

# inequality

*An  
international  
think tank report on  
Inequality and  
Equality*

*Editors*

*Peter Grünenfelder, Natanael Rother, Samuel Rutz and Marco Salvi*

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Ilkka Haavisto, Philippe Legrain, Hanno Lorenz, Judith Niebues, Christoph Schaltegger,  
Tobias Schlegel, Lukas Schmid, Miguel Otero-Iglesias and Rudolf Wehrli*



This publication is not a genuine Avenir Suisse product. Rather, it is the result of international teamwork at our annual Think Tank Summit, which this year covered one of the most controversial topics of today: the question of inequality.

How does one explain such widespread skepticism about distributional issues, while prosperity keeps growing worldwide, hundreds of millions

## Editorial

Peter Grünenfelder, Director Avenir Suisse, Zurich

have escaped poverty and infant mortality has dropped by nearly 50 percent within two decades? Why has the question of inequality become increasingly toxic on political agendas in the West? And what are the appropriate policy conclusions?

Reading the annual Oxfam reports, one might think our liberal economic systems is to blame for global, national and regional inequalities. But there are contrarian views, too. In his famous last book “Factfulness,” Hans Rosling concluded there was an overdramatized view of the present, with an overestimation of poverty and underestimation of progress. One thing seems clear, after all: one should study the evidence of inequality thoroughly before drawing policy conclusions.

With this in mind, Avenir Suisse, in January 2019, invited some leading researchers, practitioners and entrepreneurs to its Think Tank Summit at Zurich Airport. Two days were dedicated to intense workshops and discussions to understand the nature and causes of inequality and equality. The publication you now hold mainly contains the contributions of summit participants and highlights the topic from different angles: the distribution of income, the distribution of wealth, the question of social mobility, and the relevance of political and social institutions.

**The various contributions provide some important insights:** First, inequality has declined on a global level, although it increased within certain countries. As a consequence, solutions have to be found at national level – and creating an environ-

ment of inclusive growth is much more challenging than just introducing new taxes.

Nearly all the experts also agreed that education is a game changer regarding inequality and social mobility, because it ultimately empowers people to prepare for the job market and make the best of their lives.

Last but not least, the most valuable conclusion of this publication seems to me that democracy and democratic institutions have a positive impact on the distribution of income, while inequality is often associated with failing governance systems and corruption. Switzerland in particular boasts extraordinary stability in income distribution, while the country’s poverty rate before taxes and transfers is the lowest among OECD countries.

**In short:** liberal democracies, capitalism, and sound institutions are much more than moral standards. They literally pay off in building an equal opportunity society.

Our project has been a tremendous team effort that began with the think tank summit in early 2019 and comes now to an end with this report. We have been honored to have contributions from numerous experts throughout the last months. Their expertise and their enthusiasm to engage in debates were priceless for this journey. Our special thanks go to those who contributed their research to this report.

Thanks also go to the Avenir Suisse staff: to Nicole Hintersatz and Elena Gerbershagen who brought the think tank summit series to a next level; to Carmen Sopi for the stunning layout; and also to Verena Parzer-Epp and Haig Simonian for their drive in the finetuning of all the articles. Last but not least, we are very also grateful for the support from our external experts, Reto Föllmi and Aymo Brunetti. They both provided valuable guidance early in the process.

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*While prosperity keeps growing, there is widespread scepticism about distribution. Is inequality increasing or are we experiencing an “inequality paradox” with ever more headlines about increasing inequality, even though disparities are shrinking globally? As the debate heats up, serious data and academic analysis of the topic are needed more than ever. Only when we understand the facts correctly can we identify underlying problems and find solutions for the challenges of our time*

# 1

## Introduction

The world has never been better to live in than today. Hundreds of millions have escaped poverty within a few decades. Infant mortality has decreased drastically, as has illiteracy. Life expectancy has been rising and more people worldwide than ever before have access to electricity. In fact, it is hard to stop listing the factors that have improved and are predicted to get even better (Rosling et al. 2018).

Liberal order and economic freedom have been outstandingly relevant to this increase in prosperity. As forcefully illustrated by the Fraser Institute’s Economic Freedom Index, countries with greater economic freedom enjoy substantially higher incomes per capita, the poorest are better off, life expectancy is higher, and people are happier.<sup>-1</sup> It is a pity that many of those success stories are not being heard. Instead, market economies are more and more scrutinized on how prosperity is divided among the different participants.

A widespread fear is that today’s market economic system leads inherently to ever increasing disparities between people. The debate on economic inequality is often flawed by emotion and ideology. This publication tries to enrich the public discussion by bringing facts to the table and trying to understand some mechanisms behind inequality: How can we measure inequality? What are its main drivers? How much inequality can a society endure, how much may it even need? Inequality is anything but a new topic. But as the debate continues, a serious analysis is required.

From a broad view, inequality is especially relevant for two reasons. First, the distribution of wealth and income in any society affects general welfare and prosperity. Second, and maybe even more importantly, we have “intrinsic reasons” (Atkinson 2015, p. 21 f.) to care about inequality.

### On the relationship between inequality and prosperity

One hypothesis that has attracted attention lately is that inequality hampers economic growth.<sup>-2</sup> Based on this, it has been suggested that more economic growth could be achieved by lowering inequality. This sounds compelling, but is too simplistic. The relationship between inequality and economic growth is multifaceted: There are factors that potentially increase inequality, while others mitigate it. Further complicating matters, the relationship between inequality and overall economic growth is not linear or unidirectional and depends on the level of economic development (see box 1).

In general, empirical results are mixed and there simply is no real consensus on the relationship be-

1 See Green (2018).

2 OECD (2014), for example, concluded that a rise in inequality by three Gini points would lead to a cumulated loss of 8.5 percent of GDP over a period of 25 years. See similar research from the IMF (Loungani and Ostry 2017).

**Box 1:**

**Various links between inequality and economic growth**

*In neoclassical theory, inequality has usually been linked positively to economic growth. The explanation is based on the assumption that reducing inequality through taxation lowers economic efficiency. As Arthur Okun (1975) famously explained, redistribution comes at a cost. In his words, money is carried “in a leaky bucket,” and not all the money that is taken from rich households will arrive in poorer ones.*

*Inequality can also have an impact on economic growth through individual saving rates. As the rich tend to save more than the poor – on average, but also at the margin – the redistribution of resources from the rich to the poor lowers the aggregate savings rate (Föllmi 2011), which in turn reduces the investment rate, as long as the gap cannot be filled by foreign investment.*

*The distribution of income and wealth may also affect incentives for innovation. Innovation is fostered when rich consumers are willing to pay high prices for new goods. However, the empirical evidence is mixed: Some authors found that inequality may indeed raise the demand for new goods (Föllmi and Zweimüller 2006, 2016); others have documented a link between innovation and an increase in top income inequality (Aghion et al. 2018).*

*Probably the most important way inequality can affect growth adversely is through credit market constraints: Poor households might forego investments in education when they are not admitted to the loan market. Credit constraints will also affect business owners: Liberalizing trade in developing countries might only provide opportunities for rich entrepreneurs who can afford to take advantage (Foellmi and Oechslin 2010).*

tween economic growth and inequality (Cingano 2014).<sup>-3</sup> While some countries would hinder economic growth through more redistribution, this might be different for others (Andersen and Maibom 2016). That being said, reducing inequality at any price is unlikely to foster growth.

**Intrinsic reasons to care about inequality**

Framing inequality as just another policy problem to be tackled and eliminated does not do justice to its complexity. Economists who debate the policy relevance of inequality have no choice but to play amateur philosophers, as Gregory Mankiw (2013) famously put it. Indeed, neither one of the disciplines can master the debate alone. Three points must be raised here to prepare the ground for further debate:

- There is a certain emotionality inherent in the allocation of welfare. Equality is close to many people’s hearts and is at the core of various social theories. But societies exhibit different kinds of inequalities. People have different talents and these evolve in different ways over time. Some economic disparities are therefore bound to persist. Trying to make inequality disappear or overestimating every uptick is an attempt to veil the

true pattern of society that naturally includes disparities of all kinds (Wilkinson 2009).

- Whether a change in inequality is worrisome or not also depends on what has caused it. What matters is whether everyone is able to make the best of his or her endowments. Individuals are more willing to accept differences due to disparities in performance than due to exogenous circumstances (Hufe et al. 2018).<sup>-4</sup>
- As inequality is such a core aspect of humanity, it will always influence politics, no matter how advanced a society is. Tackling inequality does not just involve closing the gap between ‘us’ and those in extreme poverty, but also between the “haves” and the “have-mores.” This is for example illustrated by the fact that social security systems already provide a reasonable safety net, especially in western countries, without making the discussion of inequality superfluous.

3 See chapter 3.4 on Finland in this regard.

4 In recent empirical work, Paul Hufe and Andreas Peichl (2018) have shown what part of inequality they look upon as unfair. Switzerland is amongst the countries with the lowest shares of unfairness in their dataset. See Hufe and Peichl (2018).



## About this publication

This study centers on the economic component of inequality, thereby staying in line with Avenir Suisse's traditional focus on these particular aspects of the debate. But because the topic is so huge, we teamed up with other think tanks and academic researchers to cover it from multiple points of views. The goal was to mix basic explanations with specific case studies. Most of the contributions from third party authors were presented during the Avenir Suisse Think Tank Summit in January 2019. Others were inspired by discussion during the event.

We start off with looking at income inequality from different angles in chapter 2. It highlights the difference between a national and a global perspective and analyzes some of the factors thought to be crucial to inequality. Case studies for two European countries illustrate what inequality means in times of economic hardship, and why a shrinking middle class is not always something to worry about.

Chapter 3 is dedicated to wealth inequality. It sheds light on flawed views of the data on wealth inequality and proposes that the world is far better off than one might think. In an excursus piece, the distributional implications of today's monetary policy are analyzed. Data on Switzerland are used to highlight the need for caution in examining often imperfect data on wealth distribution.

In chapter 4, the topic of social mobility is highlighted. Comprehensive data for Denmark then illustrates how long-term data changes insights in the dynamics of intergenerational income mobility and income distribution. And a case study for the Swiss dual track system explains how a nation can effectively manage to put its young people to work.

Chapter 5 covers the links between politics and institutions and inequality. As case study from Germany examines the differences between perceived and actual inequality. Then a spotlight on Switzerland highlights the impact of direct democracy and decentralization. Finally, an interview with two entrepreneurs expresses the more practical aspects of the debate.





# *Income*

Income is at the very heart of most people's existence. This explains the frequently raised concerns about justice in income distribution, and why income is the most common and best documented measure of inequality. The following chapter covers the wide topic of income inequality in different ways, addressing global as well as national perspectives.

Philippe Legrain from Open Network discusses in chapter 2.1 the differences between the development of inequality from a national and a global view. As he shows, inequality is declining globally, and he questions the tendency among researchers to worry exclusively about inequality within national borders. Legrain comes to the conclusion that, to further reduce inequality, the world should be more open, not less.

Chapter 2.2, by co-editor Natanael Rother, considers two fundamental arguments about income inequality: First, national developments vary substantially. Second, as the example of Switzerland shows, a relatively equal income distribution cannot only be achieved through redistribution, but also via an inclusive labor market. Furthermore, the impact of two global trends – globalization and technological progress – on inequality are discussed. Contrary to popular belief, globalization does not automatically lead to increasing national disparities. The same holds true for the effects of new technology, although it is undisputed that skills have become more important in a digitized world.

The chapter ends with two case studies from European countries. Ilkka Haavisto from EVA (Finnish Business and Policy Forum) uses a comprehensive dataset to analyze how the middle class in Finland has developed over recent years. He emphasizes that public policy in Finland should dare to focus more on creating prosperity and less on redistribution.



From the other geographical end of Europe, Miguel Otero-Iglesias from Elcano Royal Institute describes how income inequality has evolved in Spain, a country hit hard by the economic crisis and suffering from economic distress since. He argues that, in the current situation, it is essential to support the poor. In particular, Miguel Otero-Iglesias contends that – to allow young people to stand on their own two feet – public money must be invested to support them. The key to reducing inequality is for the poor to acquire the necessary skills to compete in the labor market, he concludes.

*The debate on inequality is dominated by disquiet about the growing divide between rich and poor, notably in America. But globally, the poor are finally catching up with the rich. And with increased trade and migration, that positive trend could continue – without harming poorer people in the West.*

## 2.1 *Global Inequality: The World is Becoming Less Unequal*

Philippe Legrain, Open Political Economy Network, London

The world is a desperately unequal place. Some are billionaires, others starve. But is inequality rising or falling – and if so, why? And how could we improve matters?

There are many kinds of inequality, as other essays in this collection explain. Arguably the most important is inequality of opportunity. After all, it is both unfair and inefficient for the circumstances of someone's birth to determine their life chances.

But let us start by considering inequality of outcomes, in particular income on which there are the most comprehensive global data. Note that while inequality of opportunity is unambiguously bad, income inequality is not necessarily so. Those who work hard and put their talents to good use deserve higher rewards – and will be much less motivated to generate wealth for themselves and the rest of the society if they are not rewarded properly. So, while there is a strong case for progressive taxation, excessive moves to impose equality of outcomes can have catastrophic consequences, as Cuba and Venezuela show.

The big picture is that income inequality has increased in recent decades in many countries (though not all). Since politics remains primarily centred around nation states, the growing disparities between rich and poor, notably in the United States, tend to have the greatest salience.

Globally, though, the picture looks very different. While inequality has increased within many countries, it has declined *between* them. So much so that over the past 30 years global inequality has

been falling – and sharply – for the first time since the Industrial Revolution. This is something to celebrate.

Put simply, a huge gap in living standards opened up between the industrializing West and the rest of the world in the nineteenth century. That chasm continued to widen until the 1980s. But since then, incomes in the “rest” have typically been growing much faster than in the West, so that gap is narrowing.

Data visualization charts on the Gapminder website stunningly capture how the global income distribution evolved between 1800 and 2015.<sup>5</sup> The snapshots below from Our World in Data illustrate this powerfully too (see figure 2/1).<sup>6</sup>

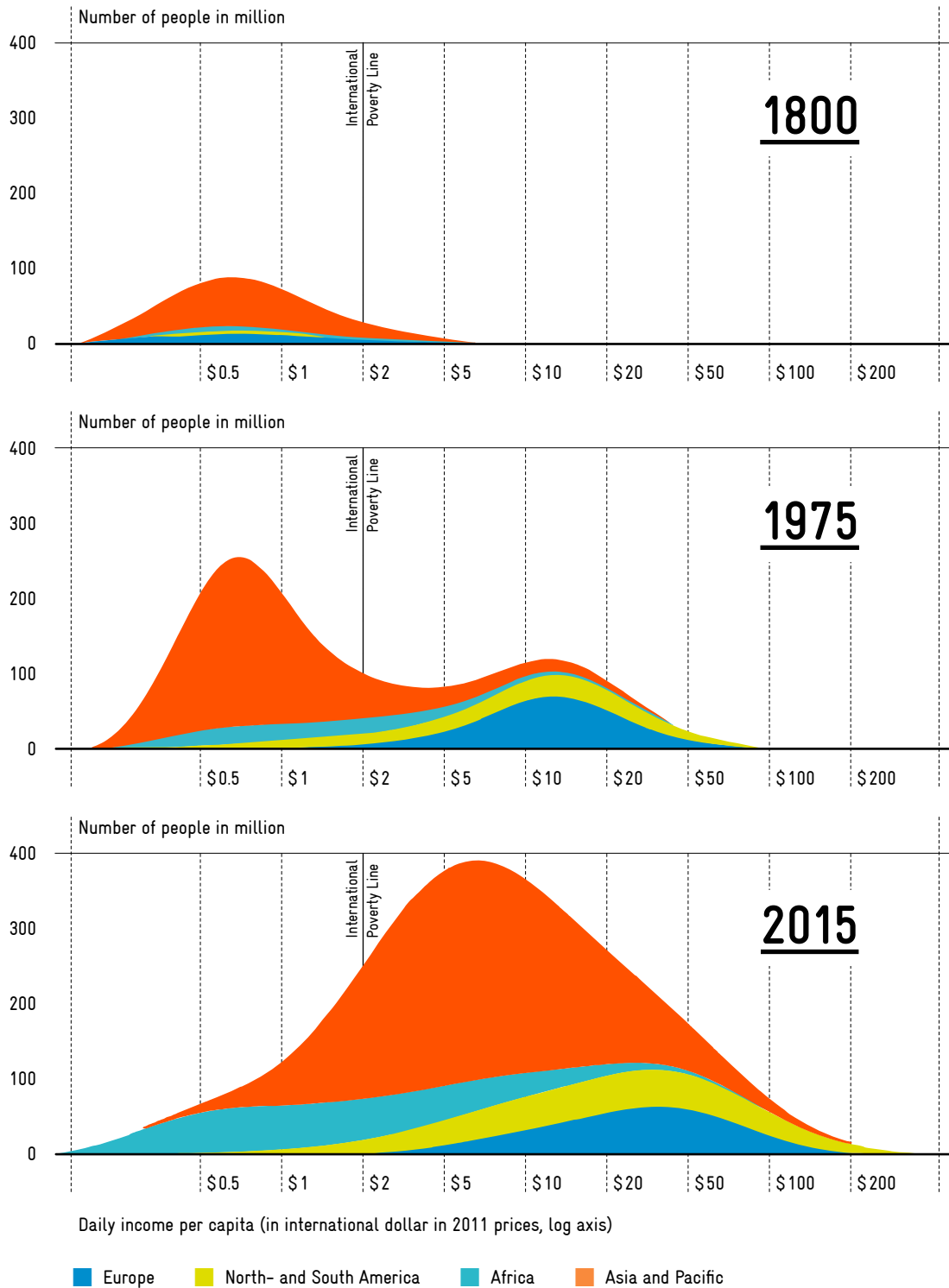
5 See Gapminder: Number of People by Income.

6 See Gapminder: Global Income Distribution in 1800, 1975, and 2010.

2/1

Global income distribution in 1800, 1975 and 2015

In 1800, almost everyone was poor. By 1975, most of the world was still poor. But by 2015, most Asians, and indeed most people in the world, were above the poverty line.



Source: Gapminder

In 1800, almost everyone was poor. By 1975, most of the world was still poor. As the chart shows, the big primarily Asian hump (in orange) in the global income distribution was below the poverty line. But there was also a smaller and much richer hump consisting primarily of the Western middle classes (in pink and green).

But by 2015, most Asians, and indeed most people in the world, were above the poverty line. Extreme poverty was primarily an African affair. Indeed, so many people in developing countries had become middle class that there were no longer two humps in the distribution.

The biggest component of this dramatic fall in global inequality is the astonishingly fast development of the world's most populous country – China – since it started to liberalize and open up its economy four decades ago. India, the second most populous country, has also enjoyed rapid growth since it liberalized in 1991. And many other Asian economies, and some Latin American and African ones, have also seen faster income rises than Western countries.

Estimates of the global Gini coefficient – a measure of inequality whereby 0 represents perfect equality and 100 perfect inequality – vary widely, but according to Zsolt Darvas of Bruegel, a think tank based in Brussels, it probably fell from around 67 in 1989 to around 59 in 2013 (Darvas 2016).

Despite the Western financial crisis, recent decades have been a period of exceptional global progress. Average incomes have increased substantially. The incomes of the poor have risen faster than those of the rich. And poverty has fallen faster than ever in history. In 1990, 44 percent of the world population lived in extreme poverty. Now, fewer than 10 percent do. What is not to like?

### The elephant in the room

The “elephant chart” popularized by Branko Milanovic, a former World Bank economist now at the City University of New York, and Christoph Lakner, also from the World Bank (Lakner and Milanovic 2015), provides some insight into why many West-

erners have a much more negative view of recent developments (see figure 2/2).

The chart, which details how much richer each part of the global income distribution was in 2008 compared to 1988, shows three things. First, that with the exceptions of both the richest 1 percent, the very richest of whom are not properly captured by the dataset, and the very poorest (likewise), the incomes of the world's poorest 30 percent have risen much faster than those of the richest 30 percent, lifting billions out of poverty. Second, the biggest gains have gone to those in the middle of the global income distribution, those between the 30<sup>th</sup> and the 70<sup>th</sup> percentiles, hugely expanding the global middle classes.

But third, the incomes of those around the 80<sup>th</sup> percentile have stagnated or even fallen. These, it would appear, are the “losers from globalization”, the Western working classes who have lost out from the decline of well-paid manufacturing jobs. Their plight would, it seems, explain much of the backlash against globalization in “left-behind” areas that voted for Donald Trump and Brexit in 2016.

Yet, that superficial reading – which has framed many perceptions of global inequality – is misleading, as a study by the Resolution Foundation, a British think tank, pointed out (Corlett 2016).

For a start, the elephant chart does not measure how particular people have fared, but rather how the overall income distribution has shifted. The poorer Westerners and richer Latin Americans who were around the 80<sup>th</sup> percentile in 1988 are not the same people as were around that mark in 2008, so their living standards have not necessarily stagnated, let alone fallen. Indeed, many of those are now Chinese, who clearly are much richer.

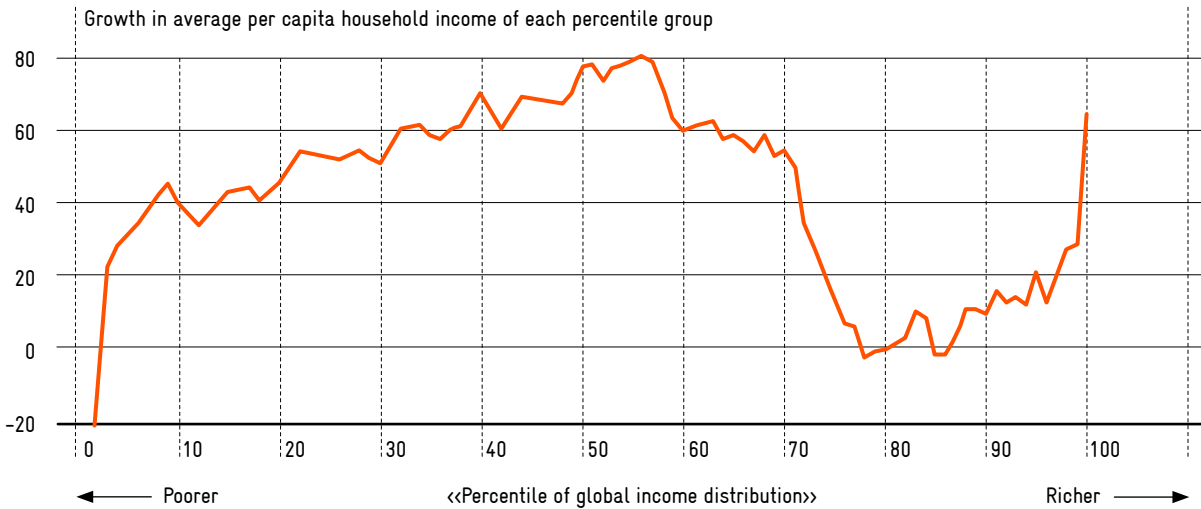
Second, population changes have shifted the income distribution too. Because the population of poorer countries has grown much faster than that of richer ones, this has dragged down average global incomes. This impact is particularly strong around the 70<sup>th</sup>–85<sup>th</sup> percentiles.

Third, there are big differences across Western economies. While growth in the United States has

2/2

Global growth incidence curve (1988–2008)

The “elephant chart” shows how much richer each part of the global income distribution was in 2008 compared to 1988.



Source: RF analysis of Lakner-Milanovic Panel Income Distribution (2015)  
Notes: Axis is cut at negative 20 percent.

been shared particularly unequally, even the poorest 10 percent have seen income gains of around 20 percent, as figure 2/3 shows. And in Europe, the poor have typically fared much better. Indeed, in Britain and France, the poorest have seen much bigger gains than the rest of the population, of 160 percent and 120 percent respectively.

In short, while the poorer rest of the world has typically done better than the richer West – thereby reducing global inequality – nearly everyone in the West has grown richer too. And insofar as inequality has increased within Western economies, this is not primarily due to globalization, since the poor in smaller, more open European economies have fared better than those in the United States. Other changes in particular countries – notably public policy – clearly have a huge impact. So, Americans should not blame globalization for the fact the United States is a very unequal place. To address excessive inequality, they should look to tax, labor market and education policies, not protectionism.

**The world isn't flat**

While it is remarkable that the incomes of people in poor countries are growing faster than those in rich ones, the gap between them is still huge. People born in the West still tend to have many more opportunities than those born in the rest of the world. Indeed, the biggest determinant of someone's life chances is not how talented they are or how hard they work, but where they happen to have been born.

Put crudely, a dynamic entrepreneurial woman born in Africa is likely to lead a poorer life than a lazy stupid person born in America. Research, again by Branko Milanovic (2015), shows that more than half of the variability of global incomes is determined by country of birth. The world is anything but flat. By working hard, that African woman may move up the income distribution in her country. But if that country is, say, the Democratic Republic of Congo, she is unlikely to rise very far up the global income distribution.



How might that change? She could be lucky and be born in a country that happens to get much richer during her lifetime: think of a Chinese person born in 1980. But the biggest and fastest changes come from moving to another country. Moving from Africa to America can multiply someone's living standards several-fold in a short space of time. But while migration tends to reduce global inequality, it may increase inequality within a country. Imagine there are two countries: country A where everyone earns \$10 a year and country B where everyone earns \$100 a year. Even though both A and B are perfectly equal, global inequality is huge. Now imagine people move from A to B and thereby increase their incomes from \$10 to, say, \$50. Clearly, they are much better off, and global inequality is reduced. But even though nobody in B is worse off as a result, inequality there has increased.

