

Growth, Poverty Reduction and Inequality in Bangladesh — feasible pathways to zero-poverty by 2030

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Transforming economies for better jobs

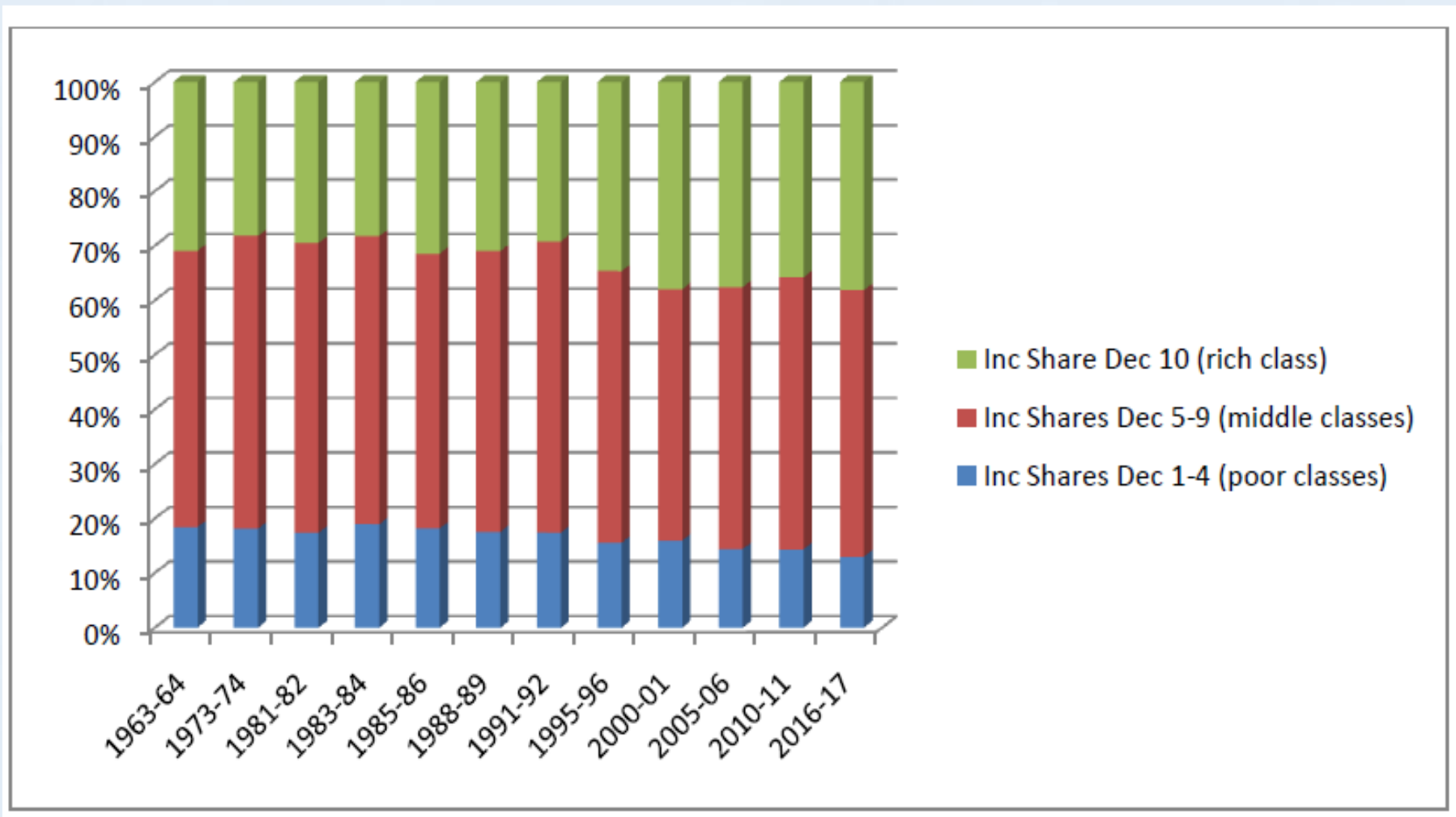
WIDER Development Conference,

11-13 September 2019, Bangkok, Thailand

Overview of the Presentation

- **Growth, Poverty and Inequality Nexus 1963-64 to 2016-17**
 - Inequalizing ‘rich-friendly’ growth
 - Inequality and polarization
 - Poverty incidence since Independence
 - GDP growth trajectory and per capita income
- **Fresh Estimates of Poverty Elasticity for Bangladesh**
- **Scenarios of poverty incidence by 2030**
- **Policy conclusions and recommendations**

