

The myth of the global middle class, globalization's fallback success story

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Abstract: On the defensive in recent years throughout the developed world, advocates of globalization have moved toward highlighting a triumphalist record in developing countries, where globalization has supposedly pulled the majority out of poverty and catapulted them toward the swelling "global middle class" remaking our world. This article provides a critical look at this interpretation. Carefully reviewing the global income distribution data behind such claims, it presents original calculations demonstrating new stylized facts for the globalization era. More broadly, it argues for a more socio-historical approach that is better situated to discover the dynamics of class formation in our time.

1. Introduction

The last few years have seen growing discussion of a purportedly new and dynamic "global middle class." Over half the world will be middle class by 2030, according to a recent report by the United Nations Development Programme (2013: 14). *The Economist* (2009), for its part, claims we're already there, thanks to "today's new bourgeoisie of some 2.5 billion people" across the developing world that has burst upon the scene since 1990. A more recent Brookings Institution report places the figure at 3.2 billion at the end of 2016 (Kharas 2017), while an older OECD report (Kharas 2010: 35) was even more enthusiastic, postulating that India – currently one of the poorest countries on earth – could find more than 90 percent of its population joining this "global middle class" within 30 years, from around 5 or 10 percent today.

The novel and far-reaching nature of these claims of a global middle class among media

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and policy institutions comes at a time when the discussion across the West concerning the gains and losses of globalization had begun to take a turn toward the position of the “skeptics” (Rodrik 2008; Wade 2009). With mounting evidence of sluggish economic performance and growing inequality across the developed world, leading institutions that have long promoted the globalization project in its neoliberal form have acknowledged that the shared prosperity promised to all has largely failed to materialize, and internal voices have even endorsed key aspects of the skeptical position, up to considering the need for certain types of capital controls (Ostry, Loungani and Furceri 2016).

Yet, as the growing global middle class discourse indicates, the argument is far from won by the skeptics. This is the case not merely because their success in the intellectual discussion has thus far failed to translate into a significant rupture in terms of policy (Weisbrot 2016), but notably because the emergence of the global middle class casts into doubt the emerging skeptical consensus itself, as the unconvincing balance sheet of globalization in the West is placed into a wider relation with its purportedly considerable success across the developing world.

Thus, as can be readily seen in the press during recent election campaigns that pit the political center against left challengers of the globalization consensus, whether in the United States (Beauchamp 2016) or France (Hiault 2016), the notion of a “globalization tradeoff” (Steinbaum 2016) can be marshalled by the center to imply that those interested in substantially reforming the globalization project on behalf of Western living standards will harm the ongoing successes of poverty reduction and upward mobility in the rest of the world. The most recent joint report on trade policy by the IMF, World Bank and WTO (2017: 4, 43) makes much the same case. While acknowledging that “trade is leaving too many individuals and communities behind” in advanced countries, they nonetheless maintain the notion that “the overall empirical evidence is strong” that trade openness has promoted increased incomes and poverty reduction in developing countries over the past two decades.

But while the discussion in the press and policy institutions races ahead at an increasing pace, there are at the moment only a few academic studies that treat the global middle class phenomenon with the required rigor, nuance and skepticism that any new conceptual consensus deserves. This article therefore will add to such scholarly literature (Milanovic 2016; Koo 2016; Jayadev, Lahoti and Reddy 2015a) by providing an alternative understanding of the global income distribution of recent decades that privileges looking at social and historical processes

underpinning the breakup and reconsolidation of new social groups (that is, processes of class formation) and seeing how they relate to observed changes in global incomes. It is argued that such a perspective has much more potential in terms of understanding the real dynamic changes of the globalization era than the more common one of defining global “classes” based on abstract income trends.

In order to drive home the fundamental differences between the perspective advocated here and that found in the literature’s mainstream, the article is structured as follows. Section 2 will begin by providing an understanding of the dominant approach underpinning most of the above claims advanced by the media and policy institutions. After seeing that nearly the entire literature rests on fundamentally arbitrary income or consumption thresholds in order to set poverty and class lines in terms of international purchasing power parity (PPP) dollars, the third section provides original calculations on the terms of the literature itself that offer a closer look at the stylized facts across the developing world throughout the globalization era. While Section 3 therefore allows for a more nuanced and critical appreciation of the changes in “class” categories by the standards of the literature’s own PPP-based money-metric method, section 4 contends that the over-reliance on this money-metric method in the literature makes it more difficult to understand the real historical movements produced by the globalization era as concerns poverty and class formation. This sets the stage for section 5, which argues for a social-historical approach that provides an alternative understanding of the main trends perceived by the money-metric method, seeing depeasantization where the money-metric approach sees “poverty reduction” (crossing the \$2 PPP threshold) and full proletarianization where the money-metric approach sees a movement toward a new “middle class” (the \$10 PPP threshold). Such an emphasis on social-historical processes is recommended for future research, opening the way to a deeper comprehension of the social changes unleashed by globalization. The article concludes with a brief discussion of some more solid potential determinants of a “middle class society” where it is argued that anything resembling such a society has historically been built on the basis of a politically empowered labor movement, which is a far cry from the type of emerging country development path proposed by the defenders of the “globalization tradeoff” thesis of today.

2. The global middle class and global poverty: concepts and definitions

The first task in critically evaluating the claims concerning the global middle class is to clearly identify the conceptual and empirical bases of the concept in the literature. In a previous attempt to do so, Jayadev, Lahoti, and Reddy (2015b: 20) produced a typology of three distinct, contradictory and confounded understandings existent in the literature: “the global middle class as the middle of the global income distribution, the global middle class as a sociological category of people who enjoyed some level of common achievement of goods and services and the global middle class as consumers of an international basket of goods.” While such a typology is useful for certain purposes, all three approaches nonetheless share much in common; namely, an income or consumption-based understanding of middle class formation that attempts to place everyone in the world along a continuous income scale and find an appropriate dividing line to distinguish the middle from the rest. This commonality is fundamental not only in the literature’s approach to defining a global middle class, but also for defining other groups on a global scale, such as the “poor.”

Koo (2016) quite rightly notes that this global income distribution approach is notable for its lack of concern with typical sociological considerations concerning social class formation: the above definitions do not tell us anything about the economic-structural and occupational base of any potential global middle class, nor its educational or class reproduction practices, nor even its distinct consumption patterns excepting the very indirect sense in which the construction of a continuous global income distribution scale can be said to relate to consumption possibilities. Instead of pursuing these promising lines of research, the main focus of the various approaches in the literature concerns the question of what income-based threshold is most appropriate for delineating a family that is likely to be able to afford some of the conveniences and consumer items that the various researchers seem to have in mind when evoking the phrase “middle class.”

The literature has therefore focused much attention on point, which has reached an emerging consensus in recent years of \$10 per person per day in purchasing power parity (PPP) terms as the threshold for the “global middle class” (Kharas 2010; López-Calva and Ortiz-Juarez 2014; Pew Research Center 2015). Earlier work in the literature had employed different thresholds, most notably that of \$2 PPP per person per day (Banerjee and Duflo 2008; Ravallion 2010), which is right above what has been a World Bank global poverty line since 1991 (Narayan, Pritchett and Kapoor 2009: 103).

If \$2 PPP appears *prima facie* to be an outlandish middle class threshold, as such a dividing

line places escaping poverty and joining the “global middle class” as one and the same process, it is far from clear that the new consensus of \$10 PPP is more reasonable. In fact, \$10 PPP was not long ago proposed as the “upper bound” for global poverty (Pritchett 2006), a somewhat more plausible category than its more recent reincarnation as an entry point for middle class status. If we conceive of a \$10 PPP living standard as equivalent to a daily \$10 income in the United States, which is the intention, such an income would place someone in the United States at just one third of the census bureau’s poverty line, or one-eighth the income of a full-time minimum wage worker (Jayadev, Lahoti and Reddy 2015b: 12). Indeed, we should take pause from the fact that the same workforce at Apple contractor Foxconn’s Longhua factory in China, during the worker suicide wave in 2010 seen as the ultimate symbol of a neo-Victorian inhumanity underpinning globalized capitalism, can now be seen as part of the new “global middle class” following a doubling of wages to around \$3 per hour which places them above the \$10 PPP line, depending on their family situation (China Labor Watch 2015).

