

Inequality Matters



Inequality and economics: Tony Atkinson's enduring lessons¹

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"I am not sure that I will be able to finish [a book he was writing on measuring global poverty, building on Atkinson (2017)], but it is quite interesting to read all the different country studies for places that I scarcely knew existed (like the Solomon Islands!). I keep an atlas on my desk! I am very impressed with the overall quality of the work being produced in statistical offices around the world, and feel that there is a lot of scope for mutual learning."

This is an excerpt from the last email that I received from Tony Atkinson, a few weeks before his premature death on 1 January 2017 from multiple myeloma, an incurable disease diagnosed three years earlier. These words are telling of Tony's personality. They well illustrate the insatiable intellectual curiosity that brought him to explore archives to find and understand the data he needed, but also to develop a wide-ranging and deep knowledge of the economics literature. They show his profound respect for craftsmanship – be that of the official statisticians of the Solomon Islands or the carpenter who had fixed his bookshelves. They reveal a supreme commitment to research, which not even his illness could restrain.

The modern theory of inequality measurement

Tony is universally celebrated for his outstanding contributions to the measurement of poverty and inequality, in theory and in practice. There is no doubt that his 1970 paper radically changed the way that economists deal with these problems and laid the foundations of the modern theory of inequality measurement. Developing an idea originated by Hugh Dalton (1920), Tony viewed income inequality as the loss of social welfare associated with an uneven distribution of incomes. This focus on social welfare allowed him to derive three important results.

The first is that it is sometimes possible to rank one income distribution as less, or more, unequal than another by only agreeing on a few regularity properties of the social welfare function and on the "Pigou-Dalton principle of transfers", which states that total welfare is increased by a mean-preserving transfer of income from a richer person to an (otherwise identical) poorer person. This can be easily checked by simply verifying that the Lorenz curves for the two distributions do not cross.³

But the ensuing ordering is only partial, as the Lorenz curves may cross: other restrictions could be imposed on the social welfare function, but eventually it might be necessary to specify a single function. This leads to the second result: any social welfare function can be converted into an (in)equality index and vice versa. This mapping helps to uncover the collective preferences underlying, implicitly or explicitly, an inequality index but also to derive new indices.

The third result is the development of a class of indices that makes explicit different views concerning distributional justice by introducing a parameter that captures the degree of inequality aversion assumed in the measurement.

Amartya Sen (1997: 114) attributes to this article primary responsibility for "the revival of a basically utilitarian perspective in evaluating inequality" that "proved to be a very productive move" – although there is nothing inherently utilitarian in Tony's formulation (Atkinson 1983: 5).

Tony's insights have been enormously influential in stimulating innovative research on the axiomatic derivation of indices, the criteria for ordinal comparisons and the multidimensional measurement of inequality and poverty (for example, Jenkins 2017).⁴ All these topics remain active research fields (Atkinson and Bourguignon 2000, 2015; Atkinson and Brandolini 2015).

Taking data seriously

Advancing the measurement of inequality and poverty is not only a matter of theory. It is also important to pay proper attention to the data used: their characteristics and fitness-for-purpose – and their limitations whenever they are only a proxy of the ideal theoretical notion. The scrupulous attention to data quality permeates Tony's research. Throughout his life, Tony scrutinised original sources and perused footnotes and appendices to understand what the data really measure, to assess how they compare to alternative sources, to improve existing statistics or to estimate new ones.

There are plenty of examples: the evaluation of the quality of income data collected in the UK's Family Expenditure Survey (Atkinson and Micklewright 1983); the extensive and thoroughly documented evidence collected in volumes about wealth distribution in the UK (Atkinson and Harrison 1978), income distribution in Eastern Europe under Communism (Atkinson and Micklewright 1992), earnings distribution in OECD countries (Atkinson 2008); the **construction of statistics on top incomes** undertaken with Thomas Piketty and co-authors; the continuous advice offered to international endeavours such as the Luxembourg Income Study and the European Union Statistics on Income and Living Conditions.

Tony's concern for data issues represents a warning to researchers that the comparability of data is a prerequisite for reliable conclusions (Atkinson and Brandolini 2001). This point is central in the report of the Commission on Global Poverty, where he outlined the criteria for monitoring global poverty that will guide the World Bank in the coming years (Atkinson 2017). The consideration for statistical production gained him the respect of professional statisticians, as testified by the influence of the Atkinson Review on the measurement of government output (Atkinson 2005a) and by his appointment as member of the European Statistical Governance Advisory Board.

Inequality analysis as the basis for policy

Theoretical and practical progress in inequality measurement was never conceived by Tony as an end in itself. It constituted the precondition for analysis of the causes of inequality and policies that may reduce it.

The review of the historical experience of advanced countries led Tony to conclude that income inequality moves erratically, tracing a sequence of episodes rather than well-defined long-term trends (Atkinson 1997). Tony had an inclination to shy away from mono-causal explanations and the search for a great unifying theory, an attitude that probably distinguishes his work from that of Piketty.

The driving factors often emphasised in the academic and public debate – technological progress, globalisation, demographic changes – cannot be separated from specific national factors, such as the choices made by governments on taxation and social protection. Tony has long argued that it is not inevitable that globalisation and

technological progress raise inequality: governments retain room for manoeuvre to counter these trends (Atkinson 1999).

Throughout his life, from his first book, *Poverty in Britain and the Reform of Social Security* (1969a), written when he was just 25, to his last, *Inequality: What Can Be Done?* (2015), written when disease had already hit him, Tony translated economic analysis into policy actions.

The latter book – which, in many ways, is his intellectual testament – describes a **package of concrete measures to reduce inequality** that embraces all fields of government action: from public investments to policies for innovation; from the guarantee of a minimum return for small investors' savings to policies for redistributing income and wealth. People may disagree with specific proposals – Tony typically concluded when presenting the book – but if they hold that inequality is a problem, then they have a duty to advance realistic alternative proposals.

This exposes the ultimate goal of Tony's research. Economics is a tool for understanding the world and taking informed decisions on policies; but economists must strive to communicate their results beyond the narrow circles of decision-makers, making them accessible for public discussion.

Significantly, he gave his book on the pros and cons of basic income the title of *Public Economics in Action* (1995). And for over 30 years he was involved in constructing tax-and-benefit micro-simulation models, first for the UK (Atkinson and Sutherland 1988), then for the European Union (Atkinson 2005b).

From the outset, he saw these models as tools that could be applied by policy-makers, journalists and the general public: "It is essential that the methods used in the analysis should be fully explicit, and the availability of micro-computer programs of the kind produced by [us] is intended to encourage better informed debate about these important issues" (Atkinson et al 1983: 74).

