THE DETERMINANTS OF DOMESTIC PRIVATE INVESTMENT IN ETHIOPIA

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Abstract: *Private investment is viewed as a powerful tool for maintaining and expanding the capital formation and production capacity of an economy. Thus, Ethiopia has recently embarked on policies that aim at rebalancing the role of public and private sector in the economy. To do so, the country has been giving a strong emphasis on the development of private sector. Hence, this study was conducted with the main objective of identifying factors that determine domestic private investment in Ethiopia. The study examined the determinants of domestic private investment in Ethiopia using a time series data over the period from 1992 to 2017. Then, OLS regressions model was applied after the data sets were transformed to natural log form. It systematically examines the major determinants of domestic private investment by undertaking various techniques of tests such as unit root test, multicollinearity, autocorrelation, heteroscedasticity, normality and model stability test. As the finding indicates that bank credit availability and gross domestic saving have statistically significant and positive effect on domestic private investment, while public investment, annual lending interest rate, inflation rate and resource gap have statistically significant and negative effect on the performance of domestic private investment under the study period. But, public debt burden has statistically insignificant effect on private investment in Ethiopia under the study period. Hence, to promote the participation of private sector investment level, it is essential to take measures that can improve bank credit access for domestic private investors and the government should take action for increasing domestic saving through increasing deposit saving rate and strengthen financial institutions to provide sufficient financial resource to private investors. Besides, the government that ensuring stable investment environment (such as consistent investment policy, regulatory frameworks, and macroeconomic and political stability), and addressing bureaucratic inefficient and poor governance problems are necessary to build lasting confidence of private investors.*

Key words: Domestic private investment, Determinants, OLS model, saving, economic development

1. Introduction

In the process of economic growth of countries, investment plays a crucial role to raise productivity through encouraging technological progress and promotes new techniques of production. It also plays an enormous role in the long run capital accumulation since investment increases productive capacity and creates new capital goods. Hence, as investment rates increase the rate of accumulation of capital stock increases rapidly (Majeed and Khan 2008). Over the years, this has been a dominant variable in macroeconomic development in developing countries. Accordingly, researchers have conducted a lot of research for the importance and determinants of the operations of investments. They argued that investment is a key for economic growth because high investment rates are widely considered to be an essential condition for attaining a high and sustainable growth rate (Levine & Renelt, 1992). It is also argued that investment is the major foundation of enhancement in the level of literacy, improvement in technology and increase in the capital stock (Blejer and Khan, 1984). To strengthen this argument, the Organization for Economic Cooperation and Development (OECD, 2012) indicated that a strong investment sector contributes prominently to the economy of a country through creating more employment opportunities, generating higher production volume, increasing export and introducing innovations.

Investment has been regarded as one of the primary engines of economic growth (Wade, 1989 and UNCTAD, 2001). Especially private sector investment plays a vital role in the growth process of developing countries like Ethiopia and it determines the rate at which physical capital is accumulated (Jongwanich & Kohpaiboon, 2006).

And also, private investment is one of the most important economic processes that countries attach great importance to as one of the most important components of the economic growth of the country and the main engine of the economic cycle (Mankiw, Romer and Weil, 1992). Additionally, as quoted by Reinhart, Ghura and Hadjimichael (2013), private investment is still a key to solving economic problems such as poverty and unemployment, especially in developing countries. Hence, Successful mobilization of private investment is thus increasingly important for creating employment, raising growth rates and reducing poverty through the growth of private business by creating an enabling environment both in the domestic and overseas markets (MoFED, 2000). However, recent theoretical and empirical studies tend to suggest that reviving private investment may proof difficult unless efforts are made towards restoring consistency and stability in macroeconomic policy environment of business (Pindyck, 1991).

Private investment contributes more meaningfully to economic growth than public investment. The reason for this statement as given by (Seruvatu and Jayaraman, 2001) is that corruption seems to be less in the private sector investment compared to the public sector investment. Furthermore, as quoted by (Dehn, 2000) and (Bakare, 2011), since private investment is more efficient and less closely associated with corruption, it has a stronger and more positive effect on economic growth than public investment. Similarly, (Batistar , 2015) supports the idea of private investment playing a greater role than public investment in determining economic growth of the country. Majeed and Khan, 2008, argued that countries with a high participation of private investment succeeded in higher economic growth. Similarly, (Oshikoya, 1994), pointed out that private investment performs well and less likely connected with corruption and other related factors and precisely robust economic growth can be achieved through promoting and encouraging domestic private investment and increasing its share in the total investment rates. Thus, it requires greatest effort to mobilize domestic resources and more effort needs to create conducive environments for the development of domestic private investments.

The fundamental challenge that developing countries like Ethiopia are facing with the way to increase investment rates domestically, thus the policy they followed significantly affects the private domestic sector given the limited amount of FDI in the developing regions. Thus, when policy is established it should be conducive to the development of domestic investors (Ghura and Goodwin, 2000). Moreover, a major challenge to the Ethiopian economy is that people saving capacity are low, in turn low levels of capital accumulation thus leading to poor performance in investments and involvement of private sector investors in the economy remain below in comparison with other developing countries in SSA region. Domestic capital formation can be enhanced through people saving domestically and thus, it is hoped people will reduce their current level of consumption to save and invest (Deneke, 2001).

Although different research conducted by previous researchers and also various investment incentives given by the government for the private sector, the area still identified as there is low private investment participation and thus low contribution for economic growth in Ethiopia. Hence, the issue needs further researches so as to sort out what are the major factors determining private investment in Ethiopia too and this will help the concerned bodies to focus on the relevant factors. There has been mounting evidence that private investment depends on number of variables which significantly contributes to its growth. Monitoring and maintaining these variables well is a precondition for growth and development and it is believed to be the most certain way of enhancing private investment. This study therefore attempts to identify the determinants of private sector investment in Ethiopia.

2. Objective of the study

The objective of this study is to identify the determinant factors that affect domestic private investment in Ethiopia.

Research Hypothesis

Based on theories discussed in the literature review section, the following hypotheses are developed:
H1: There is a positive and significant relationship between bank credit access and private investment

H2: There is significant and positive relationship between public investment and private investment.
H4: There is significant and positive relationship between gross domestic saving and domestic private investment.
H3: There is significant and negative relationship between lending interest rate and private investment.
H5. Resource gap has a negative effect on domestic private investment

H6: There is significant and negative relationship between inflation rate and domestic private investment.
H7. Public debt burden has a negative effect on domestic private investment.

3. Review of related literature

The study of the determinants of private investment has been afforded extensive detail in formal investment models based on the experiences of developed countries. Chirinko (1993) provides some insights into the different forms of some of these theoretical models. The theories of capital and investment have also long been intertwined and related (Gould, 1969). Approaches to the study of investment can be categorized in at least five broad theories. They consist the flexible Accelerator theory, Cash flow theory, Neoclassical theory, Modified Neoclassical (Bischoff) theory and the Tobin's Q theory.

