Inequality Matters
Quarterly updates on inequality research, LIS micro data releases, and other developments at LIS

MESSAGE FROM THE EDITOR

Dear readers,

Summer arrived in Luxembourg, and so did the Summer data release 2022. With this release, the LIS Database now contains a 42 years long annual series of US data from CPS-March Supplement/ASEC from US79 to US20. We gladly announce also the first part of our annual series for Luxembourg, LU15 to LU19. Other data releases for the LIS Database refer to Germany (DE19), Mali (ML20), and Peru (PE11-PE19).

The Luxembourg Wealth Study (LWS) Database now contains for the first time data from Chile, CL17, with several more datasets in the pipeline.

LIS is happy to invite you to the 2022 Summer Lecture on “The geography of income mobility” at the Belval-University Campus, Luxembourg on Monday, July 4th 2022.

“The Atlas of Inequality Aversion” – this is the name of a new complementary dataset created by Stanislaw Maciej Kot (Gdansk University of Technology) and Piotr Paradowski (LIS & Gdansk University of Technology). This database contains the country-specific estimates of inequality aversion, Atkinson index, equally distributed equivalent income, and the GB2 distribution parameters. It contains values for 664 data points for 56 countries dating as far back as the late 1960s. Better understanding a population’s tolerance to inequality is key to also inform and advice economic policy decision-making.

The three articles in the Inequality Matters section are covering the following topics. Roberto Pancrazi and Gabriele Guaitoli (University of Warwick) analyse how intergenerational inequalities have evolved over the last 20 to 30 years across 42 countries. By comparing various indicators, Louis Chauvel (University of Luxembourg) is comparing results based on the recently added French data series from the Tax Income Survey against the previously available data from the household budget survey. Carmen Petrovici, Jörg Neugschwender, and Heba Omar (LIS) are looking in the new Luxembourgish data from 2015 to 2019, breaking down poverty rates by household type and immigration background.

Enjoy reading!

Jörg Neugschwender

IN THIS ISSUE

<table>
<thead>
<tr>
<th>Global Trends in Intergenerational Income Inequality?</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>by Roberto Pancrazi and Gabriele Guaitoli</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>France is back: a new series to help understand recent and old French dynamics of inequalities (1970-2018)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>by Louis Chauvel</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unpacking Poverty in Luxembourg: Evolution of Poverty Rates by Household Type and Immigration Background- 2015-2019</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>by Carmen Petrovici, Jörg Neugschwender, and Heba Omar</td>
<td></td>
</tr>
</tbody>
</table>

Data News / Data Release Schedule 13

Working Papers & Publications 15

News, Events and Updates 17

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Global Trends in Intergenerational Income Inequality?

Roberto Pancrazi, (University of Warwick)
Gabriele Guaitoli, (University of Warwick)

Introduction: current issues of intergenerational income inequality

Readers of this newsletter are probably aware that the increase in income differences between young and old, so-called intergenerational income inequalities, has recently risen to prominence in the political and media debates of many countries. For example, policy-makers such as the House of Lords in the UK or the European Commission in the EU have produced in-depth reports regarding intergenerational inequality (House of Lords, 2019; Raitano et al., 2021). At the same time, more and more institutions have begun studying and documenting this issue for specific countries (e.g. Masson (2021) for France, Barra et al. (2021) for Ireland, Berry and Sinclair (2010), Miller et al. (2020) for Australia, and Henehan et al. (2021) for the UK).

Although intergenerational inequalities generate understandable concerns, many dimensions of this phenomenon are still not well-understood or are under-investigated. For example:

1. There are no objective measures of intergenerational income inequality that allow assessing the magnitude of the phenomenon in different countries in a comparable, meaningful way.
2. It is unclear whether different countries share similar trends regarding the evolution of intergenerational income inequality.
3. Because most previous studies focus solely on labour income, the role of other dimensions of income, such as employment shares, transfers, or taxes, on intergenerational income inequality remains unknown.
4. Consequently, the available analyses do not thoroughly investigate the likely economic drivers of the global phenomenon.

This short article discusses how the paper entitled "Global Trends in Intergenerational Income Inequality?" addresses these shortcomings by conducting a global, coherent, and in-depth analysis of intergenerational income inequality. By extensively leveraging the international individual income microdata harmonised and made available by LIS, the paper studies how intergenerational inequalities have evolved over the last 20 to 30 years across 42 countries, grouped into Rich countries, Transition economies, and Developing economies. Therefore, the analysis exploits both the time-series and cross-section dimensions of the microdata available from LIS. Such analysis provides evidence of the recent differences and similarities in intergenerational income inequality trends for several countries at different stages of economic development. Finally, the dataset and the proposed inequality measures permit a detailed decomposition of the role of the sub-components of income in the evolution of intergenerational income inequality.

Stylised Facts on Global Intergenerational Income Inequality

Two measures of intergenerational income inequality are introduced in the article.

The first one is the Intergenerational Income Ratio, IGIR. With a simple number, it captures the relative average disposable income of two age groups in any given year. Since an age group includes all individuals of that age, regardless of employment status, this measure provides a broad picture of overall income inequalities between generations. This measure, which differs from comparing the changes in income of a given cohort at different points in time, has two advantages. First, it highlights how economic resources are distributed, in a given period, among different segments of the population related to their age. This is a relevant perspective because it not only relates to other important dimensions of wellbeing and intergenerational fairness, such as housing, political representation, and lobbying power over fiscal policies, but might also be a symptom of profound structural transformations in the economy. Second, this approach, together with the data available, allows relating intergenerational income inequality to long-term economic trends.

Figure 1 displays the evolution of the IGIR between individuals aged 50-64 and individuals aged 25-34. We choose these two age groups because they reflect individuals that have already completed their education and are at opposite ends of their career paths, having recently started (25-34) or getting closer to retirement (50-64). The simple average IGIR of each sub-group of countries is displayed: solid blue for Rich countries, dashed red for Transition economies, and dotted black for Developing countries. Notice that, in Rich countries, the young were earning more than the old in the early 1990s. In contrast, by 2010 the old were earning more than the young in those same countries. The IGIR upward trend appears to have continued in the last decade for most Rich countries, with very few exceptions. On the other hand, most lower-income countries experienced a stationary or downward-trending IGIR, as shown by the Transition and Developing economies time series.

