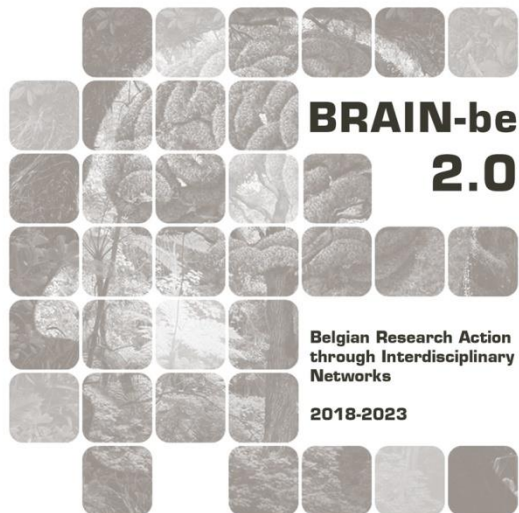


BE-PARADIS

The Paradox of Belgian Inequality Studies

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Pillar 3: Federal societal challenges



NETWORK PROJECT

BE-PARADIS

The Paradox of Belgian Inequality Studies

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ABSTRACT

Context

BE-PARADIS has been a 4-year research project, carried out by the University of Leuven, the University of Antwerp and the Université Libre de Bruxelles, and funded by the Belgian Science Policy Office (BELSPO). The project was motivated by the consistently lower and more stable measurements of inequality in Belgium than for most other OECD countries. This observation seemed at odds with how the public at large experience inequality and its evolution, and how this is framed in the public debate. We have called this the Belgian Paradox of Inequality Studies (BE-PARADIS).

Objectives

This project formulated a renewed and profound inquiry of existing and available data, concepts, and methods. This allowed us to (i) highlight and quantify the relative importance of different drivers in the evolution of inequality; (ii) align Belgium with the international research agenda and its output in the form of Distributional National Accounts; (iii) enlarge and deepen the conceptual framework of distributional analysis by going beyond mere household disposable income: inflation inequality, housing inequality, the (un)equal access to public goods, inequality within the household and inequality in well-being.

Conclusions

We found that two opposing forces can explain the stable inequality trend found in the standard analysis and publications based on household disposable income reported in surveys. On the one hand, socio-demographic changes exert upward pressure, while tax-and-benefit policies ensures downward pressure. The construction of Distributional National Accounts revealed that capital income stayed under the radar so far. When taking the whole income pie into account, including all capital income, we found higher levels of inequality and a less stable inequality trend. After a decreasing trend up to 2009, we found indications for an increase in inequality in the aftermath of the financial crisis. Moving beyond income inequality, we found some other indications that might explain the inequality paradox: unequal access to public goods or inequality in well-being.

Keywords

Income inequality, income distribution, inequality, distributional national accounts

1. INTRODUCTION

Inequality remains high on the policy agenda. The IMF has labelled inequality as the ‘defining challenge’ of our time because it signals a lack of income mobility and opportunity, and because it has important consequences for growth and macroeconomic stability, and carries a risk of concentrating decision making in the hands of a few. In the last twenty years also the OECD has gathered ‘a significant body of evidence on increased inequalities of income and opportunities in many countries’, and concludes that inequality is ‘bad and getting worse’. However, Belgium often stands out as one of the exceptions, with inequality relatively low and not increasing over time.

This project started from the observation that this consistently low and stable level of Belgian income inequality, as reported in official statistics, seems at odds with how the public at large experience inequality and its evolution, and with how this is framed in the public debate. We have called this the **Belgian Paradox of Inequality Studies** (from which we derived the project acronym BE-PARADIS). To shed light on this paradox, we not only thoroughly reviewed the data used, we also tapped new data sources and broadened the concept of ‘inequality’ to include dimensions other than just income.

2. STATE OF THE ART AND OBJECTIVES

The academic literature indicates that in most OECD countries, after a period of decrease, income inequality has been on the rise again since the 1980’s. Belgium, however, often stands out as one of the exceptions in comparative studies. Contrary to the rise in income inequality in most OECD countries, for Belgium the OECD observes a rather stable and low level of income inequality between the mid 1980’s and mid 2010’s.

Numerous published academic studies and publicly available databases, each with their own methodological choices, have charted the evolution of income inequality in Belgium, and none of these have pointed out an outspoken rise of inequality in Belgium. The labour share, which is the functional distribution of market income between labour and capital, shows a pronounced decrease since 1980 after a sharp increase in the 1970s (AMECO database). The income distribution most widely studied and documented is the distribution of disposable income (e.g. EUROSTAT database and OECD database). This is based on information from different household surveys such as the Socio-Economic Panel (SEP), the European Community Household Panel (ECHP), and the EU Statistics on Income and Living Conditions (EU-SILC). Studies that use data from SEP (1985-1997) report a modest increase of inequality, as measured by the Gini coefficient. Studies using ECHP (1992-2001) obtain more capricious results without a clear trend. Studies and databases using EU-SILC (2004-2019) show a mildly decreasing inequality trend.

