The role of saving and investment in an economy

Saving & Investment are two crucial elements of macro-economics. The term Saving & Investment sometimes make us confusing & we use these terms in interchangeably. So concept of Saving & Investment should be cleared.

Spending less on consumption than available one's disposable income called individual saving or simply saving. It bears no risk or a slight of risk at all. It can be deposited in a bank or pension fund, buy a business, pay down debt etc. The common element of saving is the claim on asset that can be used to pay for future consumption. If there is return on the saving in the form of dividend, interest, rent on capital gain there can be a net gain in individual saving and they in individual wealth.

When an individual decides to increase saving by consuming less, it will affect others because he who depends on him will loss his income. Later, he will like to cut his consumption. Thus it will affect the whole. In such a way, individual saving convert into aggregate saving.

Aggregate saving doesn't increase as a result of individual acquiring pieces of paper like dollar bill or stock or bond certificates. That merely swap one type of financial asset for another without affecting the total. Aggregate saving occurs when the nation acquires real domestic asset. Such as new housing new machinery, new factories and offices, additions to a firm's inventory of goods or new claim on asset overseas. And that is preciously what is meant by investment.

Investment is one kind of catalyst's for growth in aggregate wealth. Without increasing aggregate saving we cannot increase investment. Increasing individual saving will not increase aggregate saving unless they increase investment.

We have seen earlier. The relationship of saving & Investment & how there is a little bit difference of them which will be mentioned here.

We know saving includes reducing expenditure, such as recurring cost. In term of personal finance, saving refers to low risk preservation of money like deposit account whereas investment specifics where risk is higher.

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Saving is closely related to investment. By not using income to buy consumer goods & services, it is possible for resources to be invested by being used to produce fixed capital, such as factory & machinery. Saving can therefore be vital to increase the amount of fixed capital available which contributes to economic growth.

However increased saving doesn’t always refers to increased investment. If saving is not deposited in a financial intermediary like bank or stashed for any reason there is no chance for those savings to be recycled as investment by business.

This means saving may increase without increasing investment possibly causing a short fall of demand rather than to economic growth. It may happen during recession period. In the short term, if saving falls below investment, it can lead to a growth of aggregate demand and an economic boom. In the long term, if saving falls below investment it eventually reduces investment and detracts from future growth is made possible by foregoing present consumption to increase investment.

Literature Review :

1. Income consumption and saving are all closely liked. More, precisely, personal saving is that part of disposable income that is not consumed, saving equals income minus consumption. Remember that macro economics use the term investment or real investment to mean additions to the stock of productive assets or capital goods like computers or trucks. when Amazan. com builds a new warehouse or when the Smiths build a new house. These activities represent investment . Many people speak of investing when buying a place of land an old security or any title to property. In economics these purchases are really financial transactions or financial investments, because what one person is buying someone else is selling. There is investment only when real capital is produced.

Paul A. Samuelson & William D. Nordhaus (2009)

2. National saving or just saving is the total income in the economy that remains after paying for consumption and government purchases that is —

S= Y-C-G

The terms saving and investment can sometimes be confusing. Most people use these terms casually and sometimes inter. changeably, By contrast the macro economics who put together the national income accounts use these terms carefully and distinctly. In the language of macro-economics investment refers to the purchase of new capital such an

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equipment or buildings. When more borrows from the bank to build himself a new house, he adds to the nation’s investment. Similarly, when the curly corporation sells some stock and uses the proceeds to build a new factory, it also adds to the nation’s investment.

N. Gregory Mankiw (2008)

3. The total investible resources available at any time in a country are made up of domestic savings and external resources which are obtained from abroad in the form of foreign capital. To take savings first. The aggregate savings of an economy consists of government savings, saving by the business sector and savings by the households. Government savings are the tax revenues minus public expenditure, the business savings are the gross income of trade and industry minus the dividends and the taxes paid and the savings of the households are the disposible income minus consumption expenditure. Investment in the theory of income and employment means an addition to the nation’s physical stock of capital like he building of new factories new machines as well as any addition to the stock of finished goods or the goods in the pipelines of production investment includes additions to inventories as well as to fixed capital. Investment in this sense does not refer to the total stock of capital inexistence, but net addition to this capital over period of time say a year.