That may bother egalitarians, if their frame of reference is wholly national. But while it is fine to desire greater equality, it is rather odd to worry exclusively about inequality within national borders. And if societies are open and labor markets work well, newcomers are likely to close the gap with locals over time.

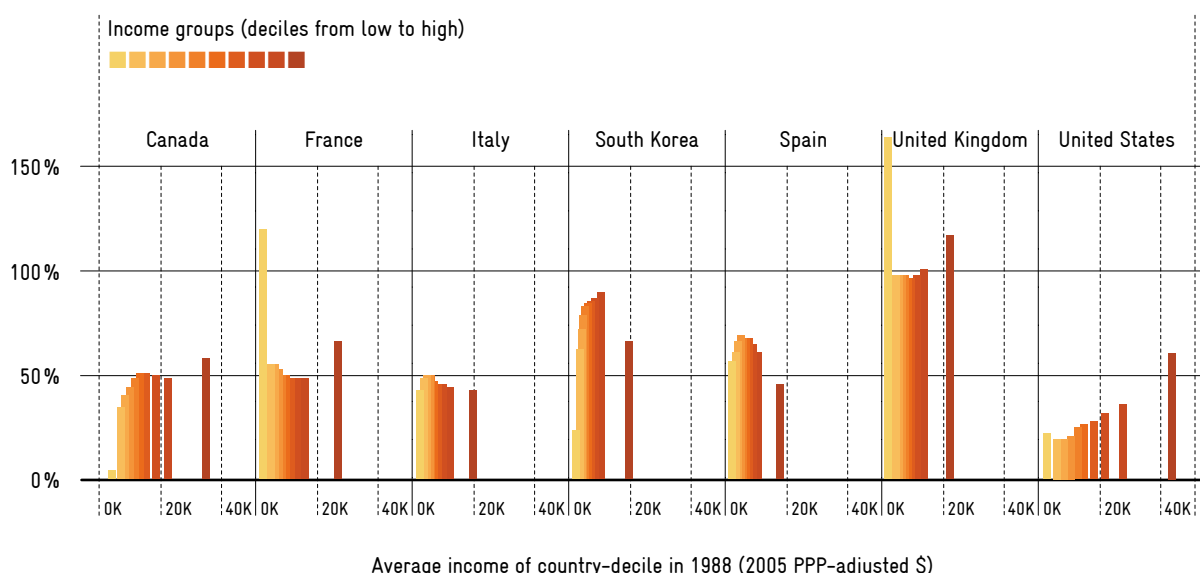
### Conclusion

The world is still a desperately unequal place, but globally inequality is falling fast. Globalization and other economic changes have benefited people in poor countries more than most, helping to lift billions out of poverty and propel others into the global middle class. While poorer people in America have done less well, this is not primarily due to globalization, since the poor have fared much better in more open European economies. The world ought to be more open, not less.

## 2/3

### Widespread income gains in advanced economies (1988–2008)

*In Europe, the poorest have typically fared much better than in the United States. In Britain and France e.g., they have seen much bigger gains than the rest of the population.*



Source: Statistics Finland (2018)

*A widespread public fear is that today's market economies inevitably lead to increases in economic inequality. A closer look at the available data, however, does not confirm this impression. Instead, there is a multitude of trends in different countries and parts of the world.*

## 2.2 Income Inequality and Redistribution on the National Level

Natanael Rother, co-editor, Zurich

One way to analyze income inequality is to compare the development of top earners' income with that of those at the lower end of the distribution. Figure 2/4 depicts the share of income earned by the bottom half of the population and the share that goes to the top 1 percent in different regions. Two things are noticeable:

- In North America, the income share of the bottom half of the population declined substantially between 1980 and 2014. In Asia and Europe too, the income share of the bottom half of the population decreased slightly. At the same time, the share of the top 1 percent increased substantially in Asia and North America. This trend is particularly pronounced in North America – where top

earners have nearly doubled their pretax income share in less than 25 years.

- Still, Europe is different: it is the only region in the world where the share of income of the bottom half of the population is higher than the share of top earners. Additionally, the share of the top income bracket is lower than in all other regions. In other words, Europe seems to be more equal than the rest of the world.

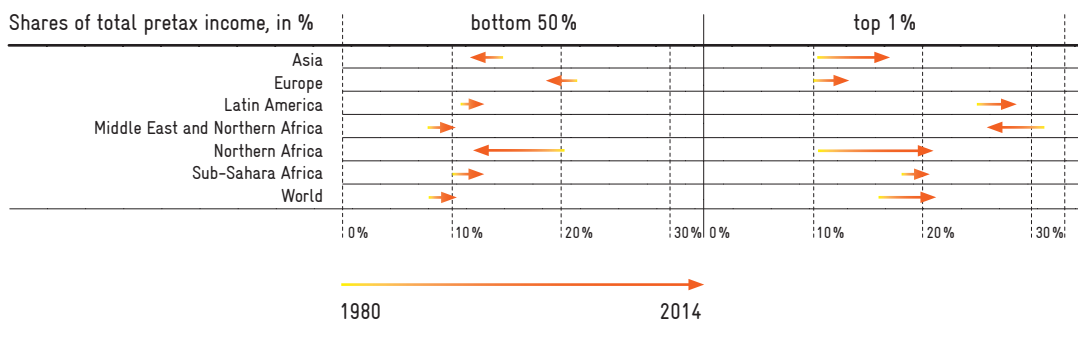
Figure 2/5 illustrates the development of pretax income shares of the richest percent of the population for different sets of countries around the globe.<sup>-7</sup>

<sup>7</sup> The creation of the regions and the selection of the countries is based on Waldenström and Roine (2014). The countries within the regions are, of course, not homogenous but the broad trends emerge nevertheless.

### 2/4

#### Europe is different (1980 vs. 2014)


*Compared to other parts of the world, income distribution has remained relatively equal in Europe. It is the only region where the share of the bottom half of the population is higher than that of top earners.*



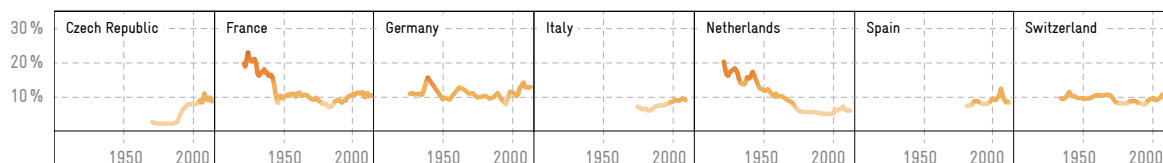
Source: World Inequality Database (2018)

## More than one trend

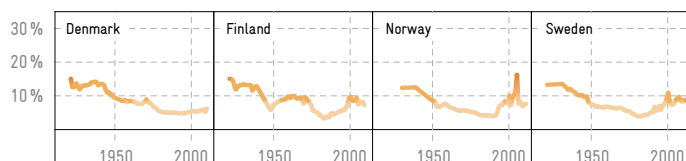
For most of the depicted countries inequality – measured by pretax incomes that go to top earners – fell until the 1970s to 1980s. Thereafter, trends in income distribution began to differ substantially.

2 %  35 % Share of Top 1% on total pretax income

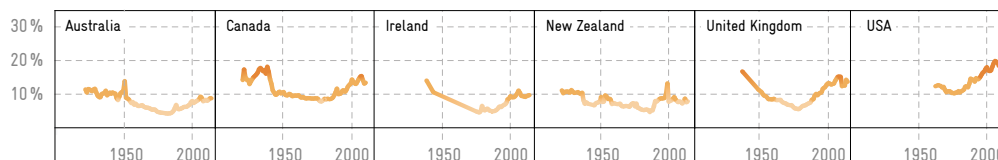
### Continental Europe



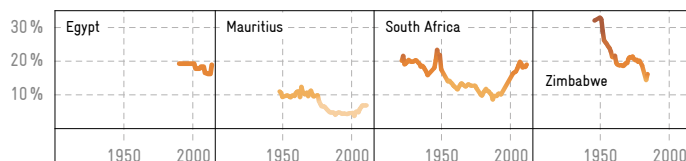
### Northern Europe



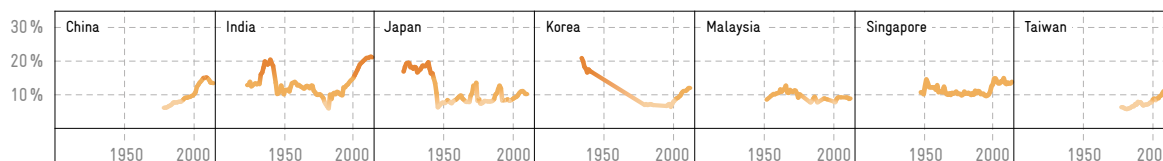
### Anglo-Saxon countries



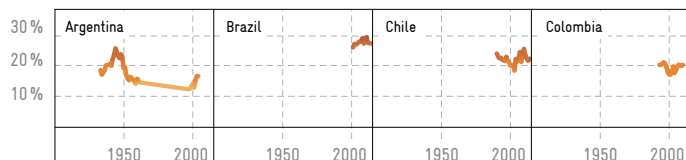
### Africa



### Asia



### Latin America



For most of the countries considered, inequality fell during the first three quarters of the 20th century (Alvaredo et al. 2018). Until the First World War, up to 20 percent of total income had gone to the top 1 percent of income earners in some countries. This share constantly decreased until the 1970s. From the 1980s onwards, trends began to diverge. Denmark, for example, witnessed a decreasing share of income going to top earners in this period. Switzerland showed a remarkably constant level of equality, even though there has been a slight increase of the income share of top earners in the last couple of years. Considering the magnitude of the different trends, it would be “imprudent” to seek a single storyline to explain the country-specific developments in inequality (Alvaredo et al. 2018).

### Redistribution: More Than Taxes

The level of income inequality depends on many factors, with the two most important determinants being the distribution of labor income (what people earn from their work) and redistribution (what people receive from the state and through other transfers) (Gornick et al. 2017). Indeed, as figure 2/6 shows, there are different patterns of income inequality. Some countries have low levels of inequality even without pursuing extensive redistribution policies. By contrast, other countries greatly redistribute income but still have comparatively high levels of inequality. In general, three types of countries can be identified:

- The first category comprises countries like South Africa and Chile that pursue reticent redistribution policies but have relatively high levels of inequality in market income.
- A second group involves countries, such as France or Finland, characterized by a rather unequal distribution of market incomes. Yet, they extensively redistribute, which significantly reduces inequality.
- Finally, South Korea and Switzerland represent the third type of country. They have the most equally distributed market incomes in the sample, can consequently afford to change the initial

distribution only marginally, and still rank among the countries with the lowest income inequality.<sup>8</sup>

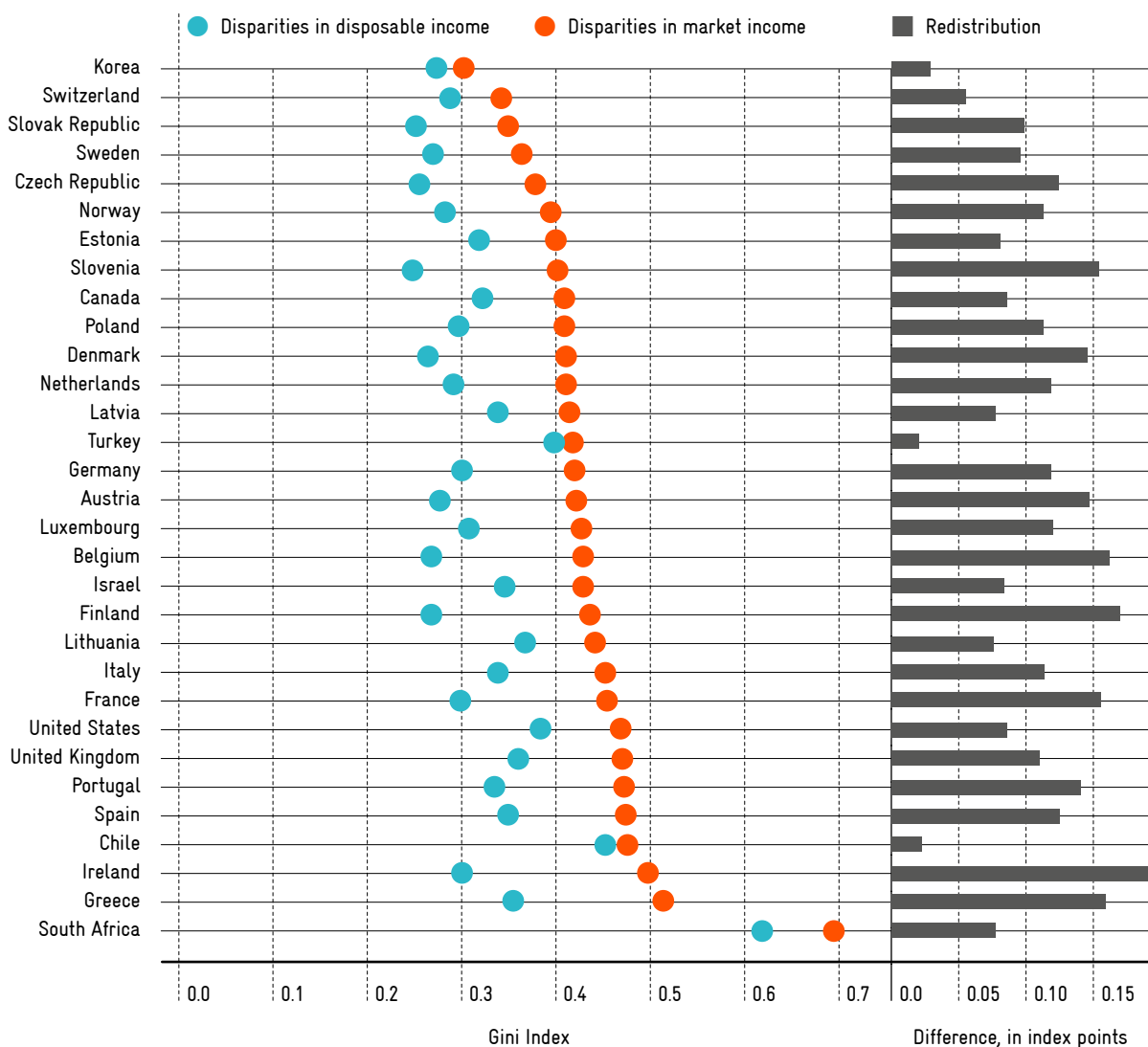
Despite the differences between countries regarding income inequality generated by the labor market, public debate about the mitigation of inequality is often restricted to redistribution measures – e.g. changes in the tax regime or transfers. One of the most effective instruments to address inequality is, however, labor market policy, which plays a crucial role in determining the initial income distribution. In particular, Switzerland illustrates that flexible and liberal labor markets can contribute simultaneously to prosperity and to a more equal income distribution.

8 For a further description of the unique income distribution in Switzerland see chapter 5.2.

2/6

Different roads lead to Rome

Some countries have low levels of inequality even without pursuing extensive redistribution policies. This indicates that equality can also be achieved through appropriate labor market policy.



Source: OECD. Numbers based on people in working age.  
 Notes: Redistribution is defined as difference between the Gini index in market income and in disposable income.

Box 2:

Switzerland's redistribution decomposed

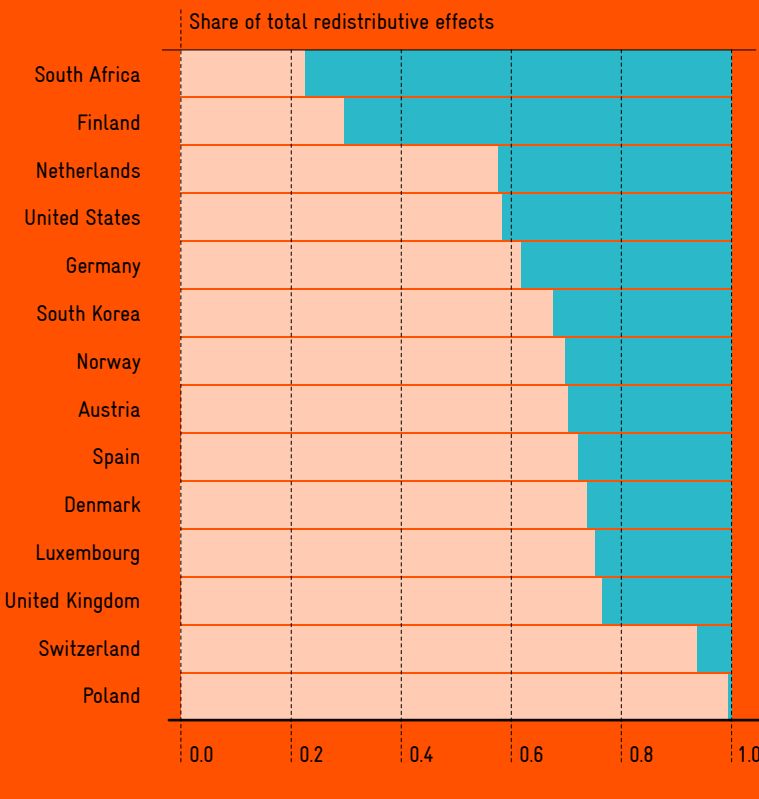
Recent data from the “Luxembourg Income Study Database (LIS)” enables redistribution to be separated into two components: the transfers (i.e. social expenditures) <sup>-9</sup> and income taxes (including social contributions). It also allows the comparison of redistribution policies over time and across countries. <sup>-10</sup> This approach, although very interesting, is not perfect: Redistribution through other taxes is excluded, i.e. effects may be underestimated. This is especially important for Switzerland where wealth taxes are substantially more relevant than elsewhere and are paid almost exclusively by the rich. <sup>-11,12</sup>

With regard to Switzerland, the following three results are noteworthy:

1\_ Transfers dominate over taxes

In many countries social expenditures – not the tax system – are the main instrument of redistribution. Switzerland's reliance on social transfers to redistribute income is, however, remarkably pronounced: No less than 94 percent of the difference between primary and disposable income is reduced through transfers. Income taxes account only for 6 percent.

Relative redistributive effects from transfers and taxes



Source: Wang and Caminada (2017), based on LIS. 2014 or latest. Numbers for working age population. Selection of countries.

2\_ Redistribution has grown over time

While the level of redistribution in Switzerland is still comparatively low, it has risen perceptibly over time. In the mid-1980s, the Gini coefficient of the primary income distribution amounted to 0.398 and was lowered through redistribution to 0.309 (-0.09). <sup>-13</sup>

In 2013, the corresponding reduction through redistribution amounted to 0.13 Gini index points. Accordingly, redistribution has risen by 46 percent in recent decades. This is more than twice as much as the average increase of redistribution of the other countries in the dataset (15 countries included). For Switzerland, the increasing redistribution rate is driven by social security expenditures (old-age, disability, and survivor transfers) (Caminada et al. 2017).

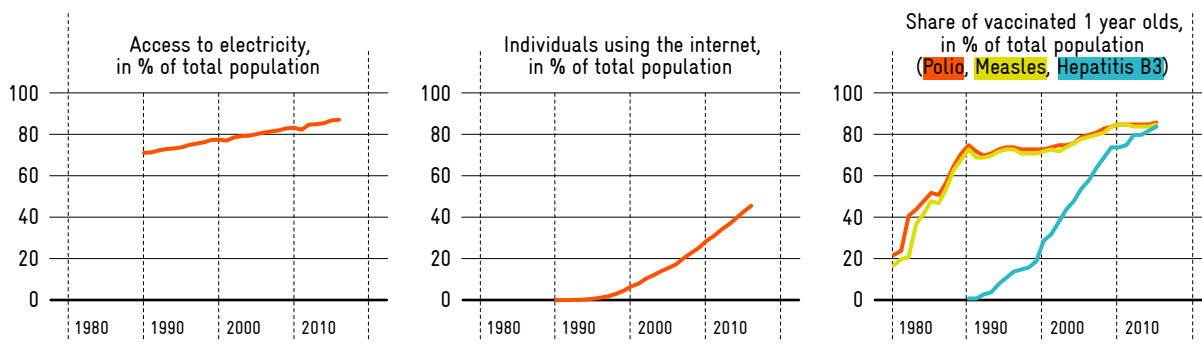
3\_ The Swiss system is effective

Not only the amount of redistribution, but also its effectiveness, is relevant. Clearly, the goal is to help those in need. Based on the LIS data, Caminada et al. (2017) have studied the efficiency of redistribution across 15 countries in

1985 and 2013. They analyze the extent to which poor and rich people benefit from income transfers. According to Caminada et al., Switzerland's effectiveness of redistribution has improved remarkably between 1985 and 2013. No other country in the dataset has managed to improve effectiveness by a larger margin.

### Three exemplary areas where the world has improved

*Globalization and new technologies have fostered access to electricity, the internet and the vaccination rate worldwide.*



Source: World Bank, WHO, ourworldindata.org. Images inspired by Rosling et al. (2018).

### Globalization and technological progress

Globalization<sup>-14</sup> and technological progress are two of the megatrends shaping today's world. From a global point of view and a long-term perspective, both trends contributed substantially to increase welfare and shrink global inequality (see chapters 2.1 and 3.1). Figure 2/7 highlights three areas where the same degree of progress would most likely not have been possible without globalization and new technologies.

However, globalization and technological change are increasingly held responsible for growing economic inequality.<sup>-15</sup> The nontrivial relationship between inequality and globalization and technological change will be discussed in the two following chapters.

### Does globalization make countries more unequal?

According to standard economic trade theory, the effect of globalization on the income distribution of a specific country is linked to its level of development (Bergh et al. 2017): In a globalized world, countries tend to focus on the type of work they are best equipped for. Developing countries will bring more low-skilled work to the market, developed ones will concentrate on high-skilled work. Due to the higher demand, the relative wages of low skilled workers would increase in developing countries, while

9 Eight different types of social transfers are considered: (1) Old-age, disability and survivor; (2) sickness transfers; (3) family and children; (4) education; (5) unemployment; (6) housing; (7) general food and medical assistance, and (8) other transfers. For Switzerland, education transfers and general food and medical assistance are not included. The latter includes monetary transfers from minimum income guarantee systems and last resort systems; monetary and non-monetary food related transfers; and thirdly, monetary and nonmonetary health-related transfers. All three are received from the state through programs that are targeted on individuals or households in need (Wang and Caminada 2017). On average over all LIS countries, these two categories combined contribute to total redistribution with 3 percentage points of total redistribution (Caminada et al. 2017).

10 Note that the LIS data are not completely congruent with the OECD data, used in figure 2/6. Overall, patterns are, however, similar (Caminada et al. 2017).

11 See Brühlhart and Schmidheiny (2017).

12 See Salvi (2016).

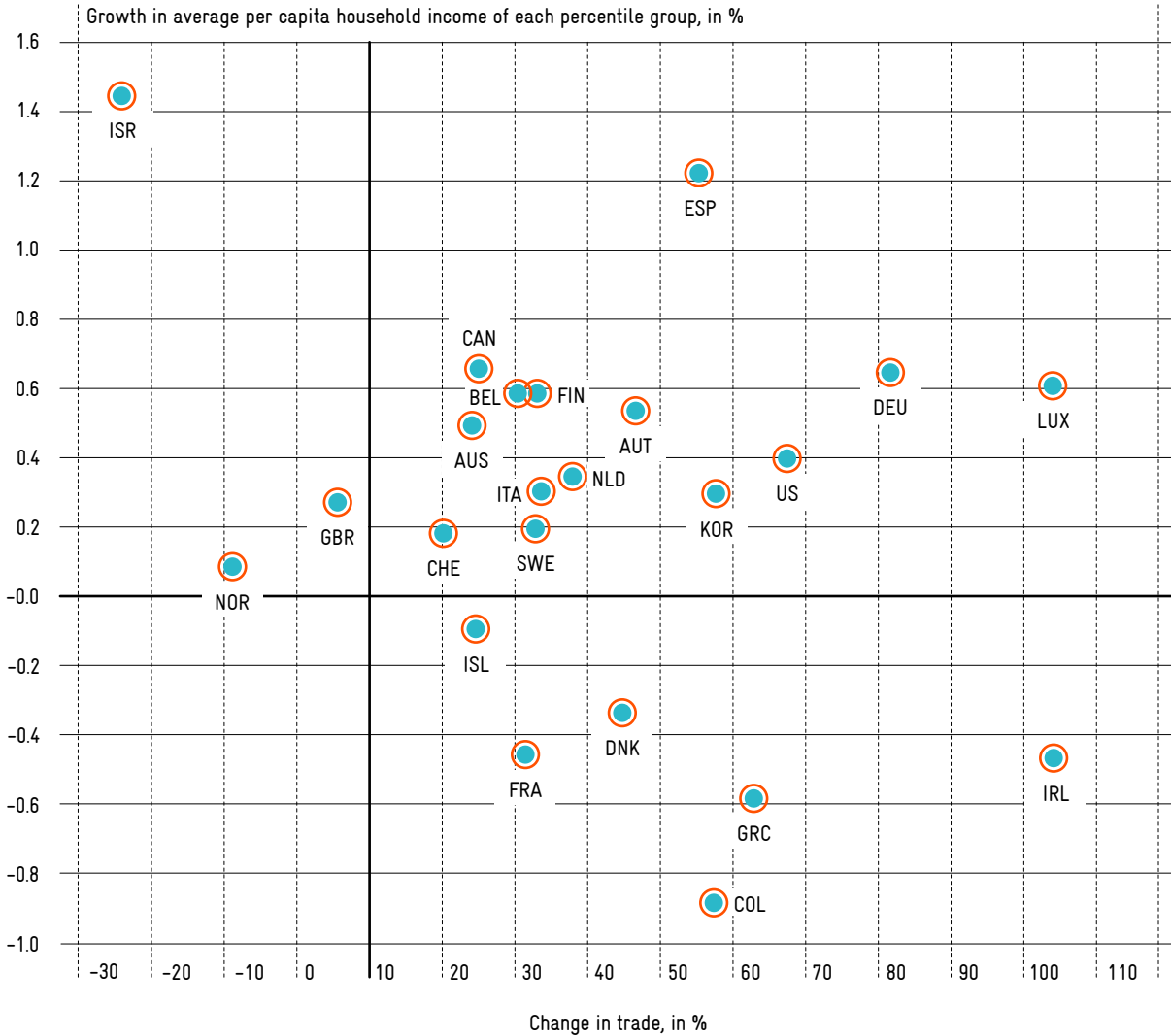
13 The Gini index (or coefficient) is the most common measure for inequality. Higher measures stand for higher inequality.

