

Cambridge Working Papers in Economics

"Has the income share of the middle and upper-middle been stable over time, or is its current homogeneity across the world the outcome of a process of convergence?

The 'Palma Ratio' revisited'

José Gabriel Palma

Has the income share of the middle and upper-middle been stable over time, or is its current homogeneity across the world the outcome of a process of convergence?

The 'Palma Ratio' revisited

José Gabriel Palma¹

Cambridge Working Papers in Economics (CWPE) 1437

Available at http://www.econ.cam.ac.uk/research/repec/cam/pdf/cwpe1437.pdf

Abstract: In an article published in Development and Change in 2011, I suggested an alternative measure of inequality to the Gini — a "19th Century statistic" — which has subsequently become known as the 'Palma Ratio'. In this new article, I revisit the argument for such a measure. Using new data, I examine whether the current remarkable homogeneity in the income share of the middle and upper-middle around the world — the foundation of the so-called 'Palma Ratio' — is an historically stable stylised fact, or whether it is a new phenomenon, the outcome of a process of convergence towards the current '50/50 Rule' (a state of affairs in which half of the population in each country located within deciles 5 to 9 tends to appropriate about 50 per cent of the national income). Although partly written in response to a comment on my 2011 paper, this article has evolved to become a further attempt at contributing to the literature on inequality and the statistics to measure it. As in my 2011 paper, in this one I also conclude that if we want to understand why inequality is so unequal across the world we have little choice but to keep reminding ourselves of what I believe to be the most crucial of all distributional stylisedfacts (highlighted by the sub-title of that article): "The share of the rich is what it's all about." The logic of the 'Palma Ratio' is precisely to emphasise this fact — as well as to draw attention to the increasingly artificial (i.e., self-constructed) foundations of growing inequality (as opposed to Piketty, I believe that 'r' is currently so much greater than 'g' as a direct result of human agency, and not as a supposed inevitable outcome of the workings of the invisible hand...). And if one not only wants to understand why inequality is so unequal across the world, but also get closer to understanding why growth is also so diverse, what we should write in our noticeboards is: "It's all about the share of the rich, and what they do with it". This is particularly important to understand if we really want to do something about inequality (and growth), because as someone rightly said long ago, philosophers have only interpreted the world in various ways; the point now is to change it.

Key words: income distribution; inequality; 'Palma Ratio'; homogeneous middle and upper-middle; convergence; institutional persistence; ideology; neo-liberalism; 'new left'; Latin America; Africa; Brazil; Chile; South Africa; United States.

JEL classifications: D31, E11, E22, E24, E25, I32, J31, N16, N30, N36, O50, P16.

A shortened version of this paper will be published in Development and Change 45(6)

¹ Faculty of Economics, Cambridge University. Also, Facultad de Administración y Economía, Universidad de Santiago. Stephanie Blankenburg, Ha-Joon Chang, Alex Cobham, Jonathan DiJohn, Juliano Fiori, Jorge Friedman, Jayati Ghosh, Javier Nuñez, Emily Hogan, Pamela Jervis, Mushtaq Khan, Guillermo Paraje, Carlota Pérez, Ashwani Saith, Paul Segal, Joseph Stiglitz, Andy Sumner, Bob Sutcliffe, Robert Wade and Nimrod Zalk have made very useful contributions to my work in this area. Participants at many conferences and seminars, and current and former PhD students also made very helpful suggestions. The usual caveats apply.

Introduction

One of the greatest challenges of economic theory today is to help us understand why inequality is so unequal across the world. No matter what measurement of inequality is used, what one finds is that different political settlements and economic structures provide a remarkably wide variety of distributional outcomes across the world. Although this is a rather well-known fact, once you really start thinking about it, it becomes difficult to think about anything else. It is not surprising, then, that Ricardo said that the study of the distribution of income among the classes that contribute to the process of production (workers, capitalists and rentiers) is what economics is really about.

In an article published in *Development and* Change in 2011 (Palma, 2011), I suggested that the key to understand why inequality is so unequal across the world is to keep reminding ourselves of what I believe to be the most fundamental of all distributional stylised-facts (highlighted by the sub-title of that article): "It's all about the share of the rich" — and in terms of the relationship between inequality and growth: "It's all about the share of the rich, and what they do with it"²

As this proposition contradicts most mainstream economic analyses of inequality (and growth), it is perhaps not surprising that it provoked a great deal of controversy. One critic, Tim Hazledine, wrote an article for *Development and Change* arguing against what he misunderstood to be an important aspect of my 2011 paper.³ The editors of the journal invited a response (see Section 2 below). However in doing this, I fell into the temptation to also update the data (from c. 2005 in my 2011 paper, to c. 2012 in this; see Section 1), and to look properly at the empirical evidence available so far regarding a possible convergence over time towards the '50/50 rule'⁴ — a subject I could not analyse in my 2011 (already too long) paper — see Section 3.

Hazledine's aim is to criticise my supposed hypothesis that (in his words) "income distribution has become a struggle between the top and the bottom..., with the middle classes chugging along unaffected underneath it all". He talks of "Palma's intriguing proposition that changes in the overall income distribution are basically the result of a battle of the extremes, from which the middle "administrative classes" have somehow managed to *insulate* themselves" (emphasis added, as 'insulate' is the keyword of Hazledine's confusion regarding my ideas). As far as I know, of all the people that have commented on, criticised, or contributed to the issues raised in my 2011 paper, he is the only one to conclude this. Hazledine's mistake relates to two facts: first, he seems to believe that one can extrapolate mechanically from the 'homogeneity in the middle and

² On the latter, see Palma (2014).

³ See Hazledine (2014).

 $^{^4}$ According to what I call 'the 50/50 rule', the half of the population in each country located within deciles 5 to 9 — the middle and upper-middle groups, what in institutional economics sometimes is refer as the "administrative classes" — tends to appropriate about 50 per cent of the national income (or just above).

⁵ For a far more successful attempt at analysing the possible stability in time of the homogeneity in the middle and upper-middle, see Cobham and Sumner (2013c).

upper-middle' at one point in time (c. 2005 in my 2011 paper, c. 2012 in this) — i.e., a proposition made explicitly for current events — to a supposed time-series (constancy) phenomenon. Second, he automatically assumes that if it were the case that the share of the middle and upper-middle had been relatively constant over time, that would necessarily imply that these groups are "insulated" from the distributional struggle — as opposed to their having fought hard and successfully to achieve this. At the same time, he also believes (wrongly) that I am only talking about 'the middle' of the distribution rather than the middle and *upper-middle* (the latter being a group where the homogeneity across countries is even more remarkable). Finally, his statistics are unable to prove his point (i.e. to contradict what he wrongly assumes I had supposedly said). Ultimately, then, he ends up constructing a straw man with my ideas, only to shoot at it with blanks.

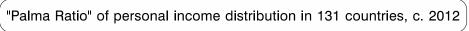
For the sake of clarity, I need to start with a brief summary of what I actually said in my 2011 paper; I will use this opportunity to update the statistics of that paper (see the Appendix for the sources of the data used here).

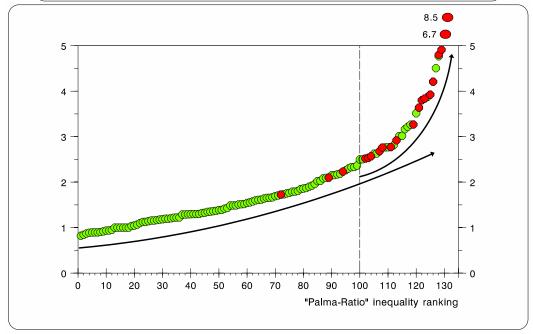
- 1.- A brief summary of what I actually said regarding the homogeneity in the "middle and upper middle".
- 1.1 Introducing what has become known as the "Palma Ratio"

Figure 1 shows the inequality ranking across the world using what Alex Cobham and Andy Sumner have named 'the Palma Ratio'.⁶

⁶ The statistic I suggested in Palma (2011) was first called the 'Palma Ratio' in Cobham and Sumner (2013a and 2013b); see also Fisher (2013, especially the brilliant animation at the end of the article); Fisher (2014: Map 7); and Green (2012). In my 2011 article — given the homogeneity in the middle and upper-middle — I suggested as an alternative to the Gini the use of an inequality statistic that simply indicates the ratio of the income share of the top 10 per cent over that of the bottom 40 per cent. However, the logic of this statistic rests on the other 50 per cent of the population (the middle and upper-middle groups) having a relative homogeneous share of income across the world — i.e., 'the 50/50 rule'. This new statistic has two aims: one is to measure inequality where inequality is located; the other is to construct a statistic that is intuitive, transparent and useful for policy purposes — i.e., one that would avoid all the unnecessary (and often counterproductive) algebraic 'sophistication' of alternative inequality statistics. According to Sen, for example, the Theil "is an arbitrary formula, and the average of the logarithms of the reciprocals of income shares weighted by income shares is not a measure that is exactly overflowing with intuitive sense" (Sen, 1973: 36).

FIGURE 1





- Highlighted countries are those of Latin America and (mineral rich, middle-income) Southern Africa. The last two—literally are off the chart (Namibia, 6.7, and South Africa, 8.5).
- For the sources of the data for this figure (and the following six), see Appendix.

Among the countless issues arising from this graph, three stand out. First, it confirms the huge range of inequality across countries c. 2012 — in this case, from a 'Palma Ratio' of 0.8 (Slovenia and Norway) to one of 8.5 (South Africa). Second, middle-income (mineral-rich) Southern Africa and Latin America are clearly grouped at the very top end of the inequality ranking. Finally, the ranking increases relatively slowly at first, and almost linearly, only to switch gear when Latin American countries enter *en masse* (around ranking 100) — and then increases rapidly and geometrically. Had the earlier 'steady pace' continued in the last quarter of the sample, the most unequal country in the world today would have posted a 'Palma Ratio' of about 3, rather than one that is nearly three times as high.

