

A WEALTH SIMULATOR TOOL FOR GERMANY

Background, Methods, and Results

A wealth simulator – why?

The issue of the **unequal distribution of wealth** is a constant source of emotion in Germany. For a long time, there were contradictory statements regarding the evidence and the explosive nature of the issue as well as concerning the instruments that could be used to reduce inequality. One reason for this is that there have been **no empirically comparable findings** to date on the **effects** that a reintroduction of wealth taxes or an increase in inheritance tax would have on the **distribution of wealth** overall. The aim of the **wealth simulator**, developed by renowned inequality researchers *Timm Bönke* and *Charlotte Bartels* together with the *Forum New Economy*, is to estimate whether and to what extent different political measures have an effect. The interactive tool makes it possible to test a large number of variants - and to simulate whether and to what extent the introduction of a measure changes the **share of the most wealthy**, the upper **middle class**, or the **lower half** of total wealth in Germany over time.

As the model calculations show, the gap would continue to widen significantly over the next ten years if no measures were taken. A wealth tax, for example, would generate additional revenue, but a tax rate of one or two percent, as is usually proposed, would only slightly slow down the increase in wealth inequality over ten years. According to the simulation, the effects would be much greater if young people were given a starting capital of 10,000 euros or more - or if every German citizen was paid an annual state dividend. Such measures would only be associated with corresponding costs for the state. Neither counter-financing options nor combinations of instruments were tested in the current simulations.

The model simulations are therefore not designed to determine one instrument as the indisputable best one. Rather, the calculations help to estimate the magnitude of different effects on wealth distribution reliably. In this sense, they aim to de-emotionalize the debates about inequality in Germany.

How the wealth simulator is structured and how it works

For the simulation, five typically discussed wealth policy instruments were first compared in a micro-simulation model in terms of their effect on the German wealth distribution. This involves calculating the extent to which an instrument such as a wealth tax changes the amount of wealth per household. The model also simulates how households react to measures in terms of their behavior - and how additional wealth is created due to savings behavior or inheritances. In addition, employment profiles are accounted for and households are differentiated according to demographic characteristics.

The data basis for the model calculations stems from the results of the household surveys of the *Socio-Economic Panel* at DIW Berlin. Currently, the surveys of the SOEP cross-section for 2017 are used as a basis. According to this, the **top 10 percent** of German households held **61 percent of all assets**, the upper middle class 38 percent, and **the lower half just one percent**. As a comparative scenario, the researchers determined how this distribution of wealth would change over ten years if no measures were taken, i.e. in line with the current underlying trend. Among other things, demographic developments would have the effect of further concentrating wealth at the upper end (without political intervention); the share of the top ten percent would increase from 61 to 67 percent over ten years. The researchers then calculated how the

distribution would change over ten years compared to this baseline scenario if one of the selected instruments were used in each case. The evaluation therefore focuses on **how much a measure slows down or reverses the trend increase in inequality**.

The following were tested in the simulation: different rates of **wealth tax** and **inheritance tax** (under current law), as well as a **capital gains tax** and one-off wealth transfers (**starting capital**) and regular wealth transfers (**social dividend**). A number of variants (rates) can be calculated for the instruments; this was only omitted for those that would not lead to a noticeable change in the distribution by percentage under any of the realistic assumptions. The top ten percent are considered the top wealthy; the second group consists of those who hold between 50 and 90 percent of the assets; and the third group represents the bottom half of the distribution.

Results of the Wealth Simulator for Germany

Wealth tax:

In the simulation, the effects of an annual wealth tax with a tax-free amount of one million euros were simulated. No evasion effects were assumed. Different rates were tested as variants in a range between the commonly proposed one and ten percent wealth tax.

With a lower tax rate of **one percent** on net wealth, the wealth shares of the richest ten percent of the population would be one percentage point lower than they would be without the tax after ten years. However, at 66%, the share would still be significantly higher than in 2017; the trend would merely have slowed down slightly. What the richest would lose proportionally would go exclusively to the upper middle class (those whose wealth lies between 50 and 90 percent of the distribution). The share of the lower half of the population would remain unchanged. This would lead to an annual tax revenue of ten billion euros. A tax of **ten percent** was tested as the maximum rate. Here, the share of the richest would be four percentage points lower in ten years than would be the case without the intervention; the upper middle class would have four points more than the trend. At 62%, the share of the richest would still be higher than in 2017 (61%), but only slightly so. The share of the lower half would remain unchanged. The annual tax revenue would be just under 73 billion euros.

Inheritance tax:

When simulating different variants of inheritance tax, it is assumed that only adult children and stepchildren receive an inheritance or gift. It is assumed that the tax-free amount is increased by 25 percent to EUR 500,000. Inheritance tax is levied as a flat tax. Effective tax rates of **between one and 30 percent** were tested as variants.