14 Understood as integration of the world economy through the liberalization of trade and finance (Bergh et al. 2017).

15 According to a recent survey of the PEW research institute, an increasing share of Europeans believe that trade with other countries is good. At the same time, the portion of those assuming that trade destroys jobs and increases prices is, however, rising (Pew Research Center 2018).

Trade and inequality (1985–2015)

There is no unidirectional relationship between trade and economic inequality. While in some countries an increase in trade exposure was accompanied by an increase in inequality, the opposite was observable in others.



Source: Own calculation based on LIS Cross-National Data Centre and World bank.  
 Notes: Change in trade measured as weighted average change of import and export intensity. Change in inequality measured as difference in D9/D1 ratio. Outlier excluded from graphic (South Africa, India, Mexico). Years mentioned in the title or as close as possible.

in developed countries the same would happen in regard to high-skilled labor force. Accordingly, globalization should theoretically lead to declining inequality in developing countries and increasing inequality in developed ones (Alvaredo et al. 2018).

However, empirical evidence does not confirm this simple hypothesis. As indicated in chapter 2.2, trends in income inequality differ significantly be-



Box 3:

### Channels whereby globalization may influence inequality

Academic literature discusses several channels whereby globalization may influence inequality. Besides the common narrative that low skilled workforces in developed countries get crowded out by import competition, the three following explanations are particularly important (Helpman 2016):

*Firm heterogeneity:* Firms may differ in terms of productivity and size. Globalization may favour certain types of companies, e.g. more productive, export-oriented firms (Helpman et al. 2017). These firms will, in turn, be better placed to pay higher wages, thereby increasing inequality within a country.

*Assortative matching:* For firms and workers alike, it is essential to find the best match. While workers want to find jobs that suit them best, firms presumably look for the most productive workers. Once the ability to match increases, be it due to technological change or increased labor mobility, the most productive firms will team up with the most productive workers, whereas less productive workers will end up in less productive firms. This would, then, presumably increase disparities.

*Labor market frictions:* Regulation of the labor market (e.g. minimum wages or firing costs) may impair wage setting and sectoral adaptation processes. Via this channel, global trade may – at least temporarily – influence incomes across different industries. A low degree of mobility of the regional workforce may enhance inequality in such a setting (Pavcnik 2017).

tween countries. Moreover, the country comparison in figure 2/8 fosters doubts with regard to the theoretical predictions. It shows a country comparison of the correlation of the change in trade and the change in inequality.<sup>-16</sup> While in some countries an increase in trade exposure seems accompanied by an increase in inequality, elsewhere, e.g. in France or Denmark, this effect clearly did not occur.

The results in figure 2/8 match largely with the findings from research, which predominantly confirms that impact of trade in inequality is not so clear.<sup>-17</sup> Rather, inequality and globalization are interlinked in a multitude of different ways, some potentially increasing and others decreasing inequality (see box 2). Elhanan Helpman (2016), one of the most respected experts in this field, concludes:

*“Yes, globalization impacted the wages of different types of workers to different degrees, and yes, it contributed to an increase in the wages of skilled relative to unskilled workers through multiple channels. Yet, in sum, all these effects explain only a fraction of the rise in wage inequality in rich and poor countries alike.”*

### A race between technology and education?

Technological progress is often perceived as a factor fostering inequality. It is argued that technological progress may disproportionately raise the demand for skilled labor by eliminating low-skilled jobs through automation or upgrading the skill level required to attain or keep a job (Dabla-Norris et al. 2015).

In those countries where an increase in inequality has been observed, the imperfect adaptation of the skills of the labor force to the technological change has been recognized as an important driver (OECD 2011a), since technological progress is predom-

16 Trade is measured as weighted average of the percental change in export and import exposure (as share of GDP). Inequality, on the other hand, is measured as the ratio of income in the ninth and first decile. Both measures relate to previous work on this topic (Wen-Hao et al. 2013).

17 See Wen-Hao et al. (2013), Helpman (2016), Ortiz-Ospina (2018) or Milanovic and Squire (2007).

inantly “skill-biased” (Weisstanner and Armingeon 2018). But a one-sided increase in demand and income for highly skilled workers is not necessarily the rule, nor is what Tinbergen famously coined the “race between technology and education.” For instance, Adler and Salvi (2017) showed that the share of the Swiss workforce with higher education increased from around 35 percent to more than 50 percent. Consequently, Switzerland seems to have no signif-

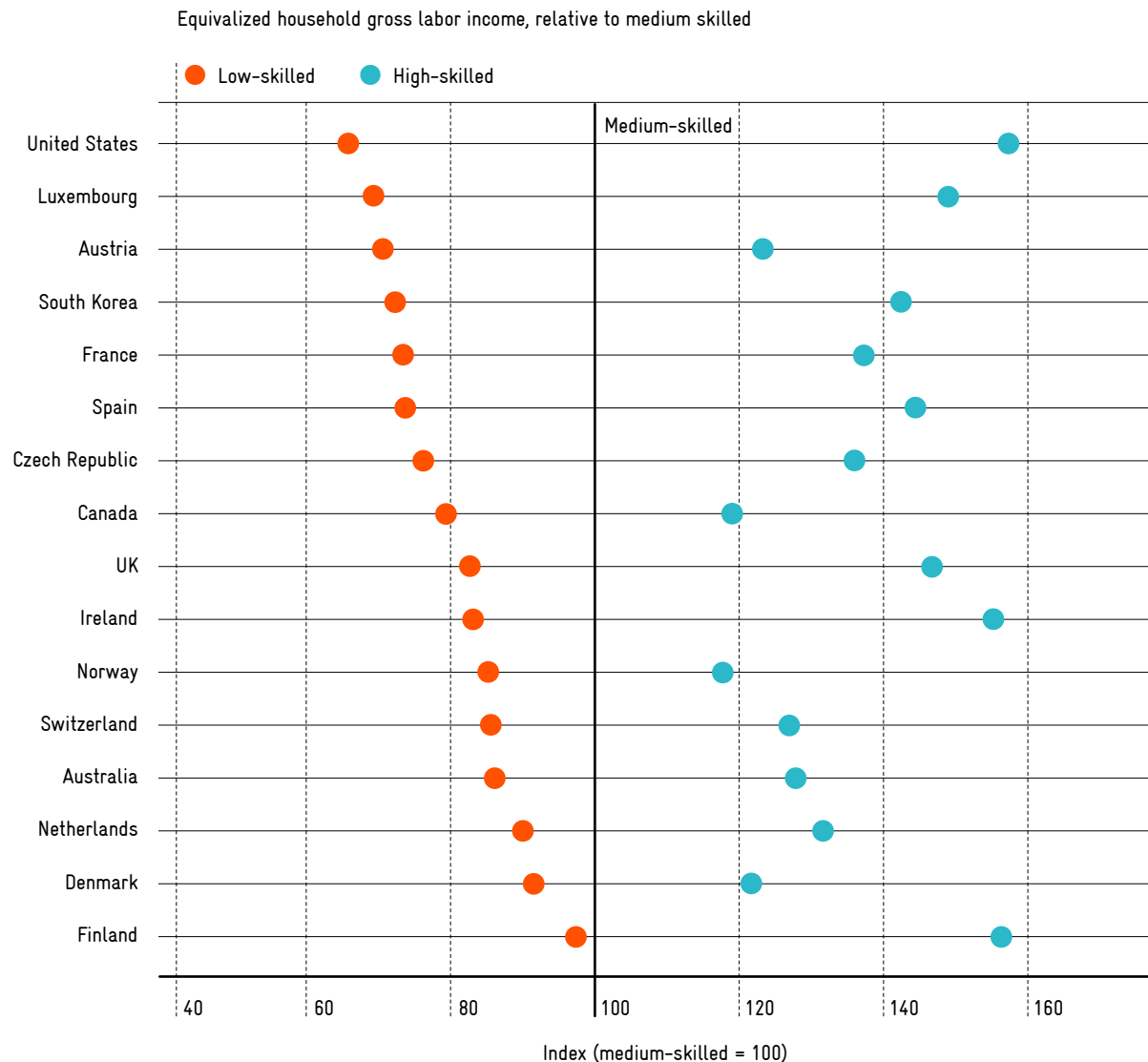
icant gap between educational attainment and the skills required in the labor market (see chapter 4.2 for a detailed analysis of the relevance of skills).

Yet, the question as to whether technological change induced a “skill bias” and increased inequality is ultimately an empirical one. Therefore, in the following, the wage gap between workers with different skill levels in different countries will be examined. Since skills are hard to measure directly,

2/9

Relative wages of low, medium and high skilled workers

Education premiums for medium and high skilled workers differ substantially across countries. Switzerland is among those with the smallest disparities.



Source: LIS Cross-National Data Center (2016 or latest, mostly 2013). Graphic inspired by Wolff and Darvas (2016).

education is used as a proxy – a reasonable assumption, given that more educated people usually earn higher wages (Carnevale et al. 2011). Figure 2/9 compares the so called “education premium,” i.e. the difference in wages for people with low and high levels of education, in several western countries.

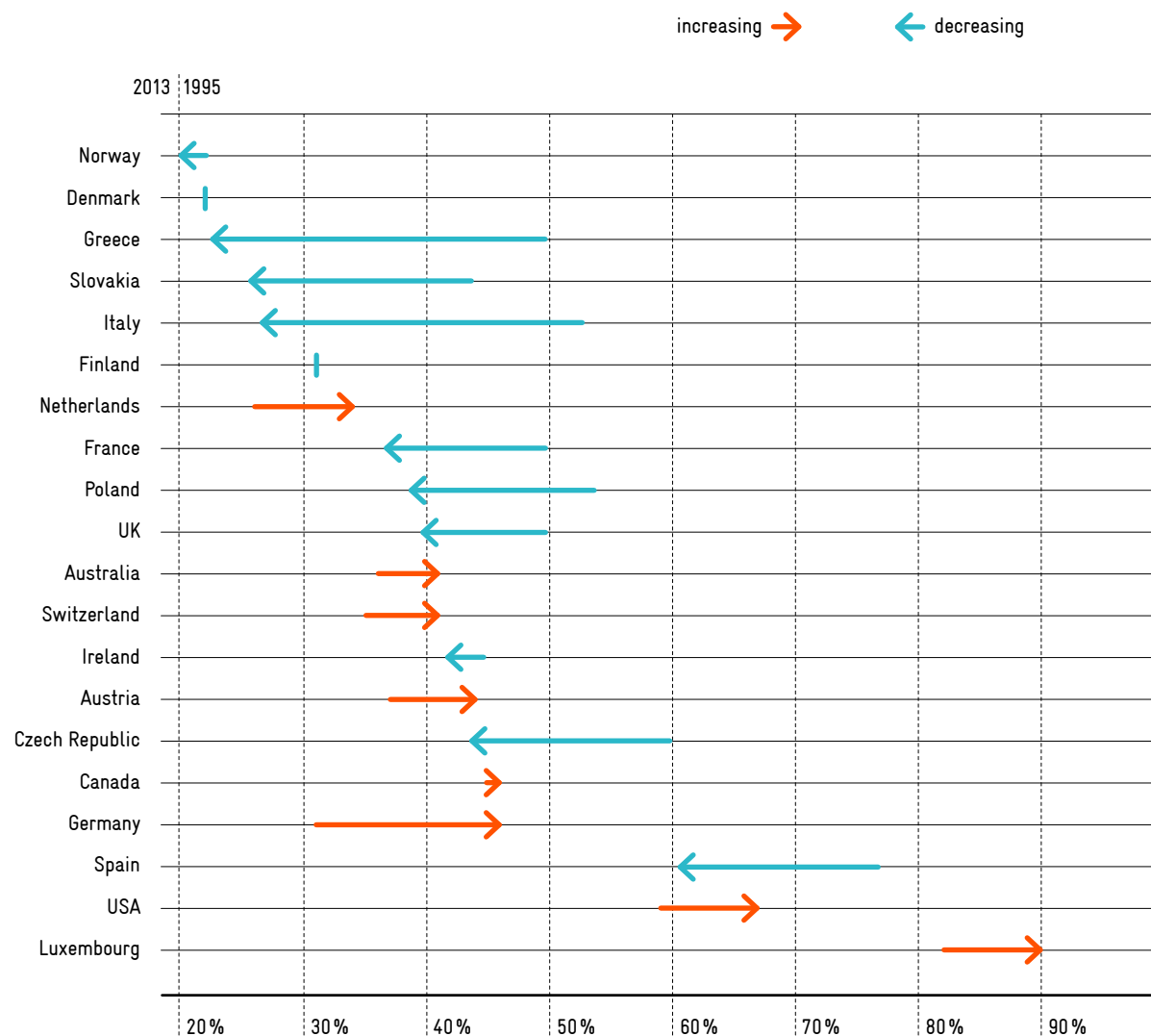
There are remarkable differences in the identified education premiums. In the United States, for example, labor income of low skilled workers

amounts to roughly two thirds of medium skilled workers. High skilled labor income, however, is about 1.6 times higher than the income of a medium skilled worker. Yet, there are no clear trends observable in figure 2/9. Besides the United States, there are other countries such as Luxembourg or France that show relatively big wage disparities. In France, for example, the labor income of a low skilled worker amounts to about 75 percent of that

## 2/10

### Earnings premia from education

*The education premium – defined as the difference between median pretax earnings of full-time workers with tertiary education and those without – has been decreasing in some countries. Others have witnessed an increase.*



Source: LIS Cross-National Data Center, Weisstanner and Armingeon (2018)

of his medium skilled counterpart. A highly skilled worker, in turn, earns approximately 40 percent more than a medium skilled worker. In the Nordic countries, in particular Denmark and Finland, low skilled earners seem to come off best – there is hardly an education premium for medium skilled workers. Notable, however, is the wage gap between low and medium skilled workers and high skilled workers in Finland – the corresponding education premium amounts to nearly 60 percent. Switzerland, finally, confirms its reputation as a country with a rather low degree of inequality: Education premiums are comparatively moderate.

Has technological progress increased the education premium in the past? Figure 2/10 provides some answers. It shows the differences between 1995 and 2013 in median pretax earnings of full-time workers with and without tertiary education.<sup>18</sup> A value of approximately 0.2 for Norway in 2013, for example, means that the median income of a person with tertiary education was roughly 20 percent higher than that of a person without tertiary education. As the direction and the color of the arrow indicates, this moderate education premium has actually fallen between 1995 and 2013.

The differences in the development of education premiums are remarkable: Greece's education premium roughly halved in the considered time period. That may be explained by the distress of the Greek economy, starting with the financial crisis in 2007. Countries such as Italy, Spain, France and the United Kingdom also demonstrate decreasing education premiums. In Germany, however, the education premium soared by nearly 50 percent between 1995 and 2013. Although in Switzerland

the education premium decreased slightly between 2007 and 2013, an overall increase of roughly one fifth was evident for the considered time period.

To summarize, the findings draw a differentiated and cautiously optimistic picture: in particular, and contrary to common belief, there is no single uniform development of income inequality on the national level. While globalization reduced inequality on a worldwide level, on a national level, there are cases where inequality has increased. But globalization – and with it the increased trading activity – was not the main driver. Instead, technological progress, and its interplay with the skills of the labor force was much more influential. Generally, the impact of technological change depends crucially on the educational structure of the workforce (see chapter 4.2).

18 Unemployed and retired workers are excluded from the analysis.

*The middle class is a giant social factor in Finland. Roughly 68 percent of Finns belong to it. In the two recessions since 2008, equality in Finnish society grew further, because a considerable share of the workforce shifted from the private to the public sector. While the economic backdrop has lowered income inequality, this is on the whole still not good news for the country. Finland may have prepare for some growth in income disparity if it wants its economy to expand more quickly.*

## 2.3 A Case Study on the Middle Class in Finland

Ilkka Haavisto, Finnish Business and Policy Forum EVA, Helsinki

Finland's example demonstrates the Nordic welfare state's mastery of redistributing wealth. Prosperity does not increase, however, by merely sharing it. Finnish society will have to find ways to incentivize risk-taking in order to foster economic growth.<sup>-19</sup>

Finland is a country of low income disparity and a large middle class. It has been able to strike a balance between economic dynamism and equality. However, after the financial crisis in 2008, Finland found itself in a long stalemate during which the middle class expanded without economic growth.

This phenomenon was fuelled by heavy income taxation and generous public sector transfers. While creating new wealth and maintaining a large welfare state are not necessarily in conflict with each other, Finland may have to prepare for some increase in income disparity if it wants its economy to grow.

The shrinking middle class is a topic that has, in recent years, gained international attention in the social debate (Autor 2010; and Milanovic 2018). The middle class's share of the population is linked to income distribution: in countries with a more equal income distribution, the middle class accounts for a larger share of households than in those with large income disparities.

Finland's middle class is large both in absolute terms and in comparison to other countries. Some 3.7 million, or 68 percent, of Finns belong to the middle class. The middle class is the largest in Western Europe: the next largest is another Nordic coun-

try, Sweden, where the share of the middle class is a couple of percentage points lower.<sup>-20</sup> Such figures are derived from the definition of a middle-class citizen having a disposable income of more than 75 percent, but less than 200 percent, of the median disposable income of the population (see box 4).

In Finland, the middle class has not shrunk. On the contrary, it has grown in the years after the financial crisis, despite weak economic development. Nor has it become any worse off. Although the development of middle class income has been weak in recent years, it has remained positive.

This does not mean that the Finnish middle class is particularly prosperous. While median disposable income in 2016 was €2,032 per month, middle class disposable income was between €1,525 and €4,065. (Disposable income is calculated by adding earned and capital income, income transfers received and subtracting taxes and tax-like charges paid.)

19 The source for data in this article is Statistics Finland (2018) (especially Total statistics on income distribution), unless otherwise mentioned. The author acknowledges researchers Topias Pyykkönen and Aura Pasila for assistance with data analysis.

20 Shares estimated from Eurostat's Distribution of income data (Eurostat 2018).

Box 4:

Who is middle class?

The definition of middle class employed in this text is based on income. The measure for “middle-incomes” is household net disposable income between 0.75 and 2 times the median. –21

Such a definition of the middle class covers the spectrum of different socio-economic groups quite well. The lower limit of the definition is clearly above the poverty threshold (60 percent of the median income). On the other hand, its upper limit is sufficiently high to cover high income earners of the middle class, which are nevertheless still middle-class groups. –22

Equivalized disposable income is calculated per household by calculating all net income together and dividing the sum of revenue by the number of household consumption units. When calculating consumption units, the household’s highest income earner gets a coefficient of 1, others over age 13 get a coefficient of 0.5, while those under 13 years of age get a coefficient of 0.3. In a family of four, with two children under school age, there are 2.1 consumption units.

In the same household, all family members – including children – get the same disposable income. This is because households spend their money together. For example, a family holiday trip to the Swiss Alps is paid for with funds earned by parents, and, naturally, also the children come along. They are not left at home because they have no income. Hence, the amount of disposable income describes the person’s consumption potential and standard of living.

2/11

Structure of the Finnish population (2016)

The middle class is divided in three parts: lower, intermediate and upper echelons. In total, they sum up to around 70 percent of the Finnish population.

Income groups	Number of people	Share of population
High	0.3 million	5.8%
Upper middle	0.6 million	10.7%
Middle-middle	1.3 million	24.5%
Lower middle	1.8 million	33.1%
Low	1.4 million	25.9%

Source: Statistics Finland (2018)

The middle class is, therefore, a giant social factor in Finland. It is not, however, a single uniform group. The middle class is usually divided –23 into three parts: lower, intermediate and upper echelons

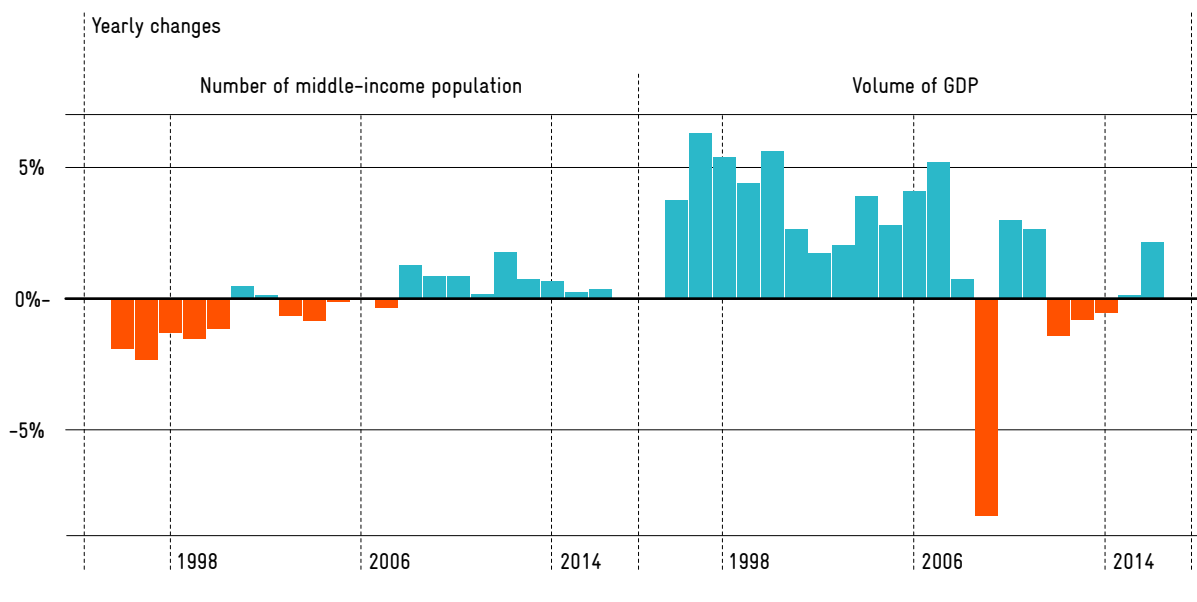
(see figure 2/11).

The lower middle class includes about 1.8 million wage earners and entrepreneurs (with family members), but also many outside the labor force, especially retirees. The intermediate middle class includes about 1.3 million Finns. The remaining 600,000 belong to the upper middle class.

21 See OECD (2016). For alternative definitions, see Reeves et al. (2018).  
 22 Atkinson and Brandolini (2011) go through the alternatives for middle-income income limits. They set a lower threshold of 75 percent of median income and note that the upper limit should be significantly higher than the symmetric 125 percent median income of the lower limit. They offer alternatives of 200 and 300 percent.  
 23 Division of middle class to three middle-income groups adapted from Niehues (2014).

## Economic growth and the size of middle class (1996–2016)

The size of the middle class appears to correlate negatively with economic growth. This phenomenon is likely to be linked to Finland's wage structure.



Source: Statistics Finland (2018)

### The middle class grew, the economy did not

In an apparent contradiction, the recent growth of the middle class seems linked to weak economic growth. The middle class shrank during years of rapid economic growth between 1995 and 2007, with their number falling by about 360,000 overall. The middle class's share of the population fell from 75 to 66 percent (see figure 2/12).

However, the shrinking ended after the financial crisis in 2008 after which the middle class has grown continuously for nine years. Their number has risen by about 240,000, but since the population of Finland has also grown, their share of the total population has reached only 68 percent.