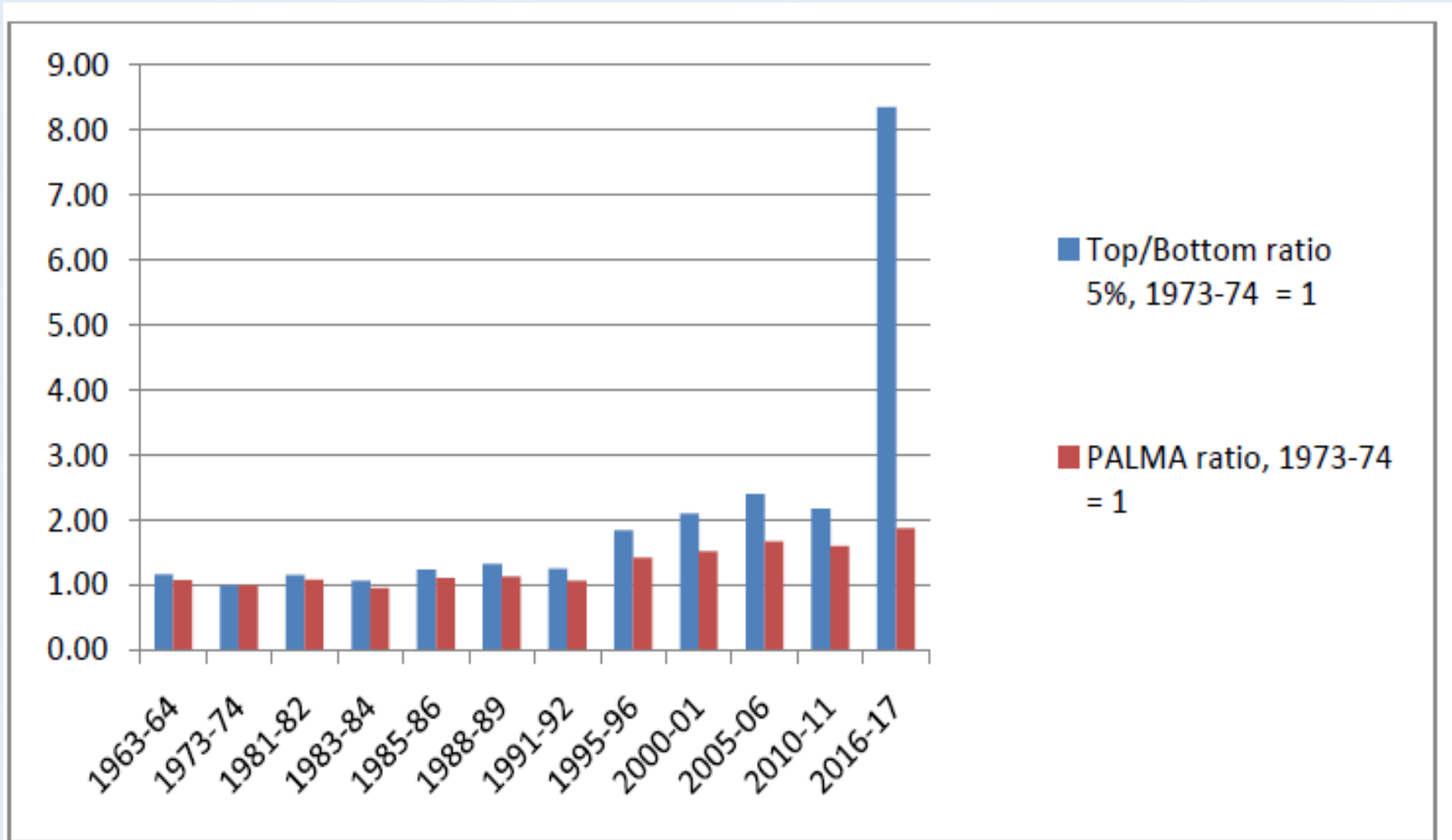
Bangladesh household distribution, 1963-64 to 2016-17



Stylized Facts on Income Shares, Inequality and Polarization

- Top decile 'rich' households increased from 28,3 per cent to 38,2 per cent in 2016-17, not monotonically but with a distinctly **upward** trajectory.
- The 'middle class' household's income share (deciles 5 through 9) showed a **downward** trend.
- The 'poorer classes' (deciles 1 through 4) also **downward** trend from 18,4 % in pre-Independence East-Pakistan survey to 13,0 % in 2016-17.
- Gini-coefficient during 1963-64 to 1991-92 remained below 0,400 (ranging 0,360 to 0,389),
- During 1995-96 to 2016-17 worsened to 0,432 by 1995-96 and steadily rising to 0,483 in 2016-17. Urban localities reached 0,498, while the rural localities increased to 0,454, up from 0,430 in 2010.
- Palma ratio significantly increased from 1.56 in 1973-74 to 2.93 in 2016-17, an 88 per cent increase.
- Top-to-Bottom ratio of 5 per cent highest to lowest income households (TB-5) increased sharply from 13.7 to an unprecedented value of 121.3 by 2016-17.
- SDG's intention of 'leaving no one behind' has yet to be achieved.

