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Revisiting the Pre-Arab Spring Poverty Growth, and Inequality Nexus and Exploring Trajectories to 2030

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I. Introduction

Strong sentiments of underachievement in the past decades on all dimensions of sustainable development have led the international community to develop and adopt the 2030 Agenda for Sustainable Development with its sustainable development goals (SDGs), a transformative and universal Agenda which core pledges are those "leaving no one behind" and "reaching the furthest behind first" principles[1] that member states and international stakeholders are now seeking to operationalise. The task is immense. With universality at their core, the SDGs encapsulate an all-encompassing programmatic agenda which should ensure all goals and targets are met for all nations, peoples and for all parts of society, with a prioritization of those populations and communities who are furthest away from achieving the SDG targets, whom needs should be met first.[2]

Poverty eradication is the overarching goal of this Agenda, with an "End poverty in all its forms everywhere" goal topping the 17 SDGs, and the first of a list of 169 targets aiming at eradicating extreme poverty by 2030. Sustainable Development Goal 10 further aspires to reduce inequality "within and among countries", with target 10.1 aiming at achieving and sustaining by 2030 the "income growth of the bottom 40 per cent of the population at a rate higher than the national average", hence in practice adopting a pro-poor growth or inequality target.

Goal 1 is expectedly skewed towards social targets but contains economic and environmental targets alike. It covers, to cite a few subjects, monetary and multidimensional poverty, the many inequalities of outcomes and opportunities, and the decent work and social protection agendas. It further contains links to the Global Climate Action Agenda and the Sendai Framework for Disaster Risk Reduction. This broad-based coverage of the various dimensions of sustainable development highlights the "indivisible" nature of the Agenda and the necessity of a balanced progress across all goals underlining their integrated and reinforcing nature. To pick only one example that reveals the importance of delivering on nearly every other SDG, one can examine the methodological work deployed by the Inter-agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) to define Indicator 1.4.1 that tackles universal access to basic services, particularly for the poor and the vulnerable.[3] This cross-sectoral indicator is expected to assess no less than access to basic infrastructure services (water and sanitation, solid waste collection and management, mobility and transportation and energy), to social services (education, health care, emergency services, housing, childcare, and services for elderly and other groups with special needs), and to quality life services (public safety, urban planning, culture and entertainment, sport and public spaces)!

Self-centredly and very selectively, from the perspective of poverty economists, advancing and achieving sustained progress towards poverty eradication, shared prosperity, and multidimensional progress[4] requires prioritized emphasis on: 1) tackling data deprivation in general, and perhaps most importantly closing survey information gaps with the view to improving the measurement and monitoring of poverty and inequality along their many dimensions, at a disaggregated level along the many markers highlighted in the Agenda;[5] 2) identifying those living in chronic poverty and developing appropriate inclusive economic, social, political, cultural and environmental policies that would lift the barriers to poverty reduction efforts; 3) improving our understanding of welfare and poverty dynamics[6] building on the understanding that movements around poverty lines and higher welfare thresholds are dynamic, with a view to strengthening the poor and vulnerable populations resilience to growing sources of vulnerability, avoiding their backsliding into and putting them on sustained trajectories out of poverty; and 4) ensuring peace and security, as poverty eradication and sustainable development cannot be pursued in the context of armed conflicts, human losses, and conflicts-driven population movements.

The principle of reaching the furthest behind first notably means that development efforts should focus on the poorest of the poor who most often suffer intersecting inequalities and multiple deprivations.[7] The main objective is hence that of targeting the depth[8] and breadth of poverty, and ex-post, that of monitoring the extent to which growth, monetary and multidimensional poverty reduction policies have been pro-poor and importantly pro-poorest. This draws from observations that the global consumption floor - the mean consumption of the poorest stratum - hasn't changed much over the last three decades even though there has been some progress in reducing the number of poor living near that floor;[9] and from widespread evidence that progress of the poorest along the non-monetary dimensions of poverty and human development was lower relatively to that achieved by those populations of the second and third quintiles of income distributions.

The 2030 Agenda also recognizes that ecologically and socially sustainable inclusive economic growth is necessary for sustained poverty reduction.[10] Practically, what is needed is green growth that "takes place in the sectors in which the poor work (e.g. agriculture); occurs in places where the poor live (e.g. undeveloped areas with few resources); uses the factors of production that the poor possess (e.g. unskilled labor); and reduces the prices of consumption items that the poor consume (e.g. food, fuel and clothing).[11]"

Building on the above, I take a narrow monetary perspective to offer a fresh look on various aspects of the poverty, growth and inequality nexus in the Arab Region in the 1990s and 2000s, using more than 40 household surveys over 1988- 2010 covering from 80% to more than 90% of the Arab population[12] depending on the analysis conducted. The data is sourced in the World Bank's PovcalNet database of standardized household surveys.[13] PovcalNet household surveys are widely used in international poverty and inequality comparative studies, including in recent projection exercises at the World Bank that have inspired part of the present work.[14] The methodological deficiencies and limits of using such standardized surveys largely discussed in the literature are fully recognized though. To cite a few of these, this goes from the imperfect within and across country comparability of the welfare aggregates that make up the

1 See the United Nations General Assembly resolution 70/1, paragraph 4 at https://sustainabledevelopment.un.org/post2015/transformingourworld
2 See for example UNDG, "Universality and The 2030 Agenda for Sustainable Development From A UNDG Lens", Discussion note.
3 The methodological work is led by UN-Habitat and the World Bank, along with consultations with the WHO, UNICEF and UNDP. See the work plans for Tier III indicators, https://unstats.un.org/unsd/statcom/48th-session/documents/BG-2017-3a-Tier-III-Work-Plans-E.pdf.
4 See UNDP (2016). Multidimensional progress: well-being beyond income, Human Development Report for Latin America and the Caribbean 2016.
5 See United Nations Statistical Commission Forty-eighth session, 2017, Transformative agenda for official statistics, Report of the Secretary-General, E/CN.3/2017/5 ; and Serajuddin, U., Uematsu,H. Wieser, C., Yoshida, N. and Dabalen, A., (2015). "Data Deprivation: Another Deprivation to End." Policy Research Working Paper No. 7252. World Bank, Washington, DC.
6 On monetary poverty and welfare dynamics, see the work of Dang and colleagues at the World Bank. For multidimensional poverty see the recent work of Sabina Alkire and her colleagues at the at the University of Oxford using the Global Multidimensional Poverty Index (MPI), which was developed by the Oxford Poverty and Human Development Initiative (OPHI) with the Human Development Report Office of the United Nations Development Programme. See in particular, Alkire, S., Roche, J.M., and Vaz, A. (2017). "Changes Over Time in Multidimensional Poverty: Methodology and Results for 34 Countries", World Development, Vol. 94, pp. 232–249.Suppa, N. (2017). "Transitions in poverty and deprivations: An analysis of multidimensional poverty dynamics." OPHI Working Paper 109, University of Oxford.
7 It is important to note that the "reaching the furthest behind first" principle applies to every form of deprivation, even though I take a monetary poverty lens here. See for example: Overseas Development Institute, 2014, Strengthening social justice to address intersecting inequalities, Report.
8 See for example the new "person-equivalent headcount ratio" proposed by Castleman, Foster, and Smith (2015) and introduced by the World Bank in its 2015-16 Global Monitoring Report.; see Castleman, T., J. Foster, and S. C. Smith (2015) "Person-equivalent Headcount Measures of Poverty" Institute for International Economic Policy Working Paper Series 2015-10, Elliot School of International Affairs, George Washington University, Washington, DC.; and World Bank (2015) Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change (Washington, DC: The World Bank).
9 See Ravallion, M., (2016), Are the world's poorest being left behind?, Journal of Economic Growth, Vol 21, , Issue 2, pp 139–164.
10 See the United Nations General Assembly resolution 70/1, paragraph 3 at https://sustainabledevelopment.un.org/post2015/transformingourworld
11 See Palanivel T., in UNDP, (2011), Consultation on Conceptualizing Inclusive Growth.
12 Excluding the Gulf Cooperation Council countries for which no comparable household survey data is available. The Mashreq countries included are Egypt, Irak, Jordan, Palestine, and Syria; the Maghreb countries included are Algeria, Morocco, and Tunisia; and the Least Developed Countries group considered are Comoros, Djibouti, Mauritania, Sudan, and Yemen.
13 See PovcalNet: the online tool for poverty measurement developed by the Development Research Group of the World Bank, http://iresearch.worldbank.org/PovcalNet.
14 see notably Lakner, C., Negre, M. and Beer Prydz, E. (2014) Twinning the goals: How can promoting shared prosperity help to reduce global poverty? Policy Research Working Paper 7106. Washington, DC: World Bank; Lakner, C., Negre, M. and Beer Prydz, E. (2014) The Role of Inclusive Growth in Ending Extreme Poverty, World Bank; and Basu, K., (2013), Shared Prosperity and the Mitigation of Poverty: In Practice and in Precept, World Bank Policy Research Working Paper 6700, World Bank: Washington D.C.

data distributions; to their imperfect representativity most notably at spatial levels and with regards to those "missing rich"; to the caveats of the use of purchasing power parities (PPP) for international poverty comparisons. I use the PPP 2005 denominated data that was available before the updated release at the end of 2015 of the PPP 2011 data. Since then, many of the previously available survey data for several Arab countries are no longer available.

This paper contributes to the poverty and inequality literature in the Arab region in five main directions. Firstly, it offers the first region-wide shared prosperity simulations through 2030 in the context of the 2030 Agenda and the SDGs, with, in particular, innovative simulations covering poverty outcomes at National Poverty Lines on top of extreme poverty projections.

Secondly, it selectively disseminates the first calculations of absolute inequality developments in the region in the 1990s and 2000s, comparing these calculations to relative inequality and reflecting on their links with poverty and household consumption developments. Importantly, it offers the first region-wide use of innovative relative and absolute inequality measures recently introduced in the literature.

Thirdly, it presents the results of selected growth inclusiveness counterfactuals for selected Arab countries thus giving a quantitative sense of the missed poverty reduction and inequality opportunities that non-pro poor policies in the 1990s and 2000s led to.

Fourthly, throughout the document, this work gives a first region-wide attention in the literature to the very bottom of the consumption distribution. Finally, it offers a first reflection on possible trade-offs between the poverty and relative inequality targets in the context of the Arab region.

Specifically, the first two sections present some thoughts on growth inclusiveness and the poverty, growth, inequality arithmetic in the region pre-Arab Spring with a novel attention to the very bottom of the consumption distribution. I then highlight the importance of giving due attention to absolute income inequality as opposed to the widely used relative inequality measures in the literature. I further give a sense of what poverty and inequality would have been, had growth been more equitable and pro-poor in selected Arab countries by conducting some scenarios retrospectively. A subsequent section presents a reflection on possible trade-offs between the poverty and inequality Sustainable Development Goals and targets with a focus on the Arab region. I then conduct various shared prosperity and distribution-neutral scenarios projecting selected poverty and inequality measures through 2030, before offering some concluding thoughts and policy implications in a final section.

Notwithstanding the widespread reserves usually advanced regarding micro-data quality issues in the Arab region, many of the stylized facts on the poverty-growth-inequality nexus have been found to be supported by the data used, offering important messages to policy-makers concerned with poverty and inequality reduction in the region. This is covered in the following sections:

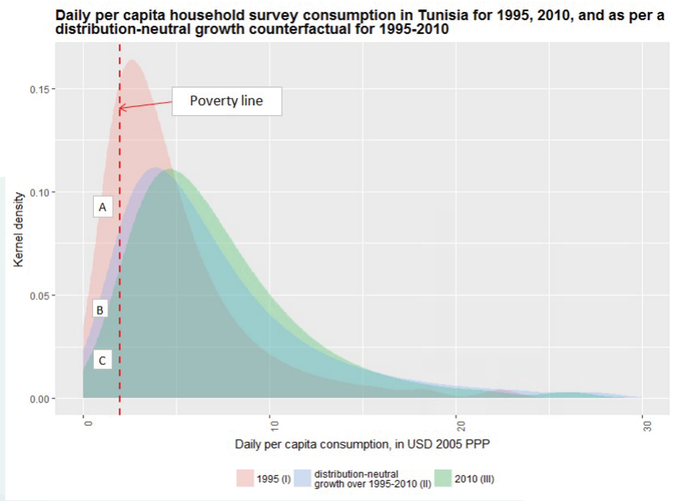
II. The Poverty, Growth, Inequality Arithmetic in the Arab Region: Revisiting Selected Episodes in the 1990s and 2000s
III. Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?
IV. It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring
V. What if growth had been more inclusive in the Arab world in the 1990s and 2000s?
VI. Beware of the Trade-offs between the Inequality and Poverty Goals: A Self-Disciplined Approach to Reaching the Furthest Behind First is Necessary
VII. On the Likelihood of Arab Countries Achieving the Sustainable Development Goals Monetary Poverty Targets: Some Shared Prosperity Simulations

II. The Poverty, Growth, Inequality Arithmetic in the Arab Region: revisiting selected episodes in the 1990s and 2000s

There is an understanding among development economists that poverty reduction requires a combination of growth-enhancing and inequality-reducing policies. On the one hand, there is a long-lasting recognition that sustained economic growth is an essential ingredient for durable poverty reduction as notably encapsulated by the "rising tide lifts all boats" adage. On the other hand the reduction of social and economic inequalities, on top of constituting a moral development goal on its own right, is increasingly understood as "good economics"[15] as rising inequalities are demonstrated to have prosperity-detrimental economic, social and political costs.[16]

Growth, redistribution and poverty outcomes

Taking a monetary perspective, the arithmetic of poverty, growth, and inequality[17] can be illustrated by looking at the following figure which features the actual consumption distributions for Tunisia 1995 (Curve I) and 2010 (Curve III) sourced in the World Bank's PovcalNet database of household surveys.
The areas under these distributions, to the left of the red dashed line (the poverty line, here set at USD 2 a day), represent the headcount poverty ratio. The figure also shows an intermediary consumption distribution (Curve II) which I have constructed by applying to the 1995 distribution a Growth Incidence Curve[18] that assumes equal proportional changes in all incomes, thus leaving the distribution of relative incomes unchanged. This distributional-neutral scenario captures the pure poverty reduction effect of growth. Hence, as a result of growth, poverty in Tunisia can be estimated to have decreased from (A+B+C) to (B+C). Yet, favorable changes in the distributional pattern of growth, that is changes in the distribution of relative incomes, have decreased poverty even further to (C), thus adding a distributional effect to the pure growth effect.