1.2 - Inequality and income per capita

The next issue I raised in my 2011 paper is that when one analyses income distribution across countries in the traditional way — i.e., vis-à-vis income per capita — it becomes immediately evident that there is a huge distributional diversity among middle and high-

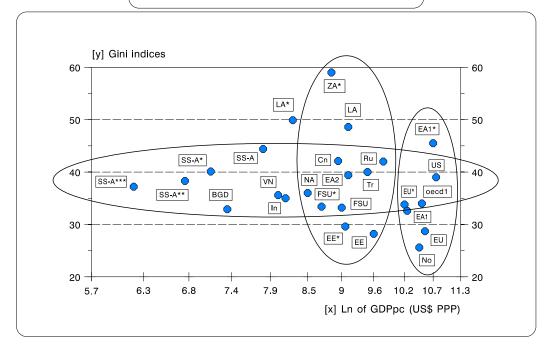
If one uses the World Bank-WDI dataset (instead of the OECD's one), South Africa's 'Palma Ratio' falls to (the still astonishing) level of 7.1.

⁸ The three Latin American countries ranked below 100 are Venezuela (72), Argentina (89) and Uruguay (94); however, in the first two, due to high and strongly repressed inflation, it must be a great challenge for statisticians to process household surveys properly, and also to estimate implicit values for subsidies, etc.

income countries. This is shown in Figure 2 (where I return to the Gini).9

FIGURE 2

Gini indices and log of income pc, c. 2012



- In the case of regions, the statistic used to measure centrality is the median (except for mineral-rich, middle income Southern Africa, which is represented by South Africa). BGD=Bangladesh; Cn=China; EA1=Korea and Taiwan; EA1*=Hong Kong and Singapore; EA2=Indonesia, Malaysia and Thailand; EE*= Eastern Europe with an income per capita below US\$15,000; EE=those above that level; EU*=Mediterranean EU; EU=rest of Continental Europe; FSU*=Former Soviet Union with an income per capita below US\$10,000; FSU=those above that level (excluding Russia); In=India; LA*= Latin America with an income per capita below US\$8,000; LA= those above that level; NA=North Africa; No=Nordic countries; OECD-1=Anglophone OECD (excluding the US); Ru=Russia; SS-A***=Sub-Saharan Africa with an income per capita below US\$650; SS-A**=those between US\$650 and US\$1,000; SS-A*= those between US\$1,000 and US\$2,000; SS-A=those above that level; Tr=Turkey; US=United States; VN=Vietnam; and ZA=South Africa (ZA*=the actual value for ZA in this graph is 65.4). Unless otherwise stated, these acronyms will be used throughout the paper.
- **GDP pc**=Expenditure-side real GDP per capita (PPPs) in 2011, based on PWT8.0. Unless otherwise stated, throughout the paper 'US\$' will refer to this source.

Although the horizontal ellipse of Figure 2 seems to indicate that the great majority of the regions/countries of the world have today, on average, a relatively similar income distribution (around, or just below, a Gini of 40), there are still large disparities in distributional outcome among middle and high-income countries (see vertical ellipses). Furthermore, the latest data coming out of the World Bank (the World Development Indicators, WDI) also indicate an increasing distributional diversity among low-income sub-Saharan African countries (from Mali and Burundi, with a 'Palma Ratio' of 1.3, to Zambia with one of 4.8).

Figure 2 also casts some doubt on the perspective of the traditional Kuznets'

 $^{^{9}}$ I only do this to avoid looking too much like a door-to-door salesperson for my ratio! For a criticism of the Gini — a " 19^{th} Century statistic" — see Cobham and Sumner (2013c). See also OECD (2013), especially Shepherd (2013).

hypothesis, since among middle-income regions/countries one now finds almost *every possible distributional outcome*. Therefore, the logic of the 'Inverted-U' seems to have evaporated — and with it, the phoney excuse for higher inequality in middle-income countries: that somehow "things have to get worse before they can get better".

Among middle-income countries, there are two clear outliers. One is Eastern Europe (both EE and EE*), with lower levels of inequality — although in many of these countries, oligarchs are doing their best to change this. The other is Latin America (both LA and LA*) and (mineral-rich) middle-income Southern Africa, with extreme levels of inequality. In all probability, many countries of the oil-producing Middle East (for which there are no data) would share the inequality heights of these two regions.¹⁰

In this respect, one of the key questions I tried to address in my 2011 article (including its several appendices), as well as in Palma (2010), was why it is that while political oligarchies all over the world would be only too happy to appropriate such a high share of the national income, only those in Latin America and middle-income Southern Africa seem able to get away with it. Moreover, with the consolidation of democracy in most countries of these two regions, many economic and political institutions have changed (some significantly), but the narrow interests of the élite have not. In fact, the unique comparative advantage of the Latin American oligarchies lies precisely in their ability to use different institutions (sometimes quite astutely), and in being flexible enough to enlarge their membership (especially via co-opting political leaders of the democratic camp), to achieve their fairly immutable goals. Few oligarchies in the world have shown such skills in their struggle for the 'persistence of élites' despite significant institutional change. This brings us to the complex issue of 'persistence and change in institutions', and in particular to the so-called 'iron law of oligarchies' — i.e., how dysfunctional institutions are so effective in creating incentives for their own re-creation (Acemoglu and Robinson, 2006).

In the case of Chile, for example, a recent study on tax returns (López et al., 2013) shows that after 20 years since the return to democracy the top 1 per cent is still able to appropriate almost one third of all income (32.8 per cent), with the top 0.1 per cent getting nearly one-fifth (19.9 per cent), and the top 0.01 per cent (corresponding to individuals belonging to about only 300 families), getting more than one-tenth (11.5 per cent) of the total. Some would probably argue that there is nothing unexpected in these numbers given that they come from this magical-realist part of the world; however, what should be surprising is that income-distribution data from tax returns for high-income countries now indicate, in contrast to Marx's prediction, that in this neoliberal, globalised world it is the highly unequal middle-income countries (such as those in Latin America) that are showing the more advanced ones "the image of their own future". 11 Thus the income-share of the top 1 per cent in the US is trying to 'catch-up' rapidly with its Latin counterparts, jumping from 8.9 per cent of the total in the mid-1970s (and 9.9 per cent before Reagan), to 24 per cent just before the current financial crisis (it is now practically back to that level). In fact, the top 1 per cent in the US captured just over two-thirds of the overall economic growth of real incomes per family over the period 1993-2012. Furthermore, "the share of the top decile in 2012 was equal to 50.4% of overall income, a level that was higher than in any other year since 1917 — even surpassing 1928, the peak of the stock market bubble in the "roaring" 1920s" (Sáez, 2013).

¹⁰ Where some data are available, as in the case of Qatar, it is unlikely that household surveys would have included the fate of the relatively large numbers of South-Asian temporary migrant workers in the construction industry, or of migrant domestic servants.

¹¹ For example, it is not that the Latin American labour markets and other related institutions are evolving to look like those of developed countries, but the other way round!

In other words, in current globalised settings in terms of income distribution "convergence" seems to resemble a compass whose 'magnetic north' has shifted from aiming at what was going on in the more advance economies, to what has characterised the more unequal, more rent-seeking and politically more 'cosier' high-middle income ones.

From this perspective, it is unfortunate that those who have made some of the most important empirical contributions to our capacity to measure income distribution more accurately still insist in analysing it from the point of view of the (by now totally obsolete) standard neoclassical theory of income distribution (see Piketty, 2014), in which the only determinant that matters in the distribution of income is the link between the capital intensity of production and the share of profits in total output. Moreover, in this approach dating from the 1950s (when, as opposed to now, in order to make money one normally had to do something socially useful) the nature of this link depends on the elasticity of substitution between capital and labour. Since Piketty simply assumes that this elasticity is greater than unity, he concludes that a (supposed) increase in the capital-output ratio has led to an increase in the share of profits — and, as a result, of wealth-owners in national income. Therefore, he fails to allow for factors such as the role of "financialisation" and asset bubbles (including housing), or regressive taxation, or the increasing number of free-lunches that the rich get from governments. 12 As a result, he concludes, mistakenly, that the basic problem that has led to increased inequality is one of over-accumulation of capital, while all evidence indicates that the opposite is the case: there has been too little real investment in the US and Europe since the neoliberal reforms (see especially Rowthorn, 2014; see also Palma, 2009).

1.3 - Peering into the Gini

The third issue I address in my 2011 article is that the Gini, as a summary inequality statistic, is particularly obscure regarding what is happening 'inside' each country's distribution. This limitation of the Gini is particularly problematic as there are crucial benefits to focusing on dynamics *within* those distributions (see Figures 3 to 7).

_

¹² "Financialisation" includes, among other things, the rise in size and dominance of the financial sector relative to the non-financial sector, as well as the diversification towards financial activities in non-financial corporations. An indication of the latter is that, according to the IRS (The US's Internal Revenue Service), US non-financial corporations held US\$ 5 trillion in liquid assets worldwide at the time of the beginning of the current global financial crisis; and currently this trend is back as idle corporate cash continues to piles up as the top 5,100 non-financial corporations and private equity firms are sitting on a global cash mountain of \$7 trillion (which they prefer to divert to the global financial casino than to the real economy; see http://blogs.reuters.com/david-cay-johnston/2012/07/16/idle-corporate-cash-piles-up/; and http://www.businessinsider.com/the-worlds-biggest-companies-have-amassed-7-trillion-in-cash-2014-8).