Bangladesh Income Distribution Polarization Indicators

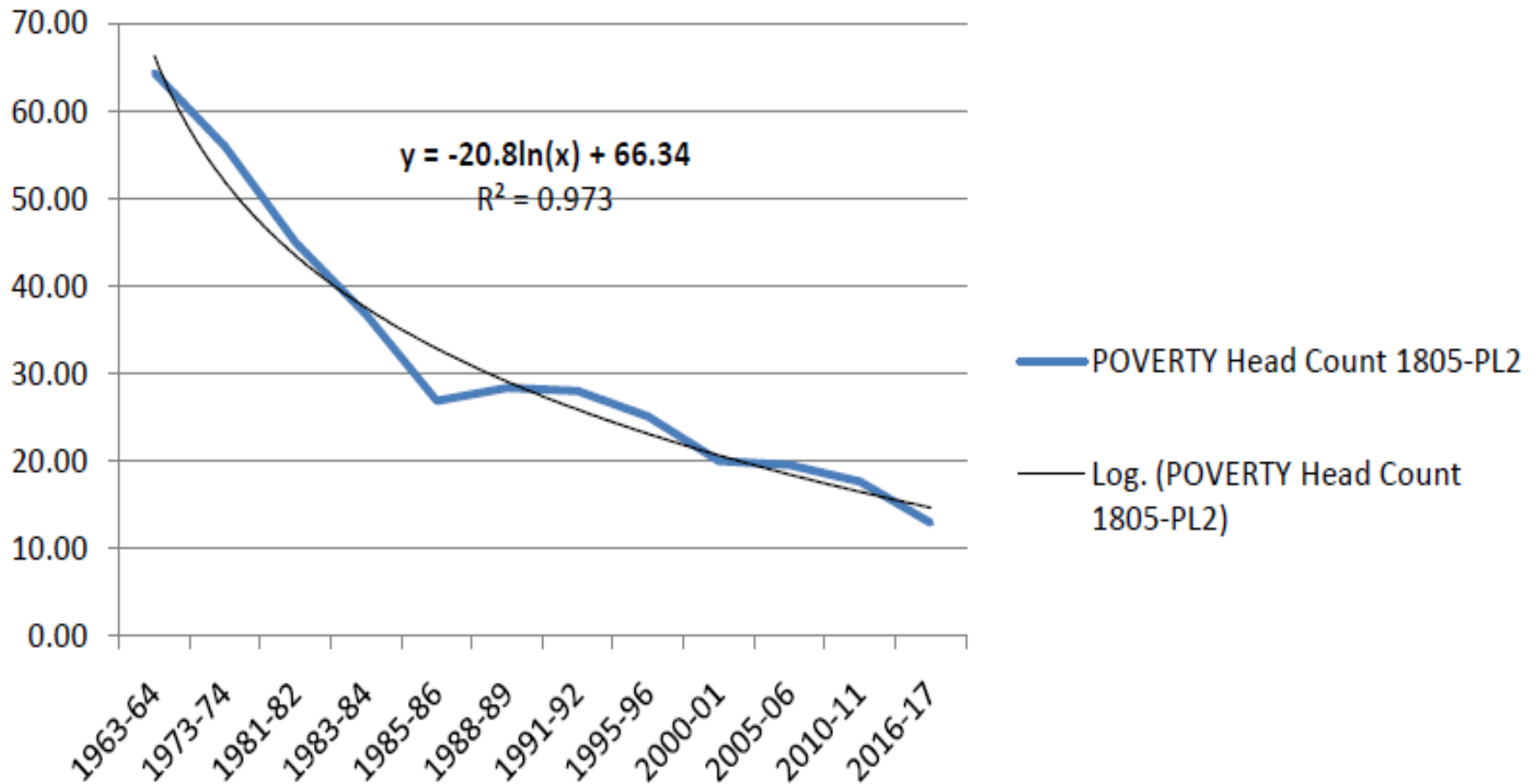


Bangladesh Measurement of Poverty Incidence - three phases

- Measurement of poverty depends critically on the poverty line(s) - comparisons over time require a consistent definition of the poverty line used.
- **First phase** survey years 1973-74 and 1981-82 (daily consumption intake method DCI)
 - Severest poverty line: achieve a minimum nutrition level of 1600 kcal pppd ('hard-core' or 'ultra-poor', PL1)
 - Extreme poverty line: describes households below a nutrition level of 1800 k.cal per person per day (PL2)
 - Moderate poverty line: achieve nutrition level of 2200 kcal pppd (PL3).
- **Second phase** 1983-84 through to 1991-92.
- Kcal 2122 was adopted as the poverty cut-off level, with 85 per cent of that (kcal 1805) as indicative of severe or extreme poverty.
- **Third phase** since 1995-96 survey with DCI as well as cost of basic need method (CBN). Hence, the two methods are not readily comparable over time. This study has taken the DCI 1805 PL as the reference (i.e. extreme poverty).

Bangladesh: Extreme Poverty Incidence (PL=DCI 1805)

