

Quality of Growth in Bangladesh: Some New Evidence

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In this short note, we take a fresh look at some aspects of quality of growth in Bangladesh – the role of growth in reducing poverty, generating employment and containing inequality. Our analysis is primarily based on the measures of elasticities using both primary and secondary data. We find that the elasticity of poverty with respect to national income has been declining very fast over time, indicating the gradual ineffectiveness of growth in reducing poverty. While inequality in income and consumption has been increasing, the elasticity of Gini with respect to national income has been declining. It indicates that economic growth has now been associated with lesser inequality. We also shed light on the debate of “jobless growth” and cast doubt on this proposition as we find that the income-elasticity of employment has been increasing over time.

Keywords: Economic Growth, Poverty, Inequality, Employment, Bangladesh
JEL Classification: D63, I31, I38, J23, O40

I. INTRODUCTION

Bangladesh has made a remarkable success in achieving steady and persistent acceleration of growth over the last few decades, with about one percentage point increase in every decade since the 1980s (Figure 1). Average real GDP growth over the last five years has been above 6 per cent, which is much higher than the average growth rate of all developing countries (4.7 per cent). Recently, at the beginning of FY2015-16, per capita income of Bangladesh has crossed the threshold of USD 1,046 to become a lower-middle income country. In FY2017, per capita income in Bangladesh was USD 1,514. While this sustained high growth is essential, this may not raise the living standard for a large fraction of the citizens in the country- a sizeable share of the population is still left out from the benefits of the economic growth. Still one in every four people lives under the poverty line. There is always a risk that high growth may

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benefit a few at the cost of many. Therefore, it is important to understand the responsiveness of poverty and inequality reduction and employment generation to the pace of economic growth and how it changes over time. This understanding will help us craft the long-term growth strategies as well as determine the extent of social security programmes for the people who are excluded from the growth process.

The fundamental question is: what makes growth more equitable and pro-poor? If the sources of growth benefit the people lying in the lower end of the income distribution disproportionately more, the growth can yield more equitable distribution of income. In the case of Bangladesh, the major sources of growth so far have been remittance and export earnings from RMG while agriculture has been playing a supportive role. These two sources rely on employment of a huge pool of unskilled and semi-skilled labour and this has been argued to achieve more equitable growth than the comparable countries, such as India which is mostly a service-sector led growth story propelled by the skilled labour. While the sources of growth in Bangladesh are inherently equitable, the inequality has been increasing and the pace of poverty reduction has also been declining over time. It is also argued that the growth has failed to generate enough jobs to dub it as “jobless growth.”

In this backdrop, this short note takes a fresh look at the debate on the quality of growth in Bangladesh. In particular, we are interested in studying the extent to which growth can reduce poverty, generate employment and contain income inequality in Bangladesh. To this end, we will rely on measures of elasticity, using both macro and micro data. We believe that this note will contribute to the current growth narrative of Bangladesh.

Figure 1: Decadal Growth of Bangladesh



Source: Authors' calculation.

II. QUALITY OF GROWTH

2.1 Growth and Poverty Reduction

Growth in national income in developing countries across the world for the last two decades has, in general, been poverty reducing (Ravallion 2001, Adams 2004, Fosu 2009). The negative relationship between growth and poverty is well established in the literature. However, to what extent does growth help poor people coming out of poverty is an area of great debate. There may be a critical level of growth or income after which growth cannot impact the poverty level anymore. The relationship is characterised by nonlinearity and the initial and current level of inequality is believed to have an important role to play in the growth-poverty nexus.

Nonlinearity of the growth-poverty relationship arises because the effectiveness of economic growth in reducing poverty varies with socioeconomic and geographic characteristics as well as policy environment of the country; growth does not create equal opportunities for all to move out of poverty. People living at the lower end of the income distribution fails to graduate due to lack of assets (physical, financial, social and human), low relative return of assets, greater exposure to shocks (originating from poorer health, natural disaster and personal insecurities), etc. (Sen and Hulme 2006, Osmani and Sen 2011, Rahman and Hossain 1995, Sen 2003, Krishna 2011, Kabeer 2009). These factors lead to non-convexity of their production function. That is, unless some critical level of physical and human capital is present, the poor cannot take part in the growth process. In the context of Bangladesh, geographical exclusion, ecological vulnerability and policy bias also contribute to the existence of the non-linearity in growth-poverty nexus (Sen and Ali 2015)

The intermediary role of inequality in the relationship between growth and poverty has been found in a number of studies. As argued in Ravallion (1997), the initial level of inequality negatively affects poverty reduction in two ways. First, higher inequality lowers subsequent income growth,¹ which, in turn, translates to a lower pace of absolute poverty reduction. Second, even if the initial distribution of income is not relevant to aggregate income, a higher inequality would mean a lower gain of poor in absolute amount even from an equal rate of growth due to a lower base income. Ali and Thorbecke (2000)

¹ The relevant literature addressing the inequality-growth relationship is discussed in the next section.