These examples help indicate the fundamentally arbitrary nature and the conceptual poverty of the \$PPP threshold approach to global class categories. Keeping these limitations in mind, however, it is also important to get a better sense of the major shifts taking place according to this approach, on its own terms. The following section does precisely that, allowing us to take a closer look at the evolution of the global income distribution throughout the globalization era in PPP terms, before moving toward a deeper critique of these terms throughout the rest of the paper.

3. The global income distribution throughout the globalization era

Figure 1 provides an original histogram of the evolution of global income throughout the globalization era, that is, in 1991, 2001, and 2011 (see Data Appendix for country coverage, sources and method). The x-axis cuts off at \$25 PPP per day for clarity of presentation, as the portion of humanity above that threshold, around 11-13 percent, has remained roughly constant throughout the period and is not our concern in this article (see Table 1 below), itself a telling indication of the lack of substantial upward convergence registered throughout the globalization era.

Figure 1, the global income distribution, 1991–2011

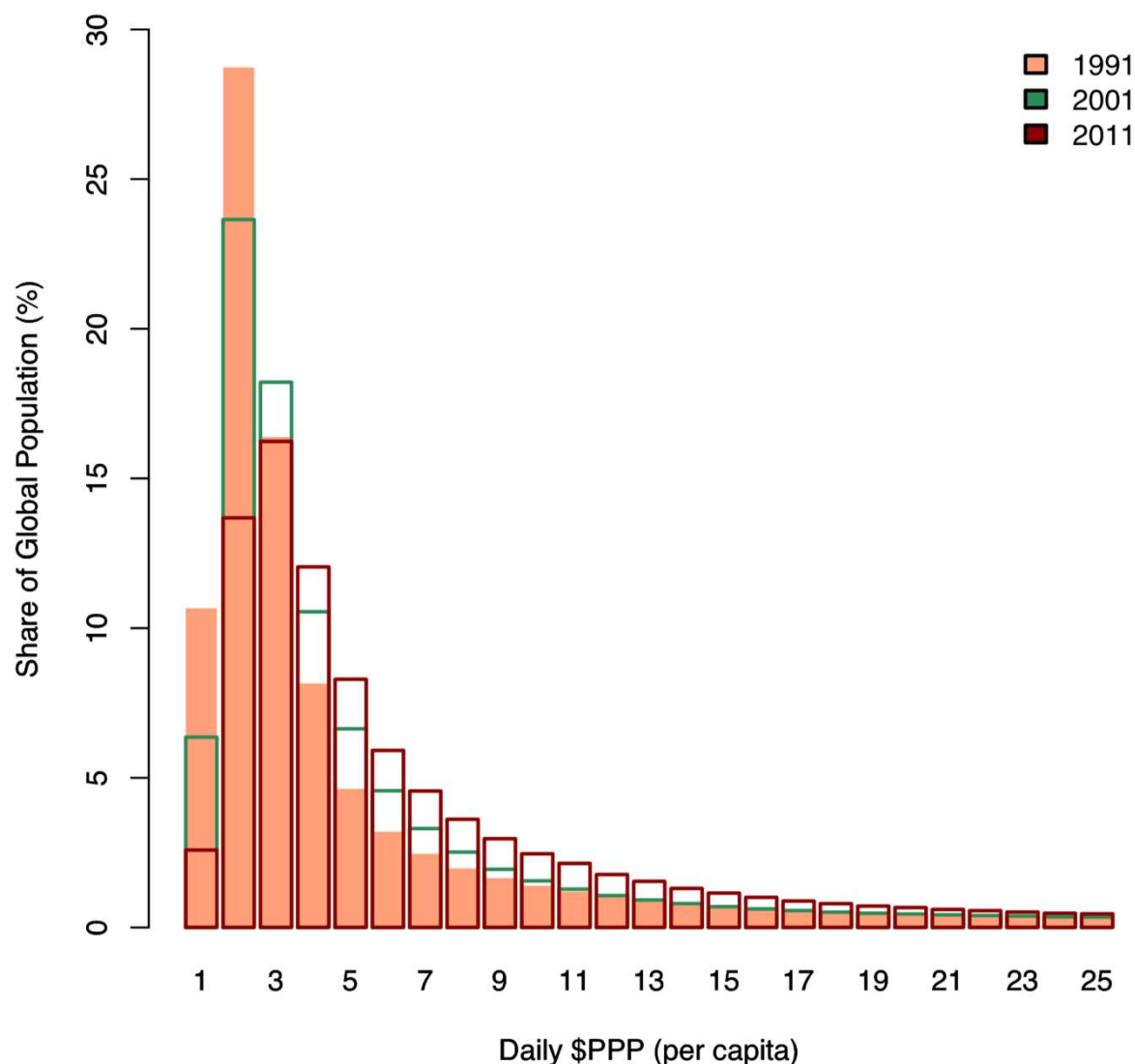


Figure 1 has an advantage over other similar figures seen in the literature (Milanovic 2016: 33; Jayadev, Lahoti and Reddy 2015a: 38) in that, by presenting the global income distribution data in histogram form, the changes between dollar intervals over the decades is more clearly seen. That said, it is also necessary to group together some of these intervals in order to present the data in a more parsimonious form, where the major changes can be seen with greater numerical accuracy. Table 1 presents such a grouping of intervals choosing thresholds that have some significance in the literature, chosen in order to facilitate a parsimonious presentation of the data and not out of any adherence to the concepts behind such thresholds or categories. The 50th, 75th and 90th percentiles of the distribution are also shown so that the evaluation of any

possibly emerging middle class doesn't depend solely on the categories chosen to present the data.

Table 1. Global income distribution, 1991-2011

(SCORES ARE PERCENTAGES EXCEPT WHERE INDICATED)		1991	2001	2011
BELOW \$2 (“POVERTY”)		39.4	30.01	16.27
\$2-4 (“VULNERABLE”)		24.54	28.76	28.28
\$4-10 (“STRUGGLERS”)		15.29	20.51	27.8
\$10-20 (“MIDDLE CLASS”)		7.4	7.36	11.94
ABOVE \$25 (“SECURE”)		11.36	11.47	13.11
50TH PERCENTILE (IN \$PPP PER DAY)		2.56	3.13	4.61
75TH PERCENTILE (IN \$PPP PER DAY)		7.37	7.65	11.26
90TH PERCENTILE (IN \$PPP PER DAY)		29.05	29.74	33.78
POPULATION (IN MILLIONS)		4,715	5,536	6,235

The most striking change observed from the data, both in Figure 1 and Table 1, is the strong and continuous reduction of the portion of humanity below \$2 PPP per day. The reduction under \$2 has a corresponding increase among those between \$2 and \$4 (considered “vulnerable” to slipping back below the \$2 poverty line” [Mubila et al. 2011]) and among the “strugglers” (a concept defined by Birdsall et al. [2014: 132] for the \$4-\$10 category, that is “not poor by international standards but not yet part of the income-secure middle class.”) These cutoff points and corresponding labels are of course relatively arbitrary, and indeed the data could be presented in other ways. Not shown in table 1, for example, the dispersion of those crossing the \$2 threshold throughout the 20-year period is more heavily concentrated among those between \$2 and \$6 (from 32.36% in 1991 to 42.49% in 2011) than it is among the increase between \$6 and \$10 (from 7.47% in 1991 to 13.59% in 2011). As concerns the “global middle class” concept

for those above \$10 per day, there is no increase in this group throughout the 1990s, so the increase from around 7.5 to 12 percent of humanity in this category takes place entirely in the 2000s.ⁱ

**Table 2. Global income distribution
without China, 1991-2011**

(SCORES ARE PERCENTAGES EXCEPT WHERE INDICATED)	1991	2001	2011
BELOW \$2 ("POVERTY")	29.84	26.86	16.03
\$2-4 ("VULNERABLE")	24.22	26.92	28.45
\$4-7 (LOW "STRUGGLERS")	12.12	13.69	17.04
\$7-10 (HIGH "STRUGGLERS")	6.41	6.48	7.85
\$10-20 ("MIDDLE CLASS")	9.73	8.79	11.54
ABOVE \$25 ("SECURE")	15.02	14.87	16.16
50TH PERCENTILE (IN \$PPP PER DAY)	3.45	3.55	4.66
75TH PERCENTILE (IN \$PPP PER DAY)	11.62	10.68	13.53
90TH PERCENTILE (IN \$PPP PER DAY)	38.26	39.07	41.97
POPULATION (IN MILLIONS)	3,564	4,264	4,890

The overall picture, therefore, is rather underwhelming. Beyond the percentages crossing the various cutoff points, any increase in the global median and the percentiles provided above it can be seen as basically a phenomenon of the 2000s, as virtually no progress was made in this respect in the 1990s. A glance at Table 2, the world without China, also shows that the already rather modest increases of the 2000s nearly entirely disappear when China is excluded.