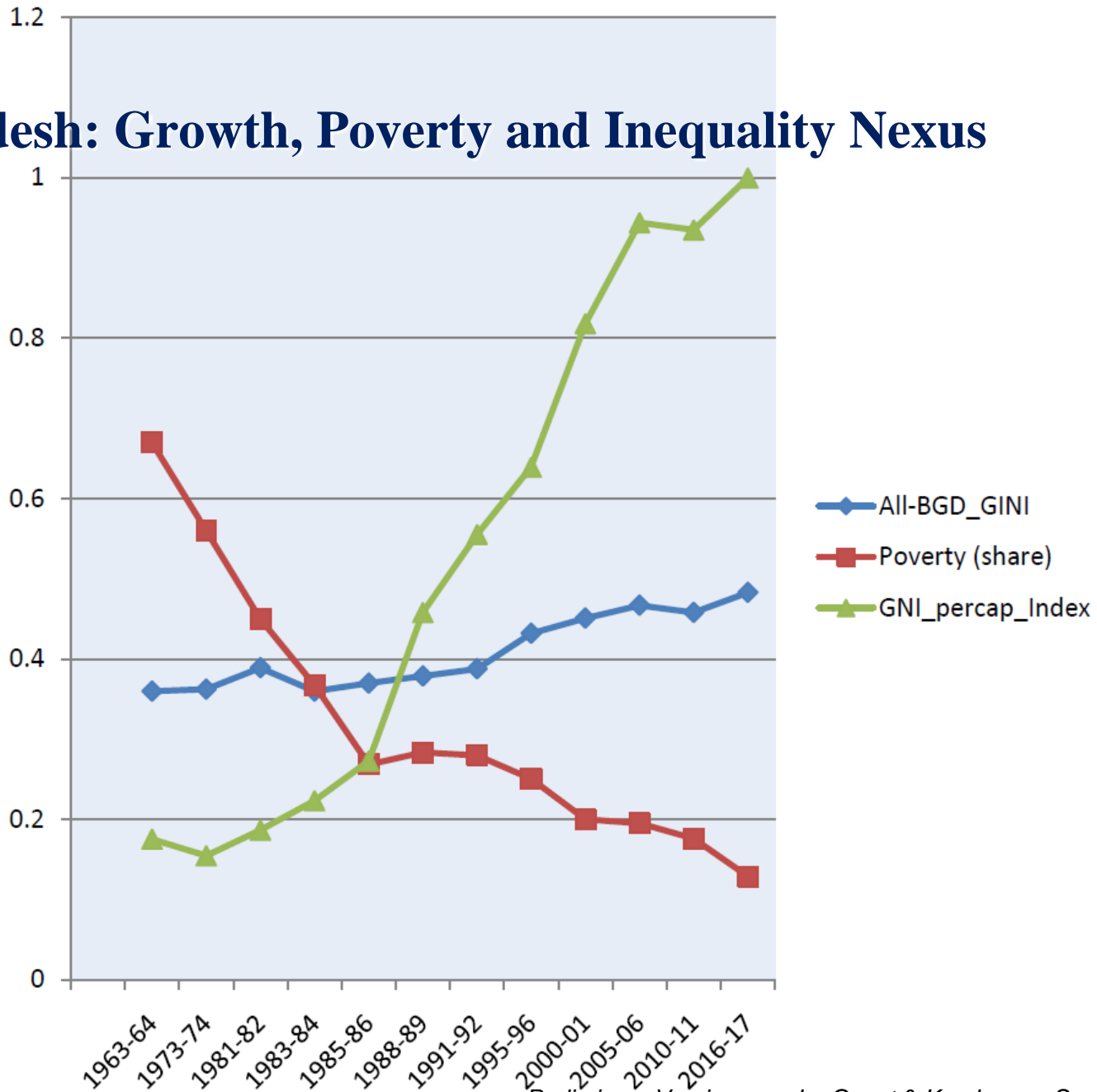
POVERTY Head Count 1805-PL2



Bangladesh: Growth - Poverty - Inequality Nexus

- Figure shows the head count poverty reduction during the period under review using the DCI-1805 PL. A simple log-linear trend estimate with a constant elasticity over time would suggest a considerable negative poverty-elasticity with a **distinct inflection** in the poverty head count line.
- Given the performance over time from 1963-2016 and, in particular the slowing down of the reduction of poverty since the mid-1980s, a business-as-usual scenario would imply that the time frame for reaching 3,0 per cent extreme poverty incidence would take **as long as 40 years**.
- The Bangladesh growth-poverty-inequality nexus shows highly non-linear relationships:
 - an acceleration of income growth per capita (GNI)
 - an increase of inequality (GINI)
 - slowdown in poverty reduction (Headcount for PL2)

Bangladesh: Growth, Poverty and Inequality Nexus



Bangladesh: New Estimates of Poverty Elasticity