The results are testimony of the fact that empirical work on income inequality faces crucial methodological choices, such as:

- the income concept: the income concept can vary from ‘market income’, which is the total income from the production factors labour and capital before taxes or social security contributions are paid or any replacement income is received (such as pensions or unemployment benefits), to ‘disposable income’ which is the income available for consumption expenditures and savings;

- the underlying dataset: different primary datasets are used in Belgian inequality studies: administrative datasets, survey datasets and national accounts;
- the reference period: income is a flow concept and, hence, one must choose a reference period over which this flow is measured. Most studies choose one month or one year;
- the reference unit: next to selecting an income concept and reference period, any study of income inequality which goes beyond the functional distribution, needs to define the reference unit. Income inequality can be analysed at the level of the individual or the household, be it defined in a sociological way or as a tax unit;
- the inequality measure: various measures have been used to summarise income inequality in Belgium. The Gini coefficient, income shares and interdecile ratios are the most commonly used.

This led to the following first research objective:

Research objective 1

The BE-PARADIS project was motivated by the documented lack of a consistent long-term data series on income inequality for Belgium. The project aimed to carry out renewed inquiry of existing and available data, concepts and methods. We investigated whether the three main survey datasets (SEP, ECHP and SILC) could be harmonized to allow for meaningful comparisons of income inequality over time. We also extended this harmonized dataset with expenditure information (from HBS data) and wealth information (from HFCS data). We used imputation methods to combine the different available micro-level datasets to construct one generic dataset with key variables necessary to explore innovative perspectives on the evolution of inequality.

Unfortunately, it is far from obvious how to connect the separate trends obtained from different datasets, as different datasets indicate a different level of inequality for overlapping years (notably for 1997 ECHP reports a considerably higher level of inequality compared to SEP). This observation suggests that the discrepancies are - at least to some degree - driven by differences in survey design (i.e. differences in weighting, income definitions, sample design or reference periods), rather than by real world changes. This finding complicates research on long-term trends in inequality in Belgium.

One way out of this problem was the use of the so-called 'Distributional National Accounts'-methodology (DINA), which allows for the construction of harmonized long-time trend of income inequality based on the combination of micro data and national accounts. The DINA-methodology is essentially an extension of the pioneering methods of Kuznets, who combined national income series (macro data) with income tax data (micro data). Recently, the upgrade of national accounts to incorporate distributional information has been initiated by the late Tony Atkinson, and further developed by scholars such as Thomas Piketty and Emmanuel Saez. In early 2018, their team at the Paris School of Economics launched the World Wealth and Income Database (now World Inequality Database, WID) which gives access to data about inequality and other macroeconomic indicators for many countries. For Belgium the DINA series in the WID-database again displays a more or less stable trend of income inequality for Belgium. Our second research objective consisted of applying this method for Belgium, based on a more profound scrutiny of the underlying distributional data.

Research objective 2

We deepened the DINA methodology of the World Inequality Lab and applied it at a more disaggregated level to construct a dataset for distributional analysis that is consistent with the information in the national accounts for Belgium. We combined the use of different underlying micro datasets to distribute the national account aggregates as precise as possible.

Inequality is the result of a complex interplay of different factors. An integration of micro-econometric and micro-simulation approaches allows to decompose the role of four possible drivers of inequality: the role of the tax-benefits system (policy), demography, market income and labour market structures. Such a detailed decomposition analysis did not exist for Belgium. A second potential driver of growing, or in the case of Belgium stable, household income inequality is related to decision making of, and within, households. Assortative mating is such a potential driver in Western countries: if high income people are more likely to marry high income partners, inequality at the household level increases mechanically. This analysis was embedded in the third research objective of the project.

Research objective 3

We explored new empirical perspectives on the evolution of inequality in Belgium. We developed a decomposition framework that allows to shed light on the drivers of inequality in Belgium. The objective was to highlight and quantify the relative importance of specific drivers of the changing income distribution:

1. socio-demographic changes (family size, assortativeness in living arrangements, migration status, age structure ...);
2. changes in primary market incomes (including the effects of technological changes, the emergence of new forms of income, globalization, changes in the wage negotiation process and in market regulation determining the relative power of labour and capital, ...);
3. policy changes (tax-benefit system, eligibility conditions, universality or selectivity of benefits, ...);
4. labour market evolutions.

The starting point of the project was the paradox between on the one hand the widespread perception that inequality is on the rise, and on the other hand the empirical evidence of stable income inequality in Belgium. A possible explanation for this paradox is that inequality in other dimension (than income) has increased. To scrutinize this possible divergent evolution, we had formulated a fourth research objective in the project proposal.

Research objective 4

The final objective of the project was to enlarge and deepen the conceptual framework of the distributional analysis by going beyond mere household disposable income, to allow the integration of a) a multidimensional perspective of well-being, incorporating non-income dimensions such as health, job quality, housing, and security; b) intra-household inequality in the analysis; c) the impact of the necessary character of some expenditures, and the differential effect of price changes across households with different expenditure patterns; and d) the availability of and access to public goods.