The Flexible Accelerator Theory (Clark, 1917)
The basic notion behind the flexible accelerator model is that the larger the gap between the existing capital stock and the desired capital stock, the greater a firm's investment (Ghura and Goodwin, 2000). The hypothesis is that firms plan to close a fraction of the gap between the desired capital stock Kt* and the actual capital stock Kt, in each period (Chirinko, 1993). Within the framework of the flexible accelerator model; output, internal funds, cost of external financing and other variables may be included as determinants of Kt* (Chirinko, 1993). In accelerator theory of investment behaviour, desired capital (Kt*) is proportional to output (Yt) expressed as $Kt^* = \alpha Yt$ (as in the Aftalion Clark simple or rigid version); and actual capital, $Kt = \mu\alpha Yt$ (as in Chenery and Koyck flexible version), where α is the desired capital output ratio and μ is a constant parameter of adjustment (Ambachew, 2010). The main implication of the model is that the investment expenditure of an investing firm is proportional to its output while its output is a function of demand. Samuelson's accelerator theory suggests that investment is a function of past changes in income (Galbraith, 1987). It follows the Keynesian view that changes in investor's expectations about future economic conditions influence the levels of investment. The desired investment stock depends on planned output. Neoclassical writers believed that investment is very sensitive to the interest rate while Keynes and his followers took the position that changes in investor's expectations about future economic conditions are far important in explaining changes in levels of investment. Both groups agreed that equilibrium investment occurs when the expected rate of return in investment equals the rate of interest (Byrns and Stone, 1981). On government spending, it is postulated that decreases in government spending direct deflate the demand for goods and services. According to Keynesian view point this leads to decreased investment activities (Bodie, Alex and Marcus, 2009).

Cash Flow Theory
There are theories hinging on profits or profits earned by business units and industries instead of output (Chirinko, 1993). This analysis of profit and investment relationship has several variants, one of which is that investment is affected by current profits, the amount of retained profits, or by other variables like output, price and sales, which reflect the profits (Chirinko (1993). The profit theory posits that the greater the gross profits, the greater will be the level of internally generated funds and in turn the greater will be the rate of investment (Zebib and Muoghalu, 1998).

Current and past profits or cash flows have been thought of as good proxy for future profit expectations which in turn determine investment (Bischoff, 1971). Additionally, cash flow is also seen as a source of funds so the cost of funds to the firm rises when internal funds are exhausted given imperfect market condition. According to Cherian (1996), the managerial and the information theoretic approaches to investment were the latest. Both approaches emphasize the role of internal finance as the fundamental determinants of investment and can be regarded as the modern versions of liquidity theory. In the managerial view, internal finance is preferred as it facilitates

discretionary behaviour by managers while in information theoretic viewpoint, due to information asymmetries between insiders and outsiders. And also the Expected Profits (Cash Flow) theory of investment formalized by Grunfeld (1960) explains desired capital as a proportion of the market value (Vt) of a firm, $Kt^* = \alpha Vt$, where α is the desired ratio of capital to market value of a firm. Tobin (1969) has also proposed a model regarded as a generalization of the Expected Profits model in which investment expenditure is related to the ratio of the market value of business capital assets (Vt) to the replacement value (δt) of those assets (Cherian , 1996).

Neoclassical Theory

Chirinko (1993), reports that in the neoclassical approach, the desired or optimal capital stock is proportional to output and the user cost of capital (which in turn depends on the price of capital goods, the real rate of interest, the rate of depreciation and the tax structure). Therefore an investment equation results from the gap between desired capital and the actual capital stock (Chirinko, 1993). The neo-classical theory argues that the rate of interest is the important determinant of investment. In contrast with the accelerator model, the neoclassical model assumes that the desired stock depends not only on planned output but also on the ratio of output price to the implicit rental price of the services of capital goods (Bischoff, 1971). Basically it is derives from a profit maximization process aimed at desired capital given a Cobb-Douglas production function. Bodie, Alex and Marcus (2009) note that Keynesian (demand-side) economists look at effects of taxes on consumption demand whereas supply-siders (neoclassical) argue that lowering tax rates will elicit more investment and improve incentive to work. Accordingly, monetary policy works largely through its impact on interest rates. Increases in the money supply lower interest rates which in turn stimulate investment demand (Galbraith, 1987).

Modified Neoclassical Theory

The Modified Neoclassical (Bischoff) model is a version of Neoclassical model in which the distributed lag is altered to accommodate the empirical observation that capital-output ratio are embodied in new equipment and structures rather than the existing ones (Clark, 1979). Since factor proportions are fixed at the time the equipment is designed, changes in factor intensities dictated by changes in the price of capital take place only as the old capital is replaced; so called the putty-clay hypothesis. Bischoff suggested that real output and the cost of capital should have separate lag structures in the determination of investment expenditure (Fazzari, Hubbard & Peterson 1988).

The Tobin Q theory of investment

Another theory of investment is the Tobin's Q model advanced by Tobin (1969). Tobin argues that firm's investment level depends on the ratio of the present value of installed capital to the replacement cost of capital. In the Tobin Q theory of investment, the ratio of the market value of the existing capital stock to its replacement cost (the Q ratio) is the main force driving investment (Chirinko, 1993, Ghura and Goodwin, 2000). That is to say, enterprises will want to invest if the increase in the market value of an additional unit exceeds the replacement cost. This ratio is Tobin's q. The q theory of investment assumes that firms will want to increase their capital when $q > 1$ and decrease their capital stock when $q < 1$. If $q > 1$, additional investment in the firm would make sense because the profits generated would exceed the cost of firm's assets. Under those conditions, firms reap profits by investing in more capital, so we expect investment to be high. If $q < 1$,the firm would be better off selling its assets instead of trying to put them to use or the present value of the profits earned by installing new capital are less than the cost of the capital therefore, investment levels are expected to be near zero if $q < 1$. The ideal state is where q is approximately equal to one denoting that the firm is in equilibrium which is also called the general equilibrium theory or 'q' theory.

Private investment determinants and their relationships

Economic theory (Kenya, 1936) suggests that there may be many determinants of private sector investment. Evidence tends to support the idea that the level of investment is determined by a number of variables. Empirical studies in this subject in the Sub Saharan African countries and other parts of the world seem to concur with this point of view. Factors that have been explored as attributable to investment changes include; changes in income, the cost of capital, the rate of return, public sector investment, credit to private sector, taxation, the terms of trade, the debt level, the exchange rate,

development of urbanization and among others (Ronge and Kimuyu ,1997).

Changes in national income are expected to move together with investment levels. As the flexible accelerator theory postulates (the Keynesian concept of multiplier which states that as the investment increase, income increases by a multiple amount, when income or consumption increases, investment will increase by a multiple amount) changes in investor‘s expectations about future economic conditions influence the levels of investment, the particular or main channel or variable to affect is the question of debate between the Keynesians and the Neo-Classical thinkers (Asante, 2000). The same applies to such factors as expected profits and the rate of return on investment while the converse is true for cost factors such as taxes and the cost of capital which are expected to be negative influencers (Were,2001; Quattara,2004).

Many of the studies in this area such as Bakare (2011) are of the view that infrastructural public investment is the one that complements private investment. For public investment, it is just a matter of whether it competes or complements private investment. Asante (2000) observed a recent track record of private investment is an indication of good investment climate and therefore is expected to encourage present and future private investment. Therefore, a positive correlation is expected with its present levels.

As observed in many studies involving developing countries including Ouattara (2004) and were (2001) among others, credit to private sector is an important determinant of private investment for developing countries. It is expected to exhibit a positive sign in his model as a booster of private investment. As Ronge and Kimuyu (1997) discusses financial repression and controls especially of credit availability in developing countries make it such an important factor impacting on the effects of other policy interventions such as fiscal and monetary policies. Interest rates effects have been, depending, hypothesized to be either positive or negative as many researchers have observed. This would depend on whether they would follow the Mckinon-Shaw hypothesis of interest rates boosting savings and so investments or the Neo-Classical view of interest rate as a cost factor being negatively related to investment (Muraga, 2006).