K. K. Dewett (2009)

4. When Bangladesh started its development journey in 1972, it also suffered from these constraints. But over the years things have changed fairly

dramatically. Today, Bangladesh has a surplus of saving over investment (8 percent of GDP according to national accounts data) and by implication a surplus in the current account of the balance of payments(3 percent of GDP according to Bangladesh Bank data).

The connection between the two-gaps is that while investment drives growth, much of the required capital goods cannot be locally produced due to low level of development and, as such, they need to be imported. Without adequate exports, which are themselves constrained by low domestic capacities, the required volume of imports underlying the investment path is not finance able.

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By definition, the two gaps must match –the lack of which is a statistical error. The current account balance is a relatively more accurate indicator of the saving-investment

surplus. The larger surplus in the national account is most likely a reflection of underestimation of consumption or investment, or both. Despite this statistical problem, a surplus in the current account is a remarkable result for a country that is still very poor(40 percent poverty rate) and has low income.

GDP, party due to implementation capacity constraints but also due to financing constraints. Poor public resource mobilization limits the ability to convert private savings into public investment funds. Both these constraints could be relieved through a public-private partnership (PPP) initiative. This is constrained by inappropriate policy frame work in terms of legal issues, incentives, risk-sharing, financing instruments and dispute resolution mechanism. Resolution of the issues and challenges constraining investment is not impossible. These can be addressed if there is strong political will and commitment.

Sadiq Ahmed

5. Economic growth in Bangladesh began to decline since FYO6 at roughly the same time that its public investment rate started falling. The decline in growth also appears to coincide with slowdown in growth of infrastructure capital in the hard infrastructure sectors; particularly energy, transport and communication. It is therefore tempting to think that the two may be correlated.

Indeed, economic theory suggests that the availability of economic and social infrastructures makes it conducive for the private sector to invest; higher public capital increases productivity and reduces costs; and by increasing demand public investment gives rise to profit and sales expectations which in turn induce private investments. These are known as the crowding-in effects of public investment. Crowding in, however, cannot be taken for granted. Public investment can also crowd out private investment if it is made in activities that compete with the private sector. In addition, the growth impact of increased public investment depends on how it is financed. If it is financed through higher public debt, which implies higher future taxation levels, private investments may get crowded out.

Zahid Hossain Page No-4

6. Using Fixed Effect, Random Effect and between or CS models, we find there is low correlation between saving and investment in Bangladesh., India, Pakistan, Srilanka

and Nepal. However this result does not necessarily imply high capital mobility in these countries as capital mobility is influenced by other factors also such as the economic size, difference in financial structure across countries, fiscal policy coordination etc.

Mohammad Salahuddin & Abdullah M. Noman

7. Inward FDI to the middle-income countries has the evidence as a major stimulus to the economic growth; conventionally at export-oriented manufacturing sector. In point of fact, basic macro fundamentals like as growth of gross domestic capital formation, foreign reserve, infrastructure etc. accelerates the FDI inflows. This study reviews the long- run trend on the time scale of FDI to Bangladesh over the period 1975-2006 and major factors determining foreign companies' decisions to invest, in associated with economic growth. Contents of the paper describe the theoretical development and extensive literature review to find out the appropriate variables to deter the foreign direct investment from the series data. On the basis of intricate link between foreign direct investment and growth., all explained determinants enhance the facilitation, turnover, and return in FDI concentrated sectors that promote long-term sustainable growth with specific shortcomings, directly or indirectly, in our labor-intensive economic activity. Reduced government's ineffectiveness along with supporting policy framework makes Bangladesh as an attractive destination of FDI, that has a

positive spillover and significant impacts affects over time through dynamic effects on economic growth.