This evidence leads to a first stylised fact: the intergenerational income ratio has steadily risen in the last 25 years by around 30 percent in Rich countries, while it has been constant and around one percent in Transition economies. Finally, this ratio has declined since at least 2005 in Developing economies, although it was a larger ratio to begin with.

The second measure introduced in the article is the Growth Rate Differentials, GRD. It measures the gap in income growth rates between two different age groups, capturing – regardless of the initial level – whether the average income of the old has been increasing faster than that of the young. The GRD directly relates to the temporal evolution of the IGIR, and it can be easily decomposed to quantify the role played by individual income components, (such as changes in labour remuneration, employment rate, transfers, or taxes) in shaping the trends of intergenerational income inequalities.

As a preliminary step, one might wonder how disposable income has grown for each age group in the last two decades. Table 1 summarises the average income growth by geographical region for each age group. In Southern Europe, the income of the 25-34 category fell by an average of 2.3 percentage points per year; in the rest of Western Europe, it increased by a tiny 0.3 annualised percentage points. The figures are even smaller for the 16-24 age group, which experienced negative average income growth everywhere in Western Europe except in the UK (where it is only slightly positive). In contrast, Developing economies show – in a context in which the average
income of all age groups is increasing at sustained rates - a faster increase in income for younger individuals.

The GRD, defined as the difference between the income growth rate for the old (50-64) and the young (25-34), captures this dichotomy between Rich and Developing countries very neatly. They are displayed in panel (a) of Figure 2. Consistent with the finding in Figure 1, the GRD are positive for all Rich countries, reaching a maximum of 4 percentage points, per year, in Spain and Ireland. At the same time, they are negative for most Developing economies. Transition economies show mixed results. Panel (b) sheds light on the specific growth rates of the young and the old. This figure confirms that the positive GRD in Rich countries are driven by stagnant income growth for the young and positive and greater income growth for the old. The striking difference in income growth favouring the old is not present in Transition and Developing economies.

This evidence leads to a second stylised fact: growth rate differentials are positive for all Rich countries, where the income of the young did not grow, while that of the old increased substantially; instead, growth rate differentials are negative for most lower-income countries, where the income of both young and old grew at fast rates, but more so for the young.

### Discussion: Channels at play and policy implications

These results point toward two facts that researchers and policymakers should consider in the future. First, intergenerational inequalities also need to be understood from an international perspective. Models attempting to explain intergenerational inequality and proposing policies for alleviating it need to consider how this phenomenon also strongly correlates with the current level of development of a country. Understanding the causes of this correlation is essential for designing welfare and tax schemes for
current and future generations. Second, this phenomenon is potentially worrisome because more considerable differences in income between young and old may foster other dimensions of inequalities, poverty, and deprivation, including the transmission of inequalities across generations, as well as having detrimental effects on the concept of intergenerational “fairness” and solidarity at the basis of the welfare state.

The article proposes two possible explanations for the observed stylised facts. It highlights how changes in the differentials in educational achievement and employment in high-skilled occupations between young and old are strongly connected to the changes in income intergenerational inequalities, although in non-obvious ways. In high-income countries, old individuals are catching up with younger ones in educational achievement. This means that the average young individual now holds a lower “skill advantage” over the average old one, and thus faces more competition on the labour market. In fact, share shift in educational achievement can explain half of the rise in intergenerational income inequalities between 1997 and 2019 in Rich countries. In contrast, young workers in Developing countries are facing almost the opposite scenario: they are the ones moving into new services and tech jobs, and out of agriculture and unskilled manual labour, meaning that they are the ones benefitting the most from (and potentially causing) the rapid income growth in their countries. This phenomenon explains 40 percent of the average fall in intergenerational inequalities in such countries.

Figure 2. Growth Rate Differentials and young-old Income Growth Rates

Note: Panel (a) displays the annualised disposable income Growth Rate Differential (GRD), comparing 50-64 years old individuals with 25-34 years old ones. A positive value indicates that the income of the old has increased faster than the one of the young over the reference periods. We report statistical significance with respect to the null hypothesis GRD = 0. Panel (b) reports the underlying growth rates of net income used to calculate GRD.
The rise in intergenerational income inequalities in high-income countries is, at least in part, a natural consequence of long-term trends in economic development. Similarly, the fall (or stability) in lower-income countries appears to be a transitory phenomenon led by rapid transformations of the economy, with the current young generations strongly benefitting from higher education levels and structural/technical change. Nevertheless, local policies and economic factors are still likely to explain the residual part of these trends and influence both education and training.

These results suggest that the upward trends in intergenerational income inequality in high-income countries have been the effect of decades-long transition dynamics. Nevertheless, they also suggest that tackling intergenerational inequalities may indeed need public policies. Governments should consider whether their current welfare state and tax schemes are still compatible with intergenerational fairness, in light of these long-term trends and projected growth rates. It seems, in fact, implausible that we will see a reduction in intergenerational inequalities in Rich countries without some form of policy intervention.

References
Miller, H.; Meyricke, R.; Dixie, L. (2020). “Mind the gap: the Australian Actuaries Intergenerational Equity Index-green paper,”.
France is back: a new series to help understand recent and old French dynamics of inequalities (1970-2018)

Louis Chauvel (University of Luxembourg)

With the new LIS data release, France is part once more of comparative inequality studies: for many years, the available French datasets only ranged from 1978 to 2010 and there was no clear indication as to when this out of date series might be refreshed. This wait is now over and a new series covers the period 1970-2018, with the promise of yearly updates from here on.