The size of the middle class appears to correlate negatively with economic growth: the middle class shrinks (or its growth decreases) as economic growth accelerates – and grows as economic growth decreases. The change also follows the fluctuation of economic growth quite accurately. In textbooks and the public debate, this relationship is often

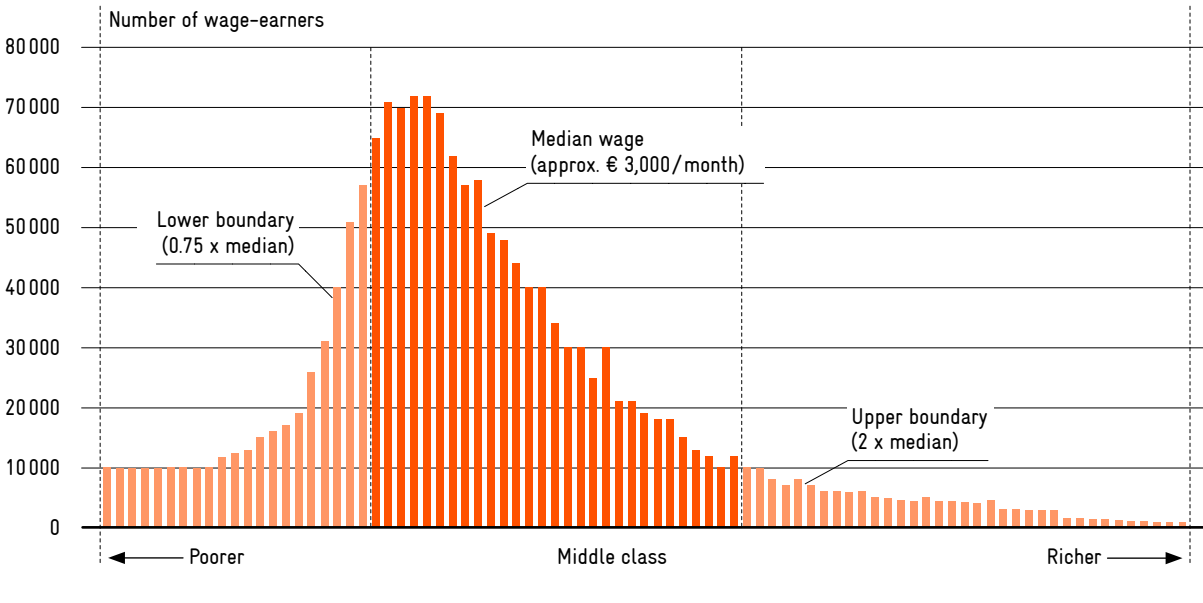
seen the other way around when a large middle class is correlated with economic growth.

The phenomenon is likely to be linked to Finland's wage structure, which resembles a mountain (see figure 2/13).<sup>24</sup> The number of people earning just below the median wage is large, leading to a steep “northern slope” and a high peak in pay distribution. The wage distribution of persons earning more than the median is much wider, which makes the change in pay distribution of the “southern slope” more gradual.

24 This figure presents the distribution of wages in Finland, not the distribution of equalized disposable incomes.

## Distribution of wages and boundaries of middle class in Finland (2017)

The number of people earning just below the median wage is large, leading to a steep “northern slope” and a high peak in pay distribution.



Source: Statistics Finland (2018)

As the economy grows, median income rises. The lower and upper boundaries of the middle class shift accordingly along the pay scale. Some of those who used to earn just enough to make it to the lower middle class fall into the low income bracket. Since the size of the population at the upper end of the distribution is smaller than at the lower end, the shift of the upper middle class ceiling will bring far fewer people to the middle class than those exiting due to the shift of the lower boundary. In addition, wage drifts and capital gains of a booming economy typically boost the high incomes of the upper middle class.

This shrinking of the middle class is not particularly disturbing. Those falling off do not descend into poverty, but stay close to the lower middle class. As the economy grows, it is likely that their pay too will increase or they will switch to better paid jobs.

By contrast, growth in the middle class without economic growth may be a problem. It may indicate a prosperous society that lacks incentives to make risky investments. Finnish corporate tax-

ation favours established companies over startups, taxes on wages are high and taxation of capital gains has become much more stringent since the 1990s. Therefore, it could even be positive for Finland if the middle class shrank – especially so that the share of high earners grew. Such a development would hardly be associated with major problems in a country like Finland with a functioning democracy, high and progressive taxation and comprehensive income transfers and public services.



## Income taxes and transfers received by income group (2016)

Overall, the middle class pays more than 70 percent of total taxes. The effective income tax rate is the highest for the highest income group. In total, the lowest income group profits from € 10 billion in redistribution.

Income groups	Share on total taxes	Effective income tax rate	Balance between taxes and transfers (in bn Euro)
High	24%	36%	-6
Upper middle	21%	31%	-4
Middle middle	29%	27%	-2
Lower middle	21%	22%	7
Low	6%	14%	10

Income taxes incl. tax-related payments

Source: EVA, Statistics Finland (2018)

### The middle class pays a lot of tax but is still a net receiver

Recent developments may also indicate that society has already focused too much on redistribution instead of fostering growth. In Finland, the middle class receives more in income transfers than is paid in taxes. The most significant transfers are pensions and other old-age subsidies.

In 2016, the middle class paid income taxes and tax-related levies of about €24 billion. This sum includes taxes on earnings and capital income, as well as compulsory earnings-related pension and sickness insurance contributions. The middle class's share of these taxes was 71 percent, i.e. slightly higher than its share of the population (68 percent).

The shares of income taxes and tax-related payments paid by persons with high and low incomes were reversed in relation to the size of the income categories. The group with high income comprising 5 percent of the population paid 24 percent of income tax and tax-related contributions, while the low-income group accounting for 26 percent of the population paid only 6 percent (see figure 2/14).

Dividing the taxes paid by each income group by its total income reveals an effective income tax rate (see figure 2/14) for each group. Although the figures do not include all taxation, it can be deduced that the progression of income taxation works and has an impact. Low income earners pay income

taxes and tax-related payments amounting to about a seventh (14 percent) of their income. The middle class's effective tax rate, on the other hand, rises to 26 percent, while that of high income earners rises a further 10 percentage points to 36 percent.

The progression also works inside the middle class as the tax burden tightens incrementally by about 5 percentage points between each echelon of the group.

Is the middle class tax burden high in Finland? An average income tax rate of about 26 percent may not seem excessive, but the fact that the middle class pays 70 percent all direct taxes appears quite harsh. However, middle class taxpayers may not necessarily have cause to complain. They are a net recipient of current transfers, i.e. they receive more from income transfers such as pensions and child allowances than they pay in taxes. In 2016, the middle class received €1.46 billion more in transfers than paid (see figure 2/14). Of the income transfers received, the most significant amounts comprised pensions and other old-age subsidies, accounting for about two thirds of middle class transfer income.

The middle class, therefore, pays a lot of tax but receives a lot back in transfers. In addition, due to its size as well as its higher education level compared to low income earners, the middle class is by far the highest consumer of public education, social and health care services. In Finland, everyone has

access to free education (including universities) and everyone has the right to virtually free public social and health care.

The difference between income transfers and taxes paid in 2016 was strongly negative. Finland's public finances are, therefore, running a deficit, i.e. income transfers and public services are partly financed by debt. Public finances are expected to show a surplus in 2020 – for the first time since 2008.<sup>25</sup>

Finland's example demonstrates Nordic welfare states' mastery of redistributing wealth. The Nordic countries have also shown that creating new wealth and a wider welfare state are not necessarily in conflict with each other, but can support each other well. Prosperity does not increase, however, by merely sharing it. Finnish society will have to find ways to incentivize risk-taking in order to foster economic growth. One possible way is to review

the way entrepreneurs are taxed in Finland. Allowing entrepreneurs to receive a larger share of their personal income as dividends instead of salary could be a good first step. This would likely result in a slight increase in income differences, but on the other hand, Finland may have to be prepared for some growth in income disparity if it wants its economy to expand.

25 See ETLA (2018).

26 See Kharas and Hamel (2018).

#### Box 5:

### Half the world is now middle class

Natanael Rother

*The middle class can also be looked at from a global perspective. A recent study by the American Brookings Institution has done just that.<sup>26</sup> The authors divided the world's population into four groups: Those in extreme poverty (households spending below \$1.9 per person per day), vulnerable households (above extreme poverty but below middle class), middle class (households spending between \$11 and \$110 per person per day), and the rich (spending more than \$110 per person per day). All measures are based on 2011 purchasing power parity to enable international comparison.*

*For the first time since the start of agriculture-based civilization, the majority of humankind is no longer in the group of poor or vulnerable households. Just over 50 percent of the world's population now belongs to the middle class or the rich. This shows the stunning progress mankind has made in recent decades. As has been calculated by the authors, five people per second enter the global middle class. By 2030, middle class households will be the largest group, with an expected 5.3 billion people.*

*For Spain, it is essential to support the poor and invest public money in a way to allow young people to stand on their own feet as quickly as possible. The key is for the poor to acquire the necessary skills to compete in the labor market.*

## 2.4

# *Inequality in Spain: Let us Focus on the Poor*

Miguel Otero-Iglesias, Elcano Royal Institute, Madrid

The debate on inequality has intensified in Spain in the aftermath of the economic crisis – for good reason: As the European Commission keeps warning, Spain is one of the most unequal countries in the EU. If we take the disposable income ratio between the richest and poorest 20 percent of the population, Spain is the fourth most unequal country after Romania, Bulgaria, and Greece.

However, a big domestic debate is raging. The consensus on the Left is that the situation is dramatic and requires emergency action. For the majority on the Right, however, matters are exaggerated. For many conservatives, inequality is a fact of life, it serves as an incentive, it might be poorly measured and, even if it has increased over recent decades, it hides the fact that the average Spaniard lives much better today than three decades ago.

Luckily, Julio Carabaña, in his book “*Ricos y Pobres*” (Rich and Poor 2016), rigorously deconstructs some of the myths around Spanish inequality. He starts with two bold statements: “*Although it might seem incredible, the years between 2008 and 2013 have seen the highest living standards in history, not only in the whole world, also in Spain.*” In fact, “*today, there are fewer poor and more rich than in 1993*” when the previous economic cycle started.

If one looks at the rollercoaster of the past decades, Carabaña shows that Spain has roughly the same inequality now as in 1993: a Gini coefficient of disposable income of around 0.34. In comparative perspective then, Spain’s inequality got closer to the EU-15 average at the peak of its real estate bubble in

2006–2007, but fell back again in the aftermath of the crisis. This is bad, but not catastrophic.

As is well known, the crisis hit Spain hard, and the pain has been unevenly distributed. It is not so much that the rich have become richer, the tragedy is that the poor have become far poorer. In constant 2013 euros, the average income for the very poor fell from €1,443 in 1993 to €729 in 2012, with even negative incomes between 2007 and 2009. This is also reflected in the distribution of overall income. In 1994, the poorest 20 percent of the population received 7 percent of the income; in 2013, this share was just 5.9 percent.

This situation is somewhat ameliorated by home ownership. In fact, when it comes to wealth, Spain is quite egalitarian. The average Spaniard has more wealth than French, Italian, and German equivalents. However, this is the average. As a recent study by the Fundación Alternativas shows, here, too, the poor have been hardest hit. From 2002 to 2011, the average wealth of the top 10 percent of the population rose from €322,570 to €533,809, the average wealth of the lower 50 percent of the population climbed from €96,300 to €154,947. However, the lowest 10 percent stayed stagnant with only €3,000 of net wealth over the entire period.

Thus, even when the Spanish economy does well, the poor do not profit from it, which debunks the belief – especially widespread among conservatives – that to reduce poverty the economy just needs to grow. The fact is that, despite the recovery, Spain has – at 28 percent – one of the highest rates of population at risk of poverty in the EU, according to 2016 Eurostat figures.

The demographic group that is most vulnerable is the young, many of them trapped in a vicious cycle. Some 19 percent of young people in Spain do not have a high school degree or equivalent (the EU average is 11 percent). Moreover, nearly 40 percent of school dropouts have parents without a secondary school degree. Social mobility is, therefore, highly undermined, especially in regions like Extremadura and Andalucía. Matters are particularly bad for the self-employed (specifically women) and immigrants, who constitute roughly one third of all Spanish poor and lack representation and voice.

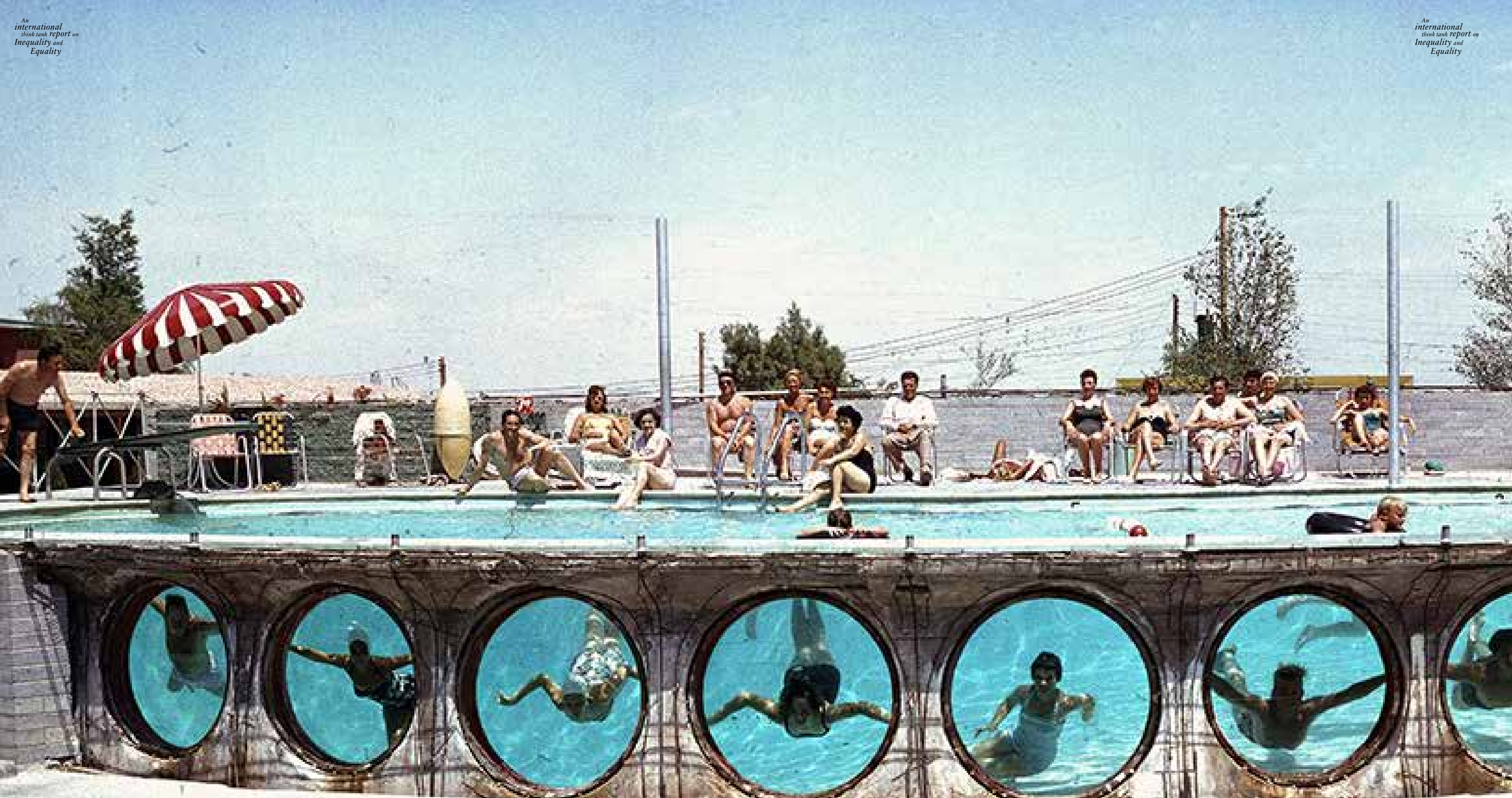
On the other side, the demographic group that is least affected by poverty, and has even increased its income since the crisis, are pensioners. In the past decade, there have been great efforts to protect them from the worst of the crisis. There are two reasons: because society has identified them, and rightly so, as vulnerable; and also because they have formed the electoral base of the traditional parties.

Now, however, efforts must be focused on the poor, especially the young and children. The current PSOE Government has appointed a High Commissioner to tackle this issue and the hope is that

he will gain the support of the other parties. Here the ideologically charged question should not be whether the appropriate policy response is to channel public funds to increasing the income of the poor or to improving the school system. Both are needed.

Poor kids need to be better protected through income maintenance schemes and stimulated outside school to learn better. And they will only learn better if their teachers are better paid and motivated. Changes are needed beyond traditional schooling. The recent introduction of the dual vocational system should be encouraged. Ultimately, Carabaña sums it up. To reduce poverty in Spain to the EU average, there needs to be a distribution of income of roughly 2 percent. The question is who should pay this? The very rich, or all but the poor? Under the first option, inequality would be reduced substantially; under the second, not so much. But the effect on reducing poverty is similar. The key is for the poor to acquire the necessary skills to compete in the labor market.





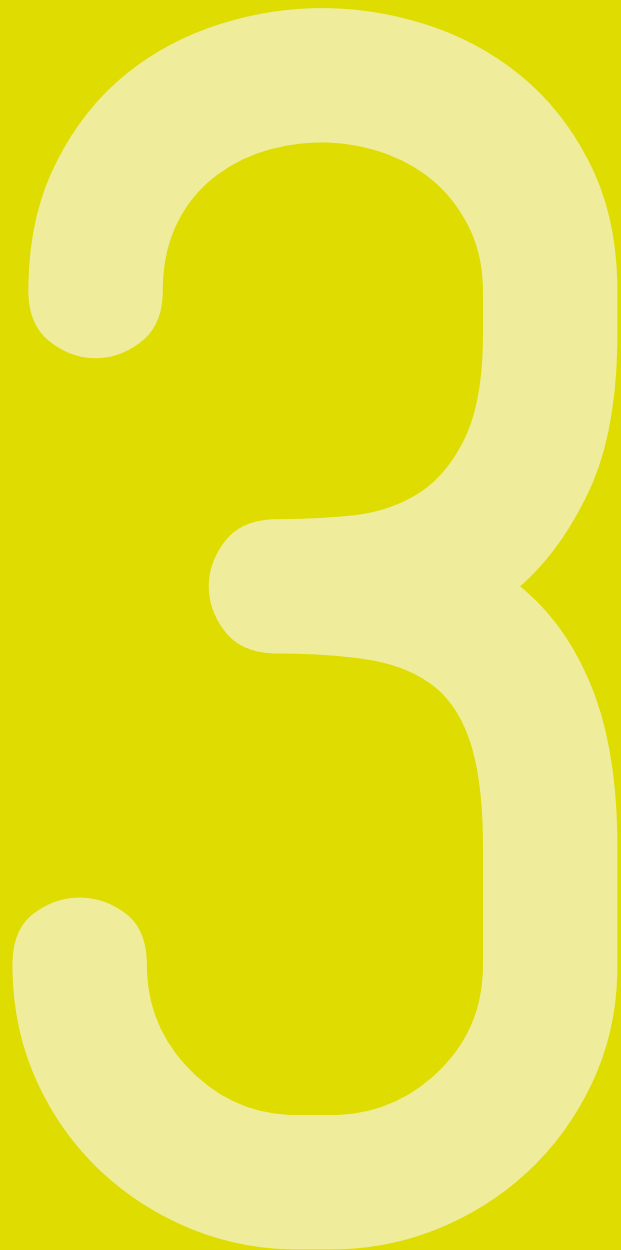
# Wealth

Wealth inequality is much discussed in politics as many people fear that the concentration of wealth leads inevitably to the concentration of power. There is also a persistent fascination for the super-rich. Studies like the “Global Wealth Report” or life stories such as Jack Ma’s ascent from an English teacher in 1999 to the owner of Alibaba and one of the wealthiest Chinese certainly arouse interest. From a narrower economic perspective, wealth allows households to smoothen their consumption over time, provides access to credit and gives the security to handle sudden changes in income caused by unemployment or an illness.

This chapter addresses wealth inequality in three ways. Hanno Lorenz from the Austrian think tank Agenda Austria looks at the topic from a global perspective. He questions the findings of one of the most prominent studies on wealth inequality, the Oxfam report. As he argues, misleading data is used for setting a political agenda rather than to inform the debate.

The next contribution in this part, by co-editor Natanuel Rother, refutes the myth of Switzerland as a country with one of the world’s highest levels of wealth inequality. He estimates that public statistics cover just half of actual household wealth. The most significant underreported assets are pensions claims and housing.

Jennifer Anthamatten from Avenir Suisse lastly explores the impact of monetary policy on wealth inequality and the difficulty of finding clear empirical evidence. She argues, that a central bank should in general focus on price stability – and leave distributional effects to fiscal and social policies.



*Oxfam is known for its annual report on global wealth. The analysis is biased and has methodological weaknesses. It is misleading to blame globalization for the world's problems: Because of globalization, the share of people living in poverty has shrunk from 44 percent (1981) to under 10 percent (2015).*

## 3.1

# Wrong Narratives about Wealth Inequality

Hanno Lorenz, Agenda Austria, Vienna

### Doom and gloom in Oxford

It has become something of an annual ritual: end of January is Oxfam time. Then the UK based NGO usually claims that a handful of individuals own as much as the poorest half of the global population. The storyline is straightforward: global wealth has become ever more concentrated among the few, while millions remain poor, and worldwide intervention is demanded – such as taxing the rich and restricting business.

Oxfam ascribes western society and its economic system the blame for almost all the world's ills. Its universe is divided into haves and have-nots. The story is politically charged. In 2019, we are heading for an uncontrolled Brexit and President Trump's trade policy and rhetoric remind us of darker mercantilist times. For those in Europe who have not experienced the Cold War, these must be the most chaotic times in memory.

### A good story remains fiction if it ignores reality

Such ubiquitous bad news prompts nostalgia. Surveys show today's public has a very distorted picture of history. As Hans Rosling (2018) notes in his book "Factfulness", there is an overdramatized view of the present, with an overestimation of poverty and underestimation of progress. So, let us focus on the facts:

Since the end of the Cold War, more people have escaped poverty than the combined populations of the United States and Europe. Approximately 1.2 billion people raised their living standards above

the absolute poverty threshold. Globally, incomes are less unequally distributed than decades ago. Education has improved, as has health. Life has become better, not worse.

In spite of these spectacular improvements, according to a global survey, only two in 10 believe poverty has decreased. In Germany, the corresponding figure is only one in 10 (Ipsos 2017). In the United States, two thirds<sup>27</sup> believe poverty is on the rise. Oxfam know, matters are not really so bad. Its denial of global progress seems surprising. But bad news sells better than good news.

### Why this era is a success story

On a longer run, the improvements are even more spectacular. Since 1950, India's per-capita GDP has quintupled. The per-capita GDP of Japan is 11 times higher, that of China 20 times greater than only 70 years ago (Norberg 2016).

27 See Barna (2014).



3/1 Table

Success stories of the new millennia

	% Change
Extreme poverty (1999–2015)	-67 %
Drinkable Water (1999–2015)	+11 %
Malnutrition (1999–2015)	-29 %
Illiteracy (1999–2014)	-19 %
Sanitation facilities (1999–2015)	+16 %
Income inequality (1999–2015)	-3 %
Infant mortality (1999–2015)	-46 %
Life expectancy (1999–2015)	+8 %
Electricity (1999–2014)	+10 %
Wealth Concentration Top 1 % (2001–2017)	+13 %

Source: World Bank, Ourworldindata.org, Credit Suisse (2018), World Inequality Database

People are living longer and more healthily today. Never before have more people received basic education or access to drinking water, electricity and sanitation. Malnutrition has plunged, as has infant mortality (see table 3/1). And, according to the world poverty clock, one person a second is leaving extreme poverty. Even though the world’s population is rising, those living in poverty are not: their number has declined from 44 percent of the total in 1981 to 10 percent in 2015. The World Bank definition of poverty is \$1.90 in daily income (in 2011 PPPs). However, the positive trend is not restricted to extreme poverty. Even the numbers of living on less than \$5.50 per day have dropped substantially during the past 15 years (see figure 3/1).

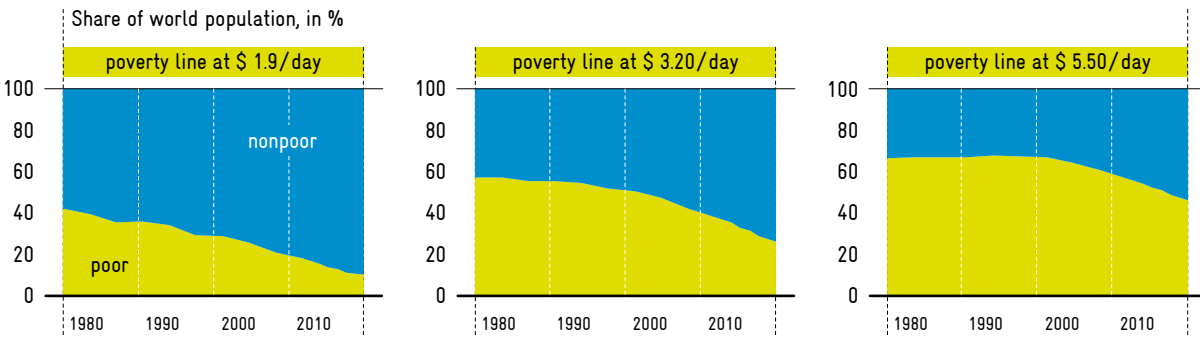
Angus Deaton, an expert on poverty research, argues progress is due to “capitalism, globalization and the spread of markets. It is no failure but one of the biggest success stories in human history. The world is doing better these days than it has ever done” (NZZ 2016).

The global distribution of income has also become more equal – thanks to high growth rates in less developed countries catching up with industrialized countries.