According to Acosta and Loza (2004), the theory of investment irreversibility also affects private investment. This theory suggests that the cost of investing in machinery and equipment is usually not recovered by a future resale. However, stable prices improve the informative content of the price system, allowing a favorable allocation of resources. Emerging countries are usually characterized by a high degree of uncertainty. Hence, for investment decisions to be made to yield the desired results uncertainty factors of such economies must be taken into consideration, since any sharp decline in aggregate demand would generate an unsustainable excess in installed capacity (Caballero and Pindyck, 1996). This accounts for the reason why advanced countries with lower uncertainty rate have high levels of private investment, as compared to developing economies with a higher uncertainty rate. The inflationary rate is normally use as a proxy for measuring uncertainty (Beaudry, 2001).

Empirical literature on determinants of private investment

The purpose of this section is to review related studies in worldwide to have a deeper understanding of the factors contributing for private sector investment growth. According to (Sakr, 1993), carried on studies on the private investment behaviour in Kenya and found a positive influence of savings, GDP growth and public investment on the behaviour of private investors.

Ronge and Kimuyu (1997) examined the determinants of private sector investment for Kenya using data over the period 1964-1996. A double-logarithmic form of the investment equation was estimated using ordinary least squares (OLS). The results indicated that both the availability of credit and foreign exchange exerts significant positive effects on private investment confirming the results in most empirical studies. Private investment, however, was adversely affected by the stock of debt. The study also establishes a negative effect of exchange rate depreciation on investment while public investment positively affect private investment, contrasting the results of Kazeem et al. (2012) where crowding-out was found. The interest rate was also found to be less important in

determining the level of private investment in Kenya.

Acosta et al. (2005) investigated the short run and long run determinants of private investment in Argentina for the period 1970 to 2000. The results from the ARDL model revealed that exchange rate, inflation, trade liberalization and shocks in the aggregate demand were the main determinants of private investment in the short run. Further, public investment was found to have a crowding-out effect on private investment in Argentina. In the case of the long run, external debt and domestic credit markets were found to be determines of private investment.

Osmond (2014) studied the determinants of private investment in Nigeria for the period from 1970-2012 by estimating the investment rate function derived from life cycle hypothesis while taking into account the structural distinctiveness of developing country. The study employed error correction model to avoid for the problem of spurious relations. The results of the study confirmed that investment rate is positively influenced by the growth rate of disposable income and the real interest rate on bank deposits. Investment rate in Nigeria is found to be influenced negatively due to low public infrastructure, high lending rate, low saving rate and political insatiability. Research on corruption has expanded in recent years, yet work investigating its impact on private investment is still in its infancy.

Ndikumana (2014) domestic savings appear to be an important driver of domestic investment. Similarly, bank credit to the private sector has a positive and statistically significant effect on domestic investment. The effect is nonlinear, suggesting that beyond a certain threshold of the credit to GDP ratio, the relationship between credit and investment turns negative. However, in this particular sample, the threshold implied by the regression results is high, implying that there is plenty of room for credit to increase in the range where the relationship between domestic investment and credit to the private sector is positive. The effect of credit on investment is quantitatively much larger than that of domestic savings. The results suggest that improvements in access to investment capital from the banking sector are a more potent tool to stimulate domestic investment than domestic savings. In other words, while both bank credit and domestic savings constitute potential sources of investment financing, domestic savings that are intermediated through the banking sector ultimately alleviate the financing constraints more effectively. The two results taken together are consistent with prior studies in the literature that have documented a powerful role by financial intermediation for domestic investment in Africa.

Chenery and Strout (1966) augmented the Harrod-Domar financing gap model with an understanding of the need to have savings funded internally. National saving, in the event of an existing temporary shortfall between investment ability and saving ability can be supplemented by foreign aid. Self-refinancing occurs if a particular country has a high enough marginal saving rate; only then will a country be able to finance its investment out of its own saving. Some scholars observed that the model has proved to be amongst those generally employed theories in explaining growth phenomenon in economics (Efendi, 2001) and equally used in reaching at all financing requirements decisions by International Finance Institutions (IFIs) (Easterly, 1999).

Saker (1993) suggested that transfers of capital from developed countries to developing countries play an important role as a driver of growth. In practical terms, Leontief considered that the key source of foreign capital was foreign aid. This would imply that to the extent that foreign capital inflows are used to finance capital investment, countries that receive more foreign aid would achieve higher levels of investment. However, the effect of foreign aid on domestic investment may be limited if a substantial fraction of foreign aid is allocated to financing consumption. Moreover, it has also been argued that foreign aid may reduce domestic savings and increase consumption in which case aid inflows would have little or no effect on domestic investment. This argument, however, has been contested on both conceptual and empirical grounds. The postulated positive relationship between foreign aid and domestic investment has been an important motivation for promoting increased aid inflows to developing countries as a means of encouraging domestic investment, which in turn is expected to stimulate growth.

Esubalew (2014) carried on studies on the macroeconomic determinants of private investment in east Africa region with panel data set from the period of 2000-2012. According to his studies macroeconomic factors such as variation in the output and real per capita growth, fiscal and monetary policy as well as exchange rate are the most determinant factors for the variation of private investment in eastern African countries over the study period. His study confirmed that domestic private investment is positively influenced by real GDP growth, financial availability as measured by credit to the private sector as the percentage of GDP and the development of human capital as measured by school enrolment has significant positive influence on the private investment of the region. On the other hand variable such as unstable macroeconomic environment, as measured by the inflationary situation, high external debt, fluctuation in the terms of trade, real exchange movement, public investment and real interest rate are found to hinder private investment significantly in East Africa.

The literature field of economic growth, external borrowing is awash with the perceived negative relationship between foreign debt and investment which consequently results into lower capital formation. Krugman (1988) defines this negative relationship as "debt overhang" where the potentials of repayment of outstanding facilities fall lower than the signed value. The study gave a straight forward definition of the problem of debt overhang as being the anticipated current value of any potential resource allocation that is not up to its outstanding loan. In those economies with heavy indebtedness "debt overhang" is considered a leading cause of distortion and slowing down of economic growth (Sachs, 1989; Bulow and Rogoff, 1990). Economic growth slows down because these countries lose their pull on private investors. Additionally, servicing of debts exhausts up so much of the indebted country's revenue to the extent that the potential of returning to growth paths is abridged (Chowdhury, 1998).

Kurabachew (2015) undertook a study on the public and private investment analysis in Ethiopia and the study found out the existence of the crowding out effect in the country. The study also evaluates the macroeconomic determinants of private investment in Ethiopia for the last three and half decades (1975-2010) in a short, medium and long run perspective by means of a regression analysis based on the co-integration and Error Correction Model (ECM) of Engle and Granger (1987) combined with the general to specific methodology and the distributive lag model. Econometric results of the study shows public investment, external debt, gross private consumption level, credit availability to private sectors, output and trade liberalization significantly determine private investment in the long run. The changes in inflation rate, interest rate, gross private consumption, public investment and debt servicing have a negative impact while credit availability, real exchange rate deprecation, output growth rate and domestic savings have a positive effect in the short run.

Hailu (2013) undertook a study on the determinants of private investment in Ethiopia and the regression results show that public investment, real GDP per-capital, and external debt have significant positive long run effect on private investment, while lagged private investment (proxy for investment climate) has significant negative long run effect. In the short run, real GDP per-capita and external debt have significant positive contribution to private investment, while inflation has significant short run negative effect on private investment after two lags.