The tale of two surveys

In brief, France only held two main series of periodic surveys with potentially available microdata: the “old” Enquête Budget des ménages (previously “des familles”), aka Household Budget Surveys (HBS), and the “new” ERF or ERFS series of Enquête sur les revenus fiscaux (previously “et sociaux”), aka Tax Income Survey (TIS). In a nutshell:

- The old HBS is a pervasive consumption survey of circa 10,000 households per release, taken every 5 years approximately: 1978, 1984, 1989, 1994, 2000, 2005, 2010. On top of systematic information regarding expenditure over 14 days, it also collects complete income components compatible with the LIS template for the previous 12 months. This means an additional two-hundred thousand individuals in the LIS collection.
- The new TIS is based on larger samples (up to 50,000 households) and a smaller set of variables. TIS has been run yearly from 1996 on and though it is primarily a “tax” survey with administrative data, it is backed by the Enquête Emploi, a hybrid between a Labor Force Survey and a Current Population Survey, including a complete set of demographic and economic indicators, meaning that a large amount of information, including education and migration details, amongst others, are available. TIS means an overall sample of three million individuals aggregated from 1970.

From the old HBS to the new TIS, one might expect more precise, reliable sampling, faster availability for the recent years, and officially checked (taxable income and validated social rights) variables. An important aspect of yearly surveys is not only the rapid availability of fresh information, but also the capacity to detect discontinuities and outliers in the series. In this instance the main gap is that, before 1996, basic socioeconomic variables such as education, property ownership or migration, etc., were not collected in the TIS but were present in the HBS.

Comparing the two series

The best way to evaluate the added value of the new series is to compare it with the old one, in relation to other available references on French inequalities, including the most recent 2021 picture provided by the French official institute of statistics Insee (Insee, 2021, Les revenus et le patrimoine des ménages, Edition 2021, Paris, Insee).

Detection of outliers: the FR1984 HBS Survey exception

Even if the Gini index is not a panacea in income inequality analysis, it deserves some attention. It is relevant to compare the two series in these terms. Before the availability of the TIS series, there were concerns about the reliability of FR1984 HBS since it was three percentage points of the Gini index above the linear trend for 1978-1989; though some arguments (capital gains at the top, new poverty at the bottom) were put forward, not one was convincing. With the TIS series as a benchmark, it is clear that FR1984 HBS was an outlier overshooting the true Gini by perhaps as much as four points.

After a rectification (see fig 2) of 1984, based on a lower weighting at the bottom and top tails of the distribution, the long-term shape of the French Gini 1970-2018 showed as a U-curve, with a minimum in the 1990s and a local maximum in 2010. The (modest) increase of...
income inequality between the end of the 1990s and 2018 is confirmed in the literature (Insee, 2021, p.18).

**Comparison of macro indicators of inequality: advantage of TIS over HBS**

Beyond the Gini index, we compare a set of indicators to understand the proximities and gaps between the HBS and TIS series. First, the averaged logged disposable income in euros 2020 (ley) shows the great slowdown of economic growth after the 1970s. The HBS trend is globally similar, but fails to detect its details, like the economic acceleration of the 2000s and the great recession of the post 2008 era, details that the TIS surveys clearly bring out. The two main added values of the TIS compared to the HBS are the possibility to go back to 1970 and forward until 2018.

We also compare four additional indicators, two regarding the bottom of the distribution and two for the top. For the lower part, we have the traditional poverty rate at 50% of the median, and the share of the total income share of the lower 50% of the population. The poverty rate in the TIS clearly shows a floor in the 1990s, when minimum universal income was implemented for the first time. The HBS tends to confirm a similar V curve, but with a somewhat less credible floor in 2000. The aggregated share of the population is less informative, with a value close to 30.5% +/- 1% in the two sources.

Symmetrically, at the top, we follow and compare the proportion of “rich” people, and the share of the top 10%. The “relative richness rate” at 200% of the median, symmetrical to the relative poverty rate, is an indicator that French inequality specialists particularly appreciate (Chauvel L., 1995, « Inégalités singulières et plurielles : l’évolution de la courbe de répartition des revenus », Revue de l’OFCE, 55, pp. 211-240 ; A. Brunner et L. Maurin (eds.), 2022, Rapport sur les riches en France, édition 2022, Observatoire des inégalités, juin 2022, see p.14). The TIS series show the strong decline in richness rate in the 1970s from almost 12% to around 8% in 1978, where modest fluctuations might be observed near to a plateau at 8%. More interesting is the share of the top 10%, with a shaky V curve with a floor in the late 1990s. Once again, the TIS source provides details that HBS cannot deliver.

The overall diagnosis is that for macro indicators of inequality, even after a rectification of the 1984-HBS that caused a major problem, the TIS is better than HBS, as regards the size of its samples, the frequency of information, the continuity of results from year to year.

**Fig 2: Comparison between the old HBS (dots) and new TIS (lines) series for six indicators (FR1984_HBS rectified):**

- ley: Logged equivalized disposable income in real terms (eur2020)
- gini_dhi: Gini index of the equivalized disposable income
- p50: relative poverty rate (50%), proportion of the population below half (50%) the median equivalized disposable income
- r200: relative rich rate (200%), proportion of the population above twice (200%) the median equivalized disposable income
- sh_bottom50: share of total equivalized disposable income of the bottom 50% of the population
- sh_top10: share of total equivalized disposable income of the top 10% of the population

Source: Luxembourg Income Study (LIS) Database.
Inequality Matters

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ssue No. 22 (June 2022)

and therefore general reliability. For the computation of key figures in LIS-, TIS is preferable.

Structural changes in the long range: equality HBS-TIS

With respect to fine-grained LIS analysis, including controls for important covariates (education, region, migration, etc.), the HBS-TIS match becomes complicated: the TIS template and codebook is relatively complete from 1996 onwards, where TIS is preferable to the end of the HBS series (the four HBS surveys from 1995 to 2010). However, before 1996, the TIS surveys lack basic information, vital when one wishes to have accurate socioeconomic controls. In this respect, HBS 1978-1995 may have a major role to play in recording two additional decades of historical changes.

