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Wealth Inequality in the Netherlands, c. 1950-2015

*The Paradox of a Northern European Welfare State*¹

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Abstract

This paper reviews the available evidence on post-war trends in Dutch private wealth inequality using a range of scattered sources. Wealth tax records suggest a substantial decline in inequality to the 1970s and, more tentatively, a gradual rise thereafter. In the post-1990 years, Gini-coefficients of private wealth inequality range from 0.8 to 0.9, which is at the high end of the international comparison. Such high levels of private wealth inequality contrast with relatively low levels of net income inequality; a paradox that the Netherlands share with other Northern European welfare states. We hypothesise that publicly funded life-time income security limits the wealth-formation by ordinary Dutch households, while the redistributive taxes required to finance this system are targeting income rather than wealth.

1 Introduction

The past years have seen a revival of academic interest in the long-term evolution of income and wealth inequality across the Western world, sparked in part by the publication of Thomas Piketty's *Capital in the Twenty-First Century* in 2014.² His key message is that capitalist systems of production are governed by a set of general economic laws that tend to drive up income and wealth inequalities within countries. This tendency is endogenous to

¹ We are grateful for the comments on previous drafts of this paper made by Arjan Lejour (Netherlands Bureau for Economic Policy Analysis, CPB), Wiemer Salverda (University of Amsterdam, UvA) and Nico Wilterdink (University of Amsterdam, UvA). We thank Annelies Tukker for excellent editorial assistance.

² Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, MA 2014).

capitalism and can only be reversed by state intervention, especially in the sphere of progressive taxation and redistribution, or temporarily pushed back by severe economic and political crises, such as the twentieth-century world wars which involved a substantial destruction of physical capital and large-scale erosion of financial capital.

Piketty's thesis has been received with much acclaim as well as fierce criticism. The political left has hailed his work as new evidence in support of the view that the neoliberal turn of the late twentieth century has produced untenable levels of socio-economic inequality which are bound to undermine the values of democracy when left unchecked. Others have condemned Piketty's thesis as neo-Marxist ideology or just as theoretically unsound. To many economists, for instance, it remains unclear why the long-term returns to capital should necessarily be higher than the long-term returns to labour (the law of $r > g$), while in market economies the relative scarcity of production factors eventually sets the price.³ Other scholars again, inspired by the New Institutional Economics, have criticised Piketty for highlighting general economic laws and underplaying the role of economic and political institutions, which in their view are primordial in shaping economic inequality.⁴

Although the renewed interest in income and wealth inequality was already there before his book hit the headlines, Piketty's thesis also stimulated political engagement with the topic in the Netherlands.⁵ Most scholars, statisticians and politicians agree that in terms of (net) income inequality the Netherlands ranks among the world's most egalitarian societies. In contrast to the notable increases in income inequality in Anglo-Saxon countries such as the US and UK, income inequality levels have remained rather stable in the Netherlands over the past decades. In fact, income inequality has been subject to close statistical surveillance during the entire post-war era. Whenever policy reforms threatened to hurt a specific group of income earners, these were quickly 'repaired' with reference to principles of 'fairness' and 'solidarity'.

However, the more attention Dutch politicians have paid to the development of income inequality, the less they have been concerned with the

3 Branko Milanovic, 'The return of "patrimonial capitalism"', *The Journal of Economic Literature* 52 (2014) 519-534; P.H. Lindert, *Making the most of capital in the 21st century*. NBER Working Paper no. 20232 (2014).

4 D. Acemoglu and J.A. Robinson, 'The rise and decline of general laws of capitalism', *The Journal of Economic Perspectives* 29 (2015) 3-28.

5 Bas van Bavel, 'Vermogensongelijkheid terug op agenda', 6 September 2011, www.socialevraagstukken.nl/vermogensongelijkheid-terug-op-agenda/ (27 May 2016).

monitoring of developments in private wealth inequality. The lack of consistent data on the incidence of private wealth inequality, and of insight into the distribution of collective arrangements for wealth entitlements (especially mandatory saving via pension funds), has pre-empted the possibility of political debates being carried by facts, instead of convictions.⁶ Piketty's *Capital* doesn't offer much help here. As one of the leading countries in the onset of modern economic growth the Netherlands has been noticeably absent from his study. Apparently, Piketty found the data for the Netherlands too weak to yield reliable time-series, and if so, he would be right, particularly for the last half-century.

As Coenen points out in this special issue, and others have done before,⁷ the wealth tax records of the Netherlands are notoriously incomplete and inconsistent, so that it seems impossible to construct a consistent time-series of Dutch wealth inequality for the long twentieth century. Since the introduction of the Dutch wealth tax in 1894, the definition of assets and taxable households has changed several times, and tax evasion by the rich has been pervasive. Even for recent years researchers have to make do with a combination of different sources to obtain some provisional conclusions on comparative levels and trends of Dutch wealth inequality. However, our attempt to put together the available evidence does suggest an unexpected and even paradoxical pattern: a combination of low income inequality and high wealth inequality.

This paper aims to assemble and interpret the evidence we have for the post-war era, focussing on the question how comparatively large private wealth inequality can be squared with the social and economic characteristics of a typical Northern European welfare state. We hypothesise that publicly funded life-time income security limits the wealth-formation by ordinary Dutch households, while the redistributive taxes required to finance this system are targeting income rather than wealth. Elements of this have been identified or analysed before, including the lower propensity for lower income groups in countries with encompassing social security

6 See Coenen, 'Charting the development of wealth inequality in the Netherlands since 1950: an on-going quest', this issue; B.J.P. van Bavel, 'Vermogensongelijkheid in Nederland. De vergeten dimensie', in: Monique Kremer and Mark Bovens ed., *Hoe ongelijk is Nederland? Een verkenning van de ontwikkeling en gevolgen van economische ongelijkheid* (WRR Verkenning/Amsterdam University Press 2014) 79-100.

7 N. Wilterdink, *Vermogensverhoudingen in Nederland. Ontwikkelingen sinds de negentiende eeuw* (Amsterdam: Synopsis 1984); B. van Bavel and E. Frankema, *Low income inequality, high wealth inequality. The puzzle of the Rhineland welfare states*. CGEH Working paper no. 50 (2013).

systems to save in order to counter the risk of income losses,⁸ but we feel this is the most explicit and comprehensive formulation of this hypothesis in the literature as yet.

In this paper, we explore the net wealth in private hands by looking at savings, equities, shares in companies, private businesses, home ownership, and commercial movable and immovable property, minus mortgages and other debts. For some other wealth components that should ideally be included – e.g. small loans and large shares of the wealth in private limited liability companies, trusts and offshore capital – we lack information. We also discuss the thorny issue of how to account for the vast rights to future payments in Dutch collective pension schemes. Since Dutch citizens cannot access the pension funds to withdraw, secure, reallocate or transfer their capital, these ‘entitlements’ are fundamentally different from private wealth. However, as we will point out, pension rights do play a crucial role in understanding the causes and effects of private wealth inequality in the Netherlands, especially because they influence household decisions on saving, investment and consumption and may thus play a crucial role in the observed inequality paradox.