- Surveys of 2010 and 2016-17 showed a further decrease of the extreme poverty head count from 17,6 to 12,9 or -5,05 per cent per annum a real per capita GDP growth of 5,07 per cent, thus an (extreme) poverty-to-growth elasticity of - 0,9957.

Bangladesh: Implied Poverty Elasticities 2009-2017									
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Per Capita real GDP	41076	43190	45421	47491	49701	52243	55259	58603	62477
Growth Rate per cap GDP	4,14	5,15	5,17	4,56	4,65	5,11	5,77	6,05	6,61
Poverty % pop.	31,5						24,3	23,1	21,8
Extreme Poverty % pop.	17,6						12,9	12,1	11,3
Pov-GDP elasticity		-0,8353						-0,8160	-0,8513
Extreme Poverty - GDP elasticity		-0,9957						-1,0248	-1,0001

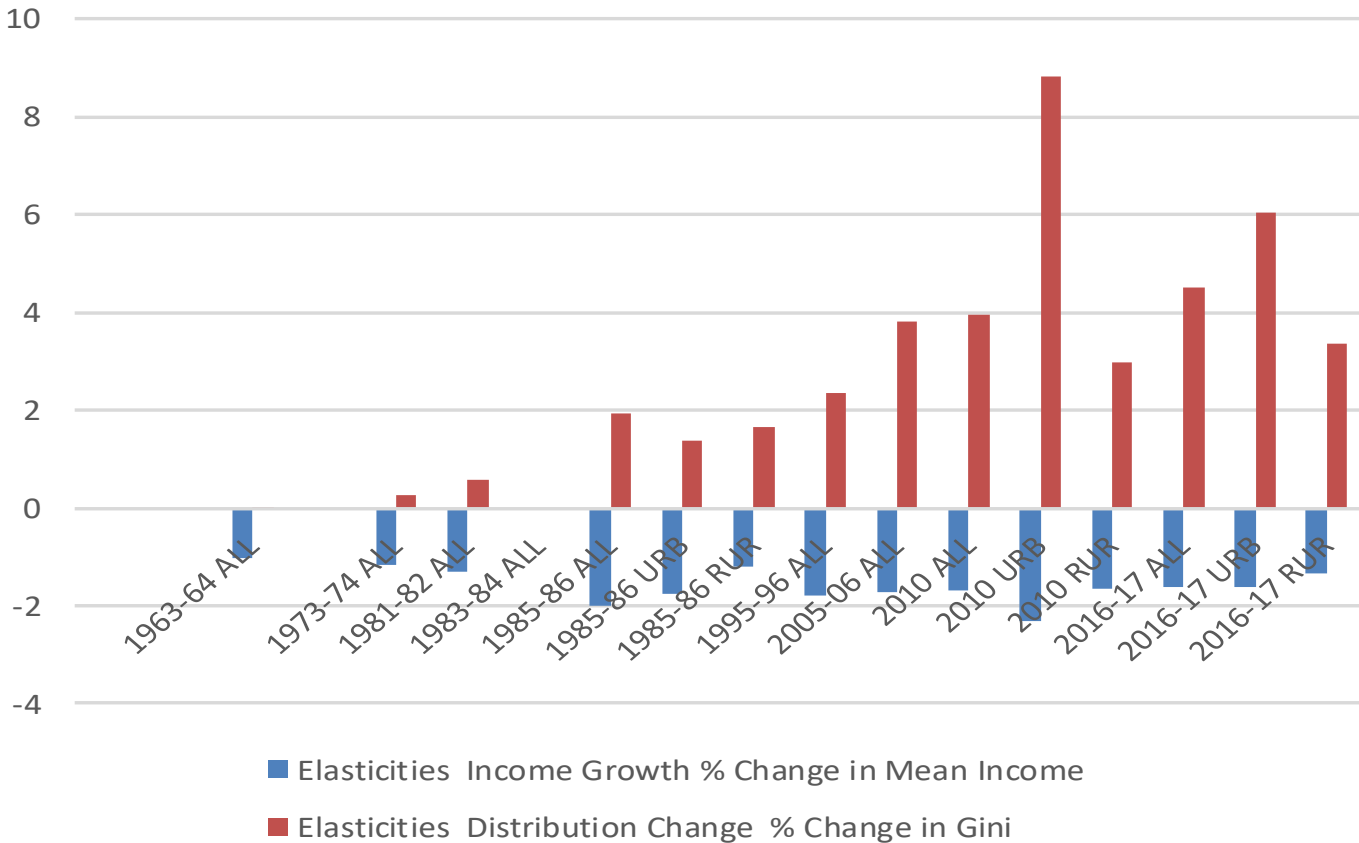
- BBS updated poverty estimates for the years 2016-17 and 2017-18 show a further reduction of poverty using PL2 and PL3.
- The implied poverty elasticities are close to -1,0 - a tiny increase as compared with those that prevailed during the period 2009-10 to 2016-17.

