

Dear readers,

Since May 1, the LIS Database is available in the new LIS 2019 Template. Following up the release of the LIS Database, now the LWS Database is also available in the 2019 Template. The 2019 Template is an exciting step forward enabling LIS to reach higher temporal and cross-country variables' coverage, and more data points – possibly annual data series and expansion to new geographical areas.

Likewise, we are glad to announce the addition of data from **Ivory Coast** (CI02, CI08, CI15) and **Vietnam** (VN11, VN13) to the LIS Database, accomplished through a research agreement between the Agence Française de Développement (AFD) and LIS. In addition, we added one more dataset for **Spain** (ES16).

The first article in *Inequality Matters* is also part of the AFD research agreement. Branko Milanovic (GC CUNY) takes a broader look at inequality and redistribution in Latin American countries. Milanovic finds that more unequal market-income countries, and greater market-income inequality within a given country, are associated with greater pro-poor redistribution, although such redistribution is rather weak in Latin America compared to the economically advanced countries. The second *Inequality Matters* by Malte Luebker (WSI) raises endogeneity concerns of the earnings skew to support the social affinity hypothesis. When a theoretically more appropriate measure for skew in the distribution of incomes is derived from the LIS data, no evidence emerges that it is positively associated with fiscal redistribution.

In the *Highlights* section Louis Chauvel (University of Luxembourg) situates the newcomers Ivory Coast and Vietnam in the LIS Database in a global income/inequality map. Carmen Petrovici's (LIS) article demonstrates how informal activities could be conceptualised, while also clarifying how this concept can be captured with the new LIS/LWS variable *informal*. Secondly, Petrovici shows some descriptives on the prevalence of informal activities among persons with different education levels and among those working in different economic sectors.

We encourage you to read the volume *The Legacy of Tony Atkinson in Inequality Analysis*, including the conference proceedings from last year's LIS/LWS Users Conference in honour of Tony Atkinson. Together with Daniele Checchi, Janet C. Gornick, and Timothy M. Smeeding, Andrea Brandolini *highlights* the extraordinary role of Tony for LIS.

Enjoy reading!

Jörg Neugschwender, editor



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Inequality Matters



Market income inequality, left-wing political parties, and redistribution in Latin America

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and the Stone Center on Socio-economic Inequality)

This article is the outcome of an ongoing collaboration between Agence Française de Développement (AFD) and LIS, a more detailed working paper on this topic is in preparation.

Introduction

The objective of this article is to bring together two strands of literature in order to explore the factors behind the decrease of inequality in Latin America in the last decade of the 20th and the first decade of the 21st century. The first strand of literature deals with the median voter hypothesis that is supposed to explain why in more unequal democratic societies voters tend to favor redistribution. The second strand of literature explains the reasons behind Latin American decline in inequality emphasizing its left-wing political swing. Our objective is to test whether the median voter hypothesis in its revised form, the so-called “redistribution hypothesis”, combined with the information about democracy and political partisanship (left- vs. right-wing political parties in power) can shed additional light on the decrease of inequality in Latin American and Caribbean (LAC) countries.

How to correctly study redistribution

The by-now venerable median voter hypothesis was proposed by Allan H. Meltzer and Scott F. Richard (1981, 1983) as a way to explain redistribution of income through taxes and transfers. The idea is that people vote on redistribution packages based on their expectation of how much they will have to pay in direct taxes vs. how much they expect to gain from social transfers. If they are likely to gain (lose) in net terms they vote in favor of (against) greater redistribution. If market-generated income distribution is very unequal then more people have to gain from transfers, which in the simplest formulation are supposed to be equal per capita, than to lose from taxes. In such a way highly unequal market income distribution is self-corrective: it leads to more people favoring redistribution and thus ultimately to a reduction in inequality.

Milanovic (2000) tested the median-voter hypothesis by calculating the gain realized by different deciles of income distribution when people are ranked by their pre-fisc (market) income. Of the two prediction of the median voter hypothesis, namely (1) that the redistribution should rise with pre-fisc inequality, and that (2) the effect should be the greatest for the median voter, or at least, that the median voter should be a net beneficiary of redistribution, Milanovic finds a strong support for the first claim, but not the second. The greater the inequality in market incomes, the greater is redistribution and the gain monotonically decreases as we move toward the richer deciles (in pre-fisc terms). But the middle deciles (fifth or sixth) gain almost nothing or very little.

This has led Milanovic (2000) to formulate the “redistribution hypothesis” arguing that the gains are greater the lower is the market-income share of a decile but that we cannot *ex hypothesi* assert what would be the effect on the median voter. The key new variable named *sharegain* measures the difference in the share of income received by people in a given market income decile as the redistribution proceeds: first we look at their share in gross income (market income plus government transfers) and then their share in

disposable income (gross income minus direct taxes). We thus observe how income shares of the *same* people change through the redistribution process: that is, whether they are “winners” or “losers”. This can obviously be done only if we have micro (household level) information. To clarify, if the bottom decile by market (pre-fisc) income share is, say 2 percent of total market income, and the share of the same people, after taxes and transfers, is 5 percent of disposable income, the *sharegain* for this decile is 3 percentage points.

In this paper, we apply the same approach to test the hypothesis on Latin American data. But in order to motivate it further and situate it in its political context, we look at redistribution together with political variables: level of democracy, and left-wing or right-wing political orientation (“partisanship”) of governments and legislatures. Not only is this a more realistic approach to redistribution, but it has been widely argued that the key impetus to Latin American inequality reduction (and greater redistribution) came from the left-wing governments that, approximately at the same time, came to power in Argentina, Bolivia, Brazil, Chile, Ecuador and Venezuela.

How are (non-anonymous) distributional data constructed

We use in total 239 surveys (country-years) from 20 Latin American and Caribbean countries (LIS supplies 49 surveys and SEDLAC 190 surveys) data to calculate market, gross, and disposable income.¹ To measure redistribution, we first sort households into ten deciles according to their *market* income. To calculate *gross* incomes of the households in each *market* decile, government transfers are added to the market income of each decile. Finally, we calculate *disposable* incomes of the households in each *market* decile by deducting direct taxes. The difference between a decile’s share of total disposable (or gross) income and the same decile’s share of total market income is, as mentioned above, called the *sharegain*.

When redistribution is significant, we expect the market-income poor deciles to have positive (and large) *sharegain*; the *sharegain* should monotonically decrease for higher market income deciles, eventually turning negative. A positive *sharegain* simply means that a given decile gains through the process of redistribution; a negative, that it loses. We shall focus on the share of the bottom four deciles in market income. When we use *sharegain*, the analysis is not anonymous: we look at whether the individuals who are market-income poor are benefitting and how much.

A short note on the political variables used from the World Bank Database of Political Institutions (DPI) (Beck, et al. 2001, Keefer and Milanovic 2014). The variables that we use are democracy and political alignment. For democracy, we use two specifications: a binary specification such that democracy takes the value of 1 only if the underlying DPI variables estimating the level of electoral competitiveness for the executive office (EIEC) and electoral competitiveness for legislature (LIEC) both take the highest value if 7 (otherwise democracy=0); and a quasi-continuous variable (EICE or LIEC) which runs from 1 to 7.²

Inequality and redistribution in Latin America (anonymous analysis)

While both market and disposable income inequality are high in Latin America, they have recently, and uniquely among regions of the world, been on the decline. This is a fact which is well-known and much discussed (Alvaredo and Gasparini 2013; Gasparini, Cruces and Tornarolli 2011; Ferreira, Leita and Litchfield 2007; Tornarolli, Ciaschi

and Galeano 2018). However, given that inequality in Latin American countries and the Caribbean remained frequently well above the levels of advanced economies such as the US, the UK, Germany or the emerging South-Asian economies, there remains a paradox to be solved. Would not high market income inequality stimulate, as the Meltzer-Richard hypothesis implies, democratic countries like Chile, and Latin American countries in general, to redistribute more? This, however, is not the case to the same extent everywhere.

Figure 1 shows, using all LIS surveys available as of December 2018, the extent of market income inequality on the horizontal axis, and the reduction of Gini-measured inequality due to social transfers and taxes. We expect a positive relation between the two. This is the case when we look at countries colored blue that are in Western Europe, North America and Oceania (most of LIS dataset). When we run a regression between market Gini and extent of redistribution (Gini reduction) on these countries the coefficient linking the two (β) is positive (0.66) and highly statistically significant. It means that on average for each additional Gini point of market income inequality, redistribution is 0.66 Gini points greater. (If β were equal to 1, all increases in market income inequality would be fully offset through greater redistribution.) The relation is also positive for East European countries (denoted red) although the coefficient is smaller (0.37). The Asian countries (denoted black) available in LIS are few in numbers but they fit (especially so Taiwan) the overall pattern very well: they have low market income inequality and low redistribution.

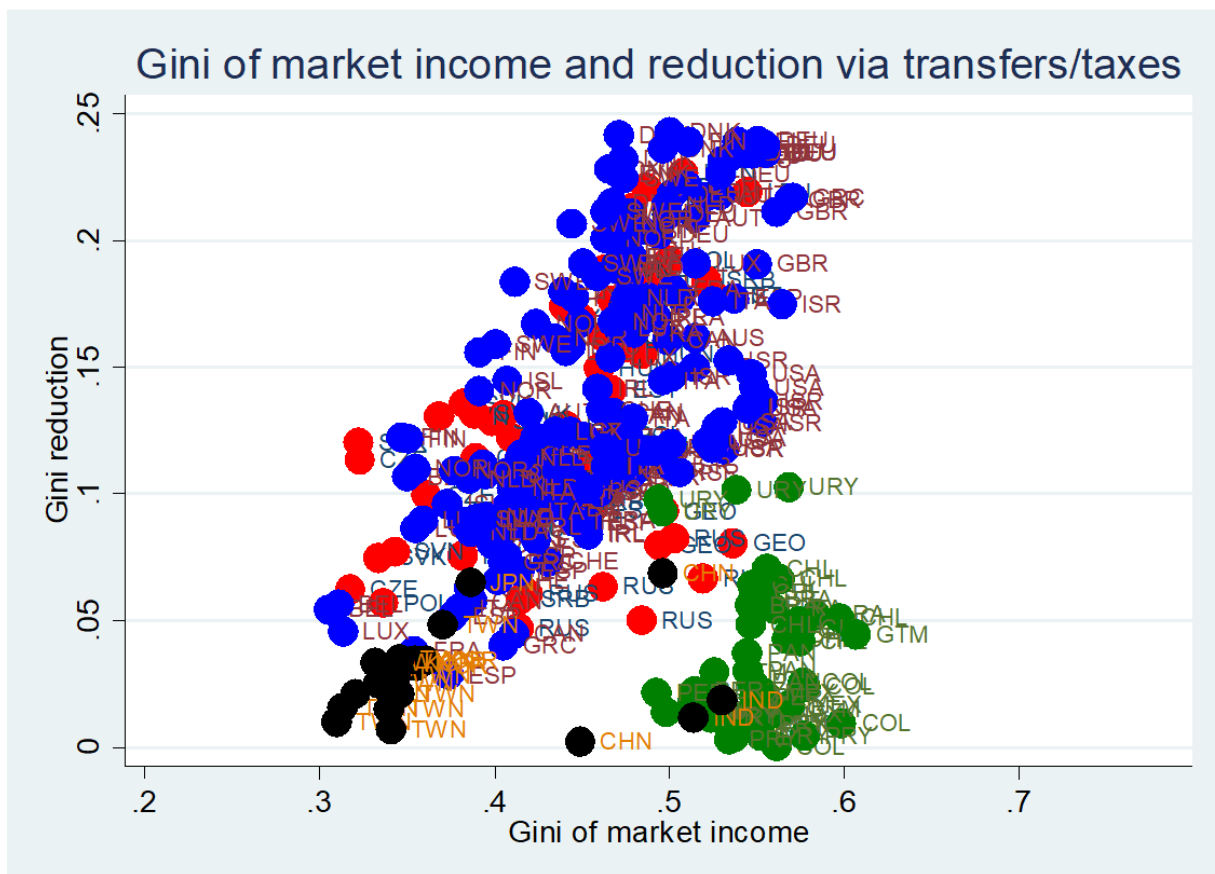
Latin American countries (in green) stand out: their market income inequality is high and their redistribution is low: β is only 0.04 and not statistically significantly different from zero. LAC countries' market income Ginis are between 0.5 and 0.6 and redistribution