FIGURE 3

Income shares of D10 and log of income pc, c. 2012

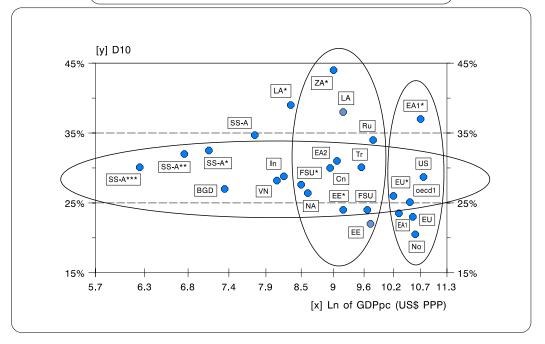
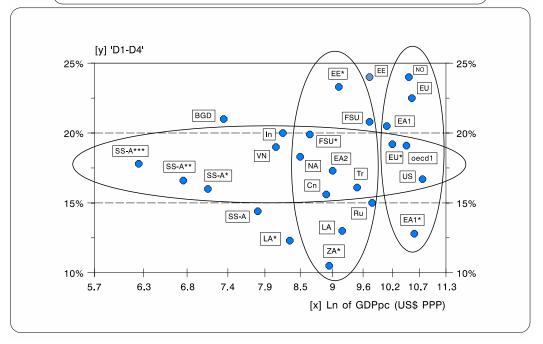


Figure 3 indicates a particularly close correlation between the distributional geography of the income-shares of D10 and that of the Ginis. In turn, Figure 4 shows that the regional distributional structure of the share of income of the bottom 40% (D1–D4) is the mirror image of that of D10 above — and of the Gini —, with Latin America and middle-income Southern Africa in a similarly iniquitous distributional world of their own (joined these days by Singapore and Hong Kong — see Figures 4).

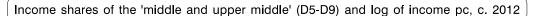
FIGURE 4

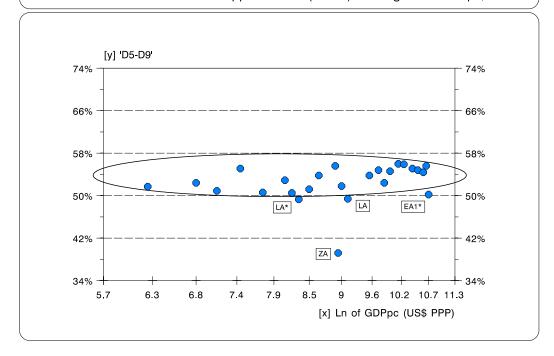
Income share of the bottom 40% and log of income pc, c. 2012



It is therefore clear that the Gini scene for regional inequality (Figure 2) reflects accurately the distributional disparities at both ends of the distribution (top 10 and bottom 40 per cent). But what about the rest, the other half of the population (D5-D9)? Figure 5 shows one of the key contributions made in my previous paper, and the main object of Hazledine's criticism: that the distributional picture changes completely when one looks at the 50 per cent of the world's population located in the 'middle and uppermiddle groups'. Now the distributional geometry suddenly changes from one of huge diversity (both ends of the distribution) to one of a remarkable similarity. Hazledine seems to want us to believe that this is just a fluke. See Figure 5.

FIGURE 5





Evidence from Figure 5 indicates two striking phenomena. One is the remarkable degree of homogeneity across countries/regions regarding the share of income that the middle and upper-middle classes are currently able to appropriate. The other is that no-one seems to have noticed this before my 2011 paper... This homogeneity in the middle and upper-middle is most prominent among rich countries — i.e., there is no diversity here (Hong Kong apart), in contrast to the huge diversity we found in the Gini and in the top and bottom deciles. Moreover, Eastern Europe (both EE and EE*) is no longer an outlier, and Latin America's median countries in both sub-groups (LA and LA*, currently at 49.4 per cent and 49.3 per cent, respectively) are about to join the '50/50 club' — whose members, the huge majority of countries in the world, are characterised by the fact that one specific half of the population, the middle and upper-middle groups included in D5-D9, get 50 per cent of the national income (or just over). Hong Kong is also nearly there (48.8 per cent), and Singapore already qualifies (51.8 per cent). Only South Africa, with Namibia, Zambia and most likely Botswana, are living entirely in a world of their own.¹³ The case of South Africa is particularly remarkable, as it has simultaneously the second lowest aggregate share for D5-D9 in the whole sample (Namibia is 'top 1') and the highest share in the world for one of the components of this D5-D9 group: its 'civilservice-crowded' D9.14

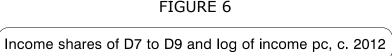
As is evident in Figure 5, the current high degree of homogeneity in this group

¹³ Unfortunately, the last reported data for Botswana refer to 1994, so it does not qualify for my sample (see Appendix). The only other countries with a low share for D5–D9 in the whole sample (say, below 47 per cent) are Rwanda, Central African Republic, Guatemala, Honduras and Chile.

¹⁴ As a result, after twenty years of democracy, the top quintal gets no less than 75 per cent of overall income. In this country the drop in income shares below D9 is so sharp that D8 already gets less than half the share of D9. For an analysis of this remarkable phenomenon, see Appendix 3 in my 2011 paper (Palma, 2011: 143–7).

(D5–D9) is reflected in the fact that its measures of central tendency are almost *identical*: the harmonic mean is 51.8 per cent, the average is 52.1 per cent, the median is 52.5 per cent and the mode is 52.6 per cent. In turn, the coefficients of variation of the top 10 per cent and bottom 40 per cent are almost four times higher than that of this group — an issue that Hazledine chooses to ignore. 15

As mentioned above, one of the problems in Hazledine's analysis is the apparent belief that one can extrapolate mechanically from this homogeneity in the middle and upper-middle *at one point in time* (in the case of the data here, c. 2012) to a supposed time-series event. Obviously, to translate one into the other is a complex phenomenon (more on this below). Furthermore, the current similarity in the income-shares of D5–D9 is even more remarkable in the 'upper-middle' 30 per cent of the population, D7–D9 (see Figure 6). This is another issue which Hazledine chooses to ignore completely, not even mentioning this group anywhere in his note — the most homogeneous (and stable in time) of them all.



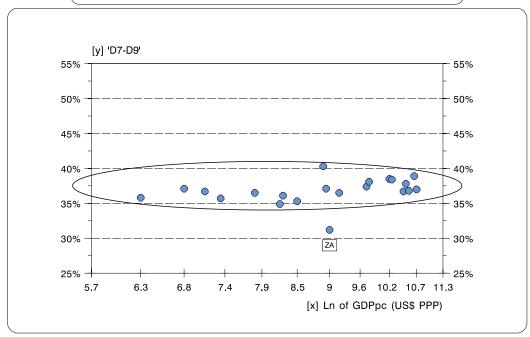


Figure 6 shows that for this 'upper-middle', the contemporary homogeneity across countries is even more extreme — even Latin America has already made it (both LA and LA*), and so has Hong Kong. Now the harmonic mean is 36.7 per cent, its average 36.8 per cent and its median is 36.9 per cent. And the coefficient of variation is just one-fifth of that of D10 and D1-D4 (just another twist of fate?). As I mention in the 2011 paper (and confirm here with data for c. 2012), it seems that a schoolteacher, a junior or

¹⁶ The only countries with a slightly higher share for this group are China (40.3 per cent; see graph), and Israel (40.4 per cent).

11

¹⁵ See Table 1 below. For the non-specialist, the harmonic mean is more appropriate for the average of ratios (it mitigates the impact of large outliers). It is calculated as the reciprocal of the arithmetic mean of the reciprocals.

mid-level civil servant, a young professional (other than economics graduates working in financial markets), a skilled worker, a middle-manager, or a taxi driver who owns his or her own car (London apart), all tend to earn at the moment the same income across the world — as long as their incomes are normalised by the income per capita of the respective country.

Unfortunately, there is no such homogeneity across the world for the income share of the top 10 per cent. If this were the case, at least for the Latin American oligarchies this would be analogous to communism! Basically, in middle-income countries with huge inequality, such as those in Latin America, the top 10 per cent has succeeded in a premature absolute 'catching up' with their counterparts in rich nations (see, e.g., Milanovic, 2010; Sutcliffe, 2001); meanwhile, the middle and upper-middle have also succeeded in this, but only in relative terms (shares in national income). The bottom 40 per cent, however, has a very long way to go, as their income per capita is more akin to that of low-income sub-Saharan Africa. As a result of this '3-speed' process of catching-up, in this type of so-called 'middle-income' countries only those groups in the middle and upper-middle could really be considered as being 'middle-income'. "Convergence", therefore, seems to be a far more complex phenomenon than is implicit in neoclassical models.

It is thus crucial to remember that the regional distributional structure currently suggested by the Gini only reflects the income disparities among half the world's population — those at the very top and at the bottom of each country's distribution. But it tells us little about the remarkable distributional homogeneity of the other half. This raises serious questions regarding the usefulness of the Gini index as an indicator of overall income inequality, especially because (from a statistical point of view) the Gini is more responsive to changes in the middle of the distribution (see Paraje, 2004). In other words, the most commonly used statistic for inequality is one that is best at reflecting distributional changes where changes are least likely to occur! As a result, the overall geometry of inequality as shown by the Gini is likely to underestimate income disparities across countries.

The problem is that the most common alternative inequality statistics — those that have the advantage of being more responsive to changes at the top and bottom of the distribution, such as the Theil — tend to have the huge disadvantage of being extremely vulnerable to measurement errors precisely at the tails of the distribution (and, above all, at the top; see Ibid.). As a result, and given the homogeneity in the middle and uppermiddle, my 2011 article suggested a new inequality indicator which is simple, transparent and policy-oriented. It is also particularly useful for policy-targeting, as for anyone aiming at lowering inequality, the implications of this ratio are as crucial as they are straightforward. It is also better at highlighting the unique voracity of some oligarchies. This indicator was later named by others the 'Palma Ratio'.

Table 1 presents a set of statistics for the whole sample (131 countries).

TABLE 1
Measures of Centrality and Spread for Income Groups, c. 2012

	H Mean	Median	Average	st dev	c of var
D10	29.1	29.4	30.5	6.9	0.227
D1-D4	16.4	18.0	17.5	4.0	0.230
D5-D10	51.8	52.5	52.1	3.4	0.066
D7-D9	36.7	36.9	36.8	1.7	0.047

• H Mean=harmonic mean; st dev=standard deviation; and c of var=coefficient of variation.

