Do Instruments of Monetary Policy and Fiscal Policy Affect Firm-level Leverage? Evidence from Pakistan and India

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Abstract

Monetary and Fiscal policy instruments are important macroeconomic variables that may influence the financing choices of a firm. However, empirical evidence with respect to their influence on firm-level leverage is somewhat under researched particularly in the context of developing countries. The main objective of this study was to measure the influence of monetary and fiscal policy instruments on the leveraging of non-financial firms listed of Pakistan and India for the period 2006-2017. The findings of the study revealed that monetary and fiscal policy instruments do influence leverage decisions of listed firms in Pakistan and India, however, the extent of their influence varies in both countries. In Pakistan, except real interest rates all other monetary and fiscal policy instruments significantly influence leveraging decisions of listed firms whereas in India only real interest rates significantly influence leverage decisions of listed firms. Moreover, in Pakistan only incomes taxes negatively influences leverage whereas all other variables positively influence leverage. In India tax revenue, real interest rate and M2 negatively influence leverage whereas incomes taxes and public debt positively influences leverage.

Keywords: Monetary policy, fiscal Policy, tax revenue, public debt, real interest rate, M2, leverage
JEL Classification: E42, E52, E62, F31

1. Introduction

During the last few decades numerous theories have been presented to describe the variety of financing sources available to firm. Indeed, financing decisions by the firm is, perhaps, the most attracted area in finance for prominent researchers following the landmark study of Modigliani and Miller (1958) where they emphasize that the financing choice is irrelevant to firm value. Although, there is no theory with respect to debt to equity choice that is universally accepted, yet there are a number of theories that have been presented during the last few decades that attempted to explain firm's preferences for financing decisions. Almost all of these theories have focused on firm level characteristics while controlling for macroeconomic conditions (Bokpin, 2009). Trade-off theory assumes that firms are in search for an optimal capital structure that will maximize the wealth of the business by balancing the benefit and cost of debt and equity. Pecking order theory assumes that an order of preference is being followed by corporations while making their capital structure decisions that is internal funds are preferred over debt and debt over equity. Market timing theory is built on the concept that firms time their debt security and equity issues. However Norvaisiene and Stankeviciene (2007) noted that the selection of appropriate financing choice of every firm cannot be fully explained by existing theoretical models.

Moreover, existing theory and empirical evidence suggests that access to external financing becomes easier if the financial systems are well developed (Levine, 2004). In a study, Levy (2000) argued that "firms' that exhibit low degrees of financial constraints have pronounced counter-cyclical leverage with much of the variation attributed to varying macroeconomic conditions". He further revealed that these highly pronounced countercyclical leverages are not exhibited by firms who exhibit financial constraints of higher degree. This presumes that there is a systematic variation in financing choices as a result of variation in macroeconomic conditions. Frank and Goyal (2003) argued that internal determinants inside the country roughly contribute about 30% of the differences in capital structure. This means that there are many other factors that affect capital structure apart from the internal determinants.

Empirical literature related to the credit channel has considerably focussed on the link between macroeconomic development and access to capital markets by the firms. The principle focus of this literature is firm's dependence on external borrowing and the associated agency problems while accessing external funds. In both empirical literature and theory, the relationship between macroeconomic factors and

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security issues in various economies has been analysed mostly analysed through the credit channel (Levy, 2000).

Globalization and the integration of financial markets have not only provided opportunities for businesses to grow but also is a source of uncertainty for the firm (Oxelheim & Wihlborg, 2008). Changes in macroeconomic conditions in international markets influence domestic macroeconomic environment. No firm today can claim that it is not influence by changes in international markets (Eyraud, Singh & Sutton, 2017). Even a purely domestic firm is influence by changes international markets as a result interest rate changes, exchange rates etc. In such a scenario it has become very challenging for managers to run their businesses efficiently and effectively.