In his Presidential Address to the European Economic Association, he lamented that economists were lagging behind in communication and compared unfavourably with researchers from other disciplines: "It is noteworthy that Hawking in *A Brief History of Time* almost entirely eschews equations but has some 35 diagrams in his 200 pages" (Atkinson 1990: 245).⁵

Beyond inequality: a classical economist

It would be reductive to confine Tony's excellence to a single, narrow field, however fundamental. Tony was an economist in the classical sense. He never conceived the study of inequality as a separate branch of economics and he was keen to maintain inequality as an integral part of the economists' agenda. His ethical commitment to understanding and providing tools for fighting economic injustice was intimately related to his economic vision.

Tony had a deep appreciation for general equilibrium theory but was fully aware of its severe limitations in interpreting the real world. I remember him making this point in his advanced lectures in microeconomics at the LSE: "There has been a widely-held view in micro-economics that generality is the supreme virtue and that highly structured models are to be avoided as only suitable for the construction of counter-examples. Once we leave perfect competition, however, it may not be possible to make progress in this way, and we may have to specify more of the structure" (Atkinson 1987: 70).⁶

It is more difficult to assume away distributive considerations as irrelevant when one moves from the abstract general equilibrium

assumed by mainstream macroeconomic models to a more complex and realistic framework with imperfections, externalities and multiple equilibria.

Citing Tony's lecture notes again: "The provision of micro-foundations for macro-economics has been a major part of the theoretical research agenda, but ... the aggregate functions may have different properties from those at the individual level. One cannot simply posit that the macro-economy behaves like some 'representative' individual. It is indeed optimistic to suppose that we could derive properties of the aggregate demand functions without specifying anything about the distribution of tastes and income across the population" (Atkinson 1987: 27).

Tony was especially concerned with the design and role of taxation, social protection and the welfare state. His *Lectures on Public Economics* (1980), written with Joseph Stiglitz, have represented the advanced textbook for generations of postgraduate students. Yet, his two first academic articles were in macroeconomics.

One stressed that research on growth models was overlooking the speed of convergence to the long-run equilibrium, despite this being a significant prediction of the models: "If we throw away information about the time dimension, we are reducing still further our limited understanding of the relationship between these models and the real world" (Atkinson 1969b: 137).

The other suggested that technical progress does not apply across the board, as usually postulated, but specifically to particular techniques of production; hence, technical development is localised and history matters (Atkinson and Stiglitz 1969). Daron Acemoglu recently noted that this idea "was ahead of its time in emphasising localised and biased new technologies and challenging the orthodoxy in the modelling of technological change" (2015: 456).

The two 1969 articles show salient features of Tony's future research: the effort to work out all the implications of theoretical models; a willingness to explore analytical solutions different from the received one; and awareness of the limits of models. "Economists are too often prisoners within the theoretical walls they have erected", he recently wrote discussing austerity policies, "and fail to see that important considerations are missing" (Atkinson 2014: 84). Had the profession listened more to him, today we would perhaps be less worried about rising inequalities and the risk they pose for our societies.

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(<http://www.voxeu.org/article/inequality-and-economics-tony-atkinson-s-enduring-lessons>)

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³ The Lorenz curve shows the proportion of total income received by successive proportionate groups cumulated from the bottom.

⁴ Tony's 1970 paper is among the most cited articles published in leading economics journals between 1970 and 2002 (Kim et al 2006: Table 2).

⁵ Tony's interest in graphical representation culminated in the *Chartbook of Economic Inequality*, which he realised with Salvatore Morelli and Max Roser, where a chart for each of the 25 countries considered shows how different dimensions of economic inequality have changed over time.

⁶ Tony's lecture notes for the advanced course in microeconomics held at the LSE in the fall of 1987 were handed out to students but bore the warning that they had not been checked and should not be quoted or cited. Here, I am consciously infringing that requirement.

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Occupational welfare in Europe: why we need to study it more than in the past in order to understand social inequalities

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What is occupational welfare and why it is important while studying social outcomes?

Around sixty years ago Richard Titmuss invited to take a broader view on complex mechanisms of welfare provision (Titmuss 1958). He developed the idea that, alongside 'social' welfare (social benefits and services provided by the State), 'fiscal' welfare (tax incentives for individuals and firms to help them provide welfare) and 'occupational' welfare (benefits and services provided by social partners) are important sources of protection. While some seminal works focused on occupational welfare (OW) in the 1970s and the 1980s, such type of welfare provision has been in recent years a relatively neglected area in welfare state studies.

OW is in fact a very delicate but increasingly important area of research. In the following we list the main reasons why we need to study OW, and why it is so difficult to do so, especially in a comparative perspective. There are at least three good reasons for an analysis of OW in greater depth. First, from an empirical point of view, the level of spending and the number of workers covered by these programmes show its key and, in many countries, growing role. Secondly, OW is important for understanding recent trends in industrial relations, with welfare provision and workers' social rights being one of the central issues tackled by social partners. Last but not least, OW is relevant for the ongoing transformations in the welfare state and its impact on social inequalities. Some of the more recent

trends in the welfare state – benefit cutbacks, programme revisions, decentralisation, etc. – cannot be assessed in isolation from what happens to OW. Furthermore, OW plays an important role in terms of redistribution and inequalities. OW programmes may lead under certain circumstances to increased dualisation and widen socio-occupational inequalities among workers and their families.

Yet the study of OW entails some methodological problems. The first problem is related to the lack of a clear and universally accepted definition of OW. In particular, the concept is ambiguous if seen in the context of the contemporary welfare literature. Some scholars conceptualise OW with reference to the coverage model of statutory schemes rather than to the nature of the providers. Both public (*social welfare* in Titmuss) and supplementary schemes are thus occupational when they are based on employment. Secondly, we still lack a classification of OW in Europe. Thirdly, data collection has proved extremely difficult, especially in comparative terms. Important questions have to be addressed, especially for survey data.

Some recent progress on the analysis of OW and its impact on inequalities

The EU funded research project – *Unemployment and Pensions Protection in Europe: The changing role of the Social Partners, PROWELFARE* – has aimed at providing in-depth evidence of occupational schemes in the field of pensions and unemployment programmes in nine EU countries while addressing the problems mentioned above.

In the project we have defined OW as *the sum of benefits and services provided by social partners – employers and trade unions (by themselves or with the participation of others) – to employees over and beyond state benefits, on the basis of an employment contract.*

The project shows that the scope of occupational schemes varies across policy areas and between countries. As for the latter issue, we have distilled four different country clusters. The clusters are defined on the basis of two analytical dimensions: the diffusion of OW across the workforce; the homogeneity of the protection across social and occupational groups (Natali et al. 2017).

The first cluster, Sweden and the Netherlands in our project, is characterised by an ‘encompassing’ OW: differences in coverage and level of protection among workers are low, while there is broad coverage of a variety of social risks for a large majority of workers (more than 70% of employees).

The second cluster, represented by the UK, Germany and Belgium, shows less widespread coverage (between 30 and 70% of the employees) and more evident differences in the protection provided by OW across social and occupational groups. These countries represent a ‘wide and segmented’ OW, based on voluntarism.

