenditure on inflation in India. *It shows that in the long run elasticity of relationship between the total central government expenditure and wholesale price index (WPI) is 0.43, means if government expenditure increases by 1.0%, WPI increases by 43 basis points. Any deviation from the long run relationship tends to correct itself by 5% points in the next month, i.e., once the system is disturbed it comes back again to equilibrium at the rate of 5% every subsequent months.*

Orthogonal Impulse response function (IRF) has been used to explore the impulse response on a variable because of shock on another variable, by taking into account the impact on other variables simultaneously. The result has been depicted in Fig. 2. 100.0% shock in fiscal expenses (denoted as t), increases inflation by 17 basis points in the very next month (t + 1) with the peak impact being seen at the end of 8th month (t + 8). Five year cumulative impact of 100.0% shock in fiscal expenses at time t,

Table 4 Long run and short run dynamic relationship-WPI and total central government expenditure, April 1997–98 to June 2015–16

Long run and short run dynamic relationship		
Variables	Long-run relation	Error correction term
lnWPI		−0.05
Gov. exp.	0.43	

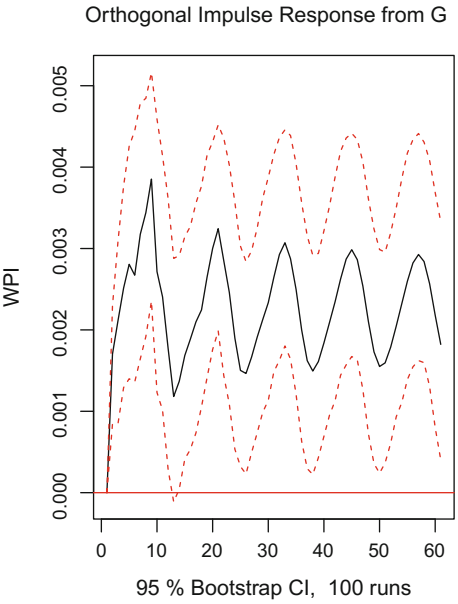

Fig. 2 Impulse response of WPI to a unit shock in fiscal expenditure, April 1997–98 to June 2015–16

Table 5 Forecast error variance decomposition—WPI and fiscal expenditure, April 1997–98 to June 2015–16

FEVD-WPI

Variable	Variance error in WPI explained-6 months ahead (%)	Variance error in WPI explained-12 months ahead (%)	Variance error in WPI explained-18 months ahead (%)	Variance error in WPI explained-24 months ahead (%)
WPI	92.0	91.0	91.0	91.0
Gov. exp.	8.0	9.0	9.0	9.0

on inflation will be 14.0%. The result also shows that once the fiscal expenditure is given a shock it will have impact on inflation even after 5 years.

The variance decomposition analysis is shown in Table 5. It shows that fiscal expenditure explains 8.0% of the variation in WPI 6 months ahead, while it explains 9.0% of the variation after 2 years.

To check the validity of VECM results, ARDL bound test has been applied, the results of which has been shown in the Table 6. From the table it becomes clear that there is cointegrating relationship between WPI and total fiscal expenditure. From the B-G serial correlation test it is clear that the errors of unrestricted error correction model (UECM) is serially not correlated. The error correction term (ECT) is −0.0043. The long run multiplier between WPI and total central government expenditure is 0.43, which means that in the long run 1.0% increase in M_3 will lead to 0.47 increase in IIP-manufacturing. This result is same as given by the VECM model. The model has been depicted in Eq. 3.1.

Table 6 ARDL bound test for WPI and total fiscal expenditure, April 1997–98 to June 2015–16

Bound test and restricted ECM results for ARDL (2, 7)		
Variables	Result value	Other relevant value
Bound test (Wald F statistic)	25.85	Pesaran and Shin critical values at 95% confidence level 4.94 for $I(0)$ and 5.73 for $I(1)$
$lnWPI_{t-1}$ bound t statistic	−6.91	Pesaran and Shin critical t-values at 95% confidence level −2.86 for $I(0)$ and −3.22 for $I(1)$
B-G serial correlation unrestricted ECM	p value = 0.60	
Error correction term	−0.0043	p value = 0.04
Long run effect	0.43	
B-G serial correlation restricted ECM	p value = 0.21	

$$\begin{aligned}\Delta lnWPI = 0.0024 + 0.43\Delta lnWPI_{t-1} + 0.03\Delta lnWPI_{t-2} - \\ 0.00026\Delta lnG_{t-1} - 0.00147\Delta lnG_{(t-2)} - \\ 0.00137\Delta lnG_{(t-3)} - 0.00106\Delta lnG_{(t-4)} - \\ 0.0015\Delta lnG_{(t-5)} - 0.000015\Delta lnG_{(t-6)} + \\ 0.000065\Delta lnG_{(t-7)} - 0.0043(lnWPI_{t-1} - 0.47lnG_{(t-1)})\end{aligned} \tag{4.1}$$

5 Conclusion

In this chapter empirical examination of the impact of fiscal policy on inflation since the onset of liberalization has been carried out. The study has used monthly data from April 1997–98 to June 2015–16 to analyze.

The study has found that there is the long run relationship between the total central government expenditure and WPI based inflation in post liberalization period of India. This relationship is strong and any deviation from it is corrected by 5.0% in the subsequent months.

The IRF shows that if fiscal expenditure is given a positive shock of 100.0% its cumulative impact on WPI in 5 years will be 14.0%. At the same time total fiscal expenditure explains around 9% variance error in WPI 24 months after the initial shock.

Based on the empirical analysis in this chapter it is argued that fiscal policy is important in explaining inflation in India. So, there should be coordination between monetary and fiscal policy, for monetary policy to succeed in containing inflation within targeted range.

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