3. METHODOLOGY AND SCIENTIFIC RESULTS

The findings of the research project have been summarized both in a number of scientific paper (listed in section 6 below), and in a book published in Dutch and French: *'De paradox van ongelijkheid in België'* and *'Inégalités en Belgique. Un paradoxe?'*. The latter consists of 18 chapters (including an introduction and concluding chapter). In each of these chapters, we shed light on the inequality paradox from different but complementary perspectives. As we will mention in section 5, the book is part of our attempt to translate the scientific papers, in a way which is more accessible and comprehensible for the public at large.

Our summary of the main findings of the research project in this section, is largely based on the final chapter of the book.

A first exploration

In the first chapter, we collect all the existing knowledge on income distribution in Belgium. To do so, we brought together known statistics on income inequality from public databases and scientific publications. That inventory confirmed Belgium's rather exceptional position as a country with a low and stable level of inequality. Eurostat's internationally comparable inequality figures even pointed to a declining trend since 1995, which only sharpens the paradox. The analysis also showed that inequality in some other countries, such as the United States, is not only much higher but has also increased sharply over the period under review. It is possible that the perception of high and rising inequality in Belgium is distorted by the dominance of Anglo-Saxon - and especially American - studies in scientific research on inequality. This could be a first explanation for the paradox.

In the second chapter, we dig deeper into the question of how inequality is measured. We introduce instruments such as the Pen parade, the Lorenz curve and the Gini coefficient. We highlight that the Gini coefficient takes a relative perspective on inequality: when all incomes increase by the same percentage, inequality remains unchanged. However, also an absolute perspective on inequality is possible. In that case, inequality remains unchanged when all incomes increase by the same monetary amount. Our inventory on income inequality statistics in Belgium shows, unsurprisingly, that only relative measures of inequality are used. The stability of income inequality in Belgium is definitely linked to this exclusive use of relative measures. Inequality measures based on the absolute perspective show a clear increase over the period considered. Hence, a second explanation for the paradox might be that subjective feelings of inequality and how people think about inequality are related more to an absolute perspective.

Income surveys revisited

As in most other countries, income surveys, which ask a representative sample of the population about their income, form the basis for statistics on inequality in Belgium. Since the 1980s, those surveys have played an essential role in providing detailed statistics on poverty, inequality and other socio-economic indicators. The EU Statistics of Income and Living Conditions (EU-SILC), which has harmonised these surveys at the European level since 2004, has significantly improved the international comparability of poverty and inequality figures. In this project, we brought together the main income surveys for Belgium, namely the Socio-Economic Panel (SEP), the European Community Household Panel (ECHP) and the EU-SILC.

In Chapters 3, 4 and 5, we thoroughly review these income surveys, covering almost 40 years (since 1985) and providing a first perspective on the level and evolution of inequality in Belgium. A first important, but sobering observation is that these income surveys cannot simply be connected through time to chart the evolution of Belgian income inequality. Methodologically, the surveys differ considerably from each other. These methodological breaks call for caution not to draw too strong conclusions about the long-term trends of Belgian inequality.

Does this make it impossible to conclude anything at all about the evolution of income inequality in Belgium? No. We can still analyse the trend within one methodologically consistent set of data. In the third chapter, we do so for the evolution of inequality in disposable income (that is: income after taxes have been paid and transfers received). Based on income surveys, there seems to be no evidence of an increase in inequality in disposable income. On the contrary, based on EU-SILC, we find a slight decline in inequality since 2003. This does confirm the objective part of the inequality paradox.

Based on the original survey data, we also examined labour income and capital income separately. For labour income too, we find a slight downward trend in inequality since 2003. The available, albeit limited, information on income from capital indicates high and rising inequality in capital income since the start of the financial crisis in 2007-2008. Due to the limited size of capital income in disposable income in the income surveys, this increase has hardly any impact on the overall picture of income inequality. But it is an important finding hinting at the crucial role income from capital will play in the remainder of the research.

Using the original income survey data, we then uncovered factors that explain why inequality in disposable income remained unchanged. This appears to be the outcome of two opposite forces that have more or less neutralised each other. In the fourth chapter, we describe how the socio-demographic composition of the Belgian population changed since 1985 and how these changes translated into changes in income inequality. With the exception of the increased labour market participation of women, most of these changes put an upward pressure on income inequality. In particular the evolution towards smaller households, witnessed by an increase in the number of people living alone, had an inequality-increasing effect.

In the fifth chapter, we describe how this upward pressure on inequality has been counteracted by redistributive policies. The Belgian welfare state, through its social protection and progressive personal taxes, exerts downward pressure on income inequality. Between 1992 and 2014, policy changes considered in isolation have increased the redistributive effect of the tax and benefit system. Welfare adjustments to social benefits played an important role in this. In summary, chapters 4 and 5 together demonstrate that stable inequality of disposable income in Belgium is partly the result of boosting the engine of redistributive policies to offset the upward pressure on inequality from sociodemographic changes.