This same situation is seen in Table 3 below which allows for a more precise look at the

Table 3: Global income distribution, 1991-2011, by region

	CHINA			EAST ASIA			LATIN AMERICA			SOUTH ASIA			AFRICA		
(SCORES ARE PERCENTAGES EXCEPT WHERE INDICATED)	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011
BELOW \$2 ("POVERTY")	69.01	40.57	17.12	62.18	38.82	16.14	16.39	15.68	6.52	48.91	41.06	21.25	61.34	55.39	43.53
\$2-4 ("VULNERABLE")	25.51	34.93	25.15	27.76	35.24	29.66	22.07	20.83	13.46	40.31	44.05	51.21	22.7	26.65	33.34
\$4-10 ("STRUGGLERS")	5.27	21.64	38.38	8.31	21.68	37.88	37	35.64	35.66	9.82	13.2	24.27	12.39	13.97	18.25
\$10-20 ("MIDDLE CLASS")	0.18	2.55	13.39	1.24	3.46	12.53	16.4	16.98	26.21	0.81	1.35	2.61	2.45	2.9	3.38
ABOVE \$25 ("SECURE")	0.01	0.07	4.54	0.33	0.4	2.31	5.4	7.71	12.78	0.07	0.2	0.39	0.76	0.71	1.05
50TH PERCENTILE (IN \$PPP PER DAY)	1.51	2.36	4.48	1.65	2.43	4.36	5.27	5.65	8.76	2.03	2.24	2.91	1.55	1.79	2.26
75TH PERCENTILE (IN \$PPP PER DAY)	2.24	3.95	7.96	2.55	4.1	7.72	9.88	10.92	16.02	2.87	3.21	4.18	2.88	3.16	3.66
90TH PERCENTILE (IN \$PPP PER DAY)	3.26	6.16	12.7	4.01	6.7	12.76	17.89	21.08	28.99	4.11	4.73	6.22	5.45	5.86	6.6
POPULATION (IN MILLIONS)	1,151	1,272	1,344	1,556	1,751	1,890	426	503	573	1,144	1,390	1,623	399	542	709

geographical determinants of the overall changes in the global income distribution, by separating the main geographical regions across the developing world.

The main change observed in Table 1, the striking reduction of those living on less than \$2 per day, is confirmed as a broad-based trend across all regions of the developing world, though most dramatic in China and East Asia. Section 5 will discuss this global trend in the social context of depeasantization taking place across the entire developing world. Regarding the rest of the changes, there is significant variation by continent. South Asia and Africa have not managed to convert the reduction of those living below \$2 per day into a significant increase in a middle class or even among the upper range of the “strugglers” category (their 75th and even 90th percentiles remain in the \$4-\$6 range). In this part of the world, there is little basis in the statistics for a discussion of a rising global middle class even on the literature’s own terms.

In East Asia and Latin America, the situation is different. These regions have contributed to the growth in the “global middle class” category. This increase has already been seen to come primarily from China, which comprises 70 percent of East Asia’s population (see also Jayadev, Lahoti and Reddy [2015a: 18-19] which confirms this finding). More will be said in section 5 below concerning the Chinese exception in a global context of depeasantization and distinct trajectories of proletarianization seen throughout other regions.

A word will be said here, however, about the Latin American case, which is unique from all other continental trajectories on the global income distribution because the 75th percentile started the period with an income just below \$10 PPP, while the percentage at the beginning of the period below \$2 PPP is dramatically less than all other regions (Table 3). These facts reflect a far greater historical level of urbanization and urban-based economic activity in its more populous countries than seen elsewhere in Africa and Asia (Kay 2000: 132) and render the movements around the \$10 PPP threshold in the income distribution in that continent less directly comparable to other continental trajectories discussed in section 5 below. For example, the gains seen in the 2000s in crossing the \$10 PPP threshold from around the 60th to the 75th percentile are not as dramatic as the increases seen in East Asia, and the corresponding social dynamics of such increases are not directly comparable.

Unlike other regions, therefore, Latin America will not be considered in below sections explaining the reflections in the global income distribution statistics of depeasantization and divergent trajectories of proletarianization (for a more detailed discussion of the shifts in the

Latin American income growth and distribution in this period, see Lustig et al. 2013). Nonetheless, it should be briefly noted here that the Latin American developments are consistent with the arguments advanced in section 5 below. For example, another “lost decade” of the neoliberal 1990s is seen very clearly for the region in Table 3, and the rebound and gains in the 2000s can be explained less through globalization dynamics than through the tide of redistribution-oriented policies pursued by governments throughout much of the continent with the aid of the 2000s commodities boom itself partially linked to Chinese growth (Gallagher 2016). This can be seen in Tables 2 and 3 of the appendix demonstrating the more impressive push above \$15 PPP for the 75th percentile in the main redistributionist oriented countries compared to more economically orthodox Mexico, though even Mexico pursued a conditional cash transfer program targeting the rural poor similar to that of the redistributionist governments and therefore saw some redistributive gains and a reduction of the relative abundance in supply of unskilled labor, consistent with the argument advanced in section 5 below (Lustig et al. 2013: 138).

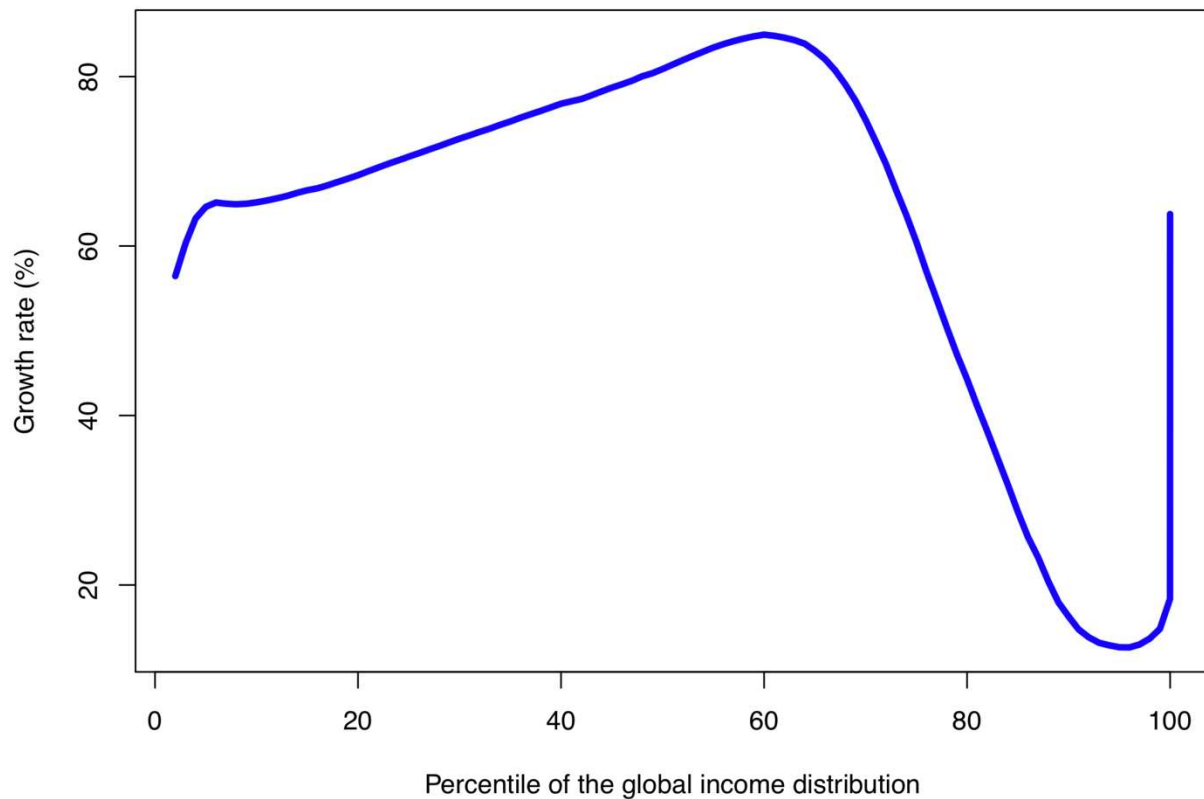
To summarize the overall data, then, the “global middle class,” according to the standard methods and concepts in the literature itself, is substantially a phenomenon of the 2000s, spurred by the peak years of Chinese growth and a corresponding commodity boom that, under the leadership of redistributive and progressive governments to varying degrees, benefited the popular classes in Latin America. Neither of these phenomena, however, are sure to continue into the following decade (Gallagher 2016). Moreover, outside of East Asia and Latin America, the other major developing regions were unable to convert the broadly-based reduction of the \$2 per day poverty metric into anything resembling a middle class trajectory, instead swelling the ranks of the “vulnerable” and the lower end of the “strugglers” category. These, then, are the main changes observed in the money-metric approach of the global income distribution that need to be explained from the perspective of the overall dynamics of social change throughout the different developing regions, to which we turn in Section 5.