Horny, Manganelli and Mojon (2016) observed that macroeconomic stability is immensely important for the development of corporate bond market. Furthermore, he added that it is also important to control fiscal deficit and reduce the level of inflation. Nevertheless, most of capital structure theories have focussed on firm level determinants. Hackbarth, Miao and Morellec (2006) revealed that little importance has been given to macroeconomic conditions and its influence on financing decisions of the firm despite the fact there is substantial literature on capital structure determinants (see Titman and Wessels, 1988; Bokpin, 2009; Frank & Goyal, 2009; Nguyen & Wu, 2011, Keshtkar et al., 2012; Oztekin, 2015). Moreover, a vast majority of empirical studies with respect to macroeconomic condition's influence on the financing decisions have focused on developed countries whereas emerging economies are somewhat ignored (see Fan, Wei & Xu, 2011; Mokhova & Zinecker, 2014; Painer et al. 2015). This stresses the need for further research on developing countries as they are passing through different stages of economic development with varied macroeconomic conditions and behaviour of firms with respect financing choices might be different as compared to developed countries.

Firms tend to operate better if the macroeconomic environment is stable and conducive (Pal & Mittal, 2011). Monetary policy and fiscal policy are crucial to achieving macroeconomic stability. Therefore, the paper aims to comparatively analyse the impact of instruments of monetary policy and fiscal policy on the financing choices of listed firms in Pakistan and India. As the external environment is beyond the control of the firm, therefore, changes in interest rates, tax rates, inflation rates etc. domestically and internationally may affect firms both positively as well as negatively. The integration of financial markets has made interest rates and inflation rates important factors to consider because interest rates changes in international markets may lead to changes in domestic interest rates thus affecting the cost of borrowing for local as well as multinational firms. Apart from filling gap of limited research on macroeconomic conditions and their influence on capital structure in emerging economies, this study adds to the literature by using a slightly different measure of leverage i.e. economic leverage. Most of the empirical studies have used either debt divided by total assets or debt to equity ratio. Secondly, public debt an important variable has been rarely used in empirical studies particularly in the context of developing countries. Government's around the world finance their budgetary deficits through internal as well as external borrowing. Since saving rates are particularly low in developing countries, borrowing by the government from the total pool of loanable funds available leaves very little for private sector to borrow. Additionally, lending institutions also prefer to lend to the government due to lower risk of default and government willingness to pay higher interest which cannot be matched by the private sector.

This study will be helpful for managers in understanding the behaviour of these macroeconomic factors, the extent of their influence, level and direction which will help managers in making quality long-term financing decisions.

2. Literature Review

While reviewing the empirical literature, we found that a number of empirical studies have focussed on macroeconomic conditions and capital structure (see Demirguc-Kunt & Maksimovic, 1999; Korajczyk & Levy, 2003; De Jong et al., 2008; Camara, 2012; Fan, Titman & Twite, 2012; Baltaci & Ayaydin, 2014; Khanna, Srivastava & Medury, 2015; Buvanendra, Sridharan & Thiyagarajan, 2016; Pepur, Curak & Poposki, 2016). Findings of these studies revealed that macroeconomic conditions significantly influence financing decisions of the firm.

Among the macroeconomic factors, inflation rates and interest rates are probably the two most common factors that have been used while analysing the consequence of macroeconomic factors on borrowing decisions. Inflation rates and interest rates are closely related and both often move in similar direction. If inflation rate rises, so does the interest rates and vice versa. However, the empirical evidence with respect to their influence on financing decisions is rather mixed. Studies from Noguera (2001),

Hanousek and Shamshur (2011), Lemma and Negash (2013) found a positive effect of inflation rate on financing decisions. They further added that, interest rate rises as a result of rise inflation rate which provides an incentive for firm to exploit tax shield advantages thus increasing the level of borrowing by the firm. On the contrary, studies from Booth et al., (2001), Gajurel (2006), Dincergok and Yalciner (2011), Baltaci and Ayaydin (2014) concluded that financing decisions and inflation are negatively related, whereas, Bastos et al., (2009) finds no relationship between inflation rate and financing decisions.

Similarly, studies from Graham and Harvey (2001), Drobetz et al., (2006), Henderson Jedadesh and Weisbach (2006) and Amjed and Shah (2016) concluded that interest rates and leverage are negatively related. This means that the preference of the managers is to borrow when interest rates are lower and vice versa. On the contrary, Bokpin (2009) found positive impact of interest rates on leverage. In periods of rising interest rates, profit hungry banks will make additional funding available to benefit from these rising interest rates thus encouraging firms to borrow as supply of loanable funds improves. Memon, Rus and Ghazali (2015) argued that interest rates significantly influences leverage levels. However, Handoo and Sharma (2014) concluded that there is no significant effect of both short-term and long-term interest rates and leverage.