What national accounts can tell about inequality

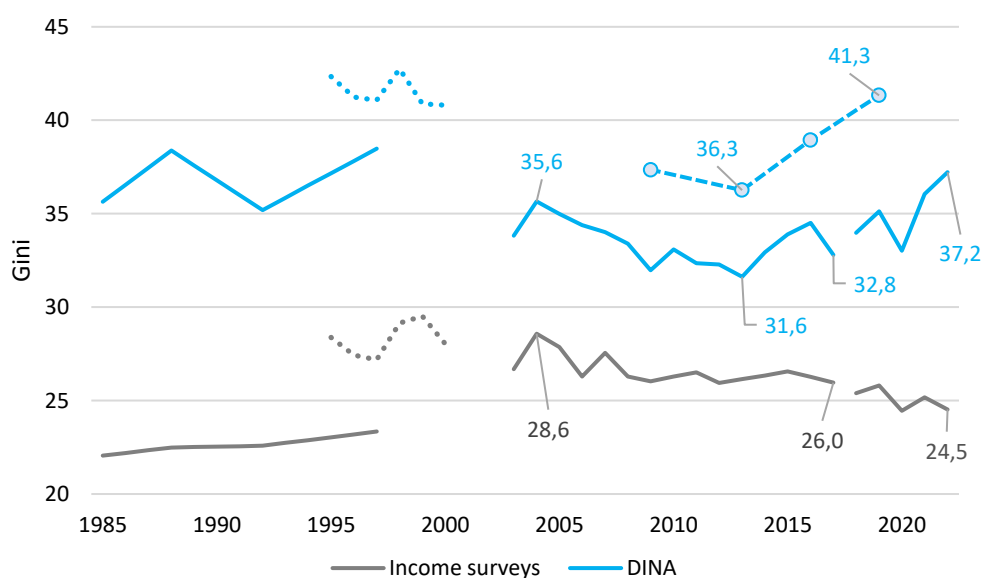
Every survey has its blind spots, and so do the Belgian income surveys. These blind spots arise because some population groups are less inclined to participate or systematically underreport their income. But they arise mainly because some aspects, such as certain sources of income, are not surveyed properly, if at all. In this project, we have tried to fill in some of these blind spots to check whether inequality in Belgium might be increasing beyond the view of income surveys and the objective

statistics based on them. To do so, we used several complementary sources, such as the ECB's Household Finance and Consumption Survey (HFCS), the household budget survey, a specialised survey on individual well-being (Measuring Equivalent Incomes, MEqIn), administrative data from the personal income tax records and cadastral data, geolocation data and aggregate data from national accounts. A more nuanced picture emerged from that analysis.

Since the emergence of income surveys in the 1980s, national accounts have somewhat fallen in oblivion for the analysis of income distribution. But the *distributional national accounts* (DINA) methodology has recently breathed new life into the use of national accounts for distributional analysis. National accounts contain information on the size of the economic pie that can be distributed among the Belgian population, but tell us little about how the pie is distributed. The income surveys, in turn, contain a lot of information about its distribution, but miss large chunks of the pie. The DINA method, which we use in Chapters 6, 7 and 8, combines those two data sources. That connection yields interesting insights.

The figure below compares the evolution of income inequality based on income surveys on the hand (grey lines) and the DINA approach on the other hand (blue lines). The inequality figures based on the DINA series reveal a higher level of income inequality and a different evolution over time.

Figure 1. Evolution of the Gini coefficient of inequality in disposable income, 1985-2022



Source: Figure 8.1 from chapter 8 our book 'De paradox van ongelijkheid in België' / 'Inégalités en Belgique. Un paradoxe?'. Gini coefficients are based on equalized disposable household income. The grey lines are based on income surveys SEP (1985-1997), ECHP (1995-2000) and EU-SILC (2003-2022). The full blue lines show the Gini coefficients based on DINA for which we retrieved distributional information from these three income surveys. The four dots depict the Gini based on DINA from which distributional information is not solely based on EU-SILC but also HFCS and administrative tax data.

First, the level of inequality in disposable income is noticeably higher than how we have estimated it so far based on income surveys alone. The explanation for the higher inequality level lies in the underestimation of capital income. Income from financial capital is greatly underestimated in the income surveys, with less than 10% of capital income as reported in the national accounts found back in the income surveys. And undistributed profits are by definition absent from household surveys.

Second, the DINA approach shows a different evolution of income inequality over time. After a decreasing trend, inequality seems on the rise the last decade. Income from capital is not only more unequally distributed than the more visible labour income, its inequality has increased since the financial crisis. Due to low interest rates income on savings accounts, which is widely and fairly evenly distributed nearly disappeared, while income from more unevenly distributed dividends has risen sharply.

Using the DINA method, we describe in Chapter 8 that inequality in factor income, that is income before benefits and taxes, does increase since the financial crisis when we take full capital income into account. The application of the DINA method thus has brought important nuances to the second, objective, part of the inequality paradox. While inequality from labour income has indeed remained low and stable, the story is definitely different for capital income, which is much more unequally distributed and the inequality of which is rising. The underestimation of capital income in income surveys implies that this increase in inequality remained hidden in income surveys. Especially since labour income as a share of disposable income remains more important than capital income and in Belgium, unlike in the United States, inequality in labour income has not increased.