15 See Christine Lagarde's "Reducing excessive inequality is not just morally and politically correct, but it is good economics"; which is in striking contrast with Anne Kruger's 2003 "One has to wonder about this preoccupation with inequality. Poor people are desperate to improve their material conditions in absolute terms rather than to march up the income distribution. Hence it seems far better to focus on impoverishment than on inequality."
16 See Stiglitz, J. (2012) The Price of Inequality. NY: Norton.; and Galbraith, J. (2012) Inequality and Instability. Oxford University Press.
17 See Datt, G., and Ravallion, M., (1992). Growth and redistribution components of changes in poverty measures: A decomposition with application to Brazil and India in the 1980s. Journal of Development Economics 38, no. 2:275-295.; Francois Bourguignon later popularized this nexus under the so-called Poverty-Growth Inequality Triangle. See Bourguignon Francois (2003) The Growth Elasticity of Poverty Reduction: Explaining Heterogeneity across Countries and Time Periods, in: Eicher, Theo and Stephen Turnovsky (Eds): Inequality and Growth. Theory and Policy Implications. Cambridge: MIT Press.; and Bourguignon F (2004) The Poverty-Growth Inequality Triangle, paper presented at Indian Council for Research on International Economic Relations, New Delhi, 1-30.
18 For some insights on growth incidence curves, see "Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?".

In today's jargon, positive shared prosperity developments through 1995-2010 have increased the growth elasticity of poverty reduction that is the percentage reduction in poverty associated with a percentage change in mean consumption. Conversely, had income inequality increased, this would have dampened the poverty reduction impact of growth. In this analytical framework, reducing poverty in the context of zero growth or de-growth episodes is theoretically possible, and indeed has sometimes been observed worldwide, provided favorable distributional dynamics are at play. Of course, as previously noted, for poverty reduction to be durable and sustained, sustained long-term growth is necessary. Favorable distributional developments in effect run the limit of "perfect equality".

To have a sense of the relative contributions of the growth and distribution effects to poverty reduction in the region, I have applied one of the growth-redistribution decompositions methodologies available in the literature to Egypt, Morocco, and Tunisia over 1995- 2008, 1998-2007, and 1995-2010 respectively.[19] The results show that in the case of Egypt, poverty reduction was equally due to growth and redistribution effects; while in Morocco and Tunisia, inequality reduction contributed (for 15% and 35%) less than growth to poverty reduction.

To further characterize poverty, inequality and growth developments in the region, I used more than 30 standardized household surveys (covering Egypt, Jordan, Morocco, Palestine, Mauritania, Tunisia, and Yemen in the 1990s and 2000s)[20] to explore potential relationships between trends in mean household consumption levels, changes in relative inequality (measured by the annual percentage changes in the Palma ratio), and various poverty measures (of which I present headcount poverty ratios at the international poverty lines of 2USD and 3USD, at 2005 PPP), see the below Panel.

Figure A for instance shows that numerous low growth episodes have in some cases been accompanied by important reductions of poverty (at the USD 2 poverty line), with these poverty reduction outcomes further supported by reductions in relative inequality. Importantly, where increases in mean consumption did not lead to poverty reduction, this has generally translated into increases in relative inequality. Intriguingly, there appears to be no clear link between growth and the reduction of poverty incidence at the USD 2 poverty line.

However, as shown in Figure B, increasing the poverty line to USD 3 (at 2005 PPP) reveals growth episodes did indeed reduce poverty, but for those falling between the USD 2 and USD 3 a day thresholds, indicating that growth might have been pro-poor, yet not pro-poorest. Figures B and C further show that nearly half of the episodes have been accompanied by increases in relative inequality. Finally, while most de-growth episodes have led to increases in headcount poverty, a few have been accompanied by decreases in both poverty and relative inequality, meaning that de-growth might have been relatively pro-poor during these episodes.

Does growth and inequality development impact poverty reduction differently as countries develop?

In a final investigation, I explore the extent to which the growth elasticity of poverty reduction and the inequality elasticity of poverty reduction change as countries escape (mass) poverty.[21] Put differently, do growth and inequality developments impact poverty reduction differently as countries develop?

19 Namely a methodology proposed by Shorrocks (1999). See Shorrocks, A. F., (1999), 'Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value', mimeo.
20 Data is from the World Bank's PovcalNet database of standardized household surveys.
21 The inequality elasticity is measured using the annualized changes of the relative Palma ratio. See "It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring" for some insights on this ratio with applications for the Arab region. Growth figures are mean growth consumption per capita as per the same household surveys.

Figure D compares the ratio of the inequality to growth elasticities to poverty reduction[22] to headcount poverty ratios (at the USD 3 per day) for Egypt, Jordan, Mauritania, and Tunisia over 17 episodes in the 1990s and 2000s. The visual results are striking across all four countries: as poverty incidence decreases, poverty reduction becomes relatively more responsive to inequality-reducing than to growth-increasing policies.

In sum, the data and literature on the poverty, growth, inequality arithmetic seem to send out a clear message to policy-makers in the Region notwithstanding the importance of sustaining economic growth, the reduction of income inequality should be a priority for reducing monetary poverty.

Figure A: Average annual changes in mean survey consumption per capita, the Headcount Poverty ratio at USD2 (2005 PPP) and the Relative Palma

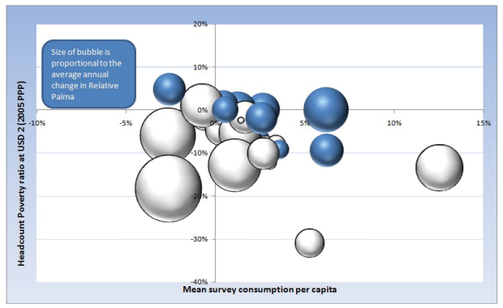


Figure B: Average annual changes in mean survey consumption per capita, the Headcount Poverty ratio at USD3 (2005 PPP) and the Relative Palma

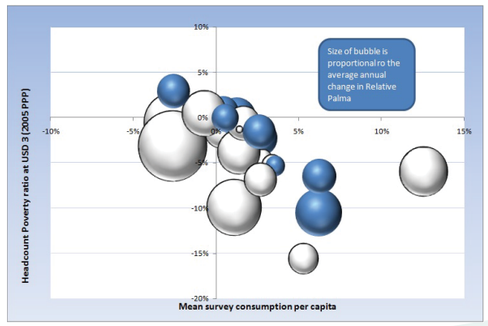


Figure C: Average annual changes in Relative Palma, Mean survey consumption per capita, and the Headcount Poverty ratio at USD3 (2005 PPP)

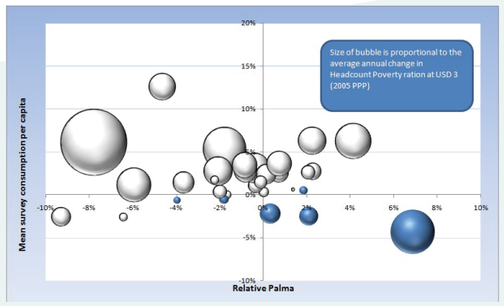
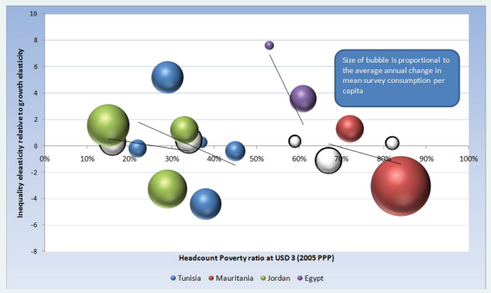


Figure D: Headcount Poverty ratio at USD 3 (2005 PPP), Inequality elasticity relative to growth elasticity, and Average annual changes in mean survey consumption per capital

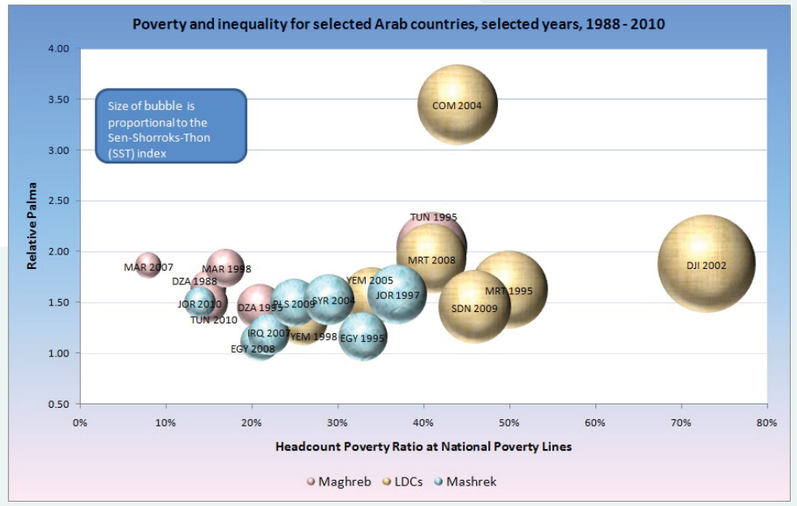


Grey bubbles represent negative percentage changes. In figures A, B and C, blue bubbles represent positive percentage changes.

22 The inequality elasticity is measured using the annualized changes of the relative Palma ratio. See "It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring" for some insights on this ratio with applications for the Arab region. Growth figures are mean growth consumption per capita as per the same household surveys.

III- Was Growth Pro-poor (est) in the Arab Region in the 1990s and 2000s?

One who takes two tens of household surveys that selectively cover Arab countries in the 1990s and 2000s, and does some poverty and inequality measurements, would get the below picture[23] of an Arab world with heterogeneous patterns of and trends in inequality, and poverty incidence, depth and severity.[24] Within a general trend of poverty reduction, the lowest levels of poverty are observed in the Maghreb, followed by the Mashreq, and finally by the Least Developed Countries. One is most worried to see the depth and severity of poverty (captured by the size of the bubbles) increase with poverty incidence, meaning that those countries with the highest poverty rates are home to poor populations further down the poverty lines, with higher inequality between them. On the other hand, while various layers of overall inequality can be identified, there appears to be no specific relation to countries' development levels. In the 2000s for example, high inequality countries included the Comoros, Djibouti, Mauritania, Morocco and Tunisia; while Jordan, Palestine, and the Sudan showed medium levels of inequality; and Egypt, Iraq, Syria and Yemen appeared to be the most equal societies in the Region.



Relatedly, as a growth in incomes is necessary for the reduction of monetary poverty, one is interested to know if and which categories of the poor have benefited from that growth between two given survey dates, that is if growth has been pro-poor(est) or anti-poor(est).

There are three main operational definitions of pro-poor growth in the literature which can be easily extended to pro-poorest growth analysis.[25] In a weak absolute sense, growth is pro-poor if the poor's income or consumption level increases, independently of what happens to the incomes of the non-poor. For growth to be pro-poor in a weakly relative sense, incomes of the poor need to grow faster than average growth

23 I have sourced the data forming the basis of these calculations, as well as all the below analyses, in the World Bank's PovcalNet database of standardized household surveys.

24 The Headcount poverty ratio measures the proportion of the population that is poor. The Palma ratio, is an index of income (or consumption) concentration that has been gaining popularity in recent years. It is defined as the ratio of the share of national income accruing to the richest 10% over the share accruing to bottom 40% of the distribution. In an abuse of language, I use it as an indicator of inequality here. For more on inequality in the Arab region, see "It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring". Finally, the Sen-Shorrocks-Thon index combines poverty incidence, poverty depth, and inequality among the poor.

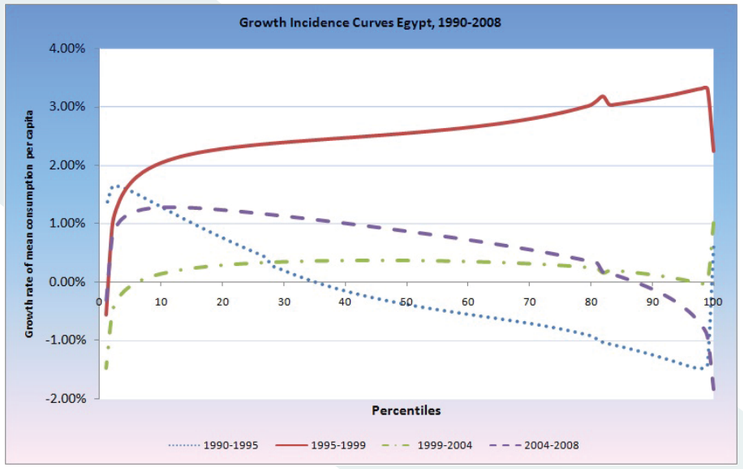
25 See the pro-poor growth toolbox in Klasen, S. (2008). Economic growth and poverty reduction: Measurement issues using income and non-income indicators. World Development, 36, 420–445.

