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# The Macroeconomic Impact of Foreign Assistance

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Foreign aid flows to developing countries have grown significantly during the last decades. Assistance is mainly provided in order to generate economic growth and development in aid-receiving countries. The effect of foreign aid on recipient economies has been investigated by many economists. However, theoretical and empirical studies on the macroeconomic impact of foreign assistance are not conclusive.

The paper analyses the effect of foreign assistance on economic growth, savings, investment, consumption, poverty reduction and human development indicators in recipient countries. The positive relationship between foreign assistance and economic growth is mainly conditional and depends on many different factors. Among them the most important are: specific conditions in recipient countries, macroeconomic policy, geographical location, levels of aid and aid modalities.

The impact of foreign assistance on economic growth may be also negative or insignificant. It happens if aid is wasted, increases public consumption, removes private savings, rises corruption and aid-dependency of recipient countries. Foreign aid is generally allocated inefficiently with respect to poverty reduction. It also does not cause a meaningful increase in human development indicators.

## *Introduction*

Over the period 1965-2011, developed countries spent more than USD 3 trillion on official development assistance (ODA). The level of aid sharply increased in the first decade of the 21th century. Total ODA amounts have been more than USD 100 billion per year from 2005. Recently, not only the increase in the level of foreign aid but also the rise in the number of donors and aid projects have been observed.

Donors state that foreign aid is mainly provided in order to accelerate economic growth and reduce poverty in developing countries. However, it impacts the whole recipient economy. The main aim of the paper is the analysis of the effect of foreign aid on economic growth, savings, investment, consumption, poverty reduction and human development indicators in aid-receiving countries. In the paper, the comparative analysis of theoretical and empirical studies on the macroeconomic effect of foreign assistance is used.

## *The relationship between economic growth and foreign aid*

Economists have been debating on the relationship between foreign aid and economic growth since the 1950s. The idea that aid can accelerate economic development in poor countries was supported, among others, by *Nurkse* (1953), *Rostow* (1956) and *Rosenstein-Rodan* (1961). On the other hand, aid effectiveness was mainly questioned by Milton Friedman.

*Chenery and Strout* (1966) designed a simple model that shows the aid-growth relation. The model provided analytical foundations for the World Bank's aid programmes. Next, it became the basis for the World Bank Revised Minimum Standard Model (RMSM). The RMSM model and its modifications are used to calculate the levels of investment and foreign financing which are needed to achieve targets for economic growth in recipient countries. The models are subject of many critics (Nowak, 2013a).

Endogenous growth models imply both the negative and positive aid-growth relation. For instance, *Obstfeld* (1999), and *Gong and Zou* (2001) claim that foreign aid does not promote economic growth in developing countries. It, first of all, increases consumption. On the other hand, *Xiaoyong and Gong* (2008) designed a model which yields the positive effect of foreign aid on economic growth.

There are a lot of empirical studies on the relationship between the foreign assistance and economic growth. However, they are inconclusive. One studies claim that foreign aid has no impact on economic growth (Rajan & Subramanian, 2005; Doucouliagos & Paldam, 2008). Others argue that the impact is negative or positive. The negative aid-growth relation follows from *Griffin and Enos* (1970), *Weisskopf* (1970), and *Paldam* (1997). The positive effect of foreign aid on economic growth can be unconditional or only conditional. The unconditional positive effect was confirmed by *Papanek* (1973), *Dowling and Hiemenz* (1982), and *Levy* (1988).

The debate on the conditional positive impact of aid on growth was initiated in the late 1990s. *The World Bank Report* (1998) pointed out that aid increases growth in countries with sound economic management. Next, this conclusion was supported by *Burnside and Dollar* (2000). The authors claim that foreign aid stimulates output growth in recipient countries with good policies (Nowak, 2013b). Except the quality of policy, there are many other factors that can determine the relationship between aid and growth. For example, aid effectiveness depends on geographic location (Dalgaard et al., 2004:F191) and climatic shocks (Guillaumont & Chauvet, 2001:68).