Ambachew (2010) study on the determinants of domestic private investment in Ethiopia identified that domestic credit given to the private sector reduces domestic private investment because the credit may be diverted to non-productive activities. The study further identifies that the appreciation of the real exchange rate discourages domestic private investment and vice versa. Dawit (2010) showed that the following are the success factors for private investment: the maintenance of good accounting records by firms, good managerial skill, experience, government support and training. The major problems are a lack of proper planning and feasibility studies, lack of skilled staff, delays in obtaining bank loans, a lack of market for products and service, infrastructure problems and inflation.

As study by Workie (1996) on constraints to entry, operation and expansion of private investment in Ethiopia using investor level information showed that bureaucratic procedures, a lack of

infrastructure, power supply problems and access to finance were the leading constraints for operations. The other areas of the business environment (such as political or policy uncertainty and labor regulations) were relatively less important. The survey ultimately confirmed that the availability of finance rather than the interest rate is a crucial determinant of private investment in Ethiopia. Macroeconomic instability and political or policy uncertainty were not found to be significant determinants of private investment.

Adugna (2013) undertook a study by considering the period from 1981 to 2010 using Ordinary Lease Square (OLS) regression model that determines private investment in Ethiopia. His findings showed that public investments in basic infrastructures and social overheads are essential for private investment. In addition, the rising real per-capital income of the people has a crucial positive effect on private investment by way of increasing market demand for goods and services and then in turn motivating private investment. Likewise, external debt has a favorable effect on private investment in countries like Ethiopia where there is a serious shortage of finance.

Getachew (1997) studied the determinants of private industrial investment in Ethiopia using descriptive statistics to analyze micro-level determinants. He found that the real interest rate did not have a significant impact on private investment in Ethiopia. The study revealed that private investment was positively affected by credit disbursement to the private sector in Ethiopia. It also found that severe constraining factors to private manufacturing investment were market, financial, infrastructure, policy, technology, and input related ones. Sisay (2010) carried on the study of the determinants of private investment in Ethiopia over the period ranging from 1950-2003 motivated by modified flexible accelerator model by applying multivariate single equation ECM estimation methodology. According to his study private investment in Ethiopia is positively influenced by the domestic market, infrastructural facilities and FDI and negatively by macroeconomic uncertainty.

Siraj (2014) tried to evaluate the inter-relationship between private investment and economic growth both in the long and short run. He argued that there is evidence of unidirectional causality between economic growth and private investment. His findings showed that both private and public sector investment have a positive significant impact on real output/economic growth while in the short run public investment has a negative impact on growth and private investment has a positive impact on economic growth. Similarly, a study under taken on modeling the determinants of domestic private investment in Ethiopia by Ambaye, Berhanu, and Abera (2013) and the findings of the study found that exchange rate, domestic saving and domestic credit as key factors having negative and significant impact on domestic private investment. External debt and government expenditure are found to have significant and positive effect on domestic private investment.

Abduishu (2000) the impact of inflation on private investment is moderate in Ethiopia as he stated from the estimation results. These results have confirmed that inflation in Ethiopia in comparison to other Sub-Sahara African Countries and transitional economies was moderate. whereas, the estimation results has confirmed that resource constraints which captured by real GDP, credit availability and foreign reserve availability to private sector highly and significantly influence private investment. The sets of findings in the foregoing analysis of the various relevant literatures reveal numerous disparities especially in the empirical component. These may be associated to, among other things, the different settings of respective studies. It may additionally point out to the imperfections of the methods used or quality of the data employed in the studies. Evaluation of this topic, therefore, becomes even more important as efforts continue towards consistent or conclusive results.

Woldemariam (2018) carried on the study of the determinants of private investment in Ethiopia over the period from 1996 to 2016. The regression results show that public investment, real GDP, external debt servicing, and access to bank credit have significant positive effect on private investment, while lending interest rate and foreign direct investment have significant negative effect on performance of private investment under the study period. Furthermore, according to Wasihun (2018) also conducted the study on the determinants of private investment in Ethiopia. The

finding of the study reveals that growth domestic product, and external debt burden, have significant positive relationship with private investment. However, inflation, annual interest rate and public investment have significant negative relationship with private investment.

4. METHODS

In this study, to identify the determinants of domestic private investment in Ethiopia, quantitative research approach is employed. Because it is the best approach to use to test a theory or explanation (Creswell, 2002), since this study was tested with seven variables which stated in the hypotheses section which makes this approach better than other approaches to achieve the objective of the study. A descriptive research design is assumed for analyzing the determinants of private investment in Ethiopia. Descriptive design allows for the explanation of how private investment relates with its determinants, through the use of quantitative methods (Rippy, 2004). Descriptive design gives room for the manipulation of independent variables to determine their effect on a dependent variable (Box and Draper, 1987). The multiple regressions, OLS model was used together with other appropriate econometric techniques to explain factors that determine domestic private investment in the country. This model is selected for its simplicity, and is also expected to fulfill the assumptions of efficiency, consistency and unbiased.

4.1. Target Population

A target population, in statistics and other areas of mathematics, is defined as: a discrete group of individuals, animals, phenomenon or things that can be identified by at least one common characteristic for the purposes of data collection and analysis. For this study the target population that includes domestic private sector investments in Ethiopia.

4.2. Data type, Sources and Sample

The data covers a wide range of macroeconomic variables that include bank credit access, public investment, annual lending interest rate, gross domestic saving, inflation rate, resource gap and public debt burden variables. The data used in this study is secondary annual data which was obtained from NBE, MOFED, NPC, EIA, IMF and WB and other reliable sources from the period 1992 to 2017. The researcher was interested to select this period, the country adopted the market-oriented economic policy that includes; devaluation of currency, trade liberalization, deregulation of markets, removal of restrictions on private sector participation, and modest privatization and reform of State-Owned Enterprises (SOEs). The period was also selected specifically because this is the period for which data was available for the selected variables.

4.3. Data collection instrument

Consistent and reliable research indicates that research conducted by using appropriate data collection instruments increases the credibility and value of the research findings (Koul, 2006). Accordingly, a documentary review method used for this study to collect the required secondary data which is relevant for addressing the objectives of the study.

4.4. Methods of data analysis and presentation

The collected secondary data summarized typically by using tables and others statistical tools if necessary. And also, OLS regression model was used together with other appropriate econometric techniques to explain factors that determine private investment in the country. Since, the study contains more than one explanatory variable & one explained variable, the multivariate regression equation would be used to analyze the data through Stata13 version software. The Process of data analysis involved several stages; Quantitative data was analyzed using inferential statistics, mean & standard deviation was used to measure the central tendencies of the variable.

4.5. Econometrics Model Specification

In this research paper, 26 - years (i.e. from 1992 to 2017) secondary data were used and this data gathered from different sources that are relevant for regression analysis. The natures of data that will deploy in the study enable the researcher to use econometric time series data model. To reach at the final point, the researcher first checking the time series data by using the Augmented Dickey–Fuller (ADF) unit root test or PP test to determine the stationary properties of the data and others appropriate diagnostic test was performed. To identify the exogenous and endogenous determinants of private investment in Ethiopia; the

following baseline regression model was specified with some modification depending on previous empirical studies and theoretical setups.

The linear model which developed by the researcher is based on the empirical reviews in the study as denoted as follows**:**

PRIt = f (BCAt, PUIt, ALIRt, GDSt, RGt, INFRt,
PDBt)..... (1)

Where:

- PRI= Private investment
- BCA= Bank credit availability
- PUI= Public Investment
- ALIR= Average Lending Interest Rate
- GDS= Gross domestic saving
- RG= Resource gap
- INFR= Inflation rate
- PDB = Public debt burden
- t= 1, 2, 3…… 26 (time period ranging from 1992 to 2017).

All variables in econometric model can be transformed into natural logarithm for the aim of reducing the problem of heteroscedasticity.