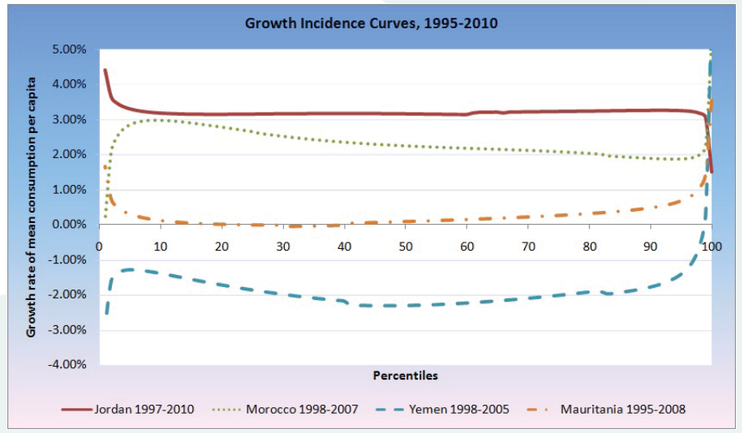
rates, meaning that the poor would be disproportionately benefiting from that growth. This is associated to a decline in inequality (in a relative sense) as the poor's share in total national income or consumption would be increasing. Finally, growth is pro-poor in an absolute strong sense if the gap between the poor and non-poor incomes decreases, which requires growth to be even more biased in favor of the poor, thus leading to a reduction in absolute inequality.[26]

A useful intuitive tool to start with is the growth incidence curve (GIC) whose shape and position give important insights on the distributional pattern of growth or de-growth episodes. It summarizes the rate of change in income or consumption between two survey dates, for the various percentiles of the distribution. The following figures present GICs for Egypt for selected episodes over 1990-2008, as well as for Jordan, Mauritania, Morocco and Yemen over episodes overlapping the late 1990s and the 2000s. These illustrate differing within and across country shared prosperity developments,[27] and accordingly in the background, different poverty and inequality outcomes.

For instance, a GIC that lies above zero signals that poverty might well have decreased,[28] with higher household consumption growth rates particularly in the bottom of the distribution leading to faster rates of poverty reduction. Growth would in this case be pro-poor in the weak absolute sense.

Where this GIC is flat, this further signals equitable growth as this appears to have been the case for Jordan over 1997-2010 for example. When a GIC is decreasing (increasing), this signals pro-poor (anti-poor) growth in the weak relative sense as well as a decrease (increase) in relative inequality. For example, growth in Egypt over 1990-1995, and somewhat less so over 2004-2008, was pro-poor, even though it did not benefit the very bottom of the distribution in that latter case; while over 1995-1999, growth was anti-poor in a relative sense (yet pro-poor in the weakly absolute sense with the exception of the bottom percentiles), or pro-non poor as some would put in the sense that the top of the distribution benefited relatively more from that growth. In Yemen, decreases in welfare from 1998 through 2005 are evidenced across the board, while in Mauritania only the very bottom and very top of the distribution appear to have benefited from growth over 1995-2008. In addition, assessing if growth has been pro-poorest invites a closer attention to the very bottom of the distribution. The steepness of the GIC for Egypt over 1990-1995 for example suggests growth has benefited the poorest of the poor relatively more.



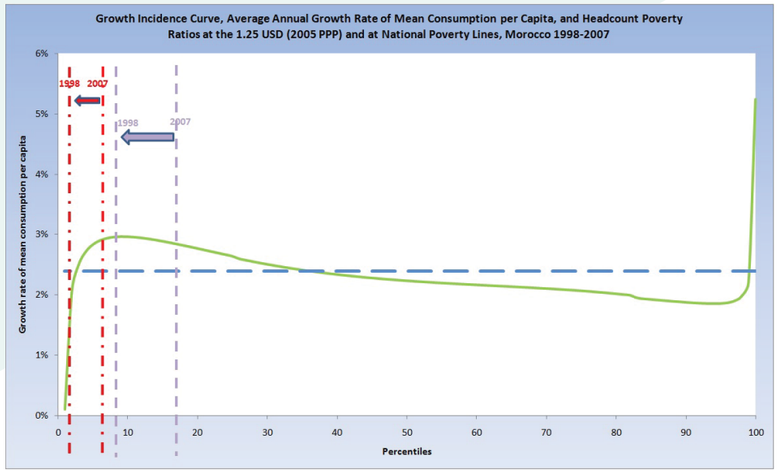


As a final illustration, consider Morocco's GIC over 1998-2007 which further features the average annual consumption growth rate, and the poverty headcount ratios at the international poverty line of 1.25 USD (2005 PPP) and at national poverty lines. As can be seen, as a result of a 2.5% average annual growth in mean consumption, and a distributional pattern of growth that appears to have been slightly pro-poorest (with the exception of the very lowest centiles), extreme poverty decreased from 7% to 3%, and poverty at the national poverty line decreased from 16.2% to 8.9%.

26 On absolute inequality, see Section IV: It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring. On absolute inequality, see Section IV: It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring.
There is a large scientific literature covering growth pro-poorness. Robust empirical assessments of pro-poorness are complex with the results notably very sensitive to the choice of poverty lines, to the poverty measures used, and to whether one considers absolute poverty, relative poverty, or a combination of the these. See Bibi (2010).
Bibi, S., J.-Y. Duclos and Audrey Verdier-Chouchane, Assessing Absolute and Relative Pro-Poor Growth: An Application to the MENA Region, Working Papers Series # 111, African Development Bank, Tunis, Tunisia.; Negre, M., (2010), Concepts and Operationalization of Pro-Poor Growth, Working Paper No. 2010/47, United Nations University.; Son, H. H., (2003). 'A Note on Measuring Pro-Poor Growth'. Economics Letters, 82 (3): 307–14.; and Son, H. H., (2007). 'Pro-Poor Growth: Concepts and Measures'. Economic and Research Department Technical Note 27. Manila: Asian Development Bank.

27 On the shared prosperity concept, see section VII: On the Likelihood of Arab Countries Achieving the Sustainable Development Goals Monetary Poverty Targets: Some Shared Prosperity Simulations.

28 This depends on the poverty line between the two surveys.



For a more comprehensive analysis,[29] I next turn to examining growth pro-poorness for 32 episodes covering those countries for which more than one survey is available over 1988-2010, namely Algeria, Egypt, Jordan, Mauritania, Morocco, Palestine, Tunisia, and Yemen.[30] I consider the bottom 5%, 10%, 20%, and 40% populations (respectively B5, B10, B20, and B40 hereafter) and distinguish the poor (B20 and B40) and the poorest (B5 and B10).[31]

Broadly speaking, in the weak relative sense (see table below), growth appears to have been pro-poor(est) in half of the cases.[32] Distinguishing pro-poorness according to growth and de-growth episodes, pro-poorness appears to be more widespread in the case of the latter episodes, meaning that in such episodes the poor's consumption has decreased less than pro-proportionally than that of the average consumption.

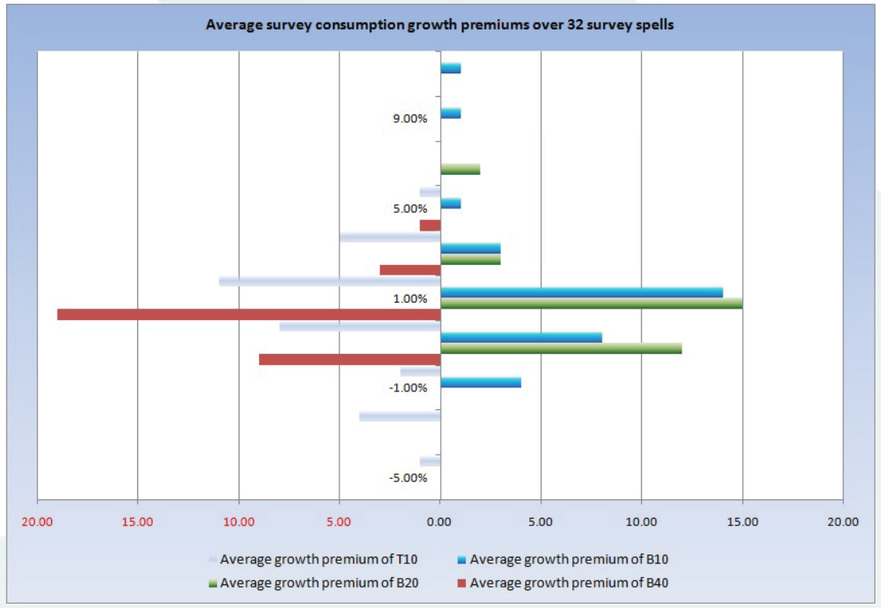
Overview of the Relative Pro-poorness of Growth for 32 episodes over 1988-2010 for selected Arab countries

	Positive Growth	Negative Growth	Total spells
Pro-poor (Bottom 40%)	48%	71%	53%
Anti-poor(Bottom 40%)	52%	29%	47%
Pro-poor (Bottom 20%)	52%	71%	56%
Anti-poor (Bottom 20%)	48%	29%	44%
Pro-poorest(Bottom 10%)	52%	71%	56%
Anti-poorest (Bottom 10%)	48%	29%	44%
Pro-poorest(Bottom 5%)	48%	57%	50%
Anti-poorest (Bottom 5%)	52%	43%	50%

29 For a similar approach see Son, H. H. , and N. Kakwani (2006). 'Global Estimates of Pro-Poor Growth'. Working Paper 31. Brasilia: UNDP, International Poverty Center.
30 Of those 32 episodes, 25 were characterized by positive mean consumption growth.
31 In the main text, I concentrate on the weak relative definition of growth pro-poorness. Regarding growth pro-poorness in the weak absolute sense, some 90% of all positive growth episodes were pro-poor(est), for all four percentiles groups; meaning that positive growth episodes have nearly always benefited to the poor(est). When looking at growth pro-poorness in the strong absolute sense, roughly a quarter of spells were found to be pro-poor whether considering the B10, B20, or B40 of the distribution. It is further remarkable that while only one fifth of positive growth spells were pro-poor (nearly the three quarter of negative growth spells were pro-poor in that sense, thus contributing to reducing absolute inequality. As the income (or consumption) distribution top centiles tend to be underestimated these results need to be taken more carefully though.
32 I also conduct an assessment based on the calculation of an overall measure of pro-poor growth proposed by Kakwani and Son (2006) which adjusts observed survey mean growth rates of incomes or consumption for distributional changes. I find that 60% of the episodes considered have been pro-poor. See Son, Hyun H. and Nanak Kakwani (2006) Global Estimates of Pro-Poor Growth, IPC Working Paper series No. 31, IPC, Brazil.

I finally turn more specifically to the visualization of consumption growth premiums,[33] defined as the differences between the growth rate in the consumption of a given percentiles group and the overall survey mean growth.

The following graph superposes the distributions of consumption growth premiums for the B10, B20, and B40 for the 32 episodes considered. To further give a sense on potential trends of polarization, I show the growth premiums of the top 10% of the distribution.



The visual conveys a simple message: the further one looks below the bottom 40%, the more s/he notes positive growth premiums occurrences. This is confirmed by central tendencies statistics, as the median growth premiums of the bottom 10% is more than 3 times that of the bottom 40%. It is worth noting however that this is accompanied by an increase in the premiums variability, suggesting the livelihoods of the poorest might have been subject to more acute positive but also negative shocks. Importantly though, the median growth premiums of the Bottom 5%[34] is negative suggesting the very poorest, those "furthest behind", might have been comparatively excluded from prosperity episodes.

In conclusion, even though the Arab Region might have gone through a roughly equal number of pro-poor(est) and anti-poor(est) episodes, the poor's consumption appears to have been subject to high volatility, and the very bottom of the distribution might well have been left behind. The region cannot afford history to repeat itself.

33 Also known as "shared prosperity premiums".
34 Not represented on the chart for readability purposes.

IV. It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring

The popular revolts that have swept the Arab region since 2011 have been attributed to decades of rising social and economic inequalities. This contrasts with the moderate and stable inequality levels conveyed by the overwhelming use of income relative inequality measures in the literature, most notably the century-old Gini coefficient. The space of inequalities in effect encompasses much more than the latter monetary (also classified as outcome) inequality, and includes a set of inequalities of opportunities covering an individual's access to productive assets, decent employment, basic services, and human, cultural and political rights more generally.[35]

While inequalities of opportunities and outcomes are mutually reinforcing, income and wealth concentration and inequality, that visible part of the iceberg which further constitutes the cornerstone of distributional politics, are likely to keep the lead in distributional analyses globally and at the Arab regional level, in view of their close association with elite-capture and distorted, exclusionary political processes.

Recently, there has been a renewed interest in the concept of absolute inequality which tracks the actual income gaps between the rich and the poor. Absolute inequality is argued to be more closely related to perceptions of inequality than relative inequality measures which are based on percentage income increases comparisons.

An important recent contribution is that of Martin Ravallion at the World Bank who estimates that the global consumption floor, the mean consumption of the poorest stratum, didn't change much over the last three decades while mean overall consumption levels have been consistently increasing, thus resulting in a rise in absolute inequality globally.[36]

A parallel development in the literature is the increasing use of the Palma ratio, an index of income (or consumption) concentration that appears to be dislodging the Gini coefficient in distributional analyses. This ratio is based on the work of the Chilean economist Gabriel Palma since the mid-2000s, who suggested that much of the politics of distribution can be summarized by the ratio of the share of national income accruing to the richest 10% over the share accruing to bottom 40% of the distribution[37].

As a measure of relative inequality,[38] the Palma ratio has a great appeal from an operational perspective, and is further particularly welcome in view of the current global narrative which partly lays growth inclusiveness and shared prosperity developments on a successful trickling down of growth to the poorest 40% populations.

