A Study of Macroecomic Projections of the Sixth-Five Year Plan of Bangladesh

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Abstract

In this paper, the projections made by the Sixth Five-year Plan are discussed. It is found that the growth rate of agriculture will go down, while those of all three other sectors will go up. When these projections are extended by us by another five years till 2019-20, it is found that the growth rate of agriculture will go down to 3.8, and those of industry, construction, and services go up to 14.0, 9.1, and 8.8, respectively by 2019-20. The GDP growth rate is projected to rise to 9.0. These and other projections in sectoral shares, sectoral employment, and sectoral employment shares will bring about tangible changes. In short, the economy of Bangladesh will look very different from what it is today.

1.   Introduction

In the Sixth Five-year Plan, some macroeconomic projections have been made for the plan period, that is, 2011, 2012, 2013, 2014, and 2015 (3). These are based on a dynamic computable general equilibrium model (DCGE), which is elaborated in (1, 2, 4). The objective of this paper is to discuss various aspects of these projections. As an additional exercise, we extend the projection by five years, 2016, 2017, 2018, 2019, and 2020 and discuss the picture they provide. The sixth Five Year plan provides these projections in terms of four sectors—agriculture, industry, construction and services. Our discussion is carried out in terms of these sectors.

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2.   Sectoral Growth Rates

In this section, we discuss the growth rates of different sectors of the economy of Bangladesh. A steady decline in the growth rate of agriculture from 5.3 (actual) in 2009-2010 to 4.3 in 2014-2015 is projected. Why will such a decline occur and what will be the consequences of such a decline has not been thoroughly discussed in the sixth Five-year plan but this can form an important area of research by the researchers.

The industrial sector is projected to grow from the actual rate of 6.6 percent in 2009-2010 to 11.5 percent by 2014-15. The projected growth rates of industry appear somewhat high and, given power crisis and infrastructural difficulties,

Table 1: Sectoral Growth Rates (present)

	2009-10 (Actual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15
Agriculture	5.3	4.9	4.5	4.4	4.3	4.3
Industry	6.6	9.2	9.6	9.9	10.5	11.5
Construction	6.0	6.4	6.6	6.8	7.8	8.1
Services	6.5	6.6	6.8	7.1	7.3	7.8
GDP Growth	6.2	6.7	6.9	7.2	7.6	8.0

doubts remain about their fulfillment. The construction and the services sector are projected to grow steadily but the growth rates are plausible. The GDP growth rate 6.9 percent in 2011-12 appears unlikely to be achieved and hence subsequent growth rate of 7.2, 7.6, and 8.0 appear doubtful.

3.   Sectoral Shares in GDP

Sectoral shares in GDP provide important information on the composition of GDP over time. So, it is worthwhile to look at them closely. According to the projections, the share of agriculture in GDP, which stood at 18.4 in the beginning of the Plan period (2010-2011) will steadily decline to 15.5 by the end of the plan period. In contrast, the share of industry will rise from 19.4 to 22.3 over the same period. The share of construction will rise from 8.2 to 8.6, which appears somewhat doubtful as the sector is facing many difficulties.

The share of the Services sector will decline slightly from 54.0 to 53.6 over the same period.

Table 2 : Sectoral Shares in GDP (present)

	2009-10 (Actual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15
Agriculture	18.6	18.4	17.7	16.9	16.2	15.5
Industry	19.1	19.4	19.9	20.8	21.6	22.3
Construction	8.3	8.2	8.4	8.5	8.6	8.6
Services	54.0	54.0	54.0	53.8	53.6	53.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

4.   Sectoral Employment (Number of labour force employed)

Sectoral employment sheds important light on the dynamics of changes in employment in different sectors. It is projected that total employment in agriculture will rise from 26.6 in 2010-11 to 31.2 million in 2014-2015. Employment in industry is also projected to go up from 7.4 to 11.1 million over the same period. From 2.1 million the construction sector employment is projected to go up to 2.9 million, and employment in the service sector will go up from 24.8 million to 33.1 million during the plan period. Total employment will

Table 3: Sectoral Employment (Number of labour force employed in

	2009-10 (Actual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15
Agriculture	25.6	26.6	27.6	28.6	29.8	31.2
Industry	6.8	7.4	8.1	8.9	9.9	11.1
Construction	2.0	2.1	2.3	2.5	2.7	2.9
Services	23.2	24.8	26.5	28.4	30.6	33.1
Total Employment	57.6	60.9	64.5	68.4	73.0	78.3
Employment Growth Rate (%)	5.04	5.62	5.87	6.18	6.69	7.19
Additional Employment	2.8	3.3	3.6	3.9	4.6	5.3

go up from 60.9 million 2010-2011 to 78.3 million in 2014-15. The growth rate of employment will go up from 5.62% to 7.19% during the Plan period. This appears somewhat ambitious. Additional employment generated each year will rise from 3.3 million in 2010-11 to 5.3 million in 2014-1015.

