Economic growth without jobs

While individual sectors might display a strong responsiveness of employment to economic changes, the overall economy's job creation potential in response to growth has remained subdued, write **Asaf Ibne Salim** and **Syed Abul Basher**

Figure 1. Output growth vs. employment growth in Bangladesh: 2002 - 2016/17

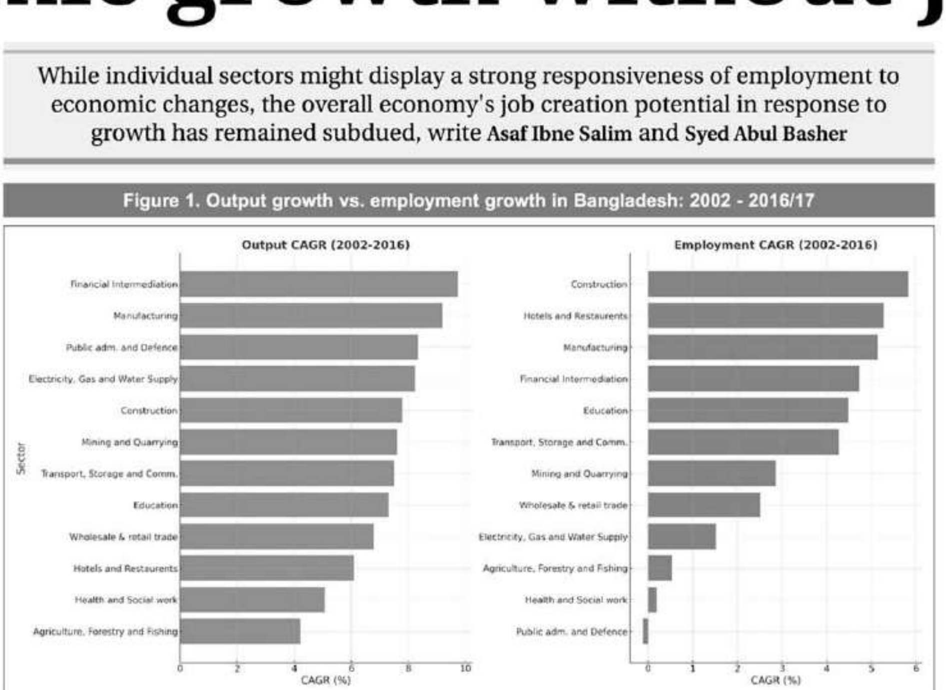

Table 1. Employment elasticities (average) of different sectors: 2002-2016/17

Economic sectors	Employment elasticity (average)
Primary sector	**0.662**
Agriculture, forestry and fishing	0.076
Mining and quarrying	1.249
Industrial sector	**0.583**
Manufacturing	0.657
Electricity, gas and water supply	0.509
Service sector	**0.529**
Construction	0.804
Wholesale & retail trade, repair of motor vehicle	0.353
Hotels and restaurants	0.898
Transport, storage and communication	0.662
Financial intermediation	0.20
Public administration and defense	0.196
Education	0.755
Health and social work	0.464
Aggregate	**0.356**

IN the football match between Spain and Switzerland during the 2010 FIFA World Cup, even though Spain had the majority of ball possession, fans were stunned by a Swiss goal that led to Spain's 0-1 defeat. The concept of jobless growth bears a similarity with this. When an economy faces a situation where employment growth lags behind economic growth, the country is said to be experiencing jobless growth. In the past, this phenomenon was primarily observed in advanced countries. However, due to a variety of factors, it's now increasingly evident in less developed countries.

The phenomenon of jobless growth hasn't gone unnoticed. To illustrate this in Bangladesh, several newspaper articles cited the following statistics: Between 2013 and 2016-17, the economy grew at an average rate of 6.6 percent. However, during this period, the number of jobs increased by only 0.9 per cent per annum, which is less than one-eighth of the GDP growth. Each year, the country creates approximately 1 million jobs, while 2.2 million new job seekers join the workforce. Evidently, the unemployed are accommodated by the informal sector.

In a new research paper, we delve into the nature of jobless growth, examining not only the overall economy but also each of the relevant sectors. Our analysis spans from 2002 to 2016-17, representing the most extended period covered in the available research papers.

The graph above displays the compound annual growth rate (CAGR) for both output and employment over the entirety of our study period, from 2002 to 2016/17. The CAGR offers a more transparent view of the underlying growth trends, allowing us to avoid getting sidetracked by short-term volatility. One immediate observation is that sectors with high growth, such as finance, aren't necessarily major job creators. Over the 15-year period from 2002 to 2016/17, employment growth in the construction, as well as hotel and restaurant sectors, outpaced that of manufacturing. These sectors employ a significant number of unskilled workers in addition to skilled ones. The surge in employment within the construction sector in Bangladesh can primarily be attributed to rising urbanisation and infrastructure development. Meanwhile, the growth of employment in the hospitality sector, ranking second in terms of job growth, mirrors the changing lifestyles, increased mobility of people, and, most importantly, a rising income level. The comparative dip in employment growth in manufacturing likely points to an increase in capital intensity, among other factors.