The solution to the TIS issue (education is absent from TIS before 1996) is backed by empirical facts: in terms of education, TIS after 1996 and HBS provide parallel observations. The HBS series for 1978-1994 provide useful information: the U-curve of risk of poverty for the least educated population across the period 1978-2018, and the declining opportunities of richness for the most educated ones, due to overcrowding effects (or “diploma inflation”: see Collins R. (2019), The Credential Society: An Historical Sociology of Education and Stratification (New Preface), Legacy Editions.. The trend of a decline in the return to higher education in terms of a proportion more than twice the median income begins in the 1990s: prior to this date, the HBS series show a plateau.

Conclusion: TIS is better for the present and HBS remains vital for the past

All in all, this HBS/TIS comparison is an opportunity to evaluate the relative merits of the different series. For macro analyses up to the present day, TIS outperforms HBS. For controls, TIS cannot replace HBS before 1996, due to a lack of strategic covariates such as education and other socioeconomic variables in the TIS: HBS microdata has to remain in the LIS archives.

In this attempt to evaluate the many “pros” and few “cons” of TIS, my personal conclusion is inspired by Paul Feyerabend’s epistemology (P. Feyerabend, Against Method: Outline of an Anarchistic Theory of Knowledge, London: New Left Books, 197): “anything goes”! Imperfectly translated in French from “tout est bon”. More accurately, “fromage ET dessert” is what we deserve: HBS AND TIS.

Fig 3: Comparison between the old HBS (dots) and new TIS (lines) series for poverty rate (left) and rich rate (right) by level of education:

- highly educated (15 years of education or more: triangles and grey lines)
- averagely educated (11 to 14 years of education, circles and blue lines)
- low-educated (10 years of education or less, crosses and green lines)

(FR1984_HBS rectified)

Source: Luxembourg Income Study (LIS) Database.
Introduction

Besides being the home of LIS, Luxembourg is one of the richest countries in the world with GDP per capita reaching 116,356.25 (current prices) in 2020 [source: World Bank], with a striving economy and a low unemployment rate, estimated at only 4.7% in April 2022 [source: STATEC].

The small country located in the heart of Europe, is characterized by its diversified population, being also one of the main administrative headquarters of the European Institutions and other supranational organisations. The share of foreigners in the Luxembourgish population almost doubled in the past 40 years, increasing from 26.3% in 1981 to 47% in January 2022 [source: STATEC]. In 2020, the employees of European Institutions in Luxembourg were estimated at 14,000 [source: Wort who compiled data from various supranational institutions]. In addition to foreign resident population, the Luxembourg has a large share of cross-border workers, it was estimated that in 2021 46.3% of the labour force comes every day from across the borders, mostly from France, Belgium and Germany [source: STATEC].

This unique composition of the Luxembourgish society and its strong economy makes it an attractive place for work and life to many foreigners from Europe and all over the world. However, in later years poverty started to be a matter of concern, especially among children and even among the working population. ‘The Risk of Poverty Continues to Increase in Luxembourg’—this is the headline of a recent newspaper article published in one of the main journals in Luxembourg [source: Wort.lu]. This article is one of several over the last couple of years that addressed the increase of poverty rates in Luxembourg.

Indeed, poverty is on an increasing trend in the last decades, but is it increasing at the same pace for all? A STATEC report (that made also the news in the national media) from 2019, using, among other sources, the same original data that LIS has now harmonised, identifies as the most vulnerable groups to poverty the unemployed, the foreigners and the single parents. However, the unemployed group is problematic to adequately be captured in the survey of the resident population due to the large share of the cross-border work force. Thus, in this article we will focus on immigration background and different household types in order to identify the groups with high poverty rates and observe their evolution over the latest 5 years with the newly added data points in LIS database 2015-2019.

Data and concepts definitions

Luxembourg is part of the LIS database since the creation of the LIS project in the beginning of the ‘80s, with data ranging from 1985 to 2019. The first two datasets in the series are based on the first Socio-economic Panel “Living in Luxembourg”/ Panel Socio-Economique ‘Lieven zu Lëtzebuerg’ (PSELL I), the datasets for 1997 & 2000 are based on PSELL II and the data from 2004 till the most recent year on PSELL III (that is also used as input for the EU-SILC database). Until 2013 the original data was provided by the Luxembourg Institute of Socio-Economic Research (LISER) and since 2015 by the National Institute of statistics and economic studies of the Grand Duchy of Luxembourg (STATEC). In PSELL III the rotational panel sample was drawn until 2016 from the Luxembourgish Social Security administrative database (same selection base for PSELL I & II), which means that only households that had at least one member affiliated to the national social security had a chance to be selected, while from 2016 the sample that renewed the rotational panel started to be drawn from the National Population Register, meaning that also households with employees of the supranational organisations (that belong to a different social security system than the national one) residing in the country and thus registered in the National Population Register, had equal chances to be selected in the sample. Hence, we can observe a break in series in the data around the year 2016, as well as 1994 when PSELL II replaced PSELL I with a different sample.

For defining relative poverty, we use the methodology applied by EUROSTAT, which defines relative poverty as a headcount ratio, the proportion of a population living in households whose income falls below a poverty line. In the following, these poverty line thresholds are defined as 40%, 50%, and 60% respectively of equivalised disposable household income. LIS defines disposable household income as the sum of monetary and in-kind income from labour, capital, pensions and monetary and in-kind1 public social benefits, as well as the monetary and in-kind private transfers, from which the income taxes and social contributions paid are deducted. Equivalisation is carried out by using the modified OECD scale, which counts as 1 unit the first adult in the household, 0.5 the other adults and the children aged 14 to 17 and with 0.3 the children aged 13 or younger in order to account for economies of scale in larger households.

Poverty rates evolution over time: 1985-2019

In order to have an overview of the evolution over time of poverty in Luxembourg, in Fig. 1 below we show the poverty rates below 60% of median equivalised disposable income for total population, elderly aged 65 or above, and children below the age of 18.