5.   Sectoral Employment Share

In table 4, sectoral employment shares over the plan period are given. The share of agriculture is projected to go down from 43.6 present in 2010-11 to 39.8

percent in 2014-15. On the other hand, the share of industry will go up from 12.2% to 14.2% over the same period.

The share of the construction industry will rise slightly from 3.5 million to 3.7 million over the plan period. The share of the service sector, which stood at 40.8 percent at the beginning of the plan period, will rise further to 42.4 percent.

Table 4 : Sectoral Employment Share (present)

	2009-10 (Actual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15
Agriculture	44.5	43.6	42.7	41.8	40.9	39.8
Industry	11.8	12.2	12.6	13.1	13.6	14.2
Construction	3.5	3.5	3.6	3.6	3.7	3.7
Services	40.4	40.8	41.2	41.5	41.9	42.4
Total Employment	100.0	100.0	100.0	100.0	100.0	100.0

6.   Our Projections for the Period 2015-16 to 2019-2020

In this section, we extend the projections of the sixth Five Year Plan till the year 2019-2020. Our projections are based on the projections of the sixth Five Year Plan in the sense that we used the projections of the Plan and their trends in a systematic manner to derive our own estimates. Since our estimates are not based on a formal model, we call these naive estimates. It must be emphasized that though we could not have obtained these projections without the estimates of the sixth Five Year Plan and since we followed them in a methodical way our estimates may be regarded as quite plausible.

Our exercise will enable us to look well into the future to the year 2019-20 and compare the state of the Bangladesh economy at the start of the Plan period (2010-11) to that of 2019-2020. Our projections are given in bold. We now discuss them below.

In Table 5, we are reporting our projections of GDP growth, given in bold, along with the projections of the Plan. The growth rate of agriculture is projected to come down to 3.8% by the end of the extended projection period, that is, 2019-20. In contrast, growth rate of the industrial sector will go up to 14.0%. The growth rate of the construction sector will rise to 9.1%, while that of the service sector will increase to 8.8 percent in 2019-2020. The growth rate of GDP is likely to go up to 9.0% if the present trend can be maintained.

Table 5 : Sectoral Growth Rates 2009-10 to 2019-20 (present)

	2009-10 (Act ual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Agriculture	5.3	4.9	4.5	4.4	4.3	4.3	4.2	4.1	4.0	3.9	3.8
Industry	6.6	9.2	9.6	9.9	10.5	11.5	12.0	12.5	13.0	13.5	14.0
Constru ction	6.0	6.4	6.6	6.8	7.8	8.1	8.3	8.5	8.7	8.9	9.1
Services	6.5	6.6	6.8	7.1	7.3	7.8	8.0	8.2	8.4	8.6	8.8
GDP Growth	6.2	6.7	6.9	7.2	7.6	8.0	8.2	8.4	8.6	8.8	9.0

Sectoral shares in GDP are given in Table 6. The share of agriculture will fall to 12.5% in 2019-20, while that of industry will rise to 25.8%. The share of the services sector will slightly fall from 53.6% in 2014-15 to 52.8% at the end of the projection period.

Table 6 : Sectoral Shares in GDP 2009-10 to 2019-20 (present)

	2009-10 (Actual)	2010-11 (est)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Agriculture	18.6	18.4	17.7	16.9	16.2	15.5	14.9	14.3	13.7	13.1	12.5
Industry	19.1	19.4	19.9	20.8	21.6	22.3	23.0	23.7	24.4	25.1	25.8
Construction	8.3	8.2	8.4	8.5	8.6	8.6	8.7	8.7	8.8	8.8	8.9
Services	54.0	54.0	54.0	53.8	53.6	53.6	53.4	53.3	53.1	53	52.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sectoral employment shares are given in Table 7. At the of the extended projection period (2019-20), the employment share of agriculture is projected to fall to 35.8% while that of industry rise to 16.7%. The employment share of construction will rise to 4.0%, while that of the services sector slightly rise to 43.5%.

7.   Conclusion

A study of the projections of the Sixth Five Year Plan and the extensions made by us reveal several important and interesting future developments. The growth rate of the agriculture Sector, its share in GDP and in employment will all fall, while those of the industry, construction and the services sectors will rise. The GDP

Table 7 : Sectoral Employment Share 2009-10 to 2019-20 (present)

	2009-10 (Actual)	2010-1 (est)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Agriculture	44.5	43.6	42.7	41.8	40.9	39.8	39.0	38.2	37.4	36.6	35.8
Industry	11.8	12.2	12.6	13.1	13.6	14.2	14.7	15.2	15.7	16.2	16.7
Construction	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	4.0
Services	40.4	40.8	41.2	41.5	41.9	42.4	42.5	42.8	43	43.3	43.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

growth rate is projected to go up to 9.0%. If Bangladesh can indeed bring about the changes as projected in this paper, it will economically look like a different country in 2020 than it is today.

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