Of all the statistics in Table 1, the coefficient of variation is the one that really matters: it best shows the current distributional contrast across countries between the homogeneous middles and the heterogeneous tails: as mentioned above, the coefficients of variation for both D10 and D1–D4 are nearly four times greater than that for D5–D9. Furthermore, they are five times larger than for D7–D9. This suggests that regardless of the per capita income level of the country, the characteristics of the political regimes, the quality of their institutions, the economic policies implemented, the structure of property rights, or whether or not they belong to countries that managed to get their prices 'right', their institutions 'right', or their social capital 'right', the 50 per cent of the population located in D5–D9 seems *currently* to have the capacity to appropriate in the distributional struggle just over half the national income. This is even clearer for those in D7–D9 regarding their just over one third of the pie.¹⁷

For the bottom 40 per cent, characteristics such as those mentioned above can make the difference between getting as much as one-quarter of national income (as in the Nordic countries and in some countries of Eastern Europe), or as little as a tenth or less — in some cases significantly less, as in South Africa, Namibia, Zambia and Honduras. In turn, for D10 the sky is (almost) the limit, with some oligarchies in Latin America and in Southern Africa managing to appropriate a share close to, or even above, 50 per cent of national income.

One of the most surprising aspects of Hazledine's statistics is that, in his comparison of the degree of homogeneity of these income groups (forgetting that D7–D9 is one of them), he only reports their standard deviations. As anyone taking Stat 101 knows, for comparisons between data with widely different means, one should use the coefficient of variation instead of the standard deviation, as the latter must always be understood in the context of the mean of the data — i.e., it only makes sense when normalised by the mean. Hazledine ignores this basic statistical rule, which is a crucial side of my argument, despite the fact that I explicitly emphasised the radically different coefficients of variation among these income groups across the world. In fact, he does not even report this statistic in the table with his summary statistics (see Hazledine, this issue, Table 1).

2.- Hazledine's critique

Having clarified my ideas, we are now in a position to address Hazledine's critique properly. There are two facets to it: one is his analysis of my supposed proposition that the middle classes have somehow managed to "insulate" themselves from the distributional struggle; the other is the empirical work Hazledine presents to prove his point.

2.1 - On insulation, 'double glazing' and other supposed hypotheses of my work

Many people have commented on, criticised, and/or contributed to the issues raised in my 2011 paper, but (to the best of my knowledge) Hazledine is the first one to interpret my ideas regarding the 'homogeneous middle and upper-middle' in this mechanico-historical

 17 Note that as far as the ex-communist countries are concerned, this is true only when they are in 'full transition' (see below). Also, this homogeneity seems to be *a group characteristic*, as individuals within the group — as evidenced in household surveys — can easily be upwardly or downwardly mobile.

way.¹⁸ He argues that I am suggesting two things: that those in D5–D9 are simply spectators of a rough distributional game, in which the top and bottom struggle for their share of the other half; and that they have been able to get pleasure from this spectacle for a long time — somewhat like Roman plebs enjoying the (distributional) circus from the safety of their seats; a spectacle that they have been able to enjoy since time immemorial.

However, in my 2011 paper I said exactly the opposite on both counts. On the first point, I said that the middle and upper-middle are very much part of the distributional struggle, down in the arena, rather than up in their seats; and on the second point, I said that there is some evidence that in parts of the world, and for very specific reasons, in some countries the share of this 50 per cent of the population has changed substantially in the last three decades. That is, in my 2011 article I stress that, precisely due to their lack of 'insulation', they have had to form different types of political alliances to help them get their half, and that when these politico-economic alliances break down, the share of D5–D9 can change significantly. I also highlight something that seems remarkable: that, *currently*, and with very few exceptions, the middle and uppermiddle have been quite capable of getting their half in the distributional struggle, while at the same time being apparently powerless to increase it much further.

In fact, I made it quite explicit that the (very) little historical evidence available so far indicates, as the Chilean case shows (see below), that when these politico-economic alliances are redrawn following a political upheaval, the share of D5–D9 can drop significantly. I also made it clear that, hardly surprisingly, in the ex-communist countries the share of the middle and upper-middle has suffered badly with the transition to capitalism. Important components of the Appendices in my 2011 paper relate precisely to some of these issues. So how was Hazledine able to get so far off course, and so misconstrue what I said? Here is just one of many possible quotes from my 2011 paper regarding the active participation of the middle and upper-middle in the distributional struggle:

While in Latin America the middle classes seek to defend their share of income with different forms of alliances with the élite ... [in] India, for example ... the administrative classes defend their position mostly via alliances with the poor (which gives them the political power to mediate in the different conflicts between the capitalist élite and the state). In turn, in South Africa the fortunes of the middle classes appear to be almost uniquely different as here the dominant (redistributive) political alliance has turned out to be that between the new 'empowered' élite, the upper stratum of the new administrative classes and the bottom 40 per cent. This alliance, although it has succeeded in increasing the income-share of the top (at the expense of the middle), it has failed so far vis-à-vis the poor. (Palma, 2011: 124)

Regarding the second issue — my supposed contention of a 'lack of history' in the share of the middle and upper-middle — Hazledine's critique relates to his particular understanding of the historical implications of my homogeneity-in-the-middle-and-upper-middle-for-current-events hypothesis. He assumes that, if I am right, it must follow that the '50/50 rule' has applied since time immemorial, as if part of a curse on this half of the population: "Thou shalt keep half of the overall product of the sweat of the collective brow; no more, no less". He therefore tries to show empirically in his paper that this has not been the case. Due to space limitations, I can only discuss some of the many problems with his statistical work.

14

-

¹⁸ To date, my 2011 paper is the most downloaded paper in my Faculty (and has been so since soon after its publication as a Cambridge Working Paper in Economics — see http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe1111.pdf); as a result of this interest, I have received many comments, but no others with this particular interpretation of my ideas.

2.2 - On Hazledine's insubstantial statistics

2.2.1 - First, his sample

In terms of the empirics employed by Hazledine, the first problem is his sample. Without offering any explanation, he uses just one source, and one which is notoriously unreliable for historical analysis. The World Bank's World Development Indicators dataset may be a great source for *current* income distribution, especially in sub-Saharan Africa, Eastern Europe and countries in the former Soviet Union, but for comparison over time, it is a bit of a mess (to say the least). It also has few or no data on the OECD countries or dynamic Asia (e.g. Korea or Taiwan), and for Latin America it lets an affiliated group (SEDLAC) do the real work.

If we placed our trust in this source for historical analysis, we would have to believe, for example, that the share of the top 10 per cent in Kenya fell by 15 percentage points in two years (from 47.9 per cent to 32.8 per cent of income); that in Côte d'Ivoire it first increased by 11 percentage points, only to fall again by 8 in a short period of time; that in Mauritania the share of D10 also fell by more than 14 percentage points in just three years; that in the 2000s in South Africa it first went up by 13 percentage points, only to fall again immediately by 6. The list is endless. So, it only makes sense to use this dataset for the 'latest' available information — as in my 2011 paper for c. 2005 — as more recent data tend to be more reliable (due to surveys becoming more accurate), and more comparable (as methodologies to homogenise them become more robust).

Hazledine then chooses for his sample any country of the database that has at least two observations — no matter when. It makes no difference how close or far apart they are from each other: for Hazledine, it is irrelevant if the two observations are just four years apart, or thirty-two years; if they are located in the 1980s, 1990s, 2000s, or more recently. Furthermore, he leaves out the (more historically stable middle and upper-middle) OECD countries, even though there are plenty of reliable data for them. Furthermore, these are the countries where we find most of the outcry about the now famous "disappearing middle" — a hypothesis that confuses the share of income of the middle and upper-middle with the level of welfare that this share can buy. Many dynamic countries in East Asia are also unnecessarily left out of his sample. So, inevitably, Hazledine's sample is highly skewed towards what is happening in a specific part of the world: sub-Saharan Africa, Eastern Europe, and countries in the former Soviet Union, all of which have undertaken swift institutional and distributional changes. Yet even with this potpourri of data, he gets the same average for the middle and upper-middle in both 'based-anywhere-in-time' samples. So

However, he dismisses this fact (same averages in both 'observations'), arguing that constant means are no evidence of a historically constant share for D5–D9, because he finds 'outliers'. He fails to mention that (in the World Bank dataset he uses) these are (surprise, surprise), on the one hand, former communist countries in transition like Romania, China, Bulgaria, Belarus, Ukraine and Slovenia, and on the other, the 'usual suspects' among the Southern African mineral-rich countries (Namibia, South Africa and Zambia). Furthermore, as mentioned above, he then compares standard deviations for three of the four groups (D10, D5–D9, and D1–D4), with no reference to the coefficient of

15

¹⁹ This level that has been at best stagnant, or more likely falling, due to the massive increase in the cost of education, health, local services, etc., the loss of all sorts of consumer rights, regressive taxation, the cost of an ever increasing level of household debt, and so on. For example, in the US student loans, credit card debts, and auto financing have already reached US\$ 3.5 trillion (with student loans being the fastest-growing debt category); added to this, mortgage debt is already at well over US 8 trillion!

²⁰ I always say that data seem to have a good sense of humour...

variation. But if one computes them from his own statistical summary, the result shows that for D5–D9 in his 'earliest year' (whatever this means in his sample) the coefficient of variation is between three and four times lower than that of D10 and D1–D4; and for his 'latest sample' (when?) nearly three times lower than that of D10. No data are reported for D1–D4 here, and no data are reported for D7–D9 anywhere in Hazledine's paper, even though this is the most homogeneous group of them all (with D9 being the most homogeneous decile, one that is hardly located in the 'middle').

2.2.2 - Next, his econometrics

Hazledine then takes this hotchpotch of data and runs a few odd regressions, which he himself says should not be taken too seriously because (in his own words) when "... shares add up to 100 per cent, simple bivariate modelling of changes in one cohort's share on changes in an adjacent cohort's share will be quite sensitive to spurious correlation due to any non-systematic measurement error...". As he must know that in his data there is a rather large amount of non-systematic measurement error (to say the least), what's the point of running these regressions? So, regarding this, perhaps it would be better for him to go back to the drawing-board.