We can see that overall poverty rate is increasing in a slow pace over time, nevertheless with a divergent trend for population subgroups. The elderly population aged 65 and above has experienced over time lower poverty rates (however with a peak in 2016), whereas in recent years particularly children below age 18 have become a main group at risk. In 2019, poverty among the elderly has been one third of the poverty rate among children. Poverty risk for children concerns almost every fourth child in Luxembourg. Given this increased risk, in the next step, we look into different types of households, with children and without. In a second step, we will introduce a second dimension referring to the immigration background to account for the diversity among the Luxembourgish society, which in a later stage we will combine to better assess which particular group is more vulnerable against poverty. We selected individuals aged 25-59, focusing on families with children below age 18 in comparison with other household types.

Poverty rates by household type: are families with children at higher risk?

In Fig. 2 we look at poverty rates by different household types, distinguishing between 1 person household, couple with no children, couple with 1 or more children under the age of 18, and single parent with 1 or more children under the age of 18. The households with children were restricted to those having all children present in the household under 18 years of age. By far the most at risk of poverty group is the one of single parents, with poverty rates of around 40% in 2019, slightly increasing by 3 percentage points over the five year period. The second highest poverty rates are observed in the other household type that has only the financial resources of just one adult:
Figure 1. Relative poverty rates for total population and age groups (1985-2019)

Notes: Poverty rates are calculated as headcount ratios, i.e. percentage of each (sub)population with equivalised disposable income below 60% of median equivalised disposable income; disposable household income is equivalised using the OECD modified scale.

Source: Luxembourg Income Study (LIS) Database.

Figure 2. Relative poverty rates by household type

Notes: Poverty rates are calculated as headcount ratios, i.e. percentage of each sub-population group with equivalised disposable income below each threshold 40/50/60% of median equivalised disposable income; disposable household income is equivalised using the OECD modified scale. The sample is restricted the population living in households where the head is aged 25-59.

Source: Luxembourg Income Study (LIS) Database.
the one person household. After a peak in 2016 at 20% poverty rate, one person households are on a decreasing trend, reaching in 2019 the same level as the couples with 1 child or more, at 13%. Looking further at couples, we observed that couples with child/ren have, as expected, higher poverty rates than childless couples in all years, nevertheless significantly decreasing in the last year. The fact that the difference is rather small could suggest a successful effect of children benefits when the income of 2 adults are pulled together, the presence of children does not increase poverty rates as much as for households with only 1 adult.

Poverty rates by immigration background: are the foreigners much worse off?

In a second step, we look at poverty rate by citizenship and immigration background, distinguishing between Luxembourgish, EU or EFTA citizen and third country citizens. In case someone holds multiple citizenships, the citizenship of the resident country has priority. Furthermore, among Luxembourgish, we used the country of birth of the parents as a proxy for second generation immigrants and naturalised citizens and we distinguish between: Luxembourgish with both parents born in the country, with only one parent born in the country and the other abroad, and with both parents born abroad.

We can observe from Fig. 3. that the poverty rates for the third country nationals are by far the highest, more than double than EU & EFTA citizens in the first 2 years, however in a constant and significant decreasing trend, while the poverty rates for EU & EFTA citizens which are the second highest are in a slightly increasing trend over the year. The difference between the two groups of foreigners decreased from a remarkable 24 percentage points to only 10 over the 5 years period. An explanation could be also the fact that UK citizens changed categories in 2019 from EU to third country citizens after the BREXIT. They are the 7th largest international community in Luxembourg and they represented 0.7% of the sample in 2015, however it decreased to 0.4% of the sample in 2018 & 2019 due mainly to them getting another EU nationality just before BREXIT to conserve their rights. We also want to highlight that EU & EFTA group is quite heterogeneous, besides highly qualified individuals that work for international institutions or financial markets and not only, there are also a large group working in less qualified and less well paid jobs.

Among the Luxembourgish nationals we can see that, in the first years, the poverty rates were double for those with both parents born abroad compared with those with both parents born in the country, who have the lowest poverty rates of all categories, despite a slight increase on 1 percentage point over the years. The poverty rates of second generation or naturalised citizens, despite small variations over the years, remain stable at about 12%. Luxembourgish with only one parent born in the country, despite a peak in 2018, seem to have closer values to the ones with both parents born in the country, that have the lowest poverty rates. Therefore, even among Luxembourgish citizens, we observe variations in poverty rates depending on their immigration background.

Poverty rates by household type and immigration background of head (and partner)

Next, in Fig. 4 below, we combine the two previous groups, the type of household (the categories remain the same as described above) and citizenship. Due to the small size of certain combined groups we had to regroup our initial citizenship variable and distinguish only between nationals and foreigners and for couples we looked at the citizenship of the head and spouse, therefore they can be: both Luxembourgish, both foreigners or a mixed-couple (with or without children).

The poverty rates are by far the highest in all years, among foreigner single parents. On the second highest place are Luxembourgish single parents, which, nevertheless, have slightly lower poverty rates in 2019 compared to 2015. Not far behind them are the foreigners living alone that have even higher poverty rates in 2019 than the couples with child/ren, regardless of their nationality.

Figure 3. Relative poverty rates by citizenship and immigration background

Notes: Poverty rates are calculated as headcount ratios, i.e. percentage of each sub-population group with equivalised disposable income below each threshold 40/50/60% of median equivalised disposable income; disposable household income is equivalised using OECD modified scale. The sample is restricted the population aged 25-59.

Source: Luxembourg Income Study (LIS) Database.
Luxembourgers living alone have higher poverty rates than their conational living in couple, with or without children. Although in a decreasing trend in the last years, their poverty rates are by 5 percentage points higher than Luxembourgish families with child/ren. Among the couples with child/ren, the foreigner parents have the highest poverty rate, as expected, while at the opposite side, Luxembourgish families with child/ren have the lowest poverty rates among all groups, only 3% in 2019, even lower than childless Luxembourgish couples. Mixed couple with child/ren are in between the two groups, experiencing in 2019 half of the poverty rate of the foreign families with child/ren, in a decreasing trend over the years.