35 On the various facets of inequality in the Arab Region see Bibi, S. and Nabli, M.K., (2010) "Equity and Inequality in the Arab Region', ERF Policy Research Report; World Bank (2015) Inequality, Uprisings and Conflict in the Arab World. World Bank MENA Economic Monitor. October 2015; and Milbach-Bouché, N., (2015), Perspectives on Inequality Challenges in the Arab Region, Issues Brief prepared for the Arab Sustainable Development Report.

36 Ravallion estimated the global consumption floor at roughly half the USD 1.25 (2005 PPP) a day international poverty line. See Ravallion, M., (2016), Are the world's poorest being left behind?, Journal of Economic Growth, Vol 21, , Issue 2, pp 139–164.
For recent global discussions on increasing global relative inequality, see Piketty, T. (2014), Capital in the Twenty-First Century. Cambridge, MA: Harvard University Press.; and http://www.oxfam.org.uk/get-involved/campaign-with-us/our-campaigns/inequality-and-poverty

37 See Palma, J.G., (2006), Globalizing inequality: 'Centrifugal' and 'centripetal' forces at work, DESA Working Paper 35, New York: UN Department of Economic and Social Affairs.; Palma, J.G., (2011), Homogeneous middles vs. heterogeneous tails, and the end of the 'Inverted-U': The share of the rich is what it's all about, Cambridge Working Papers in Economics 1111, Cambridge: University of Cambridge Department of Economics; Cobham, A. and Sumner, A. (2013), 'Putting The Gini Back In The Bottle? 'The Palma' As A Policy-Relevant Measure Of Inequality' Mimeograph. London: King's College London.; and Cobham, A., Schlogl, L. and Sumner, A. (2015), 'Inequality and the Tails: The Palma Proposition and Ratio Revisited'. DESA Working Paper No 143. New York: United Nations Department of Economic and Social Affairs.

38 While the Palma ratio can more be considered as a measure of concentration as it does not cover the entire income distribution, in slight abuse of language I will using the term relative Palma, also to be followed by another measure to come, the Absolute Palma measure. See also Hoy, C., (2015), Leaving no one behind: the impact of pro-poor growth, Report, Overseas Development Institute.

The global community has indeed recently added increased attention to the importance of combating intersecting inequalities and instilling distributional developments in favor of those left behind, with a shift in the global development policy discourse towards a shared prosperity for all narrative.[39] Inequality is a cross-cutting subject in the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, which also feature a dedicated goal (SDG10) aiming at reducing inequality within and among countries. Narrowing our attention to monetary inequality for our purpose here, the first target of SDG10[40] specifically introduced a distributional sensitive measure of growth by stipulating that the income growth of the bottom 40% populations of every country should be sustained at higher rates than national averages. This is a direct reference to the relative pro-poorness and relative inequality concepts,[41] and constitutes a step forward compared to the World Bank's second goal adopted in 2013[42] which also aims at promoting shared prosperity as defined by the income growth of the bottom 40%, yet without specifying a target value for that growth.[43]

Relative inequality from a Palma lens

The following figure[44] gives some insights on within and cross-country distributional statistical regularities that motivated the birth of the Palma ratio, as observed in the Arab Region.[45] It features the share of national consumption accruing to selected deciles groupings. The most striking observation is that those middle and upper middle income groups (deciles 5 to 9) in particular manage to secure for themselves slightly more than half of the overall national consumption, through time and across all Arab countries. This applies for the richest and poorest countries alike going from the Comoros or Yemen, through Egypt or Iraq, to the UAE. This remarkable distributional homogeneity is further noted for deciles 7 to 9.

This is in striking contrast with the important variability of the consumption shares of the top 10% as well as the total consumption share of the bottom 40% of the distribution.[46] Where the Bottom 40% consumption share in Comoros (2004) barely reaches 11%, that share is at 15% to 17% for various years for Tunisia or Jordan for example, and reaches 21 to 23% for Egypt. Somewhat symmetrically, the tenth decile appropriates an estimated 38% of total consumption in Comoros (2004) while in Egypt this share lies between 25% to 27%. Hence, the share of total national consumption accruing to the top 10% was twice that accruing to the bottom 40% in Djibouti (2002) and Mauritania (2008), these shares were slightly above one in Egypt (2008) and Iraq (2007).

39 See the United Nations General Assembly resolution 70/1, paragraph 4 at https://sustainabledevelopment.un.org/post2015/transformingourworld

40 This is Goal 10 that reads "Reduce inequality within and among countries."

41 I give some insights on these two concepts with some applications for the Arab Region see section III - "Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?"

42 This complements a first goal of reducing global extreme poverty to 3 percent by 2030.

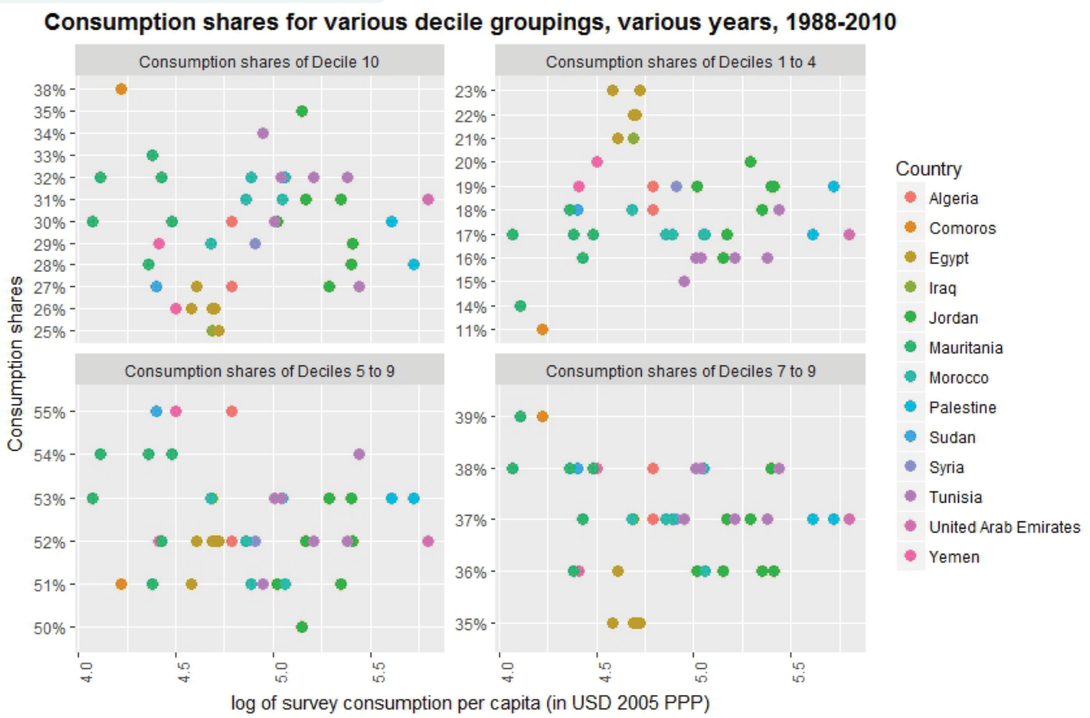
43 Even though the World Bank Group's Corporate Score Card does compare this growth rate to the overall mean growth figures in its monitoring activities. See Lakner, C., Negre, M. and Beer Prydz, E. (2014) Twinning the goals: How can promoting shared prosperity help to reduce global poverty? Policy Research Working Paper 7106. Washington, DC: World Bank; see also
http://pubdocs.worldbank.org/en/331941477328080420/World-Bank-Corporate-Scorecard-2016-full-version.pdf.
Lakner, C., Negre, M. and Beer Prydz, E. (2014) Twinning the goals: How can promoting shared prosperity help to reduce global poverty? Policy Research Working Paper 7106. Washington, DC: World Bank

44 The data is sourced in the World bank's PovcalNet database and covers more than 40 standardized household surveys over 1988- 2010 for 12 Arab Countries. The data for the United Arab Emirates is taken from Bibi, S. and A. El-Lahga (2010), Generating Reliable Data To Perform Distributional Analysis In The Arab Region, ERF Working Paper No. 561.

45 It's important to note that there is a downward bias in the estimation of the extent of inequality to the widely admitted omitted income or consumption of the richest in household surveys. For a recent overview of the so-called truncation points in household surveys at global levels, see Vanesa Jorda, V., and Niño-Zarazúa, M., (2016), Global inequality How large is the effect of top incomes?, United Nations University WIDER Working Paper 2016/94. The authors find that the undersampling of the richest "generate a downward bias in global inequality estimates that ranges between 15 per cent and 42 per cent, depending on the period of analysis, and the assumed level of truncation of the income distribution." For some thoughts covering the Arab Region, see Bibi, S. and A. El-Lahga (2010) 'Decomposing Income Inequality in the Arab Region', ERF Working Paper No. 557, Cairo: Economic Research Forum, October.; Bibi, S. and M. Nabli (2009) 'Income Inequality in the Arab region: Data and Measurement, Patterns and Trends", Middle East Development Journal, 1:2, 275-314.; and more recently Saranji, N. (2015) Economic Growth, Inequality and Poverty in the Arab Region, Issues Brief prepared for the Arab Sustainable Development Report.

46 This 'centrifugal' development as labeled by Palma, contrasts with the uniformity in the shares appropriated by deciles 5 to 9, which he calls 'centripetal'.

Using the Palma ratio to characterize patterns of consumption inequality in the Arab region conveys comparable, yet not perfectly concordant conclusions compared to those obtained using the Gini coefficient.[47] Inequality in the region appears moderate overall when compared to global levels, and various layers of inequality are found which have no specific relation to countries' development levels. In the 2000s, high inequality countries in the region included the Comoros, Djibouti, Mauritania, Morocco and Tunisia; while Algeria, Jordan, Palestine, Sudan, and the UAE show medium levels of inequality; and Egypt, Iraq, Syria and Yemen appear to be the most equal societies in the Region.



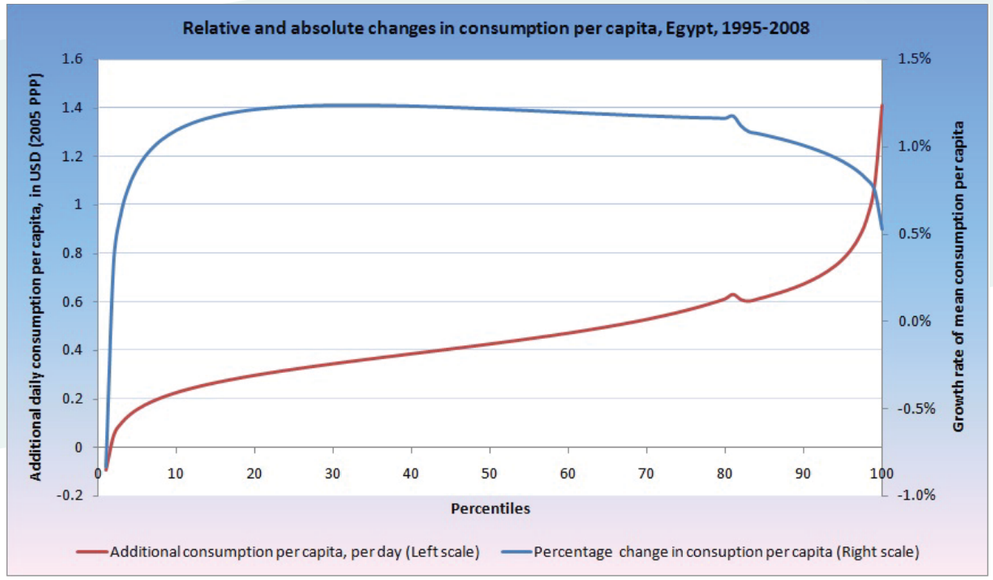
What about absolute inequality?

Turning to Absolute inequality, an absolute version of the Gini coefficient has been proposed in the literature, and evidence that its use has been growing within countries and at a global level has been advanced.[48]

Yet, in what follows I will make use of a more intuitive recent extension of the relative Palma which defines an absolute definition of the Palma (hereafter the Absolute Palma) as the difference between the average consumption or income levels of the top 10% and bottom 40% of the distribution, hence shedding direct light on the actual gap between the rich and the poor.[49] I further extend this definition by going further down in the distribution to track the consumption gaps with the poorest of the poor, specifically examining the differences between the consumption levels and shares of the top 10% and the bottom 20% and 10% of the distribution respectively.

Meanwhile, to illustrate the differing conclusions that relative and absolute inequality might convey, I construct the growth incidence curve for Egypt over 1995-2008, to which I add the average annual changes in absolute consumption levels, that is the additional average daily consumption accruing the various centiles of the distribution (figure below).[50]

Looking at the percentage change in consumption across the distribution (the blue line) indicates growth developments might have been relatively homogeneous, except for the lowest and highest deciles or so. Yet the red line which represents the actual additional dollars consumed by the various centiles shows a steady increase in additional consumption as one moves towards the right of the distribution indicating the lion's share of additional growth has accrued to the rich.