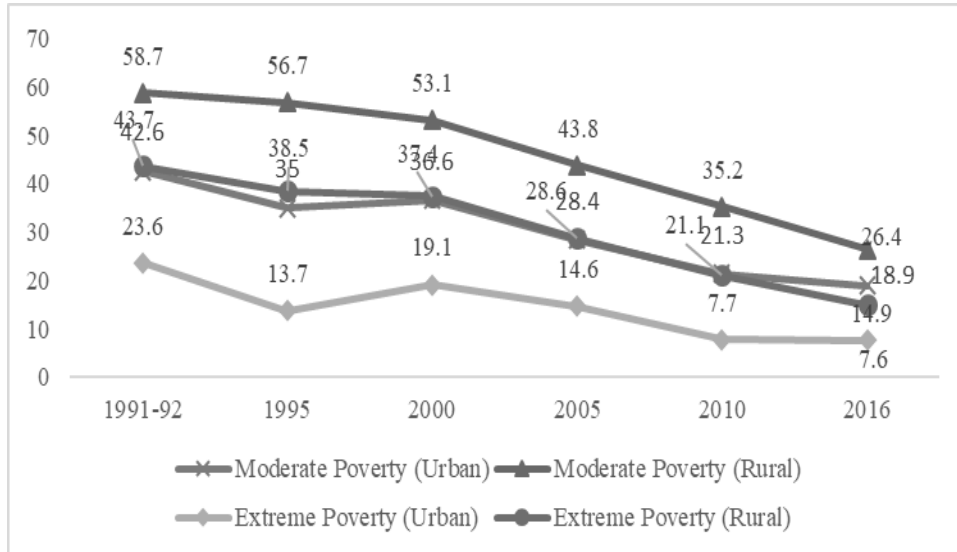
provide evidence that poverty is responsive more to income distribution than to income growth. A huge body of empirical evidence suggests that inequality reduces the potency of growth in reducing poverty (Bourguignon 2003, Fosu 2009, Fosu 2010, Ravallion 1997, Adams 2004).

Bangladesh's rapid growth in recent years has been argued to be inclusive and pro-poor. Over the course of income growth, the country has achieved a rapid reduction in the rate of poverty. In the last twenty-five years, from 1991-92 to 2016, the proportion of population living in extreme poverty (i.e., below the lower poverty line) has dropped by two-third in both urban and rural areas, whereas the proportion of population living in moderate poverty (below the upper poverty line) has more than halved in both urban and rural areas (Figure 2). The rate of extreme poverty fell from 23.6 per cent to 7.6 per cent and from 43.7 per cent to 14.9 per cent, respectively in urban and rural areas during the 1991-92 to 2016 period. During the same time period, the rate of moderate poverty fell from 42.6 per cent to 18.9 per cent and 58.7 per cent to 26.4 per cent, respectively in urban and rural areas. This rapid reduction in poverty can be attributed to the nature of growth that the country has experienced. Growth in two sectors, RMG export and remittances, has been the main engines of Bangladesh's income growth since the 1980s. These two sources of growth, due to their inclusive and pro-poor nature, are also believed to have been the drivers of poverty reduction. Less reliance on high skilled labour of these two sectors has created income opportunity to people coming mostly from the backward, disadvantaged and low-income groups of the society.

While the share of agricultural output in national income has been decreasing very fast owing to the rapid growth of manufacturing and service sectors, its role in employment generation and poverty reduction has not been diminished. Access to HYV seeds, irrigation facilities, cheap credit, electricity, development of roads and other infrastructure and development of markets for agricultural equipments, e.g. power tiller, shallow tube well, power pump, etc., have been the major drivers of agricultural growth in Bangladesh (Gautam and Faruqee 2016, Mendola 2007, Hossain *et al.* 2003). During 2010 to 2017, the sector grew at an average annual rate of 3.3 per cent compared to 2.5 per cent during the 1980s. The growth in agricultural income and wage has also led to the growth in rural non-farm sector, particularly rural service sector. Agricultural productivity growth is found to induce structural transformation within the services sector in small towns, with employment in skilled services growing at a faster pace than

that of low-skilled services (Emran and Shilpi 2018). The rural economy has gone through substantial structural transformation over the last one decade or so from farm to non-farm, from informal to formal, and from low to high skilled economic activities. This structural change has profound implications for the growth of rural income and poverty reduction.

Figure 2: **Poverty Rates (%)**



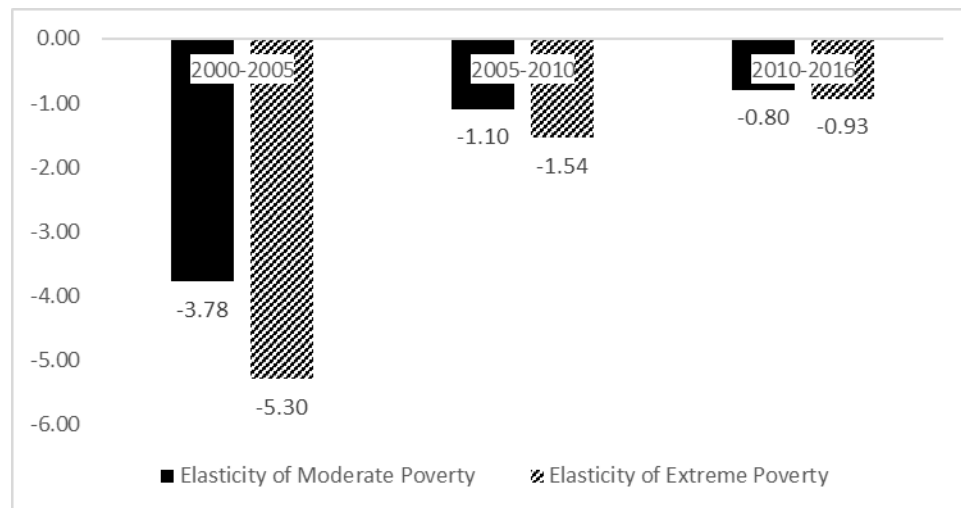
Source: *Household Income and Expenditure Survey (HIES)*, Bangladesh Bureau of Statistics.