Among the couples without children, the overall differences are small between foreigners and mixed couples, nonetheless in 2019 the mixed couples have higher rates by 5 percentage points than foreigner childless couples. The most noticeable is that among Luxembourgish, the couples with child/ren have similar (very) low rates to the couples without children, showing that in their case the presence of child/ren in the household does not have a significant impact on their poverty risk.

Conclusions
Combining the two groups, we saw that highest poverty rates are among single parents, especially when they are foreigners and in the second place among one person households, with foreigners living alone having higher poverty rates than their Luxembourgish counterparts. The report by STATEC (2019) on employment and social cohesion in Luxembourg; also confirms that single parents and one person households have higher poverty rates compared with other household types and foreigners (especially non-EU) have higher rates than nationals.

If we take into account the nationality, among Luxembourgers does not seem to be a significant difference in the poverty rate of couples with and without children, and the same stands for mixed couples. This could indicate a successful impact of family policies; however this leaves several groups at risk: the foreign parents, especially when they are single parents.

The second group most at risk of poverty are the persons living alone, and especially the foreigners among them who are often neglected in poverty research. They would have even higher poverty prevalence if the housing costs would be taken into account. Housing cost was
estimated by STATEC for 2019 at 54% of the budget for one person living alone compared with under 40% for couples without children or single parents and down to 31% for a couple with two children. Therefore, housing policies providing more affordable housing options would improve particularly the situation of persons that live alone. They will be the ones who will most benefit of the long-term planned taxation reform and moving towards individual taxation of income, since currently they are the ones paying the highest taxes from all the tax classes.

Household structure and immigration background are only a few among various other factors such as education level, activity status, and work intensity, which jointly influence poverty prevalence. Regression techniques are needed to carefully assess these factors combined in order to determine their impact on poverty risks, so that comprehensive policy recommendations can be made in order to help the government to make relevant policies in order to decrease poverty among the vulnerable groups.

1 One limitation is that the in-kind transfers are not well captured in the data, for example STATEC report [2022] shows that taking into account the child care vouchers “chèques-service accueil” in the calculation of the disposable income, decreases the poverty rate by over 1 percentage points for families with young children.

2 European Free Trade Association (EFTA) from which are part Iceland, Liechtenstein, Norway and Switzerland gives to their citizens similar rights as EU citizens on The European Economic Area (EEA).

3 For ex. about 13% of them work in construction sector, while the similar percentage work in financial sector in each year, while the proportion of those who work in supranational organisations doubled in the sample reaching 12% in 2019, but this is due to the change in sample selection as well (source: LIS data).

4 Please note that, despite regrouping, certain categories, more specifically the two single parents groups are rather small (between 2% & 3% of the sample in each year), therefore their poverty rates are to be regarded with caution.
Data News / Data Release Schedule

LIS is happy to announce the following data updates:

- **Germany** – DE19 added to the LIS Database (1 new and 35 revised).
- **Luxembourg** – Annualisation of the country series from 2015 to 2019 for the LIS Database (5 new datasets).
- **Mali** – ML20 added to the LIS Database (1 new and 8 revised).
- **Peru** – Annualisation of the country series from 2011 to 2019 for the LIS Database (7 new and 3 revised).
- **United States** – Annualisation of the country series from 1980 to 1990 and addition of US20 for the LIS Database (11 new and 31 revised).
- **Chile** – New country added to the LWS Database with the addition of one data point CL17 (1 new dataset).
- **Germany** – Update of previous data points in the LWS Database using the latest version of GSOEP data release.

Data Releases and Revisions – Luxembourg Income Study (LIS)

**Germany**
One new dataset from Germany, DE19 (Wave XI), has been added to the LIS Database. The dataset is from the 2022 data release (v37eu) of the German Socio-Economic Panel (GSOEP) carried out by the German Institute for Economic Research (DIW).

Alongside this update, the previous datasets from the GSOEP series DE84-DE18 have been updated to reflect the improvements in the latest version v37eu by DIW, mostly concerning the update of the imputation of incomes for non-respondents, based on the newly available data point DE19.

**Luxembourg**
Five new datasets from Luxembourg have been added to the LIS Database, covering annual data from 2015 to 2019. The data LU15 to LU19 are based on the Socio-economic Panel “Living in Luxembourg” / Panel socio-économique “Liewen zu Letzebuerg” (PSELL III), from which is also created the Survey on Income and Living Conditions (EU-SILC). The data are provided by the National Institute for Statistics and Economic Studies of the Grand Duchy of Luxembourg (STATEC). LIS is grateful for the invaluable help and support offered by STATEC to prepare the data.

**Mali**
A new data point from Mali ML20 has been added to the LIS Database. The dataset is based on the Modular and Permanent Household Survey (EMOP) that is carried out by the Malian National Statistical Institute (INSTAT).

The earlier datasets of the series ML11-ML19 have been revised for consistency, in particular variable edys (years of education) refers now to the exact years of accomplished education, and variables weeks (annual weeks worked) and fylt (full-year full-time (dummy)) are now available.

The inclusion of Mali was accomplished through a research agreement between the Agence Française de Développement (AFD) and LIS. LIS is grateful for this cooperation that allowed for these valuable additions.

**Peru**
Seven new data points from Peru have been added to the LIS Database from 2011 to 2019. The annual data points are based on the National Household Survey (Encuesta Nacional de Hogares – ENAHO) from the National Institute of Statistics and Informatics (Instituto Nacional de Estadística e Informática – INEI). The pre-existing data points PE04, PE07, PE10, PE13, and PE16 were further reviewed for consistency for various sections in the LIS variable list.

**United States**
LIS is happy to announce that the CPS-ASEC data have been further annualised from 1980-1990, and the addition of US20. Thus, 11 datasets have been added to the LIS Database, spanning now an annual series with 42 years from 1979-2020. The datasets are based on the latest data versions available at the Bureau of Labor Statistics (BLS) / U.S. Census Bureau.