Southern Europe, Italy and Spain in our project, but also Austria, can be found in the third cluster, defined as a ‘limited and segmented’ OW system with generally low to medium levels of coverage (below 30% of employees covered by OW schemes). In this cluster, there are huge differences in terms of coverage and generosity of OW programmes across industries, sectors, companies and types of employment contract.

In Central-Eastern European countries, Poland in our project, OW barely exists and there have been no signs of an increase in recent years.

As for the impact of OW on inequalities, the project confirms that there is a risk that OW increases inequalities in the access to social protection. Table 1 summarises the main lines of segmentation created by OW: by industrial sector, size of company and occupational group. High-productivity industries (e.g. pharmaceutical, banking and finance, energy production), as well as those which are more export-oriented (automotive industries), offer more frequent and more generous occupational welfare schemes to their workers.

OW coverage is generally high in sectors predominantly requiring workers with high general skills and/or with specific skills, such as those of blue-collar workers in many manufacturing enterprises. Coverage is usually low in those enterprises requiring low general skills from the majority of their workers (e.g. tourism, personal services and retail). The size of the enterprise also matters: SMEs offer less frequent and less generous occupational welfare programmes than medium and large companies.

Practically everywhere workers with a fixed-term contract find it more difficult to access benefits than employees with an open-ended one. Moreover, migrants and, in many countries, women are less likely to be entitled to occupational welfare schemes. They are often employed in industries and enterprises more unlikely to provide occupational benefits, or because their labour contract and skills’ profile do not allow them to accede OW.

Looking at the different countries under scrutiny, the Scandinavian countries and, even more, the Netherlands seem to have developed

Table 1: Workers who are more and less likely to have access to occupational welfare

	<i>More likely to have access</i>	<i>Less likely to have access</i>
Economic sector	High-productivity industries Export-oriented industries	Lower productivity industries Industries producing for the national market
Size of the enterprise	Large Medium	Small-medium
Worker’s skills profile	High general skills Specific skills	Low general skills
Type of employment	Employee	Self-employed
Type of labour contract	Open-ended	Fixed-term

Source: Natali et al. (2017).

an OW model in which the risks of welfare dualism are highly reduced (although not totally absent), especially when compared to Anglo-Saxon, Continental and Southern European countries. It seems clear that the only way to limit, if not avoid, inequalities created by OW schemes, is to provide the

conditions enabling coverage of the vast majority of the (working) population. Half-way situations create *de facto* welfare dualism.

What are the remaining obstacles for cross-national research?

Doing research on OW schemes, especially if the focus is on the relationship between inequalities and occupational welfare, is still not an easy task. Even in the field of pensions, where information is more systematically collected, there are important issues in data collection that need to be addressed. In particular, the issue is a delicate one for population’s (workers and households) survey data. The latter tend to underestimate the OW phenomenon. The reason is that questions on OW schemes are very difficult to answer: many employees do not have information about their occupational welfare rights. The challenges are more problematic outside the field of pensions, where quantitative comparable data are even scarcer. Analysts need to refer to information on the individual/household level, knowing that we will still get an imperfect estimation of the phenomenon, and on the company level, where data are often incomplete.

Nevertheless, with all these limitations and difficulties in data collection, there are potential ways forward. There are several sources of information on welfare issues at the EU level that could be used, even without creating new ad hoc surveys for data collection on occupational welfare schemes. It would be necessary to add specific questions/items inside these databases and surveys as illustrated more in detail in Table 2.

Table 2: What to add in surveys/studies in order to study occupational welfare

Source	What to add
EU-Silc	The introduction of compulsory information for all the countries on the item “Optional employer’s social insurance contributions”
EU-LFS	More detailed information on occupational pensions, occupational health care and occupational child care in next ad hoc modules on transition from work to retirement, on reconciliation, etc.
MISSOC	The introduction of compulsory information on occupational welfare schemes (especially pensions) in MISSOC (e.g. contribution rates, regulation, etc.)
Eurofound European Working Conditions Survey	More detailed information on occupational pensions, occupational health care and occupational child care in next EWCS
Eurofound European Company Survey	More detailed information on occupational pensions, occupational health care and occupational child care in next ECS (also bringing back some items present in the 2003 survey but not in the later waves of the same survey)
LIS /LWS	Homogenous collection of information not only on pensioners but also on employees on OW (occupational pensions) schemes

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Working Papers & Publications



Focus on 'The Political Economy of Compensatory Redistribution'

by Jonas Pontusson (University of Geneva) & David Weisstanner (University of Bern)

LIS Working Paper, No. 684

This paper explores common trends in income inequality and redistribution across OECD countries from the late 1980s to 2013. We draw attention to recessions and, more generally, to macroeconomic conditions as a source of inequality. Unemployment has different implications for low-end and high-end inequality. Poverty rates and overall market inequality rise along with unemployment during economic downturns, while top income shares rise during growth periods.

Redistribution through the tax-transfer system partly compensates increases in market inequality during downturns. However, we show that in most countries compensatory redistribution was less extensive in the Great Recession than in the recession of the early 1990s. The decline of compensatory redistribution reflects policy choices that were made in the growth period between 1994 and 2007. Our explanation of these policy choices emphasises weakening support for redistribution among electorally pivotal middle-income citizens. Since the 1990s, unemployment and poverty risks have become increasingly concentrated among workers with low education. Less worried about falling into poverty, middle-income citizens have become more permissive of cuts in unemployment insurance generosity and income assistance to the poor.

The more unequal distribution of economic insecurity has been facilitated by deregulatory labor market reforms. Apart from reductions in replacement rates and the duration of unemployment benefits, the expansion of more precarious forms of employment reduces compensatory redistribution during downturns because temporary employees do not have the same access to unemployment benefits as permanent employees. The growing concentration of economic risks among low-educated workers poses an obstacle to the formation of a pro-redistribution coalition of lower and middle income groups.

LIS working papers series

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by Richard Stjærnfäldt

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published (forthcoming) in *Handbook of Research on in-Work Poverty*, edited by Henning Lohmann and Ive Marx. Edward Elgar: 2017.

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published: Krozer, A. 2015: *The Inequality We Want: How Much Is Too Much?* Journal of International Commerce, Economics and Policy, October 2015, Vol. 06, No. 03.

LIS working papers series - No. 691

Different Faces of Inequality across Asia: Decomposition of Income Gaps across Demographic Groups

by Vladimir Hlasny

LIS working papers series - No. 692

American Exceptionalism in Market Income Inequality: An Analysis Based on Microdata from the Luxembourg Income Study (LIS) Database

by Janet C. Gornick, Branko Milanovic, and Nathaniel Johnson

LWS working papers series

LWS working papers series - No. 23

Who is Eager to Save for Retirement – the Cross-Country Evidence

by Anna Kaliciak, Radoslav Kurach, Walid Merouani

Data News



LIS is happy to announce the release of seven additional micro data sets to the Luxembourg Income Study (LIS) Database. While harmonising the new LIS waves for each country, several revisions of earlier released datasets have been carried out.