2.2.3 - Finally, other statistical issues

Another criticism made by Hazledine is that by aggregating countries in regions, some of the information regarding the 'homogeneous middle and upper-middle' is lost. In this paper I have therefore further sub-divided Eastern Europe, the countries in the former Soviet Union, Latin America, the European Union, and sub-Saharan Africa into two, three or even four sub-groups (see above). Furthermore, I can also replicate here (and update) a graph from my 2011 paper, which shows the whole sample, including the Southern African extreme outliers (see Figure 7).

The homogeneous middle vs. the heterogeneous tails in 131 countries, c.2012

71 81

91 101 111 121 131

FIGURE 7

Countries are ranked according to the income share of D1-D4.

D5-D9

D1-D4

25%

This figure illustrates graphically what we already know from the analysis above: given the remarkable homogeneity of the middle and upper-middle, the huge diversity of distributional outcomes across the world is almost entirely due to different shares for the top 10 per cent and bottom 40 per cent.

From this perspective, even if Hazledine has made little or no contribution to the analysis of the historical trend of the shares of D5–D9, this issue is important enough to merit further examination.

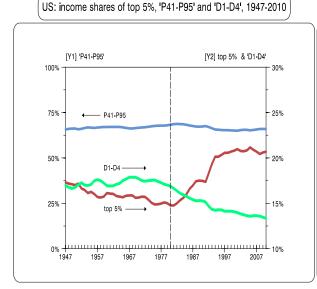
3.- Has the '50/50 rule' been stable over time? Has there been a trend towards 'convergence' where change has taken place?

Unfortunately, at present these are difficult questions to answer properly, as reliable time-series data are scarce, and in many countries simply non-existent. At the moment, from a statistical point of view, the only truthful answer to the 'historical trend' question is, regrettably, "there is little we can say about this *with certainty* for the time being". That is why, in my 2011 paper, I chose to look at two of the very few countries for which we have historical data (the US and my own country, Chile); and I chose these countries precisely because they are *exact opposites* in this respect.

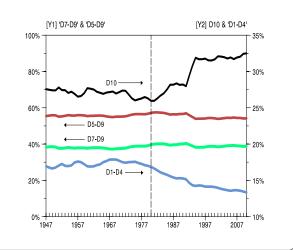
3.1 - The US and Chile

In the case of the US, at least as reported in the annual data of the US Census Bureau (2012), there is a remarkable stability over time in the share of deciles 5 to 9, and especially 7 to 9. This is shown in Figure 8.

FIGURE 8



US: income shares of D10, 'D7-D9', 'D5-D9' and 'D1-D4', 1947-2010



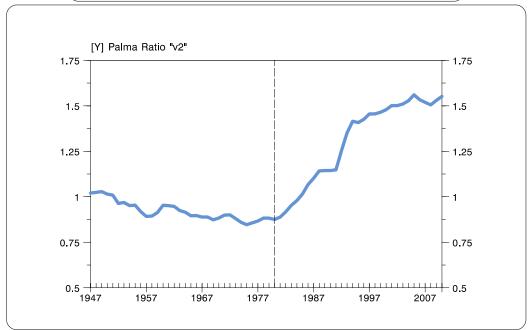
- 3-year moving averages (to highlight trends). P=percentile.
- Source: US Census Bureau (2012).

First, in the right-hand panel, there is an unmistakable trend of 'stability in the middle and upper-middle vs. instability at the tails'. Furthermore, the source reports data for the top 5 per cent, giving us an opportunity to divide the population in a slightly different way to that discussed so far: top 5 per cent, an enlarged middle (D5–D9 plus P91–P95) and

bottom 40 per cent (left-hand panel). There are two remarkable features here. One is the changing fortunes of the top 5 per cent and bottom 40 per cent. Starting in 1947 from a situation in which both received the same income-share — about 17 per cent of the total — by the mid-1970s the bottom 40 per cent was running ahead, getting 3 percentage points more.²¹ However, after 1980 the top 5 per cent began its remarkable comeback (sometimes called the 'revenge of the rentier'), and by 2010 it was appropriating 8 percentage points more than the bottom 40 per cent (21.5 per cent vs. 13.5 per cent; see Palma, 2009). The other noteworthy feature is that the 55 per cent of the population who make up this 'enlarged middle and upper-middle' appropriates a remarkably stable share of income throughout (about two-thirds). In fact, the range within which the share of this 55 per cent of the population fluctuates in this sixty-two year period is just 4 percentage points of income, and its coefficient of variation is only 0.02 — compared with 0.13 for the top 5 per cent, and 0.09 for the bottom 40 per cent. Therefore, as soon as we have data for a sufficiently large number of countries, I suggest we also try a Palma Ratio v2' — the ratio of the top 5 per cent vs. that of the bottom 40 per cent. However, for this new statistic to add significantly in terms of information to what we already have from the Palma Ratio 'v1', we will have to wait until household surveys are able to capture properly the income of the very rich (see Figure 9).

FIGURE 9

US: Palma Ratio "v2" -- top 5% vs bottom 40%, 1947-2010



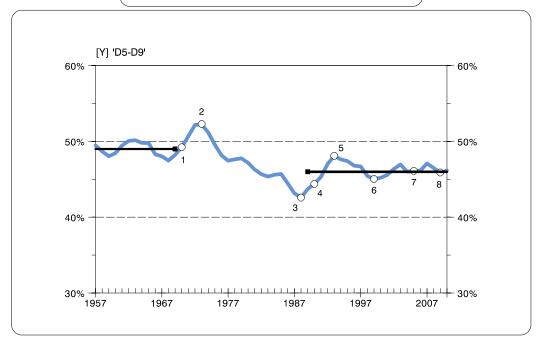
Source: as in Figure 8.

²¹ Yes, once upon a time on planet Earth the average income of the bottom 40 per cent did grow faster than that of the top 5 per cent — even in the US! And guess what? Personal saving were much higher as a percentage of disposable personal income; by the end of this period investment rates were higher than at any time since; productivity per hour worked grew faster than afterwards (on average, 2.2% per annum between 1950-1980 vs. 1.6% since); mainstream economic theory was actually concerned with the real world (as oppose to having to hide its growing irrelevance in an ever-increasing degree of idolatry of mathematics — on this issue see Palma, 2013b); and so on (see also Palma, 2009).

Regarding Figure 9, there are no prizes for guessing the answer to the question: "What happened in 1980?"

Turning now to middle-income countries, in my 2011 article I specifically mentioned that the limited historical evidence we have on some particularly unequal ones, like Chile and South Africa, indicates a very different picture — not least because once the bottom 40 per cent has been squeezed almost out of existence (remember, in today's South Africa it only manages to appropriate 6.4 per cent of the national income, in part because half of that bottom 40 per cent is still unemployed after twenty years of 'monetary-prudent' democracy), the only way that the seemingly unstoppable 'centrifugal forces' at the top can continue to operate is by squeezing the middle and upper-middle. Also, political shocks in developing countries often take their toll on the share of the middle and upper-middle, with both short-term and long-term effects. The case of Chile, a country that suffered a vicious political shock in 1973 (from which many close friends were not as lucky as I was to survive) speaks for itself. Chile is one of the few countries in the developing world that has a relatively robust set of historical data, at least for 'Greater Santiago', where almost 40 per cent of Chile's population live. There are several graphs and a whole Appendix devoted to this in my 2011 article; see Figure 10 in this present paper for the 'short-term' effects, and an indication of the long-term ones.

FIGURE 10
CHILE: income shares of D5-D9, 1957-2010



- Black lines are harmonic means between 1957 and the election of Allende in 1970 (49.4%); and between the return to democracy and 2010 (45.8%; 2010 was the last year for which I was able to get these data).
- 1=election of Allende; 2=Pinochet's coup d'état; 3=the year Pinochet had to call a plebiscite seeking a mandate to remain in power for another eight years; 4=first democratic government (centre-left coalition) that took office in 1990 after Pinochet lost his plebiscite (and was forced to call presidential elections); 5=second democratic government (same coalition, but a return to more 'free-market' distributional policies); 6-7 and 7-8=next two governments by the same centre-left coalition.
- Source: calculations done by Pamela Jervis and the author using the FACEA (2012) database. 3-year moving averages.

After 1973, Chile was subjected to a vicious cocktail: brutal political repression at its core, mixed with Milton Friedman and Friedrich Hayek's proposition that 'economic freedom' is what really matters (while political freedoms are just optional extras), a dash of Arnold Harberger and his 'Chicago-Boys', with their crude ideology and many corrupt (self-) privatisations (see, e.g., Monckeberg, 2001; Palma, 2013a), and topped with a fundamentalist understanding of the Washington Consensus policies. The result was a 51% increase in the income share of the top 10 per cent in the following fourteen years (1973-87). This share jumped from 34.2 per cent of national income at the time of the coup d'état to no less than 51.7 per cent in 1987. basically, with a nod to James Bond, the new family motto for the Chilean oligarchs (old and Chicago-type new) became "The World Is Not Enough", as they tried to move into a distributional outer space, propelled into dark matter by abject brutality, their simplistic neoliberal ideology, and insatiable greed. As there was clearly not enough to be squeezed from the bottom 40 per cent (even though this group had made substantial gains under Allende), the middle and upper-middle — ironically, Pinochet's bedrock support — had to be the next target. This group lost no less than 13 percentage points of their share in national income (or nearly one-fifth) from the heights at which Allende had left them, even though they had been some of his fiercest opponents: Figure 10 illustrates this graphically in the drop from point 2 to point 3. With the return to democracy, this group recovered a significant part of their losses (again, even though a large proportion of them had opposed the return to democracy in the 1988 plebiscite).²² However, as Figure 10 indicates, the distributional struggle seems to have settled for this middle and upper-middle at a steady state with a lower average than pre-1973, and one that is still particularly low vis-à-vis that of other countries in the sample (just 46%).