The simulations show that there are no noticeable effects on the actual distribution of wealth across the entire range of possible tax rates. The shares of the top 10 percent remain unchanged compared to the base scenario, as do the shares of the other groups. Following the trend, the share of the richest would rise to 67% in ten years. This would not change even under the extreme assumption of an inheritance tax of 100 percent. According to additional test simulations, significant effects would only arise after a period of 40 years.

The simulated effects of the inheritance tax on the wealth distribution are quite small, which is partly due to the fact that only 30 percent of the German population receive an inheritance – and 70 percent receive nothing. Of the 30 percent, most are already at an age (over 60) when they are no longer building up assets but are rather using up their savings. For a larger

proportion, the inheritances are again below the tax-free amounts so that they would not be taxed at all. Finally, inheritances counteract further concentration to a certain extent, as they naturally preserve previous wealth patterns and are inherited within families.

The simulations did not take into account the effects that could arise from a possible abolition of exemptions for inheritances of business assets. Whether this would have any significant additional effects cannot be reliably modeled due to a lack of experience, even with regard to the side effects on employment. It is rather unlikely that this would change the distribution much. According to the simulations, the revenue for the tax authorities is also likely to be correspondingly moderate: at an inheritance tax rate of one percent, this would amount to an average of 120 million euros per year, and at a rate of 30 percent, an average of 3.6 billion euros per year.

Capital gains tax:

Capital gains are subject to a uniform tax rate of 25 percent in Germany. The tax-free amount has been 1,000 euros per year since 2023. The simulation calculated how the wealth distribution would change if all capital gains were subject to flat-rate withholding tax (no assessment option). Tax rates of **between 25 and 50 percent** on capital income were tested as variants.

As with the inheritance tax, the simulations for the capital gains tax do not show any measurable effects on the wealth distribution. As in the base scenario, wealth concentration would rise. The fact that such a tax covers income from financial assets (interest, dividends), but not real estate and business assets, which are held disproportionately by the top wealthy, plays a role here. An across-the-board capital tax of 25 percent would lead to an additional tax revenue of just under one billion euros compared to unchanged taxation; with a tax of 50 percent, the revenue would be just under two billion euros.

Starting capital for 20-year-olds:

Giving young people a lump sum at the outset of their working life is considered a suitable instrument for reducing inequality by putting many people in a better starting position. For the simulation, it was assumed that such a starting capital (or basic inheritance) is paid out by the state every year to all 20-year-olds in a cohort. The options simulated ranged **between 10,000 and 100,000 euros**. While no special requirements have to be met to receive the money (apart from belonging to the cohort), the money in the variant simulated here may only be spent for certain purposes, such as the acquisition of real estate assets, retirement provision, or education and training. As assumed in the simulation, the sum may not be freely consumed. Instead, there is a return on the full amount of the starting capital. The income from the starting capital is freely available as income.

With a starting capital of EUR 10,000, the wealth shares would not be significantly different after a decade, as the simulations showed. This would only be the case with higher annual payouts. With an assumed starting capital of 100,000 euros, the share of the lower half of the population would be four percentage points higher after ten years than would be the case without any intervention and given the trend that has been established. The share of the richest would even be ten percentage points lower in this variant than in the base scenario. This means that a starting capital of EUR 100,000 would also be one of the few simulated cases in which the proportion of the richest in ten years' time would be noticeably lower than it was in 2017, at 57%. For comparison: in 1980, before the significant increase in wealth inequality, the proportion was 53%. A starting capital of 10,000 euros would cost the state an average of over 8.5 billion euros per year. If every 20-year-old were given a capital of 100,000 euros for retirement, education or other purposes, this would amount to a good 85 billion euros per year.

Social Dividend:

In contrast to the one-off basic inheritance, the social dividend involves an annual payment by the state to all adults. In the simulation, variants **between EUR 100 and EUR 2,500 per year** were calculated, with the maximum value based on the example of the Alaska Fund (where up to USD 2,000 was paid out depending on the income). The social dividend would be paid from the income of a sovereign wealth fund. This state fund can be financed by raising debt or taxes (additional revenue from a wealth or inheritance tax). In the model on which the simulator is based, the dividend is paid out free of tax and duties, i.e. without being offset against state transfer payments. In contrast to starting capital, disbursement is not tied to any conditions.

With a social dividend of 100 euros, the wealth distribution would not change over the next ten years. This is also due to the fact that the use of the money is not tied to specific purposes, i.e. it can also be consumed, which can be assumed for lower incomes. Even with a dividend of EUR 2,500, this would not be enough to increase the share of the lower half of the population compared to the base scenario. In contrast, the share of the upper middle class (50-90%) would be two percentage points higher in this variant after ten years. The share of the top wealthy would fall by two points in this scenario. If every adult were paid 100 euros a year from a fund, this would cost the state an average of 6.4 billion a year. With a social dividend of 2,500 euros, it would be almost 153 billion euros a year.

Upcoming project stages

The next stages of the project will include the development of a simulator that will allow users to estimate the impact of various measures on their position in the distribution of wealth.