Data releases – Luxembourg Income Study (LIS)

Austria

Three new datasets from Austria, AT07 (Wave VII), AT10 (Wave VIII) and AT13 (Wave IX) have been added. The datasets are based on the 2008, 2011 and 2014 waves of the Survey of Income and Living Conditions (SILC) carried out by Statistic Austria.

Slovakia

One new dataset from Slovakia, SK13 (Wave IX) has been added. The dataset is from the 2014 wave of the Survey on Income and Living Conditions (SILC) carried out by the Statistical Office of the Slovak Republic (ŠÚ SR).

Switzerland

Three new datasets from Switzerland, CH07 (Wave VII), CH10 (Wave VIII) and CH13 (Wave IX) have been added. The datasets are based on the 2008, 2011 and 2014 waves of the Survey of Income and Living Conditions (SILC) carried out by the Swiss Federal Statistical Office.

Data revisions – Luxembourg Income Study (LIS)

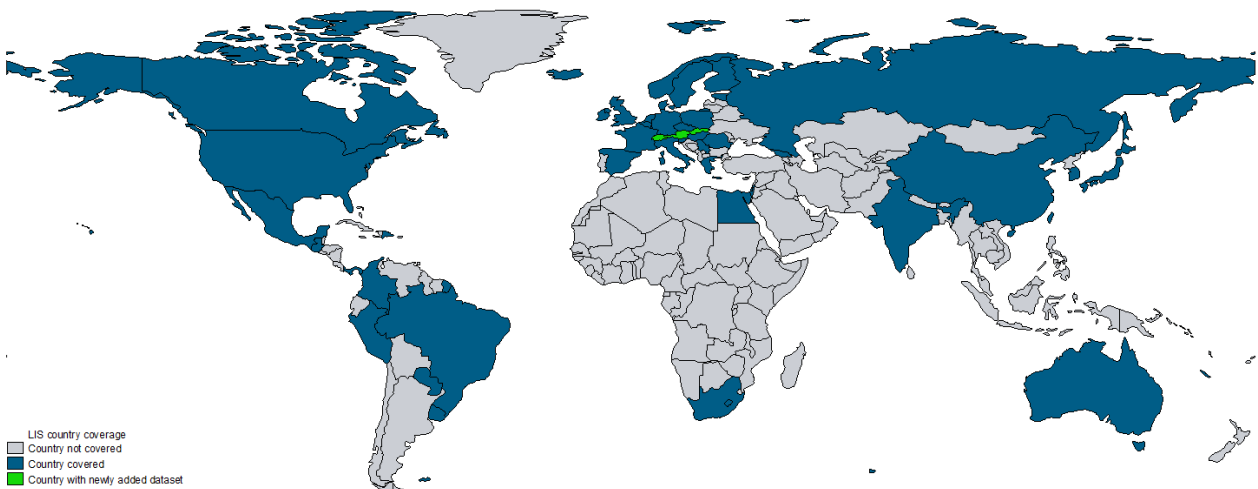
The following datasets have been revised:

- Austria: AT04, AT00, AT97 and AT94.
- Czech Republic: CZ13, CZ10, CZ07, CZ04 and CZ96.
- Slovakia: SK10, SK07, SK04, SK96 and SK92.
- Switzerland: CH04, CH02, CH00 and CH92.

Data release schedule

	Summer 2017	Fall 2017	Winter 2017/18
LIS Database			
Australia			AU14
Chile		CL15/13/09/06/03/00/95/90	
Guatemala	GT14		
Iceland		IS13	
South Africa	ZA15		
Tunisia	TN14		
LWS Database			
Australia			AU14
Canada		CA99	
Germany		DE02/07/12	
Greece	GR14		
Italy		IT95/00/04/08	
Slovakia	SK10/14		
Slovenia		SI14	
South Africa	ZA15		
Sweden	SE02/05		
United Kingdom			UK13

LIS country coverage



Highlights



Is redistribution in South Korea really so small?

Teresa Munzi, LIS

The difference in inequality (as measured by the Gini index) of market income versus inequality of disposable income is often used as a measure of the redistributive impact of social security and direct taxation systems in a country. Typically, high income countries tend to exhibit a redistribution effect larger than middle or lower income countries. This goes hand in hand with the development of the social security and taxation systems, which tend to be more developed in high income countries.

South Korea is often highlighted as being an outlier with respect to this, as the difference in Gini between market and disposable income is almost one fourth of the average difference in OECD countries (cf. OECD 2016). The 2012 microdata from South Korea, recently uploaded in the LIS Database, confirm this picture: the percentage reduction in Gini, when going from market income to disposable income, amounts to only 13 per cent, whereas it lies at around 40 per cent for most high income countries included in Wave IX of the LIS Database (see figure below). This low redistributive effect is more similar to that of the Latin American countries included in the LIS database, as well as South Africa and Egypt.

But differently from those middle income countries (and similarly to Taiwan, another Asian tiger economy), this low redistributive effect is associated with a very low level of inequality of primary income (with a Gini on market income just above 30, as against Gini levels of about 50 in both middle and high income countries). As a result, inequality on disposable income is rather low, also when compared to other high income countries.

While this finding is rather common across the literature, it should be noted that the South Korean data stand out with respect to other LIS

countries also in other aspects. More precisely, among the LIS countries for which income taxes and social security contribution figures are available in the microdata, South Korea is the one with the lowest rate of taxes and contributions as a percentage of total gross income (with a total ratio of 8 per cent, even lower than in Latin American countries). This finding seems not to be in line with the level of tax and contributions rates in South Korea.