shaves off on average only about 2-3 Gini points from that inequality (that is, reduces Gini by 0.02 to 0.03). If Western countries had Latin American levels of market income inequality (and some indeed do), the redistribution would equal some 20 to 25 Gini points. Thus, the origin of high disposable income inequality in Latin America lies not only in a high level of market income inequality, but is also due to the very low level of redistribution. Latin America is indeed, in those respects, different from other regions for which we have similar data.

Non-anonymous redistribution and the role of politics

We now move to non-anonymous analysis of redistribution where we look at how the share of the bottom four deciles (according to *market1* income), called "the poor", changes through the process of redistribution. Figure 2 contrasts the results for advanced economies (Western Europe, North America, and Oceania) and Latin American countries. Each dot represents a value from one survey that shows *market1* share of the poor on the horizontal axis, and the gain in income share of the same people at gross income stage, that is, through government social transfers, on the vertical axis. The regression line with the five-percent confidence interval is shown in both panels. The results indicate that in both sets of countries, redistribution is stronger if *market1* share of the poor is lower. Redistribution reacts positively to the poverty of the bottom deciles. We therefore note that the redistribution hypothesis (higher initial inequality => greater the *sharegain*) holds in both regions. But the *reaction* to rising inequality is much weaker in Latin America where the regression line is much flatter. The *level* of reaction is also lower as shown by the fact that the height of the line is less in Latin American than in advanced economies.

Figure 1. Gini of market income and reduction of Gini through redistribution



Source: Calculated from LIS data. All income measures are on household per capita basis.

In other words, based on non-anonymous data, we conclude that Latin American redistribution (for a given level of *market1* income inequality) is less than in rich countries and that the system reacts more weakly—that is, compensates less—when *market1* income inequality increases. In advanced economies, each percentage point loss in market income of the poor is “compensated” by 0.52 percentage *sharegain* through transfers. We call this elasticity γ . In Latin America γ is only 0.14. These are of course “crude” elasticities, not controlled for other factors. Note that γ can be interpreted as a reaction to an unanticipated negative income shock that affects the poor. The higher the elasticity, the more are government transfers able to compensate for sudden income losses. We look next at the elasticity after introducing a number of political and economic controls.

Introducing political controls

We do this by running regressions where the *sharegain* is the dependent variable which does not just depend on the initial *market1* share of the poor but also on a number of other, mostly political, variables that might influence government redistribution. We use two specifications of the regression: one where *sharegain* is regressed against democracy and partisan variables that reflect the political situation at the legislative level (parliaments); GDP per capita as a proxy of development; and the original (*market1*) share of the poor; another specification includes the same variables except that the political variables reflect democracy and partisanship at the level of the executive branch.

Table 1 presents the results of the regressions. Democracy, both as the dummy variable and as competitiveness for the executive office or legislature, is statistically not significant. Political alignment, whether left- or right-wing is not significant as far as the executive office is concerned. However, when it comes to legislatures, left-wing

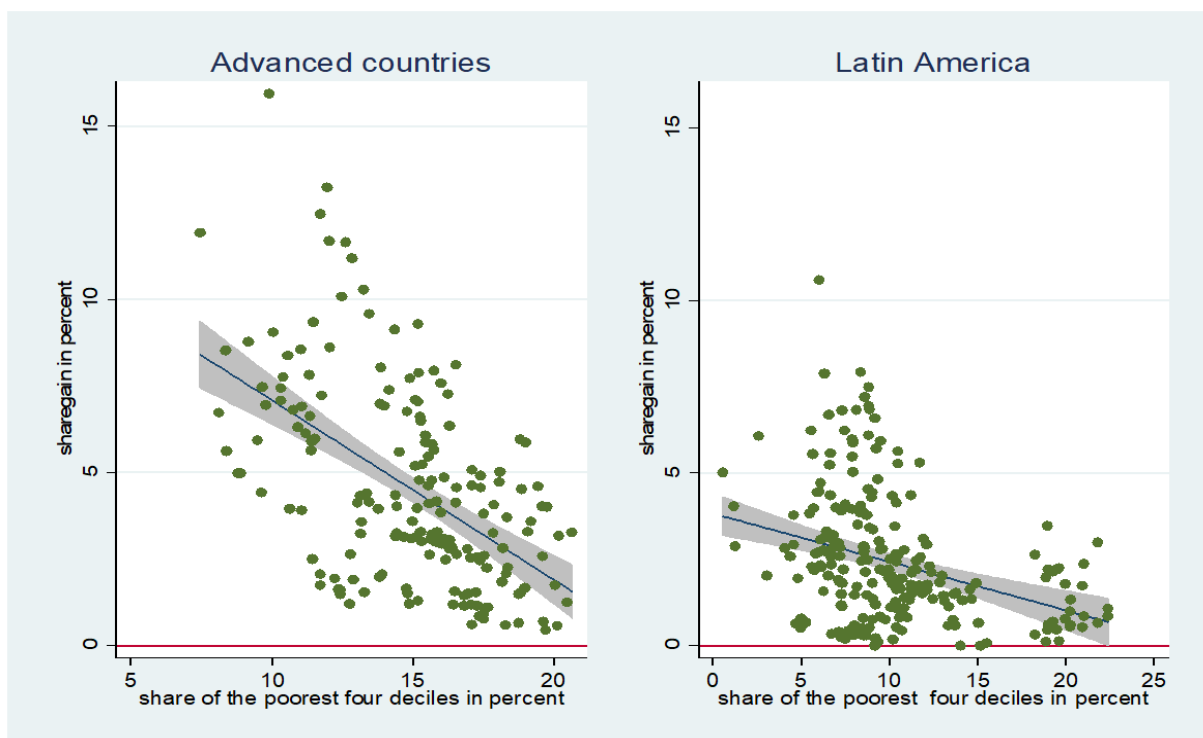
parliaments are more redistributionist. Every leftward shift (whether from the right to the center, or from the center toward the left) is associated with an increased income share of the poor by about 0.3 percentage points. Given that the average *sharegain* of the poor in Latin America and the Caribbean is about 2.4 percentage points, it means that each pro-left swing of the legislature is responsible for about 10 percent of the poor’s gain. This is an important result showing that the connection between reduction of inequality in Latin America and left-wing political change may not be accidental. GDP per capita is not influential. What also matters are the variables linked with the redistribution hypothesis: the lower the original share of the poor, the greater the redistribution. The elasticity is quite low though. It is between 0.13 and 0.16, implying—as explained—that if a sudden economic shock were to reduce the income share of the bottom 40% of the population by 1 percentage point, that would be compensated only by between 0.13 and 0.16 percentage points.

Very similar results are retrieved in the anonymous formulation of the regressions (see regressions 2 and 4 in Table 1). where instead of the initial income share of the bottom 40% we use Gini of *market1* income. Higher market income inequality is strongly associated with greater redistribution: if Gini increases by 1 point (say, from 40 to 41), the *sharegain* would on average increase by around 0.08 percentage points.

Conclusion

The objective of this article was to study recent decrease of income inequality in Latin America and the Caribbean while placing it within the median voter framework and actual political developments in the region. We were motivated by two questions: first, does greater market income inequality lead to greater redistribution through social transfers?; and second, are leftist political parties more redistributionist? The answer to both questions is “yes”.

Figure 2. Cumulative *sharegain* of the four poorest deciles against their original share in *market1* income



Source: Calculated from LIS and SEDLAC data. All income measures are on household per capita basis.

**Table 1. Regression results, country fixed-effects, unbalanced panel
(dependent variable *sharegain*, in percentage points)**

	Executive office		Legislature	
	(1)	(2)	(3)	(4)
<u>Democracy</u>				
Democracy dummy	0.10 (0.78)		-0.03 (0.94)	
Competitiveness for executive office (1 to 7)		0.05 (0.75)	-----	-----
Competitiveness for legislature (1 to 7)	----	----		0.35 (0.50)
<u>Partisanship</u>				
Political alignment of the executive office (higher value more to the left)	0.21 (0.14)	0.14 (0.33)	-----	-----
Political alignment of the legislature (higher value more to the left)	-----	-----	0.30* (0.03)	0.27* (0.05)
<u>Level of development</u>				
GDP pc (in logs; \$PPP)	0.41 (0.56)	0.62 (0.38)	-0.19 (0.78)	0.25 (0.72)
<u>Initial inequality</u>				
Share of bottom 40% in market1 income	-0.13** (0.00)		-0.16** (0.00)	
Gini of market1 income		8.3* (0.01)		8.0* (0.01)
Survey dummy (1=LIS, 0=SEDLAC)	-1.45** (0.00)	-1.27** (0.00)	-1.46** (0.00)	-1.32** (0.00)
Constant	-0.08 (0.99)	-8.04 (0.22)	5.52 (0.37)	-6.81 (0.37)
R ² within	0.11	0.15	0.21	0.16
Number of observations (country-years)	202	205	207	210
Number of countries	20	20	20	20

Like in other regions, we find very strong evidence in Latin America that greater market inequality is associated with what may be called “automatic income stabilizers” that provide some compensation to the poor for their lower market income. These automatic income stabilizers in Latin America are much weaker and less reactive to the loss of market income among the poor than are similar stabilizers in Western countries and Eastern Europe, or to the extent that we can tell (given sparse data) in Asia. Thus we find that Latin America differs from other regions in the world because it has very high market income inequality and modest social transfers.