Equation (1) can be rewritten for estimation purpose as follows:

lnPRIt =α0 + α1lnBCAt + α2lnPUIt + α3lnALIRt + α4lnGDSt + α5lnRGt + α6lnINFRt + α7lnPDBt + ut …….... (2)

Where α0 is the constant term (intercept) and α1, α2, α3, α4, α5, α6, α7 are the coefficients of BCA, PUI, ALIR, GDS, RG, INFR and PDB respectively and, t denotes time and u is the error term. This research would try to identify the significant effect of selecting explanatory variables on the dependent variable domestic private investment in Ethiopia. The researcher would follow ordinary least square (OLS) regression model which is used in previous empirical researches with few modifications on the independent variables used. Depending on the strength of the variables, availability of data and fitness to the model, the study used seven explanatory variables that explained above in the model.

5. Data results and presentation

5.1. Descriptive Statistics

Before directly going to the econometrics estimation, it is better to have looked at the descriptive statistics of the variables under consideration. This is important because these statistics summarized the statistical properties of the series in the model such that some explanations about the behavior of the series can be offered at a glance. Thus, the table that shows below presents the descriptive statistics of the study.

Table 5.1: Descriptive Statistics of variables in the model (stata13 output)

Variable	Obs	Mean	Std. Dev.	Min	Max
lnpri	26	11.41115	1.132521	9.7	13.42
lnbca	26	1.769231	.3597435	1.3	2.4
lnpui	26	11.1245	1.99078	8.632	16.132
lnair	26	2.457346	.0911346	2.204	2.603
lngds	26	7.719692	1.436135	5.883	10.128
lnrg	26	-.0873077	.1655671	-.39	.26
infr	26	9.279731	13.45931	-10.773	55.241
lnpdb	26	24.54927	1.099731	23.031	27.192

Source: Own Computation result using Stata13

Results above from table 5.1 showed that domestic private investment in Ethiopia for the period under study had a mean of 11.41115 and a standard deviation of 1.132521 with a minimum and maximum value of 9.7 and 13.42 respectively. Bank credit availability had a mean of 1.769231 and a standard deviation of 0.3597435 with a minimum value of 1.3 and a maximum value of 2.4 for the period under study. The public investment had a mean of 11.1245 and a standard deviation of 1.99078 with a minimum of 8.632 and a maximum of 16.132. Average Lending interest rate had a mean of 2.457346 and a standard deviation of 0.0911346 with a minimum and maximum value of 2.204 and 2.603 respectively while gross domestic saving had a mean of 7.719692 and a standard deviation of 1.436135 with a minimum and maximum value of 5.883 and 10.128 respectively.

Resource gap on the other hand had a mean of -0.0873077and a standard deviation of 0.1655671 with a minimum and maximum value of -0.39 and 0.26 respectively. Inflation rate had a mean of 9.279731 and a standard deviation of 13.45931 with a minimum and maximum value of -10.773 and 55.241 respectively. Finally, public debt burden had also a mean of 24.54927 and a standard deviation of 1.099731 with a minimum value and maximum value of 23.031 and 27.192 respectively for the period under study. The standard deviation which shows how much dispersion exists from the average value. All variables except inflation rate which have a low standard deviation and this low standard deviation indicates that the data point tend to be very close to the mean. Whereas inflation rate has high standard deviation indicates that the data point is spread out over a large range of values. As shown in the above summary statistics table 5.1, all variables except inflation rate have low standard deviation. This low standard deviation that shows there is stability in the long run relationship between Private investment and its determinant factors that included in the study.

5.2. Trends in Domestic Private Investment in Ethiopia

During the feudal period the country experienced somewhat liberal economic policies that encourage private investment. But after the Derg came into power the liberal economic policy of the country that was built during the Imperial period was distorted and the country followed a centralized command economic policy which discourages private investment and private property. During its period the government extended its control over the whole economy, nationalizing all large corporations. As a result of that there were loss of productive capacity and competitiveness within the state institutions as well as recurring drought, conflict and war draining the resources. After the departure of the Derg regime in the 1990s, the transitional government of Ethiopia initiated a broad spectrum of reform measures to improve the economy and address the development challenges within the country. These reforms were aimed at reorienting the economy from a command to a market economy, rationalizing the role of the state and creating a legal, institutional and policy environment to enhance private sector investment. Over the past decade, Ethiopia has achieved substantial progress in promoting economic, social, and human development.

For the last 10 years, the Ethiopian economy has grown at an annual rate of over 10 percent in real terms, making Ethiopia one of the world's fastest-growing economies (World Bank, 2018). Ethiopian has been made enormous efforts in major key sectors to achieve Millennium Development Goals (MDGs). Thus, the poverty rate declined from 55.5 percent in 2000 to 26.7 percent in 2016, and Ethiopia made significant Progress on the Millennium Development Goals (MDGs). In the fiscal year 2016/17, the country economy grew by 10.1%, which is the tenth year in a row of robust growth. The share of agriculture in the fiscal year 2016/17 to gross domestic product was around 36.3 percent and grew by 6.7 percent. The industry sector in the same fiscal year 2016/17 accounted for 25.9 percent of gross domestic product and grew by 20.3 percent while the services sector accounted for 38.8 percent of GDP and grew by 7.5 percent.

Since 1992 major economic and structural reforms have been made and different investment incentives have been given to create investment friendly environment in the country. As a result private investment percent of GDP growth rate at constant market price from the period 1992-2017 was 20.26%, which showed an increasing trend due to the relatively conducive environment and incentive the government creates to attract private investment. In spite of the macro-economic, political and structural reforms and ranges of investment incentives given, domestic investment has shown gradual increase and the gradual increase is not consistent as you can see from the table below. The overall rising of private investment during the study period, which was brought about by the liberalization policies pursued by the government of Ethiopia which was supported by the WB and IMF stabilization policy. The overall trends of private investment in both the total number of projects and capital invested has shown slight increase relative to the previous years (EIA, An Investment guide to Ethiopia, Opportunities and Conditions, 2013).

Table 5.2. Summary of licensed domestic private investment by number of projects and capital invested

S.NO.	Year	Domestic private investment	
		Number of projects	Capital invested in Birr
1	1992	106	545, 207
2	1993	210	1,191, 612
3	1994	326	2,762, 657
4	1995	695	4,589,395
5	1996	704	5,200, 027
6	1997	638	3,053, 385
7	1998	720	4,257,776
8	1999	452	10,953,053
9	2000	517	3,344,786
10	2001	541	5,878, 250
11	2002	773	7,612, 661
12	2003	1,096	7,964,582
13	2004	2,061	20,401,533
14	2005	2,928	35,366,935
15	2006	5,148	31,499,800
16	2007	4,789	55,046,194
17	2008	7,810	58,314,880
18	2009	4,704	66,511,254
19	2010	5,027	55,939,980
20	2011	4,183	124,408,036
21	2012	7,330	94,922,125
22	2013	4,520	47,806,611
23	2014	5,743	60,325,384
24	2015	8,138	1,064,006,973
25	2016	8,300	142,341,734
26	2017	7,708	98,101,185
	Grand Total	**85,167**	**2,012,346,014**

Source: Ethiopian Investment Agency (EIA, 2017)

5.3. Estimation Result

This part explained over all the empirical result of the regression and its effect on private investment. In this section, the above presented long run relationship between the dependent and explanatory variables are briefly described and interpreted in light of theoretical underpinnings. After fulfilling all of Ordinary Least Square basic assumptions and conducting unit root test, regression analysis should be conducted.