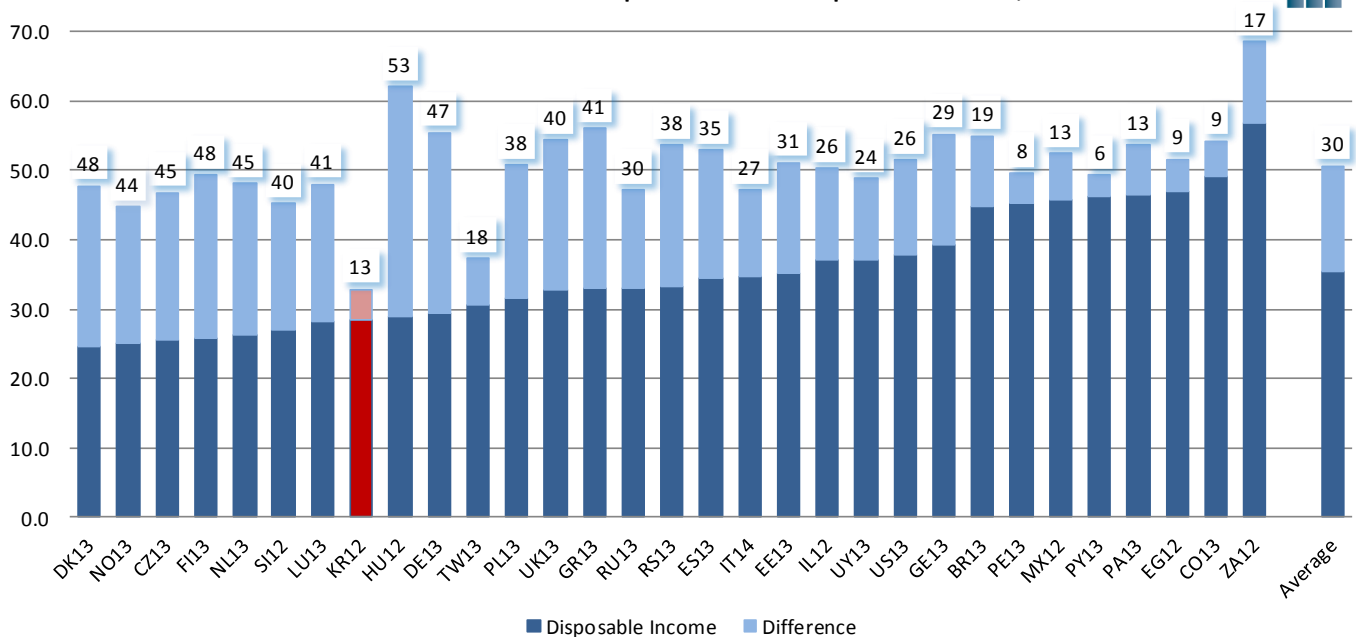
In addition, when comparing the results of the microdata inflated to the total population with corresponding aggregated amounts from the National Accounts, it turns out that the coverage rate of both taxes and social security benefits calculated from the microdata is among the lowest of all datasets included in the LIS Database: direct taxes captured in the survey reflect less than 40% of the corresponding figure from the National Accounts (which is the lowest ratio in the LIS Database), while the LIS to National Accounts ratio of social security benefits amounts to less than 50% in 2012 for South Korea, when it lies in the range of 70 to 90% for most other countries (cf. Endeweld and Alkemade 2014).

Altogether, these findings suggest that the effect of redistribution of taxation and benefits is in fact larger than what is generally shown based on microdata. This note points to the need of further investigating the causes underlying the peculiarity of South Korean data compared to other high income countries when it comes to the magnitude of redistribution. Taking into account the impact of indirect taxation might shed some further light on the overall size of redistribution in South Korea.

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Gini Index on Market Income and Disposable Income and percent reduction, circa 2013



The number at the top of the bar represents the percent reuction of Gini after redistribution

Source: Luxembourg Income Study (LIS) Database

Occupational pensions – data evidence of gender gaps

Jörg Neugschwender, LIS

Nowadays, in many societies pension entitlements are built up from various schemes that are regulated and administered by the state (first pillar), employers and trade unions (second pillar), and/or financial institutes (third pillar). Researchers in the field have systematically analysed the development of *multipillar* pension systems and the variety of institutional arrangements between the policy actors over time (Arza and Kohli 2008; Ebbinghaus 2011; Natali et al. 2017). Building on national country case studies, in comparative contributions the scholars grouped together countries with similar institutional approaches in order to better contrast the main pathways and implications for the redistributive outcomes of such systems.

Besides the common analytical approaches of pension pillars and income tiers, two main archetypes of pension systems have been conceptualised: *Bismarckian* social security systems were founded mostly on one main public system that secure the elderly against poverty (first tier of income) and maintain the living standard (second tier of income). In contrast to the *Bismarckian* approach, in *Beveridgean* systems the state restricted its role mostly to protect the elderly against poverty. Additionally, the state might be involved in joint regulation with employers and trade unions setting up complementary pension schemes. Alternatively, the state might increase incentives to take up personal pension plans with financial institutes through favourable tax treatment and subsidised contributions. Typically *Beveridgean* systems are also classified as *multipillar* systems.

Ebbinghaus and Gronwald (2011) analysed the main pathways of pension system development. In *Bismarckian* systems, occupational (second-pillar) and personal (third pillar) pensions have been typically *crowded out*, as the contribution-based pension income by the state already served to maintain the living standard. It is particularly the *multipillar* pension systems which *crowd in* a variety of alternative solutions that may even partly or fully substitute the public system.

Following up on the policy brief by Natali and Pavolini in this newsletter issue, this article will try to shed some more light on the relevance of occupational pensions in the pension income mix around the world.

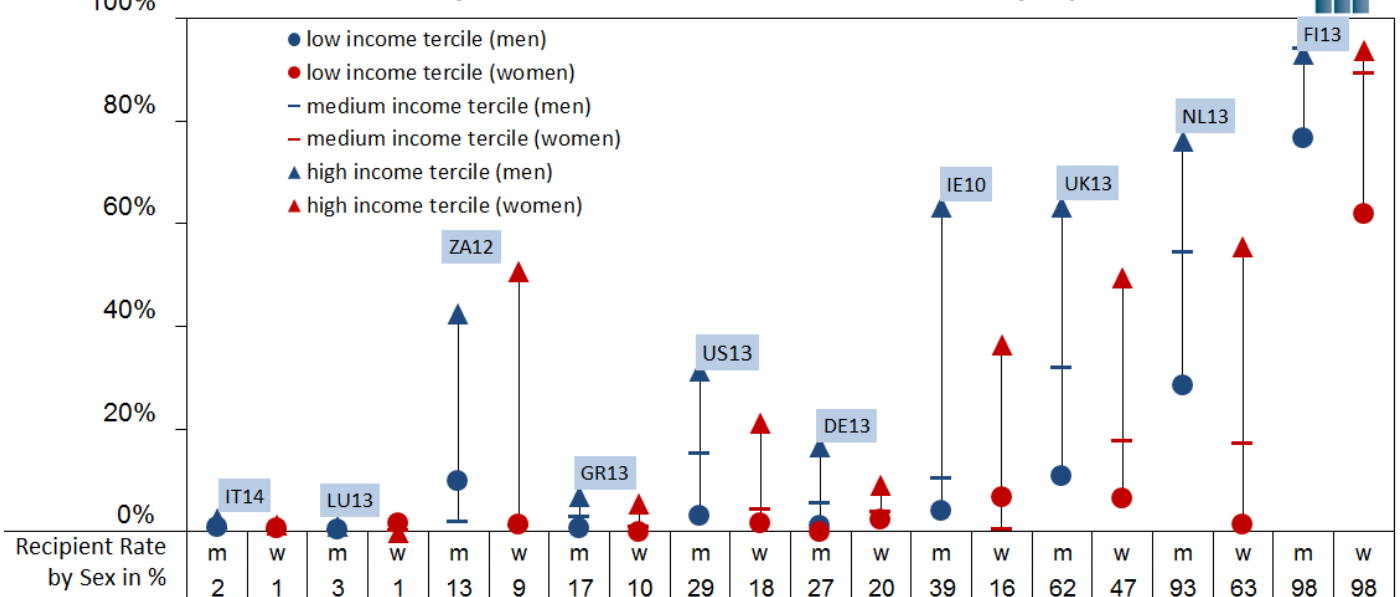
Occupational welfare solutions set the scope for various outcomes: How employers and employees share contributions to occupational pension plans. Whether or not, individuals in case of job change can transfer their rights to the new employer. But also whether or not, individuals are allowed to cancel their accumulated rights from occupational welfare at any point in time during their working career. In contrast to this, personal pensions with financial institutes might protect two very distinct groups, the ones earning above income ceilings, and the ones who do not have sufficiently access to occupational pensions respectively for whom personal pensions are more suitable than employer-based solutions. Therefore, it is important that during the data collection phase a clear distinction in the income sources public vs. occupational vs. personal pensions respectively nature and type of current pension savings contracts is made.