Does focusing on relative income gains change this picture?

Before concluding the section, however, a word should be said concerning relative gains along the same global income distribution. The data presented in this section have thus far been concerned with absolute income gains, in order to specify the driving forces of the emerging

“global middle class” as conceived by the literature. Yet relative gains have also received much attention in the broader press, specifically due to Lakner and Milanovic’s (2014b: 31) famous “elephant chart,” declared “the chart of the year” by Paul Krugman in 2015. Figure 2 recreates the chart for the period considered in this section, showing the rate of income growth for each percentile of the global income distribution between 1991 and 2011.ⁱⁱ

Figure 2: Global growth rate incidence curve, 1991–2011



From such an optic, Milanovic refers to the portion between the 40th and 60th percentile of the global income distribution as the “winners” of globalization and as the “global middle class,” due to their capturing the highest relative gains (relative to their starting point) throughout the globalization era, often more than doubling their income over a 20-year period (Milanovic 2016: 19). It is this interpretation of the chart that has taken on a life of its own in the press, evoking the notion of a global middle class among media otherwise unfamiliar with the literature’s concepts and definitions discussed above (Kawa 2016). This is despite the fact that Milanovic himself is careful to note that the seemingly thriving middle in this chart is not the

global middle class of \$10+ PPP per day, but rather roughly corresponds to those between \$4 and \$6 PPP per day in Figure 1, people around the middle of the income distribution in Asian countries such as China, India, Thailand, Vietnam and Indonesia (Milanovic 2016: 19-29).

Is this group really “winning” from the social changes produced by globalization? No perfectly objective answer can be provided. Milanovic, to his credit, considers the question from various angles, including by demonstrating that the group, by definition 20 percent of humanity, have only managed to receive around 12-13 percent of the total global income gains of the globalization era, while the wealthiest 10 percent (those that do not even appear in Figure 1 above) pocketed 68 percent of the gains (Milanovic 2016: 24-25). In other words, the only angle through which such a “middle” group can be considered “winners” of globalization is on account of relative income gains owing to their low starting point.

4. The questions not asked through the global income distribution approach

More substantially, though, the problem with all such approaches is that the use of relative gain or absolute gain PPP-based statistics on their own are not capable of making sense of the real social trends of the globalization era. This is because movements along an abstract income distribution axis, constructed on the basis of an even more abstract money-metric indicator, typically do not lead to asking more profound questions concerning the social nature of the changes underlying the statistical movements. Lakner and Milanovic provide an indication of this shortcoming when they opine that, although their winning group in the middle of the distribution is not yet middle class, it would surely become so, making a global middle class a reality, if such relative income movements seen in Figure 2 are to “continue for a couple of decades” (Lakner and Milanovic 2014a).

But before projecting abstract PPP-based trends into the future, it is important to know what social changes are underlying such trends in the present. What does it mean, for example, to double an income near the global median from around \$2 to \$4 per day, or, on the lower end of the distribution, to “move out of poverty” from, say, \$1.30 to \$2.20 over a 20-year period? Does it put someone on the path toward becoming “middle class” in any meaningful way? What basis is there to expect that such changes are indicative of a new normal rate of income growth likely to reproduce itself into the future, more than they are indicative of a one and done process

of historical social change, such as the class formation of a new international proletariat, for example, or the ongoing depeasantization of much of the developing country's rural population?

This is not to say that the construction of a global income distribution based on a PPP money-metric is necessarily an illegitimate one depending on the purpose for which it is done. But not only are there considerable issues of potential measurement imprecision surrounding this money-metric approach (see a brief discussion in the appendix for more on this point), but when such issues are added to the theoretically thin basis of selection of class thresholds (seen in section 2) and the continued extreme concentration of the global income distribution toward the lower end of the \$PPP per day axis (seen in section 3), it is clear that the dominant approach in the literature to producing claims concerning an emerging global middle class or global poverty reduction are on their own insufficient. Without asking broader questions about the real social changes that are behind the statistical evolution, there is an inherent risk of such an approach producing an overarching narrative based on statistical noise instead of one based on social analysis – as, for example, Hobsbawm (1987: Chapter 2) has noted the trend among economic historians to deny the very existence of the “long depression” of the late 19th century, against the overwhelming understanding of businessmen, farmers, labor leaders, economists, and commentators at the time. In order to advance the discussion in the literature and encourage it to go further in this direction, therefore, the following section seeks to highlight two important social changes, depeasantization and varying trajectories of proletarianization, that have swept the developing world in recent decades and can help make more sense of the changes seen in the global income distribution statistics.

5. Depeasantization and distinctive paths of proletarianization

However imprecise, all of the PPP data is surely not a mere statistical mirage. Especially toward the lower end of the global income distribution, the slight growth in income, including most notably the hundreds of millions that have crossed the \$2 PPP threshold, surely represents a real social trend. But in order to understand what the underlying trend is, there must first be a sense of who the individuals are that are crossing the different thresholds, what groups or social classes they represent in their individual countries and what the likely outcomes may be of the trajectory of social change of which they are a part. Such an answer must account for the two distinct trajectories observed in Section 3 above – that of South Asia and Africa on the one hand,

where there is a reduction of the number living below \$2 per day but no corresponding movement toward or above the \$10 threshold, and that of East Asia and Latin America on the other, where the 2000s decade witnessed a relatively broad-based increase toward and beyond the \$10 threshold in addition to the more general phenomenon of reducing the fraction below \$2 per day. A comprehensive answer to this question is, of course, beyond the scope of any single article. Nonetheless, this section offers tentative leads that can be further confirmed or nuanced in fruitful avenues of future research, especially of the kind that concretely matches shifts along the global income distribution in different continents with their corresponding sociological conceptions of social class as outlined by Koo (2016). We will start from the general phenomenon that all regions have in common, that is the reduction of those beneath \$2 per day. From there we will see how the distinctive forms taken by this general historical process can also help account for the observed differences in continental trajectories.

Depeasantization as “poverty reduction,” or crossing the \$2 PPP threshold

Already in 1994, Eric Hobsbawm (1994: 289) issued his well-known and portentous judgment: “the most dramatic and far-reaching social change of the second half of this century, and the one which cuts us off forever from the world of the past, is the death of the peasantry.” Rarely, however, is it remarked upon that the globalization era’s sweeping imposition of depeasantization throughout the developing world correlates so well in time with the major fall in the portion of humanity under \$2 PPP per day, or what is known as “poverty reduction” among the policy institutions.