Regarding our second question, we find evidence that more leftist parties when they control national parliaments are associated with greater pro-poor redistribution. (We do not find however that the same effect holds for leftist presidents.) This is an important finding because it shows that the pro-left political swing in the early 2000s and the reduction of LAC inequality were unlikely to have been independent events. There might have been political roots to the recent decrease of Latin American inequality. While we obviously cannot prove causality, nor can affirm that it was the left-wing swing that led to the reduction in inequality (as opposed to say, reduction of inequality leading to the vote for more leftist parties), we believe that retrieving this result empirically, from the data covering 20

countries, 35 years, and coming from more than 200 surveys, may be relevant for policy-making not only in Latin America but elsewhere.

1 LIS definitions are as follows: Market income (MI), *brutto* market income = *brutto* earnings (inclusive of wage taxes) + income from self-employment + cash property income + occupational pensions. Gross income = *brutto* market income + all social transfers + regular private transfers (state mandated alimony and others private transfers). Disposable income = Gross income - mandatory payroll tax – direct income taxes. For SEDLAC data, the definitions are as follows: Market income (MI), *net* market income = net earnings + income from self-employment + cash property income. Gross income = *net* market income + non-retirement social transfers + private transfers. Disposable income = gross income. (We use the term “brutto” here to differentiate between the situation when wage taxes are included as part of wages from the term of “gross” income that is used by LIS and more generally in work on household surveys.) Note for this analysis we assume that pensions are part of market income, in other words we treat them as deferred wages (for further elaboration see forthcoming paper). Market income that includes state pensions (specifically in the LIS nomenclature, state old age and survivors’ benefits) is called *market1* income. This is the concept we shall use throughout. In all cases we work with household-per-capita definitions where deciles are composed of 10 percent of individuals whose income is their household per capita income.

2 The most democratic situation is when both electoral competitiveness are at the maximum, that is both take the value of 7. For political alignment we use the variable that proxies the political tendencies (right, center, left) of the executive and the legislature. 9 The variables are gov1rlc = political orientation of the largest party in legislature, and execrlc = chief executive political party's orientation.

References

Alvaredo, Facundo and Leonardo Gasparini (2013), "Recent trends in poverty and inequality in developing countries", Universidad Nacional de la Plata, Documento de Trabajo No. 151, November 2013. Available at <http://sedici.unlp.edu.ar/handle/10915/49154>.

Beck, Thorsten; George Clarke; Alberto Groff; Philip Keefer; Patrick Walsh (2001), *New Tools in Comparative Political Economy: The Database of Political Institutions*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/17216>.

Ferreira, Francisco, Philippe Leita and Julie Litchfield (2007), "The rise and fall of Brazilian inequality, 1982-2004", *Macroeconomic Dynamics*, pp. 1-32.

Ferreira, Francisco, Philippe Leita and Julie Litchfield (2007), "The rise and fall of Brazilian inequality, 1982-2004", *Macroeconomic Dynamics*, pp. 1-32.

Gasparini, Leonardo, Guillermo Cruces and Leopoldo Tornarolli (2011), "Recent Trends in Income Inequality in Latin America", including comments by Daniel Mejía and Daniel E. Ortega, *Economía: Journal of the Latin American and Caribbean Economic Association*, vol. 11 (2), Spring, 147-201

Keefer, Philip and Branko Milanovic (2014), "Party age and party color: new results on the political economy of redistribution and inequality", World Bank Working Paper No. 7129, December.

Luxembourg Income Study (LIS) Database, <http://www.lisdatacenter.org> (multiple countries; {August 2018 to March 2019}). Luxembourg: LIS.

Meltzer, Allan. H. and Richard, Scott F. (1981), "A rational theory of the size of government", *Journal of Political Economy*, vol. 89, 914-927.

Meltzer, Allan. H. and Richard, Scott F. (1983), "Tests of a rational theory of size of government". *Public Choice*, vol. 41, 403-437.

Milanovic, Branko (2000), "The median voter hypothesis, income inequality and income redistribution: An empirical test with the required data", *European Journal of Political Economy*, vol. 16, 367-410.

Tornarolli, Leopoldo, Mattias Ciaschi and Luciana Galeano (2018), "Income distribution in Latin America. The Evolution in the last 20 years: A global approach", SEDLAC, Documento de Trabajo 234, September.

Modelling fiscal redistribution: A cautionary tale about the pitfalls of endogeneity

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This article draws heavily on LIS Working Paper No. 762, "Can the structure of inequality explain fiscal redistribution? Revisiting the social affinity hypothesis" (February 2019), where detailed results can be found. The paper is in press at the *Socio-Economic Review*: <https://doi.org/10.1093/ser/mwz005>

If everyone was a rational actor simply maximizing their own income (and nothing else), the world would be an easy place to understand for policy-makers and researchers alike: we would only need to go back to our undergraduate text-books to know that higher levels of inequality are matched by greater fiscal redistribution. At least, this is what a simple model of taxes, transfers and the existence of utility-maximizing median-voters makes us believe (see Meltzer and Richard, 1981). However, as Branko Milanovic, based on joint work with Janet Gornick and Nathaniel Johnson, explained in the [September 2018 edition of this newsletter](#), this is not how things are in reality (Gornick *et al.*, 2017). Milanovic makes his case by comparing the United States and Germany but the argument could have been exemplified with many other pairings. In the United States, the two bottom quintiles start off with 11.7% of overall market income and gain relatively little when the effect of taxes and transfers is taken into account. By contrast, the poorest Germans receive 15.3% of all market income and then get a far bigger boost from progressive taxation and social transfers. So why do Americans fail to tax the rich in order to share the spoils, even though they have far bigger incentives to do so?

One could argue that America is different but if you are a political economist you prefer a general model that can explain it all. Lupu and Pontusson (2011) propose one that is particularly persuasive. They argue that "middle-income voters will empathize with the poor and support redistributive policies when the income distance between the middle and the poor is small relative to the income distance between the middle and the affluent" (*ibid.*, p. 316). Drawing on the literature on racial and ethnic fragmentation (Luttmer, 2001) and the notion of perceived social distance, they develop a framework where – in the absence of crosscutting ethnic cleavages – income differentials are the source of social affinity between groups. Social affinity, in turn, shapes the allegiance of the

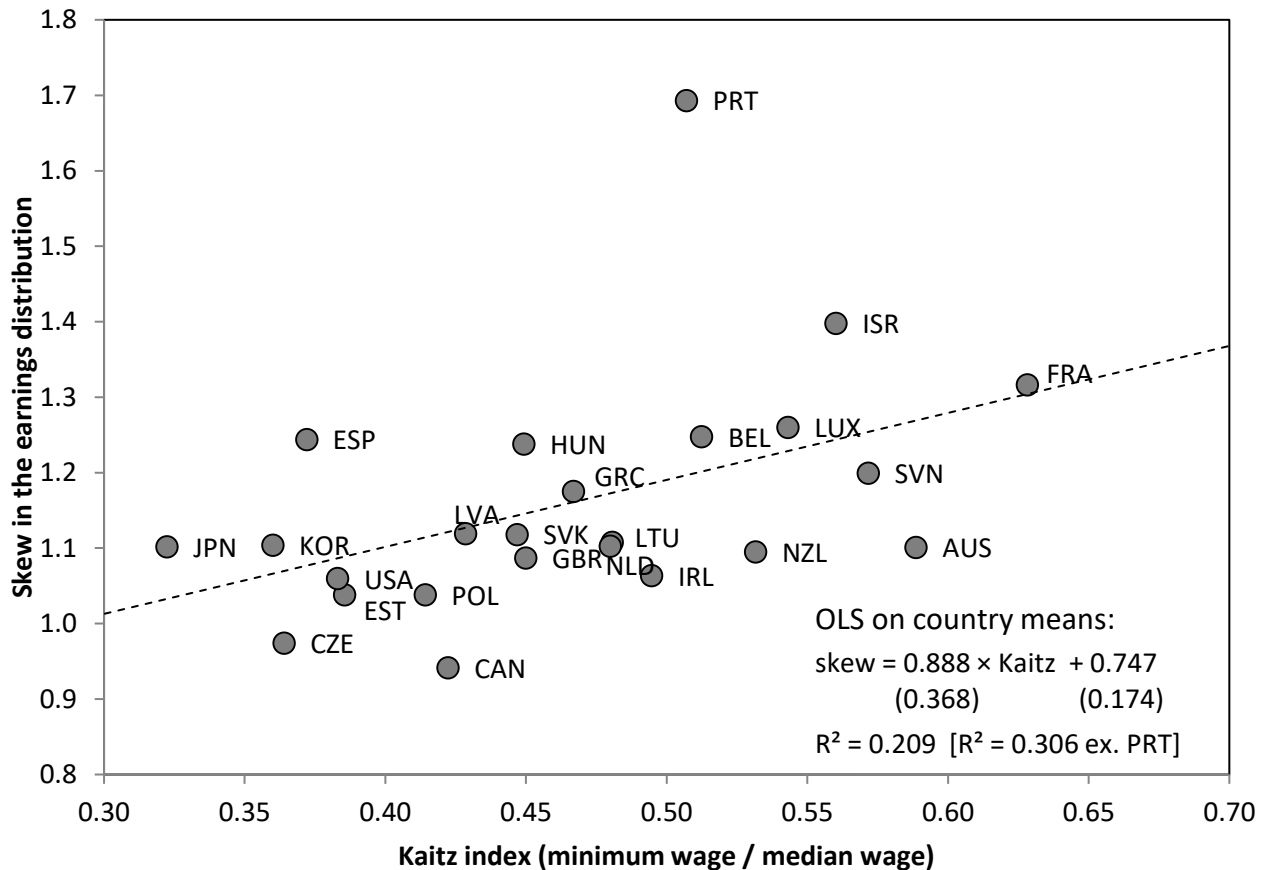
middle class and hence the political coalitions that emerge in the distributional conflict (see also Kristov *et al.*, 1992). In other words, Lupu and Pontusson suggest that a whole generation of political economists has been barking up the wrong tree when trying to establish a link between the *level* of inequality and redistribution – where what really matters is the *structure* of inequality.