Another macroeconomic variable that has received researcher's attention in empirical studies is public debt. Governments resort to borrowing when they are faced with budgetary deficits. However, the supply of loanable funds is significantly affected by government borrowing thus leaving very little for the private sector to borrow. Dincergok and Yalciner (2011) found a positive influence government debt on leverage. Whereas as Mokhova and Zinecker (2014) found a negative influence of government debt on leverage.

M2 is another important macroeconomic variable has been used in empirical studies to measure its effect on financing decisions. M2 basically measures the supply of money in circulation. Increases in M2 leads to decline interest rates thus lowering the cost of financing and vice versa. Mokhova and Zinecker (2014) while analysing a sample of European countries concluded that in developed economies M2 positively influence leverage whereas in emerging economies it is negative. Moreover, Pao (2008) also found positive impact of M2 on leverage. Lastly, tax revenue as an external factor has also been used in empirical to measure its effect on leverage. Tax revenue an important source of revenue for the government significantly influences government demand for external funds to meet budgetary deficits and thus loanable funds in the market. Increase in tax revenue lowers the demand for borrowing from financial markets by government thus increasing the availability of loanable funds for private sector to borrow. Empirical findings from Mokhova and Zinecker (2014) confirmed positive relationship between tax revenue and leverage.

3. Data and Methodology

Since the study aims to analyse the effect of instruments of monetary and fiscal policy on the firm's capital structure, therefore, secondary data was used for this purpose for the period 2006-2017. Firm level data (leverage) was collected from State Bank of Pakistan's database and money control database for Pakistan and India respectively. Data for M2, interest rates, inflation rate (GDP deflator), tax revenue, income taxes and public debt was collected from World Bank database. The sample consisted of all listed firms of Pakistan Stock Exchange (PSX) and Bombay Stock exchange (BSE). However, only those firms were considered that remain listed throughout the study period i.e. 2006-2017. The final sample comprised of 929 firms.

Whiling collecting data we noticed that firm's distribution across various industrial sectors varied significantly in both countries. Comparatively, Indian economy is much larger in size and more diverse in terms of industrial sectors than that of Pakistan. BSE currently has more than 30 different industrial sectors whereas PSX only has 12 industrial sectors. For meaningful comparison between the two countries, firms from only those sectors were selected that were common in both countries. PSX was used as a benchmark for the selection of firms. In this regard certain reorganizations were carried out with respect to BSE listed firms and Industrial sector to make them similar to PSX. For instance, in BSE oil drilling, power generation and fuel are separate sectors whereas in PSX they are clubbed together under the head of fuel and energy. So, oil drilling, power generation and fuel sectors of BSE were also clubbed together under the head of fuel and energy.

Table 1 Break down of number of firms selected from each industrial sector

Industry	KSE(Pakistan)	BSE(India)
Textile	154	149
Cement	20	26
Sugar	31	34
Auto and Parts	22	68
Fuel and Energy	26	36
Food	16	27
Transport and Telecommunication	13	29
Paper	09	34
Pharma and Chemicals	43	192
Total	**334**	**595**

Monetary policy instruments used in the study are real interest rates (RIR) measured through nominal interest minus inflation rate (measured through GDP deflator) and M2 representing money and quasi money was measured as M2 as a percentage of GDP. Fiscal policy instruments used in this study are public debt (PD) measured through public debt as a percentage of GDP, income taxes (IT) measured incomes taxes as percentage of revenue and tax revenue as a percentage of GDP was used as measure of tax revenue (TR). Economic leverage (EL) is measure through return on equity divided by return on assets.

3.1 Estimated Model

Since the selected data contained features of both cross-sectional and time series data, therefore, panel data regression was used in this study to measure the influence of monetary and fiscal policy instruments on the financing choices of the listed firms of Pakistan and India. Panel data offers several advantages over other estimation techniques such as it offers more degrees of freedom, estimation bias is reduced or eliminated, problems of multicollinearity is limited and provides a solid foundation for aggregate level data analysis.