Despite remarkable success in poverty reduction since independence, still one in every four people live below the upper poverty line income and one in every eight people live below the lower poverty line income. In fact, the effectiveness of growth as a driver of poverty reduction has come into question in recent days. The elasticity of poverty with respect to income provides an estimate of the effectiveness of growth in reducing poverty.² The absolute value of income

²In this case, we simply use arc elasticity, that is, elasticity of poverty with respect to income between 2005 and 2010 = [change in poverty between 2005 and 2010/poverty of 2005]/[change in national income between 2005 and 2010/national income of 2005]. Note that we cannot use the decomposition method used in Datt and Ravallion (1992) where the net elasticity of poverty with respect to growth is broken down between poverty and inequality components.

elasticity of poverty ('elasticity of poverty' in short) has fallen very fast in recent years (Figure 3): from 3.78 during 1995-2000 to 0.80 during 2010-2016 in the case of moderate poverty and from 5.3 during 1995-2000 to 0.93 during 2010-2016 in the case of extreme poverty. This drastic decline indicates that the role of growth in reducing both moderate and extreme poverty has become less and less effective over time- increasing the size of the pie does not ensure that all are getting a share of it. One important nature of the reduction in elasticity is that the elasticity of extreme poverty has fallen at a slower pace than that of the moderate poverty throughout the period 2000 to 2016. In 2010-2016, absolute values of elasticity of extreme and moderate poverty were 0.93 and 0.80 respectively. It indicates that growth can still benefit the extreme poor. However, if this declining trend continues over the next few years, the linear projection of extreme poverty reduction to 4.15 by 2021 made in the 7th Five Year Plan is unlikely to hold. The linear projection was based on the assumption that the real GDP would grow at a rate of 6 per cent and the net growth elasticity of poverty would remain constant at -2.05 over the projection period. Bangladesh may have reached that tipping point after which growth is less likely to impact poverty reduction.

Figure 3: Elasticity of Poverty

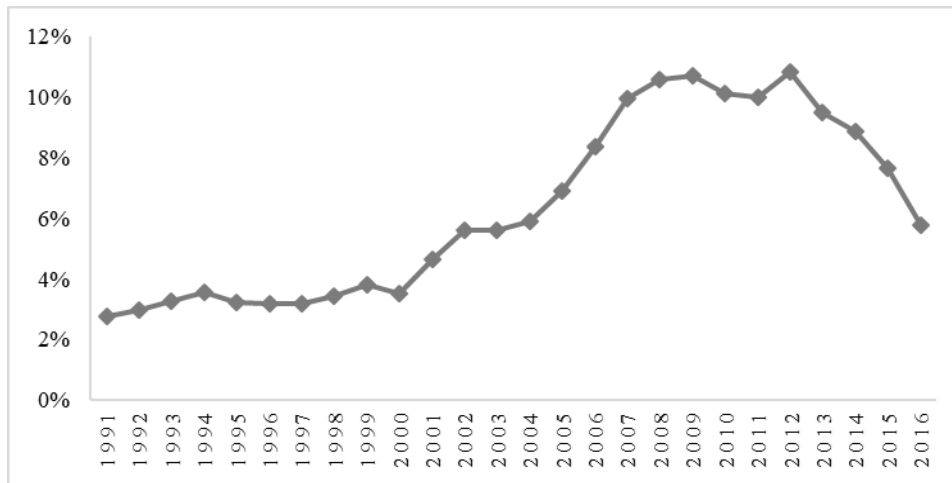


Source: Authors' calculation.

The figure above (Figure 3) also shows how the elasticity of poverty changes as the economy grows. In fact, we plot elasticity of poverty against real GDP of Bangladesh (Figure A1). The absolute value of the elasticity decreases as the country's real GDP increases, which implies that the effectiveness of growth as a driver of poverty reduction has diminished with the country's rapid income growth. A similar pattern is observed for both moderate and extreme poverty.

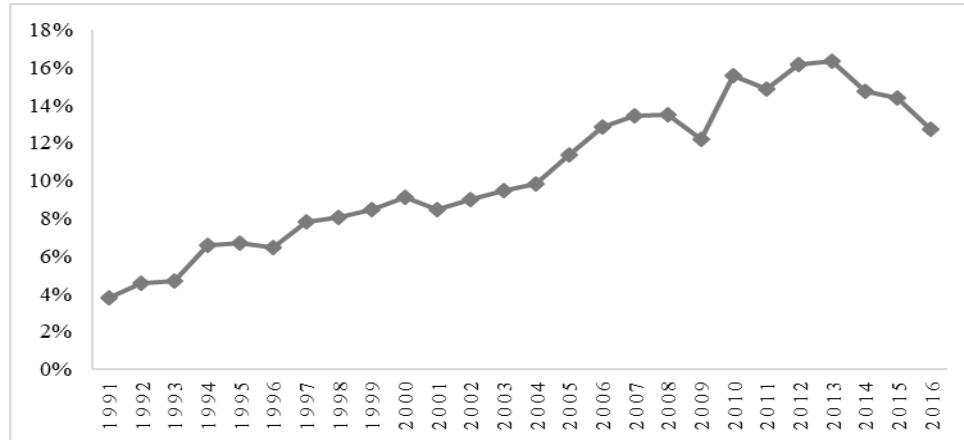
What could be the probable reasons for growth becoming ineffective in reducing poverty? Two reasons are plausible: (i) drivers of growth might have become ineffective and (ii) drivers of growth might have changed. It is argued that the low hanging fruits are exhausted and we are left with only hard-to-reach people, geographically and socially. Increase in international migration or employment in RMG will not benefit these people. There are also indications that the drivers of growth may have been changing; the economy is going through a structural change. Share of RMG export and remittance in GDP both had been increasing until 2010 and fell steadily during the 2010s. The total contribution of these two sectors in the country's GDP had reached 26 per cent in 2010 and came down to 19 per cent by 2016 (Figures 4 and 5). That is, the sources of growth may have changed and this has implications for the reduction of poverty.