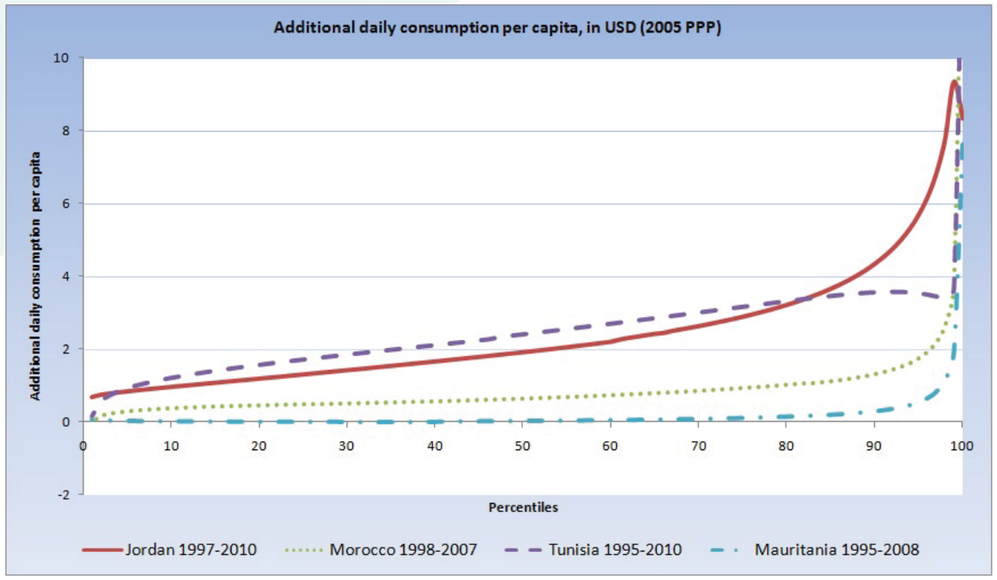
47 See Bibi, S. and Nabli, M.K., (2010) "Equity and Inequality in the Arab Region', ERF Policy Research Report; and Belhaj Hassine, N., 2014, Economic Inequality in the Arab Region, Policy Research Working Paper 6911, The World Bank Africa Region Poverty Reduction and Economic Management Department

48 The Absolute Gini is defined as the Gini coeeficient multiplied by the average income of a country. See Araar, A. (2006) 'The Absolute Gini Coefficient: Decomposability and Stochastic Dominance'. Quebec: CIRPEE and PEP, University of Laval, mimeo; Milonavic, B. and Lakner, C. (2013), 'Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession' World Bank Policy Research Working Paper No. 6719, Washington, DC: World Bank.;and Ravallion, M., (2016), Are the world's poorest being left behind?, Journal of Economic Growth, Vol 21, , Issue 2, pp 139–164.

49 See Hoy, C., (2015), Leaving no one behind: the impact of pro-poor growth, Report, Overseas Development Institute.

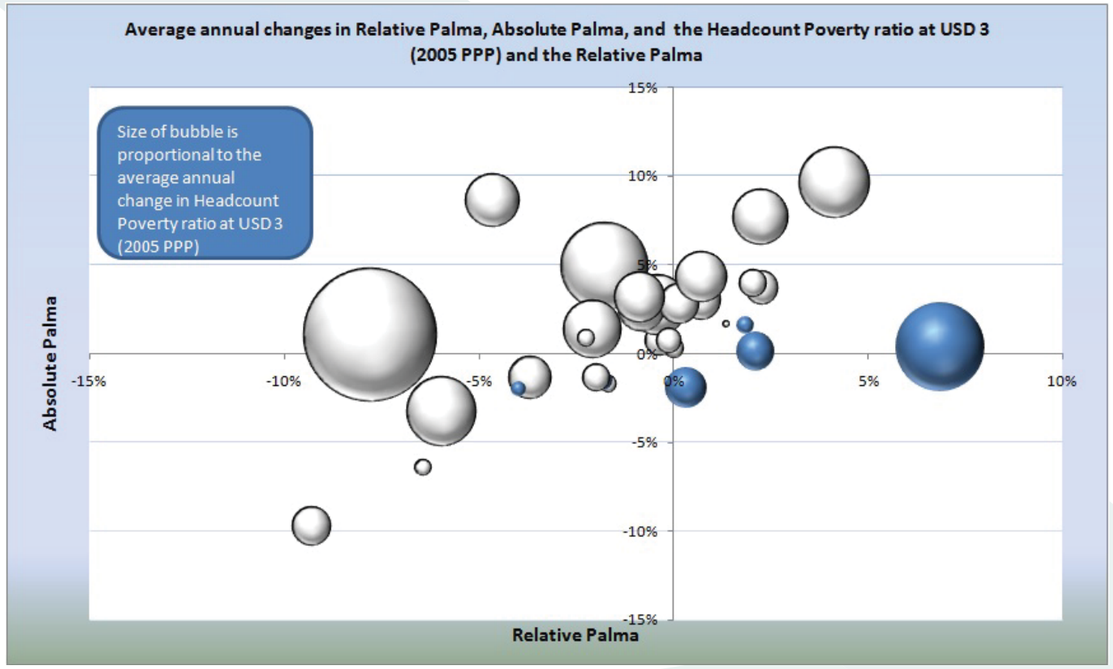
50 A Growth Incidence Curve summarizes the rate of change in income or consumption between two survey dates, for the various percentiles of the distribution. For an overview of Growth Incidence Curves with some illustrations for the region, see section IV: Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?.

Looking at similar episodes through the 1990s and the 2000s in the region reveals similar developments that the poor have been disadvantaged in absolute terms. Selectively, this has been the case in Jordan, Morocco, Mauritania, and Tunisia over 1997-2008, 1998-2007, 1995-2008, and 1995-2010 respectively (figure below).



Insights on inequality can further be obtained by examining the share of specific percentiles groupings in total consumption increases. Put differently, which parts of the distribution appropriate the additional consumption relatively more between two survey dates? This mirrors both relative and absolute growth incidence curves. Looking at selected positive mean consumption growth episodes for instance (figure below), more than 75% of the additional consumption in Mauritania over 1995-2008 accrued to the top 10%; while with the exception of that latter country, around half of additional consumption accrued to deciles 5 to 9 in Egypt, Jordan, Mauritania, Morocco, and Palestine over various episodes in the 1990s and the 2000s.

Moving towards the bottom of the distribution, with exception of Palestine, less than 10% (respectively 5%) of the additional consumption accrued to the bottom 20% (respectively 10%) of the distribution.



Grey (blue) bubbles represent negative (positive) percentage changes.`

Going back to the potential differing messages conveyed by relative and absolute inequality, I turn to tracking the annualized variations of the changes in relative inequality (measured by the annual percentage changes in the Palma ratio) and the changes in absolute inequality (measured the annual percentage changes in the absolute Palma) using successive household surveys covering Egypt, Jordan, Morocco, Palestine, Mauritania Tunisia, and Yemen in the 1990s and 2000s.

The below figure, which further features headcount poverty outcomes (at the USD 3 poverty line here) in a wink to section II below which has covered the poverty-growth-inequality triangle[51], notably shows that the majority of episodes have been characterized by increases in absolute inequality. In addition, where decreases in relative inequality has been accompanied by decreases in absolute inequality this was less than proportional. Anecdotally, those few episodes of increases in poverty were accompanied by increases in relative inequality, with minor changes in absolute inequality.

Overall, out of the 32 episodes considered, 75% have shown positive mean consumption growth, and while half of these featured decreases in relative inequality, only 10% showed decreases in absolute inequality. Put differently, nearly all positive growth episodes were characterized by increasing absolute

51 See section II: The Poverty, Growth, Inequality Arithmetic in the Arab Region: revisiting selected episodes in the 1990s and 2000s.

inequality. On the other hand, most negative growth episodes have shown decreases in both absolute and relative inequality. Overall, the median change in absolute inequality (the median percentage change in the income gap between the top 10% and the bottom 40%) increased at more than 1% annually over the 1990s and 2000s, while median relative inequality (the median change in the ratio of the top 10% consumption to that of the bottom 40%) was slightly negative and stood at nearly half a percentage point.[52]

In sum, during the 1990s and 2000s, absolute inequality, that concept that really matters for gauging Arab citizens discontent, has been consistently increasing across the board in the region. The inequality of outcomes and opportunities narratives have just been reconciliated.

V. What if growth had been more inclusive in the Arab world in the 1990s and 2000s?

When asked to advance a succinct explanation of what went wrong in the Arab region that has led to the widespread popular protests since 2010, the top-of-mind "economistic" answer pundits would give would most likely resemble this: a non-inclusive neoliberal development regime that has led to increasing income and wealth polarization, and to regressive changes in the welfare of the poor and most deprived.

Relatedly, a poverty economist would be interested in exploring the extent to which poverty and inequality outcomes would have been different had the growth model been more inclusive. Such a luxury is allowed by the release of household survey data that would allow him to run counterfactuals under various assumptions of income (or consumption) growth and its distributional pattern: What if the observed average annual growth between two surveys had been equally distributed across the entire income distribution (distribution-neutral scenario)? How does this compare to a distribution-neutral but higher growth scenario? Keeping historical mean income growth unchanged, what would have happened if the income of the poor (as proxied by the bottom 40% of the distribution for example) had grown at a rate 2% higher than the average of the distribution, with this 2% "shared prosperity premium" financed by the top 10% or the top 60% of the distribution?

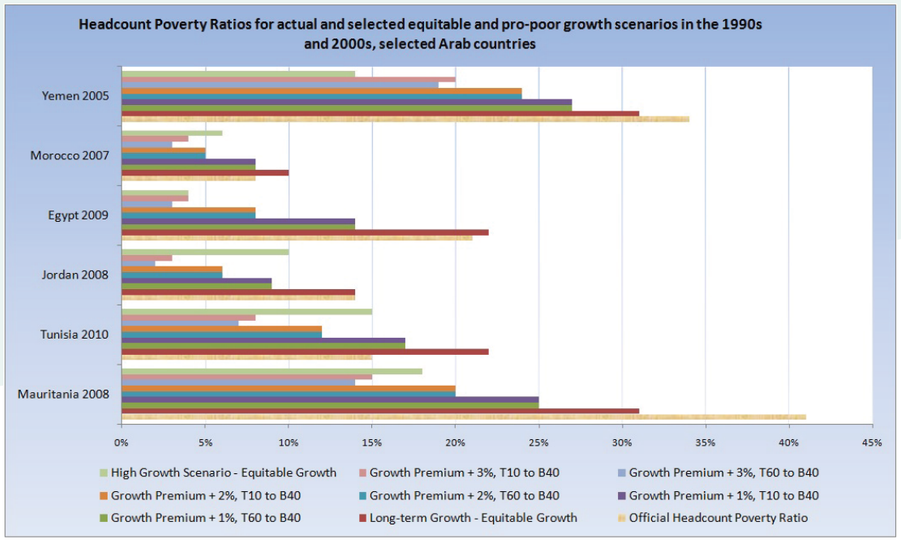
Policy-wise, shared prosperity scenarios like the latter need not consist of direct redistributive policies, rather they could be achieved through context-specific combinations of policies that would engage the poor in income generating activities, thus ensuring they contribute to and benefit from growth. Importantly also, under such reasonable assumptions on shared prosperity premiums, pro-poor growth scenarios don't impose large costs on the top of the distribution which share of total national income is generally high.

I run a series of such counterfactuals for Egypt, Jordan, Morocco, Mauritania, Tunisia and Yemen over 1995- 2008, 1997-2008, 1998-2007, 1995-2008, 1995-2010, and 1998-2005 respectively. The data is sourced in the World Bank's PovcalNet database of standardized household surveys. I initialize the projections with the starting year household survey for each country episode. I then apply Growth incidence curves (GICs)[53] reflecting various equitable growth and shared prosperity premiums tracking the consumption developments of the poor, the bottom 40% of the consumption distribution for our purpose here.[54]

Projecting poverty requires two main ingredients: the mean growth rates of income or consumption expenditures; and assumptions regarding the distribution of that growth. I consider pro-poor growth scenarios with shared prosperity premiums of 1%, 2% and 3% respectively.[55] I further run a distribution-neutral scenario (that is a constant within-country inequality, or equitable scenario). A (distribution-neutral) high growth scenario of 4% is further considered in line, for example, with Target 8.1 of the United Nations Sustainable Development Goals.[56]

The results are striking and highlight the immense costs in poverty outcomes that unequal and anti-poor policies have led to in the Region (the below figure features poverty incidence for selected scenarios). In Egypt, a pro-poor scenario with a premium for the poor as low as 1% (over the average growth observed from 1995 through 2009) would have lifted more than 5.5 million citizens out of poverty as per the national poverty line, with a 7% lower poverty incidence compared to the rate actually observed in 2009.[57]

In Mauritania, a 10% lower poverty incidence would've been observed in 2008 under equitably distributed growth over 1995-2008. Meanwhile, in Jordan, a 2% shared prosperity premium sustained on average from 1997 through 2008 would have more than halved the 13.3% headcount poverty ratio observed in 2008.



52 In a final investigation not presented here for space constraints, I complement 1) the relative Palma by looking further below the bottom 40%, specifically calculating the annual percentage changes in the top 10% to the bottom 10% (respectively 20%) consumption shares ratio; and 2) the absolute Palma by calculating the annual percentage changes in the difference between the average consumption levels of the top 10% and those of the bottom 10% and 20% respectively. The results confirm how the reliance on relative inequalities measures gives opposing messages regarding inequality developments when one looks further in the consumption distribution. The exceptions in the below selected examples are Morocco over 1998-2007 where a stagnant relative inequality has been accompanied by important increases in absolute inequalities; and Mauritania, where both increases in relative and absolute inequalities were observed from 1995 through 2008. An interesting observation is that in some cases (for example in Mauritania and Yemen) the decrease in relative inequality appears to be more pronounced as one compares the top 10% to lower deciles, an indication than growth might have been pro-poorest during these episodes.

53 For an overview on GICs, see section III: Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?.

54 Household surveys for most developing countries, including all Arab countries in PovcalNet, are consumption rather than income based.