2 Income and wealth inequality in the Netherlands: a welfare state paradox?

Together with the Scandinavian and Eastern European countries the Netherlands has attained one of the most egalitarian net income distributions in the world during the second half of the twentieth century. According to the tax register data and the evidence from capital shares in historical national accounts, there was a sharp decline in income inequality levels during the interwar period (1914-1945), which continued at a more gradual pace up to the mid-1980s. Hartog and Veenbergen have shown that upper and lower deciles of the income distribution converged, resulting in declining Theil-coefficients. In addition, increasingly progressive income tax systems enlarged the gap between gross and net income inequality.⁹ In their

8 For instance: N. Skopek, S. Buchholz and H.-P. Blossfeld, *Wealth inequality in Europe and the elusive egalitarianism of Scandinavian countries*. MPRA Paper no. 35307 (2011).

9 J. Hartog and J.G. Veenbergen, ‘Dutch treat. Long-run changes in personal income distribution’, *De Economist* 126 (1978) 521-549; J.M.M. de Meere, *Economische ontwikkeling en levensstandaard in Nederland gedurende de eerste helft van de negentiende eeuw. Aspecten en trends* (The Hague 1982).

survey of the evidence, Soltow and van Zanden even refer to the *egalitarian revolution* of the twentieth century.¹⁰

That said, from 1977 *gross* income inequality started to rise again, with middle incomes declining and higher incomes rising.¹¹ As a result of growing redistribution this rise in gross income inequality hardly affected *net* income distribution. Where other OECD countries experienced a substantial rise in income inequality in the last three to four decades, the Netherlands has sustained low levels of net income inequality throughout: the slight rise of income inequality during the 1980s was from low initial levels and Gini-coefficients stabilised in the course of the 1990s.¹² The most recent estimates of Statistics Netherlands (Centraal Bureau voor de Statistiek, CBS) indicate that the net disposable income inequality hovers at levels around 0.27-0.28 (figures for 2014, standardised household income), putting the Netherlands at the lower end of the middle group of OECD countries, where the modal Gini in 2012 was 0.30.¹³

These figures demand two nuances, however. First, the CBS figures express a *standardised* household income. Prior to the standardisation exercise, the Gini for net disposable household income in the Netherlands would

10 L. Soltow and J.L. van Zanden, *Income and wealth inequality in the Netherlands, 16th-20th century* (Amsterdam 1998) 175.

11 W. Salverda en A. B. Atkinson, 'Top incomes in the Netherlands over the twentieth century', in: A.B. Atkinson and T. Piketty ed., *Top Incomes Over the Twentieth Century. A Contrast Between Continental European and English-Speaking Countries* (Oxford 2007) 426-471; Wiemer Salverda, 'De tektoniek van de inkomensongelijkheid in Nederland', in: Monique Kremer et al. ed., *Hoe ongelijk is Nederland? Een verkenning van de ontwikkeling en gevolgen van economische ongelijkheid* (Amsterdam University Press 2014) 39-58, 46-49.

12 See for studies reporting various aspects of this rise in income inequality: L.F. Katz and D.H. Autor, 'Changes in the wage structure and earnings inequality', in: O. Ashenfelter and D.E. Card ed., *Handbook of Labor Economics*, 3A (Amsterdam: Elsevier 1999) 1463-1555; Robert C. Feenstra and Gordon H. Hanson, 'Global production sharing and rising inequality. A survey of trade and wages', in: E. Kwan Choi and James Harrigan ed., *Handbook of international trade* (Malden, MA: Blackwell 2003) 146-185; Salverda and Atkinson, 'Top incomes in the Netherlands over the twentieth century'; OECD, *Growing unequal? Income distribution and poverty in OECD countries* (Paris: OECD 2008); Piketty, *Capital*. See for the Netherlands Koen Caminada and Kees Goudswaard, 'International trends in income inequality and social policy', *International Tax and Public Finance* 8 (2001) 395-415. Salverda and Atkinson offer further support showing that the top income shares in the Netherlands have remained remarkably constant since the late 1970s, Salverda and Atkinson, 'Top Incomes', 434-435.

13 See CBS Statline, 'Inkomensongelijkheid. Particuliere huishoudens naar diverse kenmerken' (2015) <http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=7151NED&D1=0,5&D2=a&D3=0&D4=a&VW=T> (22 March 2016); OECD, 'Income inequality (indicator)' (2016) <https://data.oecd.org/inequality/income-inequality.htm> (22 March 2016).

be around 0.34.¹⁴ Second, the CBS figures on net income distribution do not take full account of household income derived from wealth and wealth gains. Moreover, incidental revenues from wealth are entirely missing. These gaps are inherent to the specific organisation of the Dutch fiscal system, from which the CBS derives its information.¹⁵ Taking income from wealth into account would drive up figures on income inequality in the Netherlands substantially. Even then, levels of net income inequality would still be much lower than they had been in the first half of the twentieth century.

Up to a point, a similar decline can be observed with regard to wealth inequality during the twentieth century. This decline is charted by Wilterdink, who used wealth tax and inheritance or succession tax records to estimate the development of top wealth shares. His work suggests that there has been a parallel movement of declining income inequality and wealth inequality in the Netherlands from the late nineteenth century until the mid-1970s. Table 1 shows that the percentage shares of total wealth owned by the top 0.1, 1 and 5 percent of wealth owning households decreased from the pre-war period 1895-1914 onwards with respectively 12, 26 and 27 percentage points. The share of the top 5 percent declined from almost four fifths (79 percent) to just over one half (52 percent). As Coenen argues in this issue, while the reported levels are prone to both serious underestimation (are all wealth owners included? what is the degree of tax evasion?) and overestimation (the estimates of total wealth that constitute the denominator are probably far too low), the decline up to the mid-1970s itself is very probable.¹⁶

14 For criticism on the use of standardised household income and the resulting underestimation of income inequality: Salverda, 'De tektoniek van de inkomensongelijkheid in Nederland', esp. 45-49.

15 Bas van Bavel and Wiemer Salverda, 'Vermogensongelijkheid in Nederland', *Economisch Statistische Berichten* 99 (2014) 392-395, 395.

16 Total private household wealth has not been estimated independently from the size of wealth reported in the tax registers, but by assuming a log-normal wealth distribution pattern extrapolated from the tax-paying cohorts towards the lower tail of the distribution. The problem is that shifts in the distribution of tax-payers' wealth are directly translated into shifts in the distribution of total wealth. Yet, the wealth tax paying households only made up between three to ten percent of total Dutch households in the entire period. If wealth taxation suffers from underreporting (which it always does but to varying degrees) this causes an underestimation of total wealth. Wilterdink acknowledges that the margins of error of his total wealth estimates are higher for the postwar decades than for the earlier period (Wilterdink, *Vermogensverhoudingen in Nederland. Ontwikkelingen sinds de negentiende eeuw*, 110 and 403-406) as the problem of wealth tax evasion grew due to increasing asset mobility, growing tax evasion knowledge, a changing tax morale and weaker monitoring by tax authorities.

Table 1. The share of estimated total wealth in the Netherlands owned by the top 0.1, 1 and 5 percent of wealth owners, 1894-1974

	top 0.1%	top 1%	top 5%
1894	0,23	0,54	0,79
1905	0,24	0,55	0,79
1914	0,25	0,57	0,80
1919	0,22	0,50	0,76
1925	0,21	0,48	0,73
1930	0,21	0,48	0,74
1935	0,17	0,42	0,68
1939	0,19	0,45	0,71
1951	0,13	0,34	0,60
1955	0,14	0,35	0,62
1960	0,15	0,38	0,64
1965	-	0,33	0,59
1970	0,12	0,31	0,56
1974	0,11	0,28	0,52

Source: N. Wilterdink, *Vermogensongelijkheid in Nederland*, 101.