Figure 4: **Share of Remittance in GDP (%)**



Source: *World Development Indicators* (WDI), Bangladesh Bank and Export Promotion Bureau of Bangladesh.

Figure 5: Share of RMG Export in GDP (%)



Source: *World Development Indicators* (WDI), Bangladesh Bank and Export Promotion Bureau of Bangladesh.

The above discussion underpins the need for targeted safety net programmes, regional and social targeting and effective ‘graduation models’ for further reduction of poverty. While there are different safety nets programmes in place implemented by different ministries and departments, evidence of leakages, mis-targeting, duplications and non-coordination among implementing bodies are rampant (Rahman, Choudhury and Ali 2012, Barkat-e-Khuda 2011, Morshed 2009). The government has prepared National Social Security Strategy (NSSS) based on life cycle approach with emphasis on the most vulnerable sections of the population in its initial stage of implementation. The reduction of poverty, particularly the extreme poverty, critically hinges on the effective implementation of NSSS. This document also emphasizes the importance of geographical targeting. Alam and Iqbal (2016) argue that the understanding of the local level heterogeneity of the well-being of people and their potential causes has a significant bearing on designing effective and customized tools for interventions. The success of the geographical targeting critically hinges on the extent we can collect reliable information at the lowest possible administrative unit of a country (Baker and Grosh 1994).

While almost all developing countries run a variety of social safety net programmes to provide support to the poor in order to prevent them from slipping or falling into further poverty below a certain level, the scope of such interventions is very limited and does not take into account the long-term impact, ensuring a permanent solution to the low level equilibrium of poverty trap. The

evidence that temporary support to the poor is not enough to lift them out of poverty in the long-run has spawned a host of models, popularly known as “graduation model,” which includes a package of interventions aiming to upgrade the ability of the beneficiaries so that can maintain high income in the absence of the project. Though there have been a number of experiments with such graduation models in Bangladesh, such as TUP (Targeting Ultra Poor), CLP (Char Livelihood Programme), SWAPNO (Strengthening Women’s Ability for Productive New Opportunities), etc., there are differences in views among the practitioners and policy makers on the types and their optimal mix of ingredients in the package, its delivery mechanism and also length of interventions. The importance of such graduation model becomes more relevant as the role of growth in reducing poverty is diminished.

2.2. Growth and Income Inequality

The relationship between economic growth and inequality has been one of the most debated issues among economists and development practitioners for years. The literature on this particular relationship has revolved around two major strands: one claiming causality from economic growth to inequality and the other claiming the reverse, causality from inequality to economic growth. Both of these claims are supported by a number of theoretical models and empirical evidence. As to the transmission mechanisms, either from growth to inequality or from inequality to growth, the literature offers a wide range of plausible channels.

Kuznets’ (1995) widely celebrated inverted U hypothesis, which states that inequality rises at the early stages of development and then falls when the country becomes richer, relies on the first line of causality—the pattern of inequality is governed by the process of growth. The hypothesis gained initial support from studies based on cross-sectional data and cross-country regression (Adelman and Morris 1973, Paukert 1973, Ahluwalia 1976, Robinson 1976). But these studies were later criticized for their non-robustness to alternative specification and estimation techniques, use of incomparable measure of inequality across countries, etc. (Anand and Kanbur 1993a, 1993b, Fields 2002, Palma 2011). However, some recent studies, e.g. Kanbur (2012), have shown that Kuznets inverted U hypothesis still might hold in country-specific case studies. Islam (2009) found the validity of inverted U hypothesis for Bangladesh.

While there has been a general disagreement in the literature about the effects of growth on inequality, there is a parallel body of research which asked

the opposite question: does inequality affect growth? While there is a host of channels documented in the literature, we present four prime channels through which inequality might affect growth in Bangladesh context: credit market imperfections, the fiscal policy, the socio-political instability and the savings channel.³

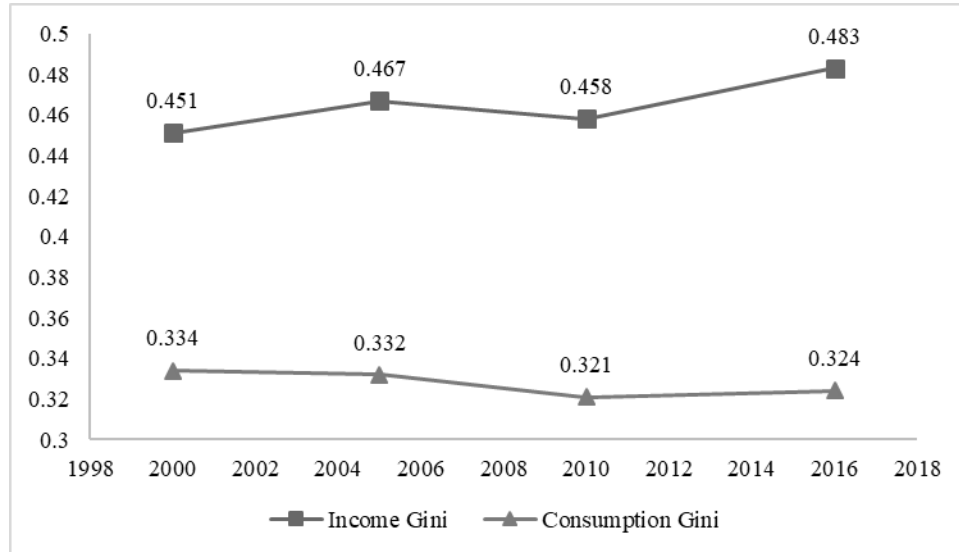
Credit market imperfections channel postulates that in the presence of borrowing constraint, and significant fixed cost associated with investment in physical and human capital, inequality has a deterrent effect on a country's economic growth (Galor and Zeira 1993, Banerjee and Newman 1993, Aghion and Bolton 1997, Piketty 1997). On the other hand, the fiscal policy channel argues that the more inequality a country experiences, the more is the pressure on the political government for redistribution of income from rich to poor and such redistribution leads to disincentives for investment, which in turn hampers growth (Alesina and Rodrik 1994, Persson and Tabellini 1994). The socio-political instability channel highlights the governance issue and argues that higher inequality generates political instability and political instability negatively affects investment and future growth (Keefer and Knack 2002, Gupta 1990). The savings channel, contrary to the other three channels, suggests that higher inequality plays a positive role in a country's economic growth. The argument is based on the hypothesis that richer people have a higher propensity to save than the poorer people (Kaldor 1956). In principle, either of these four channels or simultaneous effect of more than one channels can govern the inequality-growth relationship.