The relationship between foreign aid and economic growth is also determined by the aid modalities. Donors provide conditional budget support or finance specific projects in recipient countries. *Cordella and Dell'Ariccia* (2007:1261) claim that effectiveness of these two forms of foreign assistance depends on such factors like: the size of the aid programme relative to recipients' own recourses and preferences and priorities of the recipient governments. The budget support is more effective when aid-receiving countries have large own resources and their preferences are close to these of donors. Otherwise, specific developmental projects are preferable. According to *Ouattara and Strobl* (2008:347) the impact of project aid on economic growth in recipient developing countries is positive. However, financial programme aid (budget financing) has negative effect on growth.

Foreign aid can be distributed through direct grants or concessional loans. In the literature there is no consensus which way of delivering of aid is more effective. For instance, the Meltzer Commission report[1] concluded that the World Bank and the International Monetary Fund should administrated development aid through grants rather than concessional loans. Only grants are efficient in long-run poverty reduction and they are more appropriate for financing the health or education projects in poor countries. Loans mainly cause debt problems in recipient countries. The same opinion was maintained later by *Lerrick and Meltzer* (2002). On the other hand, *Odedokun* (2004: 262) argues that grants are often less efficiently utilized by recipient governments than loans. They are usually associated with lower fiscal revenues and higher public consumption in beneficiary countries. According to *Cohen* et al. (2007: 2), donors should mainly provide soft loans that incorporate debt cancellation mechanism.

## *Impact of foreign aid on savings, investment and consumption in recipient countries*

In the early 1960s, pro-aid economists assumed there is one-to-one relation between aid and domestic savings. In other words, one dollar of aid increases domestic savings by one dollar (Rosenstein-Rodan, 1961). Besides, the Chenery-Strout two-gap model implied the positive impact of foreign aid on domestic savings and investment. In the model, economic growth is constrained by the investment-savings gap or the foreign exchange gap. Countries with a low level of domestic savings are not able to achieve a level of investment that is consistent with a target growth rate. Foreign aid can fill the gap between domestic savings and required investment (Nowak, 2014).

On the other hand, *Griffin* (1970:106-107) gives examples of the main channels through which an increase in foreign aid can reduce domestic savings. The most important are: the expansion of government expenditure and the lack of incentives to collect taxes, the decrease in private savings due to the availability of easy credit loans of development banks and the increase in consumption of imported goods.

The first empirical studies on aid effectiveness show that the effect of foreign assistance on domestic savings is rather negative. For example, *Weisskopf* (1970:11) argues that foreign assistance (foreign savings) and domestic savings are not additive. He shows that domestic savings were inversely associated with aid in 44 recipient countries in the 1950s and 1960s. *Griffin and Enos* (1970:321) claim that foreign aid is a substitute for savings and a large fraction of foreign capital is used to increase consumption not investment. According to the authors, 75% of an extra dollar of aid is consumed and only 25% is invested. A similar evidence on the aid-consumption relation is presented by other economists. For instance, *Heller* (1975:439) shows that 30-60 per cent of the value of aid was used for government expenditure in 11 African countries in the 1960s. According to *Boone* (1996:293), government consumption increases by about three quarters of total aid receipts. Generally, foreign assistance leads to greater than proportional increase in total public expenditure (McGillivray & Morrissey, 2001:132).

Recent research also does not support the idea that foreign assistance has positive impact on domestic savings. For instance, *Basnet* (2013) examines effect of aid on domestic savings in Bangladesh, India, Nepal, Pakistan, and Sri Lanka over the

[1] The report was prepared by the International Financial Institution Advisory Committee chaired by A.H. Meltzer for the US Congress in 2000. After its publication, the grants versus loans debate has been intensified.

period 1960-2008. Aid provided to the South Asian countries rather crowded out domestic savings than supplemented them.

Many empirical studies on the relationship between foreign aid and domestic savings claim that the aid-switching effect dominates in recipient countries. Others, point out that aid has little influence on domestic savings (Snyder, 1990:179). Besides, one cannot exclude the possibility that in some circumstances foreign aid may stimulate domestic savings (Papanek, 1972:950).

The aid-investment evidence is mixed. For instance, Boone (1996) using panel data from 96 countries over the period 1971-1990 finds that aid does not significantly increase investment. On the other hand, *Hansen and Tarp* (2000, 2001) examining 56 recipient countries over the period 1974-1993 show the positive impact of aid on investment.