The contraction of the top wealth shares occurred mainly during periods of economic and political crisis: the First World War and the Russian revolution, the Great Depression in the 1930s and the Second World War and its aftermath. Shortly after the Second World War the Netherlands lost its main colony Indonesia. The lion's share of Dutch owned assets there were nationalised in 1956-1960, which must have further contributed to a decline of wealth inequality.¹⁷ Studies on wealth distribution in other European countries corroborate this: wars and crises destroyed large amounts of capital and wealth, hitting the rich relatively hard.¹⁸

Alongside the impact of crises, the 'egalitarian revolution' of the twentieth century has played a large role, including the associated government

17 J.T. Lindblad, *Historical foundations of a national economy in Indonesia, 1890s-1990s* (Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen 1996).

18 T. Piketty and E. Saez, 'Income inequality in the United States, 1913-1998', *The Quarterly Journal of Economics* 118 (2003) 1-39; T. Piketty and E. Saez, *The evolution of top incomes. A historical and international perspective*. NBER working paper no. 11955 (2006); Anthony Barnes Atkinson and Thomas Piketty, *Top Incomes Over the Twentieth Century. A Contrast Between Continental European and English-Speaking Countries* (2007); Piketty, *Capital*.

policies.¹⁹ These included the build-up of collective wealth, subsidies for small savings, the introduction or increase of wealth taxes and the reduction of income inequalities via progressive income tax schemes. A small segment of these policies explicitly aimed at the reduction of wealth inequalities, as most clearly with the succession or inheritance tax. This tax was made progressive in 1911 and was gradually raised in the course of the twentieth century, although it remained always contested, tax rates remained modest (from 1945: 3 to 17 percent), and it was often evaded, for instance by gifts *inter vivos*.²⁰ Much more important were the many other policies that only implicitly or indirectly tackled wealth inequality, but still had a real reducing effect.

The potential margin of error in Wilterdink's time series becomes clear when one compares his estimates of total private household wealth with more recent series of net private wealth constructed by the Dutch Bureau of Central Planning (*Centraal Plan Bureau*, CPB). The CPB estimates total wealth at 248.1 billion guilders in 1970, which is 187 percent of Wilterdink's estimate of 132.5 billion guilders. Another indication that Wilterdink's estimates of total wealth are far too low is that in 1974 they only constitute 84 percent of Dutch GDP.²¹ In other industrialised countries the net private wealth held by households tends to exceed annual income levels by a factor of four to six.²² The CPB estimates of the Dutch wealth to GDP ratio for the period 1970-2008 give 1.6 to 2.3, which still puts the Netherlands on the lower side of the international comparison.²³

Because wealth tax records usually lack information about total wealth independent from changes in wealth held by the upper strata, top wealth share estimates retain an uncertain margin of error.²⁴ Mierheim and Wicke

19 Soltow and Van Zanden, *Income and wealth inequality*, 175-193; N. Wilterdink, *Vermogensongelijkheid in Nederland. Ontwikkelingen sinds 1850* (Amsterdam 2015) 299-319.

20 Wilterdink, *Vermogensongelijkheid in Nederland*, 178-179, 214-215 and 297. For recent developments: J.J. Gilst, H. Nijboer and J.C.L. Caminada, 'De successiebelasting vanuit economisch perspectief', *Weekblad voor fiscaal recht* 137 (2008) 1423-1430.

21 Wilterdink, *Vermogensongelijkheid in Nederland*, p. 100: 171.5 billion guilders in 1974, compared to a GDP of 205.6 billion guilders.

22 See the data for Finland, Sweden, Germany, Italy, UK and US offered by the Luxemburg Wealth Study (LWS) in E. Sierminska, A. Brandolini and T.M. Smeeding, *Comparing wealth distribution across rich countries. First results from the Luxembourg wealth study*. Paper prepared for the 29th general conference of The International Association for Research in Income and Wealth (Joensuu, Finland 2006) 33; see also Coenen Figure 2, this issue.

23 CPB, *Macro Economische Verkenning 2008* (2007).

24 Anthony Atkinson, 'Concentration among the rich', in: James Davies ed., *Personal wealth from a global perspective* (Oxford, New York: Oxford University Press 2008) 65.

illustrate this point in a painstaking and never repeated exercise, by adjusting the wealth inequality estimates for West Germany in 1973 for the missing wealth of the richest households using a source which, exceptionally for Germany, also included the value of equity in private businesses (which is concentrated in the wealthiest group). They obtained a Gini of 0.75, which is considerably higher than the Ginis calculated without these corrections for 1969 and 1983 (0.68-0.70).²⁵

For the fifteen years between 1975 and 1990 we know next to nothing about the development of wealth inequality in the Netherlands, because several consecutive tax reforms further reduced the value of tax records for analytical purposes.²⁶ In order to stimulate the depressed Dutch economy entrepreneurs were granted a tax exemption threshold up to more than 200 percent of the exemption threshold for private households. In addition, increasing rates of inflation resulted in various rapid adjustments of the wealth threshold level. Resulting inconsistencies were the main argument for Wilterdink, writing in 1984, to stop his analysis in 1974, although he posited that private wealth inequality had probably started to rise again from the start of the 1980s, at least temporarily.²⁷

Returning to the issue in 2015, Wilterdink argues that his guess about the rise of wealth inequality from the early-1980s had been correct, but that he did not foresee that it was the start of a more continuous and structured upward movement.²⁸ Indications for this, however, are still as scarce as they had been before. One of these indications is that the number of millionaires according to the wealth statistics more than doubled in the period 1980-1990, while average disposable household income only increased by 30 percent. Also, the wealth of the top one percent had reached its lowest ever relative share in 1980 but started to rise thereafter. As Wilterdink himself notes, these scarce indications are based on the same incomplete sources that had forced him to end his seminal book with 1974 data.

25 H. Mierheim and L. Wicke, *Die personelle Vermögensverteilung in der Bundesrepublik Deutschland* (Tübingen 1978); Holger Stein and Richard Hauser, *Inequality of the distribution of personal wealth in Germany 1973-1998*. Levy Economics Institute working paper no. 398 (2004).

26 See also Coenen, this issue.

27 Wilterdink, *Vermogensverhoudingen in Nederland. Ontwikkelingen sinds de negentiende eeuw*, 385. His working paper from 1991 on developments in the 1980s suffered from the same source problems and should also be seen as an educated guess about trends. Wilterdink, *Vermogensverhoudingen in Nederland. Recente ontwikkelingen*.

28 Wilterdink, *Vermogensongelijkheid in Nederland*, 335, 342-343.

3 Recent trends of wealth inequality, 1991-2015

Much firmer ground is only reached in 1991, as from this year onwards, new surveys of private wealth distribution became available. In this section we will evaluate four sources that can be used to measure private wealth inequality. Although the available sources for the post-1990 era provide a better insight into comparative levels and trends than the dearth of data for the late 1970s and 1980s, it should be noted upfront that none of these sources offers a complete picture, nor do they provide us with consistent time-series.