Beyond disposable income: inflation, housing, public services and saving

By combining income surveys with national accounts information, we succeeded in drawing a more complete picture of the distribution of disposable income. Yet, even if disposable income remains a core concept for inequality perceptions, the inequality paradox probably also has its roots in a broader definition of inequality, which includes aspects not included in disposable income. Therefore, in the next chapters, we gradually broadened the perspective on inequality beyond disposable income. In chapters 9, 10, 11 and 12, we first focused on additional perspectives within the monetary sphere, focusing on inflation, housing and saving.

In Chapter 9, we examine the impact of inflation on inequality. Changes in the prices of products and services, combined with large differences in spending patterns, imply that changes in 'nominal' disposable income are not translated one-to-one into changes in purchasing power. The recent surge in inflation in 2021-2022 has e.g. often been interpreted in the public debate as a redistribution from rich to poor. Our research shows that, starting in 1999, there have indeed been periods when inflation increased inequality in purchasing power. But we also identified periods in which inflation reduced inequality. Moreover, effects of inflation on inequality were limited in magnitude anyway, because of the rather low inflation figures during the last decades. In this sense, the recent energy crisis, the price increases of which indeed increased inequality, are more the exception, than, the general pattern.

As far as price changes are concerned, it was - at least until the energy crisis of 2021-22 - mainly rising house prices which caught attention, rather than prices of gas and electricity. By means of suggestions of increasing unaffordability, many commentators implicitly or explicitly linked rising house prices with perceptions of rising inequality. In Chapter 10, we therefore examined inequality in house prices. Over the past 15 years though, we did not find evidence of increasing inequality in housing values. Yet, just as the evolution of nominal incomes might be increasingly disconnected from the evolution of consumption possibilities without information on how consumer prices changed, the evolution of house values does not necessarily coincide with changes in real indicators such as space or quality aspects of the house. We found that inequality in housing area (m²) did indeed increase over the last

20 years, which represents a reversal of the declining trend since 1900. Moreover, in central cities, inequality in living space exceeds the inequality in housing value. Due to their central location, even small and lower-quality housing is relatively expensive once located in an attractive location.

The latter finding opened up the track of additional analysis of the role of location in a broader concept of inequality. In large cities like Brussels, house prices are higher because of the proximity of more abundant public amenities, such as education and healthcare. In Chapter 11, we therefore developed a household specific measure of accessibility to those amenities based on where the household lives. Our research revealed that inequality in accessibility to education and healthcare is much higher than income inequality. To our knowledge this quantitative assessment of the often articulated feeling that some regions or neighbourhoods are more 'deprived' than others, is novel. Unfortunately, the available data do not (yet) allow us to assess the evolution of inequality in accessibility to public services through time.

Home ownership also plays an important role in wealth accumulation. This is certainly relevant in Belgium since the proportion of homeowners is relatively large. For many of these homeowners, their owner status goes hand in hand with a mortgage. The combination of spending on consumption and debt repayment often leaves no room for additional savings in liquid assets, such as via the traditional savings account. These so-called 'hand-to-mouth' households, who are unable to build up a 'savings buffer' to cushion income shocks, recently attracted quite a bit of attention in empirical macro-economics. We used this framework in Chapter 12 to introduce an additional explanation why some high-earning families might express difficulties to 'make ends meet'. We showed that more than one in five Belgian families can be characterized as 'hand-to-mouth', and these household often are not income-poor.

Beyond the monetary sphere: inequality in welfare

The feeling of high and rising inequality in Belgium may also be driven by inequalities outside the monetary sphere. This is the topic of chapters 13, 14 and 15.

In chapters 13 and 14, we focused on inequalities *within* families. A standard assumption of inequality research, including in Belgium, is the absence – or the disregard – of inequality within families. In this part of the research project we relaxed the unrealistic assumption that partners always share the pie equally within the family. In Chapter 13, we first considered the joint distribution of spending and leisure time within families. We quantified the difference in spending between men and women, and also exposed that, in couples with children, men on average enjoy more leisure time than women. We found that low-wage women in particular get a smaller share of the pie.

In Chapter 14, we further expanded the analysis by also including public goods within the family, such as the central heating system and the television set which can be used together. These public goods create economies of scale, leading to an additional increase in the level of inequality when included in the analysis. Thus, elements of within household distribution might also contribute to understand the inequality paradox, at least in levels. It remains an open question though, to what extent also the inequality trend can be explained by the evolution of inequality within families. It seems likely that increased labour force participation and increased female educational attainment have reduced within-family inequality but increased between-family inequality.

In Chapter 15, we adopted a multidimensional perspective on welfare inequality by including information on non-monetary dimensions such as health, job characteristics, and aspects of safety and environment into the distributional analysis. We constructed an individual well-being measure by adjusting disposable income for possible deficiencies in the non-monetary dimensions of a satisfactory life. In doing so, we took into account the relationship between the life dimensions, as well as peoples' own preferences about the relative importance of the different dimensions. We found that inequality in well-being is higher than the one in disposable income. The main contributions to inequality in well-being stem from inequalities in health and in disposable income, from differences in preferences between sociodemographic groups and, to a lesser extent, from the correlation between life dimensions. Since 2005, the evolution of inequality in well-being has been stable. Once more, a broader, multidimensional perspective on inequality can contribute to explain the subjective feeling of a higher level of inequality, but not the feeling that inequality is increasing.