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Where α is the Intercept, β is the slope, i stands for ith cross-sectional unit and t for the tth time period, EL_{it} is leverage, IT_{it} stands for income tax as a percentage of revenue, RIR_{it} is Real interest rate, TR_{it} is tax revenue, $M2_{it}$ is money supply, PD_{it} is public debt and μ_{it} is the error term

For Pakistan

$E(EL_{it} | D_{it} = 0, IT_{it}, RIR_{it}, TR_{it}, M2_{it}, PD_{it}) = \alpha 1 + \beta 1IT_{it} + \beta 3RIR_{it} + \beta 5TR_{it} + \beta 7M2_{it} + \beta 9PD_{it} + \mu t$

For India

$E(EL_{it} | D_{it} = 1, IT_{it}, RIR_{it}, TR_{it}, M2_{it}, PD_{it}) = (\alpha_1 + \alpha_2) + (\beta_1 + \beta_2)IT_{it} + (\beta_3 + \beta_4)RIR_{it} + (\beta_5 + \beta_6)TR_{it} + (\beta_7 + \beta_8)M2_{it} + (\beta_9 + \beta_{10})PD_{it} + \mu_{it}$

α_2 in the model is the differential intercept and β_2, β_4, β_6, β_8, β_{10}, are the differential slope coefficients indicating by how much the slope coefficients of India that receives the dummy value of 1 differs from that of Pakistan.

The multiplicative form of D_{it} helps us to distinguish between slope coefficients of the Pakistan and India, just as dummy variable introduction in the additive form assists us to differentiate between the intercepts of Pakistan and India. If " α_2 which is the differential intercept coefficient is statistically significant then we can reject the hypothesis that the intercept of both regressions are same. Similarly, if β_2 which is the differential slope coefficient is statistically insignificant but α2 is significant, we may not reject the hypothesis that the two regressions have the same slope, that is, the two regression lines are parallel"(Gujarati, 2004)

In panel data we find two common models that are repeatedly used by researchers in empirical studies. They are random effects and fixed effects. Both models differ from each other, random effects, on one hand, assumes the intercept of each firm is a randomly drawn from a significantly large population

having a constant mean value. On the other hand, fixed effects model assumes that each firm's intercept is different from that of the other. Hausman test introduced in 1978 is basically a specification test that tells us whether a random effects model is more appropriate or fixed effects is more appropriate in a given data. Moreover, Hausman test also helps in eliminating selection bias associated with the selection of appropriate model. On the basis of Hausman test statistics, it is concluded that fixed effects model is more appropriate.

Table 2 Hausman Test

Test cross-section random effects

Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	48.04	5	0.002

Before estimating the panel regression equation, there are several factors like multicollinearity and heteroscedasticity that must be considered. Issues related to heteroscedasticity were handled through assigning estimated generalized least squares with cross-sectional weights. Various Inflation factors (VIF) were also calculated to determine whether multicollinearity exists or not among independent variables.

Table 3 Variance Inflation Factors

Variable	VIF
PD	1.04
RIR	1.01
M2	1.90
IT	2.13
TR	1.89

On basis of VIF statistics given in table 3, we can say that multicollinerity is not an issue here. For multicollineraity to exist, the value of VIF should be greater than 10 (Gujrati, 2004). Multicollinearity basically means high correlation between two or more independent variables. In the presence of multicollnearity, precise estimation becomes difficult because multicollinearity may lead to high R-Square, insignificant p-values and large variances and co-variances (Gujrati, 2004).

4. Results

4.1 Descriptive Statistics

Table 4 and 5 shows the descriptive statistics of the variables with respect to Pakistan and India respectively. The mean value of economic leverage is 44.21% in Pakistan whereas it 55.60% in India which shows that on average the level of leveraging is comparatively high in Indian firms as compared to Pakistani firms. Moreover, economic leverage's standard deviation is 2.57 and 2.75 in Pakistan and India respectively. The mean average of income taxes is 26.17 and 25.93 in Pakistan and India respectively. It means that income taxes amounts to 26.17% and 25.93% of total revenues in Pakistan and India respectively. Standard deviation of income taxes is 1.41 in Pakistan and 2.04 in India. The average of public debt is 61.26 % of GDP in Pakistan whereas in India it is 71.10% of GDP. Standard deviation of public debt is 2.46 in Pakistan and 3.04 in India. Average value of real interest rate is 0.86% in Pakistan whereas it is 4.23% in India. Standard deviation of real interest rate is 5.23 in Pakistan and 2.27 in India. Average of tax revenue is 9.84% of GDP in Pakistan and 14.32% of GDP whereas the standard deviation tax revenue is 0.64 and 0.59 in Pakistan and India respectively. Average of M2 (money supply) is 53.05% of GDP in Pakistan whereas it is 77.01 of GDP in India. Standard deviation of M2 is 2.81 in Pakistan and 3.03 in India.