3/1

Global poverty in decline

Worldwide poverty is decreasing rapidly. Not only measured as extreme poverty (\$1.90/day) but also the numbers for higher definitions of poverty have dropped substantially.



Source: World Bank

## Against the trend – last resort “wealth distribution”

The have and have-not portrayal does not convey the complexity of the evolution of global wealth and poverty, providing instead a superficial analysis at best and ignoring the fact that society in general is doing better than ever before.

Oxfam, for example, uses net wealth – i.e. the value of total wealth minus debt. This figure, however, is insufficient and inappropriate for accurate conclusions about living standards. In the United States, for instance, university graduates are obliged to pay back their student loans over many years and thus have more debt than wealth – despite their substantial monthly incomes, high standards of living and good prospects. Are they poor?

More problematically, developed countries provide much more information about incomes. However, data on wealth are scarce. And data are even less available and comparable in lesser and the least developed countries. A concise and serious comparison based on available data is impossible.

Ignoring the drawbacks of data availability leads to some odd conclusions. Consider the role of debt. Overall, the poorest 10 percent of the world population own nothing or less than nothing (Credit Suisse 2018). These 500 million adults have got more debt than wealth, amounting to more than \$1 trillion. The poorest 40 percent are indebted to the tune of

more than \$300 billion. On Oxfam’s definition of poverty, a person owning nothing, but without being indebted, would be richer than these 2 billion adults. Or, to put it differently: if debt or wealth alone are decisive in assessing rich versus poor, then a major part of the US or European population would be by far poorer than a major part of the Chinese rural population, which owns no assets, but also has no debts.

For example: the wealthiest person of the poorest 10 percent owns assets of about \$50. Having a fortune of just \$4,209 would make you a part of the upper 50 percent of the world population.

According to Credit Suisse (2018), the average wealth of an Austrian in 2017 was \$230,000. Thus, the average Austrian is part of the richest 5 percent of the world population. An Austrian earning €2,268 per month, who saves two months of salary, is wealthier than 50 percent of the world population (see figure 3/2).

To create wealth, people need a good environment. Can they rely on their national institutions? Are property rights guaranteed? Is there enough income to save? In some parts of Europe, another question would be: is saving important at all, if education, medical costs, unemployment compensations and pensions are guaranteed by the state? Europeans enjoy a higher standard of living today, rather than saving and building wealth for tomorrow.

### 3/2

#### Richer than half of the world’s population?

*The average gross income is € 2,268 (in 2016). After transfers and taxes the salary for two months is € 3,571. To reach the upper half of the world’s population, a net wealth of € 3,200 is necessary.*



Source: Global Wealth Databook (2017)

row. Hence, some Europeans are counted among the world's poorest 10 percent, although their living conditions can by no means be compared to those of Africa's or Asia's poorest, and they derive significant prosperity, if not net wealth, from their institutions.

Oxfam uses data over time periods, implying the world is both unfair and regressing. But for a comparison over time, exchange rates play a crucial role. At constant exchange rates, wealth in Africa would have risen by 55 percent between 2010 and 2017. Adjust for dollar appreciation, however, and you get a decline of 8 percent. South America is similar: without exchange rate fluctuations, wealth would have risen by 70 percent. But in reality, the increase was only 1 percent. Taking account of exchange rates shows how little a static comparison of wealth says about true living conditions.

Oxfam also ignores the individuality of living conditions. Having €100,000 will not buy an apartment in Manhattan, but it is a huge amount elsewhere. So, using a static value of wealth for a global comparison gives absolutely no valid information about purchasing power.

### **Are technologies the last straw for the poor?**

Oxfam is bound to report shocking new data, as many equity and capital markets have hit records over the past year, making the rich even richer. Apple and Amazon have topped the \$1 trillion mark in market capitalization. A decade ago, very few tech companies were among the world's most valuable. Today, six high tech groups are in the topmost category, compared with just one in 2006. Digitization has contributed hugely to wealth accretion by the likes of Bill Gates, Larry Page, Sergey Brin,

Jeff Bezos and the others. The proportion of high-tech billionaires in the Top 100 has doubled since 2010. But they have developed services to make life easier and better for many people around the world.

A modern smartphone combines the features of a computer, phone, hard drive, video camera, and sound system. Additionally, many services are provided gratis by Facebook, Google and Co. The Massachusetts Institute of Technology reckons that, while free, these services produce a significant individual value of several thousand dollars per user each year (Brynjolfsson et al. 2018).

### **Why we should not be satisfied**

There are indeed problems regarding wealth distribution globally and regionally. But that does not imply the world is becoming more unequal or that fewer people can make ends meet. The share of people who live in poverty dropped from 44 percent in 1981 to less than 10 percent in 2015 – largely thanks to globalization. So, it is wrong to demonize globalization, considering it has created the basic requirements for the rise of developing and emerging countries and liberated many from poverty.

### **So, what is next?**

Unfortunately, there is no simple solution. The reasons why many Austrians rent a house instead of buying are very different from those why a family in Kenya cannot manage to accumulate wealth. The lack of legal institutions and property rights, combined with corruption, prevents many developing country populations from sustainably improving their living conditions. Many of Oxfam's claims ignore this fact and call instead for more state control and less economic freedom. In several less developed countries, poverty and inequality are a direct cause of states being too dominant and privileging some individuals while depriving the broader population. Venezuela is a case in point.

In developed countries, such factors play a minor role. Taxation of up to 50 percent of total labor cost to finance extensive welfare systems limits sav-

ings significantly. Furthermore, the welfare state reduces incentives to accumulate savings, as the social system insures for risks like unemployment and income loss after retirement. Most of average Austrians' wealth lies in their claims on the public pension system. Taxing the rich is a popular slogan. But it might not diminish wealth inequality.

Instead of making people dependent of state benefits, governments should focus on easing the accumulation of wealth for a broader set of citizens. Building up wealth needs an adequate environment, i.e. a system in which property rights and personal freedoms are respected, and where commitment and willingness to perform are rewarded. Employing others should be made easier and less bureaucratic.

Admittedly, not everything can be blamed on politics. In Austria, most people still rely on bank savings to save and invest. Current ultralow European interest rates mean money in savings accounts actually loses value over time. To enable the population to accumulate wealth, such as housing, the government should improve purchasing power by reducing taxes or making employment easier. Policies that give people access to company shares and profit-sharing are a much more sustainable way to increase wealth. Shares, in the long run, offer far better returns than bank savings.

Education is a further cornerstone of a sustainable economic system. If people are to improve their incomes and outcomes, they need a supportive environment that meets everybody's skills and talents individually. Vice versa, a system solely focusing on reducing the wealth of part of the population to redistribute this capital will not lead to the land of plenty, but to the cruel opposite.

Comprehensive data about wealth distribution is sparse in Switzerland. Still, it is evident that taking into account Switzerland's pension system reduces the reported disparities to a considerable extent.

## 3.2 The Impact of Pensions on Wealth Distribution: the Swiss Case

Natanael Rother, co-editor, Zurich

While Switzerland is known for its egalitarian income distribution (see chapters 2.2 and 4.1), it is often said to have a high level of wealth inequality. For example, in the Credit Suisse Wealth Report 2018, the country has a Gini coefficient of 74 out of a maximum of 100.<sup>-28</sup> Even if other OECD countries have higher measures, this might still be interpreted as relatively pronounced inequality as numbers are higher than for example in Angola or Zimbabwe. However, the image of high Swiss wealth inequality does not withstand a more detailed analysis. First, as explained in chapter 2.1, using net wealth for international comparison produces an inaccurate picture. Second, and more important, public statistics do not cover relevant aspects of different parts of the Swiss wealth portfolio. As earli-

er work by Avenir Suisse has shown, only around half of the actual wealth assets are included in official statistics. In particular, data with regard to pensions claims and properties are missing in the statistics (Schellenbauer et al. 2013).

In general, comprehensive data for wealth is sparse for Switzerland. Figure 3/3 is based on work by Föllmi and Martinez (2017), of the University of St. Gallen.<sup>-29</sup> They show the share of total wealth

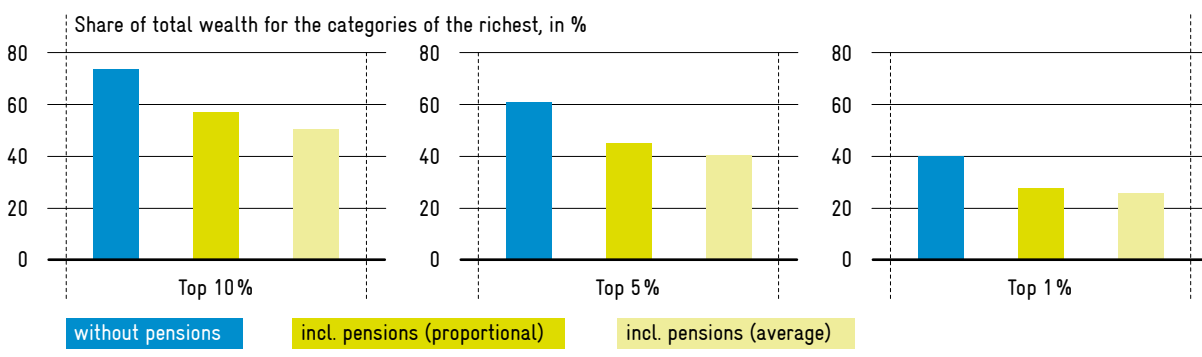
28 The Gini coefficient is one of the most common measures of inequality. It can range between zero and hundred. Higher values mean higher inequality.

29 To include pension wealth, two data sources have been used: data before, based on the Federal Pension Fund Statistics. Data since 1999 are based on the SNB, Swiss Financial Account. For further details and literature, see Föllmi and Martinez 2017.

### 3/3

#### Equalizing pensions

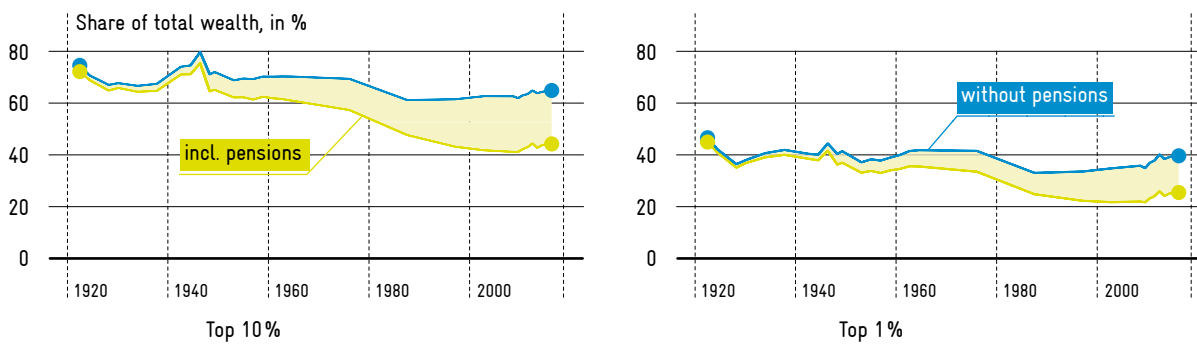
The figure illustrates two model calculations of how wealth is divided once pensions are included compared to the wealth inequality without pensions.



Source: Föllmi and Martinez (2017). Data for 2011.

## Wealth inequality decreasing in the longer term

Over time, wealth inequality measured as the share of the top 10 percent and the share of the top 1 percent on total wealth has declined. The differences between measures with and without pensions have increased. In the last couple of years, inequality has risen slightly.



Source: Föllmi and Martinez (2017)

for three categories of the richest people. Without including pensions, wealth is highly concentrated, with nearly three-quarters of total wealth owned by the top 10 percent, and 40 percent by the top 1 percent (blue bars).

Including a measure of pension, wealth however noticeably reduces disparities. The first approach (green bars) assumes pension wealth is equally distributed across households. The second approach (dark green bars) is based on a more conservative method.<sup>-30</sup> In both cases, the share of the top 10 percent is reduced, from nearly 75 percent to 50 percent, based on the first approach. The effect is even more pronounced for other wealth categories.

Föllmi and Martinez (2017) also provide historical data on the estimated wealth distribution. Between the start of the database in 1913 and the latest available year (2011), even without accounting for pensions, the share of total wealth belonging to the wealthiest has declined (see figure 3/4).

The inclusion of pension wealth reinforces this trend. The effect became more pronounced from the 1980s onwards, as private pension schemes (“second pillar”) became mandatory for the great majority of workers.

New research by Ursina Kuhn (FORS/University of Neuchâtel) confirms the moderating impact

of pension wealth on wealth inequality. She estimates a Gini coefficient of private wealth (including pension entitlements of the first and second pillar) of 56.<sup>-31</sup> This conforms with results established for other countries (Frick and Grabka 2013). Wealth inequality in Switzerland is for example similar to Germany (Bönke et al. 2016). In that sense, Switzerland stands as an example of how official data may be used in a misleading way to derive conclusions about wealth inequality. Especially in countries like Switzerland, where the mandatory private pension system is well-developed and sophisticated, it is strongly recommended to include the corresponding data in the wealth statistics.

30 In this approach, it was assumed that each top wealth group has the share of total pension wealth that the same top group has in total labor income (Föllmi and Martinez 2017).

31 See Kuhn (2018).

*The theoretical and empirical evidence of the distributional effects of monetary policy is mixed. A central bank should in general focus on price stability – and leave distributional effects to fiscal and social policies.*

## 3.3 *Inequality and Monetary Policy*

Jennifer Anthamatten, Avenir Suisse, Zurich

The expansionary monetary policy stance triggered by the global financial crisis helped in moderating the economic downturn in many economies. While central banks fulfilled their mission of achieving financial and economic stability, the discussion about the distributional consequences of their unconventional actions blurs this achievement. This contribution discusses the relationship between both conventional and unconventional monetary policy and inequality. It also calls to mind that the core objective of central banks is to ensure economic stability rather than a certain level of equality.

### **Criticism of unconventional monetary policy**

Central banks took on a very dominant role in moderating the negative consequences of the global financial crisis. Due to the full exploitation of their conventional instrument (the interest rate), they had to deploy unconventional tools, which materialized in large asset purchasing programs. While these unconventional measures were essential in moderating the recession, they are heavily criticized for stimulating higher wealth inequality. In particular, the increase of asset prices resulting from the asset purchasing programs prompted the argument that upper-class households benefited overproportionately from unconventional monetary policy. However, this asset price channel is only one possible way in which monetary policy affects income or wealth distribution.

This extraordinary period of unconventional monetary policy apart, it should be emphasized

that conventional monetary policy has different implications on inequality as well. Public awareness about the impact of conventional monetary policy on inequality, however, is limited. This article sheds light on both conventional and unconventional policies and discusses the different channels through which monetary policy affects income and wealth distribution. Since long-term neutrality of money is likely to hold, however, most of the effects only have a short- to mid-term duration. According to the theoretical literature, existing channels impact both the financial as well as the non-financial economy, the latter being commonly referred to as real economy, i.e. the general macroeconomic situation.

### **The financial economy and the wealth distribution**

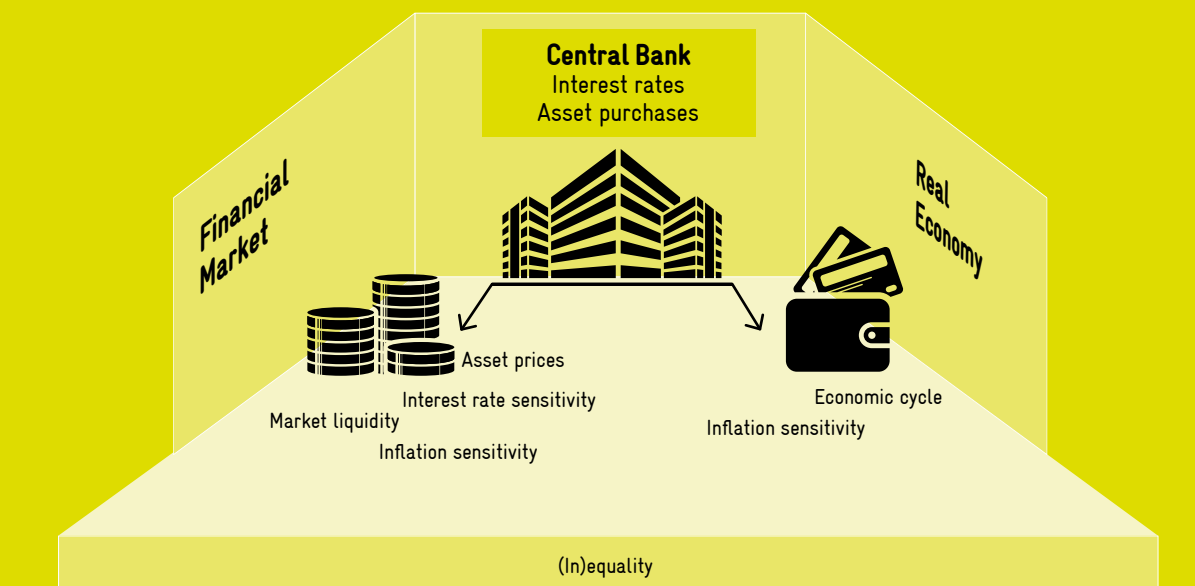
With respect to the financial market, monetary policy predominantly affects wealth inequality. There are four main channels (see figure 3/5).

01\_ First, the asset price channel was mainly criticized with respect to the unconventional monetary policies, i.e. large-scale asset purchasing. Nevertheless, it may also result from conventional monetary policy, i.e. interest rate adjustments. The additional money channeled through the market is said to have inflated asset prices, not only those of the purchased assets, but of all asset types. Hence, wealth inequality may increase, because wealthier households generally hold more assets and, therefore, will benefit overproportionately. However, the im-



## Mechanisms through which monetary policy affects inequality

Central banks usually monitor the interest rate to achieve their core objective (conventional monetary policy). In recent years, asset purchases became another relevant instrument (unconventional monetary policy). Both instruments may impact inequality, either through the financial market, the real economy or both.



Source: Avenir Suisse

impact on asset prices will likely average out over time (Claeys et al. 2015).

- 02\_ The second channel concerns interest rates. Conventional, expansionary monetary policy is associated with lower interest rates. Such lower rates reduce the financial revenues of savers and benefit borrowers, implying a redistribution from savers to borrowers. Depending on how savers and borrowers are distributed across the economy, the implications for inequality will be different. Middle-aged, middle-class households are often net borrowers because of nominally denominated fixed-rate mortgages, whereas upper-class households more often belong to the group of net savers (Amaral 2017). In this case, expansionary monetary policy would lower wealth inequality, constituting a countervailing effect to the asset price channel.
- 03\_ The same argument applies for the third channel – inflation: unexpected inflation caused by

conventional, expansionary monetary policy, benefits households with mortgage, or other nominally denominated debt, because it directly lowers their debt repayments (Adam and Zhu 2015). At the same time, however, lower-class households are more prone to the inflation “tax,” because they proportionally also hold more liquid assets, i.e. cash (Amaral 2017). Generally, it is likely that the inflation channel is negligible for low-inflation countries (O’Farrell et al. 2016).

- 04\_ The fourth channel involves improved market functioning and higher market liquidity resulting from increased money supply. It results in



a lower liquidity premium<sup>32</sup>, benefiting those who have better access to, and are more active on, financial markets. These are, presumably, mostly upper-class households (Claeys et al. 2015). Additionally, economic agents with better access to financial markets benefit more directly from increases in money supply, because prices in financial markets adapt quicker and overshoot in the short-run, whereas prices in non-financial markets, e.g. the goods market, only adapt over time (Williamson 2008).

Monetary policy not only impacts inequality across different types of households, but also across generations. For example, lower interest rates reduce the expected returns on assets for those who are buying them in the future at a higher price, and, therefore, mainly hurts the younger generation of upper-class households (Claeys et al. 2015; and Adam and Zhu 2015). Taking a long-term view, short-term distributional effects between different types of households may not only offset due to long-term neutrality of money but also due to intergenerational effects. Overall, the theoretical literature is ambiguous with respect to the impact of monetary policy on wealth inequality.

### **The non-financial economy and the income distribution**

In the so-called real economy, monetary policy affects inequality through variables such as GDP, employment, or wages. Whereas the financial economy mainly concerns wealth distribution, the effects of monetary policy on the non-financial economy predominantly affect income distribution. The most important channel is the stabilization of the

economic cycle. Lower-class households are more sensitive to economic cycles, because they depend much more on wages as primary source of income and they are more likely to lose their jobs during a downturn. Hence, by smoothing economic cycles, central banks limit cyclical volatility and a stabilizing impact on income inequality (Colciago et al. 2016). Another channel concerns the increase in inflation, which usually accompanies conventional, expansionary monetary policy (although not in recent years). Unexpected inflation may decrease real income, which mainly affects lower-class households depending more heavily on wages (Colciago et al. 2018). At the same time, this decrease in real income may counteract the probability of unemployment. Again, it is likely that the inflation channel is negligible for low-inflation countries (O'Farrell et al. 2016). To sum up, whereas smoother economic cycles may reduce income inequality, the impact of higher inflation could increase them. Thus, the theoretical literature does not support a distinct relationship between monetary policy and income inequality.

32 The liquidity premium is a component of an asset price. It compensates, if an asset cannot easily be converted into cash. Hence, illiquid assets have a high liquidity premium.

### Theoretical and empirical ambiguity

The ambiguity of the theoretical channels makes it difficult to draw a distinct conclusion about the theoretical impact of monetary policy on inequality. Looking at empirical evidence reveals the same limitations. The results are ambiguous and characterized by a high uncertainty. Major challenges concern, for example, singling out monetary policy shocks and the lack of counterfactual analysis, i.e. how the story would have evolved without the expansionary monetary policy stance. Further, the effects of monetary policy may vary over time and the economic structure of the respective country, i.e. the functioning of the financial, product and labor markets, is essential (O'Farrell et al. 2016).

Many empirical studies find that conventional monetary policy reduces wealth inequality when focusing on the interest rate channel, i.e. the redistribution from savers to borrowers (Colciago et al. 2018). When focusing on unconventional monetary policy, i.e. the asset price channel, the range of assets considered is essential. If limited to equity, this channel may indeed increase wealth inequality. However, an extension of the range of assets to housing wealth may neutralize the effect, as different asset types have different distributional impacts (Colciago et al. 2018). Therefore, some studies find a negligible or even an inequality-reducing effect. While higher equity prices increase wealth inequality, higher housing prices have been shown to reduce it. Housing wealth is the most evenly distributed form of wealth and represents a large share of total assets for lower-class households. In the United Kingdom, for example, lower-class households have – proportionally – experienced a bigger increase in net wealth between 2008 and 2014 than upper-class households (Bunn et al. 2018). Further, since unconventional monetary policy decreases long-term yields, mortgage costs are lower. The debt-to-service ratio is especially high for lower-class households, hence, they overproportionately benefit from lower mortgage rates (Claeys et al. 2015). Similar ambiguities arise with respect to the real economy, i.e. the income distribution. So, it is fair to say that empirical evi-

dence regarding both unconventional and conventional monetary policy measures is mixed (Montecino and Epstein 2015; Casiraghi et al. 2018; Guerello 2018; and Cloyne et al. 2016) and depends strongly on the examined channel, but also on the economic structure of the respective country (Colciago et al. 2018).

### Central bank should stick to its role

Whereas unconventional monetary policy has been criticized for increasing wealth inequality, conventional monetary policy also affects income and wealth distribution in many different ways. The net effect is difficult to capture and the long-term neutrality of money suggests that most of the effects have only a short- to mid-term duration. In any case, central banks should be aware of their distributional impact, not only to be effective in achieving their core objectives, but also to protect their independence (Panetta 2015). However, the core objective of monetary policy remains price stability. Central banks should not include distributional results in their monetary policy decisions, or aspire to achieve given distributional outcomes. Rather, fiscal and social policies ought to do so. It is up to such policy tools to achieve the level of equality politically desired.

# *Social Mobility*





Social mobility covers the question of whether people can move up the career-ladder – either in regard to their own lifetimes (intra-generational mobility) or between one generation and another (intergenerational mobility). It can be measured either in absolute terms (whether grown-up children earn more than their parents) or in relative terms (whether they managed to climb up relative to the rest of society).

The ideal of social mobility is met when everyone gets a fair chance to succeed (or fail), regardless of socioeconomic background. Ideally, nothing but the will to succeed and talent should matter in determining one's chances of success. From an economic point of view, social mobility is a requisite for ensuring that everyone's potential is put to best use.

This chapter covers different aspects of the debate. Martin Ågerup from the Danish think tank Cepos analyzes relative income distribution in Denmark. He shows that just looking at the income distribution of one specific year misses the point. Following groups of people over a more extended period, he reveals that over lifetimes, roughly 80 percent of Danes can be expected to be among the 20 percent top earners for at least one year of their lives.

Social mobility also depends on economic growth, creating opportunities to succeed. However, as earlier research has shown, ever more jobs are not enough to foster social mobility and create opportunities for the young. In particular, the education system is an additional key factor: Young people must have a certain set of skills, in order to successfully enter the labor market and start a career of their own. Tobias Schlegel from the University of Zurich describes in chapter 3.2 how the Swiss system of dual education plays an essential role in creating the inclusive growth environment Switzerland has experienced in the past.