Models, of course, are a dime a dozen. What makes a model influential is not only a compelling theory but also a set of empirical tests which show that a model's predictions hold in the real world. In their paper, Lupu and Pontusson (2011) run some 30 regressions that consistently produce findings in line with their model, leading them to conclude that there is "robust evidence in support of the core hypotheses generated by this theory" (*ibid.*, p. 332). Their primary outcome variable is fiscal redistribution, drawing on the Luxembourg Income Study (LIS) database and restricting observations to households headed by an individual aged 25–59 years. They corroborate their findings by using non-elderly social spending as an alternative dependent variable. For their main explanatory variable, they utilize OECD data on earnings differentials and derive a measure they call 'skew'. Skew is the ratio of the upper decile ratio (D9/D5) over the lower decile ratio (D5/D1). Hence, values greater than unity indicate that the median wage is (in relative terms) closer to wages at the bottom than to those at the top, implying a greater likelihood of a pro-redistribution coalition.

The pitfalls of endogeneity: the earnings distribution and labour market institutions

A curious and generally overlooked aspect of the paper by Lupu and Pontusson is that it develops a theory that explicitly refers to the structure of income inequality, but then tests it against data that refer to earnings. While 'earnings' and 'incomes' are often used interchangeably, there are important differences between the two concepts: the OECD's earnings data measures the distribution of labour incomes among individuals in full-time employment; income inequality captures the distribution of income from all sources among households, regardless of whether household members hold jobs or not. To make small and large households comparable, researchers usually adjust incomes for household size and then weight households by the number of its members. Although the dispersion of earnings should influence the distribution of household incomes, so do the distribution of capital income, the distribution of

Figure 1. The Kaitz index and skew in the earnings distribution (country means)



Note: Refers to country means, based on all years where a non-zero Kaitz index and data on earnings skew are available.

Source: OECD and ILO (see LIS Working Paper No. 762, Online Appendix, Table A11).

working hours and unemployment between individuals, and the sorting of high- and low-wage earners across households (Blau and Kahn, 2011, p. 179). In fact, as Salverda and Checchi (2015) have argued, the link is so complex that the “two strands of study, of wage dispersion on the one hand and household income distribution on the other, are miles apart” (ibid., p. 1537).

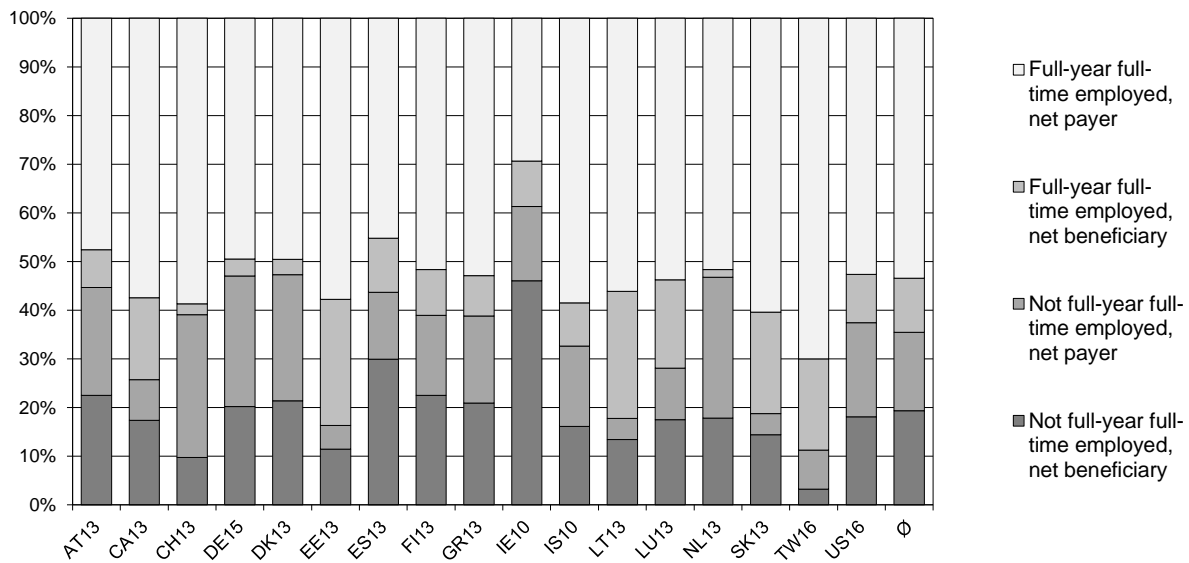
What may look like splitting hairs matters for the veracity of the social affinity model: The earnings distribution is heavily influenced by institutions and government interventions in the labour market. As Pontusson *et al.* (2002) show, union density, bargaining centralization and public sector employment all reduce earnings differentials. Importantly, they often have a much stronger effect on the D5/D1 ratio than on the D9/D5 ratio and hence give rise to skew. Earnings skew can therefore be best understood as an outcome of the welfare state – much like fiscal redistribution itself. In fact, it is entirely plausible that the same governments which set up labour market institutions to raise wages at the bottom also provide more generous social benefits and collect higher taxes from the well-off (see also Iversen and Soskice, 2009). While this might enthrall the beneficiaries of these policies, it is every econometrician’s nightmare: the central explanatory variable becomes endogenous, which makes results vulnerable to omitted variable bias.

To substantiate this line of reasoning, one has to show two things: First, labour market institutions and policies influence earnings skew; and second, the results change when controlling for this source of endogeneity. Taking stock of all the factors that explain the earnings distribution is the subject of a complex body of literature, but

fortunately, in order to demonstrate endogeneity, it is sufficient to link a single policy instrument to earnings skew. Minimum wages are a self-evident example. Despite sharp disagreements over the damaging or beneficial effects of minimum wages, the arguments made on both sides of the divide imply that higher minimum wages should lead to greater skew. The first strand of the literature has focused on the wage effects of statutory minimum wages, by-and-large confirming that they achieve their stated objective and raise the wages of low-paid workers. The second major strand of the literature has concentrated on employment effects and (more controversially) claimed that minimum wages price workers with low productivity out of the market. Therefore, regardless of which position one takes, minimum wages should disproportionately increase the earnings at D1: either by lifting wages at the bottom, or by truncating the left tail of the earnings distribution.

Figure 1 illustrates this point: countries with higher minimum wages typically also display a higher level of earnings skew (aside from the odd case of Portugal). A more complex regression model that makes use of the within-country variation of minimum wages supports the same finding, even when allowing that some countries (such as the Scandinavian countries and Austria) do not set minimum wages but have close functional equivalents in the form of comprehensive collective bargaining systems to set a floor for wages. There is also some indication that employment protection legislation (EPL) has similar effects and helps to raise the relative income position of low-paid workers. All of this lends credibility to the argument that

Figure 2. Net payers and net winners of fiscal redistribution by status of household head in full-time full-year employment, 17 countries (2010-16)



Note: Employment status refers to the household head; only households headed by an individual aged 25 to 59 years. Net payers are households where disposable income is less than or equal to market income; net beneficiaries are households where disposable income exceeds market income. Market incomes include private transfers received. Weighted by household size. Country abbreviations are two-letter codes (ISO 3166); the numbers refer to the income reference year.

Source: Own tabulation, based on Luxembourg Income Study (LIS) Database, <http://www.lisdatacenter.org> (multiple countries; June 2018).

earnings skew is not exogenous to welfare states but is itself at least in part a policy outcome.

Labour market regulation can of course not be reduced to minimum wages and EPL. Nonetheless, these policy areas provide two variables to test for omitted variable bias – the second step of the argument above. To their credit, Lupu and Pontusson make full replication materials available, so it is relatively easy to add these two variables to the models of the original paper. The results are not pretty: entering minimum wages as an additional control variable generally renders earnings skew – the key explanatory variable – insignificant. Granted, in a few models earnings skew remains a significant predictor for redistribution even when minimum wages are entered, but significance of the coefficients on skew vanishes when the EPL is also added. This supports the conclusion that the findings of the original paper were indeed driven by endogeneity – and that the explanatory variable, earnings skew, was not an appropriate choice to test the model.

Redistribution and between-group conflict

Beyond these econometric pitfalls, there is a theoretical argument to be made against using relative earnings differentials to explain redistribution. Doing so would imply conceptualizing redistribution as the product of distributional conflict *within* the group of wage earners. This is a counter-intuitive proposition as a key conflict that has shaped welfare states was the distributional conflict between labour and capital rather than within-group conflict among wage earners. But short of invoking class conflict, there is also the more pedestrian insight that many welfare states were designed to provide income support to those who are out of work (be it due to sickness, unemployment or old age). Hence, social transfers are largely financed by those who are currently employed (as well as through contributions by employers), whereas many of the benefits accrue to

those out of work. While today’s wage earners might be tomorrow’s unemployed or leave the labour force altogether (and vice versa), it seems unwarranted to implicitly dismiss the potential for conflict *between* these two groups as irrelevant for redistribution preferences.

The proposition that between-group transfers matter can be put to an empirical test. Again, the Luxembourg Income Study (LIS) Database provides a reliable cross-national source. One conceptual complication is that the data measures employment status at the level of individuals but incomes at the level of households. Therefore, Figure 2 uses the employment status of the ‘household head’ to distinguish between households headed by somebody in full-year full-time employment (FYFT) and the remaining households, restricting observations to households with heads in the main working-age bracket. It then identifies households which are net payers and net beneficiaries from fiscal redistribution, according to whether disposable household incomes are lower (net payers) or higher (net beneficiaries) than market incomes. Despite this somewhat crude operationalization, the main finding is clear-cut: More than three-quarters of the net payers are found in households with a fully employed head, but almost two-thirds of the net beneficiaries live in households with a head who lacks full-year full-time employment. Moreover, the redistributive flows between groups are substantial: Averaging across all 17 countries, the tax and transfer system reduces the incomes of households with a head in FYFT by almost a quarter, whereas the remaining households are better off after taxes and transfers.

Testing theory against appropriate data: Does the structure of income inequality drive redistribution?

Econometric pitfalls and theoretical considerations alike therefore argue against testing the social affinity hypothesis on earnings data.

After all, the theoretical model refers to the *structure of income inequality*, so why not assess it against data that, likewise, captures the structure of income inequality? Unfortunately, unlike in the case of the OECD's earnings data, quantile thresholds for household market incomes are not readily available in tabulated form (for disposable incomes, see the database by Gornick and her collaborators or the data compiled by [Thewissen, Nolan and Roser](#)). Thus, to calculate a skew measure that follows the one developed by Lupu and Pontusson, one needs to access micro-data (read: LIS micro-data). However, because those at the 10th percentile often have zero market incomes, the poor are better defined as those at the 25th percentile and, equivalently, the affluent as those at the 75th percentile. This allows calculating income skew as the ratio of the upper and lower quartile ratios, or as $(P75/P50)/(P50/P25)$.