The CBS wealth statistics

Statistics Netherlands (CBS) has published statistics on the decile distribution of Dutch private household wealth for irregular years since 1991 and annual estimates since 2006. The CBS derives its data from a variety of sources, the most important of which are samples taken from the income and tax registers, complemented by data from the *income panel survey* (containing some 250,000 persons, conducted by CBS) and the *social economic panel survey* (containing some 13,000 persons, conducted by CBS). Since 2011 the CBS has adopted an *integral* approach to income and tax registers, using all data available at the Dutch tax authorities (*Belastingdienst*) to compute total private household wealth and divide this into percentiles of private wealth ownership.

The CBS wealth statistics have several limitations. A minor limitation is that the wealth saved by way of savings-based and endowment mortgages is not included in the figures. In 2012, this was 38.4 billion Euro, which would amount to more than 3 percent of total private wealth. Since this wealth is often found with households with high mortgages, who are now often represented in the statistics with high negative wealth, including this wealth component would have a dampening effect on wealth inequality figures. More specifically, for the year 2012 it would reduce the Gini of wealth inequality by a little over one percentage point.²⁹

More importantly, there are two major limitations of the CBS wealth statistics. Firstly, collective pension savings are not taken into account, and given the latest estimates of the total value of Dutch pension funds, (1,257 billion Euro in 2012 according to the CPB)³⁰ the wealth stored in pension

29 A. Kooiman and A. Lejour, *Vermogensongelijkheid in Nederland*, CPB Achtergronddocument (2016).

30 Frank van Es and Henk Kranendonk, 'Vermogensschokken en consumptie in Nederland', CPB Achtergronddocument (2014) 23.

funds accounts for about 40 to 50 percent of total private wealth. It may be argued that the exclusion of these pension savings is justified, since seen from the perspective of the household these are not a form of wealth but rights to future income streams, that cannot be used, transferred or inherited like other forms of wealth. Still, the presence of these pension rights needs to be taken into account when analysing and explaining wealth distribution, so we will return to pensions below (see section ‘The distributional implications of Dutch pension coffers’).

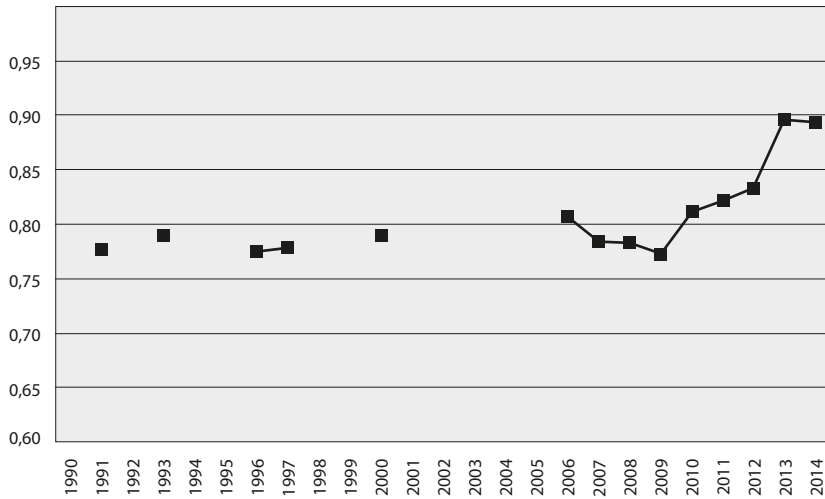
Secondly, it is unlikely that the wealthiest Dutch households, i.e. the super-rich, are fully represented in the wealth statistics. The value of private limited liability companies, where large segments of their wealth are stored, is often deliberately pushed down for fiscal reasons. Moreover, any wealth component that cannot be attributed to an individual or household, or cannot be observed because it is placed in a private limited liability company or another corporation, remains excluded.³¹ This probably also applies to the substantial amounts in approximately 150,000 pension-BVs (limited liability companies) of directors and major shareholders, even though they often can be inherited or transferred and therefore fall under the definition of private wealth. As we will demonstrate below, a comparison of Quote 500 estimates of total wealth of the 500 richest households with the CBS top 0.1 percent share of wealthiest households (about 4,600 households) indicates that there is a huge gap, which may point to an overestimation by *Quote magazine*, but almost certainly also reveals major underestimation of the wealth held by the super-rich in the tax-records used by the CBS. We will come back to this issue further below.

Figure 1 presents the CBS estimates of the top and bottom decile of the private wealth distribution and the Gini-coefficients for the years after 1991 that the CBS has published in its wealth statistics. Table 2 presents the shares of wealth held by the bottom and top ten percent of the private household wealth distribution for the same years. The switch from a sample-based approach to an integral approach to wealth distribution does not make much of a difference for the inequality estimates, as a comparison of the two figures for 2011 in Table 2 demonstrates.

Figure 1 shows that the year 2009, with the onset of the financial crisis, marks the start of an impressive rise in wealth inequality with Gini's up to 0.89. Table 2 also shows that among the bottom ten percent of the distribution the levels of net debts were rising since the early 1990s, while the top ten percent share in total wealth declined until 2009, if we disregard

³¹ For this source problem see Coenen, this issue.

Figure 1. Gini Coefficients of Private Household Wealth Inequality, CBS estimates, 1991-2014



Sources: For the years 1991, 1996 and 1997: CBS, *Inkomen en vermogen 1992-1994*; CBS, *Sociaal-Economische Maandstatistiek*, July 1996, *Jaarboek Welvaartsverdeling 1998 en 2000*; For the years 2006-2014: CBS, *Statline vermogensstatistieken*. The CNBS retrieved its original data mainly from income and wealth tax records, the CBS, *Inkomenspanelonderzoek (IPO)* and the CBS, *Sociaal-Economisch Panelonderzoek (SEP)*. For the years 1991-1997 we computed the Gini-coefficients ourselves. For the years 2006-2014 they are provided by CBS, *Statline*.*

* Letter of the Dutch state secretary of finance, S.R.A. van Eijck to the chair of the Dutch parliament, responding to the motie Vendrik, 14 October 2002, mentions much lower Gini coefficients for the years 1993 and 2000, at around 0.72 S.R.A. van Eijck, *Brief van de Staatssecretaris van Financiën aan de Voorzitter van de Tweede Kamer der Staten-Generaal* (letter no. 130, notitie over vermogensverhoudingen in Nederland). 14 October 2002, <https://zoek.officielebekendmakingen.nl/kst-26727-130.html> (6 July 2106). It is unclear to us why van Eijck has reported these data, and disregarded the more reliable estimates that were available at the time of writing.

the outliers (1993 and 2000) reported by van Eijck. The share of the bottom ten percent moved from -1.5 percent in 1991 to -3.9 percent in 2006. After 2009 the rapid rise of the Gini-coefficient was driven by a divergence between the top and the bottom deciles: The bottom ten percent share in total wealth further decreased to -5.2 percent in 2014 and the share of the top ten percent rose to 67 percent.