Generations compared

Finally, in the last chapter, we compared inequality between generations. The public debate often focuses on the alleged finding that it is harder for young people to become homeowners than it was for earlier generations. We conjecture that this also is part of the subjective feeling of increasing inequality. In this chapter we stressed that the proper comparison between generations is done, not by comparing the 30-year-olds of today with today's 50-year-olds, but either on a life cycle basis or, as a second best, at least at the same point in their life cycle.

Taking this stance, we found little to no difference between baby boomers, millennials and Generation X. At age 30, for example, the share of homeowners hovers around 40 percent in each generation. And, unsurprisingly, real income or purchasing power of today's 30-year-olds is higher than that of older generations when they were 30 years old. At the very least this nuances the standard story.

Which paradox, if any?

Limiting ourselves to data from existing income surveys, the research project confirms the difference between how people think inequality is evolving in Belgium and what standard statistics tell. But income surveys have blind spots. Certainly the broadening of the perspective on inequality beyond disposable income has revealed additional inequalities: in housing, in accessibility of public services, in health, or inside households. These additional inequalities often exceed income inequality, and hence the paradox might partly be explained by a too strict income perspective.

We observed that, even within the standard income framework, income from capital largely escapes the attention of standard statistics based on income surveys. By relying for the first time in Belgian inequality analysis on the novel DINA method, we also questioned the statement that inequality in disposable income in Belgium would not have increased, or even slightly decreased.

We hope this result will not be interpreted as a plea to do without income surveys from now on in inequality analyses. Quite the contrary. To accurately portray various forms of inequality and to properly monitor Belgian inequality in the future, we strongly favor additional efforts both to improve income surveys and to unlock or construct additional data sources. The integration of administrative income data into EU-SILC has already been an important step. An expanded module within EU-SILC on

income from capital, the disclosure of anonymized bank data, or administrative data on income from capital are necessary steps to better capture the crucial, but underexposed, capital income. Finally, further simplification of sometimes time-consuming procedures to access existing rich administrative data such as the Crossroads Bank for Social Security for scientific research is urgently needed. With less time and effort needed to monitor inequality in depth on an ongoing basis, more resources can be devoted to answering fundamental questions about the causes and consequences of these inequalities and what can be done to mitigate them.

4. RECOMMENDATIONS

The primary research objectives of the BE-PARADIS project were descriptive, which means that, except for the counterfactual analysis in Chapters 4 and 5, we did not primarily investigate underlying *structural* mechanisms for the observed changes in inequality. This limits the scope of recommendations directly following from the project output. Yet, we think that the output of the project is valuable in several ways.

First, we believe the project work established a strong foundation for analogous or follow-up analyses in future research projects. The output clearly demonstrates that connecting (existing) data sets and/or having better access to administrative data improves our understanding of inequality, its evolution and the impact of policy, considerably. More specifically, the first obvious recommendation is that access to these additional data, certainly for existing data in administrative sources, should be further facilitated.

Second, given the importance of capital income in the evolution of income inequality, work should be done to collect and make available detailed information on this important form of income. Even the Household Finance and Consumption Survey which we used in this project falls short in this respect. One should investigate the extent to which administrative data held by banks or other existing sources could be made available to enrich and deepen the information on capital income at the household level.

Third, the results also showed how important the tax and benefit system has been in countering inequality-increasing forces in the socio-demographic sphere in the last decades. On the one hand, this implies that ex ante assessments of the distributional impact of changes in taxes and benefits remain of great importance. But we also want to add that policymakers should be wary not to let their reform proposals be distorted by the availability of easily accessible information (which is, e.g., much more extensive for labour and replacement incomes, than for income from capital).

Fourth, as a side project, in the course of 2022, the data underlying our broader analysis, allowed us to respond quickly to questions on the distributional effects of the energy price crisis. We thoroughly mapped the distributional effects of the energy price shock in 2021-22, including both the price hikes in gas and electricity and the compensatory measures taken by the government. In our contributions in that context, we pointed out that the public debate was too exclusively focused on the price changes, and did not sufficiently take into account income changes (due to indexation). We recommend to rely on an integrated assessment of price and income changes together, to avoid a distorted picture of the distributional effects of this kind of price shocks.

Finally, we opened up our thinking about inequality by providing evidence on the impact of housing and public good, intra-household inequality or broader concepts of individual well-being (instead of income). This pleads once more for a more holistic approach by policymakers concerned about inequality.

5. DISSEMINATION AND VALORISATION

The BE-PARADIS project, along with the papers (listed in section 6) and mainly the book published by the project consortium, contributed significantly to the public debate on inequality in Belgium. Certainly the media attention surrounding the publication of the book in December 2024 proves that we worked on policy-relevant – and seemingly sensitive – topics.

The results of our research project have been summarized in a book titled *De paradox van ongelijkheid in België* (Dutch) and *Inégalités en Belgique. Un paradoxe?* (French). The Dutch edition was published by Lannoo Campus, while the French edition was published by Racine. Through this publication, we aim to bridge the gap between academic research and a broader audience by presenting our findings in an accessible manner.