Given the expansion of the LIS database in recent years, this yields an impressive 192 country-years from developed countries alone (data are supplied in the replication data-set). Using LIS as a source has the additional advantage that the main explanatory variable and the outcome variable are now, by construction, available for the same countries and years, solving the need to extrapolate and interpolate data. Both variables are based on a consistent set of definitions and, by virtue of access to the micro-data, can be restricted to the same reference population (in this case, households with a head in the main working-age group). And while the micro-data allow researchers to make choices regarding technical details such as the equivalence scale, the quasi-convention (followed in the paper) is to use "standard LIS routine" and to divide household incomes by the square root of the number of household members.

Equipped with a treasure trove of LIS data (plus a bag full of control variables), hypothesis testing can begin (see [Luebker, 2019](#), for details). Recall that, according to the theory, more skew should lead to more redistribution. However, the data stubbornly refuses to yield anything like a positive relationship: coefficients on skew are either insignificant or negative and significant, i.e. carry the 'wrong' sign. This holds irrespective of model specification. Findings do not change either when only observations prior to 2008 are used, when skew in disposable incomes is used as the explanatory variable, and when switching to social spending as the outcome variable. In short, there is no support for the social affinity hypothesis when it is tested against data on skew in the income distribution.

Time to bid farewell to a seductive theory?

In sum, the original results that lend support to the social affinity hypothesis do not hold when tested on a different, theoretically more appropriate data-set. This sends a note of caution for researchers working on income distribution: best to make sure that your data matches your theoretical concept as closely as possible. While earnings data are valuable in their own right, they should not be used as a rough-and-ready substitute for data on incomes. It is

therefore worthwhile to pay attention to the (admittedly sometimes complex) definitional details of different income concepts (as detailed in the [Canberra group handbook](#)). And where tabulated data-sets are missing, it is worth the extra effort to work with the remote access to LIS micro-data (an exercise that is less challenging than it might seem to new users, given the excellent [LIS self-teaching manuals](#)).

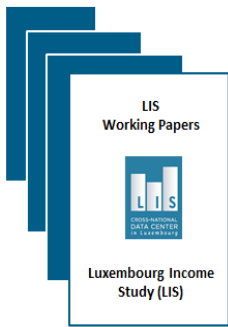
Regarding theory, it seems that the political redistribution is still more complex than thought but that ever more sophisticated redistribution models are not necessarily the answer. Sophistication sometimes comes at the expense of realistic micro-foundations. Under the structure of inequality logic, for instance, voters are not only expected to judge their own position in the income distribution accurately but also that of others. Further, they have to assess relative income distances and make these the basis for their stance on redistribution. This is a demanding standard. As the OECD points out, "[m]ost of us have no idea – or the wrong idea – of how we compare with the rest of the population".¹ A series of recent survey experiments has demonstrated that people have indeed great difficulty in assessing their own income position, so it is much less likely that they can make accurate judgements about relative income differentials – as opposed to a general assessment of the level of inequality in the society that they live in.

¹ See "Compare your income" at <http://www.oecd.org/statistics/compare-your-income.htm> (accessed on 21 April 2017).

References

- Blau, F. D., and Kahn, L. M. (2009) 'Inequality and earnings distribution'. In Salverda, W., Nolan, B. and Smeeding, T. M. (eds) *Oxford Handbook of Economic Inequality*, Oxford, Oxford University Press, pp. 177–203.
- Gornick, J. C., Milanovic, B. and Johnson, N. (2017). American Exceptionalism in Market Income Inequality: An Analysis Based on Microdata from the Luxembourg Income Study (LIS) Database. LIS Working Paper Series No. 692. Luxembourg: LIS.
- Iversen, T. and Soskice, D. (2009) 'Distribution and Redistribution: The Shadow of the Nineteenth Century', *World Politics*, 61, 438–486
- Kristov, L., Lindert, P. H. and McClelland, R. (1992) 'Pressure Groups and Redistribution', *Journal of Public Economics*, 48, 135–63.
- Luebker, M. (2019) Can the structure of inequality explain fiscal redistribution? Revisiting the social affinity hypothesis. LIS Working Paper Series No. 762. Luxembourg: LIS.
- Lupu, N. and Pontusson, J. (2011) 'The structure of inequality and the politics of redistribution', *American Political Science Review*, 105, 316–36.
- Luttmer, E. F. P (2001) 'Group loyalty and the taste for redistribution', *Journal of Political Economy*, 109, 500–28.
- Meltzer, A. H. and Richard, S. F. (1981) 'A rational theory of the size of government', *Journal of Political Economy*, 89, 914–27.
- Pontusson, J., Rueda, D. and Way, C. R. (2002) 'Comparative Political Economy of Wage Distribution: The Role of Partisanship and Labour Market Institutions', *British Journal of Political Science*, 32, 281–308.

Working Papers & Publications



Focus on ‘Work-Family Reconciliation Policies and Women’s and Mothers’ Labor Market Outcomes in Rich Democracies’  LIS WP No.754 by *David Brady (University of California, Riverside & WZB Berlin Social Science Center), Agnes Blome (Free University of Berlin), and Julie A. Kmec (Washington State University)*

In recent decades, many rich democracies expanded work-family reconciliation policies designed to alleviate gender-based labor market inequalities. Prominent research has claimed that work-family reconciliation policies trigger “tradeoffs” and “paradoxes” in terms of gender equality with adverse labor market consequences for women. These claims have greatly influenced debates regarding social policy, work, family, and gender inequality. Motivated by limitations of prior research, the authors analyze the relationship between the two most prominent work-family reconciliation policies (paid parental leave and public childcare coverage) and seven labor market outcomes (employment, full-time employment, earnings, fulltime earnings, being a manager, being a lucrative manager, and occupation percent female). The paper address the following research questions: To what extent are work-family policies related to women’s labor market outcomes? Are these policies differently related to the labor market outcomes of women versus men and mothers versus childless women?

Brady, Blome and and Kmec estimate multi-level models of individuals nested in a cross-section of 21 rich democracies near 2005, and two-way fixed effects models of individuals nested in a panel of 12 rich democracies over time. The vast majority of coefficients for work-family policies fail to reject the null hypothesis of no effects. The pattern of insignificance occurs regardless of which set of models or coefficients one compares. Moreover, there is as much evidence that significantly contradicts the “tradeoff hypothesis” as is consistent with the hypothesis. Altogether, the analyses undermine claims that work-family reconciliation policies trigger tradeoffs and paradoxes in terms of gender equality with adverse labor market consequences for women.

Published in *Socio-Economic Review*: <https://doi.org/10.1093/ser/mwy045>

LIS working papers series

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by *Vladimir Hlasny*

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Income, Familialism and Women’s Economic Independence
by *Kaitlin Alper*

LIS working papers series - No. 767 

Automation and Occupational Wage Trends: What Role for Unions and Collective Bargaining?
by *Zachary Parolin*

Data News



Luxembourg Wealth Study (LWS)

As of today, all the LWS datasets are available in the 2019 Template, and accessible through LISSY. More information about the new LWS variable list and user guide are available [here](#).

In addition, the pre-revised version of the data will remain accessible through LISSY under project "LWSPRE" for a specific period of time so that the researchers can finalize their ongoing projects.

Data releases

Luxembourg Income Study (LIS)

Ivory Coast [🔗](#)

LIS is delighted to announce the addition of the Ivory Coast to its Database where three data points have been added, namely CI02 (Wave V), CI08 (Wave VII), and CI15 (Wave X).

The three datasets are based on the Survey of the Household Living Standards Survey (ENV) from the [National Statistical Institute](#) of Ivory Coast.

Vietnam [🔗](#)

In continuation of our geographical expansion, LIS has added Vietnam to its Database, two data points have been added VN11 (Wave VIII), and VN13 (Wave IX). The datasets are based on Vietnamese Household Living Standards Survey (VHLSS) carried out by the [General Statistics Office \(GSO\) of Vietnam](#).

The inclusion of Ivory Coast and Vietnam is accomplished through the research agreement between the Agence Française de Développement (AFD) and LIS that aims at providing both parties with enhanced capacities to realise national or cross-national studies on socio-economic outcomes and on the institutional factors that shape those outcomes. LIS is grateful for this cooperation that allowed for this valuable addition.

Spain [🔗](#)

One data point has been added to the LIS Database; namely es16 (Wave X). The ES16 dataset is based on the European Union's Survey of Income and Living Conditions (EU-SILC), acquired from the Spanish [National Statistics Institute \(INE\)](#).

LIS/LWS Data Release Schedule

	Autumn 2019	Winter 2019
LIS Database		
Austria	AT16	
Brazil		BR16
Czech Republic		CZ16
Colombia	CO16	
Finland	FI16	
Germany		DE16
Japan	JP10/13	
Mexico		MX14/MX16
Peru		PE16
Slovenia		SI15
South Africa		ZA15/17
Vietnam		VN93/VN98/VN02/VN04/VN06/VN08/VN10
LWS Database		
Germany		DE17
Japan	JP04/09/11/14	
Luxembourg	LU10/14	
Spain	ES02/05/08/11/14	
South Africa		ZA15/17
United Kingdom		UK13/15

Highlights



**LIS is going (further) South:
Ivory Coast and Vietnam are now on the map**

Louis Chauvel (University of Luxembourg)

In completing its collection LIS has now exceeded its target of 50 countries present at least once in the database. With the latest release of the month, LIS can be said to offer a wide-ranging overview of the planet that represents at least 50% of the income/inequality map of the world.

Traditionally, LIS has been a club of the richer, Western countries. In the early systematic comparison of 1994 by Lee Rainwater, Anthony Atkinson and Timothy Smeeding ("Income Distribution in Advanced Economies: The Evidence from the Luxembourg Income Study (LIS)", the base consisted of 17 Western countries. Since then, LIS has gradually become a much larger project and with the entry of Ivory Coast (CI) and of Vietnam (VN), the world coverage of the income/inequality map (fig.1) is now above 50%.