Bangladesh's income growth since the early 1990s has been associated with widening inequality; income share held by the richest has increased steadily with a continuous reduction of the share held by the poorest. The share of total national income held by the richest 10 per cent amounts to 38 per cent in 2016, up from 35.85 per cent in 2010 and 37.6 per cent in 2005, whereas the share of income held by the poorest 10 per cent remains at just 1 per cent in 2016, down from 2 per cent in 2010 and 2005. The income Gini at the national level has increased from 0.45 in 2000 to 0.458 in 2010 and 0.483 in 2016, whereas the consumption Gini at the national level has increased slightly from 0.321 in 2010 to 0.324 in 2016, indicating higher inequality for income than consumption

³See Neves and Silva (2014) and Ehrhart (2009) for a detailed survey of the relevant theoretical and empirical literature.

(Figure 6). Social safety net programmes and access to informal and semi-formal credit might have contributed to the constant consumption Gini for Bangladesh.

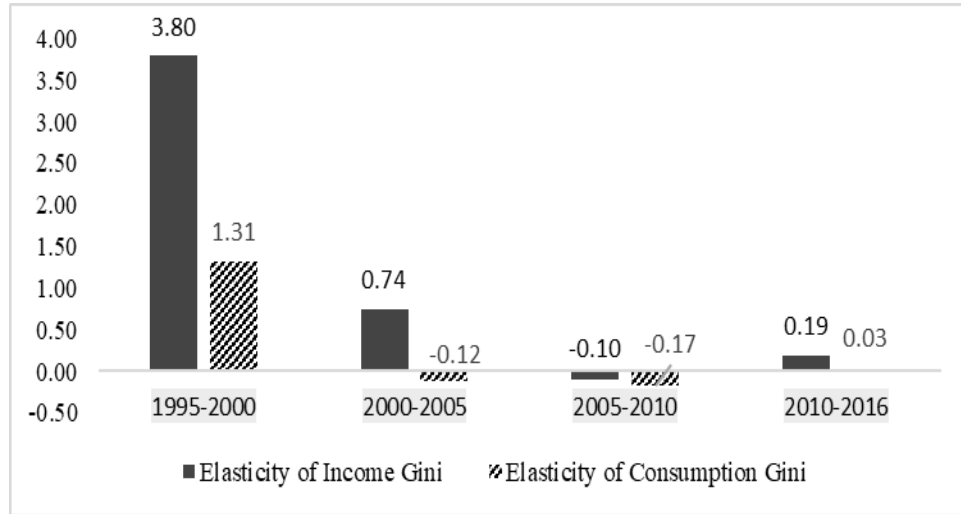
Figure 6: **Gini Coefficient at National Level**



Source: *HIES and WDI*.

How large is the increase in inequality when we compare it with the rate of economic growth? We again rely on the measures of elasticity - the elasticity of Gini coefficient with respect to income ('elasticity of Gini' in short) to answer this question. We find that the elasticity of Gini at the national level has declined very sharply over time (Figure 7). From 1995-2000 to 2000-2005, it fell from 3.80 in 1995-2000 to 0.74 in 2000-2005. The elasticity of income Gini became negative during the period 2005-2010. During 2010-2016, the elasticity was 0.19, which means that every 10 per cent increase in real income has been associated with a 1.9 per cent increase in income Gini. A similar pattern has been observed for consumption Gini at the national level during this period. The elasticity of consumption Gini was 1.13 in 1995-2000, followed by negative elasticity in 2000-2005 and 2005-2010. In 2010-2016, the elasticity was 0.03, that is, a 10 percent increase in real income has been associated with a 0.3 per cent increase in consumption Gini. The trends suggest that growth has become less inequality generating over time.

Figure 7: Elasticity of Gini Coefficient at National Level



Source: Authors' calculation.

Figure 7 also shows how the elasticity of Gini changes as the economy grows. At the lower level of real GDP, the elasticity is very high, indicating that income inequality is more responsive to economic growth. As the real GDP increases, the elasticity of income Gini falls very sharply. This is the period when growth occurred at the cost of low inequality. But as the real GDP continues to increase, elasticity tends to move upward again, implying that inequality becomes more sensitive to growth. The relationship is shown in the Figure A2 in the appendix. We find a similar pattern for both income and consumption Gini.