According to calculations made by CPB analysts Kooiman and Lejour, most of the post-2009 rise in wealth inequality can be explained by the economic crisis, and especially the declining value of real estate (i.e. private house ownership).³² The bursting of the real estate bubble hit the wealth

32 Kooiman and Lejour, *Vermogensongelijkheid in Nederland*, 9-11.

Table 2. The shares of wealth held by the bottom and top ten percent of the private household wealth distribution, CBS estimates 1991-2014

	Bottom 10% sample	Bottom 10% integral	Top 10% sample	Top 10% integral
1991	-0,015		0,64	
1993	-0,02		0,61	
1996	-0,029		0,61	
1997	-0,03		0,61	
2000	-0,027		0,58	
2006	-0,039		0,602	
2007	-0,026		0,595	
2008	-0,028		0,591	
2009	-0,022		0,584	
2010	-0,032		0,62	
2011	-0,035	-0,034	0,626	0,631
2012		-0,037		0,64
2013		-0,055		0,692
2014		-0,052		0,698

Sources: see figure 1.

position of the middle groups particularly hard and pushed a considerable number of Dutch households into a net debt position. Households that held mortgages up to or even over 100 percent of the purchase price, ended up with mortgage loans that substantially exceeded the present value of their real estate. Only in some cases was this counterbalanced by the wealth saved by way of savings-based and endowment mortgages. The high levels of mortgage debt among Dutch households have been fiscally stimulated, because interest payments could be deducted from income tax liabilities – and still can, albeit under tightened conditions. Since the share of real estate is much lower in the portfolio of the top wealth groups, who tend to hold a much larger share of their portfolio in other (financial) assets, the crisis did not hit their wealth position to a similar extent. Stock markets and other equity funds were certainly affected, but have recovered much more quickly since 2009. In the bottom tails of the wealth distribution households without any form of real estate ownership are overrepresented.

The interesting question is whether the rather dramatic rise in private wealth inequality to a Gini of almost 0.90 should be regarded as an incidental break away from a long-term equilibrium of a Gini around 0.77-0.80. Or, alternatively, whether the economic crisis has brought overheated real estate prices back to a more stable long-term equilibrium, and that the housing bubble shielded a rising trend in the wealth distribution during

the two decades between 1990 and 2010. Kooiman and Lejour only survey the period 2006-2013, in which the inflated real estate prices are taken as a given. Yet, an analysis over a longer period of time may offer a different picture. While it is too early to answer this question, it seems clear that the rising net debt positions of Dutch households have indeed been a trend that started long before the crisis of 2008. The fiscal stimuli (in particular the favourable fiscal treatment of mortgage payments) have been reduced somewhat in recent years via several fiscal policy reforms, but as these reforms slowly take effect, they may also put a new ceiling on the recovery of real estate prices, thus leaving part of the increase in wealth inequality intact.

The DNB Household Surveys

In comparison to the CBS statistics of private household wealth, the annually conducted household surveys of the Dutch Central Bank (DNB) have one major advantage: the surveys include questions on all the major components of household wealth and debt, varying from stocks, real estate and luxury goods such as cars, caravans and boats to the level of mortgage debt, delayed payments of rent or utilities bills and different types of consumer credit.³³ In particular such smaller assets and debts are not included in the CBS wealth statistics. The DNB also took several measures to set up a random sample, without truncation for very wealthy households, as is the case in the Social-Economic Panel Surveys, conducted by Statistics Netherlands (CBS).

The main disadvantage of the household surveys is that the number of households that has fully completed the survey is relatively low, varying from 1,500 to 2,500 households.³⁴ Moreover, since the surveys were not truncated for the super-rich, the chances that they would voluntarily cooperate were low. Although tax records used by the CBS are bound to miss the proportion of wealth tax evasion, which may even be higher than many would have considered before the release of the 'Panama Papers' in 2016, it seems unlikely that participants in the DNB household surveys would report part of the wealth they hold outside the surveillance of the Dutch tax authorities. The problem of exclusion of the super-rich in the household surveys will be demonstrated in Table 3 below, where we compare the top 1 percent wealth shares from the household surveys with the estimates derived from

33 Only jewellery and art objects are excluded.

34 Defined here as: the head of the household, his/her partner, resident children and – but exceptionally – other residents such as grandparents.

the CBS wealth statistics and the Quote 500 index. Since the top one and ten percent of the recorded household wealth distribution is considerably lower than those provided by the CBS, let alone the Quote 500, Gini-indices based on the DNB surveys are also out of the range. For the 2000s our estimates are in the order of 0.63 to 0.71, which is certainly too low.

The Quote 500

The list of wealth owned by the 500 richest Dutch households published by Quote Magazine has never been systematically used for academic purposes. The list has been published annually since 1996. The top 500 represents the top 0.007 percent of Dutch households. The Quote 500 is based on a combination of official publications and informal sources, including annual business reports, real estate sales prices, registers of the Chambers of Commerce, stock prices and questionnaires. Gathering and analysing these data is a painstaking job, which according to the editors of the magazine involves a team of four people and requires c. 1.5 fulltime staff years of research per publication.³⁵ Some of the recorded wealth owners participate voluntarily by providing their own estimates of their wealth position. These people may have reasons to either overstate or understate their wealth, but they also run the risk that this will come to light when the information provided is checked with official documentation. Other candidates object to the publication of the Quote 500 and refuse to cooperate.³⁶

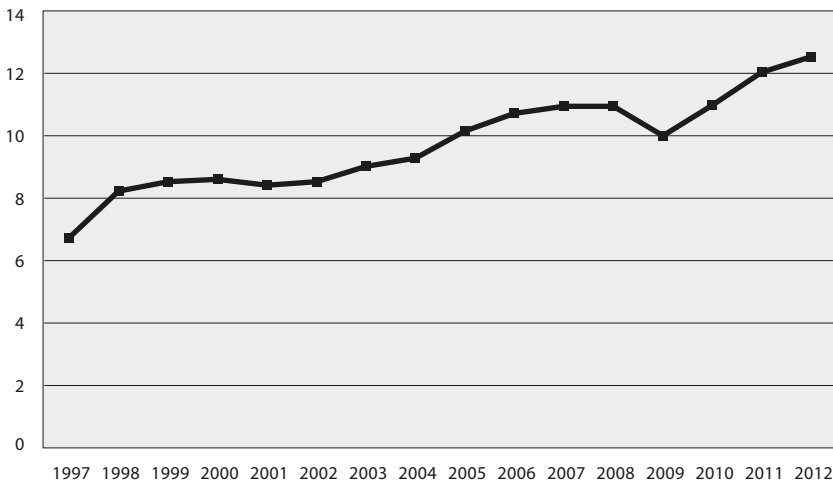
Figure 2 presents the percentage share of total wealth owned by the 500 'super-rich' according to Quote magazine. The total private household wealth estimates are taken from the Centraal Plan Bureau (CPB), which in turn has based part of its series on the CBS wealth statistics. The increase in the share of the top 500, from approximately seven percent in 1997 to over 12 percent in 2012 is large and probably a little overstated, but if we consider the first year of publication as an outlier due to a lack of methodological experience, the time trend seems to be consistent with the fluctuations in the global stock and local real estate markets.

There is definitely a positive relationship between stock price developments and the share of wealth owned by the super-rich, because the latter tend to hold a disproportionately large share of their wealth in company

35 Based on personal correspondence with the two editors of the magazine (Jordy Hubers and Tom Wouda) in November 2014.

36 The use of such lists as provided by *Forbes magazine* or *Fortune* (US), the *Sunday Times* (UK) or the *Business Review Weekly* (Australia) in the wealth distribution literature seems to be generally accepted by now, despite their possible shortcomings (Atkinson, 'Concentration among the rich', 69-70).