Although statistics are not typically collected with such questions in mind, existing evidence supports the contention that a majority of people living on less than \$2 PPP per day are subsistence farmers in rural poverty (Lipton 2013: 4; World Bank 2008: 59-78). Such a general picture is supported by particular cross-country studies of those on less than \$2 PPP, which show that this category of rural poor tend to have larger family units, greater access to land, and a higher likelihood of being self-employed in agriculture than those above this threshold (Banerjee and Duflo 2007, 2008; Thurlow, Resnick and Ubogu 2015). The point of departure, therefore, for understanding the impressive fall among the portion of humanity living on less than \$2 PPP during the globalization era must be an understanding of what is happening to subsistence

farmers throughout the countryside of the developing world.

An outline of this answer will be provided in two parts, separating developments in China from the rest of the developing world. As alluded to in the previous section, this is done not solely because China accounts for such a sizeable part of the reduction of the global portion living under \$2 PPP (compare Table 1 and Table 2), but also because the dynamics of depeasantization in China are fundamentally different to those around the rest of the developing world, with profound implications for the likelihood of those crossing the \$2 PPP threshold finding themselves on a trajectory toward higher or lower locations in the global income distribution.

“Market led agrarian reform,” or depeasantization and a growing relative surplus population

The principal story throughout the neoliberal era concerning subsistence farmers has been one of “market led agrarian reform,” involving a pervasive commodification of rural life. While many have cautioned against seeing “any uniform or linear route to an inevitable destination” regarding agrarian transitions (Bernstein 2001: 39), it is nonetheless a palpable reality to note that forms of capitalist transformation have been increasingly imposed on former subsistence farmers. The substantive impact has come in three main forms: either through outright dispossession often linked to an agro-export sector that draws land and labor from the former subsistence sector, or through market imperatives forcing those that maintain some type of access to land to either sell more of their product on the market or to engage in supplemental rural wage labor on other farms in order to gain access to the increasingly necessary cash economy (Akram-Lohdi and Kay 2010: 271-274).

It is interesting to note that all three types of rural capitalist transformation that have accelerated under neoliberalism are likely to result in greater access to the cash economy, and therefore may result in the families or communities in question crossing the \$2 threshold under the terms of PPP statistics. Those that leave altogether a relationship to the land pass from semi- to complete proletarianization, but typically of a highly precarious nature often through migration to urban centers (Kay 2016: 404-405). In many cases, such a process of enclosure and precarious proletarianization will lead to overall falls in the \$2 PPP poverty count. This can be seen from a cross-country study of urban centers in sub-Saharan Africa, where migrants (the vast

majority from the same country) make up an average of 38.9 percent of the 11 urban centers in the study. The informal sector accounts for the large majority of jobs, while the rate of underemployment (hourly pay below the minimum wage) is between 50-75 percent for the cities as a whole (Roubaud 2013 p. 38-39, 57, 72-73). Focusing on which of these particular 11 countries reduced \$2 per day poverty as opposed to \$1 per day poverty misses the forest for the trees, that is it misses the fundamental singularity of the dynamic historical process in favor of a reification of abstractions. In Africa as a whole, there was a significant reduction of the portion of society below the \$2 PPP threshold (Table 3). Yet the most significant aspect of market-led agrarian reform is not this type of “poverty reduction,” but rather the transformation of the peasantry into a relative surplus population (which could be considered among the “stagnant” layer of a reserve army of labor without much hope of future incorporation into its active component [Bellamy Foster et al. 2011: 9-10]). As such, it finds itself unable to consolidate into the type of active workforce that would be capable of organizing as a class and exerting upward pressure on wages and labor rights.

The point here, of course, is not to romanticize life as a subsistence farmer in rural poverty. Rather, the point is that if the historical pressures that break up such communities are not able to lead to their active absorption by the capitalist sector, it is not at all clear that their gains registered in petty income have been able to compensate for the historic loss of land. It is, however, crystal clear that such income gains do not represent any movement toward something that could be considered middle class, let alone some new trajectory of cumulative doubling of income every decade. Crossing the \$2 threshold in a social-historical process of class recomposition is one thing, but sustaining income gains of the type observed higher up the global income distribution continuum requires a very different historical dynamic, namely the consolidation of an active workforce as opposed to a swelling surplus population, as seen above all in the case of China.

The Chinese exception, or the case of state-directed labor flows

A closing word must be said about China, not only because it is the chief driver of the seeming increase toward and above the \$10 PPP threshold in the 2000s, as seen in Section 3, but because its successes in this regard can be linked to the significantly different dynamics of depeasantization in China compared to the rest of the developing world, which produced a

favorable conjuncture for the newly consolidated Chinese proletariat to experience significant wage gains during the late 2000s.

These gains have indeed been substantial, including a tripling or indeed nearly quadrupling of average migrant worker wages during the decade from 2004-2014 (Wildau 2015), starting from very low levels, and more than a quadrupling of urban workers' incomes in registered establishments in a similar period (Song 2017: 222 – the majority of migrant workers in urban areas still work without formal registration [Solinger 2014: 146-147])). There has been a temptation among the international institutions to regard this significant shift as driven by a demographic transition toward the “Lewis turning point” (Das and N'Diaye 2013) following China's pre-2000s decades long development with frozen wage levels (Solinger 2014: 147) as a result of an unlimited supply of rural labor that acted as a continuous check preventing urban wages from increasing along with rising productivity. Once the growth of the capitalist sector absorbs all the potential rural surplus labor, precisely what has been prevented in other countries by the dynamics of market-led agrarian reform considered above, Lewis argued that wages would begin to rise according to more orthodox economic expectations (Lewis 1954).

Does this perspective explain the evolution of Chinese wages, and implicitly, offer a more optimistic perspective for other countries that may also one day reach a turning point when the demographics are right? Critical scholars have identified this demographic focus as highly misleading (Hung 2016; Majerowicz 2016). It is true that labor shortages have been widely reported in developmental coastal zones in China, first appearing around the manufacturing hub of the Pearl River Delta around 2004, subsequently spreading to the Yangtze River Delta, throughout the coastal area and even to central China (Song 2017: 226). A 2011 survey of 117 cities found a very tight labor market across all skill levels, with the shortage being more pronounced for higher skill labor, which also saw its wages increase at a faster pace (Song 2017: 229-231). Yet, in sharp contrast to the demographically focused turning point argument, the most remarkable fact about Chinese labor shortages is that they paradoxically exist alongside a shockingly high potential agricultural surplus population, estimated at around 100 to 150 million in size (226-227). In other words, more than 100 million laborers could be removed from agricultural production without affecting output levels; it is therefore not merely demographic but rather social variables that must explain why this period of labor “shortages” and rising wages has not been drowned out by the appearance of still unlimited labor supplies in urban

areas.

The key non-demographic factors producing this paradox of an urban labor shortage amidst an ongoing potential rural surplus population include not only the *hukou* registration system that makes access to essential urban services difficult for rural born migrants, but also the significant mid-2000s shift in state agricultural policy favoring higher prices for rural output, the provision of agricultural subsidies and rural infrastructure investment (Elfstrom and Kuruvilla 2014: 459; Friedman 2013: 300; Solinger 2014: 150; Chan 2014: 694; Song 2017: 222-227). Both of these factors speak to the specificity of the legacy of Chinese socialism and the unique ability the Chinese state possesses in terms of directing labor flows. Most importantly, the historic prohibition on peasants buying and selling land as private property means that a majority of rural-born inhabitants into the 2000s had not lost their access to the land (Zhang 2015); and although the marketization of land use rights began in the 1990s and other dispossession pressures have increased pace in the 2000s (Lee 2016: 322-324), the urban-biased takeoff of capitalist development in China was not accompanied by nearly the same degree of widespread dispossession and swelling of a relative surplus population as produced elsewhere in the developing world by market-led agrarian reform (Zhang 2015). Instead, throughout the pre-2003 era of intense wage repression, agricultural incomes were deliberately curtailed through policy (through state-influenced prices for agricultural output as well as the state financial and taxation system) and the labor surplus migrating to cities was managed, to keep wages in check to be sure but was nonetheless largely able to form into an active workforce rather than an unemployed surplus population. (This was in part due to China's unique pole of attraction for global manufacturing investment in these years, itself a function of this deliberate policy of severe wage repression [Hung 2016: 71-74; World Bank 2013: 25]).