Higher elasticity of Gini in the 1990s can be due to higher wedge between real wage and growth of labour productivity. Osmani (2015) argued that the high growth period since 1990 has resulted in very slow growth in real wage compared to the growth of labour productivity. This has lowered the real cost of production, which has resulted in the expansion of Bangladesh's export industries by providing the country a cost advantage in the world trade. Export earning has been one of the engines of the country's rapid growth during this period. But the benefit of this growth was enjoyed mostly by the owners of non-labour factors of production (e.g. capital and land) while the labour class lagged behind due to the slow growth of real wage relative to labour productivity. The fact that labour is supplied mostly by the poor people and non-labour inputs are

owned by the rich, it has resulted in the concentration of more resources to the upper end of the income distribution. Over time, the gap between real wage and growth of labour productivity may have diminished, giving rise to a lower elasticity of income and consumption Gini.

The economic growth has resulted in a substantial structural change in the rural economy over the last one decade or so and this has been argued to make growth less inequality generating. Greater access of landless and marginal farmers to the land market due to absentee large land owners, growth of rural non-farm sector absorbing a part of rural surplus labour, foreign remittance in the rural economy, higher price of agricultural products have contributed to a vibrant rural economy. Note that in 2010-2016, elasticity of urban Gini (0.36) was much higher than that of rural Gini (0.19).

2.3. Growth and Employment

Is growth employment-generating in Bangladesh? Economic growth may not go hand in hand with generation of employment if the structure of production is biased towards capital machinery and high skilled jobs. Recently, it has been observed that the economic growth has been deemed as “jobless” and this is about to take a place in the growth narrative of Bangladesh. We think this issue should be scrutinized further before it occupies a permanent place in our discourse. Therefore, our discussion on the nexus between growth and employment will be centered around the debate of “jobless growth.”

At the outset, it is essential to define “Jobless Growth” as the debate about the definition is very old and still on (Islam 2010). Borat and Oosthuizen (2006) proposed three different sets of definition, varying with the degree of strictness. First, positive economic growth is associated with zero or negative employment growth. Second, the positive economic growth is associated with employment growth which lags behind labour force growth and results in rising unemployment; and third, the economic growth is associated with employment growth below a “satisfactory level.” Our arguments will be evolved around these three definitions.

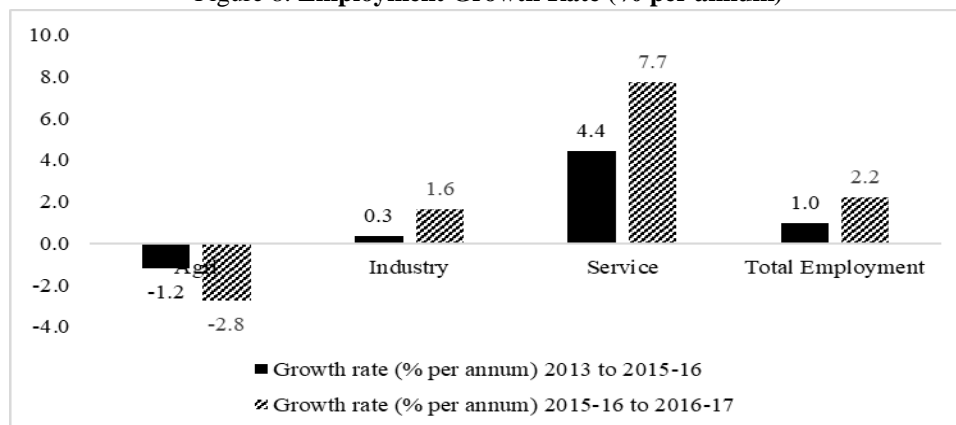
Let’s start with the first definition. According to this definition, recent data on growth and employment do not indicate any such situation of jobless growth. According to the Labour Force Survey (LFS), 1.4 million new jobs were created between 2013 and 2015-16 and another 1.3 million were created between 2015-

16 and 2016-17. In terms of percentage change, these figures translate to 1 per cent annual increase in the number of jobs between 2013 and 2015-16 and 2.2 per cent annual increase between 2015-16 and 2016-17.

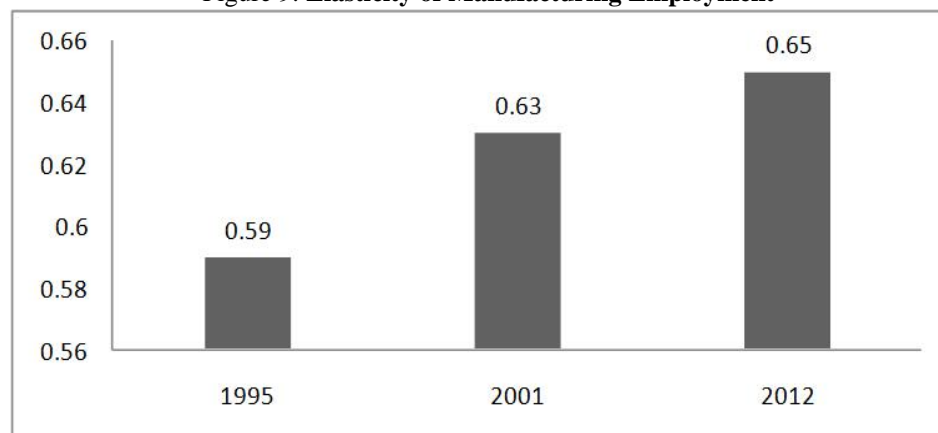
As a natural process of growth, labour force in agriculture tends to move to higher productive service and industry sectors. There is a clear evidence that it is not the reallocation of labour among the sectors only, rather new jobs have been created in total, thanks to industry and service sectors (Figure 8). The growth of employment in the service sector was about 7.7 per cent compared to 1.6 per cent in the industry sector in the period between 2015-16 and 2016-17, resulting in the net increase of 2.2 per cent of employment. In general, the productivity of the service sector is lower than that of industry, implying that to produce the same amount of output, service sector requires a higher number of labour than the industry. Hence, higher growth of service sector leads to the creation of a greater number of jobs in the economy.