Figure 2. The percentage share of total wealth owned by the Quote top 500 index, 1997-2012



Sources: Quote Magazine, various issues 1996-2012. Number of households are taken from CBS Statline and estimates of total private household wealth for 2006-2014 are taken from CBS vermogensstatistiek and extrapolated backwards to 1997 with data from the CPB Macro-Economische Verkenningen (the data series were kindly provided by Dr. Martin Mellens (CPB)). The years 2012-2015 are not included because of a major break in the unit of calculation (from families to individuals).

shares. In 2011, the top one percent of wealth owners in the Netherlands owned seven percent of net housing wealth and no less than 37 percent of financial wealth. In the latter category, the top one percent even owned 83 percent of substantial shares (over five percent) in companies, while the top 0.1 percent owned 49 percent.³⁷ The impressive jump of the top 500 from a wealth share of ten percent in 2010 to 12.5 percent in 2012 underlines the uneven impact of the economic crisis on the wealth positions of the super-rich and the median wealth owner. But also in the years of the dot.com hype (1997-2000) the wealth share of the top 500 rose quickly, a trend that was stabilised during the subsequent collapse of international stock markets (2001-02). During the recent global depression and the collapse of stock markets in 2008-2009 the share of the top 500 fell substantially, although the rise in 2008 (and hence part of the fall in 2009) may be partly explained by differences in timing: the Quote wealth estimates

37 Van Bavel and Salverda, 'Vermogensongelijkheid in Nederland', 394. See for Finland: M. Jäntti, 'Trends in the distribution of income and wealth, Finland, 1987-98', in: E.N. Wolff ed., *International perspectives on household wealth* (Cheltenham: Elgar 2006) 295-326.



Illustration 1: The number of millionaires in the Netherlands rapidly increased over the past decades, more than doubling in the period 1980-1990 for instance, and the pace of this increase was much faster than that of average disposable household income. The first 'miljonair fair' in the Netherlands was organized in 2001. Photo: Anko Stoffels.

are based on 1 August and the CPB wealth estimates on 31 December. The Quote figures therefore missed the collapse of stock prices in the autumn of 2008, whereas these were incorporated in the total wealth data of the CPB.

If we give some credibility to the Quote-500 figures, these force us to interpret the top wealth shares from the household surveys as minimum estimates: if the top 500 of wealth owners (about 0.007 percent) already possess some ten percent of total wealth, it is impossible that the top 1 percent, including over 70,000 households, owns a similar or even slightly lower percentage of total wealth, as is borne out in table 3. Indeed, the share of very wealthy households in the DNB household surveys seems to be seriously underestimated. There is one spot of evidence that proves this point, because we retrieved one 'super-rich' household in the household survey of 1995. The usual amount of wealth owned by the richest household in the household survey is about one to two million euros in the 1990s. In the 1995 survey, however, the richest household possessed almost 50 million euros. We excluded this outlier from our calculations in table 3 because the sample size was too low to contain one 'super-rich'. We would

Table 3. Top wealth shares, 2006-2012

	Quote Top 0,007% 500 households	CBS Wealth stats Top 1% c. 71-75.000 households	DNB Household Surveys Top 1% c. 71-75.000 households
2006	10,7	11,6	9,3
2007	10,9	12,3	10,8
2008	10,9	11,6	9,7
2009	10	14,7	10,6
2010	11	14,5	9,2
2011	12	11,9	8,5
2012	12,5	13	10,8

Source: CBS Statline, Vermogensstatistiek; Quote Magazine 2006-2012; DNB Household Surveys 2006-2009.

need a sample size of some 13,000 households to include one super-rich household from the top 500. When we artificially inflate our sample size from 1995 five times (which gives 12,080), normalise the distribution and then add this super-rich household, we would see an increase of the top 1 percent share from 8.5 to 16.9 percent. A comparable conclusion was reached by Philip Vermeulen, who attempted to correct the calculations of top wealth shares by way of the European household surveys for non-response and underreporting.³⁸

A similar story holds for the underestimation of the super-rich in tax record data used by the CBS. For the period 2006-2014 the CBS has split its sample into a percentile distribution. This makes it possible to tabulate the top 1 percent wealth shares and compare these to the estimates of the Quote 500, showing that these shares are almost similar. Since we can be sure that not all wealth owned by the super-rich is captured by the tax records due to both illegal tax evasion and legal tax avoidance instruments, to which the middle or bottom wealth owning groups have no access, and since the wealth in private limited liability companies is often only partially captured by the tax records and therefore not fully included in the CBS figures, the estimated top 1 percent of the CBS must be an underestimate. The same conclusion can be reached on the basis of the more detailed information provided by the CBS for the year 2012. The top 0.025 percent, comprising 1,900 households, in that year owned 3.9 percent of total wealth according

³⁸ Philip Vermeulen, *Estimating the top tail of the wealth distribution*. European Central Bank working paper series no. 1907 (2016).

to the CBS figures, compared to 12.5 percent of total wealth owned by the 500 wealthiest families according to Quote (see Table 3).

SHARE data

The last source to be discussed is the data provided by the Survey of Health, Ageing and Retirement in Europe (SHARE). This is a longitudinal dataset from a representative sample of people aged 50 years and older and contains ample information about wealth. The respondents are asked about ownership of their main residence, other real estate, bank accounts, bonds, stocks, individual retirement accounts, contractual savings for housing, whole life insurance, own business and vehicles, and they are asked about any mortgage on the main residence and any debts other than the mortgage. Although the dataset pertains to a specific subset of the population (therefore, figures cannot be compared directly) it is relevant because multiple imputation methods are used in order to correct for the missing observations and the high and low ends of the distribution,³⁹ thus offering a fairly reliable impression of the distribution of net wealth.

Data on wealth are analysed for the second wave of SHARE (2006/2007). In the Netherlands, the top-five percent of people over 50 years owned 42 percent of total wealth in this age group, the top-ten percent owned 54 percent and the bottom-50 percent owned 8 percent, while the Gini-coefficient is at 0.69.⁴⁰ As said, this cannot be compared to the other figures relating to all households, but they can be compared to the figures for the other twelve European countries included in the dataset. These show that the Netherlands is at the top of wealth inequality, together with the Czech Republic and only surpassed by Poland.

4 The distributional implications of Dutch pension coffers

We have already touched upon the question whether pension savings should be included in accounts of private wealth distribution. In a strict sense, and seen from the perspective of the households, they should not, since they contain rights to future income streams that cannot be used, transferred or inherited like other forms of wealth. Pension savings cannot be stacked and

39 Dimitrios Christelis, Tullio Jappelli and Mario Padula, *Wealth and portfolio composition in SHARE – The Survey of Health, Ageing and Retirement in Europe*. Centre for Studies in Economics and Finance working paper 132 (2006). See also: Skopek, Buchholz and Blossfeld, *Wealth inequality in Europe and the delusive egalitarianism of Scandinavian countries*, 8-9.

40 Ibidem, 13-14.

cannot be accumulated over generations, as wealth is, and they do not offer the economic power and social leverage that wealth does. However, when looking at the wealth distribution from an angle of postponed consumption opportunities, as economists adopting life-cycle perspectives often do, it does make sense to include pension rights in private wealth.