The estimated regression equation is;

LNPRI= 9.658965 + 0.443995*lnBCA - 0.1302297*lnPUI - 1.384988*lnAIR + 0.7867407*LnGDS -1.706778*LnRG - 0.0189478*INFR - 0.0092787*LnPDB.

Since the researcher used natural logarithms of private investment, bank credit availability, public investment, average annual lending interest rate, gross domestic saving, resource gap, inflation rate and public debt burden the estimated parameters show flexibility of domestic private investment with respect to these independent variables. In the following lines, the researcher discusses quantitative impact of independent variables on domestic private investment. In this study the researcher used 5% confidence level for interpreting the outcomes. If the probability of t-value < 0.05, then we may conclude that the independent variable is significant towards the dependent variable. In the following table 4.3; coefficient of parameters, standard errors, t-values, and P-values of explanatory variable and R-square, adjusted R-square, F-statistics, and probability of (F-stat) for regression and number of observations included are presented below.

Table 5.3: OLS regression result

regress lnpri lnbca lnpui lnair lngds lnrg infr lnpdb						
Source	SS	df	MS	Number of obs	= 26	
				F(7, 18)	= 57.11	
Model	30.6836276	7	4.38337537	Prob > F	= 0.0000	
Residual	1.38144127	18	.076746737	R-squared	= 0.9569	
				Adj R-squared	= 0.9402	
Total	32.0650689	25	1.28260275	Root MSE	= .27703	
lnpri	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
lnbca	.443995	.2040232	2.18	0.043	.0153581	.872632
lnpui	-.1302297	.032943	-3.95	0.001	-.1994403	-.0610191

lnair	-1.384988	.6445318	-2.15	0.046	-2.739099	-.0308769
Lngds	.7867407	.0561325	14.02	0.000	.6688108	.9046707
Lnrg	-1.706778	.4246853	-4.02	0.001	-2.599009	-.8145479
Infr	-.0189478	.0047751	-3.97	0.001	-.02898	-.0089157
Lnpdb	-.0092787	.0734877	-0.13	0.901	-.1636708	.1451133
_cons	9.658965	2.278536	4.24	0.000	4.871938	14.44599

Source: Own computed result using Stata13 software

Coefficient, R-square and adjusted R-square determination

The constant has a positive significant coefficient of 9.658965 with a P- value of 0.000 therefore, in our case significant at 5% confidence level. Coefficient of parameters that measures what percentage change in the dependent variable can be measured by the change in the independent variables.

The estimated results show that R-square and adjusted R-square of 0.9569 and 0.9402 respectively. The high value of R-square indicated that the independent variables (bank credit access for private investors, public investment, annual lending interest rate, gross domestic saving, resource gap, inflation rate and public debt burden) succeed to explain the trends of domestic private investment in Ethiopia. The adjusted R-square measures the fit of the regression and it is 94% this implies that only 6% of the variation in the model is left unexplained by the explanatory variables in the model. The F-statistic measures the joint explanatory power of the variables in the regression. The p-value of the F-statistic is very small meaning that jointly the variables are significant.

5.4. Empirical results of Regression Model

As it can be observed from the table above; bank credit availability, public investment, Annual lending interest rate, gross domestic saving, resource gap and inflation rate are statistically significant at 5% confidence level. However, public debt burden is statistically insignificant at 5% levels of significance.

I. The effects of bank credit availability on domestic private investment

Access to domestic bank credit is one of the explanatory variables which are expected to have a positive influence in the growth of domestic private investment in the country. Since bank credit is relevant to increasing access to working capital for investors where there is capital shortage, the prevalence of good and efficient credit facilities has a positive role to promote private investment. As the researcher expectation the coefficient of the access to bank credit is positive as shown in the regression result table above, 1% increase access to bank credit will result increasing domestic private investment in Ethiopia approximately by 0.44%. This finding is supported by the study of Asante (2000), Dawit (2010), Esubalew (2014), Abdushu (2000) among the others and contradict the findings of Quattara (2004) and Ambachew (2010).

II. The effect of Public Investment on domestic private investment

Public investment as a percentage of GDP is the other variable that has significant and negative relationship with domestic private investment. There is evidence that supports the theory of 'crowding out' as public investment affects negatively and significantly private investment in the case of this study. The study finding is confirmed with previous studies like Badawi (2004) in Cameroon, Akpalu (2002) in Ghana, Asante (2000) in Ghana, Esubalew (2014), and Wasihun (2018) who reported that public investment has a "crowding-out effect" on domestic private investment and thus, have competitive rather than complementary role. This shows that there is a competition among public and private sector on scarce resources (Acosta and Loza, 2003). Under this study, the coefficient of public investment is found to be negative and significant (-0.1302297) and this implies that 1% increase in public investment; domestic private investment in Ethiopia will be decrease approximately by 0.13%.

III. The effects of lending interest rate on domestic private investment

A high level of real interest rates raises the real cost of capital, and therefore diminishes the level of private investment and vice-versa. An increase in the annual lending rate of interest will raise the private investors cost of capital, thereby making the investment less profitable. And also According to neoclassical assumption of the increase in cost of debt leads to higher users cost of capital which in turn leads to lower rate of investment. The researcher finding show that lending interest rate is significant but inversely or negatively related with private sector performance. This is in line with results found by Kaputo (2011), Oshikoya (1992), Osmond (2014), Lesotho (2006), Ariyo & Raheem (1991), Ajide & Bello (2013), Bello & Asante (2000), Lawanson (2012), Fimpong et.al (2010), Getachew (1997), Seruvatu et.al (2001), Osmod (2014) and Jalloh (2002). The coefficient of annual lending interest rate is found to be negative and significant at 5% critical level which is (-1.384988). Hence, a one percent increase of annual lending interest rate that causes a 1.38 percent decreases the growth of domestic private investment in Ethiopia.

IV. The effects of inflation rate on domestic private investment

Macroeconomic instability affects private investment negatively (Serven, 1998), i.e. private investment is depressed by overall instability. Inflation rate, was used here as a measure of instability. Though moderate inflation is needed for business to strive profitably in a country, high and rising inflation rates is an indicator of macroeconomic instability and it affects private investment adversely. A high rate of inflation adversely affects private investment activity by increasing the riskiness of longer-term investment projects, reducing the average maturity of commercial loans and reducing the purchasing power of money. The result of researcher is supported by the various researchers finding such as Acosta et.al (2005), Fimpong et.al (2010), Esubalew (2014), Jalloh (2002) in Sierra Leone, Chete & Akapokoji (1998), Asante (2000) from Ghana, Ajide & Bello (2013) from Nigeria and Wasihun (2018) in Ethiopia, inflation rate plays a contrary role in private investment promotion. The coefficient of inflation rate is negative and significant (-0.019). This implies that if inflation rate increases by one percent, domestic private investment in Ethiopia will decrease by 0.019 percent.

V. Effects of gross domestic saving on domestic private investment

Gross domestic saving as a percentage of GDP the result of the study was statistically significant with positive sign of 0.7867407. This implies that domestic saving has a positive role in encouraging domestic private investment in Ethiopia. The magnitude of this variable shows that when gross domestic saving increases by 1%, domestic private investment in Ethiopia increased approximately by 0.79%. Theoretically higher domestic saving means there is sufficient source of finance for the domestic private investors which then lead to higher domestic private investment. This is in line with results found by Giannone and Lenza (2008) was reported the existence of positive and statistically significance correlation between domestic saving and private investment.