In this context, it would be unlikely that a Chilean of my generation could believe that the middle and upper-middle would be able to just 'chug along', unaffected, underneath the distributional struggle of the rich and the poor, or somehow be able to 'insulate' themselves from it. It would be almost surreal. How Hazledine was able to read this in my work is still a mystery to me. In fact, part of Appendix 1 in my 2011 paper is devoted precisely to discussing why the middle and upper-middle in Chile have been so weak politically (compared to their counterparts in other parts of the world) both in defending themselves against Pinochet's 'modernisations', and in benefiting fully from the return to democracy. Some twenty-four years after the return to democracy, Chile's D5–D9 still only manages to appropriate 45.5 per cent of national income, the eighth lowest share in this 131-country sample.²³

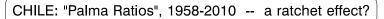
Turning to the long-term effects of distributional shocks (already evident in Figure 10 above), my 2011 article also highlighted the consequences of this event in Chile in terms of an overall 'distributional ratchet effect' (see Figure 11).

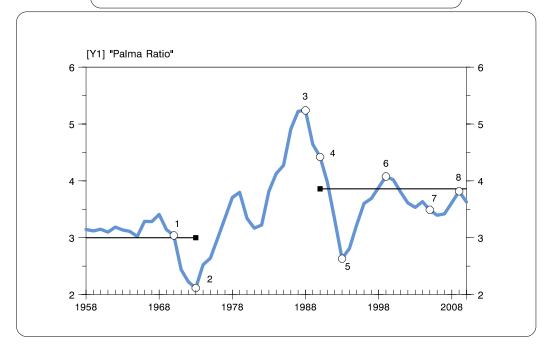
_

²² I would like to hear an exponent of the 'Rational Choice' school explaining this conundrum of the middle and upper-middle profiting so much under Allende, whilst bitterly opposing him, losing so dramatically under Pinochet, whilst supporting him wholeheartedly, and then mostly opposing the return to democracy, when they were bound to recover in it a significant proportion of the share of income lost under Pinochet. Rather, as Gramsci suggested, ideology is often more important than what people expect to have in their pocket.

²³ After Namibia, South Africa, Zambia, Rwanda, Central African Republic, Guatemala and Honduras, respectively.

FIGURE 11





• From 1 to 8, and source, as in Figure 10. Black lines are harmonic means (same periods and source as in Figure 10).

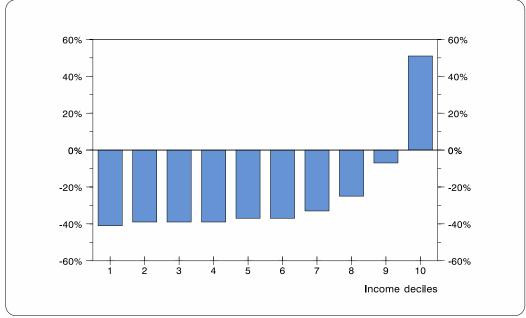
Chile's distributional ratchet effect seems to result from the fact that, at least in Latin America, improvements in inequality have tended to be temporary (e.g., from points 1 to 2, and from 3 to 5), while deteriorations have tended to have more permanent effects (from points 2 to 3, and from 5 to 6). That is, in Latin America it seems that the well-known restrained ability of human processes to be reversed once certain things have happened seems to apply only to *increases* in inequality. What has happened in Chile in the last forty years is a clear indication in this direction — an unfortunate reality that makes me wonder how sustainable the recent relatively minor improvements in inequality in some countries of the region really are.²⁴

In brief, the middle and upper-middle are as much part of the distributional struggle as anybody else — ivory towers are reserved only for tenured academics. However, what still needs to be understood properly — and since my 2011 article serious work has been done on this — is why D5–D9 generally tend to succeed in the struggle to retain their half, but seem quite unable to improve much upon it. It is like a football team that has to fight really hard not to go down to a lower division (in a league totally rigged by the top 10 per cent); but no matter how hard they try, they can never improve their precarious position. What is clear is that if they don't (or can't) fight tooth and nail for their half, they will be relegated to a lower division — as happened in Chile after 1973. Figure 12 clearly illustrates the 'winner-takes-all' distributional game that took place during Pinochet's rule.

²⁴ For a detailed analysis of this issue, see Palma (2011: Appendix 1).

FIGURE 12





• Source: as in Figure 10.

Not only is there a 'reverse Robin Hood' redistribution taking place, in which the poor are being robbed by the rich, but we might even speak of a 'postmodernist Robin Hood' at play — one that robs the rich to give to the very rich!

3.2 - Further evidence on the questions of stability and convergence towards the '50/50 rule'

As far as the OECD countries are concerned, the OECD dataset indicates that the share of the middle and upper-middle seems to have changed very little in the last quarter of a century (see Table 2).

TABLE 2

OECD (19)	average	c of v	average	c of v	difference	difference as %
	1985		2010		1985-2010	of share in 1985
D10	22.0	0.125	23.5	0.091	1.5	6.9
D1-D4	22.6	0.118	21.3	0.103	-1.3	-5.8
D5-D9	55.4	0.016	55.2	0.021	-0.2	-0.4
D7-D9	37.4	0.025	37.6	0.030	0.1	0.3

- There are data for only 19 of the 23 high-income OECD countries for this period. No meaningful coefficients of variation for the difference between 1985 and 2010, as the means for those of D5-D9 and D7-D9 are close to zero.
- Source: constructed using data form OECD (2014).

Although the average change in D5–D9 is negligible, there has been some movement around it; in some countries this was a positive change, in others it was negative. However, in half the countries, the change over the period 1985–2010 was less than 1 percentage point, and, with the exception of (rent-seeking-prone middle and upper-

middle) Spain, the change in all other countries was below 2 percentage points. Overall, the change was negative in eleven countries, and positive in eight. This is in marked contrast with the other two groups (top and bottom deciles), in which there was a clear trend: eighteen of the nineteen countries saw a decline in the share of D1–D4, and in sixteen of the nineteen there was an increase in the share of D10. I think this contrast is relevant in itself, especially because in 1985 those countries that had a fall in the share of the middle and upper-middle had a higher average than the average of those with an increase — in particular among those in which the change was greater than 1 percentage point either way. Therefore, without overstressing this point, it seems that these data do begin to indicate the presence of some sort of 'centripetal force' at work leading towards 'convergence' in the share of this group towards the '50/50 rule' across countries (more on this below). It is interesting that Hazledine seems to feel that this apparent convergence is an issue not worse pursuing.

Regarding D7–D9, not only is the average change over the twenty-five year period negligible (just 0.1 percentage points), but in fifteen of the nineteen countries it was less than 1 percentage point, and in three others, just 2 percentage points in one (Japan) or lower. Furthermore, these tiny changes followed the same pattern mentioned above ('convergence'). So, we find a remarkably *stable* middle and upper-middle in this group of countries during this quarter of a century, and there seems to be a logic to what little change there was (convergence towards the '50/50 rule'). Needless to say, however, what has happened in the more 'geriatric' OECD cannot be automatically generalised to the rest of the (more restless) world.

For Latin America, the SEDLAC dataset indicates a similar phenomenon of convergence, though more distinct (see Table 3).

LA (18)	average	c of v	average	c of v	difference	difference as %
	1990		2010		1985-2010	of share in 1990
D10	40.7	0.133	37.5	0.127	-3.2	-7.9
D1-D4	11.1	0.226	12.7	0.142	1.6	14.4
D5-D9	48.1	0.068	49.7	0.063	1.6	3.3
D7-D9	35.8	0.052	36.5	0.051	0.7	2.0

TABLE 3

• Source: constructed using data form SEDLAC (2014).

Of those countries that saw a change in their D5–D9 share in the period 1990–2010, those with an increase had an average share in 1990 that was 2.7 percentage points lower than those with a decline in their share. Furthermore, those that had an increase of more than 3 percentage points during this period had, in 1990, an average share for this group that was no less than 6 percentage points below that of the countries with a decline of this magnitude. So once again, the dataset seems to indicate a trend towards 'convergence' over time for the shares of D5–D9 in this region — and a very unambiguous one. Regarding D7–D9, although there was practically no change in the overall regional average (just a 0.7 percentage-point change), the difference between the two group-averages (those with an increase *vis-à-vis* those with a decline) suggests that centripetal forces towards convergence also worked among the Latin American upper-middle.

Is this the case for the rest of the developing world, too? As the World Bank's WDI dataset can tell us little about historical trends, it makes more sense to turn to another dataset that attempts to do that explicitly — the World Income Distribution (WYD) dataset (Milanovic, 2002). See Table 4.

TABLE 4

57 countries	average	c of v	average	c of v	difference	difference as %
	1988		2005		1988-2005	of share in 1988
D10	29.4	0.309	31.0	0.246	1.6	5.4
D1-D4	17.7	0.314	16.9	0.287	-0.8	-4.5
D5-D9	52.8	0.082	52.0	0.059	-0.8	-1.5
D7-D9	37.3	0.059	36.9	0.035	-0.4	-1.1

• Source: constructed using data form Milanovic (2002, and updates; data available only for the period 1988 to 2005).²⁵ There are data for only 57 countries for this period (see Appendix).

Table 4 shows that, once again, there is little overall change in the average for D5–D9, but that the gap between the averages of the two groups in 1988 (those whose shares later increased and those with a decline) was 4.3 percentage points this time; for those countries with a change greater than 1.5 percentage points, it was 8.2.²⁶ Therefore, centripetal forces aiming at the '50/50 rule' seem to be again at work here.

In terms of regions, the WYD dataset indicates that among high-income OECD countries (nineteen countries in this sample), the overall average changes less than 1 percentage point; furthermore, with the exception of Switzerland, there is no country in which the share of D5–D9 increased by more than 1 percentage point. In Asia (ten countries), there was no difference in the overall averages during this period; however, in those countries in which this share changed more than 1.5 percentage points either way, we find an initial gap in their averages of 2 percentage points, again in favour of those that had a decline. In Latin America (twelve countries), while the average for D5–D9 in the two end years was also almost identical (just a –0.1 percentage-point change), the difference in the 1988 averages between the two groups was 3 percentage points (once more in favour of those that had a decline). In sub-Saharan Africa (eight countries), the overall average changed by just 1 percentage point; however, the initial difference in averages for the two groups was no less than 8 percentage points (and change, yet again, took the same direction: convergence towards the '50/50 rule').