Regardless of this conceptual discussion, any *explanation* of private wealth inequality in the Netherlands should take into account these pension rights, since private wealth and (voluntary or obligatory) pension savings operate, at least partly, as substitutes. The substitution effect may be especially relevant for the Dutch case, since the wealth accumulated in Dutch pension funds is huge by any international standard. With an estimated total of €1,257 billion in 2012,⁴¹ the amount was more or less equal to the total sum of private wealth. Especially in the period c. 1980-2010 the wealth held by Dutch pension funds has greatly increased, by more than a factor of twelve, while national income in the same period had grown only by a factor of 3.5.⁴² It is often intuitively argued that taking claims to these funds into account would have a large equalizing effect on the wealth distribution, since much of it is found with the middle classes, and more specifically with the public servants. But what do we actually know about the distribution of pension rights?

In a recent study by Knoef et al. pension rights for the year 2008 are operationalised as an income stream from annuities.⁴³ This study shows that pension rights are highly concentrated among the highest income deciles. This is also indicated by the remittances by employers for the pensions of their employees. Some 45 percent of the total remittances is destined for the top ten percent of household incomes.⁴⁴ The effect of the distribution of pension rights on the wealth distribution has also been investigated recently. The tentative results by Caminada, Goudswaard and Knoef show that pension rights are distributed more equally across Dutch households than private wealth.⁴⁵ The authors claim that imputing these pension claims to wealth of households (using the CBS data for 2010) would reduce the share of the top ten percent from 61 to 47 percent, and that of the top one per-

41 Es and Kranendonk, 'Vermogensschokken en consumptie in Nederland', 23.

42 Wilterdink, *Vermogensongelijkheid in Nederland*, 356-357.

43 M. Knoef et al., Measuring retirement savings adequacy. A first multi-pillar approach in the Netherlands (Tilburg: Netspar 2013) 18-19.

44 Salverda, 'De tektoniek van de inkomensongelijkheid in Nederland'.

45 Koen Caminada, Kees Goudswaard and Marike Knoef, 'Vermogen in Nederland gelijker verdeeld sinds eind negentiende eeuw' (2014) www.mejudice.nl/artikelen/detail/vermogen-in-nederland-gelijker-verdeeld-sinds-eind-negentiende-eeuw (1 July 2016).

cent from 25 to 17 per cent. Since academic published work on this exercise is lacking as yet, it remains unclear how this result has been reached.⁴⁶

It should be noted, however, that pension rights are calculated as gross amounts, whereas a third or more will be taxed before it is available for household consumption or saving. The effect of adding pension rights to private wealth will, therefore, be much smaller than these figures suggest, even if we assume that some wealth components are gross amounts and should also be corrected for future taxation. The same caveat, or criticism, also holds for the recent work done by the CPB. Here, it is stated that including pension rights in wealth calculations would reduce the Gini coefficient for wealth inequality by 14 percentage points in 2006 and by almost 17 percentage points in 2013.⁴⁷ However, this calculation also includes the gross value of pension rights. Further, comparisons of absolute levels are difficult to make, because the authors use a panel of households that is not representative of the total population. Still, despite these caveats, and acknowledging the difficulties involved in any exercise aimed at getting more reliable or precise figures, it is clear that the presence of pension rights has great effects on the nature of private wealth inequality in the Netherlands.

5 Dutch wealth inequality in an international perspective

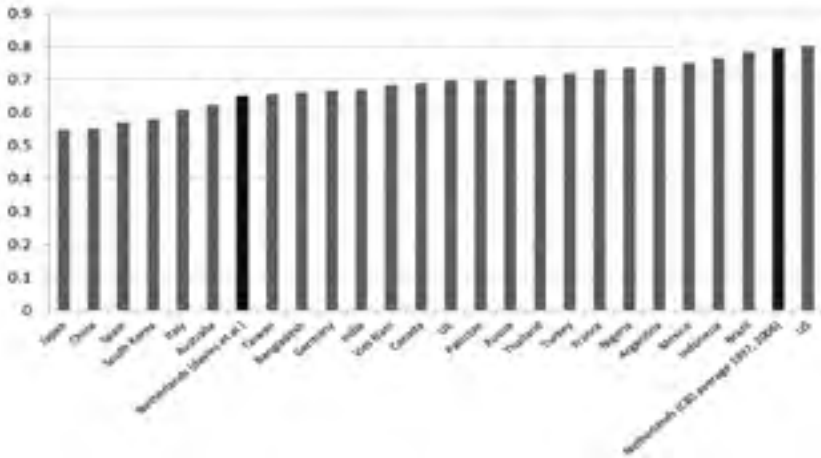
In this section we assess current levels of Dutch private wealth inequality in an international comparative perspective, starting from the work by James Davies and collaborators.⁴⁸ In their attempt to estimate a global distribution of household wealth, Davies et al. have assembled data on national levels and distribution of wealth for twenty countries that represent about 59 percent of the world population and 75 percent of global wealth. These twenty countries compose the core of their dataset, but the assumed positive relationship between income and wealth inequality in this sample is then used to estimate wealth inequality levels in 124 more countries. More specifically, they used the income distribution data from the World Income Inequality Database to generate imputations of wealth inequality, assuming that the ratio of the Lorenz co-ordinates for wealth as compared to income

46 See also the comment by Wilterdink, *Vermogensongelijkheid in Nederland*, 358.

47 Kooiman and Lejour, *Vermogensongelijkheid in Nederland*.

48 See James Davies ed., *Personal wealth from a global perspective* (Oxford, New York: Oxford University Press 2008); James Davies et al., *The level and distribution of global household wealth*. NBER working paper 15508 (2009).

Figure 3. Gini-coefficients of personal (intra-adult) wealth inequality in 25 countries, ca. 2000



Source: Data from Davies et al., *The level and distribution of global household wealth*, Table 9, p. 45; for the CBS estimate of the Netherlands we took the average of years 1997 and 2006 (see figure 1).

are constant across countries.⁴⁹ Interestingly, the Netherlands belongs to the core countries of Davies et al., who drew their information from the DNB household surveys and a 2003 study by van Els et al. on financial behaviour of Dutch households based on the DNB household surveys.⁵⁰

Figure 3 shows that whereas Davies et al. find the Netherlands somewhere in the middle ranks of their sample, the CBS estimates (see also Figure 1) suggest that the country is at the outer end of the international spectrum. Figure 3 offers Gini-coefficients of personal (intra-adult) wealth inequality in 26 countries around the year 2000 reported by Davies et al., including all of the 20 core countries.⁵¹ Davies et al. rank the Netherlands in this comparison with a Gini of 0.65 using the DNB household survey data, in contrast to the CBS estimate of around 0.78–0.82. How is it possible that the wealth inequality estimates for the Netherlands vary so widely?

There are two explanations for the gap. First, we have already noted that the wealthiest strata of Dutch society are even more underrepresented in the household surveys than they are in the tax registers used by the CBS.

49 Davies et al., *The level and distribution of global household wealth*, 20–21.

50 P.J.A. van Els, W.A. van den End and M.C.J. van Rooij, 'Financial behaviour of Dutch households, Analysis of the DNB Household Survey 2003', *Research Memorandum WO no 744/0333 Meb-Series no 2003-09* (2003).