The book was officially launched on 3rd December 2024, during the final conference of the project. The launch was met with significant interest: we received more than 100 subscriptions for the conference. The initial print run consisted of 700 copies in each language. But within days of the conference, a second print run of the Dutch edition was required due to high demand, and by the time of writing (January 2025) also the second print has been sold out, and the publisher started a third print run.

The publication of our book also attracted considerable attention from the media, in part because of its coincidental release during ongoing government negotiations on potential tax reforms and the perceived distributional effects of some of the reforms. As a result, we received numerous questions from journalists and made much effort to accommodate all these requests, ensuring broad dissemination of our insights. Following the book launch, we have also been invited to deliver a number of talks and lectures to share our research findings in the next months. We are committed to accept as many of these opportunities as possible, to further engage with diverse audiences and stakeholders.

As mentioned in the previous paragraph, in the course of 2022, the project and the data underlying the broader analysis allowed us to respond quickly to questions on the distributional effects of the energy price crisis. Policy makers and media were concerned about the distributional impact of the price hike of gas and electricity. Thanks to this project, we were able to provide distributional information on the impact of the energy price crisis and the compensating measures of the federal government (e.g. VAT reduction, energy cheques and wage indexation). As indicated above we also tried to correct the biased picture of the price hike, arising from the neglect of the income changes.

Next, understanding the evolution of the income distribution in Belgium is particularly valuable for several organizations, including Belgian statistical agencies, the Federal Planning Bureau, the National Bank, and the Federal Public Service for Social Security (FOD Sociale Zekerheid - SPF Sécurité Sociale).

Policymakers from these agencies actively participated as members of the BE-Paradis project's steering group and attended the project's final conference.

We also collaborated on the Deaton Review project of the Institute of Fiscal Studies (<https://ifs.org.uk/inequality/>) to construct a historical perspective of inequality that is directly comparable across a wide set of countries. This not only helps in better positioning and analyzing inequality in Belgium, it also contributed to inform a wider audience and disseminate our results internationally.

Finally, we maintain a project website (www.beparadis.be) which serves as a repository for our research outputs. The website includes working papers, the slides from our midterm and final workshops, updated (and sometimes interactive) figures on income inequality in Belgium, detailed information about the book, and other relevant information.

Through these combined efforts, we have ensured that the results of our research reach both academic and non-academic audiences, maximizing their impact on public discourse and policy considerations.

6. PUBLICATIONS

Peer-reviewed publications

2021

Kuypers, S., Figari, F. and Verbist, G. (2021), Redistribution in a joint income-wealth perspective : a cross-country comparison *Socio-economic review* 19:3 929-952

2022

Kuypers, S. Marx I., Nolan B. and Palomino J.C. (2022) Lockdown, earnings losses and household asset buffers in Europe *The review of income and wealth* 68:2 p. 428-470

2023

Assal, E., Capéau, B., Decancq, K., Decoster, A., Kuypers, S., Vanderkelen, J., Vanheukelom, T., & Verbist, G. (2023). Inkomensongelijkheid in België: wat we weten en niet weten. *Belgisch Tijdschrift Sociale Zekerheid*.

Bostyn, R., L. Cherchye B. De Rock and F. Vermeulen (2023), "Time use, intrahousehold inequality and individual welfare: revealed preference analysis", *Research in Labor Economics*, 51, 161-186. Special issue on Time use (editors D. Hammermesh and S. Polachek).

Cherchye, L., Demuyneck, T., De Rock, B., Kovaleva, M., Minne, G., Perea, M. D. S., & Vermeulen, F. (2024). Poor and wealthy hand-to-mouth households in Belgium. *Review of Economics of the Household*, 22(3), 909-934.

De Rock, B., and G. Perilleux (2023). Time use and life satisfaction within couples: A gender analysis for Belgium", *Feminist Economics*, 19(4), 1-35.

2024

Capéau, B., Decoster, A., De Rock, B., & Vanderkelen, J. (2024). Did Belgium withstand the storm of rising inequalities? Income inequality in Belgium, 1985–2020. *Fiscal Studies*, 45(3), 285-308. <https://doi.org/10.1111/1475-5890.12383>.

Kuypers, S., Figari, F. and Verbist, G. (2024) Vertical and horizontal equity of wealth taxes : an assessment from a joint income-wealth perspective *Economics letters* p. 1-5

Büchs, M., Goedemé, T., Kuypers, S., Verbist, G., (2024) Emission inequality : comparing the roles of income and wealth in Belgium and the United Kingdom. *Journal of cleaner production*. p. 1-9

Other publications2021

Browning, M., L. Cherchye, T. Demuyne, B. De Rock and F. Vermeulen (2021). “Stable marriage, household consumption and unobserved marital surplus”(2021), Working Papers ECARES 2021-15.

2022

Capéau , B., Güner, D., Hassan, N. S., Vanderkelen, J., Vanheukelom, T., Van Houtven, S., & Decoster, A. (2022). We Are All Facing The Same Storm, But Not All Are In The Same Boat. A Distributional Picture Of The Purchasing Power Effects Of The 2021-22 Energy Price Shock And Compensating Measures. BE-PARADIS Working Paper 22.3.