55 With the further assumption that overall mean growth remains unchanged, this means the consumption growth of the "rich" is decreased in order to "finance" the additional growth of the poor. Here, I specifically consider scenarios in which the Top 10% (T10) and Top 60% (T60) respectively finance the growth premiums of the B40 of the distribution.

56 Target 8.1 reads: "Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries". The 4% growth figure builds on the observation that a 7% growth target translates into a 4% per capita growth rate.

57 For the 2030 population figures, I use the medium variant of the World Population Prospects, the 2015 Revision provided by the United Nations Population Division.

In Yemen, the picture is trickier as this country experienced a decrease in consumption levels across the board over the observed 1998-2005 period. Nevertheless, simulating pro-poor growth scenarios is still possible even in a context of negative mean growth consumption developments. A lower decrease in the consumption growth of the poor compared to the decrease observed on average over the entire distribution would still be considered pro-poor. Adequately designed redistributive and social protection policies would ensure that the burden of de-growth episodes would fall relatively less on the poor, shielding them from nation-wide negative developments and even more. Simulations show that pro-poor growth scenarios with shared prosperity premiums going from 1% to 3% in favor of the bottom 40% of the distribution would have reduced the 2005 observed poverty incidence from 15% to 7%, effectively lifting from 1.5 million 3 million Yemeni out poverty as per the national poverty line.

It is further interesting to note that in some cases, distribution-neutral growth scenarios in particular would have actually led to higher headcount poverty compared to what actually happened. This is the case for Tunisia over 1995-2010 for example, where under such a scenario, poverty incidence would've been 2% higher than what was observed in 2010. This reminds us of the differential impacts of various distribution neutral and pro-poor growth scenarios depending in particular on the changing shapes of the consumption distributions between the initial and final survey dates.

Overall, for the six countries considered, according to the 1% to 3% shared prosperity premiums scenarios, between 8 and 22 million more citizens would have been lifted out of poverty at national poverty lines. Importantly also, the depth of poverty as measured by the poverty gap would have been reduced by about 5% to 12% for Egypt, Mauritania, and Yemen for example, meaning that the remaining poor would have been have been left in less dire conditions. As for the headcount of those living in extreme poverty, it would have been lower by a range of 2 to 4 million. These developments would've been accompanied by a reduction in relative inequality as measured by the Gini coefficient going from 2 to 6 points.

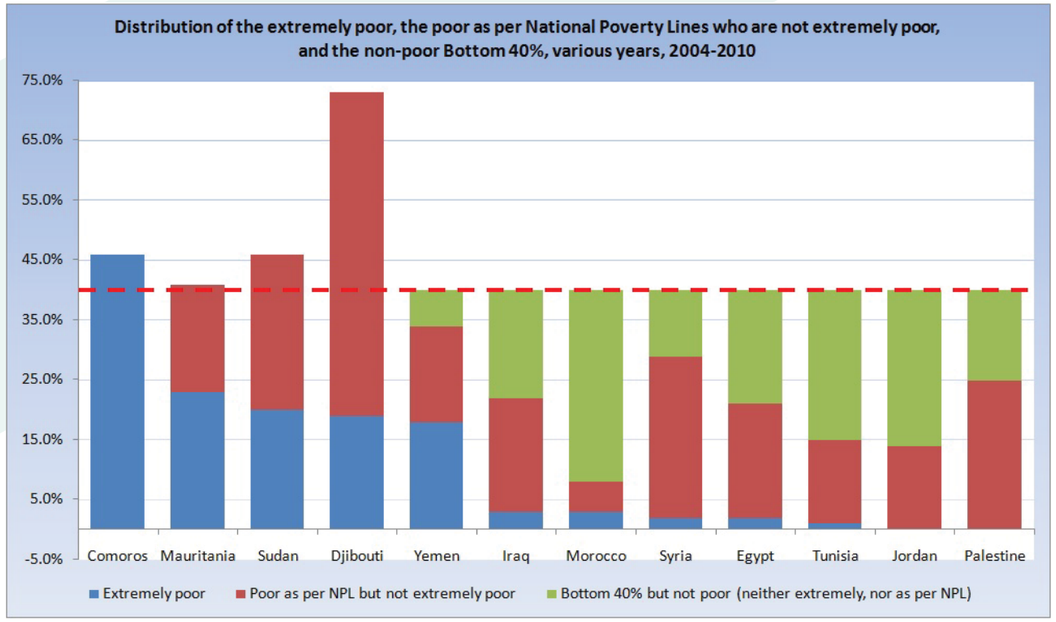
VI. Beware of the Trade-offs between The Inequality and Poverty Goals: A Self-Disciplined Approach to Reaching the Furthest Behind First is Necessary

The 2030 Agenda for Sustainable Development "leaving no one behind" and "reaching the furthest behind first" pledges along with the Agenda's overarching poverty eradication objective imply that development efforts should focus on the poorest of the poor who suffer intersecting inequalities and multiple deprivations, whose needs should be met first. The priority is to identify those living in chronic and transient poverty and develop the adequate inclusive economic, social, political, cultural and environmental policies that would sustainably lift these populations out of multidimensional poverty and strengthen their resilience to growing sources of vulnerability, putting them on sustained trajectories out of poverty. While the "reaching the furthest behind" principle first applies to every form of deprivation, in the following I take a monetary poverty lens.

The current global development discourse centered on inclusive growth and shared prosperity has adopted the bottom 40% (B40) populations of the income distribution as a proxy for the poor. For instance, the World Bank's second goal on shared prosperity adopted in 2013 precisely targets the income growth of the B40, while target 10.1 of the Sustainable Development Goals (SDGs) aims at achieving and sustaining by 2030 the income growth of the B40 at a rate higher than national mean growth rates, hence in practice adopting a pro-poor growth or inequality target (in a relative sense as we will see below).[58] Yet, while targeting the welfare developments of those at the B40 is unambiguously desirable, the overlap between the B40 populations and those who are extremely poor[59] or poor at national poverty lines (NPLs) differs across countries, as poverty according to international or national welfare thresholds occurs at different points in the income or consumption distribution.

The following figure illustrates how the poor at national poverty lines and at the USD 1.25 a day (2005 PPP) international poverty line are situated with respect to the B40 of their populations for selected Arab countries in the 2000s. As can be seen, the B40 populations in the Comoros all live below the USD1.25 a day poverty line; while in Djibouti, Mauritania and Sudan the B40 cover populations who either live in extreme poverty or are considered poor as per NPLs; and for all Mashreq countries various proportions of the B40 populations are non-poor.[60]

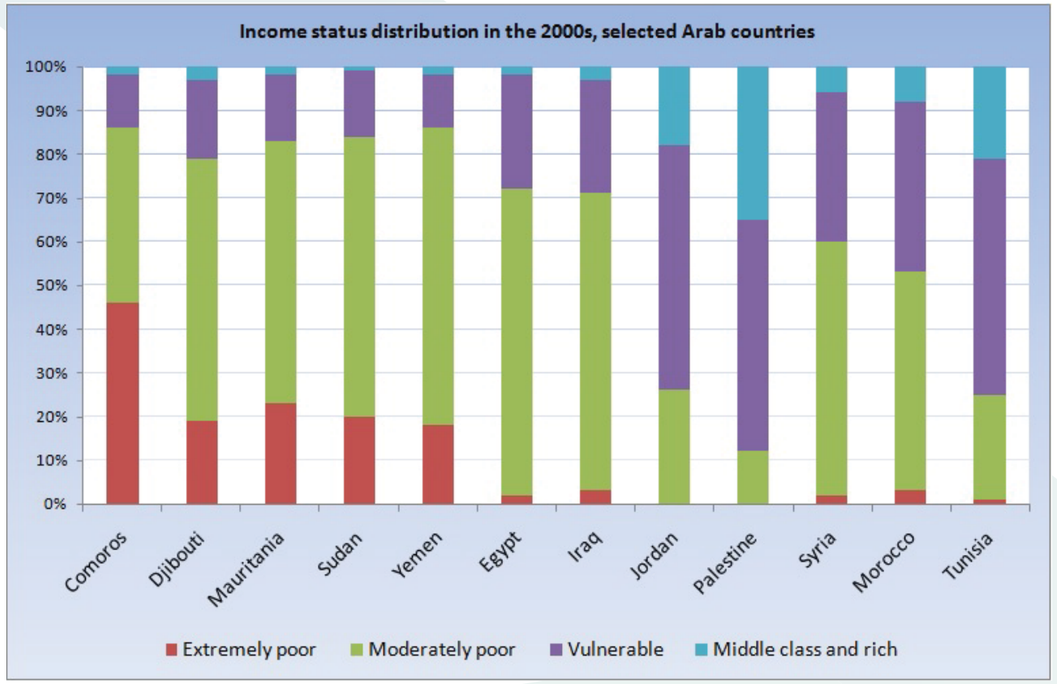
58 See also section IV: It is Absolute not Relative Inequality that Matters: a Fresh Look at Inequality in the Arab Region pre-Arab Spring.
59 Those who live below the USD1.25 a day international poverty line.
60 All calculations in this section are obtained using standardized household survey data sourced in the World Bank's PovcalNet database.



The below figure complements the picture by looking at welfare thresholds adopted at a global level in recent years that define on top of the extremely poor, the moderately poor (those living between the USD1.25 and USD4 per day), the vulnerable (who live between USD4 and USD10 per day), and the middle class and rich (who live at more than USD10 per day).[61] The B40 here appear to cover populations in extreme or moderate poverty in different proportions for most of the Arab countries considered here. In a few cases (Jordan, Palestine, and Tunisia) some of the B40 are classified as vulnerable populations, with those countries populations showing the highest proportions of middle class and rich.[62]

61 On the difficulties of defining welfare thresholds (and the associated results sensitivity) for these various categories of populations in cross-country comparisons, with particular emphasis on the Arab Region, see Abu-Ismail, K. and Sarangi, N. (2013) "A New Approach to Measuring the Middle Class: Egypt," ESCWA Working Paper, United Nations, New York, December 2013.
Dang, Hai-Anh and Elena Ianchovichina. (2016). "Welfare Dynamics with Synthetic Panels: The Case of the Arab World in Transition". World Bank Policy Research Paper no. 7595, World Bank, Washington, DC.

62 One should keep in mind that household surveys typically underestimate the incomes and consumption levels of the richest. See footnote 45.



The related important concern is the extent to which targets 1.2[63] and 10.1[64] of the SDGs (which are concerned with halving poverty at the NPL and with growth pro-poorness respectively) might overshadow Target 1.1 which aims at eradicating extreme poverty by 2030, with the consequence that the poorest of the poor would be left behind.[65] The question is to know if the shared prosperity target (target 10.1) is by itself supportive of the extreme poverty eradication target (target 1.1). The answer to this question is admittedly no. Even in the case of the Comoros for example, where the targeting of the B40 is by the same token a targeting of the extremely poor, this does not by itself mean that those furthest behind would be reached first.

What is needed is a self-disciplined approach to targeting those at the very bottom of the income distribution, with the requirement that more than being pro-poor, economic growth will have to be pro-poorest.[66] We need to go well below the B40, and aim at those context-specific combinations of policies that will improve the fortunes of the bottom 20%, bottom 10%, and even bottom 5% populations.

More broadly, we need to make sure that the SDGs with their 169 targets don't end up being a Disservice for the poorest! [67]

63 Indicator 1.2.1 aims at reducing at least by half the "Proportion of population living below the national poverty line, by sex and age".
64 Target 10.1 reads: "By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average".
65 Note that for some countries, the poorest of the poor might not be extremely poor, but moderately poor for example as per the above classification; in which case the argument would apply to the latter. For a similar line of reasoning, see Beegle, K., P. Olinto, C. Sobrado, H. Uematsu, Y. S. Kim, and M. Ashwill, (2014), Ending Extreme Poverty and Promoting Shared Prosperity: Could There Be Trade-off Between These Two Goals?, Inequality in Focus, 3(1), World Bank.
66 See Shepherd, A., Mariotti, C., Rogriguez-Takeuchi, L., (2016), What policy lessons can be learnt from cases of pro-poorest growth?, Chronic Poverty Advisory Network, Overseas Development Institute.
67 This is borrowed from Klasen, S., (2015), SDG - A Disservice to the World's Poorest, Views on Development KFW-Development Research.

VIII- On the Likelihood of Arab Countries Achieving the Sustainable Development Goals Monetary Poverty Targets: Some 'Shared Prosperity' Simulations

Eradicating extreme poverty by 2030 at the international poverty line of USD 1.25 (in 2005 PPP) tops the 169 targets of the 2030 Agenda Sustainable Development Goals (SDGs). Second to it is the target to half poverty in all its dimensions as per national definitions, which translates in money-metric poverty lexicon into halving headcount poverty at National Poverty Lines (NPLs) as per SDG indicator 1.2.1.[68] The second indicator of Goal 10 on inequality further refers to the concept of relative poverty[69] which speaks to those wealthier nations in the Arab Region, most notably some of the Gulf Cooperation Council countries as exemplified by the poverty estimates released by Qatar in the recent years.

I explore the potential for (income) poverty reduction that could be achieved through 2030 given moderately optimistic but reasonable pro-poor and distributional-neutral growth assumptions. These are thought experiments or simulations that don't delve into specific combinations of policies and theories of change that would lead to such outcomes. Rather, I present a possible range of favorable inclusive growth futures, purposely abstracting from potential negative growth and anti-poor developments. The breadth and depth of poverty in the Arab region are such that simulating the impact of negative growth and shared prosperity developments rapidly pushes even more Arab citizens in many parts of the Region into abject poverty. Relatedly, the following optimistically assumes peace and security is achieved in the region in the near term, as it admittedly makes little sense to discuss poverty reduction, shared prosperity, and sustainable development in the context of armed conflicts, human losses, and conflicts-driven population movements.