VI. The effects of resource gap on domestic private investment

The resource gap measures as percentage of GDP and the resource gaps are negatively and statistically significance at 5% level that affects domestic private investment. The coefficient of resource gap is negative and significant (-1.706778). This implies that if resource gaps are increases by one percent, domestic private investment in Ethiopia will decrease approximately by 1.71 percent. It is a fact that developing countries like Ethiopia needs fast and sustainable investment growth. To do this, the country need balanced domestic saving. But, domestic saving rate in Ethiopia was on the lowest for the past several decades. This is the reason why Ethiopia experiences a severe resource gap (Tsegabirhan, 2010). Iwayemi (1995) argued that the inadequacy of domestic savings to support planned investment to satisfactory level had been a serious constraint in developing countries including Ethiopia and could generate resource gap. Different empirical literature provides evidence that the sustainability of private investment growth faces a significant risk when
Saving-investment gap or in short resource gap in total financing is excessively high in developing countries including Ethiopia. As a result, gross fixed investment in Ethiopia was financed by external sources.

VII. Effects of public debt burden on domestic private investment

Public debt overhang effects are captured by the ratio of public debt to GDP and show a negative sign with a coefficient of -0.0092787 and probability of 0.901 which is higher than all levels of significance and indicating an insignificant relationship with domestic private investment. The respective sign is as per the researcher expectation, public debt burden has no statistical significant in this model, it will not further explained. The results are consistent with those obtained by Elbadawi (1997); Patillo (2002), Ndung'u (2003) and Kiriga (2003) confirmed the debt overhang effects.

5.5. Hypothesis testing

Hypothesis testing is done based on the relationships of private investment and its independent variables in relation to the previous empirical and theoretical aspects. From results obtained in the regression, the result is expected to follow a prior expectation of magnitude and sign. Thus, table 4.11 below, analyses the outcome of the parameters.

Variables	Expected	Obtained	Correlation
lnBCA	Positive	Positive	Conform
lnPUI	Positive	Negative	Not conform
lnAIR	Negative	Negative	Conform
lnGDS	Positive	Positive	Conform
lnRG	Negative	Negative	Conform
INFR	Negative	Negative	Conform
LnPDB	Negative	Negative	conform

6. Summary and Conclusion

The major objective of this paper was to identify the determinants of domestic private investment in Ethiopia. To fulfill this objective, the researcher has reviewed theoretical explanations and empirical literature regarding to the main determinants of private investment in the context of developing countries for the purpose of to identify the trend and characteristics of private investment in Ethiopia. For this study the researcher used quantitative research and time series regression analysis method. Most of the secondary data have been collected from NBE, MOFED, EIC, and NPC. The major findings that are obtained through econometrical analysis can be concluded as follows: The coefficients of bank credit availability and gross domestic saving found to be positive and statistically significant. Hence, when those variables accelerate domestic private sector investment in the country also reinforce, and when all decelerate, private sector investment decline. Whereas resource gap, annual lending interest rate, public investment and inflation rate found to be statistically significant and negative association with dependent variables, hence the variables explain changes in private investment in the study period. However, the study found that coefficients of public debt overhang is insignificant therefore, the variables could not explain changes in domestic private investment in the sample period in Ethiopia.

7. Recommendation

From the analysis of the determinants of private investment in Ethiopia, the researcher forwards the following valuable recommendations. The empirical evidence suggests that if the private sector lacks adequate bank credit then there will be a reduction in the level of private investment with adverse effect on the long term productive capacity of the private sector. For sufficient economic growth and sustainability of Ethiopian's economy, the government needs to promote access to credit for private sector investment which is found to have positive and significant impact for private investment to grow. Therefore, to addressing the needs of private sector investment finance the government should strive to expand and distribute financial institutions such as banks and micro finance institution towards rural and remote areas to promote saving mobilization and credit access to the domestic private sector investment. Additionally, due to that of the country still doesn't have capital market, thus this is also another problem for private sector growth that cannot easy financing those who have an idea. So, the researcher should recommend that the government should strive to introduce capital market to the economy so as to solve such a problem.

The apparent effect of higher savings is to increase the availability of funds for investment. To achieve this, it is a requirement to facilitate the development of sound domestic financial systems, especially in the countries that are less advanced in their economic transformation. Improving financial intermediation can be a key factor to raise the level of domestic savings and to efficiently channel them into growth-enhancing investment. The researcher recommend that the government should adjusting monetary policy particularly increasing real interest rates that encourages gross domestic saving and, hence, increases the availability of funds to the private sector to finance investment projects.

With regards to fiscal policy, public investment is expected to play a prominent role in boosting up the level of private investment. But the result obtained is contrary to the expectation. Undertake public investment in a way that could remove bottlenecks that undermine private investment, with the adequate attention to its adverse effect of "crowding out". Since, public investment held by the government is a competent of private sector investment in Ethiopia and hence, reduces the amount of money available for private sector investment. Public investment needs can be financed in multiple ways. The researcher should recommend that the government for taking at least three main measurements to reducing the crowding out effect of public investment on private investment. Firstly, governments can increase tax revenues through reforming tax systems and tax collection process, secondly, improving efficiency of public investment management and lastly recommend that the government should improving and stimulating Public - Private Partnerships (PPPs), which can reduce risks for private investors in turn, boost private investment.

The results suggest that annual lending interest rate is inversely related to private investment but it is significant. This is consistence with the empirical evidence that when interest rate rises, cost of borrowing increases hence, there will be a decline in future profits. As a result, the stimulus to invest is discouraged. Lending interest rate is expected to be low, so it will motivate domestic private investors to invest in different areas. Therefore, the researcher recommends that government should reduce lending rate through monetary policy in order to boost so as to bring high and sustained private investment growth in Ethiopia. And also it is better to providing concessionary loans to the private sector is seen as important in improving the expansion of the private sector investment.

The government should be take efforts to increase national savings through reduction of consumption, either in the form of household consumption and government consumption, especially for imported consumer goods are considered to be more appropriate in an effort to reduce the resource gap. In principle, government policy could have a potentially significant influence on national savings either by directly increasing public savings or implementing policies that increase private savings. The government ensuring an adequate level of gross domestic saving is vital in closing the gap between saving and investment and reducing an extreme dependence on foreign capital which can be a risky due to its volatility. Therefore, the government is required to set a sound and fertile environment in order to foster domestic saving that is adequate enough to finance private investment in Ethiopia. The last alternative options the researcher should recommend that the government taking various mechanisms to attract foreign direct investment to reduce the resource gap if it is not closed by internal finance. It would also be beneficial to increase the capacity of local firms to respond to new investment opportunities and to expand business relationship with foreign investors.

References:

Acosta, P. & Loza, A. (2005). Short and long run determinants of private investment in Argentina, Journal of Applied Economics, Vol.8, No.2, pp. 389-406.

Admasu S. 2002, Private investment and public policy in sub Saharan African an empirical analysis, The Hague, the Netherlands.

Adugna H. (2013). Determinants of private investment in Ethiopia. Journal of economics and sustainable development, Vol.4, No.20, 2013. www.iiste.org ISSN 2222-1700(paper) ISSN (online).

Aizenman, et al. (2007), "Macroeconomic Uncertainty and Private Investment," Economics Letters, 41, 207-210.

Ambachew M. (2010), "Determinants of private investment in Ethiopia" School of Economics, University of Kent, Canterbury, Kent.

Asante Y. (2000). Determinants of private investment behaviour AERC research paper 100. African economic research consortium, Nairobi march 2000.

Badawi A. (2004). Private capital formation and macroeconomic policies in Sudan: Application of a simple co integration vector autoregressive model. Khartoum: University of Khartoum, department of economics.