Zahir Uddin & Ahamad, Mazbahul Golam (2010)

8. Foreign direct Investment is dramatically increasing in this age of globalization. It has played important role for economic growth in this global process. But, the distribution of FDI is uneven in all over the world. Some countries are ahead and some are lag behind to attract foreign direct investment. The poorest countries are disappointing in attracting FDI. First, the study attempts to describe the overall background, trends and definition of FDI in recent years. Second, it describes the theoretical development and extensive literature review to find out the appropriate variables to deter the Foreign Direct

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investment from different reputed studies, third, it focuses on the challenges, opportunities, investment and economic environment associated with the inflow of

FDI in Bangladesh. The study explores the determining factors of FDI in Bangladesh. It investigates the significant determinants of a particular country in Inflow of Foreign Direct Investment. At the end, it draws the conclusion to promote the inflow of foreign direct investment with a view to take measurers to strengthen the positive impacts and reduce the negative impacts of FDI.

Khan Md. Azizur Rahman

9. Public and private investment on growth ratios in terms of appropriate planning in time, amount, and the right, mismanagement in the energy sector or inefficient and inadequate infrastructures, on the face of significant inefficiencies and waste, could be very closely related to political stability of the country.

In other words mature leadership to fight the challenges of ‘ infrastructure starved’ country like Bangladesh where ‘ public investment and capital accumulation can break down in the presence of significant inefficiencies or waste’, added with (too much??) politicization (not to mention Partisanism of the power) deters the healthy and sustainable growth of econometrics, mostly what the writer is saying ‘ naivity’ is to me actually lack of focus on priorities of the consequetive governments.

The magic word could be the mature leadership and political stability in Bangladesh that can trigger healthy and sustainable economic growth/ development for the country.

Rieta Rahman

10. Foreign direct Investment (FDI) is dramatically increasing in this age of globalization. AS it is viewed as a major stimulus to economic growth in developing countries. The climate for investment and the privatized enabling environment attract Foreign Direct Investment in Bangladesh is historically a reputed investment area where British companies dominated two hundred years. After getting freedom in 197, Bangladesh started to have nationalization process. But afterwards, it has been realized to show the

attitude towards privatization to catch to catch up globalization process. Although Bangladesh economy is not matured enough to participate global process to get benefits to a large extent, that’s why the economy is facing threats. But in order to catch up the things that are inevitable for Bangladesh in its global age of market economy,

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privatization can give a way and multinational should be invited to enhance the growth process refraining from the threaten situation from the effects of globalization. As the growing economy in SAARC (South Asian Regional Cooperation), Bangladesh is offering friendlier business and investment regime to attract foreign investment . The determinants that can impact on the economy should be discussed here to clarify the sense that basically which factor and things deter the Foreign direct investment in Bangladesh.

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11. It has been recognized that an important source of funding the economic activities for faster growth is foreign investment. On the outset let me refer to some research studies which show that Bangladesh economy has the potential to grow by around 8. 0percent per year during the coming years, for which at least 20 percent investment rate is needed. since our saving investment gap is very wide, domestic savings can not meet the requirement. We have changed our trade policy from an inward looking import substitution policy to export led growth. Despite notable diversification and achievements, our exports are limited to a few

commodities and destinations of exports are confined to only a few countries.

Remittances by the Bangladeshi workers have played a significant role in bridging the gap of savings and investment. we have to see how these funds are utilized in productive sectors and not fully spent in consumption and speculative purposes. While

recognizing the contribution of foreign aid to meet our resource requirements, we have to reduce our dependence on it.

Dr. Salehuddin Ahmed

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Analysis of the topic

Events that occur within the financial system are central to understanding developments in the overall economy. As we have just seen the institutions that make up this system- the bond market, the stock market, banks and mutual funds have the role of coordinating the economy’s saving and investment. And as we saw saving and investment are important determinants of long run growth in GDP and living standards. As a result macroeconomists need to understand how financial market works and how various events and policies affect them.