There has been a reduction of employment in the manufacturing sector in absolute number and the proponents of 'jobless growth' highlight this numbers, ignoring the broader picture. In fact, the reduction of manufacturing jobs is compensated by a steep increase in jobs in the construction sector, registering about 17 per cent of annual increase from 2013. If we look at micro data such as Census of Manufacturing Industry (CMI) and Survey of Manufacturing Industry (SMI) conducted by BBS, we observe that the elasticity of manufacturing employment with respect to output has been increasing over time (Figure 9).⁴ Though the data is outdated (the last SMI was published in 2012), it says something about the trend of manufacturing jobs.

⁴We run the following regression: $\log(\text{value of output}) = a + b \cdot \log(\text{no. of labour employed}) + u$

Figure 8: **Employment Growth Rate (% per annum)**

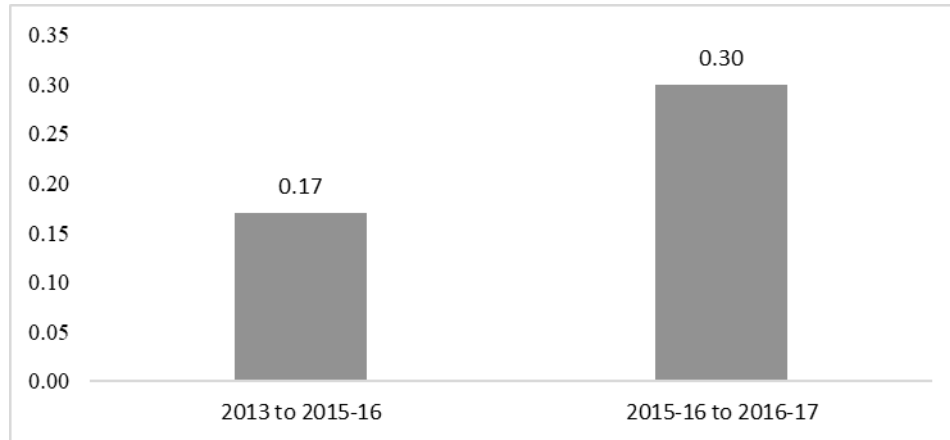
Source: LFS, BBS.

Figure 9: **Elasticity of Manufacturing Employment**

Source: Authors' estimation based on CMI/SMI.

Now the question is: how large is this increase when the economy has been growing at a rate of over 6 per cent during this period? To answer it, we need to look at the elasticity of employment with respect to growth. It shows the increase in jobs in percentage if output increases by one percent. The income elasticity of job creation was about 0.17 in the period 2013 to 2015-16 (Figure 10). This figure increased to 0.30 in the period 2015-16 to 2016-17. It implies that one per cent increase in income leads to about 0.17 per cent and 0.30 per cent annual increase in jobs in the first and second periods respectively, indicating that the growth has become more pro-jobs now.

Figure 10: Elasticity of Job Creation



Source: Authors' calculation.

Next, let's consider the second definition based on comparing job growth with labour force growth. Looking at the number of jobs created might lead to a misleading conclusion as the number of people entering the labour force within a certain period of time might exceed the number of new jobs created. Comparison of the number of new jobs relative to the size of the total working age population gives us a better picture. In Bangladesh, employed persons as a percentage of the total working age population increased from 54.6 in 2013 to 55.8 in 2016-17. This provides a clear evidence that jobs creation has neither been stagnant nor been shrinking. Rather, the job creation rate has been expanding at a greater pace than the working age population.

The third definition is clearly very subjective as finding a "satisfactory" level of employment growth is very contentious. There is a very recent estimate of World Bank which shows how many new jobs Bangladesh need to create every year in order to achieve targets for employment rate. The study (World Bank 2018), taking data from 2001 to 2015, finds that to maintain the current level of employment rate, the country needs to create 1.1 million new jobs annually and to catch-up with the employment rate of other countries with similar income levels, the country will need 1.6 million new jobs annually. Bangladesh's current performance is actually in between these two figures. According to official data, Bangladesh created 1.3 million new jobs annually in the period from 2015-16 to 2016-17. This suggests that the current performance of job creation is much better than the past but does not fare well with the comparable countries.

Theoretically, it is also hard to rationalise the “jobless growth” phenomenon, given the stage of development where Bangladesh is currently in. If the growth has been “jobless,” something else other than labour must have been driving the growth. What is the new driver, then? We know that output is produced by labour and capital machineries, and productivity captures how efficiently these two factors of production are used. If the role of labour is diminished, either capital or productivity must have increased to ensure higher growth. Recent BIDS study on aggregate productivity and its determinants does not lend any support that the Total Factor Productivity (TFP) has increased (Ahmed and Chowdhury 2018). Any rigorous evidence that the technological advancement in the industry sector is labour-replacing is also almost absent in the literature.

III. CONCLUSION

Apparently, it seems counter-intuitive that both the growth elasticity of poverty and inequality have been reducing over time. That is, on the one hand, the effectiveness of economic growth in reducing poverty has been declining; on the other hand, growth has been associated with lesser inequality. Since the proportion of the poor people has been declining, the Gini coefficient, which captures inequality of the whole distribution, is dominated by the non-poor population. It may be the case that income and consumption inequality of the non-poor has been declining in response to higher growth over time. If this is the case, we can observe a negative growth elasticity of poverty and inequality.