Bangladesh: Fresh Estimates of Poverty Elasticity using PovCal

- Povcal (WBG) estimates are consistent over time and take into account **both** survey mean income growth as well as income distributional changes.
- The Poverty elasticity describes the percentage of change of poverty incidence resulting from a one per cent increase in the mean income of the survey – (expected value negative).
- The Gini elasticity describes the percentage of change of poverty incidence resulting from a one per cent increase in the value of the Gini-coefficient - (expected value positive).
- If income distribution worsens the poverty impact of real income growth reduces.
- **!!!** New poverty elasticity estimates still incomplete – 2016/17 detailed tables are not yet available **!!!**

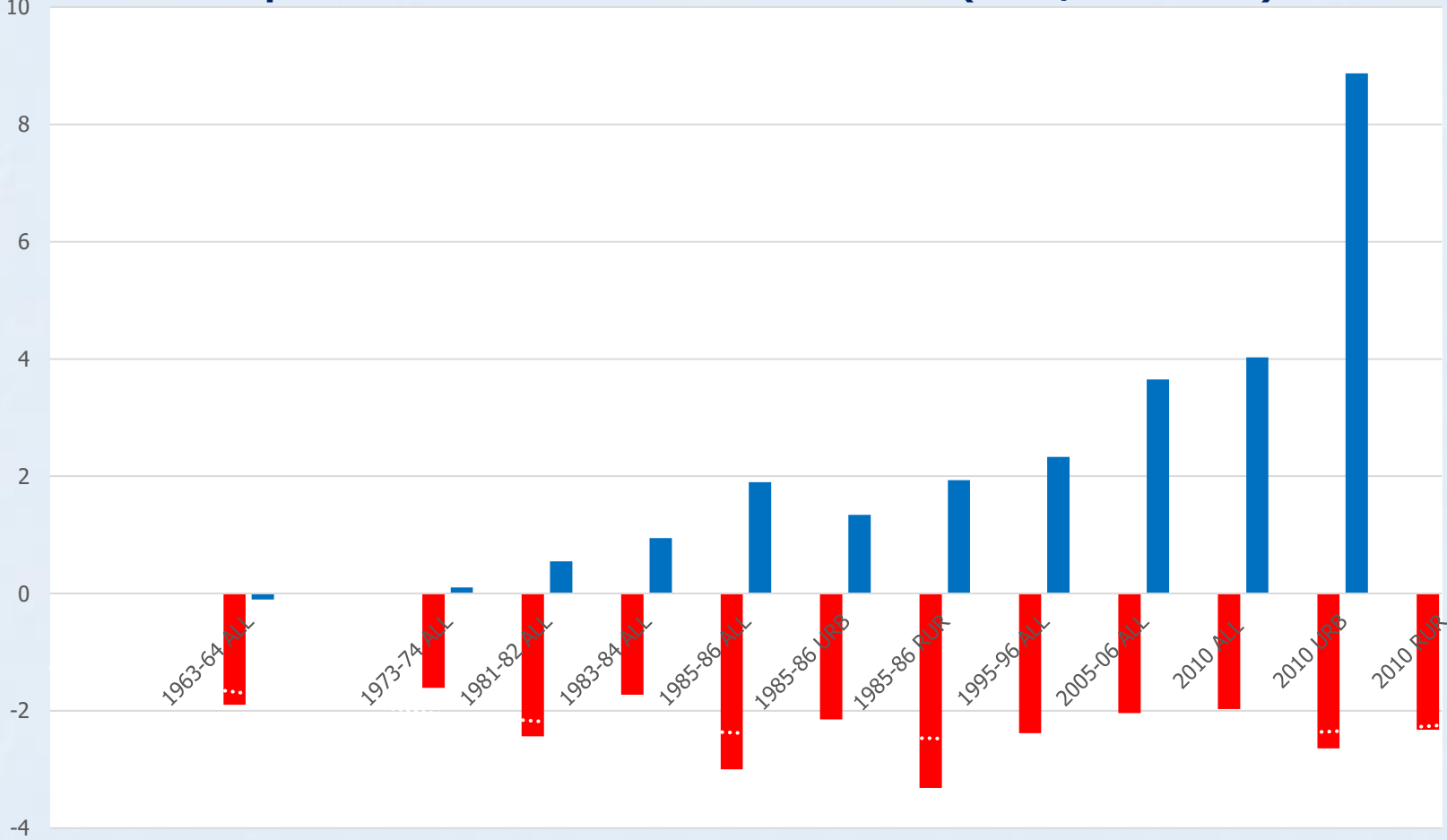
Bangladesh: Fresh Estimates of Poverty Elasticity (Povcal)