The previous versions of US79 and US86 have been reviewed for consistency, and re-harmonised in line with the harmonisation of the newly provided data points.

Data Releases and Revisions – Luxembourg Wealth Study (LWS)

**Chile**
LIS is excited to announce the inclusion of Chile to the LWS Database. One new data point has been added CL17 (Wave X). The dataset is based on the Household Financial Survey (EFH) carried out by the Central Bank of Chile.

**Germany**
Alongside the update of the LIS Database (update to the latest data release (v37eu) of the German Socio-Economic Panel (GSOEP) carried out by the German Institute for Economic Research (DIW), the four German wealth datasets DE02, DE07, DE12, and DE17 have been also updated to reflect the latest improvements in the version v37eu carried out by DIW.

These updates mostly concern the updates of the imputation of incomes for non-respondents, based on the newly available data point DE19, whereas the information on assets was not modified by DIW.
## LIS/LWS Data Release Schedule

<table>
<thead>
<tr>
<th></th>
<th>Autumn 2022</th>
<th>Winter 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIS Database</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>AT94-AT00</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Annual data CA81-CA95</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>IE19/IE20</td>
<td></td>
</tr>
<tr>
<td>Luxembourg</td>
<td>LU85-LU20</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>PE97/09</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>ES93-ES19</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>VN92/97/01/03</td>
<td></td>
</tr>
<tr>
<td><strong>LWS Database</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>CL07/12/14</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>CN11/13/15/17</td>
<td></td>
</tr>
</tbody>
</table>
## Working Papers & Publications

**Focus on** Single Mothers’ Income in Twelve Rich Nations: Differences in Disadvantage across the Distribution

*LIS WP No.835 by Susan Harkness*  
(University of Bristol, School for Policy Studies)

Previous research has shown single mothers to be less well-off and at higher risk of poverty than mothers in couples. In this article, the author extends current research by examining how single motherhood affects income at different quantiles of the distribution in twelve rich nations. Using harmonised data from the Luxembourg Income Study (LIS), the author shows how the distribution of single mothers’ income differs to that of couples with children. Using unconditional quantile treatment effect (QTE) models, the author then assesses the influence of single motherhood on income at different points of the distribution. The author finds that, in all countries, single motherhood is associated with large reductions in income across the distribution and that these gaps cannot be explained by differences in single and partnered mothers’ individual and family characteristics or employment. The author also finds striking variations across countries in the effect of single motherhood on income at different points of the distribution. In some countries, such as the United Kingdom, single motherhood has a greater effect on income at the top of the income distribution than the bottom. In other countries, such as the United States, the reverse is true with the effect on income being largest at the bottom of the distribution. The author concludes by discussing the role that employment and social policies may play in driving cross-country differences in the income gradient associated with single motherhood across the distribution.

### LIS working papers series

- **LIS working papers series - No. 829**  
  Gendered Globalization: The Relationship between Globalization and Gender Gaps in Employment and Occupational Opportunities  
  *by Yoav Roll, Moshe Semyonov, Hadas Mandel*

- **LIS working papers series - No. 830**  
  The Barycenter of the Distribution and Its Application to the Measurement of Inequality: The Balance of Inequality, the Gini Index, and the Lorenz Curve  
  *by Giorgio Di Maio*

- **LIS working papers series - No. 831**  
  Fiscal Impoverishment in Rich Democracies  
  *by Manuel Schecht, Rourke L. O’Brien*

- **LIS working papers series - No. 832**  
  The Impacts of Industry Wage Premiums and Education Levels on Gender Inequality: Evidence from Five Developed Countries  
  *by Yao Yao, Zheng Li*

- **LIS working papers series - No. 833**  
  Redistribution and Child Poverty: A Cross-National Comparison Between Brazil, Colombia, Panama, Peru, Russia, and South Africa  
  *by Marcela F. González*

- **LIS working papers series - No. 834**  
  Married Women’s Employment and Motherhood Employment Penalty by Couple’s Educational Attainments across 10 Countries  
  *by Ji Young Kang, Wonjin Lee, Sunyu Ham, Julia Shu-Huah Wang*

- **LIS working papers series - No. 835**  
  Single Mothers’ Income in Twelve Rich Nations: Differences in Disadvantage across the Distribution  
  *by Susan Harkness*

- **LIS working papers series - No. 836**  
  *by Regina Baker, Heather A. O’Connell*

Published in the *Journal of Marriage and Family*, (2022): 1-25.  
https://doi.org/10.1111/jomf.12837

- **LIS working papers series - No. 837**  
  Higher Education Expansion & Labour Income Inequality in High-income Countries: A Gender-specific Perspective  
  *by Petra Sauer, Philippe Van Kerm, Daniele Checchi*

- **LIS working papers series - No. 838**  
  Accounting for the Value of Unpaid Domestic Work: A Cross-National Study of Variation across Household Types  
  *by Berglind Hólm Ragnarsson, Sarah Kastecki, Janet Gornick*

- **LIS working papers series - No. 839**  
  The Micro-Foundations of Permanent Austerity: Income Stagnation and the Decline of Taxability in Advanced Democracies  
  *by Olivier Jacques, David Weisstanner*

- **LIS working papers series - No. 840**  
  Explaining the Child Poverty Outcomes of Japan, South Korea and Taiwan  
  *by Bruce Bradbury, Aya Abe, Markus Jäntti, Inhoe Ku, Julia Shu-Huah Wang*
LWS working papers series

LWS working papers series - No. 38
Income-Poor, Asset-Rich? The Role of Homeownership in Shaping the Welfare Position of the Elderly
by Edyta Marcinkiewicz, Filip Chybalski

LWS working papers series - No. 39
The Extreme Wealth-Income Ratio (EWIR): the Joker Smile Curve (JSC) and the New Age of Extremes
by Louis Chauvel

2021 Aldi Award Winner

This year’s winner of the LIS Aldi Award is Xabier Garcia-Fuente from the University of Barcelona, Spain, for LIS Working Paper No. 815 entitled “The Paradox of Redistribution in time. Social spending in 53 countries, 1967-2018”. The paper was scientifically evaluated by 6 reviewers and it was voted as the best from the qualified LIS and LWS Working papers.