At the global level, the many projections that have been proposed through 2030 against the USD 1.25 (2005 PPP) poverty line[70] lead to poverty rates forecasts ranging from 1.5% to 15.5%, reflecting varying underlying assumptions as to future growth and inequality trajectories. This puts the global extremely poor somewhere between 100 million and 1300 million in 2030.[71][72] Of particular interest for us here is the work of Lakner and his colleagues at the World Bank who notably explore the extent to which the inclusiveness of growth could be supportive of poverty reduction outcomes. Specifically, they simulate global poverty under various growth scenarios for the bottom 40% of the income distribution (B40),[73] suggesting that the World Bank's first goal of reducing global extreme poverty to 3 percent by 2030 could be achieved under favorable assumptions on growth and" shared prosperity premiums".[74]

On the other hand, projecting poverty at National Poverty Lines (NPLs) has been much rarer, with only one such attempt at a global level conducted as of today.[75] The main difficulty here is to figure out how NPLs will evolve as these sensitive thresholds are set by National authorities who may have little incentive to increase them in line with average income levels. The literature offers some cross-country evidence on this though, with Martin Ravaillon's work showing that NPLs tend to increase at around the third of mean survey income increases. [76]

Here, I rely on the methodology developed by Lakner and his colleagues, to project extreme poverty and poverty at NPLs from the 2010s to 2030 for a range of distribution-neutral and pro-poor growth scenarios. In view of the ongoing conflicts in several countries in the Region at the time of writing, the results can be considered optimistic, even though I have integrated the latest 2014/2015 poverty estimates. I initialize the projections with the latest household surveys available for Arab countries in the World Bank's PovcalNet database of standardized surveys covering around the three-quarter of the Arab population.[77] I then apply Growth incidence curves (GICs)[78] reflecting various shared prosperity premiums tracking the consumption developments of the B40, but also of those populations at the very lower end of the distribution, namely the bottom 5% (B5), bottom 10% (B10), and bottom 20% (20).

Projecting poverty requires two main ingredients: the mean growth rates of income or consumption expenditures; and assumptions regarding the distribution of that growth.

I consider pro-poor growth scenarios with shared prosperity premiums of 1%, 2% and 3% respectively.[79] I specifically consider scenarios in which the Top 10% (T10) and Top 60% (T60) respectively "finance" the growth premiums of the B40, B20, B10, and B5.

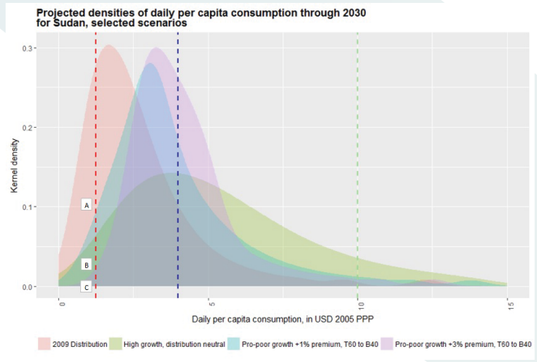
Projected mean growth is set at the 1990s-2000s favorable averages for these pro-poor scenarios as well as for a distribution-neutral scenario (that is a constant within-country inequality scenario). A (distribution-neutral) high growth scenario of 4% is further considered in line with Target 8.1 of the SDGs.[80] In addition, in order to project poverty at NPLs, assumptions regarding future NPLs have to be added. Here, I consider the case of constant poverty lines (CPL), which will hence lead to the most conservative poverty and inequality estimates; and the case of increasing poverty lines (IPL) which are assumed to grow at the third of mean consumption growth rates.

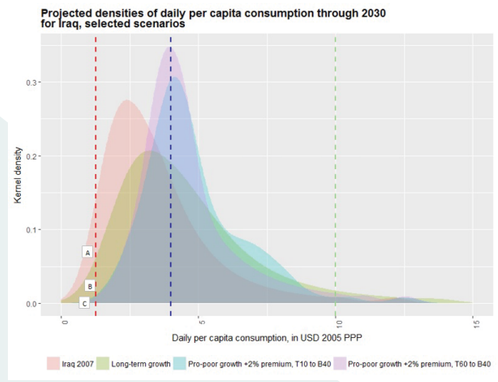
For the reader to get a better grasp of this exercise, the following upper-panel figures compares the consumption distributions for Sudan (2009) and Iraq (2007) to selected simulated distributions in 2030, to which I add selected welfare thresholds adopted at a global level in recent years that define on top of the extremely poor (those living below the USD1.25 per day), the moderately poor (those living between the USD1.25 and USD4 per day), the vulnerable (who live between USD4 and USD10 per day), and the middle class and rich (who live at more than USD10 per day).[81]

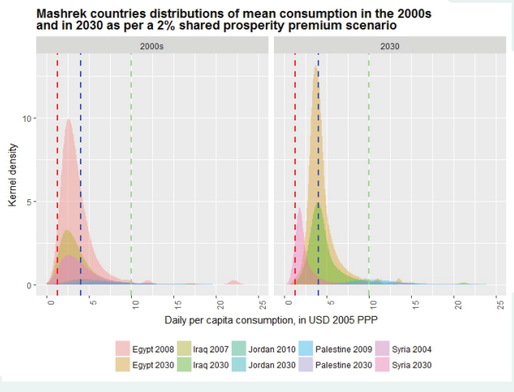
68 Indicator 1.2.1. reads: "Proportion of population living below the national poverty line, by sex and age."
69 Indicator 10.2.1 reads: "Proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities".
70 This international poverty line defines populations living in extreme poverty.
71 See among others Chandy, L., Ledlie, N. and Penciakova, V. (2013) The final countdown: Prospects for ending extreme poverty by 2030. Global Views Policy Paper 2013-04. Washington, DC: Brookings Institution; Edward, P. and Sumner, A., (2013),The Future of Global Poverty in a Multi-Speed World: New Estimates of Scale and Location" Center for Global Development, Working Paper 327; Ravallion, M., (2013), How Long Will It Take to Lift One Billion People Out of Poverty?" World Bank Policy Research Working Paper WPS 6325; World Bank, (2015) A measured approach to ending poverty and boosting shared prosperity: Concepts, data, and the twin goals. Policy Research Report. Washington, DC: World Bank.
72 See among others Chandy, L., Ledlie, N. and Penciakova, V. (2013) The final countdown: Prospects for ending extreme poverty by 2030. Global Views Policy Paper 2013-04. Washington, DC: Brookings Institution; Edward, Peter and Andy Sumner, "The Future of Global Poverty in a Multi-Speed World: New Estimates of Scale and Location" Center for Global Development, Working Paper 327, 2013.; Ravallion, Martin, "How Long Will It Take to Lift One Billion People Out of Poverty?" World Bank Policy Research Working Paper WPS 6325, January 2013.; World Bank (2015) A measured approach to ending poverty and boosting shared prosperity: Concepts, data, and the twin goals. Policy Research Report. Washington, DC: World Bank; Chandy et al (2013), Edward and Summer (2013), Ravaillon (2013), Chen/ World Bank (...), World bank (Shared Prosperity), World Bank (Poverty forecasts).
73 See Lakner, C., Negre, M. and Beer Prydz, E. (2014) Twinning the goals: How can promoting shared prosperity help to reduce global poverty? Policy Research Working Paper 7106. Washington, DC: World Bank; Lakner, C., Negre, M. and Beer Prydz, E. (2014) The Role of Inclusive Growth in Ending Extreme Poverty, World Bank; and Basu, K.: 2013, 'Shared Prosperity and the Mitigation of Poverty: In Practice and in Precept', World Bank Policy Research Working Paper 6700, World Bank: Washington D.C.
74 A shared prosperity premium is defined as the difference between the growth rate in the income or consumption of the B40 and the overall survey mean growth.
75 See Hoy, C., (2016). Projecting national poverty to 2030, Report, Overseas Development Institute.
76 See Ravallion, M. (2015) Toward better global poverty measures. Working Paper 417. Washington, DC: CGD.
77 And more than 80% of the Arab population if the GCC countries are excluded. At the sub-regional level, I cover 97%, 87%, and 52% of the population of the Mashreq, the Least Developed Countries (LDCs), and the Maghreb respectively. The Mashreq countries include Egypt, Irak, Jordan, Palestine, and Syria; the Maghreb countries included are Tunisia and Morocco; and the Least Developed Countries group includes Comoros, Djibouti, Mauritania, Sudan, and Yemen
78 For an overview on GICs with some illustrations for the region, see "Was Growth Pro-poorest in the Arab Region in the 1990s and 2000s?".
79 With the further assumption that overall mean growth remains unchanged, this means the consumption growth of the "rich" is decreased in order to finance the additional growth of the poor.
80 Target 8.1 reads: "Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries". The 4% growth figure builds on the observation that a 7% growth target translates into a 4% per capita growth rate. See Hoy (2015), Kenny (2015), and Ravaillon (2013).
81 On the difficulties of defining welfare thresholds (and the associated results sensitivity) for various categories of populations in cross-country comparisons, with particular emphasis on the Arab Region, see Dang, Hai-Anh and Elena Ianchovichina. (2016). "Welfare Dynamics with Synthetic Panels: The Case of the Arab World in Transition". World Bank Policy Research Paper no. 7595, World Bank, Washington, DC.; and Abu-Ismail, K. and Sarangi, N. (2013) "A New Approach to Measuring the Middle Class: Egypt," ESCWA Working Paper, United Nations, New York, December 2013.

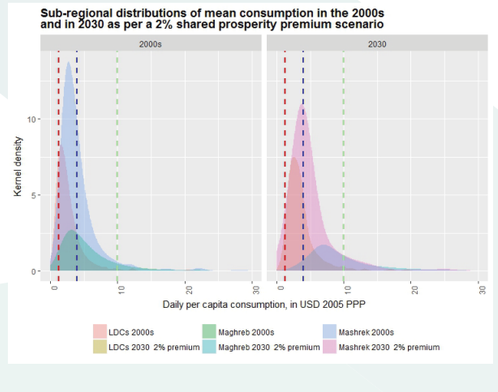
The areas below different parts of the distribution indicate the population proportions in this or that welfare category.[82] The areas to the left of the red dashed line for example show those who live in extreme poverty. For both countries at the starting periods, extreme poverty roughly totals areas A + B + C. As can be seen, for Sudan, a high growth scenario with constant within country inequality is roughly equivalent in terms of extreme poverty outcomes to a pro-poor growth scenario with a 1% shared prosperity premium where the B40 additional consumption is financed by a reduction of that of the T60 of the distribution. The best scenario for extreme poverty outcomes appears to be a pro-poor growth scenario with a 3% premium for the B40, where extreme poverty would be nearly eliminated (area C). On the other hand, a high growth distribution-neutral scenario could result in the highest proportion of the middle-class and rich Sudanese. The figure for Iraq features different selected scenarios and demonstrates that for similar projected mean growth rates, shared prosperity scenarios (here 2% premiums in favor of the B40 with redistribution from the top 10% and top 60% respectively) clearly lead to the best outcomes for extreme poverty reduction when compared to a "distribution-neutral", "business-as-usual" scenario.

The lower-panel figures feature projected population-weighted consumption distributions as per an inclusive growth scenario with a 2% shared prosperity premium in favor of the B40. The left panel covers Mashreq countries and indicates that under such a scenario, a sizable proportion of Egyptians and Iraqis would "graduate" from a "moderate poverty" to a "vulnerable status", where extreme poverty could likely be eliminated.[83] As for Jordan and Palestine, large swaths of their populations would move to a "middle-class and rich" status. The dire humanitarian conditions in Syria explain that even under a favorable scenario such as the one considered here, most Syrians would most likely live in moderate poverty in 2030. The right-hand figure finally gives some insights on "net" graduation developments at a sub-regional level.









The following panel presents the projected headcount poverty ratios[84] according to the USD1.25 poverty line, and according to national poverty lines for the cases of constant and increasing poverty lines, with the dashed lines showing the median projected values for the set of 22 equitable and pro-poor growth scenarios considered.

Broadly speaking, under reasonable pro-poor growth assumptions, with the exception of the Comoros, Djibouti, Syria, and Yemen, eradicating extreme poverty (thus achieving target 1.1) and halving monetary poverty at national poverty lines (as per indicator 1.21) appear to be feasible.

An important result further stands out from this exercise: by 2030, under distribution-neutral growth (at the mean growth developments observed in the 1990s-2000s) extreme poverty would be virtually eliminated in only 4 of the 12 countries considered here; and with the exception of Morocco and Tunisia, none of the countries would halve its poverty rate at its national poverty line.