There are other characteristics of growth, which deserves elaboration. Apart from the effects on poverty, inequality and employment, an important aspect of the recent history of the economic growth of Bangladesh is its resilience – capacity to absorb shocks and move forward. The prolonged period of political confrontation in 2012-13 led to a slowdown in the growth rate of the economy in FY14. Production and distribution chains were disrupted by frequent and long spells of general strikes and countrywide blockades; the service and manufacturing sectors were hard hit. The terrorist attack in 2016 in Dhaka also stalled the economic activity, particularly the inflow of FDI. The flood in 2017 also damaged the crops and left a deep scar in the economy. Despite all these shocks, the economy bounced back strongly, showing positive signs for all major economic indicators.

On the external front, Bangladesh economy was able to ward off recent global recession, the recent slowdown of emerging economies, recent food price

hike, post-Brexit tension very successfully, thanks to prudent macroeconomic management and also the very structure of the economy. One of the major factors that helped Bangladesh economy survive major shocks is that two major engines of growth – remittance and RMG exports – were largely insulated from these shocks. Remittances are generally counter-cyclical as their inflow increase with economic slowdown of the recipient country. Furthermore, the economic depression of the importing countries has little impact on the demand for RMG from Bangladesh, given its low-value nature of the product.

Another aspect of Bangladesh's growth is that the growth is self-financed. The contribution of FDI and foreign aid in the GDP is very low. In recent years, the share of foreign aid and FDI combined has been only 2 per cent of total national income.

The relative contribution of factor accumulation and productivity also indicates the future growth potential of an economy. The contribution of productivity in the production process has been very low in Bangladesh. Almost 99 per cent of the growth has been contributed by the accumulation of factors, i.e. land, labour and capital (Ahmed and Chowdhury 2018). The risk of growth relying solely on factor accumulation is that at one stage the diminishing marginal return of factors set in, which ultimately leads to a stagnation of growth. Though Bangladesh may be far away from reaching the point of diminishing return, the country should consider improving productivity through technological innovation and efficiency at firm and sector level in order to maintain high growth in the post-LDC era.

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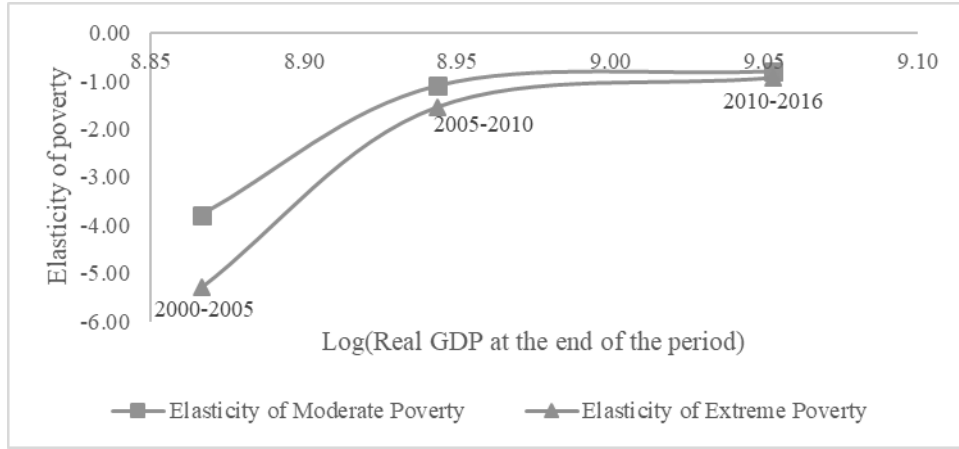
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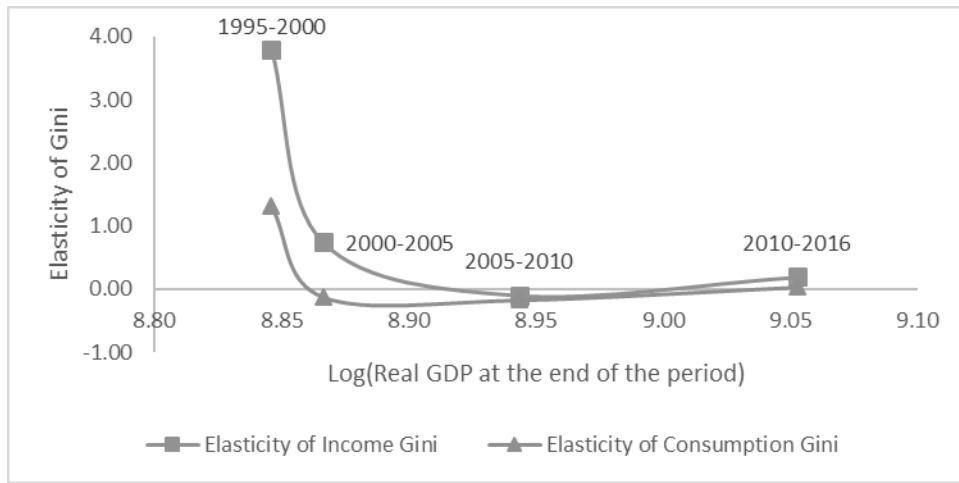
Appendix

Figure A1: Relationship between Income Elasticity of Poverty and Real GDP



Source: Authors' calculation.

Figure A2: Relationship between Income Elasticity of Gini Coefficient and Real GDP



Source: Authors' calculation.