This specificity of the Chinese socialist legacy meant that when the government decided to change rural policy around 2003, it not only had a unique ability to set agricultural prices but also that this change had a unique impact on the rural population, since the majority of the peasantry had never lost access to the land and become a floating surplus population as elsewhere. Indeed, the rise in rural wages was more or less immediate, increasing from 2003 onwards (Song 2017: 222).

In other words, the paradox of an urban labor shortage along with a huge potential rural reserve of labor emerged in the late 2000s as a unique and temporary situation with relatively

favorable conditions for the Chinese proletariat, which seems to have seized upon this opportunity and pushed hard to further improve their situation. While statistics on strike action and other forms of labor contestation are notoriously difficult to obtain in China, estimates nonetheless indicate that both have seen a substantial uptick in the mid-2000s through to the early 2010s, and of a more offensive and demanding nature than in previous decades (Friedman 2013: 299; Elfstrom and Kuruvilla 2014: 455, 465). Such actions have also continued to increase despite the shift away from a pro-capital to a more balanced attempt at institutionalization of managing labor unrest by the state (Friedman 2013), annual minimum wage hikes by provinces in the years surrounding 2010 often greater than the overall growth rate (though problems of enforcement remain [Lee 2016: 326; Chan and Selden 2014: 264]), and, significantly, an overall situation of very high turnover as workers feel relatively more free to leave jobs that don't meet their expectations (Chan and Selden 2014: 263; Elfstrom and Kuruvilla 2014: 468). It would be very difficult to imagine such developments in a context marked by direct competition between the urban workforce and the hundred million strong potential rural surplus. All this is evidence that the unique and temporary labor shortage situation of the late 2000s and early 2010s has provided the overall context which helped boost the living standards of a considerable section of the Chinese working class.

Nonetheless, one should not exaggerate what Lee (2016) calls the growing “empowerment [of labor] thesis.” A brief, partial and long overdue improvement in living standards after decades of intense wage suppression certainly does not place China's new working class on any perceptible trajectory of becoming middle class by Chinese standards, let alone by global ones. Nor does it indicate that this recent pace of wage growth is sustainable, as the challenges of the new Chinese leadership in managing the recent slowdown of reduced growth and debt overhang has already led to freezes in minimum wage hikes in various provinces beginning in 2013 (Hung 2016: 166; Bloomberg 2016), and increasingly capitalist inroads in rural social relations pressuring toward a more open dispossession of much of the countryside threaten to add to the ranks of a potentially larger relative surplus population in the future (Lee 2016: 322-324; Majerowicz 2016: 119). In short, China's successes in raising living standards in the late 2000s, while real and impressive by standards of the far more stagnant performance in much of the rest of the world, remain of a fragile nature, of highly dubious replicability in other regions, and still a far cry from anything that could be sociologically

described as middle class.

6. Conclusion: what really produces a middle-class society?

The main conclusion to take from this article is that it is misleading, at best, to judge the globalization era through looking at abstract PPP statistics instead of trying to understand the dynamics of social and historical change producing them. Indeed, it is argued that using such PPP statistics to construct a myth of a “global middle class as a singular category” disconnected from relevant socio-historical processes of class formation is largely promoted, as Koo (2016: 442) notes, for “larger political and ideological purposes” by those who would like to contend that globalization has had very beneficial effects for the global South in an era where the balance sheet is seen increasingly skeptically in the global North.

In contrast to this approach, we reviewed the most striking changes of the PPP-based global income distribution throughout the globalization era, and highlighted two distinct trajectories of social change that, though not exhaustive concerning overall changes throughout the developing world, significantly aid in making sense of them: the process of market-led agrarian reform throughout the developing world, and the East Asian, particularly Chinese, exception. The crucial difference between the two trajectories concerns whether capitalist industry is able to consolidate an active workforce from migrant labor, facilitating the possibility of a more favorable conjuncture for labor to experience wage gains (broadly speaking, the Chinese case), or whether the destruction of peasant livelihoods outpaces industrial capacity and results principally in a swelling of a relative surplus population rather than an active workforce (the case throughout South Asia and Africa). The Latin American case, not considered in detail in this article, combines features of both trajectories, but its successes throughout the 2000s (especially contrasted with the disastrous decade of the 1990s) could also be considered a result of successful labor organizing, as popular movements and progressive governments enacted a relatively pro-social agenda on the basis of the commodity windfall itself linked to Chinese growth (Gallagher 2016).

What the more successful regions, principally China and Latin America in the 2000s, have in common, then, is that shifts toward and above the \$10 PPP threshold that have been amply noticed by the mainstream literature were both associated with a conjuncture featuring a relatively empowered situation for labor. While the ability to sustain such gains into the future is

very questionable in both cases, and in neither case do the gains lead toward anything resembling middle class societies at the moment, it is nonetheless striking that the only regions with some noticeable gains beyond very low PPP levels in the globalization period were largely reserved to regions with such a relatively favorable conjuncture for labor. Not coincidentally, the sustained relative social empowerment of labor has historically been the key factor behind broad-based social development of the kind that actually has produced societies with large and dynamic middle-classes, such as post-war Europe (Selwyn 2015). This relative empowerment of labor, which is nourished by a reduction and damaged by a swelling of the ranks of the reserve army of labor (especially the relative surplus population seen among its lower layers), is what is missing from most discussions of a potential global middle class. This absence is especially glaring in media discussions that tend to portray upward mobility as a natural consequence of a type of globalization that seeks to minimize rather than strengthen the political power of labor. As the evidence reviewed here demonstrates, however, far from producing a global middle class, the main income transformations produced by this type of globalization reflect a one-off process of depeasantization that, even if not necessarily immiserating in absolute terms, has more in common with the notion of “poverty reduction through dispossession” (Ravnborg and Gómez 2015) than it does with any sustainable trajectory toward a middle-class society.

We conclude this article, therefore, with a call to the burgeoning literature on the global income distribution to take up and deepen the approach outlined in this article. Globalization may not be producing anything resembling a global middle class, but it has produced major social changes on a scale never before witnessed in human history. The global income distribution approach does potentially have much to offer in terms of revealing the complexity of these changes, but in order to do so, greater attention and resources should be devoted to deepening our knowledge of the socio-historical changes underpinning the new realities of class formation and how they relate to the observed changes in global incomes. Instead of, or in addition to, constructing groups according to income thresholds, or national/global based deciles, ventiles or percentiles, more research should start from the other end, identifying national and global groups based on similarities in class formation and then attempting to trace such trajectories through the global income distribution. Such an agenda is an ambitious one, requiring changes up to and including the collection of data itself – as the typical household surveys upon which global income distributions are constructed do not provide sufficient

information to locate groups in historical processes of social transformation – but it is also the most promising means of understanding the real transformations of our time.

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ENDNOTES

ⁱ The \$10-\$20 range was used for the middle class category, following the Pew Research Center (2015). There is less consensus in the literature on the upper limit threshold of the “global middle class” than there is for the \$10 PPP lower limit (see Jayadev, Lahoti and Reddy [2015: 5] for a summary). It should be noted that the change in the portion of humanity between \$20 and \$25 PPP day (from 2 percent in 1991 to 2.6 percent in 2011) is comparatively negligible, as is the increase of those above \$20 PPP in general (from 13.37 percent in 1991 to 15.71 percent in 2011).

ⁱⁱ Figure 2 is not an identical reproduction of the Lakner and Milanovic chart, as it uses percentile averages rather than ventile averages in addition to using different source data (see the Data Appendix) and different starting and ending years.

Data appendix

The notion that the world's population can be arranged along a continuous axis according to a common metric, based on PPP conversions of consumption or income levels, is referred to as a “money-metric” approach by Reddy and Pogge (2005: 5). As we saw in the previous section, the actual distribution is heavily concentrated along the lower end, with even the new supposed “middle class” remaining concentrated narrowly above the \$10 PPP threshold. The question naturally emerges therefore as to whether the measurement itself is sufficiently precise to capture a meaningful difference in the lives of individuals and families that fall on the different sides of the chosen thresholds.