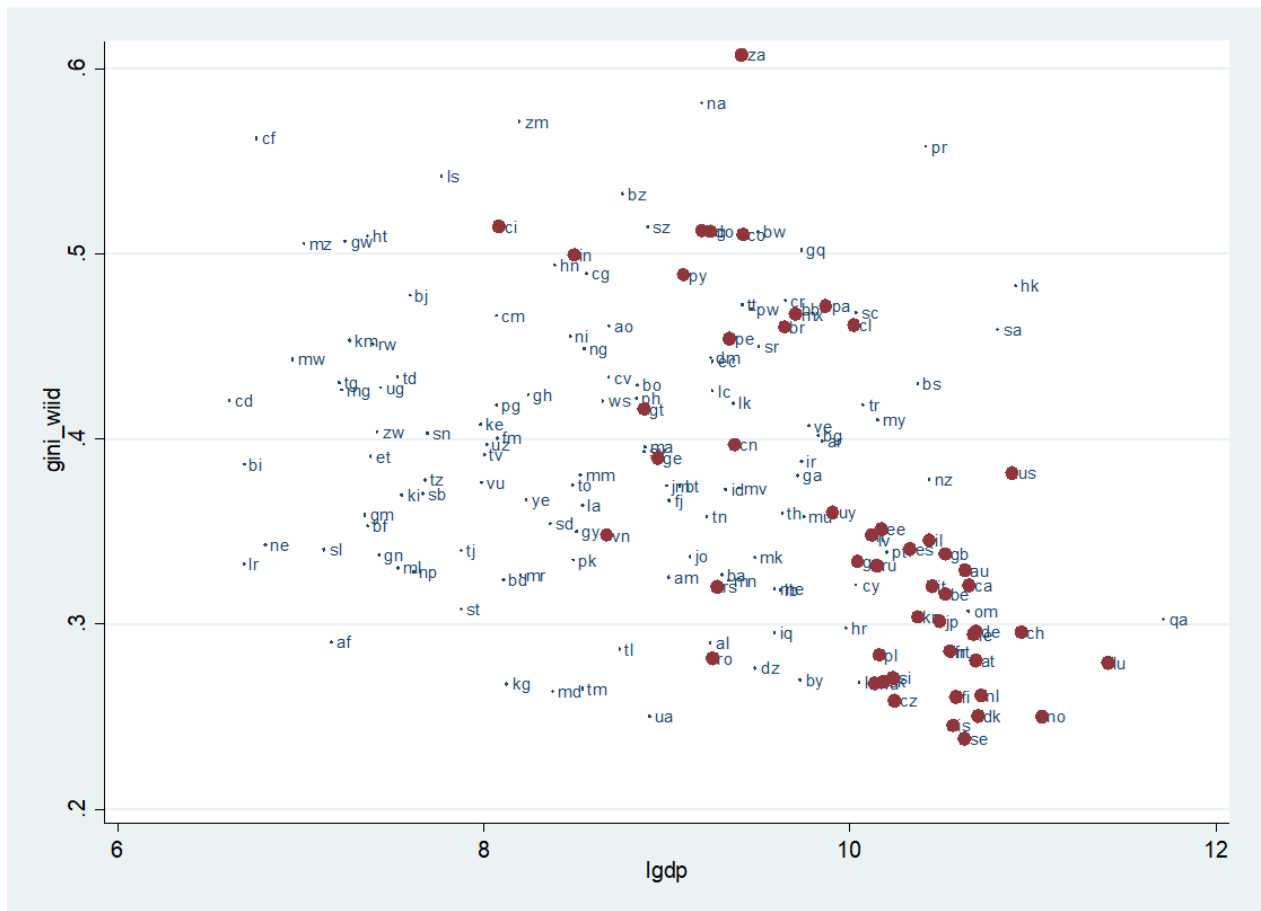
Vietnam is a typical example of a country now ranked as middle class on the scale of log-incomes; with its Gini index near to .35 it provides an example of moderate inequality. This level is comparable to Canada or many European countries. Due to its rapid economic progress, one

can anticipate its level of development quickly catching up with one of several countries of Central Europe such as Romania (RO) or Serbia (RS).

Ivory Coast offers an even newer and more specific example that completes the LIS datasets with an emblematic case of a not-so-poor but still very unequal country in the sub-Saharan Africa context. With a Gini above .5, the introduction of Ivory Coast provides an interesting example of a socio-economically tense case of inequality. In terms of world coverage, it represents a new step in LIS' development. Even if, for instance, the Democratic Republic of Congo, the Central African Republic and Niger represent instances of even lower-income countries, Ivory Coast will be an interesting case for the LIS community to be able to work with.

A simple comparison of level of living based on income and on consumption shows a reduction of 15 percentage points of the Gini index. An interesting aspect is how inequality is reduced through considerations of consumption: the interdecile ratio is reduced by 55% from 13 to 6, and the interquartile ratio by one third from 3.6 to 2.5. In more detail, the top decile to median declines less than the median to lower decile: this means that consumption is more equal, in particular at the bottom, than living standards.

Figure 1. Income / Inequality map of the World



Horizontal axis: the log of GDP per capita purchasing power parity 2011- international \$.

Vertical axis: Gini coefficient.

Bold points represent the 50 LIS countries (latest year available).

Note: Richest countries are on the right and most unequal on the top. Country codes are the standard ISO codes of 2 characters.

Source: Luxembourg Income Study (LIS) Database and World Income Inequality Database (WIID4).

Fig 2. Comparison of inequality indicators for different percentile ratios for income versus consumption based living standards

	d9/d1	d9/Median	Median/d1	p75/p25
income	13.3	3.5	3.8	3.6
consumption	6.0	2.5	2.4	2.5
difference %	-55%	-28%	-37%	-31%

Source: own calculation based on Luxembourg Income Study (LIS) Database.

The same result could be interpreted different ways. In the optimistic view, the poor receive more non-cash transfers, and benefit more from the informal economy or auto-consumption; the pessimistic one is based on savings: if the rich spend more, they can save more. And if the poor consume more, they are at higher risk of over-indebtedness. Ivory Coast provides rich information including consumption that will provide the possibility of addressing several challenging issues regarding data quality in the future. Even if Ivory Coast and even poorer countries are known through aggregated databases such as SWIID, WIID, etc. (see Jenkins, S.P. , "World income inequality databases: an assessment of WIID and SWIID" *The Journal of Economic Inequality*, December 2015, Volume 13, Issue 4, pp 629–

671 <https://doi.org/10.1007/s10888-015-9305-3>) its inclusion in LIS means entirely different possibilities in terms of analyses. With the microdata availability in LIS, we will be better able to answer some questions such as: Does a non-cash economy have a strong impact on inequality? Is self-production important for poverty reduction? What about the role of inter-household transfers or of local solidarity?

This must be analysed in greater detail but the addition of this new country to LIS means solid progress in the direction of fuller coverage of the diversity of the world of inequalities: the income/inequality map of the world is one step nearer completion.

Informal activity on the labour market – a new LIS variable

Carmen Petrovicj ✉ (LIS)

According to ILO estimations, the informal economy, in its diverse forms, extends to more than half of the world labour force and to more than 90 percent of all Micro and Small Enterprises (MSEs), with a preponderance in emerging economies. Recognising the importance of the commitment to decent work for all workers, with the new template LIS introduced a new variable, *informal*, aimed at measuring informal activities on the labour market. Previously, information on informal activities could be found mostly in the LIS variable *notoff_c* (country-specific information about unofficial/non-registered/untaxed work) and in some cases in *oddjob_c* (country-specific information about irregular/casual/odd jobs for pay), however, as these were country-specific variables, codes and contents varied considerably across countries. The new standardised variable *informal* is a dichotomous variable, whereby any indication of informal activity is denoted with the value 1. Although the codes are standardised, users of the LIS/LWS databases need to use this variable with care, as the concept of informal labour market activity and the collected information differs largely from country to country.

The objective of this article is twofold. First, we will briefly describe the conceptual idea of informal labour market activities more broadly, with a specific focus on the difference between dependent and self-employed persons affected by informal activities, while also clarifying how this concept can be captured with the LIS data. Secondly, we will show some descriptive numbers based on the new LIS variable concerning the prevalence of informal activities among persons with different education levels and among those working in different economic sectors, looking separately at dependent workers versus self-employed persons.

According to a report by the ILO, *informal economy* refers to “all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements”, a definition that covers a wide variety of situations. First, one needs to acknowledge a clear difference between informal activities in dependent as opposed to self-employed work. For employees ‘informal’ mostly refers to situations where a work contract is absent, or where there is non-compliance with legal rights on the part of the employers, non-registration in the social security system, or work in unregistered businesses, or even the production of illegal goods or services. As diverse as these situations may seem, they overlap to a large extent, in other words the identified group shares several characteristics at the same time. For the self-employed too, the concept of informality is varied. Thus, being informal could refer to operating an unregistered business, to non-payment of taxes or of contributions to the social security system, in contravention of the law; persons carrying out non-paid activities for the well-being of the household (such as farming for own consumption) can also be included in the definition of informal workers.

Since there are no international best standard practices as to how exactly informal activity should be measured, the way the information is collected varies considerably across countries and surveys. In order to achieve the best comparable indication of informality while still capturing the majority of informal workers, LIS has decided to adopt a clear definition of informality. As regards employees, are considered as informal those who fulfil at least one of the following criteria: i) work without a work contract, ii) do not contribute to the social security system, iii) work in an unregistered business, iv) do not benefit from legal rights (right to pension, paid leave, etc.) v) earn an under-declared wage. For the self-employed the indication of informality is restricted to those: i) who own an unregistered business when the legislation in

the country requires them to register it, and/or ii) who do not pay taxes and/or contributions if they have to pay them. We do not aim to flag those who produce goods and services only for their own consumption.

As a result, the contents of the LIS *informal* variable are derived from a variety of different questions. In Mexico, Colombia and Peru for example, employees are asked about the existence of a work contract (albeit with some differences in formulation and scope), while in Brazil, Chile, Estonia, Greece, Guatemala, Taiwan and Uruguay they are asked whether they have social security insurance; in South Africa informal refers to employees working in non-registered jobs, and in Russia the respondents are asked if they work in the informal sector versus the formal one. For the self-employed the content is more frequently standardised, as it refers mostly to having an unregistered business (Estonia, Panama, Paraguay, Uruguay, South Africa). For the other countries informal refers mostly to not contributing to social security system. For a detailed description of exact contents of the variable in specific datasets, LIS/LWS users are advised to consult METIS.

Figures 1 and 2 compile datasets for LIS Wave IX (around 2013), Russia 2011, and Côte d'Ivoire 2015, for all of which LIS has data concerning informal activities. A few countries were excluded from this overview due to the low relevance of informal activities (e.g. Luxembourg, Slovakia, and Estonia for the self-employed; in general, in Western Europe the labour legislation is stricter and consequently, the incidence of informal employment tends to be significantly lower).