In general, the **Luxembourg Income Study (LIS) Database** tries to distinguish between various pension income sources/**LIS variables**:

- employment-related public pensions,
- old-age/disability/survivors universal pensions,
- old-age/disability/survivors assistance pensions,
- occupational pensions,
- voluntary individual pensions.

For various LIS datasets from the early 2010s a split in all three pension income sources public vs. occupational vs. personal is available. The presented graph concentrates on the relevance of occupational pensions in the pension income mix and its cross-national variation. The numbers below the graph show the weighted percentage of elderly persons (here defined as persons aged 65 or older) receiving occupational pension income. In order to focus on the pension income mix of retirees and to reduce the influence of partial pensions in the pension income mix, for the presented income

Income Share of Occupational Pensions in the Pension Income Mix (65+)



Source: Luxembourg Income Study (LIS) Database

shares, the sample of the elderly (65 and older) has been further restricted to those elderly, whose individual pension income is the main income source (pension income larger than 50 % of total individual labour income). Further breakdowns by three income groups and by gender offer additional insights in the spread of occupational pension income and its redistributive impact among the elderly in current societies.

Among the analysed economies, in the *Bismarckian* countries such as Luxembourg, Italy, Greece, and mostly in Germany, occupational pensions are barely contributing to the pension income mix. Although Germany and the United States show a similar pattern in recipient rates, occupational pensions are relatively more important in the United States due to the lower generosity of the public earnings-related pension system. In general, in the *Beveridgean* pension systems of Ireland, the United Kingdom, and the Netherlands, there is a strong variation of relevance of occupational pension in the income mix across the income groups. As occupational pensions, particularly for high-skilled workers, function at the same time as fringe benefits, a comparatively higher relevance of occupational pensions in the upper end of the income distribution could be expected.

The separate analyses by gender reveal in most of the countries a strong gender gap. Ireland shows the highest difference between

men and women regarding the spread of occupational pensions among the elderly population. The gender divide is also particularly high in the Netherlands, where women due to a high relevance of part-time employment careers collect substantially less contribution-based entitlements; furthermore, the public residence-based pension income is intertwined with the payment from occupational systems. Note that the various Finnish occupation-based pension schemes are a hybrid between public and occupational pensions, as they are legislated by tripartite agreements; for this overview the various Finnish contribution-based pension schemes have been reclassified from public to occupational pensions.

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West-East regional disparities in Slovakia

Heba Omar, LIS

The phenomenon of regional disparities is prominent and has been well-captured across different Central and Eastern European regions, and Slovakia is no exception to that. Römisch (2003) argued that Prague cannot be considered a representative in terms of economic growth, infrastructure and employment rates for the rest of the Czech Republic regions "...it is not wise to take the old town of Prague as *pars pro toto* for the rest of the city or even the country...", and from the literature, we can certainly deduce that West Slovakia is booming while the East is still lagging behind (Uramová and Kožiak 2008). This article will shed light on the evolution of West-East regional disparities in Slovakia during the period 2004 – 2013 using the LIS Database.

Slovakia is divided into four main regions, namely (from the West to the East); Bratislava (capital city), Západné Slovensko (Western Slovakia), Stredné Slovensko (Central Slovakia), and Východné Slovensko (Eastern Slovakia). The West-East regional disparities are captured in many forms, such as GDP per capita, employment, and poverty indicators (OECD, 2013). Causes of such disparities can be summarised as follows (Demmou et al. 2015; Römisch 2003):

1. Low job creation in the Eastern and Central regions of the country, and insufficient labour mobility to the West.
2. The regions are not equally equipped with growth factors, and by time these factors are used differently (both in terms of amount and intensity).
3. Decreases in the production and employment of heavy industries (coal, mining, chemistry and others).
4. Changes in the market dynamics after the fall of the iron curtain revealed that some regions were in poor competitive shape.

This article further investigates the role of employment as an underlying stimulus of regional disparity in Slovakia. In the following, three variables of the LIS Database are used to provide further exploration of the phenomenon¹:

- Employed (*emp*): Indicator of any employment activity in the current period.
- Disposable Household Income (*dhi*): Total monetary and non-monetary current income net of income taxes and social security contributions (annual).
- Labour Household Income (*hil*): Monetary payments and value of non-monetary goods and services received from dependent employment, as well as profits/losses and value of goods for own consumption from self-employment (annual).

The figure below shows the evolution of regional disparities in terms of employment, disposable household income, and labour household income in the period of 2004-2013, between the developed capital Bratislava in the West and the least developed region Východné Slovensko (Eastern Slovakia). The figure displays the disparities as percentage differences; the regional employment disparity is measured as the difference in the percentage of employed in Bratislava and Eastern Slovakia.

$$\text{Employment disparity at time } x = \% \text{ of employed in Bratislava} - \% \text{ of employed in Eastern Slovakia}$$

The income disparity (for both *dhi* and *hil*) is measured as the percentage of income increase in the Bratislava region, with reference to the Eastern region.

$$\begin{aligned} \text{Disposable Household Income (dhi) disparity at time } x \\ = \frac{dhi \text{ in Bratislava} - dhi \text{ in Eastern Slovakia}}{dhi \text{ in Eastern Slovakia}} \% \end{aligned}$$

Labour Household Income (*hil*)disparity at time x

$$= \frac{hil \text{ in Bratislava} - hil \text{ in Eastern Slovakia}}{hil \text{ in Eastern Slovakia}} \%$$

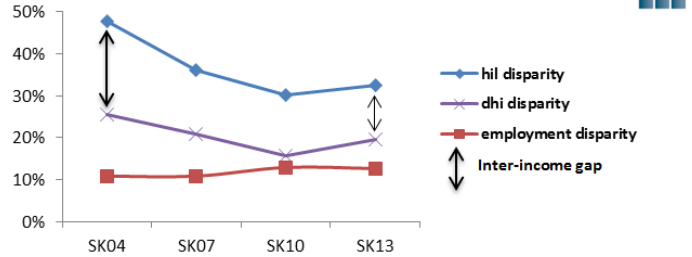
Three main trends are observed. First, the disparity in the percentage of employed in the West compared to the East is persistent; with an increase of 1.8% over the study period, as it has risen from 10.8% in 2004 to 12.6% in 2013 that is in accordance with the literature.