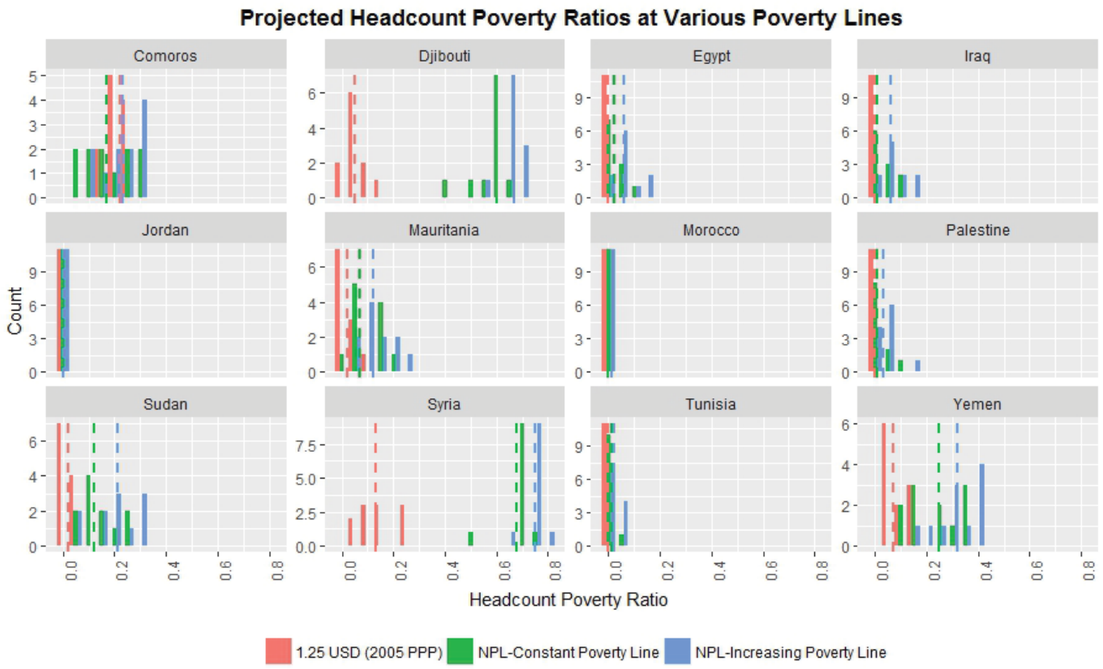
This means that sustaining shared prosperity is a necessary condition for the countries in the region to come close to achieving the monetary poverty reduction targets. Equitable or distribution-neutral growth will not be sufficient. This is in line with results obtained in global simulations which have led to a recognition that growth inclusiveness and shared prosperity are supportive of poverty reduction objectives.[85]

82 The charts make use of kernel densities estimations which are statistical methods to estimate probability density functions of random variables, based on observed household data for our purpose here.

83 I make use of the term "graduation" with caution. One should be keep in mind that in view of the dynamics of welfare, any changes in the proportions of individuals belonging to a particular welfare category are net changes that net figures that amalgamate those who exit and those who enter this category.

84 That is the percentage of total country populations living in poverty.

85 See Lakner, C., Negre, M. and Beer Prydz, E. (2014) Twinning the goals: How can promoting shared prosperity help to reduce global poverty? Policy Research Working Paper 7106. Washington, DC: World Bank; Lakner, C., Negre, M. and Beer Prydz, E. (2014) The Role of Inclusive Growth in Ending Extreme Poverty, World Bank;

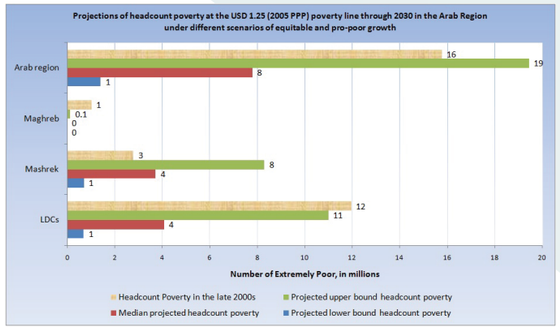


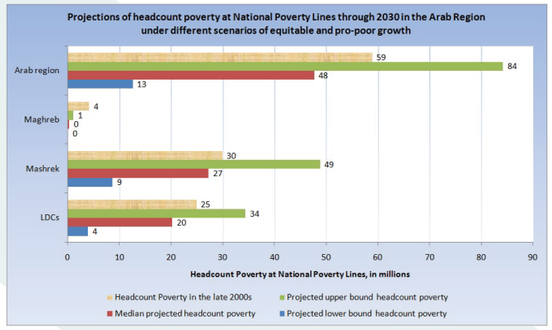
As further shown in the below upper-panel figures, at a regional level and based on the 12 countries covered in these projections, the median headcount poverty ratios for extreme poverty and poverty at national poverty lines could reasonably lie at around 2.2% (or 8 million citizens) and 13% (or 48 millions) respectively, with the poor populations in 2030 according to both welfare thresholds split evenly between the Mashreq countries and the LDCs. These poverty rates are down from the respective 6.7% and 24.8% estimated in the 2000s for these countries. However, if growth and distributional developments as per each country's worst case scenarios materialize, the 2030 poverty rates and figures could well be twice as high: of the 370 million Arab citizens or so that will make up the populations of the 12 countries considered here in 2030, 19 million would be living in extreme poverty, and 84 million would be considered poor as per national poverty lines. [86]

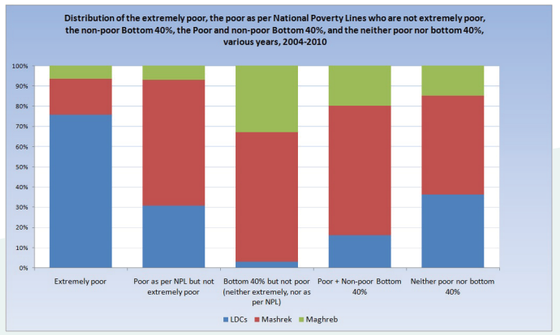
The lower-panel figures finally feature the shifting sub-regional geography of the distribution of the extremely poor, the poor at national poverty lines, and the non-poor B40 of the distribution in the 2000s as compared to the outcomes of a 2% pro-poor growth scenario with re-distribution to the B40 (which roughly coincides with median poverty outcomes over all the scenarios considered).[87] Two main developments can be noted: first, the extremely poor are found to reside proportionally more in the Mashreq and the Maghreb countries, taken together, in 2030; second a greater proportion of the poor at national poverty lines, and the non-poor B40 populations will be residing in the LDCs.
Examining such developments is important insofar as it leads to changing the target population of

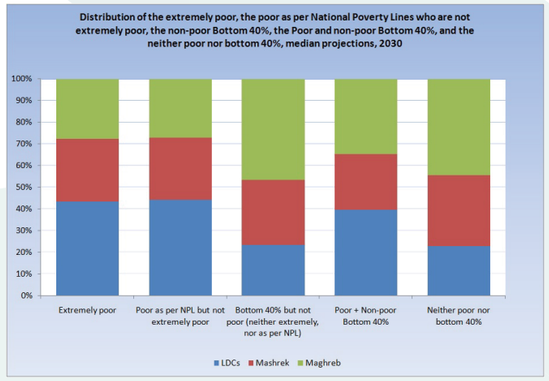
86 For the 2030 population figures, I use the medium variant of the World Population Prospects, the 2015 Revision provided by the United Nations Population Division.
87 For a similar investigation at a global level, see Beegle, K., P. Olinto, C. Sobrado, H. Uematsu, Y. S. Kim, and M. Ashwill, (2014), Ending Extreme Poverty and Promoting Shared Prosperity: Could There Be Trade-off Between These Two Goals?, Inequality in Focus, 3(1), World Bank.

international and regional development players. In the case of the Arab region, the risk is for these players' efforts to shift away from the LDCs. A closely associated concern is that those least populous countries which top the "high-hanging fruit" in the region, namely the Comoros and Djibouti, run the risk of being left behind, altogether.[88]









88 For some thoughts on the leaving no country behind question, see Chandy, L., (2017) No Country Left Behind: the Case for Focusing Greater Attention on The World's Poorest Countries, note, the Brookings Institution.

VIII. Conclusion

The "leaving no one behind" and the "reaching the furthest behind first" pledges underlying the 2030 Agenda for Sustainable Development don't leave much room to debate and interpretation: priority must be given to meeting, from a multidimensional perspective, the needs of the poorest of the poor.

In this document, taking a narrow perspective that builds on the monetary poverty and inequality SDG targets, I have revisited the main poverty, inequality and growth interlinkages in the 1990s and 2000s in the consistent setting offered by more than 40 standardised household surveys covering roughly three quarters of the Arab region population. Simulations through 2030 of selected favourable but realistic shared prosperity scenarios have given a sense of the importance of growth inclusiveness for achieving rapid income poverty and inequality reduction. Additionally, retrospective simulations covering the 1990s and 2000s have highlighted the immense missed human developmental opportunities that non-pro poor(est) policies led to. At least two important messages further stand out from this work: the importance of monitoring absolute inequality, next to the more widely used relative inequality measures in the literature; and the need to identify and implement those policy combinations that would best target the very bottom of the income distribution, to ensure that the poorest of the poor, those who suffer multiple, acute deprivations, are not left behind.

Notwithstanding the monetary perspective taken here, I have reminded on various occasions that advances on every single SDG target should endeavour to reach the further behind first. For instance, closely related to the reduction of the depth and breadth of poverty is the need to addressing multidimensional and intersecting inequalities, and multidimensional exclusions,[89] while building the resilience of the poorest and most vulnerable to climate change impacts and variability. From this perspective, we need to increase our understanding and monitoring of transitions in multidimensional poverty and deprivations, as well of the extent to which multidimensional poverty reduction policies we implement are pro-poorest. [90]

Multidimensionality is in effect a defining feature of an "indivisible" 2030 Agenda, and operationally, a successful implementation of its various programmatic pillars has to be done along many "multiples". In broad terms, as encapsulated in the shared prosperity concept, there is a need for socially inclusive, ecologically sustainable, broad-based economic growth[91] that ensures the poorest segments of the population contribute to and benefit from that growth, most notably through increasing their access to productive assets, finance, and decent employment. These are only some of the high priority areas highlighted for instance by the Report of the Secretary-General on the strategies for eradicating poverty ahead of the United Nations fifty-fifth session of the Commission for Social Development.[92]

Additionally, of high relevance to the poverty reduction agenda and to addressing multidimensional inequalities and exclusions, and widely bypassed in debates and forums in the Arab region to be insistently reminded here,[93] is the need for 1) adequate context-dependent multi-level governance, particularly of the commons and of natural resources; 2) multi-scale spatial and integrated landscape planning with a view to advancing rural territorial development and fostering inclusive, green rural-urban linkages in the context of high urbanisation trends; 3) cross-sectoral, nexus policy-making and planning;[94] and 4) multi-stakeholder engagement and participation facilitated by the localisation of the SDGs, appropriate administrative and fiscal decentralisation, and the mainstreaming of the SDGs in local development plans, to cite a few of these multiples conceptualised in the literature.

Identifying those left behind in the Arab region remains the most daunting challenge however. Governments indeed "do not adequately know their own people",[95] particularly the poorest, the most deprived and the most marginalised, who make up that "missing millions" category in most need for targeted interventions. Selectively, this category includes nomads and pastoralists, and substantive parts of rural populations more generally; slum dwellers; refugees and internally-displaced populations; and populations in conflict areas, who are typically underrepresented in household surveys sampling frames, and partly not covered by censuses. The identification of those who are multidimensionally poor and excluded has to combine the populations and communities belonging to the above sub-groups, to other multiple socio-demographic markers like age, sex, disability, race, ethnicity, origin, religion, or migration.

The equation is complex, in an Arab region at the origin of the worst global refugee crisis since World War II,[96] a region which further suffers from one of the most "acute" data deprivation as per international comparisons.[97] What we know for sure is that growth inclusiveness and shared prosperity are essential components of the solution.

89 On the latter see UNDESA, (2016), Leaving no one behind: the imperative of inclusive development, Report on the World Social Situation 2016, ST/ESA/362.

90 See Alkire, S., Roche, J.M., and Vaz, A. (2017). "Changes Over Time in Multidimensional Poverty: Methodology and Results for 34 Countries", World Development, Vol. 94, pp. 232–249.Suppa, N. (2017). "Transitions in poverty and deprivations: An analysis of multidimensionalpoverty dynamics." OPHI Working Paper 109, University of Oxford.

91 Which perhaps encapsulates the multiple dimensions of sustainable development.

92 See United Nations Commission for Social Development, Fifty-fifth session, 2017, Strategies for Eradicating Poverty to Achieve Sustainable Development for All, Report of the Secretary-General, E/CN.5/2017/5 . Page 18 for example reads that "High priority areas include promoting structural transformation; inclusive and pro-poor growth; the creation of decent employment; investing in education and health; agriculture and rural development; infrastructure development; empowering people; and providing universal social protection. Investments in these areas should be complimented by combating rising inequality and fostering an enabling international environment, including the provision of official development assistance, strengthening public institutions and making them more transparent and inclusive, creating broad policy coalitions and fostering policy coherence and integration."

93 This mainly refers to spatial inequalities. For a review of the recent spatial inequalities literature in the Arab Region see Milbach-Bouché, N., (2015), Perspectives on Inequality Challenges in the Arab Region, Issues Brief prepared for the Arab Sustainable Development Report.

94 For a review of the various conceptualisations of nexus thinking in the literature see El Costa, D., (2015), Conceptual Frameworks for Understanding the Water, Energy and Food Security Nexus, Working Paper, UNESCWA. See also El Costa, D., (2015), An Overview of Conceptual Frameworks for Understanding the Water-Energy-Food Security Nexus, presentation, Expert Group Meeting on the Water, Energy, Food Security Nexus in the Arab Region, Amman, Jordan, 24-25 March 2015.

95 See Carr-Hill, R. (2013), Missing millions and measuring development progress, World Development 46: 30-44;
Elizabeth, S., Samman, E. William Avis and Berliner, T. (2015), The data revolution Finding the missing millions, Report, Overseas Development Institute.; and Lucci, P., Bhatkal, T. and Khan, A. (2016), Are we underestimating urban poverty?, Report, Overseas Development Institute.

96 See Internal Displacement Monitoring Center, United Nations High Commissioner for Refugees; notably http://reporting.unhcr.org/sites/default/files/pdfsummaries/GA2017-MiddleEast-eng.pdf

97 See Serajuddin, U., Uematsu,H. Wieser, C., Yoshida, N. and Dabalen, A., (2015). "Data Deprivation: Another Deprivation to End." Policy Research Working Paper No. 7252. World Bank, Washington, DC.