Some important identities

The gross domestic product is both total income in an economy and the total expenditure on the economy’s output of goods and services. GDP (denoted as y) is divided into four components of expenditure: consumption (C) investment (I) government purchases (G) and the net exports (NX) we write-

Y= C+I+G+NX

We simplify our analysis by assuming that the economy we are examining is closed. A closed economy is one that does not interact with other economies. A closed economy does not engage in international trade in goods and services. Therefore net exports (NX) are also zero. In this case we can write-

Y= C+I+G

To see what this identify can tell us about financial market subtract C and G from both sides of this equation. We obtain-

Y-C- G = I

The left side of this equation (Y-C-G) is called national saving or just saving and is denoted S. substituting S for Y-C-G. We can write the last equation as-

S= I

This equation states that saving equals investment.

We can then write national saving in either of two ways:

S= Y-C-G

Or, S= (Y-T-C) + (T-G)

In particular, the second equation separates national saving into two pieces: private saving and public saving.

Private saving: The income that householders have left after paying for taxes and consumption. That is-

Private saving = Y-T-C

Public saving: The tax revenue that the government has left after paying for it's spending.

Public saving= T-G

Page No- 8The government receives T in tax revenue and spends G on goods and services. It T exceeds G the government runs a budget surplus. Otherwise if the government spends more than it receives in tax revenue than G is larges than T it is Called budget deficit.

Now consider how these accounting identities are related to financial market. The equation S= I reveals an important fact: For the economy as a whole, saving must be equal to investment.

SSaving Function: The saving function relates saving to disposable income. Because what is saved equals what is not consumed, saving and consumption schedules are mirror images. we can understand saving function with the help of following diagram.

E

1000

800

600

400

200

0

-200

Net saving (dollars)

D

C

Saving

B

DI

A

20, 000 22, 000 24, 000 26, 000 28, 000 30, 000

Disposable income

The horizontal axis shows the disposable income and vertical axis shows the net saving whether is or positive in amount. The saving schedule is derived by subtracting consumption from income. Graphically the saving function is obtained by subtracting vertically the consumption function. At point A saving function below the zero line, Where net saving is -200. At point B is the breakeven where disposable income is $ 25000 but net saving is o.

Similarly, point C, D, E, F, G disposable income are 26000, 27000, 28000, 29000, 30000 and Net saving are 200, 400, 600, 800, 1000.

Marginal propensity to save: The marginal propensity to save is the extra saving generated by an extra dollar of disposable income.

That is – MPS= 1- MPC

Declining saving Rate:- Although consumption behavior tends to be stable over time, the personal saving rate decreases for many reasons. These are-

Page No- 9*Social security system. Some economists argued that the social security system has removed some of the need for private saving. In earlier times, as the life cycle model of consumption suggests, a household would save during working years to build up a nest egg for retirement. When the government collects social security benefits, people have less need to save for retirement. Other income-support systems have a similar effect, reducing the need to save for a rainy day: crop insurance for farmers, unemployment Insurance for workers, and medical care for the poor and elderly all alleviate ate precautionary motive for people to save.

* Capital markets. Until recently, capital markets had numerous imperfection. people found it hard to borrow funds for worthwhile purposes, whether for buying a house. Financing an education, or starting a business. As capital markets developed, often with the help of government, new loan instruments allowed people to borrow more easily. One example is the proliferation of credit cards, which encourage people, to borrow (even though the interest rates are quite high).

* The rapid growth in wealth. Part of the decline in personal saving in the 1990s was surely caused by the rapid increase in personal wealth. primarily due to the exploding stock markets from 1995 to 1999 for example, the value of stocks rose by about $ 5 trillion. if households spent 3 percent of this gain each year .