Regarding income disparity, there is an overall decrease in the income disparity during the period 2004 till 2013. In 2004, disposable household income was 26% higher in Bratislava as compared to Eastern Slovakia. This percentage declined to 20% by 2013. With respect to labour household income, the disparity percentage declined from 48% in 2004 to 33% in 2013.

An interesting finding from the presented figure is the trend of what is called “inter-income gap”; which is the difference between disparity in *hil* and disparity in *dhi*. In 2004, *hil* disparity was 48%, though the *dhi* disparity was only 26%, indicating that the inter-income gap was 22%. This gap represents strong evidence that the regional disparity in Slovakia is highly attributed to the low employment creation and returns in the East compared to the West. Monitoring the inter-income gap over the study period shows the deterioration of *hil* disparity, as the gap shrank to 13% in 2013.

These findings suggest that achieving employment convergence between the developed West and the less developed East is an inevitable means to attain higher equality and less regional disparity in Slovakia. To conclude, serious measures have already been taken in order to reduce the West-East disparities. Slovakia has been offered help and support from the European Union to decrease the regional differences. The Cohesion Policies (2007–13)² focus mainly on the areas infrastructure, human resources, industry, services and agriculture, and rural development. The outcomes of the projects encompassed in the framework of the cohesion policy, are foreseen to have tangible impact on eliminating the gap between the

Disparities in employment, disposable household income, and household laour income between Bratislava and Eastern Slovakia (2004-2013)



Source: Luxembourg Income Study (LIS) Database

advanced West and the less developed East. To fasten the development of the less developed regions, it is also necessary to devise a Regional Policy that takes into consideration other factors, such as cultural, social, historical, demographical, and the limited possibilities of each region.

¹ More information on the definitions and the universe of LIS variables; can be found on [METadata Information System \(METIS\)](#).

² European Cohesion Policy is at the centre of the effort to improve the competitive position of the Union as a whole, and its weakest regions in particular.

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How do consumers discount future? Evidence from the Luxembourg Wealth Study

Walid Merouani, CREM-CNRS and CREAD

According to Bozio et al. (2016), time preference¹ is usually estimated in the literature by using experimental data: among 42 studies surveyed by Frederic et al. (2002), 34 were using experimental data. Therefore, this study is one of the few articles that explore survey data to highlight household’s time preference. For this purpose, we will explore age-wealth patterns, as shown by Samwick (1998). In this note, we present the results of our estimation using Italian data that are available in the Luxembourg Wealth Study (LWS).

Age-wealth profiles calculate the average net worth over the age. The theory argues that on average, households who accumulate more wealth are more patient² (Samwick, 1998). We present here the wealth accumulation profiles across level of education, employment status, gender and risk aversion behavior as shown in the figures below.

The results reflect the heterogeneity in time preferences. First, the results by education show that high educated people are more

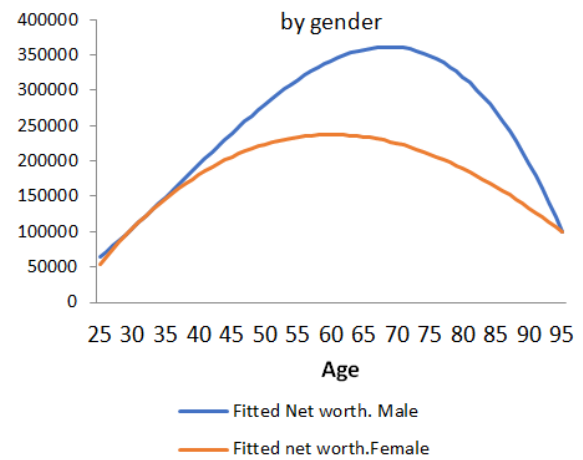
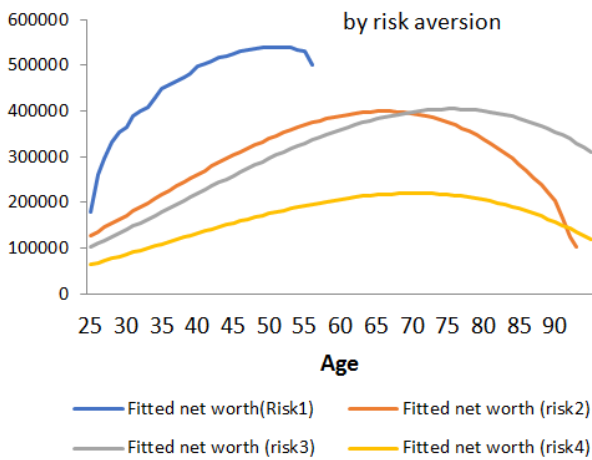
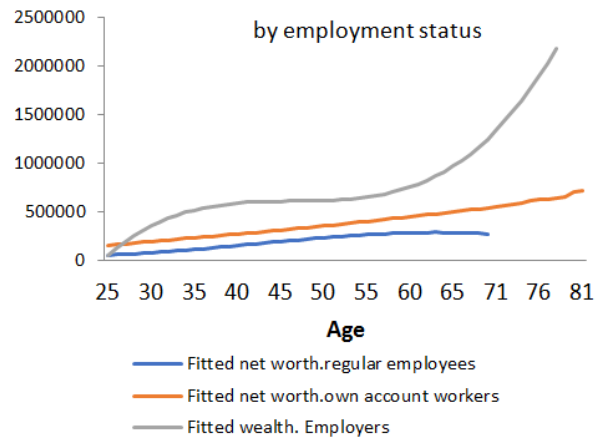
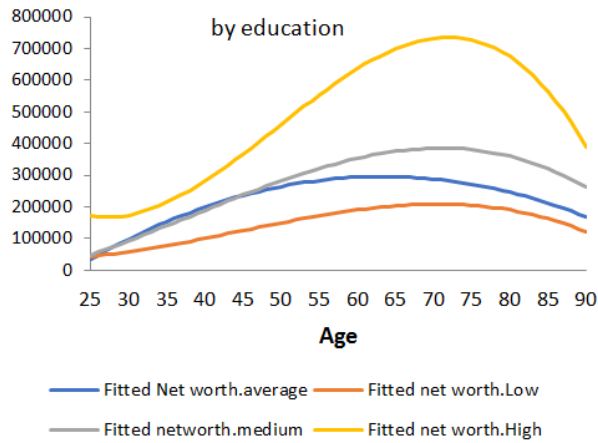
patient than low educated. This is in line with many previous theoretical and empirical studies (Carroll and Summer, 1991).