*When analyzing income mobility in society, it is important to look at the developments of specific cohorts over time. An analysis of income mobility of Danish citizens shows that disposable income varies considerably during lifetime and is anything but cast in stone.*

## 4.1 *The Case for Taking a Dynamic Approach to Income Inequality*

Martin Ågerup, Cepos, Copenhagen

In the public debate, it is often claimed that, over recent decades, advances in wealth have primarily – or in some cases like the United States exclusively – benefitted those who are already high earners, while those with low incomes see little or no benefits. If we examine the development of individual Danish citizens' disposable income across different periods of time, however, we see a different picture (see figure 4/1).

The figure 4/1 shows the annual growth in disposable income for the 1987–2016, 1994–2016, and 2005–2016 periods for population groups, divided into deciles according to income, in the three respective starting years.<sup>33</sup> For example, the red line shows the average rise in income for the 1987–2016 period for those who were among the 10 percent with least disposable income in 1987 (and who were still alive and resident in Denmark in 2015).

Persons with the lowest income in the start year achieve the highest growth in disposable income in all three periods when followed over time. The figure also shows that the annual rise in income among those with the lowest incomes is not lower in later periods; quite the opposite. The lowest decile in 1987 had an annual wage increase of 4.6 percent through the period 1995 to 2016 but a higher growth rate of 6.8 percent in the latter part of that period (2005–2016).

There is no tradition among researchers when analyzing income trends over time to look at trends for specific cohorts (i.e. groups of people), as is done in this analysis. Instead, results like those

in figure 4/2, are often presented. The income trends for individuals are not tracked here. Instead, the figure shows how disposable income has changed for a given income decile over the same three periods.

If income development is presented in this way, the opposite picture emerges; that is: the greatest proportional rise in income is enjoyed by the highest income deciles. This is the dominant narrative about income trends.<sup>34</sup>

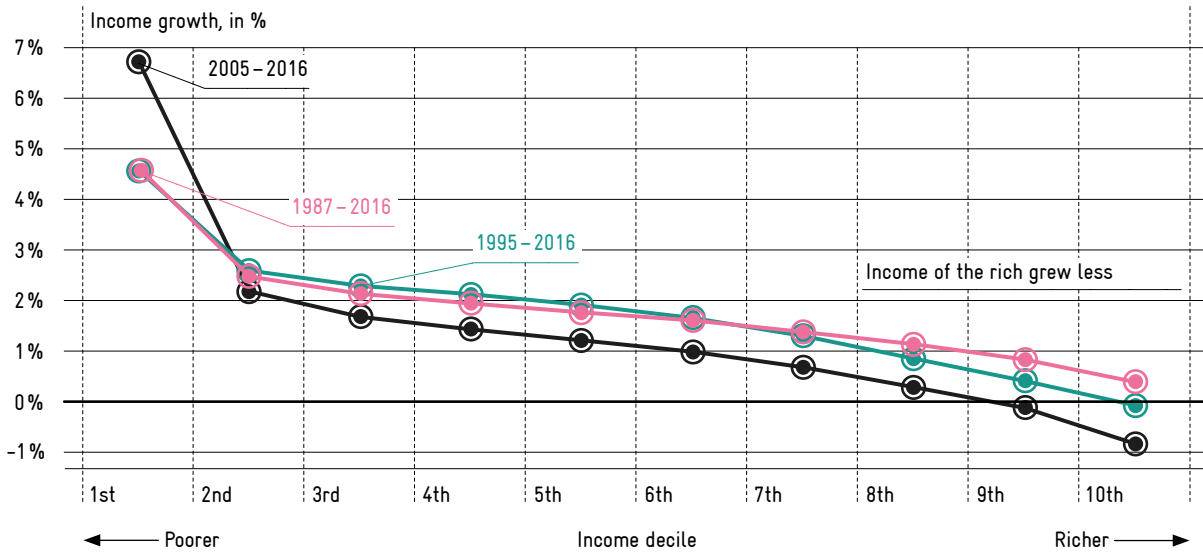
33 The reasons behind the choice of these three starting years are as follows: 1987 is the earliest year for which we have data; after 1995, inequality in Denmark began to rise; 2005 is 10 years after 1995. Selecting other starting years gives the same results.

34 In Switzerland the lowest income group had the highest increase in income between 2007 and 2015, based on survey data. See Rother (2017).

4/1

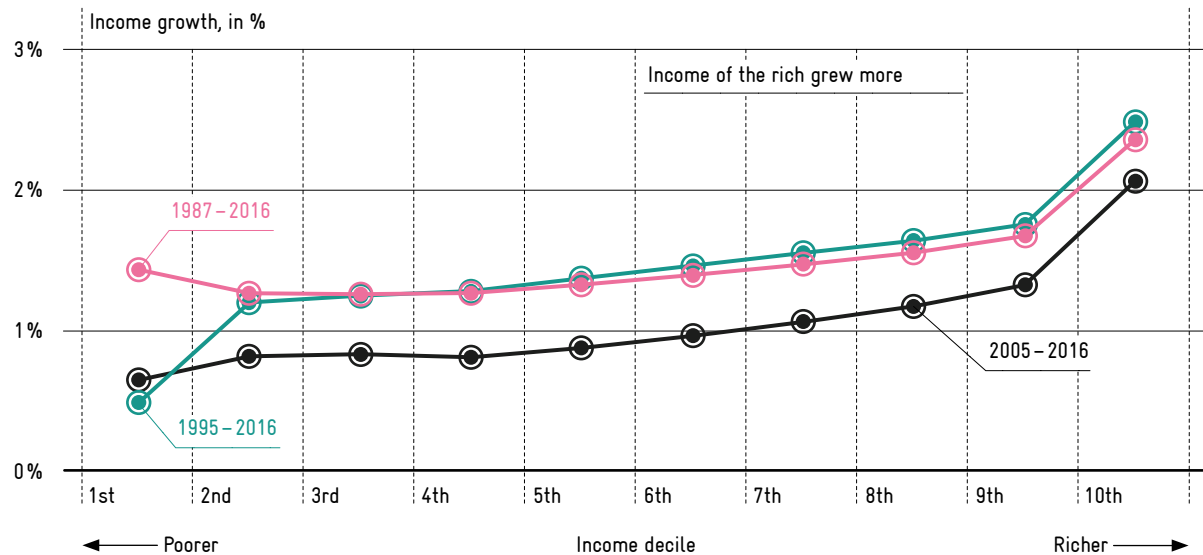
Annual growth in disposable incomes for persons in a given income decile in initial year

The two figures show the annual growth in disposable income for three different periods. The first figure does that by following people over time, the second one by comparing incomes in different parts of the distribution in different moments in time. Persons with the lowest income in the start year achieve the highest growth in disposable income in all three periods when followed over time. When not tracking individuals but just income deciles over time the results look different.



4/2

Annual percent growth in disposable income, different income deciles



Source: Cepos calculations based on Statistics Denmark's civil registry  
 Notes: Disposable incomes are equalized; i.e. a family's total income distributed equally among all family members, corrected for economies of scale.

### Which of these pictures is most accurate?

The first approach (see figure 4/1) looks at average income developments for individuals in a particular income decile in a given starting year (1987, 1995, or 2005). Those with low incomes in those three starting years had, on average, a greater rise in income compared to those with high incomes in the starting years. Many of those in the lowest income deciles are, for example, young people who are studying or who have little work experience, and, therefore, earn less. In the course of their careers, most of them will develop their skills and earn higher wages. They will thus move up through the income deciles.

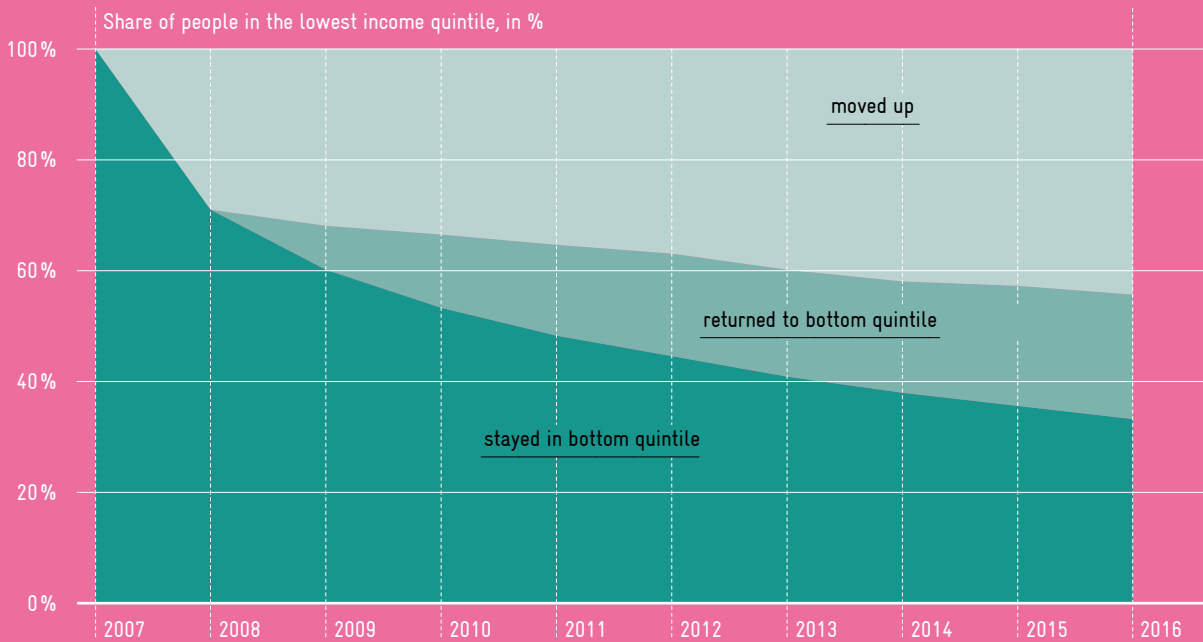
Others have low earnings because they are temporarily unemployed or receiving welfare. Fortunately, most unemployed people do not stay unemployed for long, so their disposable incomes increase. Still, others have high earnings at each of the three starting points. These are typically experienced workers. Some of them will experience a reduction in disposable income during this period, e.g. because they will retire. These people will move down through the income deciles.

The second approach (see figure 4/2) does not follow individuals' income developments, but shows how disposable income for a given income decile has changed over the three periods. It is such an approach that has led many observers to conclude that the 20 percent lowest earners are moving farther and farther away from the highest earners. This would also be the conclusion for Denmark using this approach, although to a lesser degree than in some countries.

4/3

Number of years people spend among the 20 percent lowest earners

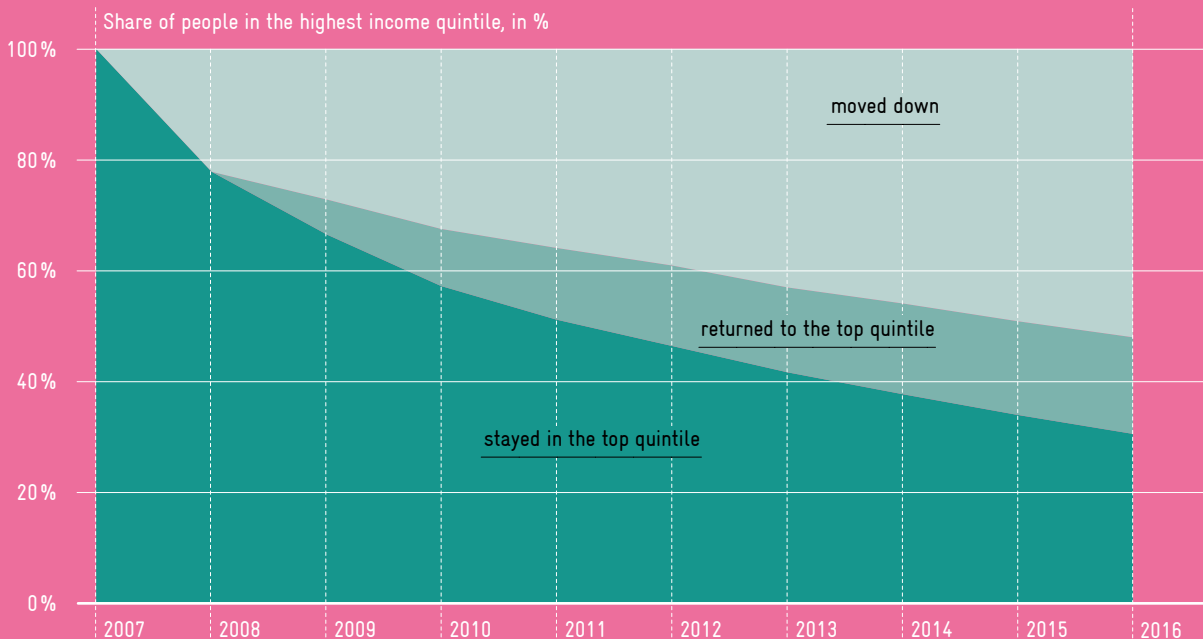
The first part of the graphic shows whether people in the lowest quintile stayed in the bottom quintile (black), moved up but returned to the bottom quintile and those who moved up.



4/4

Number of years people spend among the 20 percent with the greatest income

The second part indicates the same for the top 20 percent. The figure shows that more than 20 percent already leave this group in the second year. After five years, only about half remained in the group all five years.



Source: Cepos calculations based on Statistics Denmark's civil registry



### **Mobility in income is high**

The problem is that this says close to nothing about income developments experienced by actual individuals, since few people remain in the same bracket over many years.

This is illustrated in figures 4/3 and 4/4 on the previous page. Figure 4/3 shows how long people who were in the bottom fifth in 2007 stayed in that group, which represents the 20 percent of the population with the lowest incomes.

As shown, three out of ten have already left this group after a year. After five years, less than 50 percent had remained in this group for all five years, and in 2016 only around 30 percent had been in the group for all ten years.

Figure 4/4 shows how quickly people leave the highest income quintile; that is, the 20 percent with the greatest disposable income.

The figure shows that more than 20 percent already leave this group in the second year. After five years, only about half remained in the group all five years. An additional 15 percent have returned to this group after one or more years' absence.

It would be relevant to examine the share of the population that has been part of the 20 percent top earners at some point in their lives. But since 1987 is the first year for which we have consistent data, there is no period for which we have data that are also long enough to do proper calculations based on actual lifetime incomes.

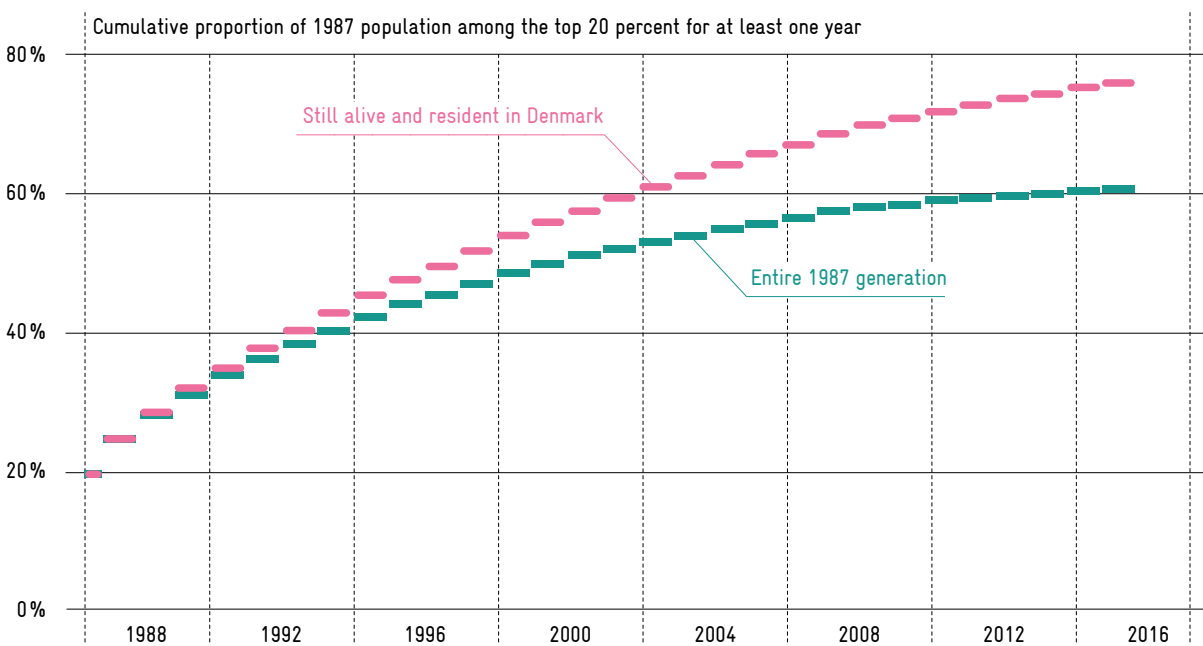
Instead, we use a calculation where we take the cumulative proportion of the 1987 population, which was among the top 20 percent of earners for at least one year. Cumulative proportion means that the proportion of people who at some point in their lives will be among the top 20 percent in terms of income is added over time as they join this category. Results are shown in figure 4/5.

In the starting year 1987, we have (obviously) exactly 20 percent among the 20 percent top earners in one or more years. The following year, 1988, 25 percent had been in the top 20 percent in either 1987 or 1988. As early as three years later, this proportion had risen to 32 percent. From this point, we obtain different results depending on methodology. If we consider those who are still alive and still resident in Denmark (the top curve in figure 4/5), the proportion of top 20 percent earners for one or more years rises to 76 percent of the population in 2016. If we instead consider the entire 1987 population (the bottom curve), the proportion of those in the top 20 percent of earners for one or more years is 62 percent by 2016.

There are arguments to be made for and against both methods. The upper curve tends to overestimate the proportion in recent years. This is due to the fact that individuals with relatively low incomes are overrepresented among those who have died or left the country, who are subsequently omitted from the calculations. Conversely, the red curve underestimates the proportion, since a number of individuals had already been in the top 20 percent before 1987 but will not rise to that position again. This includes, for example, those who retired in 1987. The correct proportion of the population that has reached the top 20 percent of earners after a given number of years is thus somewhere between these two curves – that is, between 62 percent and

4/5

Most reach the top somewhen during their career



Source: Cepos calculations based on Statistics Denmark's civil registry

76 percent for this 28-year period. Over a lifetime, this proportion will be even higher. Cepos's lifetime income model indicates that the proportion of individuals who can expect to be among the 20 percent top earners for at least one year in their lives is likely over 80 percent. <sup>-35</sup>

### Chances of low entry-level pay

If we are interested in whether people with low income have a good chance of improving their living conditions in economic terms, we ought to focus on whether or not individuals with low incomes experience a rise in their incomes as time goes by. This is largely the case for Denmark.

In a society with high income mobility, it is less interesting whether the lowest wages rise at the same rate as the highest. This is because individuals who start their careers at low wages typically receive better-paying jobs rather quickly.

With regard to the level of starting pay, different considerations conflict with one another. Low starting pay means that individuals receiving this pay have low disposable incomes and, by extension, little material wealth. This would appear to favour higher starting pay. But a labor market with high entry-level pay is, in turn, less inclusive than a labor market with low starting pay. High starting pay can make it difficult for those with few qualifications to enter the market and build their qualifications through experience, whereby their pay will increase. This is because such a labor market will have few entry level jobs suited to workers with low labor productivity.

In a society with high income mobility, it may therefore be preferable that those outside the labor market find entry level employment at low wages, and thereby through increased work experience and thus productivity gradually achieve higher pay. Higher starting pay risks leaving a greater proportion of the population unable to enter the labor market and accrue the kind of experience that leads to pay rises. Among groups that are at risk of exclusion from the labor market due to high starting pay are young people with little work experience, un-

skilled workers, certain individuals with mental illnesses, certain handicapped individuals, refugees, and immigrants.

### Focus on income trends of actual people

Using a static approach to income growth that does not follow income trends of individuals, but instead tracks the disposable income for a given income decile, shows a pattern of development in Denmark similar to that in other countries; that is – low income deciles experience a smaller increase than high deciles, especially in the most recent time period.

This suggests that a dynamic approach would give a different perspective to income trends in a number of countries, not just in Denmark. One challenge is that in some countries, data for such an analysis would probably not be available. Denmark has very good data and better opportunities for tracking individuals over time than most states.

35 Here, the starting point is a lifetime income model that generates entire "lifetimes" using statistical matches. A similar model is often used by the Ministry of Finance to calculate inequality in lifetime incomes.

Box 6:

## Income mobility in the canton of Zurich

Natanael Rother, co-editor

Detailed studies on income mobility in Switzerland are rare, mainly due to the lack of long term data. Most existing studies either stretch back only a couple of years or are based on survey data, which limit the timeframe to be analyzed. Recent research for Switzerland has shown increasing overall social mobility and decreasing educational mobility.<sup>36</sup> In the following, we summarize an analysis based on earlier work by Moser (2013), of a unique administrative dataset for the Canton of Zurich. The dataset covers all tax returns in the canton between 2006 and 2015. With a population of nearly 1.5 million, roughly one sixth of the Swiss total, the canton can be seen as a broadly representative of the country as a whole.

One way of looking at income mobility is to analyze whether taxpayers move up or down relative to the others over the years. Ideally, we would prefer to track each individual as he or she moves across income brackets over time. As higher age is usually associated with higher income, it is essential to analyze income mobility within specific age groups. This is done below for three broad age categories: 18 to 34 year olds, people from age 35 to 64 and those – mostly pensioners – between 65 and 75.

In the youngest group, scarcely more than a third did not leave the bottom 20 percent (the first quintile) of the income distribution between 2006 and 2015 (red). In other words, two thirds climbed up the income ladder. 23 percent ended up in the second quintile, about a third in the third and fourth income quintiles. 8 percent could rise from the very bottom to the top of their age group. Social mobility is also visible at the top of the distribution. If we consider the richest 20 percent (turquoise), only 52 percent of those in this group in 2006 remained to 2015.

Persistency is higher for the older two groups. But even for the 35 to 64 year olds, four out of 10 left the lowest income group after 10 years, whereas more than a third quit the top income group respectively. As would be expected, relative income mobility is rather low after retirement. Still, a third of taxpayers in the bottom quintile of the income distribution were able to move up the ladder. A quarter of those in the top 20 percent fell during the considered time frame.

Compared to earlier work by Moser (2013) with data from 2001 to 2010, social mobility in the Canton of Zurich has remained remarkably stable.



36 The study was presented by Daniele Checchi at the 2019 Avenir Suisse Think Tank Summit (Bussolo et al. 2019).

## Income mobility within generations in the Canton of Zurich

The three tables show the income mobility of three different generations between the years 2006 and 2015. A reading example from the first table: Of the 18 to 34 year olds who were in the highest income bracket in 2006 (5<sup>th</sup> quintile), 52 percent found themselves still there in 2015, 24 percent stepped down one level to the 4<sup>th</sup> quintile, 10 percent moved to the 3<sup>rd</sup> quintile in 2015, 7 percent fell down to the 2<sup>nd</sup> quintile and as much as 6 percent plunged from the highest to the lowest level (1<sup>st</sup> quintile).

Income quintiles 2015

18-34 years	<i>fifth</i>	<i>fourth</i>	<i>third</i>	<i>second</i>	<i>first</i>
<i>fifth</i>	52%	24%	10%	7%	6%
<i>fourth</i>	19%	29%	27%	17%	9%
<i>third</i>	11%	18%	24%	28%	19%
<i>second</i>	10%	16%	21%	24%	30%
<i>first</i>	8%	14%	19%	23%	36%

Income quintiles 2015

35-64 years	<i>fifth</i>	<i>fourth</i>	<i>third</i>	<i>second</i>	<i>first</i>
<i>fifth</i>	65%	20%	7%	4%	4%
<i>fourth</i>	21%	42%	21%	10%	6%
<i>third</i>	7%	24%	38%	22%	9%
<i>second</i>	3%	10%	25%	41%	21%
<i>first</i>	3%	5%	9%	23%	59%

Income quintiles 2015

65-75 years	<i>fifth</i>	<i>fourth</i>	<i>third</i>	<i>second</i>	<i>first</i>
<i>fifth</i>	74%	14%	5%	3%	3%
<i>fourth</i>	18%	56%	15%	5%	5%
<i>third</i>	3%	24%	51%	13%	8%
<i>second</i>	1%	4%	24%	54%	17%
<i>first</i>	2%	2%	5%	24%	66%



fifth income quintile > 200% of median income  
 fourth income quintile 130-200% "  
 third income quintile 80-130% "  
 second income quintile 60-80% "  
 first income quintile < 60% "



*Switzerland's dual track education system is very effective in securing social mobility as well as fostering a stable income distribution. Vocational training, therefore, remains an interesting alternative to the academic track for many young professionals.*

## 4.2 *Fostering Stable Income Distribution with the Swiss Dual Track System*

Tobias Schlegel, University of Zurich

The Swiss education system, and especially vocational education and training (VET) – a combination of training at host firms and school based learning – have attracted international interest, particularly after the financial crisis. More than 120 foreign delegations visited Switzerland between 2012 and 2016 to learn about Swiss VET (SKBF 2018). The reason for this popularity is that the strong market orientation and permeability of the VET system is associated with low youth unemployment and high labor market integration. In what follows, I will argue that the educational system, as one factor among others, also has positive implications for a stable income distribution in Switzerland.