Table 4 Descriptive Statistics: Pakistan

	EL	IT	M2	PD	RIR	TR
Mean	44.21	26.17	53.05	61.26	0.85	9.84
Median	36.93	25.70	52.34	62.00	3.65	9.98
Maximum	125.49	28.85	58.86	63.90	7.90	11.18
Minimum	0.00	24.51	48.10	56.40	-8.1	8.90
Std. Dev.	2.57	1.41	2.81	2.46	5.22	0.64
Skewness	-0.31	0.54	0.47	-0.82	-0.53	0.41
Kurtosis	9.32	2.00	3.03	2.35	1.80	2.58
Jarque-Bera	5612.20	300.87	123.54	433.17	361.82	118.79
Probability	0.00	0.00	0.00	0.00	0.00	0.00
Observations	3340	3340	3340	3340	3340	3340

Table 5 Descriptive Statistics: India

	EL	IT	M2	PD	RIR	TR
Mean	55.60	25.93	77.01	71.10	4.23	14.32
Median	48.62	26.13	78.17	69.60	4.70	14.40
Maximum	147.29	28.49	80.14	77.10	7.20	15.22
Minimum	0.00	21.68	69.53	67.50	-0.70	13.24
Std. Dev.	2.75	2.04	3.03	3.04	2.27	0.59
Skewness	1.61	-0.62	-1.52	0.67	-0.77	-0.30
Kurtosis	4.60	2.51	4.10	2.09	2.86	2.13
Jarque-Bera	3204.42	447.36	2602.79	649.50	595.42	276.03
Probability	0.00	0.00	0.00	0.00	0.00	0.00
Observations	5950	5950	5950	5950	5950	5950

4.2 Panel Regression Analysis

Table 6 shows the comparative influence of instruments of monetary and fiscal policy on the funding choices of listed firms in Pakistan and India. From table 6, it is evident that in Pakistan income taxes, tax revenue, public debt and M2 significantly influences financing decisions of firms in Pakistan whereas in India only real interest rate significantly influences financing decisions of firms in India. Moreover, in Pakistan except incomes taxes other variables have positive relationship with economic leverage whereas in India only income taxes and public debt has positive relationship with economic leverage.

Table 6 Panel Regression Analysis of Pakistan and India

Pakistan				**India**			
Variable	**Coefficient**	**Std. Error**	**Prob.**	**Variable**	**Coefficient**	**Std. Error**	**Prob.**
C	0.577	0.443	0.193	**C**	5.788	0.431	0.000
IT	-0.077	0.013	0.000	**IT**	0.005	0.006	0.445
TR	0.045	0.016	0.007	**TR**	-0.022	0.022	0.318
PD	0.083	0.009	0.000	**PD**	0.001	0.002	0.770
RIR	0.007	0.005	0.138	**RIR**	-0.007	0.003	0.038
M2	0.022	0.004	0.000	**M2**	0.001	0.003	0.955
R-squared	0.66	**Adjusted R-squared**		0.62	**S.E. of regression**		2.23
F-statistic		17.45		**Prob (F-statistic)**			0.00

The differential intercept given in table 7 is statistically significant which means that the intercept of both Pakistan and India is different from each other. Coefficients values with respect to India are derived through the summation of slope coefficients and differential slope coefficients. For instance, the tax coefficient for India was calculated by summing up the coefficient of tax and the differential slope coefficient DIT given in table 7. Similar process was adopted for other variables as well.

Table 7 Regression Results: Slope Coefficients and Differential Slope Coefficients

Variable	Coefficient	Prob.
C	3.914	0.000
TAX	-0.077	0.000
DIT	0.08s	0.000
TR	0.045	0.007
DTR	-0.066	0.041
PD	0.083	0.000
DPD	-0.082	0.000
RIR	0.007	0.137
DRIR	-0.014	0.031
M2	0.022	0.000
DM2	-0.022	0.000

From table 6 we can see that in Pakistan income taxes have a strong negative influence on economic leverage whereas in India it is positive but the relationship is weak statistically. Results from Pakistan are quite surprising as rise in income taxes leads to decline in leverage and vice versa. Theoretically, increase in taxes increases revenue of the government thus lowering the dependence on external funds to finance budget deficits. One possible explanation for this can be that during periods of economic growth investment opportunities tends to rise which not only increases level of employment about also the income level of employees as a result of good performance by the firm. The increase in firm profitability decreases demand for external funds as more internal funds may be available to meet firm future financing needs and vice versa. Studies from Mokhova and Zinecker (2014) also found strong negative influence of income taxes on leverage particularly in developing countries whereas in developed countries they found positive influence. Moreover, the p-value of differential slope coefficient DIT is significant which means that the influence on income taxes is significantly different in Pakistan from that of India.