Secondly, the profiles by employment status reveal that employer and own account workers are more patient than regular employees. Particularly employees, accumulate less wealth during their lifecycle. In the same line, Carroll and Summer (1991) analysed household’s consumption and income profiles to show the heterogeneity in time preference between occupational groups.

Thirdly, this note exhibits the relationship between financial risk attitude³ and patience. This interaction, which is not much discussed in the literature, is a significant determinant of wealth accumulation (Arrondel et al, 2004). Our results by financial risk taking illustrate that more risk tolerant people are more likely to be patient and accumulate more wealth during their lifecycle.

Finally, the analyses by gender show that male are more patient and they accumulate more asset than female. This result is in line with Arrondel et al. (2004). The researchers measured time preference on the French population and found that women are less forward looking than man.

Wealth profiles by level of education, employment status, risk aversion, and gender



Source: Luxembourg Wealth Study (LWS) Database

This note can be useful in terms of policy implication, and particularly in the context of pension wealth accumulation. It is well acknowledged that traditional public pension funds are facing financial difficulties and governments tend to encourage people to move to private voluntary pension saving plans. However, the success of this new model of individualised pension accumulation depends on individual patience and willingness to save. According to our result, private pension funds should particularly target men with high level of education, risk tolerance and the self-employed. These categories of household were found to be more forward looking (patient) and thus possibly more likely to save in voluntary pension accounts.

¹ In this note, time preference, forward looking and patience are used interchangeably.

² Patient individual refers to forward looking individuals who prefer future consumption than the present one. Hence, they are more likely to save a part of their income.

³ **Risk aversion** has been measured asking the following question: “Which of the following statement comes closest to describing the amount of financial risk that you (and your husband/wife/partner) are willing to take when you save or make investment?” The respondent can pick one of the following answers: [Risk1] take substantial financial risks expecting to earn substantial returns; [Risk2] take above average financial risks expecting to earn above average returns; [Risk3] take average financial risks expecting to earn average returns; [Risk4] not willing to take any financial risk.

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News, Events and Updates



Interactive METadata Information System (METIS)

LIS is delighted to announce the launch of the LIS METadata Information System (METIS), a powerful search tool that documents the structure and content of the LIS and LWS databases. METIS capitalises on exciting new technologies and on the strengths of the LIS/LWS microdata, thus better enabling and promoting the highest quality social science research. It provides immediate access to our comprehensive documentation, without the need for scrolling through hundreds of documents.

The new web interface allows our users to create customised queries that can be also exported to Microsoft Excel. The main functionality of METIS is the crossed compare screen, where variable-specific or dataset-specific codebooks for several datasets can be retrieved, at the same time. We strongly encourage our data users to [consult METIS](#) and the rich documentation that it contains. For further instructions please see our [webpage](#).

François Bourguignon has been named President of LIS Board

LIS is pleased to announce that François Bourguignon has been named President of the Board of LIS: Cross-National Data Center in Luxembourg.

François Bourguignon is a well-recognised economist working on income distribution, inequality and poverty, redistribution, and economic development. He is a former Chief Economist and Senior Vice President of the World Bank (2003-2007), professor and former director at the Paris School of Economics, and former professor at the 'Ecole des Hautes Etudes en Sciences Politiques'.

François held a number of advisory positions and has received several honors, most recently the Chevalier de l'Ordre National de la Légion d'Honneur, France (2010), the Médaille d'honneur de la Santé et des Affaires Sociales, France (2012), and the Juan Luis Londono Prize, Lacea, Bogota-Colombia (2012).

Visiting scholars at LIS

In January, we were welcoming two scholars who worked onsite with the LIS/LWS data; namely Walid Merouani and Justyna Wilk who among many others before applied through the InGRID project.

Walid Merouani is an Associate Researcher at the Research Center of Economy and Management in Université Caen Normandie in France, and permanent Researcher at Centre de Recherche en Economie Appliquée pour le Développement-CREAD in Algeria. During his second visit at LIS, Walid was using the LWS Database to study how people consume during their life cycle by using life cycle theory. In this regard, he compares age-consumption, age-income, and age-net

worth among many countries. He aims to analyse household behaviour according to many household characteristics (socio economic characteristics, risk aversion, and inter-temporal choices).

Justyna Wilk works as Associate Professor at the Adam Mickiewicz University in Poznan, Poland. During her second visit at LIS, Justyna was working with the LIS Database to study cross-national inequalities of social inclusion across Europe after the financial and economic crisis. She applies a spatio-temporal study to compare the regional disproportions to examine the progress in the social inclusion process, and she is also interested to examine the spatial relations over four LIS Waves.

LIS/LWS Users Conference

Luxembourg, 27-28 April 2017

LIS has been providing data on income and wealth for comparative research since 1983. Over the years, our databases: Luxembourg Income Study (LIS) and Luxembourg Wealth Study (LWS) have made possible hundreds of publications, including many articles in top journals. This long lasting activity would have not been possible without our users. In order to strengthen this community, LIS organises the first **LIS/LWS Users Conference**, giving researchers the opportunity to present papers based on our databases.

Papers from economics to political sciences, sociology and social policy were selected by a Scientific Committee that included: Louis Chauvel (University of Luxembourg), Daniele Checchi (University of Milano & LIS), Conchita D'Ambrosio (University of Luxembourg), Janet Gornick (The City University of New York & LIS), Aline Muller (LISER), Carmen Petrovici (LIS), Eva Sierminska (LISER), and Philippe Van Kerm (LISER).

The papers reflect the diversity of topics that can be studied using our databases, from inequality and poverty to labour market participation, from saving patterns to class composition.

You are welcomed to register to attend the conference via our website where you can also find the full programme:

www.lisdatacenter.org/news-and-events/lislws-user-conference-2017/

2017 LIS Introductory Summer Workshop

Luxembourg, 18-22 June 2017

The LIS Summer Workshop will be held at the University of Luxembourg, Belval Campus, Esch-sur-Alzette, the Grand Duchy of Luxembourg. The workshop format will contain a mixture of lectures taught in English and lab sessions explained in Stata. Participants will be introduced to the LIS and LWS databases, concepts and analytic measures of income and wealth, and some research conducted with the LIS/LWS data. The successful completion of the workshop will enable the participants to work independently with LIS' remote access system.

Applicants are expected to be versed in descriptive and inferential statistics, have working knowledge of Stata as well as basic programming skills with Stata or any other statistical software (R, SAS, SPSS). Researchers and doctoral students from various social science disciplines are invited to apply.

For more information please visit our [webpage](#).

Applications should be submitted [online](#) by March 26, 2017.