Households: Growth and Distribution Elasticities (1963/64 to 2016/17)



Bangladesh: Fresh Estimates of Poverty Elasticity (Povcal)

Per Capita: Growth and Distribution Elasticities (1983/64 to 2010)



■ Elasticities Income Growth % Change in Mean Income
■ Elasticities Distribution Change % Change in Gini
⋯ Poly. (Elasticities Income Growth % Change in Mean Income)

Stylized Facts on Poverty and Distribution Elasticity

- Poverty elasticity for households over time increased – from -1,01 to as high as -2,01 (in 1985-86) after which it began to decline to -1,62 for the most recent estimate.
- Per capita data exhibit a similar pattern, with values exceeding -3,0 for the 1985-86 survey and declining in more recent surveys, albeit less than the household data.
- Growth with a greater degree of inequality leads to a lessening of the impact of growth on poverty. The increase in the value of the Gini-elasticity is found for both household and per capita data and is particularly high in the recent survey years.
- The household poverty line in nominal terms from 1963-64 to 2016-17 rises by 28 times, whereas the survey's mean income in nominal terms increases 105-fold. In 1963-64 households with the mean income were just one and a half Rupees above the poverty line, whereas in 2016-17 those with mean income were nearly 4-times better off than those at the poverty line.
- In principle, poverty reduces as long as the positive growth effect dominates the negative distribution effect. This is less and less the case in recent survey years.
- Episodes of accelerated growth coincided with steadily decreasing poverty reduction impact because increased inequality and polarization redirected income away from the poor classes towards the highest income decile.

Targets for poverty and inequality adopted by GOB

- Our projections of Bangladesh population size in mid-year 2030 are 188,0 million – an additional increase of population of 2.42 million compared with the WPP-2017 as we project a slower decline of TFR to 1,95 whereas WPP projects 1,84.
- Therefore the number of people to be lifted from extreme poverty 2017 through to 2030 would amount to **15,6 million**.
- GOB (Ministry of Planning) adopted a target for 2020 in 7th FYP that the proportion of the population under the national extreme poverty line would decline from 17.6 per cent (HIES 2010) to 8,0 per cent.
- The poverty reduction strategy foresees a temporary increase of government spending on social protection from 2.02% of GDP in fiscal year 2015 to 2.22% in fiscal year 2017, but subsequently decline to a level of 1,80% per year.
- The 2015 Working Group on priorities for SDGs also adopted a target for inequality – during 2016 through to 2020 the Gini was to remain at the level observed at the time of the HIES 2010, namely 0.45. HIES 2016-17 already observed a Gini of 0.483, significantly exceeded this target level.
- During 7th FYP twin targets of reducing poverty and tackling inequality fell considerably short of the stated targets of GOB. Therefore, to realize the ambitious targets of 'zero' poverty by 2030 requires even greater efforts to deliver effective policy interventions.