Ex-communist countries of Eastern Europe and the former Soviet Union (six countries), and not surprisingly given their high initial share for the middle and uppermiddle, follow a different route towards the '50/50 rule'. In this case *all of them* had a fall in their initial high share. As a result, the overall average for this group fell by no less than 5 percentage points during the period (1988–2005): originally, their D5–D9 group had an average share as high as 59 per cent of the total; by 2005 they had converged to a level similar to the rest of the sample.

Finally, some preliminary evidence for India and Brazil seem to indicate that the homogeneity in the middle and upper-middle also holds at sub-national levels. The former conclude that the proposition made in my 2011 paper also held for Indian state-and district-level in 1986, 1995 and 2004:

... the fifth to ninth income deciles consistently account for roughly half of total consumption expenditure; whereas the shares accounted for by the top 10% and bottom 40% each vary much more widely. (King and Rajan, 2013: 15).

In the case of latter (Brazil), data from a study of 5,560 municipalities indicate that the

 $^{^{25}}$ Note how in this table and those before, the coefficients of variation of D5-D9 and D7-D9 are, again, just a small fraction of those of D10 and D1-D4.

²⁶ Note how in this table and those before, the coefficients of variation of D5–D9 and D7–D9 are, again, just a small fraction of those of D10 and D1–D4.

coefficient of variations of D5-D9 (0.09) is significantly smaller than those of D10 (0.16) and D1-D4 (0.27; de Abreu, 2014).

To summarise, since sufficiently reliable historical data are still scarce, we cannot state with certainty that the trend over time towards convergence to the '50/50 rule' among the share of the middle and upper-middle across the world is clear cut. However, the evidence that we have clearly indicates that those countries that were already there remained there, and those that were not, converged in that direction. This evidence shows that with the exception of ex-communist countries, there was little or no change in terms of regional averages. Furthermore, in terms of changes in individual countries, there seems to be clear evidence for a common logic to change: a centripetal force at work aiming at the '50/50 rule' *in all regions*. The data that we do have show a quite systematic indication in this direction.²⁷ Finally, data for developing countries indicate (again not surprisingly) that political shocks — like those that happened in Chile, Eastern Europe, the former Soviet Union, and in many sub-Saharan countries, and like those now taking place in the Arab world — are likely to have both short-term and long-term distributional effects. The latter, as exemplified in the Chilean case, often tend to take the form of a long-term inequalising 'ratchet effect'.

4.- Why are the mainstream of the economic profession and the Washington Consensus in general so obsessed with changes in the middle of the distribution, and so reluctant to analyse changes at the top?

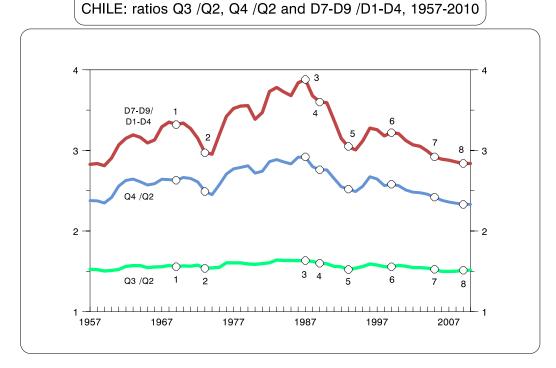
Perhaps the most striking stylised fact of traditional mainstream explanations of high inequality, like those put forward by the Washington Consensus institutions and by the many economists circling around them, is that until very recently they have focused almost exclusively on the middle of the distribution. It is only very recently that they are starting to look at the bottom 40 percent — as if there was an absolute taboo against looking at the top. The great freshness of the work of Piketty and associates is that, finally, a few mainstream economists dared to defy that taboo.

In the 1960s and 1970s, for example, we had the hypothesis that importsubstituting industrialisation (ISI) increased inequality through the creation of "labour aristocracies". This hypothesis was revived in the 1990s with the import-liberalisation related "skill-biased technical change" proposition. In both cases the myopic focus was the same: high inequality was the outcome of unfortunate changes in the middle.

The first hypothesis, widely invoked by the emerging 'Washington Consensus' of the time, argued that one of the main causes of inequality in Latin America was the price distortions associated with ISI. These were supposed to have distorted the values of sectoral marginal productivities, allowing for artificially high wages in manufacturing (à la Stolper and Samuelson). That is, wage differentials were much higher than if free trade had predominated (see, e.g., Krueger, 1983; World Bank, 1987). However, there was little then (as now) to differentiate Latin America from the rest of the world — developing and developed, ISI and non-ISI — in terms of the income distribution among groups that would include 'aristocratic' and 'non-aristocratic' labour. Also, as the case of Chile indicates, there is little difference among these groups between the ISI and the non-ISI periods; see for example the remarkable stability of the ratio of 'Q3/Q2' (where 'aristocratic' and 'non-aristocratic' labour could be located) between 1957–73 and 1973–

²⁷ How much the bottom 40% living in developing countries, particularly in LA and Southern Africa, might wish for a similar phenomenon of 'convergence'! And how much the top 10% from my part of the world would think of this as a fate worse than death if this were to happen to them...

FIGURE 13



• **D**=deciles; and **Q**=quintiles. From 1 to 8, and source, as in Figure 10 ((1=election of Allende; 2=Pinochet's coup d'état; 3=the year Pinochet had to call a plebiscite seeking a mandate to remain in power for another eight years; 4=first democratic government (centre-left coalition) that took office in 1990 after Pinochet lost his plebiscite; 5=second democratic government (same coalition, but a return to more 'free-market' distributional policies); 6-7 and 7-8=next two governments by the same centre-left coalition). 3-year moving averages.

The second proposition, basically a recycled version of the previous approach for the post-1980 liberalisation-cum-globalisation era, tried to explain away the supposedly unexpected increase in inequality in many developing countries after the implementation of policies aiming at trade and financial opening (and 'deepening'), labour market 'flexibility', and neoliberal economic and political reforms in general. These increases in inequality, following greater integration into the world economy by 'liberalised' economies, were the exact opposite of the unambiguous predictions of those circling around the Washington Consensus at the time (see, e.g., Lal, 1983). Hence, it was argued (as an excuse) that these (previously unforeseen) neoliberal reform-related increases in inequality took place because import liberalisation had allowed for an increase in the importation of modern capital goods with latest technologies embodied in them, which made intensive use of skilled workers (a scarce factor in most LDCs). As a result, this would have led (yet again) to an increase in inequality via greater wage differentials. However, as is becoming increasingly obvious, what really differentiates Latin America's inequality is located at the tails of the distribution of income — hardly where skilled workers are located. Moreover, even if import liberalisation did introduce new production techniques that make intensive use of skilled labour, evidence suggests that this alone

does not account for much of the region's increased inequality after economic reforms.²⁸

Figure 13 presents the relevant ratios to examine this proposition. Assuming that skilled workers (those able to handle new technologies) are located as high as D7-D9 (or at least in Q4), while unskilled ones are relegated to D1-D4 (or Q2), during the initial post-ISI period in Chile — the highly inequalising period between points 2 and 3 in Figure 13, which was characterised by low investment rates (on average, just 16.9 per cent of GDP), low technological change, and productivity stagnation (average growth of just 0.3 per cent p.a.) — these ratios increased rapidly (see, for example, D7-D9/D1-D4 between points 2 and 3). However, in the 'roaring 1990s' (from points 3 to 6), a period of high investment rates (24 per cent of GDP), dynamic technological change, high demand for skilled workers and rapid productivity growth (4.8 per cent p.a.), wage differentials between skilled and unskilled workers (proxied here by those ratios) decreased rapidly, from 4.1 to 3.1 for the former (D7–D9/D1–D4), and from 3 to 2.5 for the latter (Q4/Q2). Of course there are many issues involved in this apparent conundrum, but what really mattered in terms of changes in inequality at the time was what was happening at the top of the distribution (see Figures 11 and 12 above), and what was happening at the bottom (e.g. rising minimum wages, which were reducing the so-called 'skills premium', low unemployment and increased social public expenditure).

By way of a Conclusion

Regarding the share of the middle and upper-middle across the world, the evidence we have clearly indicates that those countries that were already in a '50/50 scenario' some time ago remained there, and those that were not, converged in that direction. In other words, there seems to be evidence in these datasets for some sort of 'centripetal force' working towards convergence in all regions in this respect. What Hazledine failed to realise is that when in some countries there seems to have been change in the share of this group, there was a logic to it: a convergence towards a '50/50 rule'. That is, in those countries where the middle and upper-middle had a share of income above this level, this share tended to fall, and vice versa.²⁹ At the same time, data for developing countries indicate that political shocks are likely to have short-term and long-term distributional effects. The latter, as exemplified in the Chilean case, often tend to take the form of a long-term inequalising 'ratchet effect'.

Finally, if the datasets I have used reflect the real world, then rather than continue to be distracted by 'the middle' of the distribution of income, as most mainstream economists (including Hazledine, it seems) still do — resisting the very welcome shift among the more enlightened representatives of the mainstream, which now dare to defy the longstanding taboo against analysing the foundations of the high share of the rich in more unequal countries — let us once and for all focus on the tails, as the work of Sáez, Piketty and Atkinson (among others) has done, and as Piketty's latest book (2014; a real tour de force) tries to do again. However, as mentioned above, it is really unfortunate that so far — by insisting to analyse the massive increase in inequality since 1980 from the perspective of the neoclassical theory of factor shares, a theory whose 'best before date' is well gone — these economists are leading the mainstream pack in the wrong

²⁸ Among those who favour this hypothesis, see for example Cline (1997), which includes a very useful survey of the literature. For critiques of this literature, see Atkinson (1997), Krugman and Lawrence (1993) and Paraje (2004).

²⁹ For further analyses as to why the middle and upper-middle are generally able to get such similar income shares across the world, see Palma (forthcoming, 2014).

direction.