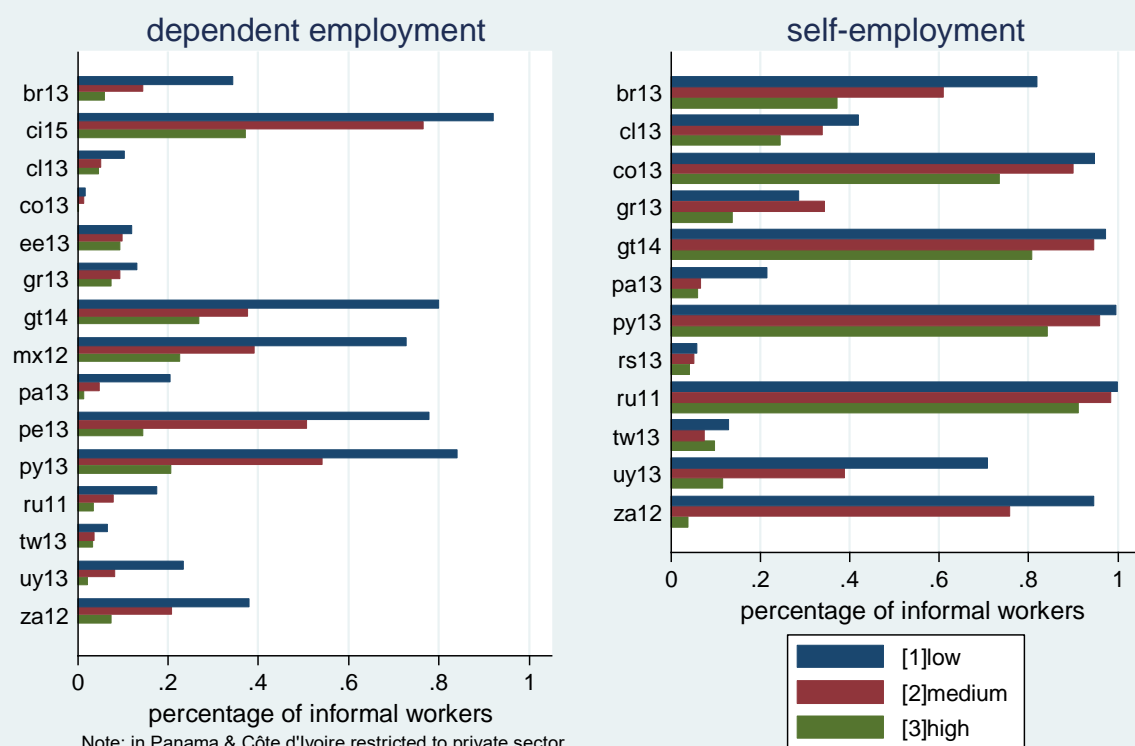
Looking at informal employment by education level (see Fig. 1) we can see that among dependent employees, people with no education or lower than upper secondary level are more likely to be employed in the informal sector, with over 75 percent of them working in informal jobs in Côte d'Ivoire (96 percent), Guatemala, Peru, Paraguay, and Mexico.

This pattern holds true for all countries, although there are conceptual differences in constructing the variable, as mentioned before. Nevertheless, care is needed when drawing conclusions about the magnitude of coverage of informal activities. Particularly striking is the low coverage of informal activities of dependent employees in Colombia, which relates to the problematic availability of appropriate survey questions to accurately capture informal activities (the question there refers to those who do not have any working contract, including a verbal one, while for other countries it refers to written contracts only). The group of the low-educated is followed by people with medium education and higher education, the highest frequency being in Côte d'Ivoire which has 71 percent of medium-educated and 40 percent of higher-educated people in the informal system. For the other countries the proportion of higher-educated people working in informal jobs is substantially lower.

However, the situation is not as diverse when we look at self-employment. It remains true that overall lower-educated people are more likely to be in the informal sector than medium- and higher-educated people. There is one exception – the case of Greece, where more people with a medium education level are in the informal sector (also because there are fewer people who do not at least have upper secondary education). In some countries the proportion of people with different education levels in informal self-employment is quite close (see Colombia, Guatemala, Paraguay, Russia), while in South Africa and Uruguay the proportion of highly educated people on the labour market is substantially lower.

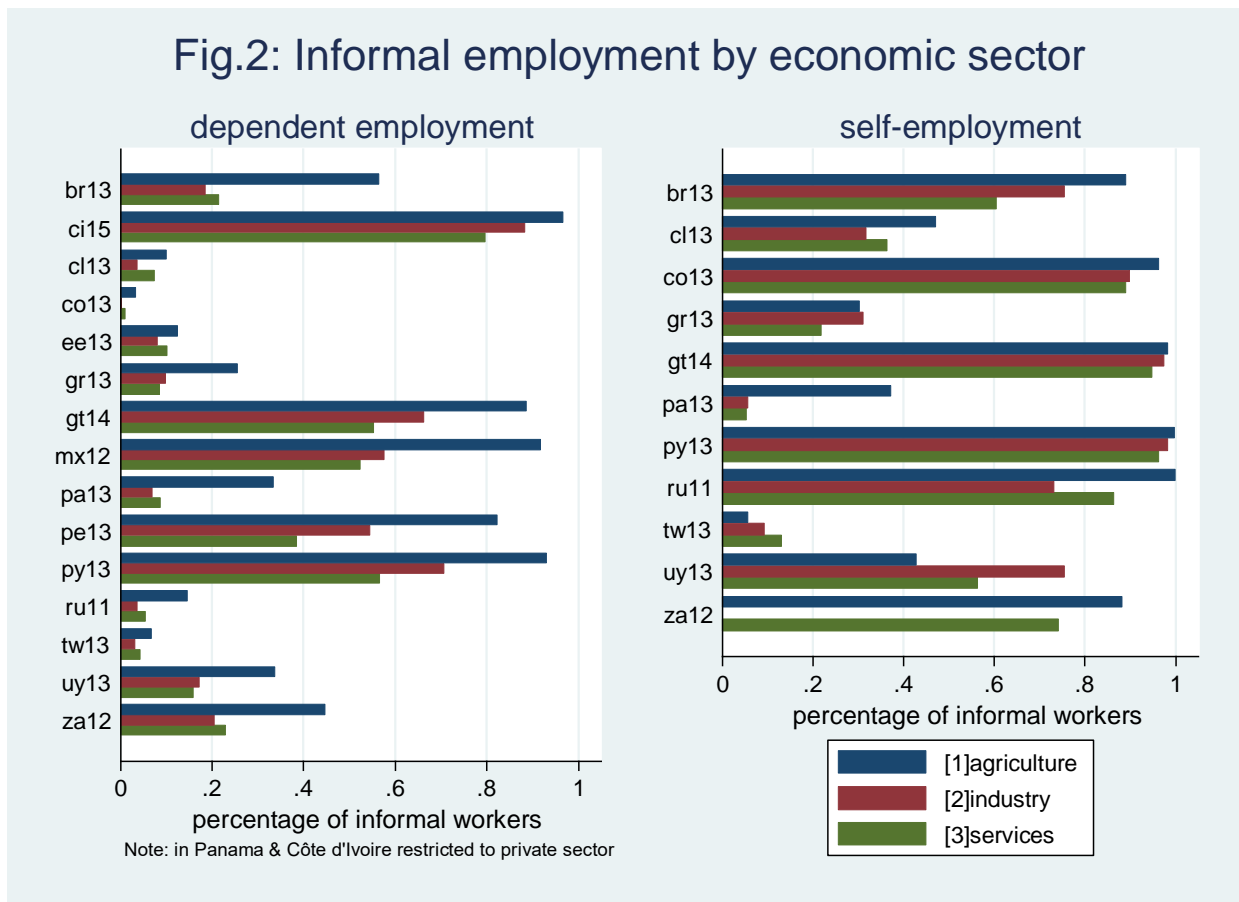
Figure 2 looks at informal activities by economic sector. As expected, we can see that in most countries in the primary sector most jobs are informal, over 80 percent in the case of Côte d'Ivoire, Guatemala, Mexico, Peru and Paraguay. For self-employment, the gap between the

Fig.1: Informal employment by education level



Source: own calculation based on Luxembourg Income Study (LIS) Database.

Fig.2: Informal employment by economic sector



Source: own calculation based on Luxembourg Income Study (LIS) Database.

economic sectors is not that large, even very close in Colombia, Guatemala and Paraguay. In Greece and Uruguay most of the informal self-employment is observed in the industry sector, with 76 percent for Uruguay, while in Greece 38.5 percent of industry is informal. At the same time, in the service sector, more than half of all jobs in Côte d'Ivoire, Guatemala, Mexico and Paraguay are informal in nature, and so are those of the self-employed in Brazil, Colombia, Russia, Uruguay and South Africa. For Taiwan the service sector is the one with most informal jobs: 13 percent compared with 6 percent in agriculture.

What can be concluded from these conceptual differences and country-specific contents? First of all, understanding the different concepts of informal sector activities in different contexts is essential for comparative research. Second, however, the collected microdata does not always capture the full complexity of the informal labour market in different countries – hence users of the LIS and LWS databases need to carefully consider these differences when analysing informal activities across countries.

Being aware to the extent and complexity of the informal sector of the labour market is of utmost importance for policy makers that intend to design policies to reduce the informal sector. Some groups are more vulnerable than others to the informality of the labour market; for

example, lower educated people, people working in agriculture and the self-employed, as we could see from the graphs presented. Although both facing similar risks of insecurity and lack of legal rights in the informal labour market, dependent employees and self-employed might need different targeted policies to improve their specific situation. In this regard, in its *recommendation* about the *Transition from the Informal to the Formal Economy* (ILO, 2017), the ILO draws attention to the necessity of implementing an integrated framework of policies ranging from pro-employment policies to policies that promote sustainable enterprises, accompanied by life-long learning aimed at improving the skills of lower educated people and their chances to enter the formal labour market sector.

References

ILO at <https://www.ilo.org>.

Resolution concerning decent work and the informal economy, ILO, 2002, available online at <https://www.ilo.org/public/english/standards/reim/ilc/ilc90/pdf/pr-25res.pdf>.

Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204) – Workers' Guide, International Labour Office, Bureau for Workers' Activities (ACTRAV), Geneva: ILO, 2017, available online at https://www.ilo.org/wcmsp5/groups/public/@ed_dialogue/@actrav/documents/publication/wcms_545928.pdf.

Tony Atkinson and the Luxembourg Income Study – LIS

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*This article has been excerpted from the conference proceedings **The Legacy of Tony Atkinson in Inequality Analysis – 2nd LIS/LWS Users Conference**.*

Arguably, Tony Atkinson laid the foundation of the modern measurement and analysis of inequality. First and foremost, he did so in theory, with innumerable papers since his path-breaking article in the *Journal of Economic Theory* (Atkinson, 1970). But he constantly sought to apply his conceptual insights to empirical research, with a relentless attention to the characteristics, fitness-for-purpose and limitations of the data used.

It is then no surprise that Tony was long acquainted with LIS. In 1985, he attended the first LIS conference, making the LIS founders nervous about his reaction to the debut of the project. A few years later, in the introduction to the first LIS book which came from this conference, he stated his enthusiasm and pledged his support for the endeavour (Atkinson, 1990). In 1993, he joined Lee Rainwater and one of us (TMS) in writing a report for the Organisation for Economic Co-operation and Development (OECD) on income distribution in rich countries using the LIS data, which was the founding document of OECD's work on income inequality (Atkinson, Rainwater and Smeeding, 1995). For that volume, he wrote the chapter illustrating, with his usual clarity, the linkage between household income micro-data and national accounts – anticipating the now fashionable topic of micro-macro linkages.