Determinants of investment: The second major component of private spending is investment. Investment contains three elements. These are-

Revenues: An investment will bring the firm additional revenue if it helps the firm sell more product. This suggests that the overall level of output (or GDP) will be an important determinant of investment. When factories are lying idle, firms have relatively little need for new factories, so investment is low. More generally, investment depends upon the revenues that will be generated by the state of overall economic activity.

Costs: A second important determinant of the level of investment is the costs of investing. Because investment goods last many years, reckoning the costs of investment is somewhat more complicated than doing so for other commodities like coal or wheat. For durable goods, the cost of capital includes not only the price of the capital good but also the interest rate that borrowers pay to finance the capital as well as the taxes that firms pay on their incomes.

Expectations: The third element in the determination of investment is profit expectations and business confidence. Investment is, above all, a gamble on the future, a bet that the revenue from an investment will exceed its costs. If businesses are concerned that political conditions in Russia are unstable, they will be reluctant to invest there. Conversely, because businesses believe (rightly or wrongly) that Internet commerce will be an important feature of the distribution network, they are investing heavily in that sector. Thus investment decisions hang by a thread on expectations and forecasts.

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Statistics on Saving & Investment:

TABLE – A (saving as Percentage of GDP)

FY

Domestic Saving

National Saving

2001-2002

18. 16

23. 44

2002-2003

18. 63

24. 87

2003-2004

19. 03

25. 44

2004-2005

20. 01

25. 84

2005-2006

20. 25

27. 67

2006-2007

20. 35

28. 66

2007-2008

20. 31

30. 21

2008-2009

20. 01

32. 37

Source: Bangladesh Bureau of Statistics (BBS)

Form the above table we see the present year wise rates of domestic and national savings for the last few years. In FY 2001-02 the domestic and national savings as percentage of GDP were 18. 16 and 23. 44 percent respectively. Domestic and national savings had reached to 20. 31 and 30. 21 percent of GDP respectively in FY 2007-08. According to provisional estimates, the rates of domestic and national savings have been assessed to be 20. 01 and 32. 37 percent of GDP in FY 2008-09. From the table it is clear that there is a continuous increasing trend of national savings but domestic savings as percent of GDP has been decreasing since FY 2007-08.

TABLE-B (Investment as percentage of GDP)

FY

Total Investment

Public Investment

Private Investment

2001-2002

23. 15

6. 37

16. 78

2002-2003

23. 41

6. 20

17. 21

2003-2004

24. 02

6. 19

17. 83

2004-2005

24. 53

6. 21

18. 32

2005-2006

24. 65

6. 00

18. 65

2006-2007

24. 46

5. 45

19. 02

2007-2008

24. 21

4. 95

19. 25

2008-2009

24. 18

4. 63

19. 55

Source: Bangladesh Bureau of Statistics (BBS)

Page No- 11In FY 2001-02, the rate of total investment was 23. 15 percent of GDP in which the shares of public and private sector were 6. 37 percent and 16. 78 percent respectively. The rate of national investment gradually picked up to 24. 65 percent of GDP in FY 2005-06 but in FY 2006-07 it declined to 24. 46 percent. In FY 200-09 the rate of national investment further declined to 24. 18 percent. The present government has started to prepare and implement the short, medium and long term plans for the creation of an investment friendly environment and a competitive market system, adoption of innovative technology, and provision of infrastructural facilities that are able to attract entrepreneurs and expand domestic market.

Findings

We find from the above analysis if the personal income increases the saving will increase. Similarly the investment of person will also increase.

Y= C+I= GP+NX

From the above formula, other things remaining the same, if the government purchases, the investment or Net export will decrease.

FY

Domestic Saving

National saving

2001-02

18. 16

23. 44

2002-03

18. 63

24. 87

2003-04

19. 53

25. 44

2004-05

20. 01

25. 84

2005-06

20. 25

27. 67

2006-07

20. 35

28. 66

2007-08

20. 31

30. 21

2008-09

20. 01

32. 37

Source: Bangladesh Bureau of Statistics (BBS).