Bader, M. and Ibrahim (2010). The impacts of interest rate on investment in Jordan: co integration analysis, Journal of King Abdul Aziz University: Economics and Administration. Vol. 24, No. 1, pp. 199-209.

Bakare A. (2011). The determinants of private domestic investment in Nigeria, Far East journal of psychology and business, 4(2), 27-37.

Bayai, I. and Nyangara, D. (2013). 'An analysis of determinants of investment in Zimbabwe for the period 2009-2011'. International Journal of Economics and Management, vol. 2, No. 6, pp.11-42.

Beaudry (2001). Monetary instability, the predictability of prices, and the allocation of investment: An empirical investigation using U.K. panel data. American Economic Review. Vol. 91. pp. 648-662.

Bischoff (1971). "Hypothesis Testing and the Demand for Capital Goods," Review of Economic and statistics, Vol. 51.

Blejer, M. and Khan, M. (1984), Government Policy and Private Investment in Developing Countries, IMF Staff Papers, International Monetary Fund, 31: 379-403.

Brooks (2008). Introductory Econometrics for finance, 3rd edition.

Chenery and Strout (1966). "Foreign Aid and Economic Development: the case of Greece". *The Review of Economics and Statistics*, XLVII: 1-19.

Cherian S. (1996). Stock market and Investment; the governance role of market. Policy Research Working paper No.1578, World Bank.

Chirinko (1993). Business fixed investment spending: Modeling strategies, empirical results. And policy Implications. Journal of Economics Literature, 31, 1875-1911.

Chowdhury, A. (1998). "Private investment and growth: A Casual relationship," Wider Research paper, 2005.

Clark (1979). Business acceleration and the law of demand: A technical factor in economic cycles.‖ *Journal Of political Economy*25 (3):217-35.

Corden, W. M. (1989). "Debt Relief and Adjustment Incentives." *Analytical Issues of Debt*, International Monetary Fund, Washington, D.C.

Creswell, W. (2002). *Research design: Qualitative, quantitative and mixed method approaches*. Thousand Oaks, CA: Sage.

Dawit H. (2010). Domestic private investment in Mekelle: analysis of success factors and problems. Unpublished Msc thesis, Mekelle University.

Dehn, J. (2000). Private investment in developing countries: The effects of commodity shocks and uncertainty. University of Oxford, Institute of Economics and Statistics, Centre for the Study of African Economies. Available at: http://core.ac.uk/download/pdf/6280504.pdf

Deneke S. (2001). Private sector development in Ethiopia. International conference on African development archives: paper 19. Available online http://scholarworks.wmich.edu/africancenter icad archived/19.

Easterly, W., Pack, H. (2003). Low investment is not the constraint on African development. *Economic Development and Cultural Change.* 51(3), p. 547–571.

El Badawi, et al. (1997). Private capital formation and public investment in Sudan: Testing the Substutability and Complementarity hypothesis in a growth framework. Institute for Development policy and Management (IDPM) University of Manchester, London.

Esubalew, T. A, (2014), "An Investigation of Macroeconomic Determinants of Domestic Private Investment Evidence from East Africa" International Institution of Social Science.

Fazzari, F.M., Hubbard, R.G. & Petersen, B.C. (1988). Financing constraints and corporate investment.' Brookings Papers on Economic Activity, 19(1), 141-195.

Feldstein (1979). Domestic saving and international capital flows: *Working Paper No. 310.*

Frimpong, J.M. & Marbuah, G. (2010). The determinants of private sector investment in Ghana: An ARDL approach. European journal of social science, 15(2), 250-261.

Galbraith J. (1987), a History of Economics: The Past as the Present, Publisher, H. Hamilton, 1987,

ISBN, Greene J. and Villanueva D. (1990). Private investment in developing countries. IMF staff papers.38, pp. 33-58.

Harris, R. (1995). Using Co integration Analysis in Econometric Modeling. London, University of Portsmouth Prentice Hall.

Hevia, C. (2010). "Saving in Turkey: An International Comparison" background paper for country Economic Memorandum.

IMF, (2015). Macroeconomic Development and prospects in Low-Income Developing Countries. Washington DC.

Jongwanich, J. & Kohpaiboon, A. (2006). *Private investment: Trends and determinants in Thailand*. International Conference, APEC Study Centre, City University of Hong Kong, 18-20.

Kaputo, C. C. (2011). Macroeconomic Policy and Domestic Private Investment: The Case of Zambia, 1980-2008. A Dissertation Submitted to the University of Zambia in Partial Fulfillment of the Requirements of the Degree of Master of Arts in Economics, University of Zambia.

Kazeem, et al. (2012). Examination of Tenants Perceptions of Finishes and Facilities in Residential Properties of Public Housing Estates in Abeokuta Metropolis. Journal of Management, Social Science and Humanities Vol. 2 (2), pp. 25-32.

Khan, S. (2005). 'What determines private investment? The case of Pakistan. *Working Paper of the Pakistan Institute of Development Economics.*

Khan, M.A. and Reinhart (1990). "Sustainable Development: The Key Concepts, Issues and Implications." *Keynote paper given at the International Sustainable Development Research Conference, 27-29 March 1995, Manchester*, United Kingdom.

Kothari, C.R. 2004. *Research methodology, methods and techniques.* New Delhi: New Age International Publishers.

Pindyck, R.S. 1991. 'Irreversibility, uncertainty and investment.' *Journal of Economic Literature*, 29(3), 1110-1148.

Prasad et. al. (2007). "Foreign capital and Economic growth" 2007. ", *NBER Working Paper* No: 13619.

Reinhart, Ghura, D., & Hadjimichael, M. T. (2013). Growth in Sub-Saharan Africa. *Staff Papers – International Monetary Fund*, *43* (3), 605-634.

Ronge E. and Kimuyu P. (1997), private investment in Kenya: trends, composition and determinants institute of policy analysis and research, 1997. P14.

Rostow, W. (1960), the Stages of Economic Growth: A Non- Communist Manifesto. 3rd ed. New York: United State of America.

Sachs, J. (1989). The Debt Overhang of Developing Countries. In Debt, Stabilization and Development, G. A. Calvo, R. Findlay, P. Kouri, and J. B. de Macedo (ed.). Basil Blackwell, Oxford.

Saker K. (1993). Determinants of private investment in Pakistan. IMF, working paper 93/30.

Seruvatu and Jayaraman (2001). Determinants of private investment in Fiji, working paper. 2001/02. May 2001. Economics department. Reserve Bank of Fiji. Shiferaw, S. (2002). "Private Investment and public Policy in Sub Saharan Africa an Empirical Analysis", working paper No. 356, Institute Of Social Students, The Hague, Netherlands.

Sisay G. (2010), determinants of private investment in Ethiopia. Journal of economics and sustainable development, Vol.4, No. 20.

Tybout, J. (1984). 'Is learning by exporting important? Micro- dynamic evidence from Colombia, Mexico and Morocco,' *Quarterly Journal of Economics*, 113(3), 903-948.

UNCTAD, (2018). *Scaling up finance for the Sustainable Development Goals: experimenting with the Models of multilateral development banking*. United Nations Conference on Trade and Development.

Workie M. (1997). Determinants and constraints of private investment in Ethiopia, Addis Ababa University, Ethiopia.

World Bank's Doing Business 2013, "investment climate survey in Ethiopia.

World Bank (2014). *From Billions to Trillions: Transforming Development Finance. Post-2015 Financing for Development: Multilateral Development Finance.* Development Committee. Discussion Note.

World Bank (2018). Future of Food. Maximizing Finance for Development in Agriculture Value Chains.