It was only natural to invite Tony to deliver the keynote address at the LIS 20th Anniversary Conference in July 2003. He right away asserted that “it is the historic achievement of LIS to have elevated to a new level our capacity for comparative analysis in the field of income distribution” (Atkinson, 2004, 166), but he did not confine himself to celebration. In his typically plain style, he started with a discussion of “the archetypal intellectual problems with which LIS is concerned” – cross-country comparability – to assess LIS' contribution; he then moved on to the future challenges in a changing environment. Of course, he expected LIS to carry on what it did, but he also called for LIS to confront new demands. He pointed to “his” own priorities, acknowledging that others could undoubtedly have different ones: making available long time series with annual observations, and strengthening the connection with policy modelling. The first priority motivated LIS to shorten the interval between waves from five years, to four, then to three – a process that came to be known at LIS as moving, incrementally toward Tony's wish that “LIS goes annual”. In discussing this point, Tony explicitly drew a link with the top incomes literature that Thomas Piketty had just started developing and to which Tony substantially contributed in subsequent years (Atkinson and Piketty, eds., 2007, 2010). This link is currently on the agenda of future LIS developments. As to the

second priority, LIS kept refining the tax and transfer variables and made available an institutional database with policy rules, although never engaged in policy microsimulation exercises.

The closing words of Tony's keynote address, however, were not about strategic developments of LIS. Rather, they were concerned with LIS as an institution. On the one side, Tony stressed that data quality cannot be achieved without substantial expense; on the other, he observed approvingly that the administration of LIS is totally independent of national governments and of international organisations. “The key to continued progress – he concluded – is to find a method by which the substantial investment can be maintained without infringing the independence of LIS” (Atkinson, 2004, 187).

These ideas were not bound to remain untested. In January 2012, Tony assumed an active role in LIS by serving as its second President, succeeding Robert Erikson. He was a deeply involved President, a position that he held throughout illness until his death. He provided continuous and invaluable advice on all LIS matters, from overall strategic decisions to measurement concerns and micro-data dissemination, from fundraising and budgeting to personnel decisions and European data politics. He carried out his Presidential role with grace and elegance, and with his quiet wry wit. And he resolutely urged LIS to pursue funding that protected LIS' independence.

Tony died prematurely on 1st January 2017 from multiple myeloma, an incurable disease diagnosed three years earlier. The LIS leadership decided to honour Tony by dedicating the 2nd LIS/LWS Users Conference to him. The conference was held in the Belval Campus of the University of Luxembourg on 3-4 May 2018, and was made possible by the effort of the LIS staff: Paul Alkemade, Andrej Cupak, Thierry Kruten, Heba Omar, Teresa Munzi, Jörg Neugschwender, Piotr Paradowski and Carmen Petrovici. The variety of themes discussed at the conference and their policy relevance are telling evidence of Tony's enduring legacy to the analysis of poverty and inequality.

References

- Atkinson, A.B. (1970), *On the Measurement of Inequality*, *Journal of Economic Theory*, 2(3), 244–263.
- Atkinson, A.B. (1990), *Introduction*, in T. M. Smeeding, M. O'Higgins and L. Rainwater (eds.), *Poverty, Inequality, and Income Distribution in Comparative Perspective: The Luxembourg Income Study (LIS)*, xvii-xxv, Hemel Hempstead, Harvester Wheatsheaf.
- Atkinson, A.B. (2004), *The Luxembourg Income Study (LIS): Past, Present and Future*, *Socio-Economic Review*, 2(2), 165–190.
- Atkinson, A.B. (2019), *Measuring Poverty around the World*, Princeton, Princeton University Press.
- Atkinson, A.B. and Piketty T. (eds.) (2007), *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries*, Oxford, Oxford University Press.
- Atkinson, A.B. and Piketty T.(eds.) (2010), *Top Incomes: A Global Perspective*, Oxford, Oxford University Press.
- Atkinson, A.B., Rainwater L. and Smeeding T.M. (1995), *Income Distribution in OECD Countries: The Evidence from the Luxembourg Income Study (LIS)*, Paris, Organization for Economic Co-operation and Development.

News, Events and Updates



Release of the 2019 LIS Template

This May, LIS has released the 2019 Template. The LIS template consists of the set of variables of the LIS and LWS Databases, their definitions and their harmonisation rules. The 2019 Template is the fifth template revision over the last three decades.

The motivation of this template revision stemmed from our determination to provide easier to use variables (clearer categories, definitions and aggregation rules), higher temporal and cross-country variables' coverage, and more data points - possibly annual data series - and expansion to new geographical areas.

With this revision, we believe we have achieved at least four major improvements: i) higher coverage of the income variables, ii) higher degree of data usability and comparability, iii) addition of new variables, and iv) extended documentation (in our METIS, for each dataset a new field has been created to show the underlying contents for constructing each income, consumption, and wealth variable).

The flexibility offered by the new template will enable us to extend the LIS dataset coverage both in the temporal and geographical dimensions, as well as allow for a much easier introduction of new blocks of variables.

For more information about the changes with respect to the old template, see [here](#). For more information about the new variable list and user guide for LIS, see [here](#). More information about the LWS new variable list and user guide, available [here](#).

LIS Summer Lecture: Monitoring of Sustainable Development Goals (SDG) (Gero Carletto)

Monday, July 8th, 2019 at 6:00 pm

University of Luxembourg, Belval Campus

LIS is organizing its traditional Summer Lecture. This year, the Summer Lecture will be held on Monday, July 8th, 2019 at 6:00 pm at The University of Luxembourg, Belval Campus. Gero Carletto, Lead Economist and the Manager of the Living Standards Measurement Survey (LSMS), the World Bank, will present the Summer Lecture on *Monitoring of Sustainable Development Goals (SDG)*. Please register via email: workshop@lisdatacenter.org before 30 June 2019.

More information on the LIS Summer Lecture Series can be found [here](#).

LIS recognized as a research entity

We are pleased to announce that this quarter, LIS has been recognized by two institutions as a research entity; namely the Ministry of Higher Education and Research in Luxembourg and Eurostat.

In March, LIS, has been accredited by the [Ministry of Higher Education and Research](#) as a non-profit organization engaged in research in the public sector in Luxembourg. Later in May, [Eurostat](#) has recognized LIS as a research entity.

This accreditation fulfils LIS research mission of promoting and conducting cross national comparative research on socio-economic outcomes and on the institutional factors that shape those outcomes and acknowledges research based on LIS Databases that has already appeared and will continue to appear in books, articles, newsletter, and dissertations, as well as being featured in the media.

(LIS)²ER project on policies to fight inequalities

LISER and LIS established a common fellowship in the memory of Tony Atkinson. The objective of the (LIS)²ER Project is to develop a new data-driven knowledge base about policies to fight inequalities and to deepen our understanding of 'what works' in reducing inequalities, building upon the richness of the LIS and LWS Databases.

Launch of the new OECD report on the middle class "Under Pressure: The Squeezed Middle Class"

On April 10th 2019, the OECD launched a new flagship report on the middle class: **Under Pressure: The Squeezed Middle Class**. The report makes heavy use of the LIS data, which is the main data source for two of the three main empirical chapters.

The report can be accessed through this [link](#).

UNDP Symposium on Measuring Inequality in the 21st Century

The UN Human Development Report Office, LIS, the Stone Center, UN-WIDER, and the World Inequality Lab have joined forces to host a Symposium on Measuring Inequality in the 21st Century on March 28-29 2019 at the UN Headquarters in New York. The Symposium has revisited the frontier debate on inequality measurement with a view to generate a basic consensus on the issues and priorities to guide policy makers, inform intergovernmental consultations regarding the state of measures of inequality in the world, and push a collaborative agenda to refine concepts, data and methodological approaches on inequality.

"Inequality by the Numbers - 2019"

On June 10-14, 2019, the *Stone Center on Socio-Economic Inequality* held its fifth intensive summer workshop, "**Inequality by the Numbers**". The workshop took a broad approach to the study of socio-economic inequalities – spanning inequalities in income, wealth, wages, education, social mobility, health, happiness, and political representation. The instructors focused on inequalities through multiple lenses – including gender, class, race, age, and immigration status -- drawing on several disciplines, including economics, sociology, political science, and public health.

The instructors included several top scholars in the field of inequality scholarship: Richard Alba, Louis Chauvel, Andrew Clark, Jordan Conwell, Miles Corak, Conchita D'Ambrosio, Michael Forster, Janet Gornick, Darrick Hamilton, Alexander Hertel-Fernandez, Nancy Krieger, Paul Krugman, Leslie McCall, Branko Milanovic, Ruth Milkman, Salvatore Morelli, James Parrott, Ryan Smith, Dara Strolovitch, and Bruce Western.

The workshop was attended by 52 participants, mostly PhD students and early-career scholars. They arrived from multiple universities based in the New York City metropolitan area, from across the U.S., and from several countries - including Brazil, Chile, France, Germany, Ireland, Italy, Luxembourg, Mexico, New Zealand, Sweden, and the UK.

The sixth annual "Inequality by the Numbers" workshop will be held in June 2020, at the CUNY Graduate Center. The exact date will be determined, and announced, this summer.

Visiting scholars at LIS

In the second quarter of 2019, LIS welcomed one visiting scholar who came to work onsite with the LIS Databases, in the framework of the **InGRID2** project, namely Deepak Malghan.

Deepak Malghan who had previously visited the LIS office last year returned to continue working on his collaborative project with Hema Swaminathan. Malghan and Swaminathan are working to understand the drivers, as well as consequences of intra-household inequality. The primary focus of his data-work during this visit was to understand the relationship between intra-household inequality in different parts of the income distribution. Malghan also worked on developing generic visualization tools for LIS data.

PhD Scholarships on 'Intergenerational Equity and Well-being Within and Between Generations' in Sydney

The University of New South Wales in Sydney, Australia is offering scholarships for students to undertake research on inter-generational equity and well-being. These scholarships, part of the 2020 Scientia Scholarship round, will be supervised by Associate Professor Bruce Bradbury, Dr Yuvisthi Naidoo and Dr Trish Hill at the Social Policy Research Centre at UNSW. They include tuition fees, an AUD\$41,000 annual stipend, AUD\$10,000 travel and collaboration support and personalised coaching and mentoring. Selection criteria include both academic performance and potential to contribute to social engagement and/or global impact. For more details, see [here](#). While not required, we are particularly interested in projects which will use the LIS data. The closing date for expressions of interest is 14 July 2019.