In 2001-02, domestic saving is 18. 16 and national saving is 23. 44. We find that national saving is more than domestic saving, because the government purchase

decreases more than taking tax from the public. According to provisional estimates, the rates of domestic and national savings have been assessed to be 20. 01 and 32. 37 present of GDP in KY 2008-09 . From the table it is clear that there is a continuous increasing trend of national savings but domestic savings as percent of GDP has been decreasing since KY 2007-08.

FY

Total investment

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24. 53

6. 21

18. 32

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2005-06

24. 65

6. 00

18. 65

2006-07

24. 46

5. 45

19. 02

2007-08

24. 41

4. 95

19. 25

2008-09

(pro)

24. 18

4. 63

19. 55

Source: Bangladesh Bureau of Statistics (BBS).

In FY 2001-02, the rate of total investment was 23. 15 percent of GDP in which the shares of public and private sector were 6. 37 percent respectively. The rate of national investment gradually picked up to 24. 65 percent of GDP in FY 2005-06 but in FY 2006 -07 declined to 24. 46 percent. private investment is more than public investment because the rate of return in private investment is more than public investment the present government has started to prepare and implement the short, medium and long run plans for the creation of an investment friendly environment and a competitive market system, adoption of innovative technology and provision of Bangladesh’s growth rate has increased steadily over the past 4 decades, rising from 3 percent per annum in the 1970s to around 6 percent in the 2000s.

Much of this growth was financed by rising saving and investment. Thus , the national saving rate expanded from 4 percent of GDP in the mid- 1970s to 32 percent in 2009 . The investment’s rate grow from 6 percent of GDP to 24 percent over the same period. Huge investment’s are needed to upgrade the transport network at all levels. passive investment’s are also needed to upgrade the labor force through education, health and training programs, barge investment’s are needed in the manufacturing sector to create good jobs.

National income accounting identities reveal some important relationships among macro economic variables. In particular, for a closed economy national saving must equal investment . Financial institutions are the mechanism through which the economy matches one person’s saving with another person’s investment. National saving equals private saving plus public saving. A government budget deficit represents negative public saving and therefore reduces national saving and the supply of lon able funds available to finance investment, it reduces the growth of productively and GDP.

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Foreign direct investment (FDI) pivotal in providing Bangladesh the necessary finance and capital to achieve sub stainable growth as well as poverty alleviation. Inflows have been able to increase GDP by raising the economy’s output capacity and employment level. At the same time, it has also contributed in improving per capital income level. Overall, FDI can provide the necessary support for Bangladesh to progress further and realize higher growth levels by utilizing all its resources to their fullest potential. We must recognize the major problems that an investor faces while investing in Bangladesh and find ways to solve them. The major problems are:

(a) political instability and policy discontinuity.

(b) Lengthy and time consuming procedures of the government and para - statal agencies.

(c) Corruption.

(d) Underdeveloped infrastructure.

(e) Lack of adequate institutional capacity.

The investment climate of Bangladesh is reasonably good. In last fifteen years there were radical changes in the country. Foreign investment is actively encouraged and promoted in Bangladesh with the Bangladesh govt. Implementing a number of market oriented proactive investment policies . Incentives being offered to investors are , in addition to some already mentioned , duty free imports for 100 percent exporters , and tax exemptions on technology remittance fees , on interest on foreign loans and on capital gains by port folio investor.

Policy Recommendation

Remittance by the Bangladeshi workers have played a significant role in bridging the gap of saving and investment. We have to see how these funds are utilized in productive sectors and not fully spent in consumption and speculative purposes. While recognizing the contribution of foreign aid to meet our resource requirement we have to reduce our dependence on it. We can increase the investment of various sectors if remittance come in our country through proper channel. Then the investment