While there are various sources of concern about the reliability of PPP measurements (see Deaton and Aten 2014), the most serious limitation of the approach is that the same PPP converter is both calculated and applied across an entire country's population without distinguishing between the very different consumption patterns of the poor, for example, versus wealthier individuals in the country, the prices of whose consumption goods may be totally irrelevant for the poor despite potentially entering into PPP calculations. For this reason, Reddy and Pogge (2005: 12) note that “whether a household in India lives in absolute poverty by the \$1 PPP per day standard cannot reasonably depend on information about Japanese real estate prices, but under the current methodology of poverty assessment it may.” They suspect that such a use of an overly abstract money-metric measure may not just produce large measurement errors, but that these errors will likely be in the direction of systematically overstating incomes among the developing country poor, though others disagree with the latter contention (Ravallion 2010).

The question remains an open one. Starting in the 2005 round, “poverty-specific” PPPs were developed by the Asian Development Bank for a handful of Asian countries, and neither these estimates (Himanshu 2008) nor later poverty-specific calculations by Deaton and Dupriez (2011) resulted in a higher poverty count. Yet thus far, such a discussion remains concentrated on the issue of poverty and the poverty line and not the impact on other dividing lines, for example that of \$10 PPP. Furthermore, the development of a global distribution of income along a continuous axis through using PPP converters has yet to make use of poverty-specific PPPs (Lakner and Milanovic 2014: 10-11), making the impact of the potential bias of the abstract money-metric measure unknown at this level.

Methodology for Section 3 of the Paper

With these caveats to be kept in mind, the methodology followed for constructing the global income distribution figures and tables displayed in Section 3 of the paper follows that of the Pew Research Center's 2015 study (Kochhar 2015), with the difference that I took data for the years from 1991-2011 whereas the Pew study only covered the years from 2001 to 2011. Other than this difference, the Pew methodology was followed in combining the microdata provided by the Luxembourg Income Study (LIS) (for the countries listed in the OECD region in Appendix Table 1 below) with the data provided by the World Bank's PovcalNet database (for countries in all other regions). Other researchers (Hellebrandt and Mauro 2015) have also combined these precise two datasets for similar purposes, and more generally the combination of income with consumption data is standard in the literature (Lakner and Milanovic 2014 – for a different approach see Jayadev, Lahoti and Reddy 2015).

The main data adjustments made in the Pew study and detailed in Kochhar (2015) were also adopted in this article. These are as follows: transforming nearby survey years to the benchmark year through an assumed annual rate of change equal to 70 percent of the change in real household consumption expenditures; individualizing the LIS data (provided at the level of households) before dividing the population into 10,000 equal sized groups for the purposes of compatibility with the PovcalNet data; and transforming the local currency units (in LIS data) or the 2005 PPP units (in the PovcalNet data) into \$PPP using the 2011 ICP convertors (for LIS data this process includes converting no longer existent European currencies into Euros where necessary before using the 2011 ICP convertors).

Appendix Table 1 provides the full list of the countries included in the dataset for the years 1991, 2001, and 2011, by region, displaying the year of the underlying survey as well as whether it provides income or consumption data.

Appendix Table 1: Full list of countries used to calculate the global income distributions