SCENARIO'S FOR ACHIEVING SDG 1 FOR ELIMINATION OF EXTREME POVERTY

Optimistic scenario:

- poverty elasticity will remain largely unchanged;
- no further worsening of the income distribution: growth is distribution-neutral;
- mean income per capita continues to grow in the range of 5 to 7 per cent per year (as in the recent years 2010 to 2018-19) – unperturbed growth, no negative feedback from ecology, social conflicts, global and domestic economy fragility

Realistic scenario:

- poverty elasticity will further reduce to -0,8 over the projection time horizon
- growth is not distribution-neutral and high/accelerated growth does not translate into poverty reduction to the same degree
- growth per capita in the range from 3 to 5 per cent per year – in line with recent good performance

Growth and Poverty Incidence Scenarios 2016-17 to 2030

Realistic case: An unperturbed growth path of 5 per cent per capita per annum will only achieve a reduction to **7,59 %** head count poverty if the poverty elasticity declines to -0,8. Approximately 10 per cent of the population still in extreme poverty by 2021 when the country reaches 50 years of Independence.

Optimistic case: If the poverty elasticity were to remain at -1,6 to achieve 'zero' poverty (in effect 3 per cent head count) it would require continuous and unperturbed growth of 7 per capita income growth.

To maintain such a high poverty elasticity would require a concerted attempt at redistributive policies.

Projected Real Per Capita Income Growth:			g=3		g=5		g=7	
Poverty Elasticity:			e=-0,8	e=-1,6	e=-0,8	e=-1,6	e=-0,8	e=-1,6
2016-17	T=0		12,9	12,9	12,9	12,9	12,9	12,9
2021-22	T=5		11,42	11,14	10,52	8,50	9,67	7,12
2029-30	T=13		9,41	9,18	7,59	4,36	6,10	2,75

Policy Implications of the Scenario to zero-poverty

Enhancing Minimum Wages:

- To accelerate poverty reduction, the Minimum Wages Board should align the general minimum wage to the poverty line income as per household expenditure surveys.
- Assuming an average of 1,8 earners per household, this would imply that the national general minimum wage should be set to at least Tk 2352 in 2016-17 prices (+ 57 per cent).
- It should be updated annually, in view of the severe inflation which low-income households experience (esp. rents).
- While enforcement in the informal economy is a major challenge, the social justice principle should be that any person working should be able to escape the extreme poverty standard of living (eliminate working poor)

Effective Redistributive Taxation Policies: Rich-to-Poor R2P

- We assess the distributional impact of a hypothetical redistributive policy from 'rich-to-poor' through taxation on the two highest deciles of income earners reducing their income shares by merely 5 percentage point for 2016/17.
- If through direct income support, this income is fully available for the bottom 30 per cent of the population. Gini would drop to 0,4386 and TB-5 ratio drop from 121 to 25 – as experienced in the mid-1990s.

Simulation Direct Income Transfers for Eliminating Extreme Poverty

2010 Survey data					
ALL BGD 2010 Per Cap Income	Prop of Members All BGD	Inc per member by class	Effective Tax Rate	Poverty gap	Transfer requirement for income support
<500	0,041171	374,04		-464,46	-2.839.453.037
500-599	0,027506	552,79		-285,71	-1.166.949.682
600-699	0,033775	651,66		-186,84	-937.063.074
700-799	0,038107	749,47		-89,03	-503.791.454
800-899	0,039253	849,63		0,00	
900-999	0,047397	949,30			

6000-6999	0,018094	6451,48			
7000+	0,047751	12835,51	0,1	11551,96	9100949137
	1,00000	2553,36	Gross Tax Revenue		9.100.949.137
			Tax rate (national)		2,40%
			Budget Surplus for Implementation		3.653.691.890

Estimating Direct Income Support for Eliminating Extreme Poverty

- Poverty line per capita in 2010 Survey year was Taka 838.5 and 17.6 per cent of the population did not achieve such an income level. The poverty gap can be approximate as the difference between the realized average income per capita and the poverty line.
- Our preliminary calculation shows that the income shortfall amounts to Tk 5,45 billion in 2010 prices.
- The survey reveals that the highest income category, in excess of Tk 7000 per capita per month, comprised 4,78 per cent of the population. Their income amounted to Tk 12836 per capita and their total income amounted to Tk 91,0 billion. A hypothetical 10 per cent additional income tax on this group would have yielded Tk 9,1 billion.
- If leakages and administrative costs for the implementation of the redistributive direct income support scheme could remain limited to Tk3,65 billion, such an additional tax could have completely eliminated extreme poverty.
- The administrative and the political economy constraints on any such a redistributive tax proposal are formidable, yet the amount of transfers required are relatively modest. The additional effective tax would be 10 per cent for the highest income group, equivalent to 2.4 per cent of the national income.
- The four lowest income classes would be the beneficiaries of such a form of direct income support, not unlike the family bourses in Brazil.

Welcome your comments, Thank You

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