Three predominantly publicly-owned sectors - public administration, utilities, and mining - although growing at an annual average of 6-7 per cent, have underwhelmed in terms of employment growth. Numerous pay increases for public sector employees over the past decade have decidedly marked these sectors as prime examples of jobless growth. While the agriculture sector has shown modest employment growth from 2002 to 2016/17, it is widely recognised that agriculture remains the country's primary job generator. Furthermore, according to the latest 2022 Labour Force Survey, agriculture's employment share has risen from 40 per cent in 2016-17 to 45 per cent in 2022. The Covid-19 pandemic and the subsequent global economic downturn likely played significant roles in this unexpected boost in agricultural employment, but more research is essential to delve deeper.

The near-stagnant employment growth in the health and social sector is perplexing, especially given that traditionally, the health and social sectors' employment growth rates often double that of the overall employment rate. This underscores the urgent need for greater investments-and the resulting job opportunities-in the health and social sectors to improve the country's living standards.

Before we present our main findings, let's clarify the concept of elasticity, a crucial tool in economics. It measures how much one variable responds to changes in another. For instance, if a poor harvest causes the price of rice to surge, yet households continue to purchase rice, then the demand for rice is considered inelastic. This means that the consumption of rice doesn't significantly decline with a price increase. Similarly, if employment growth responds less than proportionally to an increase in output, the demand for jobs is deemed inelastic, often interpreted as jobless growth.

The table above presents employment elasticities for each of the twelve sectors, as well as for the aggregate economy. These elasticities are derived by averaging values across four time intervals: 2002-2005, 2005-2010, 2010-2013, and 2013-2017. Several observations emerge from the data. Firstly, with the exception of mining and quarrying, the employment elasticities for all sub-sectors are below 1 per cent. This implies that for every 1 per cent increase in output, the corresponding growth in employment is less than 1 per cent. In other words, employment does not respond proportionately to changes in growth. While this might be seen as a decline in employment generation, economists often refer to this phenomenon as "jobless growth."

Second, over the fifteen-year period (2002-2016/17), the agriculture sector displayed very limited employment opportunities. This is unsurprising, given that agriculture is already the leading employment generator in the economy. The employment elasticity in manufacturing is slightly higher than the sector's average, suggesting better job creation prospects with economic growth.

Third, within the service sector, the hotels and restaurants, construction, and education sub-sectors exhibit the highest employment elasticity. In contrast, the financial and public administration sectors demonstrate the least. Although the service sector comprises nearly 60 per cent of the economy, it generates around or less than 40 per cent of total employment. The service sector frequently encompasses high-productivity industries such as finance, IT, and professional services, which can generate significant economic value with a comparatively smaller workforce. Moreover, industries like telecommunications are becoming increasingly capital-intensive, depending less on human labour. Consequently, these sectors can stimulate economic growth without a proportional increase in employment.

Fourth, the aggregate employment elasticity of 0.356 for the entire economy is notably lower than the sectoral averages. This suggests that while individual sectors might display a strong responsiveness of employment to economic changes, the overall economy's job creation potential in response to growth is more subdued. Since not every sector contributes equally to the overall economy, a dominant sector with low employment elasticity (e.g., agriculture, finance) can significantly dilute the overall employment response. Moreover, if job losses in one sector, such as manufacturing, are not offset by job gains in another, like construction, the aggregate employment response can be subdued.

We also examined jobless growth using regression-based models. We found that employment elasticity for female workers is much higher than for male workers. Besides women's participation in the readymade garment industry, there has been increasing involvement in the agricultural sector. Consequently, several researchers have labeled this trend as the "feminisation of agriculture." On the other hand, the employment elasticity of male workers in the construction sector in urban areas has seen a considerable increase. Interestingly, employment elasticity in rural areas is found to be lower than in urban areas. This might suggest the gradual adoption of labour-saving technologies in farming and other agricultural activities.

Overall, our results suggest that the elasticity of total employment saw a statistically significant decline from 2002-2010 to 2010-2017, indicating that employment has become less responsive to GDP growth over time. It's crucial to understand the context when interpreting the results presented above. Our sample period coincided with major domestic and global events that directly or indirectly affected Bangladesh's economy. For instance, in 2007 alone, the country grappled with the dual shocks of the devastating Cyclone Sidr and political unrest. This was further exacerbated by a global food price spike. These challenges were soon magnified by the Global Financial Crisis in 2008. Just as the country was beginning to recover from these persistent challenges, the tragic garment factory collapse in 2013 dealt a significant blow to its primary export sector. By taking into account these events, we're not just looking at a collection of statistical facts; we're understanding the real stories and impacts behind them.

Despite losing a match to Switzerland with a score of 0-1, Spain went on to win the 2010 FIFA World Cup. Similarly, even though Bangladesh currently grapples with jobless economic growth, it shouldn't lose hope or momentum. We hope our findings on the sensitivity of employment growth to output growth will guide the way towards thriving employment opportunities.

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