Capéau , B., Güner, D., Hassan, N. S., Vanderkelen, J., Vanheukelom, T., Van Houtven, S., & Decoster, A. (2022). We zitten allemaal in dezelfde storm, maar niet in hetzelfde schuitje. *Leuven Economisch Standpunt* 2022/192.

Capéau , B., Decoster, A., Vanderkelen, J. & Van Houtven, S. (2022). A distributional impact assessment of the energy crisis: the interaction between indexation and compensation. BE-PARADIS Working Paper 22.4.

Capéau , B., Decoster, A., Vanderkelen, J. & Van Houtven, S. (2022). Een tweesnijdend zwaard: de wisselwerking tussen koopkrachtmaatregelen en indexering. *Leuven Economisch Standpunt* 2022/198.

Capéau , B., Decoster, A., Vanderkelen, J., Van Houtven, S., & Vanrespaille, Q. (2022). Imputation of expenditures from HBS to SILC. BE-PARADIS Technical Report 1.

De Rock, B. and D. Moramarco (2022) “Nonparametric analysis of heterogeneous multidimensional fairness”, Working Papers ECARES 2022-29.

Domènech-Arumí, G., Gobbi, P. E., & Magerman, G. (2022). Housing inequality and how fiscal policy shapes it: Evidence from Belgian real estate. *NBB Working Paper* 423.

Kuypers, S. and Verbist, G. (2022) Over-indebtedness and poverty : patterns across household types and policy effects *NBB Working paper* 420

2023

- Capéau , B., Decoster, A., Sheikh Hassan, N. and Vanderkelen, J. (2023). Distributional National Accounts for Belgium. BE-PARADIS Working Paper 23.6.
- Domènech-Arumí, G., Gobbi, P. E. & Chappelle G. (2023). Housing, neighborhoods, and inequality. In: Zimmermann, K.F. (eds) Handbook of Labor, Human Resources and Population Economics.
- Capéau , B., Decoster, A., Vanderkelen, J., Van Houtven, S., & Wolfs, K. (2023). Imputation of asset information from HFCS to SILC. BE-PARADIS Technical Report 2.
- Decancq, K., & P Gamage, S. (2023). Well-being convergence in the European Union. BE-PARADIS Working Paper 23.7.
- Decoster, A., (2023). Ongelijkheid in België bekeken door een nieuwe bril. Samenleving & Politiek (Sampol). <https://www.sampol.be/2023/01/ongelijkheid-in-belgie-bekeken-door-ee-nieuwe-bril>.
- Vanderkelen, J., (2023). De paradox van de Belgische inkomensongelijkheid. Samenleving & Politiek (Sampol). <https://www.sampol.be/2023/01/de-paradox-van-de-belgische-inkomensongelijkheid>.

2024

- Capéau, B., Decoster, A., De Rock, B., Vanderkelen, J., & Vanheukelom, T. (2024). Inequality in Belgium: 1985-2020. IFS Country Studies.
- Capéau , B., Decoster, A., Sheikh Hassan, N. and Vanderkelen, J., Van Houtven, S., & Wolfs, K. (2024). Income Inequality in Belgium (1985-2022), Evidence from Distributional National Accounts. BE-PARADIS Working Paper 24. [Submitted]
- Cherchye, L., De Rock, B., & Vermeulen, F. (2024). Over rijke en arme van-de-hand-naar-de-mond-levende gezinnen. Leuvens Economisch Standpunt 2024/208.
- Decoster, A., & Vanderkelen, J. (2024) Voor het eerst weten we zeker: ongelijkheid in België groeit. De Gids op maatschappelijk gebied. <https://visie.net/de-gids-artikel/voor-het-eerst-weter-we-zeker-ongelijkheid-in-belgie-groeit>.

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- The University Foundation for hosting our final workshop in their premises.

ANNEXES

Cover of the book



Program of the final workshop on December 3rd 2024 in Universitaire Stichting Brussels

09.00 - 09.30	Welcome with coffee
09.30 - 09.40	Introduction A. Decoster (KU Leuven), A. Naji (BELSPO)
09.40 - 10.15	A new take on income inequality in Belgium A. Decoster
10.15 - 10.40	Drivers of inequality G. Verbist (U Antwerpen)
10.40 - 11.10	Coffee break
11.10 - 11.35	(Un)Equal access to public goods M. Castanheira (ULB)
11.35 - 12.00	Inequality in housing P. Gobbi (ULB)
12.00 - 12.25	New data, new insights J. Vanderkelen (KU Leuven)
12.30 - 13.45	Lunch
13.45 - 14.10	Inequality in well-being K. Decancq (U Antwerpen)
14.10 - 14.35	Inequality within households B. De Rock (ULB)
14.35 - 15.00	Young and old E. Schokkaert (KU Leuven)
15.00 - 15.20	Coffee break
15.20 - 16.10	Dimensions of Inequality: Reflections from the Deaton Review R. Blundell (Institute for Fiscal Studies – London)
16.10 - 16.40	Closing remarks: what have we learnt? W. Van Besien (vdk bank) P. De Grauwe (London School of Economics)
16.40	Reception