Region	1991			2001			2011		
	Country	Survey year	Data type	Country	Survey year	Data type	Country	Survey year	Data type
Latin America	Argentina (urban only)	1991	Income	Argentina (urban only)	2001	Income	Argentina (urban only)	2010	Income
	Bolivia	1990	Income	Bolivia	2001	Income	Bolivia	2008	Income
	Brazil	1992	Income	Brazil	2001	Income	Brazil	2009	Income
	Chile	1992	Income	Chile	2000	Income	Chile	2009	Income
	Colombia	1992	Income	Colombia	2001	Income	Colombia	2010	Income
	Costa Rica	1991	Income	Costa	2001	Income	Costa Rica	2009	Income
	Dominican Republic	1992	Income	Dominican Republic	2001	Income	Dominican Republic	2010	Income
	Ecuador	1994	Income	Ecuador	2000	Income	Ecuador	2010	Income
	El Salvador	1991	Income	El Salvador	2001	Income	El Salvador	2009	Income
	Guatemala	1989	Income	Guatemala	2002	Income	Guatemala	2006	Income
	Honduras	1991	Income	Honduras	2001	Income	Honduras	2009	Income
	Mexico	1992	Consumption	Mexico	2002	Consumption	Mexico	2010	Consumption
	Nicaragua	1993	Consumption	Nicaragua	2001	Income	Nicaragua	2005	Consumption
	Panama	1991	Income	Panama	2001	Income	Panama	2010	Income
	Paraguay	1990	Income	Paraguay	2001	Income	Paraguay	2010	Income
	Peru	1994	Consumption	Peru	2001	Income	Peru	2010	Income
	Uruguay	1989	Income	Uruguay	2006	Income	Uruguay	2010	Income
	Venezuela	1992	Income	Venezuela	2001	Income	Venezuela	2006	Income
Sub-Saharan Africa	Burkina Faso	1994	Consumption	Angola	2000	Consumption	Angola	2008	Consumption
	Burundi	1992	Consumption	Burkina Faso	2003	Consumption	Burkina Faso	2009	Consumption
	Cameroun	1996	Consumption	Burundi	1998	Consumption	Burundi	2006	Consumption
	Central African Republic	1992	Consumption	Cameroun	2001	Consumption	Cameroun	2007	Consumption
	Ethiopia	1995	Consumption	Central African Republic	2003	Consumption	Central African Republic	2008	Consumption
	Ghana	1991	Consumption	Ethiopia	1999	Consumption	Ethiopia	2010	Consumption
	Guinea	1991	Consumption	Ghana	1998	Consumption	Ghana	2005	Consumption
	Ivory Coast	1993	Consumption	Guinea	2003	Consumption	Guinea	2007	Consumption
	Kenya	1992	Consumption	Ivory Coast	2002	Consumption	Ivory Coast	2008	Consumption
	Madagascar	1993	Consumption	Kenya	1997	Consumption	Kenya	2005	Consumption
	Malawi	1997	Consumption	Madagascar	2001	Consumption	Madagascar	2010	Consumption
	Mali	1994	Consumption	Malawi	2004	Consumption	Malawi	2010	Consumption
	Mauritania	1993	Consumption	Mali	2001	Consumption	Mali	2010	Consumption
	Mozambique	1996	Consumption	Mauritania	2000	Consumption	Mauritania	2008	Consumption
	Niger	1992	Consumption	Mozambique	2002	Consumption	Mozambique	2007	Consumption
	Nigeria	1992	Consumption	Niger	2005	Consumption	Niger	2007	Consumption
	Rwanda	1984	Consumption	Nigeria	2003	Consumption	Nigeria	2011	Consumption
	Senegal	1991	Consumption	Rwanda	2000	Consumption	Rwanda	2010	Consumption
	Sierra Leone	1989	Consumption	Senegal	2001	Consumption	Senegal	2011	Consumption
East Asia	South Africa	1993	Consumption	Seychelles	1999	Consumption	Seychelles	2006	Consumption
	Swaziland	1994	Consumption	Sierra Leone	2003	Consumption	Sierra Leone	2011	Consumption
	Tanzania	1991	Consumption	South Africa	2000	Consumption	South Africa	2008	Consumption
	Uganda	1992	Consumption	Swaziland	2000	Consumption	Swaziland	2009	Consumption
	Zambia	1991	Consumption	Tanzania	2004	Consumption	Tanzania	2007	Consumption
				Togo	2006	Consumption	Togo	2011	Consumption
				Uganda	1999	Consumption	Uganda	2009	Consumption
				Zambia	2002	Consumption	Zambia	2010	Consumption
	Cambodia	1994	Consumption	Cambodia	2004	Consumption	Cambodia	2009	Consumption
	China	1990	Consumption	China	1999	Consumption	China	2009	Consumption
	Indonesia	1990	Consumption	East Timor	2001	Consumption	East Timor	2007	Consumption
	Laos	1992	Consumption	Fiji	2002	Consumption	Fiji	2008	Consumption
	Malaysia	1992	Income	Indonesia	1999	Consumption	Indonesia	2010	Consumption
	Philippines	1991	Consumption	Laos	2002	Consumption	Laos	2008	Consumption
	Thailand	1992	Consumption	Malaysia	2004	Income	Malaysia	2009	Income
	Vietnam	1992	Consumption	Philippines	2000	Consumption	Philippines	2009	Consumption
				Thailand	2000	Consumption	Thailand	2010	Consumption
				Vietnam	2002	Consumption	Vietnam	2008	Consumption
South Asia	Bangladesh	1991	Consumption	Bangladesh	2000	Consumption	Bangladesh	2010	Consumption
	India	1993	Consumption	Bhutan	2003	Consumption	Bhutan	2012	Consumption
	Nepal	1995	Consumption	India	2004	Consumption	India	2009	Consumption
	Pakistan	1990	Consumption	Nepal	2003	Consumption	Nepal	2010	Consumption
	Sri Lanka	1990	Consumption	Pakistan	2001	Consumption	Pakistan	2007	Consumption
				Sri Lanka	2002	Consumption	Sri Lanka	2009	Consumption
Middle East / North Africa	Egypt	1990	Consumption	Egypt	1999	Consumption	Egypt	2008	Consumption
	Iran	1994	Consumption	Iran	1998	Consumption	Iran	2005	Consumption
	Jordan	1992	Consumption	Jordan	2002	Consumption	Jordan	2010	Consumption
	Morocco	1990	Consumption	Morocco	2000	Consumption	Morocco	2007	Consumption
	Tunisia	1990	Consumption	Tunisia	2000	Consumption	Tunisia	2010	Consumption
Eastern Europe / Central Asia				Yemen	1998	Consumption	Yemen	2005	Consumption
	Albania	1996	Consumption	Albania	2002	Consumption	Albania	2008	Consumption
	Armenia	1996	Income	Armenia	2001	Consumption	Armenia	2010	Consumption
	Azerbaijan	1995	Consumption	Azerbaijan	2001	Consumption	Azerbaijan	2008	Consumption
	Belarus	1993	Income	Belarus	2001	Consumption	Belarus	2011	Consumption
	Bulgaria	1992	Income	Bosnia and Herzegovina	2001	Consumption	Bosnia and Herzegovina	2007	Consumption
	Georgia	1996	Consumption	Bulgaria	2001	Consumption	Bulgaria	2007	Consumption
	Hungary	1993	Income	Croatia	2001	Consumption	Croatia	2008	Consumption
	Kazakhstan	1993	Income	Georgia	2001	Consumption	Georgia	2010	Consumption
	Kyrgyz Republic	1993	Consumption	Hungary	2001	Consumption	Hungary	2007	Consumption
	Moldova	1992	Income	Kazakhstan	2001	Consumption	Kazakhstan	2009	Consumption
	Poland	1992	Consumption	Kyrgyz Republic	2002	Consumption	Kyrgyz Republic	2011	Consumption
	Romania	1992	Income	Latvia	2002	Consumption	Latvia	2009	Consumption
	Russia	1993	Consumption	Lithuania	2001	Consumption	Lithuania	2008	Consumption
	Turkey	1994	Consumption	Macedonia	2000	Consumption	Macedonia	2010	Consumption
	Ukraine	1992	Income	Moldova	2001	Consumption	Moldova	2010	Consumption
				Montenegro	2005	Consumption	Montenegro	2010	Consumption
				Poland	2001	Consumption	Poland	2011	Consumption
				Romania	2001	Consumption	Romania	2011	Consumption
				Russia	2001	Consumption	Russia	2009	Consumption
OECD				Serbia	2002	Consumption	Serbia	2010	Consumption
				Slovak Republic	2004	Consumption	Slovak Republic	2009	Consumption
				Tajikistan	1999	Consumption	Tajikistan	2009	Consumption
				Turkey	2002	Consumption	Turkey	2010	Consumption
				Ukraine	2002	Consumption	Ukraine	2010	Consumption
	Australia	1989	Income	Australia	2001	Income	Australia	2010	Income
	Canada	1991	Income	Canada	2000	Income	Canada	2010	Income
	Denmark	1992	Income	Czech Republic	2002	Income	Czech Republic	2010	Income
	Finland	1991	Income	Denmark	2000	Income	Denmark	2010	Income
	France	1989	Income	Estonia	2000	Income	Estonia	2010	Income
	Germany	1994	Income	Finland	2000	Income	Finland	2010	Income
	Greece	1995	Income	France	2000	Income	France	2010	Income
	Ireland	1994	Income	Germany	2000	Income	Germany	2010	Income
	Israel	1992	Income	Greece	2000	Income	Greece	2010	Income
	Italy	1991	Income	Ireland	2000	Income	Iceland	2010	Income
	Luxembourg	1991	Income	Israel	2001	Income	Ireland	2010	Income
	Netherlands	1990	Income	Italy	2000	Income	Israel	2010	Income
	Norway	1991	Income	Luxembourg	2000	Income	Italy	2010	Income
	Spain	1990	Income	Netherlands	1999	Income	Luxembourg	2010	Income
	Taiwan	1991	Income	Norway	2000	Income	Netherlands	2010	Income
	United Kingdom	1991	Income	Slovenia	1999	Income	Norway	2010	Income
	United States	1991	Income	Spain	2000	Income	Slovenia	2010	Income
				Taiwan	2000	Income	Spain	2010	Income
				United Kingdom	1999	Income	Taiwan	2010	Income
				United States	2000	Income	United Kingdom	2010	Income
							United States	2010	Income

The global growth incidence curve (Figure 2) was constructed on the basis of the same data, calculating the rate of change for each of the 100 percentiles of the global income distribution between 1991 and 2011. The chart starts showing the rate of change at the 2nd percentile rather than the first due to the skewed effects of some negative incomes reported in developed countries that do not give reliable results for an overall average of the poorest percentile. This problem does not exist in any other percentile. The chart also splits the final percentile between the 99th through the 99.99th percentile, and the super rich of the global 0.01th percentile, in order to demonstrate the more spectacular gains concentrated among the super rich. The resulting figure 2 does confirm both the elephant shape of the Lakner and Milanovic curve as well as the main trends seen in the Lakner and Milanovic chart, most importantly the range from around the 40th to the 70th percentile of the income distribution seeing the greatest rate of growth throughout the period.

Finally, below are Tables 2 and 3 of this appendix that demonstrate the contrasting performances from the more redistribution-oriented South American “pink tide” governments and more economically orthodox Mexico during the period, alluded to in Section 3 of the paper but not presented there due to space considerations:

Appendix Table 2. Income distribution, 1991-2011, for Argentina, Brazil, Bolivia, Ecuador and Venezuela

(SCORES ARE PERCENTAGES EXCEPT WHERE INDICATED)	1991	2001	2011
BELOW \$2 (“POVERTY”)	12.47	19.35	8.07
\$2-4 (“VULNERABLE”)	20.57	21.63	12.69
\$4-7 (LOW “STRUGGLERS”)	24.99	21.60	19.54
\$7-15 (HIGH “STRUGGLERS”)	27.85	23.09	31.58
ABOVE \$15 (“SECURE”)	14.08	14.29	28.08

50TH PERCENTILE (IN \$PPP PER DAY)	5.90	5.01	8.80
75TH PERCENTILE (IN \$PPP PER DAY)	10.49	9.87	16.34
90TH PERCENTILE (IN \$PPP PER DAY)	18.04	19.06	29.10
POPULATION (IN MILLIONS)	224	262	297

**Appendix Table 3. Mexican
income distribution, 1991-2011**

(SCORES ARE PERCENTAGES EXCEPT WHERE INDICATED)	1991	2001	2011
BELOW \$2 ("POVERTY")	13.33	11.21	3.06
\$2-4 ("VULNERABLE")	23.31	23.71	16.49
\$4-7 (LOW "STRUGGLERS")	24.74	26.02	24.49
\$7-15 (HIGH "STRUGGLERS")	25.66	26.80	35.52
ABOVE \$15 ("SECURE")	12.92	12.22	20.40
50TH PERCENTILE (IN \$PPP PER DAY)	5.42	5.55	7.86
75TH PERCENTILE (IN \$PPP PER DAY)	9.84	9.75	13.27
90TH PERCENTILE (IN \$PPP PER DAY)	17.40	16.75	22.08
POPULATION (IN MILLIONS)	87	104	120

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