The logic of the 'Palma Ratio' is precisely to highlight the crucial rôle of the tails in terms of accounting for diversities of inequality across the world, as well as drawing attention to the increasingly *artificial* (i.e., self-constructed) foundations of growing inequality.³⁰

Obviously, the 'usual suspects' won't like this — it is not by chance that John Kenneth Galbraith once said, "Of all classes the rich are the most noticed and the least studied" (Galbraith, 1977: 44). But if we want to understand why inequality is so unequal across the world we have little choice but to keep reminding ourselves of what I believe to be the most fundamental of all distributional stylised-facts (highlighted by the sub-title of my 2011 article): "It's all about the share of the rich". This is particularly important if we really want to do something about inequality, because as someone rightly said long ago, philosophers have only interpreted the world in various ways; the point now is to change it.

APPENDIX

In order to construct the sample for this article (131 countries), I used the following sources:

- For high-income OECD countries, and other non-Latin American countries for which information is provided (Czech Republic, Estonia, Hong Kong, Hungary, Israel, Poland, Russia, Singapore, Slovakia, Slovenia, South Africa and South Korea): OECD (2014).
- 2. For all Latin American countries: SEDLAC (2014).
- 3. For Taiwan, Taiwan (2014).
- 4. For the rest, World Bank (2014; the WDI dataset). In this source, I only included countries with data *after 2002* (as a result, Botswana, Trinidad and Tobago, Turkmenistan and Zimbabwe were excluded). I also excluded countries with a population of less than 1 million (Belize, Bhutan, Comoros, Djibouti, Fiji, Iceland, Luxembourg, Maldives, Montenegro, Saint Lucia, Sao Tome and Principe and Suriname).
- 5. In the historical analysis of D5–D9 and D7–D9, I also refer to the WYD database (Milanovic, 2002, and updates the last available one refers only to 2005).

 $^{^{30}}$ 'Self-constructed' in the sense of a process by which a disordered system of components has formed an organized structure by specific interactions among the components themselves.

REFERENCES

- Acemoglu, D. and J.A. Robinson (2006) *Economic Origins of Dictatorship and Democracy*. Cambridge: Cambridge University Press.
- Atkinson, A.B. (1997) 'Bringing Income Distribution in from the Cold', *The Economic Journal* 107(441): 297–321.
- Cline, W. (1997) *Trade and Income Distribution*. Washington, DC: Peterson Institute for International Economics.
- Cobham, A. and A. Sumner (2013a) 'On Inequality, Let's Do the Palma (Because the Gini is So Last Century)'. At http://oxfamblogs.org/fp2p/on-inequality-lets-do-the-palma-because-the-gini-is-so-last-century/.
- Cobham, A. and A. Sumner (2013b) 'Is It All About the Tails? The Palma Measure of Income Inequality'. Working Paper 343. Washington, DC: Center for Global Development. At http://www.cgdev.org/sites/default/files/it-all-about-tails-palmameasure-income-inequality.pdf.
- Cobham, A. and A. Sumner (2013c) 'Putting the Gini Back in the Bottle? "The Palma" as a Policy-relevant Measure of Inequality'. At https://www.kcl.ac.uk/aboutkings/worldwide/initiatives/global/intdev/people/Sumner/Cobham-Sumner-15March2013.pdf.
- De Abreu, L. (2014) 'Desiguais entre iguais' ['Unequals among equals]. At http://alias.estadao.com.br/noticias/geral,desiguais-entre-iguais,1563173.
- FACEA (2012) 'Encuesta Trimestral de Ocupación y Desocupación en el Gran Santiago' ['Quarterly Survey of Employment and Unemployment in Greater Santiago']. At http://www.empleo.microdatos.cl/encuesta_ocupacion/.
- Fisher, M. (2013) 'How the World's Countries Compare on Income Inequality'. At http://www.washingtonpost.com/blogs/worldviews/wp/2013/09/27/map-how-the-worlds-countries-compare-on-income-inequality-the-u-s-ranks-below-nigeria/.
- Fisher, M. (2014) '40 More Maps that Explain the World'. At http://www.washingtonpost.com/blogs/worldviews/wp/2014/01/13/40-more-maps-that-explain-the-world/.
- Galbraith, J.K. (1977) *The Age of Uncertainty. A History of Economic Ideas and Their Consequences.* Boston, MA: Houghton Mifflin Harcourt.
- Green, D. (2012) "It's the Share of Rich, Stupid": Brilliant Inequality Stats and Politics from Gabriel Palma'. Oxfam blog. At http://www.oxfamblogs.org/fp2p/?p=9964.
- King, L. and K. Rajan (2013) 'An Alternative Measure of Income Inequality? The "Palma Index" and Public Health in India'. Cambridge University, Department of Sociology (mimeo).
- Krueger, A. (1983) *Trade and Employment in Developing Countries*. Chicago, IL: University of Chicago Press.
- Krugman, P. and R. Lawrence (1993) 'Trade, Jobs and Wages'. NBER Working Paper No. 4478. Cambridge, MA: National Bureau of Economic Research.
- Lal, D. (1983) *The Poverty of 'Development Economics'*. London: Institute of Economic Affairs.
- López R., E. Figueroa and P. Gutiérrez (2013) 'La "parte del león": nuevas estimaciones de la participación de los súper ricos en el ingreso de Chile' ['The "Lion's Share": New Estimates of the Share of the Super Rich in the Income of Chile']. At http://www.econ.uchile.cl/uploads/publicacion/306018fadb3ac79952bf1395a555a9 0a86633790.pdf.
- Milanovic, B. (2002) 'True World Income Distribution, 1988 and 1993: First Calculation Based on Household Surveys Alone', *The Economic Journal* 112 (476): 51–92.
- Milanovic, B. (2010) The Haves and the Have-Nots: A Brief and Idiosyncratic History of Global Inequality. New York: Basic Books.
- Monckeberg, M.O. (2001) El Saqueo de Los Grupos Económicos Al Estado Chileno [The Plundering of the Chilean State by the Major Economic Groups of the Country]. Santiago: Ediciones B.

- OECD (2013) Ending Poverty, Development Co-operation Report. Paris: OECD.
- OECD (2014) 'OECD Statistics'. At http://stats.oecd.org/.
- Palma, J.G. (2008), 'De-industrialisation, Premature De-industrialisation and the Dutch Disease', *The New Palgrave Dictionary of Economics On line* (2nd edn). At http://www.dictionaryofeconomics.com/article?id=pde2008_D000268.
- Palma, J.G. (2009) 'The Revenge of the Market on the Rentiers: Why Neo-liberal Reports of the End of History Turned Out To Be Premature', *Cambridge Journal of Economics* 33(4): 829–69. An extended version is available at http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe0927.pdf.
- Palma, J.G. (2010) 'Why Has Productivity Growth Stagnated in Most Latin American Countries since the Neo-liberal Reforms?', in J.A. Ocampo and J. Ros (eds) *The Handbook of Latin American Economics*, pp. 568–607. Oxford: Oxford University Press. An extended version is available at: http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe1030.pdf.
- Palma, J.G. (2011) 'Homogeneous Middles vs. Heterogeneous Tails, and the End of the "Inverted-U": It's All About the Share of the Rich', *Development and Change* 42(1): 87–153. An extended version is available at http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe1111.pdf
- Palma, J.G. (2013a) '¿Cuánto habrá que esperar para que los "Chicago Boys & Asociados" respondan por el botín que algunos se llevaron?' ['How Long Do We Have To Wait for the "Chicago Boys & Associates" to Answer for the Loot that Some of Them Took Away?']. At http://ciperchile.cl/2013/09/12/%C2%BFcuanto-habra-que-esperar-para-que-los-chicago-boys-asociados-respondan-por-el-botin-que-algunos-se-llevaron/.
- Palma, J.G. (2013b) 'Por Qué la Economía Ortodoxa Transfirió su Obsesión por un Concepto (Mercado) a un Ritual (Matemáticas)'. [Why did Mainstream Economics Switch from the 'Worship of a Concept' (Free Markets) to the 'Worship of a Thing' (Mathematics)]. At http://ciperchile.cl/2013/11/12/por-que-la-economia-ortodoxa-transfirio-su-obsesion-por-un-concepto-mercado-a-un-ritual-matematicas/.
- Palma, J.G. (forthcoming, 2014) 'Why is Inequality so Unequal across the World? Could it be that Every Nation Gets the Inequality it Deserves?', in J. Stiglitz and K. Basu (eds) *Proceedings of IEA Roundtable on Shared Prosperity and Growth*. Basingstoke: Palgrave Macmillan.
- Paraje, G. (2004) 'Inequality, Welfare and Polarisation in the Greater Buenos Aires, 1986–1999'. PhD Thesis, Cambridge University.
- Piketty, T. (2014) *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press.
- Rowthorn, R. (2014) 'A Note on Piketty's *Capital in the Twenty-First Century'*, *Cambridge Journal of Economics* 38: 1275–84. DOI:10.1093/cje/beu031
- Sáez, E. (2013) 'Striking it Richer: The Evolution of Top Incomes in the United States'. At http://elsa.berkeley.edu/users/saez/saez-UStopincomes-2012.pdf.
- SEDLAC (2014) 'Socio-Economic Database for Latin America and the Caribbean'. At http://sedlac.econo.unlp.edu.ar/eng/.
- Sen, A. (1973) On Economic Inequality. London: W.W. Norton.
- Shepherd, A. (2013) 'How Do We Get to Zero on Poverty and Stay There?', in OECD Ending Poverty, Development Co-operation Report, pp. 51–62. Paris: OECD.
- Sutcliffe, B. (2001) 100 Ways of Seeing an Unequal World. London: Zed Books.
- Taiwan (2014) 'National Statistics, Republic of China (Taiwan)'. At http://eng.stat.gov.tw/ct.asp?xItem=3458&CtNode=1597&mp=5.
- US Census Bureau (2012) http://www.census.gov/compendia/statab/cats/income_expenditures_poverty_wealth/household_income.html.
- World Bank (1987) World Development Report. Washington, DC: The World Bank.
- World Bank (2014) World Development Indicators dataset. At http://data.worldbank.org/data-catalog/world-development-indicators.