Every year, the award is granted to the writer under age 40, whose LIS or LWS Working Paper from the previous year best demonstrates the qualities of good scholarship that Aldi exhibited.

More information about the Aldi Award can be found here.
Call for papers for the inaugural III/LIS Comparative Economic Inequality Conference

LIS and the UK LIS Satellite Office at the International Inequalities Institute (III) invite scholars working in the field of comparative economic inequality to contribute to the inaugural III/LIS Comparative Economic Inequality Conference on 23-24 February 2023.

Confirmed keynote speakers are Regina Baker, University of Pennsylvania, and Andrea Brandolini, Bank of Italy.

We invite submissions from scholars at all levels of seniority who are working on comparative economic inequality, broadly interpreted. Topics might include (but are not restricted to) inequalities in income, wealth, debt, gender, race, class, space. We are particularly interested in papers looking at cross-country differences using LIS/LWS or similar data but are also open to comparative work focusing on inequalities across different sociodemographic or socio-economic groups within countries.

The deadline for submissions (full papers no longer than 30 pages at font 12, or extended abstracts no shorter than 2 pages) is July 1, 2022. The conference organizers will notify all with the decisions after August 1, 2022. Please send the abstract or any questions surrounding the conference to iii.lis@lse.ac.uk.

2022 LIS Summer Lecture Invitation

LIS is happy to invite you to its 2022 Summer Lecture on “The geography of income mobility” By Cecilia García-Peñalosa, Aix Marseille School of Economics. The lecture will take place on Monday, July 4th, 2022 11:30-12:30 [Luxembourg Local Time] Esch-Belval Luxembourg.

Economists have long been interested in inter-generational mobility. Initial explanations based on easily-identifiable factors such as educational attainment have over time been expanded to include aspects such as non-cognitive skills and, more recently, geography. Where you are born matters for mobility. This talk will explore recent evidence showing that there are significant differences in the degree of upwards mobility across location, and try to identify to what extent broad developments in the labour market, such as employment polarization, are behind these differences.

Registration

Those interested in attending the lecture should register via this link before the 25th of June 2022 as seats are limited. The lecture will be followed by a Buffet lunch.

The Atlas of Inequality Aversion: A New Dataset added to the LIS Complementary Database

This database contains the country-specific estimates of inequality aversion, Atkinson index, equally distributed equivalent income, and the GB2 distribution parameters. The database is an updated version of estimates that Stanislaw Maciej Kot and Piotr Paradowski initially presented in LIS Working Paper #826 (forthcoming in Equilibrium. Quarterly Journal of Economics and Economic Policy). The database now contains parameters estimated for 664 data points for 56 countries dating as far back as the late 1960s. The sole parameter $\varepsilon$ of the constant relative inequality aversion utility function (Atkinson, 1970) expresses a society’s aversion to inequality and is derived from the mathematical condition of the existence of the social welfare function estimated from a parametric distribution of income $\text{GB2}(a,b,p,q)$. The authors call it the Atlas of Inequality Aversion parameters. It is the first such database that allows researchers not only from the field of welfare economics but also in other social science disciplines to obtain inequality aversions that they can use in various ways to benefit their scientific investigations. Understanding the threshold of a population’s tolerance to inequality can also help steer economic policy decision-making.

LIS team participation in conferences

- On May 9th, Piotr Paradowski participated in the 15th Professor Aleksander Zelas International Conference on Modelling and Forecasting of Socio-economic Phenomena in Zakopane, Poland. Piotr presented the LIS and LWS Databases in the lecture entitled “The Analysis of Household Income and Wealth Using the Luxembourg Income Study (LIS) and Luxembourg Wealth Study (LWS) Databases.”
- On June 1st, Teresa Munzi has participated in a panel on European Data at the Centre for Economic Policy Research (CEPR) Paris Symposium in Paris, France.
- On June 9th, Josep Espasa Reig presented a paper on “Bias-variance trade off on the use of non-response weights in inequality estimates” at the European Conference on Quality in Official Statistics (Q2022) in Vilnius, Lithuania.

Visiting scholars at LIS

This quarter, LIS welcomed two visiting scholars who came to work onsite with the LIS databases; namely Professor Filip Chybinski and Associate Professor Edyta Marcinkiewicz from Lodz University of Technology — Poland. Their visit is taking place from the 13th to 24th of June. During their stay, they are working on their research project ‘Welfare across countries and generations: a cross-national comparative study’.
The Stone Center at the GC-CUNY Supports Three International Meetings Focused on Inequality

• On 23 April 2022, Stone Center Director Janet Gornick presented a “mini LIS workshop” at the 2022 meeting of the International Sociological Association’s Research Committee on Social Stratification and Mobility. The meeting, titled “Social Stratification and Social Policy for a Post-Covid19 World”, and hosted by the Department of Social Policy at LSE, was attended by several hundred scholars. Gornick’s presentation, a virtual Keynote, was titled “Socio-Economic Inequalities in Cross-National Perspective: Contributions from LIS: Cross National Data Center.”

• On 24 May, Janet Gornick attended the launch of the “Deaton Review: Inequalities in the 21st Century”, forthcoming from the UK’s Institute for Fiscal Studies. Gornick is one of the Review’s writers, contributing a chapter on levels and trends in poverty and inequality, based on the LIS microdata.

• On 26 May, Janet Gornick attended the official launch of a new Stone Center – “The James M. and Cathleen D. Stone Centre on Wealth Concentration, Inequality and the Economy” – at University College London. The new Stone Center houses CORE Econ – a global project led by Wendy Carlin focused on creating open-access teaching materials for a new way of learning economics. Gornick met with Carlin about potential contributions to the CORE curriculum from both the GC-CUNY Stone Center and LIS.