## *The role of foreign aid in poverty reduction*

There are different ways in which foreign aid can impact on poverty reduction. Aid that promotes economic growth is likely to lead to the increase in aggregate welfare. The rise in income per capita can in turn contribute to poverty alleviation. *Dollar and Kraay* (2002:218) show that on average the growth of income of the poor is proportional to the growth of per capita GDP in a given country. *Dollar and Pritchett* (1998:29) point out that social indicators and income per capita tend to improve together. Besides, aid can play important role in poverty reduction through fiscal policy (Boone, 1996:291). An increase in government spending on social sectors has a positive effect on the improvement of living conditions of the poor.

It is worth noting that, poverty reduction is not conditioned by a rise in income per capita. Aid can reduce poverty even if it has a weak relationship with economic growth. It benefits the poor when is directly provided to poor areas or low-income households. Aid that generates income-earnings opportunities for the poor or increases their access to social services finally leads to poverty alleviation.

In order to assess the impact of foreign assistance on poverty reduction in recipient countries, three basic poverty measures (the headcount index, poverty gap and squared poverty gap[2]) are used. Besides, the basic health, education and quality of life indicators are incorporated in the regression equations. Economists very often use infant mortality, life expectancy, illiteracy rate, primary schooling ratio, and the Human Development Index (HDI) to measure economic conditions of the poor.

*Collier and Dollar* (2002) examine the relationship between foreign aid and a decline in poverty as measured by the headcount index, poverty gap index and squared poverty gap index. Using a 59-country sample covering 1974-1997 they point out that aid is allocated inefficiently with respect to poverty reduction. A similar conclusion follows from *Chong* et al. (2009:79). The authors find no evidence that aid reduced poverty over the period 1971-2002 in recipient countries. However, *Alvi and Senbeta* (2012), using data from 100 developing countries over the period 1981-2004, conclude that aid reduces poverty, after controlling for average income and income distribution.

[2] The headcount index (incidence of poverty or the poverty rate) shows the percentage of the population with income per person below the poverty line. The poverty gap index (depth of poverty) is the mean income shortfall from the poverty line, expressed as a percentage of the poverty line. Squared poverty gap index (poverty severity index) – squaring the shortfall it takes into account the distance separating the poor from poverty line and the inequality among the poor (http://web.worldbank.org).

Boone (1996:293) estimates the aid/GNP ratio on the growth of infant mortality, life expectancy, and primary schooling. He finds no significant impact of aid on improvements in infant mortality, primary schooling ratios nor life expectancy.

*Masud and Yontcheva* (2005) examine the effect of aid on two human development indicators i.e. infant mortality and adult illiteracy. They run the infant mortality regression using panel data from 58 countries over the period 1990-2001. In the case of the illiteracy regression they use panel data from 76 countries over the same period. Masud and Yontcheva conclude that bilateral aid does not help to reduce infant mortality and illiteracy rates in recipient countries.

On the other hand, Dollar and Pritchett (1998:39) point out that the impact of aid on poverty and infant mortality is conditional on policy. According to the authors, in countries with sound policies an extra 1 per cent of GDP in aid reduces poverty by 1 per cent. Besides, a decline in infant mortality of 0.9 per cent is observed. However, in countries with poor economic management, foreign aid has little effect on development.

Generally, the empirical evidence that foreign aid reduces poverty in developing countries is weak. The positive effect of aid on poverty alleviation depends on many different determinants. For instance, *Kosack* (2003) shows that foreign assistance increases the quality of life in democratic recipient countries but is ineffective in autocracies. Alvi and Senbeta (2012: 957) claim that assistance from multilateral sources is more effective in poverty alleviation than aid from bilateral sources. Besides, the aid-poverty relation depends on the type of aid. Grants help to reduce poverty whereas loans do not.

## *Concluding remarks*

Theoretical and empirical studies on the macroeconomic effect of foreign assistance are ambiguous. They provide evidence on both the positive and negative effect. Foreign aid has no impact on economic growth or the impact is either negative or positive. However, the positive aid-growth relation is mainly conditional. Aid effectiveness depends on specific conditions in recipient countries, macroeconomic policy, geographical location, levels of aid and aid modalities. Foreign aid very often increases public consumption in expense of domestic savings and the aid-switching effect is observed in recipient countries. The positive effect of aid on domestic savings leads also to positive aid-investment relation. On the whole, even if aid increases consumption, it does not benefit the poor. Aid first of all benefits wealthy political elites in recipient countries. The positive effect of aid on poverty reduction is observed mainly locally.

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