A quick glance at the list of much discussed determinants of income inequality in developed countries identifies two broad factors: regulatory reforms and structural changes, where structural changes involve mostly globalization and technological progress. In the context of structural changes, the term “skill bias” is widely used. It implies that these trends favor skilled individuals and disadvantage low-skilled ones altering income distribution in OECD countries in the last three decades, with technological change being the main driver (OECD 2011b).

### **Technological change, labor market developments and the role of education**

This interlinkage of skills and income distribution via structural change has led to different theories of fundamental shifts in the labor market and its

skill composition. One way to explain the move towards more educated workers is the previously mentioned skill biased technological change (see Katz and Autor 1999 for a survey). The need for better skilled workers was linked by Goldin and Katz (2007) to rising inequality in the United States. They argue that higher income inequality results from an increasing mismatch of demand for, and supply of, skilled labor. Using U.S. data, they show that, in the early 20th century, human capital growth remained in step with technological change, leading to a period of decreasing income inequality. However, since the 1980s, there has been a sharp slowdown in human capital accumulation, while technology has advanced even faster. Returns to education have increased, resulting in income inequality (Goldin and Katz 2007).

A second observation linked to the technological development of past decades, and somewhat contradictory to the explained shift in employment away from low-skilled and toward high-skilled occupations, is job polarization. The idea introduced by Goos and Manning (2007) is based on data from the UK labor market. What they find is that since 1975, employment shares increased not only in high-wage occupations, but also at the lower end of the wage distribution. At the same time, employment in the middle of the distribution decreased and thus altered overall income distribution. The hypothesis to explain this pattern is that technological change has intensified the use of non-routine tasks, which are found in the upper

part of the wage distribution, in job descriptions of managers and professionals as well as in low-paid jobs, which consist of personal services as performed by, for instance, hairdressers or waiters. Evidence for job polarization has also been found in many European countries, including Germany and Austria (Goos et al. 2009).

By now, the reader might ask why an essay on inequality and the educational system in Switzerland should be concerned about findings mostly derived from Anglo-Saxon countries. The reason is twofold. First, these findings heavily shape discussion on technological change and inequality in Switzerland, independent of whether they also hold in the Swiss context (which they do not, as we will see). Second, these analyses highlight the central role of education in the context of income inequality. Unlike redistribution strategies, education is not primarily an ex-post measure to straighten out undesirable developments in income inequality, but is a key factor to avoid increasing inequality in the first place – besides expanding the pie through economic growth (Milanovic 2011). The problem is that, in the race between technology and education, technology tends to gain momentum while education is often seen as advancing at a leisurely pace. After a quick look at the development of income inequality in Switzerland, I will argue why the Swiss education system is well suited to compete in a race with technological change – and, therefore, is one important driver of a stable income distribution.

### Income inequality and technological change – the Swiss case

Switzerland was, and is, affected very differently by technological change than the Anglo-Saxon countries, and also than some OECD members, where income inequality has risen lately (OECD 2011b). Even though income inequality measured by the Gini coefficient increased slightly since 1980, there is no evidence for a fundamental shift in the Swiss income distribution (Frey and Schaltegger 2017). That is notwithstanding the fact that structural changes due to technological progress changed the labor market dramatically. In the past 20 years 350,000 broadly routine jobs disappeared. By contrast, 860,000 new jobs were created, which in net values even outperformed labor force growth and thus led to more jobs, not fewer (Bundesrat 2017). This structural change, nevertheless, demanded a great deal of flexibility from Swiss workers: 50 percent of employees no longer work in the job they initially learned (Eymann and Schweri 2015).

Furthermore, there is no evidence for job polarization in Switzerland. Between 1970 and 2010, employment growth took place predominantly in the upper part of the income distribution – with new jobs for (project) managers, doctors, teachers, engineers, computer scientists, and technicians rising fastest. At the lower end of the distribution, jobs for production employees or office assistants disappeared (Oesch and Murphy 2017). With respect to qualifications, there is no evidence for polarization either. Since 1991, the share of individuals with a secondary degree (mostly VET) in the labor force decreased, the share of individuals with a tertiary degree increased and that of low qualified individuals remained unchanged (Adler and Salvi 2017). Thus, it seems that technological change in Switzerland is indeed skills-biased. But compared to the findings in the United States, this development was not accompanied by an increasing skills mismatch, and there are no signs of growing excess demand for skilled labor (OBS EHB and Infrass 2017).

Despite these profound changes in the Swiss labor market, there were no negative effects on the



unemployment rate, labor market participation or the number of welfare recipients (Bundesrat 2017). Since 1991, Switzerland's unemployment rate has remained fairly stable, oscillating between 2.5 percent and 5 percent, while labor force participation remained constantly high. Standing at 83 percent in 2017, it was the second highest in the OECD after Iceland, and was 12 percentage points above the OECD average. These stable labor market fundamentals also contributed to the steady income distribution. The ratio between the income of the 20 percent richest households compared to the 20 percent poorest has remained unchanged since 1998 (Frey and Schaltegger 2017).

Two characteristics of the Swiss education system were (among other factors) decisive for this stable development: the labor market orientation of the education system and the expansion and improved permeability of education thanks to reforms.

### **Vocational education and training – a cornerstone of the Swiss education system**

The labor market orientation of the education system starts at the upper secondary school level. At the end of nine years of compulsory education, Swiss 15 year olds must decide whether to proceed to a baccalaureate school, preparing primarily for university, or to a VET program. In 2015, roughly two thirds of school leavers opted for a dual-track VET scheme; 28 percent for a baccalaureate school and 7 percent for a school-based VET program (SBFI 2018). The dual-track VET program is basically a combination of working three days at a host company and attending school for the remaining two days.

Both firm-based and school-based training follow a clearly defined curriculum and a national qualification procedure. The crucial point is that curricula are mainly defined by professional organizations – the umbrella federations of the host companies. This strong embedding of the real economy in education helps to produce trained workers prepared for the needs of the market and future requirements. It also favors regular tweaks matching the changing needs of the technological leaders in the industries concerned (Backes-Gellner and Rupiotta 2014; SKBF 2018). A popular example is the creation of a new apprenticeship program during the first wave of digitization in the late 1990s. Some seven job categories were combined into the newly created occupation of “polymechanic.” Other examples include the new programs for “Interactive Media Designer” and “ICT Security,” introduced in 2014 and 2018, respectively.

In short, the VET system bolsters the labor market integration of young people – new attempts like the pre-apprenticeship aim also at improving the integration of migrants via VET and the labor market – and can adapt relatively quickly to structural changes. Involving firms in designing education curricula is an efficient and sustainable way to react to structural changes and has thus also a stabilizing effect on the income distribution (Rinawi and Backes-Gellner 2015). The positive effect of labor market integration on labor market outcomes has also been shown. Using the multidimensional “Youth Labor Market Index”, Bolli et al. (2017) find evidence that the Swiss dual VET system significantly decreases unemployment, Neet (Not in Education, Employment or Training), long-term unemployment, in-



voluntary part-time, atypical working hours, and in-work-at-risk-of-poverty.

With respect to job polarization, studies in countries with a relatively strong VET system have shown that polarization is less severe thanks to the apprenticeship system. In Germany, technological change and trade exposure led to an occupational upgrading rather than a job polarization. The displacement of German routine workers “along the occupational ladder” – as opposed to the displacement into low-skilled service occupations in the United States – is associated with the strong VET system in Germany (Roy and Consoli 2018). For Denmark, Keller and Utar (2016) find that workers with VET training – especially those with an education in information technology – have a higher chance to move into a high-wage job than other workers when exposed to more international trade.

Therefore, both labor market integration and adaptability of the VET system foster a stable income distribution. In general, Switzerland is well prepared for technological change (Ammann et al. 2018), however, to keep pace, updating training curricula must advance further. One third of all VET programs include no ICT skills (Backes-Gellner 2016). This is not appropriate for contemporary labor market needs and must be changed. Another crucial point is to develop curricula with a good balance of general and specific skills (Schellenbauer and Müller-Jentsch 2017). Workers with more specific occupations have been shown to be less mobile (Eggenberger et al. 2018), however mobility will be important to adapt to new occupations in the future.

### **Educational reforms that meet the needs of technological change**

The second factor crucial for coping with technological change was an education reform in the mid-1990s. The Swiss federal government reformed the VET system by introducing a vocational baccalaureate allowing successful candidates to proceed to newly established universities of applied sciences. These tertiary institutions are equal by law, but different, to academic universities, especially in their focus on teaching and conducting applied research. With the reform, VET programs remained an interesting alternative to the academic track in times when tertiary education was on the rise. While in 1996, only 22 percent of the labor force had a tertiary level diploma, that grew to 38 percent by 2015 (Rütter 2017). Among the 30–39 year old workers, half now have a tertiary degree.

This expansion can be attributed to ever more graduates from universities of applied sciences, rather than greater numbers from academic universities. The quantitative education expansion was therefore accomplished by a diversification in educational types – with new graduates combining theoretical knowledge with practical skills – without diluting the quality of tertiary education as a whole. Positive and similar returns on education for all tertiary tracks demonstrate the value of an education expansion that really met the needs of the changing labor market (Wolter 2017).

With respect to income inequality, this shows that investment in knowledge not only pays the best interest – a quote associated with Benjamin Franklin – but is also in the best interest of a stable income distribution.

# *The Impact of Political and Social Institutions*



Links between politics and inequality are often framed in conflicting terms: Politics is the battleground for dividing a nation's economic pie, said former Nobel Prize laureate Josef Stiglitz. Others have been even more pessimistic, fearing the rich might distort democracy to their advantage. Moreover, some have tried to link inequality with disillusionment with the political system in some mature democracies.

This chapter aims to enrich the debate about the relationship between inequality and political institutions in three ways:

Judith Niehues from the German Economic Institute in Cologne takes a step back and examines the differences between perceived and actual inequality. Perception of a problem is at the heart of every political decision by individuals. In that sense, her conclusions indicating, there is almost no empirical relationship between the level of inequality in a country and the degree to which the population is worried about it, are thought-provoking.

Lukas Schmid, Christian Frey and Christoph Schaltegger from the University of Lucerne provide a case study on Swiss political institutions: They analyze the impact of direct democracy and fiscal federalism on economic inequality. They conclude that decentralization and direct democracy tend to promote a more even distribution of market incomes, thereby diminishing demand for redistribution with its unavoidable efficiency losses.

The chapter closes with an interview with Ulf Berg and Rudolf Wehrli, two entrepreneurs who have held numerous important managerial positions in Swiss enterprises. Their remarks highlight the importance of direct democracy as well as the dual track educational system, which they both deem as highly efficient.



*Many Europeans worry about inequality. Americans are much less concerned by distributional issues – although actual inequality is substantially higher. (Mis)perceptions about societal inequality can explain these differences, as well as differing support for redistributive programs.*

## 5.1 Views on Inequality and Actual Inequality: No Empirical Relationship

Judith Niehues, German Economic Institute, Cologne

The issue of poverty and social inequality is the second most worrying topic in the world, based on a July 2018 online poll on “What Worries the World” by Ipsos Public Affairs, covering 28 developed and developing countries. In fact, on average, 33 percent of working aged respondents choose poverty and social inequality from a series of different topics as one of the three most worrying in their country. Restricting the sample to developed OECD states, worries about poverty and social inequality were particularly high in Hungary and Germany. Some 57 percent of Hungarians chose this topic among the three most worrying, so did 45 percent of Germans. No topic raised greater concern in these two countries. In the United States, by contrast, only 23 percent of respondents choose distributional issues as among the most worrying. U.S. respondents appeared to be worried about different things, above all healthcare, which was prioritized by 33 percent of respondents. This may be related to the ongoing emotional debates about Obamacare.

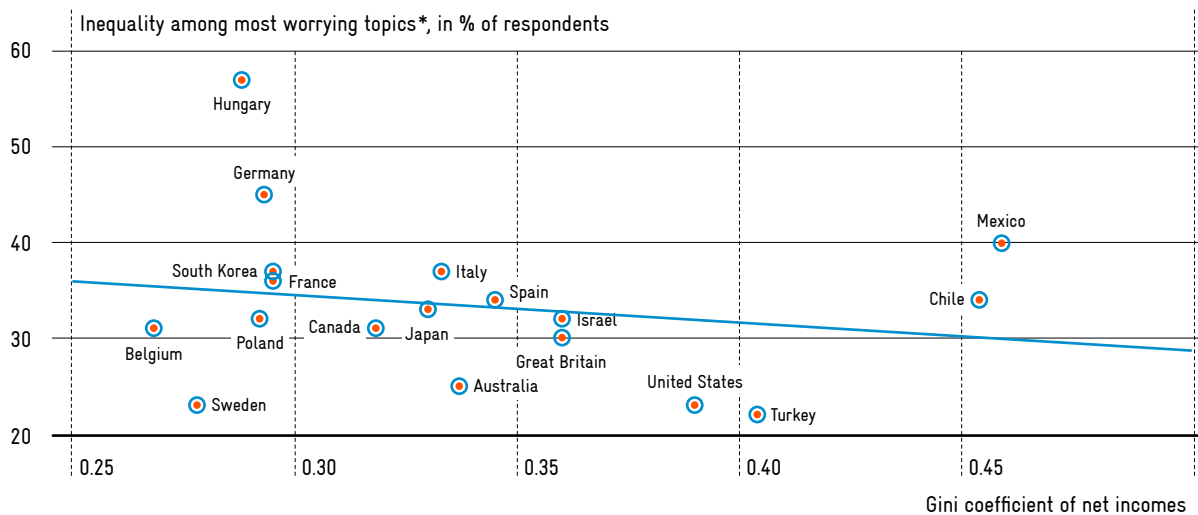
Figure 5/1 illustrates the correlation between concern about inequality and actual inequality, as measured by the Gini coefficient of net incomes as provided by the OECD Income Distribution Database.<sup>37</sup> The correlation coefficient between both measures is -0.195 and is statistically not significant. Apparently, there is almost no empirical relationship between the level of inequality within a country and the degree to which the population is worried about inequality-related issues. If one disregards Chile and Mexico, two OECD members

with comparatively low GDP per capita, the correlation coefficient becomes -0.48 and only weakly statistically significant (at a 10 percent significance level). Thus, in high-income countries, there is even rough evidence of an inverse relationship between worries about inequality and the actual level of inequality. At the extremes, Hungarians are very worried about distributional issues, although their actual level of relative poverty and social inequality is comparatively low. On the other hand, while the United States is characterized by a rather polarized distribution of incomes, the share of people worrying about this is rather small. Not all countries fit in this negative relationship. In Sweden, for example, poverty and inequality are rather low. Correspondingly, Swedes are not very worried about these topics. As the Ipsos online survey reveals, Swedes are far more concerned about crime and violence (50 percent).

37 The Gini coefficient is the most common measure of inequality. Higher measures means higher inequality.

## Worries about inequality and actual levels of inequality

The correlation between concerns about inequality and actual inequality is slightly negative and statistically not significant. Apparently, there is almost no relationship between inequality and the degree people are worried about it.



\*Share of respondents who find poverty and social inequality one of the most worrying topics in their country.

Source: Ipsos Public Affairs Online Panel (2018). OECD (2015, data from previous years for Hungary, Mexico, Japan, and Australia).

The Ipsos Online Panel results correspond to findings based on the 2009 Social Inequality module of the International Social Survey Programme (ISSP). Focusing on European countries, the correlation coefficient between the share of respondents viewing income differences in their country as too large and the actual level of inequality only amounts to 0.26 (Niehues 2014). When adding the United States, the correlation drops to 0.08. The finding of no evident relationship between the critical evaluation of income differences and actual levels of inequality remains robust when applying different inequality measures or measures of market income inequality before taxes and transfers.

### Inequality perceptions across countries

Adjacent to this observation is the presumption that people’s views on societal inequality might differ from official statistics. The ISSP includes an internationally comparable question on the perceived type of society, which involves some imagination

on the part of respondents about the distribution of population shares across societal classes (see figure 5/2). According to this item, 56.6 percent of respondents in Hungary perceive “the great mass of people at the bottom” of their society. Also, 54.2 percent of Germans believe the bulk of the German population lives in lower societal classes – thus viewing their society as a pyramid (Type A or Type B). Although societal structures in Germany and the United States are very different, the perceived types of society are surprisingly similar. In fact, more Americans believe they live in an ideal-typical middle class model (Type D) than Germans do. In Scandinavian countries, such as Sweden, survey respondents seem to be more realistic about their comparatively low levels of inequality. Almost 38 percent of Swedes identify their society as a “typical middle class model.”

Correlating the share of respondents viewing their society as Type A – a very pessimistic view on the societal structure – with the worries on pover-

## Perceived types of society

According to the International Social Survey Program, 40 percent of Swiss believe, Switzerland is an ideal-typical middle class model (Type D). In Germany, only 19 percent think that way.

Which type describes your country best?



Do you strongly agree that income differences in your country are too large?

Germany	Hungary	Sweden	Switzerland	United States
52%	78%	32%	39%	29%

Source: A truncated table from Niehues (2014), based on ISSP 2009. Engelhardt and Wagener (2017).

ty and social inequality from figure 1, the correlation coefficient equals 0.53 and is statistically significant (at a 5 percent significance level). The same holds if the perceived type of society is cross-nationally correlated with the critical view on income differences derived from the ISSP. In fact, the aggregated view on perceived inequality can explain up to two thirds of the cross-country differences in critical views on income differences, and 56 percent of the variation in redistributive preferences (Niehues 2014). Gimpelson and Treisman corroborate the results on the basis of a broader country sample and conclude that “perceived inequality – not the actual level – correlates strongly with demand for redistribution and reported conflict between rich and poor” (2017, p. 27).

Unfortunately, the specific ISSP module on Social Inequality is only surveyed every 10 years, meaning the latest internationally comparable data are available for the year 2009. However, results on the perceived type of society in Germany for different years suggest that inequality assessments remain very similar over time. For instance, a similar 56.6 percent of German respondents in an online survey, in February 2015, assumed their society resembled either Type A or Type B (Engelhardt and Wagnier 2017).

### **Possible determinants of perceived inequality**

Against the thesis of broad misperception of inequality, one might object that it is not the income distribution, but rather the distribution of wealth, that drives people’s perception of their type of society. Yet, when correlating aggregated views on

the type of society with the concentration of wealth in the respective country, the correlation tends to be negative (Niehues 2016). For example, wealth is distributed extremely unequally in the United States, but views on the structure of society are rather positive and worries on distributional issues low. Scandinavian countries, such as Sweden, are also characterized by a high concentration of wealth. Yet, Swedes have a rather egalitarian view of their society, which is in line with their income-related distributional measures. Many eastern European countries, such as Hungary, are characterized by a comparatively more equal distribution of wealth (and equal distribution of incomes). Yet, residents have a very pessimistic view about the structure of their society. Thus, the correlations with the concentration of wealth further support the hypothesis that aggregate levels of perceived inequality are not driven by actual distributional outcomes.

Further analyses show that the tendency to overestimate inequality is adversely related to absolute levels of living standards across countries. When plotting a purchasing power adjusted Hungarian income distribution against the average living standard of the European Union (EU), the resulting shape of the distribution matches the perceived type of society surprisingly well. Many Hungarians who are not relatively poor with respect to the national median income would be considered relatively poor with respect to a purchasing power adjusted EU-wide median income. Thus, with regard to their living standard, they would, in fact, belong to lower societal groups when considering the EU as one supranational entity (Niehues 2018).



For Germany specifically, it is also possible to relate media coverage of inequality-related issues to perceptions of social justice. By combining the amount of media coverage on inequality with randomly distributed interview dates in the German Socio-economic Panel (SOEP), it emerges that Germans tend to be significantly less satisfied with the degree of social fairness in society after days of high media coverage of inequality-related issues (Diermeier et al. 2017). Although these findings do provide preliminary evidence of possible determinants of perceived inequality, the results by no means completely explain differences between perceived and actual inequality within countries and differences in perceptions across countries.

### **Perceived inequality and redistributive preferences**

The missing link between views on inequality and actual inequality may provide an explanation why the predictions of the well-known median voter theorem (Meltzer and Richard 1981) – which expects a positive relationship between inequality and state redistribution – only find weak empirical support. Some prominent country examples present obvious contradictions: although income inequality is high in the United States, welfare state redistribution is relatively low. Beside other cultural aspects, one contributory reason why redistributive policies only find little support could be that Americans are just not aware of the actual degree of inequality in their country – since they are on average more likely to perceive their society as a middle-class model than are many Europeans.

In Germany and Switzerland, inequality levels are significantly lower and of similar size. Still, in Switzerland, less than a third of the population thinks their society most likely resembles a pyramid (see table 1 in figure 5/2). In fact, twice as many Swiss describe their society as a “typical middle class model” than Germans do. The differing views on societal inequalities might explain why views on income differences in Germany are more critical than in Switzerland and why support for redistributive programs is higher.

So far, the cross-country differences in perceived inequality are far from being fully explained. Yet, the observed differences in the perceived type of society – which are not in any way consistently correlated with conventional measures of income or wealth distribution – might provide an explanation why debates on social inequality are recurrent political themes in Germany, for example, and why social security and anti-poverty programs are much harder to implement in the United States.



*In seeking to find determinants of income inequality, recent research has emphasized the role of political and economic institutions. Switzerland, with its unique combination of fiscal federalism and direct democracy, lends strong support to this claim.*

## 5.2

# *Inequality and Institutions: The Case of Switzerland*

Christian Frey, Christoph A. Schaltegger and Lukas A. Schmid, University of Lucerne

### **Income inequality in Switzerland: unusual patterns**

Inequality in market incomes in Switzerland is low by comparison to most other industrialized countries. Only South Korea exhibits a more even distribution when comparing OECD countries' Gini coefficients before redistribution through taxes and transfers (see figure 5/3). As a result, the need to redistribute, as well as the associated efficiency losses, are low. Redistributive effects can be measured by the difference between inequality in market and disposable incomes. Redistribution in Switzerland reduces the Gini coefficient by 23 percent as opposed to the OECD median of 36 percent (mean 33 percent). Nonetheless, inequality in disposable incomes after redistribution is equivalent to the OECD median (and lower than the mean). A similar pattern is observable for inequality indicators at the lower end of the scale: Switzerland's poverty rate before taxes and transfers is the lowest in the entire OECD sample. Correspondingly, the redistributive effort is relatively low, resulting in a poverty rate after redistribution below the OECD median.

This pattern is not the only peculiarity of Switzerland's income distribution. An international comparison of top income shares based on tax data reveals that Switzerland's long-term development of income concentration is strikingly stable (Alvaredo et al. 2018). Most industrial countries experienced negative shocks to capital incomes in the large crises of the 20th century with disproportionate ef-

fects on top incomes. In the postwar era, rapid economic growth and highly progressive income taxes prevented a recovery in income concentration. By contrast, Switzerland was much less involved in the World Wars and the progressivity of the income tax system has remained fairly stable (Frey and Schaltegger 2016).

### **The systematic role of institutions**

The international debate on the determinants of inequality is strongly focused on global trends. Yet, the resurgence in income concentration since the 1980s is much more pronounced in English speaking countries than in continental Europe or Japan (see chapter 3.1). How can such differences be explained given that many industrial countries have been affected similarly by global trends? Influential economists, Daren Acemoglu and James Robinson (2015), emphasize the role that institutions play in shaping economic outcomes in general and the distribution of income in particular. The idea of a general law regarding the development of inequality in capitalist societies disregards how the effects of secular economic trends on inequality depend on political and economic institutions. Indeed, a country's institutions are likely to have widespread implications on various economic determinants of inequality, such as the supply of skills, the degree of investment in research and technology, the regulation of markets, the distribution of bargaining power, and the extent to which market income is redistributed.

## Swiss federalism: a laboratory

Switzerland provides an ideal setting to examine empirically the impact of institutions on income inequality. Swiss cantons enjoy an exceptionally high degree of autonomy regarding the development of their political systems and economic institutions. The sub-federal level in Switzerland is thus characterized by a great variety and a permanent change of institutions.

At the same time, cantons have considerable responsibilities in policy fields highly relevant for the distribution of income, such as fiscal, social, health, and education policy. As a result, distributional patterns vary considerably among cantons. This is confirmed by research based on federal tax statistics, which provides very consistent inequality data on the cantonal level reaching back as far as 1917 (Frey and Schaltegger 2016; Schaltegger and Gorgas 2011). A long observation period is crucial to be able to identify the effects of changes in institutions over time.

Although various constitutional provisions shape the Swiss political system, the two most distinct features that deserve emphasis are fiscal federalism and direct democracy. The principle of subsidiarity and direct political participation of the people are key elements of Swiss political DNA. Their roots reach back to long before their institutionalization on both federal and sub-federal levels of government in the 19<sup>th</sup> century. While the former vests widespread autonomy to cantons and municipalities with regard to revenue sources and government spending, the latter guarantees extensive political rights by enabling Swiss citizens to decide on specific issues. The voter initiative and different forms of popular referenda constitute the instruments by which citizens can exercise their direct democratic rights. More importantly, the institutional frameworks differ between cantons – and have experienced changes over time – meaning cantons are independent in determining the degree of municipal fiscal autonomy and of the electorate's access to initiatives and referenda. This naturally opens up the question of how these institutions affect the cantonal development of inequality.