Tax revenue has a strong positive influence on economic leverage in Pakistan whereas in India it is negative but weak. Since tax is the primary source of revenue for the government, therefore, increase in tax revenue lowers the demand for external funds thus improving the availability of loanable funds to private sector. Mokhova and Zinecker (2014) also found positive impact of tax revenue on leverage in France and Greece whereas in rest of the countries it was negative. The p-value of differential slope coefficient DTR given table 7 indicates that the influence of tax revenue is significantly different in Pakistan from that of India.

M2 has a strong positive relationship with economic leverage in Pakistan whereas it is negative but weak in India. As per macroeconomic theory, interest rates tend to decline as money supply increases thus encouraging firms to borrow and vice versa. During the past few years interest rates have gone down in Pakistan resulting in increased borrowing by the firms. Furthermore, decline in interest rates may result in decline tax shield advantages of debt thus discouraging firms to borrow. As a result, the tax shield advantages of using debt declines which may discourage firms to borrow as there are lower tax shields to exploit from the use of debt. Mokhova and Zinecker (2014) also found positive impact of money supply on leverage. The p-value differential slope coefficient DM2 given in table 7 demonstrates that there is a significant difference between the influence of money supply on economic leverage in Pakistan than that of India.

Theoretically, increase in public debt should lead to decline in borrowing by the private sector. But here in case of both Pakistan and India the results are not only surprising but contrary to our expectations. From table 6, we see that the coefficients of public debt are positive in Pakistan and India thus indicating that firm level leverage rises as public debt rises and vice versa. However, in Pakistan influence is strong as compared to India. One possible explanation this can be that borrowing by government increases the demand for funds in market which pushes the interest rates upwards. Upon witnessing rise in interest rates, profit oriented banks gets encouragement to increase the supply of loanable funds in the market in order to exploit and benefit from high interest rates. Improved supply of loanable funds in the financial markets not only provides an opportunity for firms to meet their financing needs but also enables firms to exploit increased tax shield advantages. The empirical findings of Dincergok and Yalciner (2011) also support our finding where they also found positive influence of public debt on leverage. The p-value of differential slope coefficient DPD given table 7 indicates that the influence of public debt is significantly different in Pakistan from that of India.

Lastly, real interest rates have positive influence on economic leverage in Pakistan whereas it is strong and negative in India. In Pakistan leverage level rises with increase in interest rates as they are more tax shield advantages to exploit but in case of India rise in interest rates leads to decline in leverage levels. One explanation for this can be that in India rise interest rates may lead to increase in tax advantages of debt but the associated cost financial distress may out weight the benefit of debt thus discouraging firms to borrow. Deesomsak et al., (2004), Drobetz et al., (2006) and Antoniou et al., (2008) also found inverse effect of interest rates on leverage and concluded that firms prefer to borrow from external sources when rates of interest are lower on borrowed funds. The p-value of differential slope coefficient DRIR given table 7 indicates that the influence of real interest rate is significantly different in Pakistan from that of India.

5. Conclusion

As the external environment is beyond the control of the firm, changes in fiscal policy and monetary policy which are important macroeconomic variables may positively or negatively influence the financing decisions of the firm. The objective of the study was to measure the influence of monetary and fiscal policy instruments on the leveraging of listed of Pakistan and India for the period 2006-2017. The study found that monetary and fiscal policy instruments do influence leverage decisions of listed firms in Pakistan and India, however, the extent of influence varies in both countries. In Pakistan, except real interest rates all other monetary and fiscal policy instruments significantly influence leveraging decisions of listed firms whereas in India only real interest rates significantly influence leverage decisions of listed firms. Moreover, in Pakistan only incomes taxes negatively influences leverage whereas all other variables positively influence leverage. In India tax revenue, real interest rate and M2 negatively influence leverage whereas incomes taxes and public debt positively influences leverage.

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