## Fiscal federalism reduces income inequality if municipalities are not too small

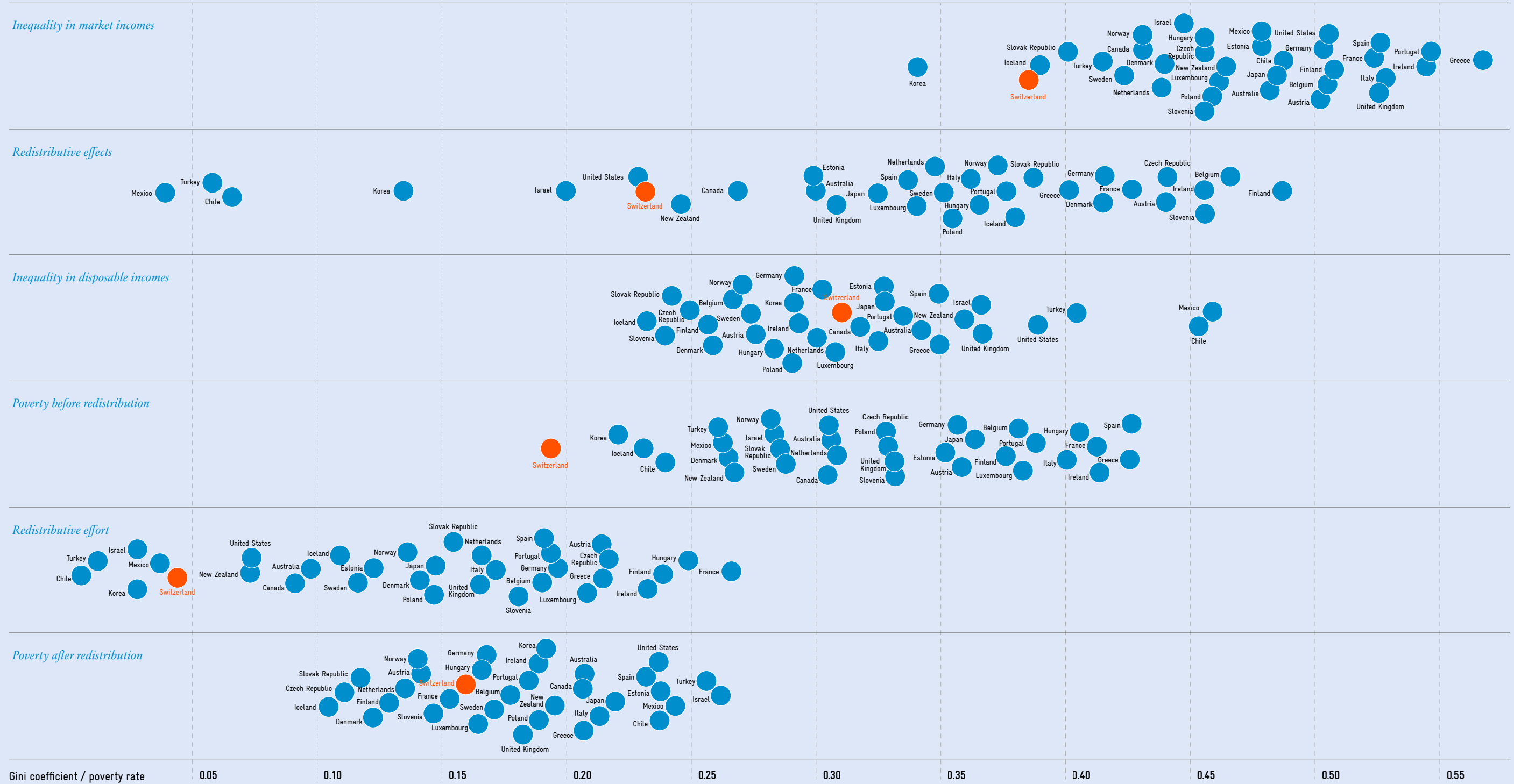
Traditionally, the theory of federalism assigns the responsibility for redistribution to the federal level, as high earners can avoid progressive taxes of sub-federal jurisdictions by choosing a low tax residence. Low income earners, by contrast, are attracted by generous social benefits increasing the cost of local redistribution schemes (Musgrave 1959). At the same time, however, redistribution is to some degree a local public good (Pauly 1973). Altruistic motives are stronger with respect to the poor within one's own community compared to strangers in distant parts of the country. Egoistic motives for redistribution (the prevention of crime and preservation of real estate value) are geographically limited as well. Thus, in line with the decentralization theorem (Oates 1972), local redistribution might actually be more efficient. A range of additional theoretical considerations (information advantages, laboratory federalism, political accountability, spillovers) confirm the overall picture that economic theory offers contradictory arguments as to whether fiscal federalism increases or decreases inequality.

Recent empirical research of our own examines this relationship by exploiting changes in the decentralization of tax revenues between cantons and their municipalities in the period from 1945 to 2014 (Feld et al. 2017). Our findings show that, in the Swiss context, fiscal decentralization actually reduces income concentration. This is not the result of additional redistribution via progressive taxes, but instead, we observe the effect in pretax incomes. Apparently, decentralization leads to policy shifts

Inequality in Switzerland compared to the OECD member countries

The figures illustrate different inequality and poverty measures and their redistributive effects for OECD\* members in 2015. As the red dots indicate, Switzerland has a remarkably unusual pattern with an equal distribution even before redistribution.

\*The OECD sets the poverty threshold at 50 percent of median household income. Accordingly, the poverty rate measures the ratio of households with a median income below this threshold.



Source: OECD (2018b).

Box 7:

### Empirical background to the examinations

*Feld et al. (2018) and Frey and Schaltegger (2018) both employ panel fixed effects regressions for Swiss cantons to identify the effect of intertemporal changes in fiscal decentralization and direct democratic instruments, respectively. Distribution of income data is based on Swiss federal tax statistics. Fiscal decentralization is defined as the municipal share of total cantonal and municipal tax revenues. Access to direct democratic instruments is measured by the number of petitions required for a voter initiative and a popular referendum.*

that produce a more even distribution of market incomes. Another important insight in our study is that the effect of fiscal decentralization crucially depends on the level of fragmentation of the local level of government into different municipalities. If there are a large number of municipalities or if they are very small, decentralization tends to increase income inequality, indicating that, under such conditions, municipalities lack the ability to implement equalizing policies.

#### **Opposing effects of voter initiatives and popular referenda on inequality**

In the international debate about direct democracy, observers regularly doubt the ability of the electorate to decide reliably on concrete issues. However, the relevant question is how direct democracy fares against the benchmark of a purely representative system. If representative democracy fully reflects the preferences of the median voter, as for example in a model of perfect electoral competition (Downs 1957), direct democratic institutions would not affect policy at all. The same median voter

would be decisive. Yet, in fact, the literature on political economy has exposed a multitude of biases and frictions in representative institutions, such as the fiscal commons problem (Weingast et al. 1981), unequal influence of interest groups (Olson 1965), logrolling (Tullock 1959), bundling of issues in candidate elections (Besley and Coate 2008), or the influence of the bureaucracy (Niskanen 1971).

The basic principal-agent problem between voters and their representatives also entails important distributional consequences. Evidence for Switzerland indicates that federal representatives vote more congruently with the preferences of high income earners (Stadelmann et al. 2015). In a recent study, we assess the impact of direct democracy on the income shares of different sections of the income distribution (Frey and Schaltegger 2018). Based on cantonal data from 1945 to 2014, we identify effects due to constitutional changes of signature requirements for popular referenda and voter initiatives. According to our findings, the voter initiative significantly decreases top incomes and benefits the upper middle class. This income group seems to be able to use the agenda setting power of the voter initiative most effectively to its advantage. Popular referenda, however, and the veto power that comes with them, seem to have an opposing effect. Interestingly, regarding the political mechanism, our results provide evidence for an indirect rather than a direct effect of direct democracy, implying that incumbent representatives react strategically to the threat of initiatives and referenda by changing distribution policy in order to avoid being overturned by direct democratic means.

### **Switzerland's institutional framework as a model for even income distribution?**

Several secular economic and societal trends, such as technological change, globalization, migration, population aging, or individualism strongly affect income inequality. Unlike many industrial countries, Switzerland exhibits a surprising degree of stability in the distribution of income despite these common developments. How is this possible? It is the systematic role of a country's economic and political institutions that deserves particular attention, as they largely determine how fundamental economic trends translate into income inequality. In Switzerland, the institutional framework seems to produce a policy mix that successfully absorbs exogenous shocks. According to our recent research, fiscal federalism as well as direct democracy play a decisive role. They tend to promote a more even distribution, especially of market incomes, thereby diminishing demand for redistribution with its unavoidable efficiency losses. At the same time, many countries exhibit rising market income inequality as well as increasing political demands

for redistribution. The acceleration of technological progress may intensify distributional challenges. The case of Switzerland offers important lessons as to how both a high level of prosperity and a stable distribution of income can be achieved.

A discussion with Ulf Berg and Rudolf Wehrli on the interplay of federalism and direct democracy, or why apprenticeships are the best cure for inequality.

*“Issuing high school diplomas in place of birth certificates won’t do anything to further the cause of equal opportunity.”*

Interview: Verena Parzer-Epp and Natanael Rother, Avenir Suisse



Rudolf Wehrli

*Avenir Suisse* Rudolf Wehrli, you’re a theologian and philosopher. You, Ulf Berg, are a mechanical engineer. In the course of your careers, both of you have held important management positions in Swiss business. What are your thoughts on inequality as regards Switzerland?

*Rudolf Wehrli* To a certain extent, inequality and the sense of injustice it leads to are simply a part of life. First of all, nature itself is unfair, because it gives people different gifts. These days inequality is in the media almost constantly. To be honest, though, I see more equality around me than there

used to be. The purchasing power of a worker’s wage is many times higher than 100 years ago. This means that people can work less and less and take vacations for granted. In the post-war period, food accounted for 30 percent of household expenditure; now it’s 8 percent. All too often, these developments are ignored in the public debate. It seems that people are no longer really able to bear inequality.

*Ulf Berg* Even so, equality of opportunity for everyone, not equality of outcome, has to be a goal. Matters that can be addressed should be addressed. We could be doing a lot of things better or more intelligently.

*Avenir Suisse* For example?

*Ulf Berg* My impression is that as a society we’re losing our courage to face the future. Often people don’t even get the opportunity to go their own way. Transfer income is rarely a good solution. How do people on benefits feel? Latently poor.

*Rudolf Wehrli* I see the greatest social challenge with those who haven’t completed vocational education. Without training a person’s long-term financial prospects are very poor.



*Ulf Berg* Around 6 to 8 percent of the Swiss workforce don't have any qualification. This might be less than in other countries, but we really have to get the figure even lower. The best way is to promote apprenticeships even more and equip people to help themselves.

*Avenir Suisse* So, apprenticeships, rather than education in general, are the most effective means to tackle inequality?

*Rudolf Wehrli* Whatever the case, the answer doesn't lie in more academic qualifications. Just look at the number of people with degrees in other countries who have to make do with a precarious job. There are studies showing a negative correlation between a high rate of high school graduation – in other words people qualified to go to university – and youth unemployment. So, issuing high school diplomas in place of birth certificates won't do anything to further the cause of equal opportunity. I think that in the long term a 20 percent rate of high school graduation makes sense economically.

*Ulf Berg* It's encouraging to see how large international companies have again been doing more to recruit good apprentices in recent years. We need that if we want a creative society. Apprentices learn self-assurance and how to get things done. That's also why the percentage of entrepreneurs who did an apprenticeship is higher than for university graduates. But of course, we need people with academic qualifications as well. Just not great masses of them.

*Avenir Suisse* Another recurring theme in the debate around inequality is the pay received by the upper ten thousand. What's your take on this? And what's your view of inheritance taxes?

*Ulf Berg* Capitalism certainly won't function without rules. But at the moment, there seems to be a disconcertingly great need for restrictions. Criti-



Ulf Berg

cism of “fat cats” is often off the mark. Their assets are often tied up in the business, in real estate, machinery, hard- and software – things they can't simply sell off. What I find problematic is activist investors who are after a fast buck. I don't have a problem with shareholders, but I do have a problem with people who buy and sell shares merely for short-term gain.

*Rudolf Wehrli* Of course, it's scandalous when individual managers lose all sense of proportion, for example at the banks. But discussions fueled by envy won't get us a lasting response to inequality. You also asked about my view of inheritance taxes. Many cantons no longer have them, which is a good thing. Usually a lot of tax has already been paid on the assets in the estate while the person was still alive. Inheritance tax can be life-threatening, especially for middle market businesses. Even the trade unions have now acknowledged this. I would have less of a problem with taxing the estates of distant relatives like the famous “rich uncle in America.”

*Ulf Berg* The perennial debate on salaries also has to do with journalists, who like to keep these issues going because it'll get them a lot of clicks. Good news doesn't sell. Switzerland has become more of a confederation of the envious than a confederation



*Ulf Berg has held various managerial positions in Switzerland and abroad at companies including ABB, Kuoni, Sulzer, and many more. Today he chairs the board of directors of EMS and is an active investor in several tech companies. Ulf Berg, who holds a PhD in mechanical engineering from the University of Copenhagen, is a dedicated promoter of Switzerland's vocational education system. In his spare time he enjoys hunting in the Canton of Graubünden.*

*Rudolf Wehrli is a Swiss businessman who has headed eight different companies, among them Clariant and Gurit. Until 2013 he led Economiesuisse, the federation of Swiss business, as president. When not busy with one of his many directorships, for instance as chair of the board of directors of the long-established company Sefar, he enjoys walking in the Swiss mountains, and the music of Bach. Rudolf Wehrli holds two PhDs, in philosophy and theology, from the University of Zurich.*

of equals. We'd be better off making sure society regains its appetite for taking risks and seizing opportunities.

*Avenir Suisse* Where should we start?

*Ulf Berg* I see a fundamental problem in politics. Politicians want to get re-elected, and they often develop an unhealthy habit of doing things just to be seen to be doing something. Turkeys don't vote for Thanksgiving. Tax hikes are a completely counterproductive response to inequality. They work on individuals the way customs duties work on states: they're barriers to trade, and ultimately result in less being produced.

*Rudolf Wehrli* It's no coincidence that countries with a high rate of VAT or sales tax often have bigger shadow economies. We also have to train people in fields where more value is added. This is why I've been working for years to promote the STEM subjects, science, technology, engineering, and math.

*Ulf Berg* I'd like to return to the theme of politics. Politicians have to understand that they'll achieve



more by doing less, particularly when it comes to tackling inequality. Red tape always hits the little people hardest. If it is complicated to file a tax return, the well-to-do hire a tax advisor, while those on lower incomes have to do it themselves and don't get to find out about ways they could be saving tax. Another example: in Canton Graubünden, to get a hunting license, you now need to be very academic and good at memorizing complicated things. It's rather like getting a baccalaureat or above. Things are much the same in Germany. There are many good and talented nature loving hunters who do not have these scholastic skills.

That's a problem for travelers, who maybe aren't as skilled at writing, but have more experience with nature. Bureaucracy is boring. It places obstacles in the way of people and upward mobility, and basically drives the middle classes into poverty.

*Avenir Suisse* Thankfully things haven't yet gotten that bad in Switzerland. We're better off than 90 percent of countries in terms of inequality. In the last few years we've implemented few of the measures recommended by OECD experts, for example. How do you see the role of direct democracy in this context?

*Rudolf Wehrli* One of the great strengths of our state set-up is subsidiarity. This gives us a relative advantage over our neighbors: it makes the various levels of government handle the available resources more responsibly. I'm very glad we have direct democracy. Now and then it's annoying, but a number of times in recent years I've been pleasantly surprised by the outcome of a referendum. All in all the system is invaluable. What does worry me, though, is that the connections are getting more complex and harder to explain.

*Ulf Berg* In the future we'll have to continue decentralizing as much as possible. Decentralization is a source of knowledge and creativity, and a key ingredient in Switzerland's recipe for success. Since 1972 we've taken very few decisions by way of

direct democracy that have turned out in retrospect to be "wrong," with the exception of the mass immigration and minaret initiatives. That's an extremely high success rate. In Switzerland all the constituencies participate in votes, which means that political decisionmaking involves much more intense debate than in other countries.



Verena Parzer-Epp and Natanael Rother

*Avenir Suisse* Imagine if you were free to choose three political priorities in response to the issue of wealth distribution. What would they be? And in what order?

*Ulf Berg* Top of the list for me would be a liberalized employment market. Secondly I would try to cement subsidiarity more firmly. My third priority would be to creatively develop the education system, especially vocational training, to keep society fit for the future.

*Rudolf Wehrli* First I'd make sure that the education system remains porous and allows people to change course – the way trains entering Zurich main station can easily switch from one track to the other. Then I would try to give people on social benefits more incentive to return to work or retrain. Thirdly, I would make sure as many responsibilities as possible were delegated to the municipal level.

*In the past decade, inequality and equality have become topics that nobody can ignore. This publication argues that the international prominence of the subject masks less well-known country-specific factors. To tackle the problem of inequality, there cannot be a one-size-fits-all solution.*

## 6

# Summary and Conclusions

### Global inequality is decreasing – thanks to globalization

The world is still an unequal place and this will not change any time soon. A person's country of birth determines more than half the differences in his or her income. However, inequality has been decreasing sharply between countries. For the first time since the Industrial Revolution, the past few decades have seen a decline in global inequality. Between 1989 and 2013, the global Gini coefficient has fallen from around 67 to 59, according to World Bank data. Back in 1990, 44 percent of the world population lived in extreme poverty – compared to below 10 percent today. Such progress, thanks mainly to globalization and technological advances, cannot be overstated. (*see chapters 2.1 and 3.1*)

#### Conclusion 1: Drive internationalization and openness further

Openness and the unhindered exchange of goods and services, capital, people, and ideas have been essential for economic success and prosperity worldwide. These factors have been of tremendous importance for the observed convergence in living standards globally. It is important not to forget that openness was, and still is, a key driver of prosperity. It cannot be denied that globalization and technological progress may (temporarily) have local and sector-specific negative impacts in certain countries. The overall outcome of globalization, however, is still a great achievement of mankind. The best

the international community could do would be to restart WTO talks, establishing a stable framework for global trade relations. Contrary to a widely held belief, inequality cannot be reduced by raising tariff and non-tariff barriers and turning back to a mercantilistic trade policy.

### There are no uniform trends in national disparities

Contrary to frequently expressed views, no uniform inequality trend can be discerned at the national level. Poorer people in the United States have, for instance, fared less well than in many European countries. Europe is the only region in the world where the share of income of the bottom half of the population is larger than the share of top earners. (*see chapters 2.1, 2.2, 2.3. and 2.4*)

#### Conclusion 2: There are no "one-size-fits-all" solutions

Inequality has many causes. For consistent and sustainable policy proposals, country specific analysis is a must. There are no universal solutions. Developing countries will undoubtedly opt for other approaches than more industrialized ones. Politicians can learn most looking at countries that are less preoccupied with questions of income and wealth distribution. But again: institution building is a slow process, and virtually no single remedy can bring instant relief.

## Education and equality are linked

Education systems, and the extent to which they prepare people for the labor market, play a crucial role.

Switzerland, for instance, proved highly efficient in adapting to technological changes from the 1990s, because its workforce was able to meet new requirements. That contrasts with the United States, which displays a growing skills mismatch and a polarization of its labor market. In Europe, Spain shows the highest income disparities. Unfortunately, it also demonstrates that low levels of education can be inherited. Some 19 percent of young Spaniards do not have a high school degree or equivalent. And nearly 40 percent of school dropouts have parents lacking a secondary school diploma.

At the other end of the spectrum are the Scandinavian countries with their very developed and inclusive educational systems – and rather low income disparities. (see chapters 2.4, 4.2 and 5.3)

### Conclusion 3: Education is one of the keys

The best, although admittedly not infallible, way to achieve social mobility and reduce inequality is through education. Investment in the educational system is prone to be an adept measure in many cases. In addition, most people will be willing to accept inequality for a certain period when they see a chance to ameliorate their personal situation during their lives, or when they see perspectives for a better life for their children.

#### Box 8:

#### Switzerland: Stick to the grassroots model

*Many contributions to this book (see chapters 2.2, 3.2, 3.3, 4.2 and 5.2) show that Switzerland exhibits a remarkably stable and equal income distribution. Although there are no one-size-fits-all solutions on how to foster equality and growth around the globe, Switzerland's institutions – or certain aspects of them – may serve as an inspiration for other countries when designing policies to counter inequality.*

**01\_ Maintain and develop a flexible labor market:** *A highly flexible labor market is at the center of Switzerland's success. The relatively large scope provided by labor law gives entrepreneurs the flexibility required to adapt to new market circumstances. It is crucial to maintain this unique framework – and to develop it further. Technology is having a broad impact on the labor market: “linear” career paths are becoming less of a norm. Instead, there is an increasing number of part-time employees and people working for multiple employers. If access to social insurance were improved, “digital workers” would be able to save for their retirement as much as their “classical” counterparts. This would help to maintain low levels of wage inequality in future and prevent precarious forms of work from spreading.*

**02\_ Foster the vocational training system:** *As research has shown (see chapters 4.2 and 5.3), Switzerland has proved highly effective in preparing the young generation for entering the workforce. The vocational system is a valuable alternative to the traditional school track. Due to its flexibility, it even allows young people to change track and acquire university education at a later stage in their professional development.*

**03\_ Nurture direct democracy:** *One aspect where Switzerland differs from most countries is its unique decentralized institutional setting, combined with (semi)direct democracy. Not only has this been successful in establishing a high level of trust between officials and voters, it also ensures political representatives of the private sector remain in touch with the rest of the population. Media have a very balancing effect too, because they hold an important informational function ahead of every referendum.*

**04\_ Keep taxing power as local as possible:** *Decentralized taxation and the possibility to fine tune fiscal policy at the local level are necessary for a smoothly functioning direct democracy. Any attempts to centralize the tax system should be viewed critically.*

#### **Conclusion 4: A dual-track education ensures a higher qualified workforce in the long run**

Education is certainly crucial everywhere. Nevertheless, it should be remembered that education is never an end in itself. Its ultimate social purpose is to provide a workforce with the necessary skills to make a living. It is therefore crucial that educational systems and labor markets work together. Countries offering vocational training in addition to the “standard” high school track seem to be particularly successful in channelling the young into the labor market and helping them establish careers early in life. It also helps when the system’s permeability is ensured, as is the case in Switzerland. The country’s educational reforms of the mid 1990s introduced a “vocational baccalaureate,” which enabled students on the vocational track to opt for tertiary education later. With this reform, Switzerland established vocational education as a valuable alternative to the traditional academic track.

#### **Redistribution is not the right solution**

In discussions about income and wealth disparities, redistributive measures like taxes and benefits are often presented as primary solutions. However, some countries achieve a low level of inequality even before redistribution. We present as a case study the recent growth of the middle class in Finland, which was fueled – paradoxically – by the country’s recent weak economic growth. As a rule, it is more challenging to create an environment of inclusive growth than to design new taxes. Nevertheless, this should be the ideal political path, because it is far more efficient in the long run for two reasons: first, redistribution through taxes and fees involves administrative costs with no extra welfare gains. Second, high tax levels can adversely affect individuals’ decisions and hinder innovation in society. (see chapters 2.3, 2.4, 3.3, 4.2 and 5.3)

#### **Conclusion 5: Boost labor market flexibility**

Getting people into work can reduce inequality. Instead of making people dependent on state benefits, governments should focus on stimulating entry into the labor market, thereby facilitating the creation of income and accumulation of wealth for a broader span of society. Employing others should become easier and less bureaucratic in many countries through tailor made reforms. Simultaneously, social security systems should be adjusted to provide protection for new forms of labor.

#### **Conclusion 6: Monetary policy is the wrong tool**

In public debate, monetary policy is sometimes the scapegoat for a myriad economic problems. Central

banks should not aspire to influence distributional outcomes, but focus on maintaining (or achieving) price stability. By doing so, they also act in the best interests of the less wealthy, since the latter are the ones who usually bear the burden of inflation the most. (see chapters 3.3)

## Institutions matter

Our report confirms the traditional view that established democracies have a good chance to achieve a sustainable distribution of wealth and income. A sound legal system, well respected property rights and free media remain the best framework for a high degree of inclusiveness. Misperceptions about the actual level of inequality and its causes can become potential threats to democracies. The risk is that voters and politicians make decisions based on false premises. As is shown, some high income countries even have an inverse relationship between worries about inequality and actual levels. (see chapters 2.3, 3.1, 3.2, 4.1, 5.1 and 5.3)

### Conclusion 7: Accurate analysis requires taking different points in time

The Gini coefficient is not the only measure of inequality, being hampered by taking a static perspective. Instead, it is important to adopt a long-term view and e.g. also look at social mobility. Disposable income and wealth can vary significantly over time, which is why they should be tracked at the individual level. A further problem is that data on wealth are often inaccurate as they fail to include pension assets. Including the latter would provide a more realistic picture of the distribution of wealth in a country, as pension wealth often constitutes a sizeable share of many individuals' total assets.

### Conclusion 8: Increase availability and depth of data

A problem for researchers in many countries is that they have very restricted access to reliable data. Some countries limit researchers' access to data for reasons of data privacy, others just because of inadequate collaboration between different agencies. On the international level, some large data providers slow down processes by imposing long and tiresome procedures for accessing data.

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