51 Davies et al., *The level and distribution of global household wealth*, 45.

Second, Davies et al. decided to discard all negative wealth shares from their estimates in order to make them mutually comparable. Davies et al. were unable to obtain information on net debt positions for most of their countries and to 'solve' this data problem they instead report zero wealth shares for the bottom deciles (or quintiles) in the case of a negative share.⁵² Yet, as van Els et al. remark in their study, the net debt position of Dutch households was extraordinarily large in 2001, and a substantial part of their paper in fact warned against the trend of growing mortgage debt and the withdrawal of housing equity for consumption purposes by stepping up their mortgage loans, made possible by the steep house price rise of the 1990s.⁵³

A closer inspection of the limited number of countries with wealth inequality figures based on what Davies et al. consider as 'hard data' (p. 17) reveals another problem.⁵⁴ The evidence for the supposed correlation between income and wealth inequality that underpins their extrapolation exercise to 124 countries is absent. In figure 4 we plot the independently computed Gini coefficients of wealth inequality from the 20 core countries against the reported gross household income inequality Ginis from the WIID data, excluding Germany and Indonesia for which the WIID has no gross household income inequality estimates. Figure 4 shows that there is no evidence for a positive correlation between both types of inequality. This comparative perspective adds another dimension to the debate on the paradoxical relationship between high wealth inequality levels and the Dutch welfare system, which is financed by progressive income taxes. This paradox will be discussed in the section "The distributional paradox of a Northern European welfare state?".

When looking more closely at the Gini coefficients of wealth distribution it is striking that most European countries are found in the range between 0.6 and 0.7, but that the European countries at the top end are Denmark (0.808), Switzerland (0.803), Sweden (0.742) and France (0.73). Note that these Ginis would have been even higher if Davies et al. had not subtracted net negative wealth from their estimates. These countries are classic examples of social welfare states characterised by low (Switzerland, France) or even very low (Denmark, Sweden) levels of income inequality indeed. And this pattern is consistent with the CBS figures for the Netherlands (0.792).

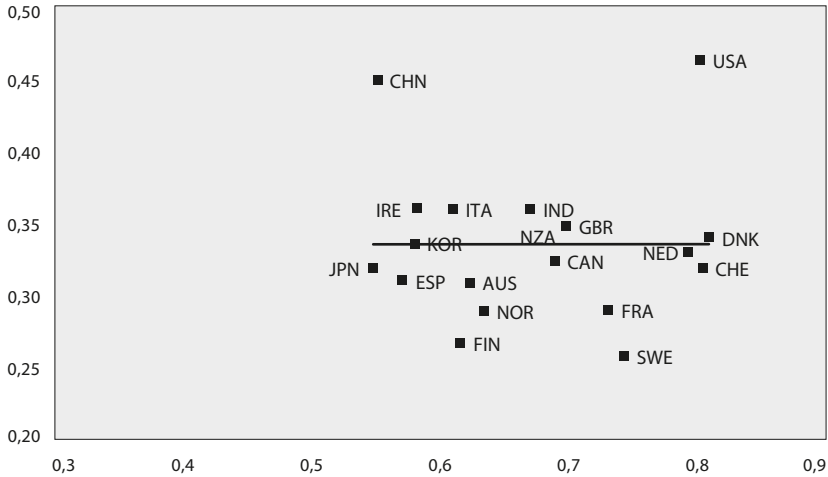
We find more gaps when comparing the wealth inequality figures reported by Davies et al – which are to a large extent based on surveys of es-

52 Ibidem, 20 and 45.

53 Els, End and Rooij, 'Financial behaviour of Dutch households', 1-13.

54 Davies et al., *The level and distribution of global household wealth*, 17

Figure 4. Wealth inequality (horizontal axis) versus gross household income inequality (vertical axis), circa 2000



Sources: Davies et al. *The level and distribution of global household wealth*, table 7 and 9; World Income Inequality Database V2.0c May 2008, gross household income inequality, national coverage, same year or closest by, http://www.wider.unu.edu/research/Database/en_GB/database/ (21-03-2010). Countries included are: Australia, Canada, China, Denmark, Finland, France, India, Ireland, Italy, Japan, South Korea, New Zealand, Norway, Spain, Sweden, Switzerland, UK and USA, and the average CBS estimate of the Netherlands for the years 1997 and 2006.

tate and wealth tax returns -, with those based on household surveys in several national investigations and the Luxembourg Wealth Studies (LWS).⁵⁵ The Gini-coefficients of net household wealth for the years 1999-2002 are broadly similar for the US (LWS: 0.81-0.84 versus Davies: 0.801) and the UK (0.66 versus 0.697), but for Germany (0.78 versus 0.667), Sweden (0.89 versus 0.742) and Finland (0.68 versus 0.615) the gaps are huge.

Countries such as Denmark, Switzerland, Sweden and the Netherlands can all be labelled social welfare states of the 'Rhineland type', also dubbed coordinated market economies or social market economies.⁵⁶ These countries are characterised by cooperation between stakeholders, substantial income redistribution, employment protection, encompassing systems of

55 Sierminska, Brandolini and Smeeding, *Comparing wealth distribution across rich countries*, table 9.

56 Peter A. Hall and David W. Soskice, 'An introduction to varieties of capitalism', in: Peter A. Hall and David W. Soskice ed., *Varieties of capitalism. The institutional foundations of comparative advantage* (Oxford; New York: Oxford University Press 2001) 1-70, 18-21; J. Pontusson, *Inequality and prosperity social Europe vs liberal America* (New York: Ithaca 2006) 3-6.

social security and modest income inequality, especially in comparison to the Anglo-Saxon countries.⁵⁷

It appears that from the nine European countries typically classified in this group, i.e. Germany, Austria, Switzerland, Belgium, the Netherlands, Denmark, Sweden, Norway and Finland, at least seven have ‘unexpectedly’ high levels of wealth inequality. This paradox was also noted by the authors who used the SHARE data to reconstruct inequality levels among people aged 50 years and older. In their analysis of thirteen EU countries for 2006/2007, they find the highest discrepancy between low levels of net income inequality and high levels of wealth inequality for Sweden and Denmark, while the Netherlands also displayed a high level of wealth inequality compared to average levels of income inequality in this age group.⁵⁸ Indeed, the Netherlands seems to fit into a broader group of Northern European welfare states. Is the paradox of low income inequality and high wealth inequality perhaps inherent to the economic and political characteristics of Rhineland welfare states?

6 The inequality paradox of Northern European welfare states?

In the absence of consistent long-term time series it is impossible to draw firm conclusions about the evolution of Dutch wealth inequality in the long twentieth century.⁵⁹ What we do know about Dutch developments, however, fits with a general pattern found in the Western world. The figures we have, suggest a substantial decrease of inequality up to the 1970s and a slow, intermittent rise thereafter. The underlying factors of this rise found more generally in the West also hold for the Netherlands.⁶⁰ As discussed by Nico Wilterdink in his recent overview, income from wealth has been rising, while income from labour has been stagnating or rising slowly. Inequality is particularly driven up by the quickly rising prices in the stock market. Seen over the longer run, and despite temporary crises and price falls, stock market prices in the Netherlands started an unprecedented rise in 1982. We may add, as another factor, Piketty’s argument that large cap-

57 A.B. Atkinson and T. Piketty ed., *Top Incomes Over the Twentieth Century. A Contrast Between Continental European and English-Speaking Countries* (Oxford: Oxford University Press 2007).

58 Skopek, Buchholz and Blossfeld, *Wealth inequality in Europe and the delusive egalitarianism of Scandinavian countries*, esp. 16.

59 Coenen, this issue.

60 Wilterdink, *Vermogensongelijkheid in Nederland*, 373 ff.

ital portfolios, and especially large financial capital, generate higher rates of return than small capital portfolios.⁶¹ We doubt whether the rising inequality of income has contributed much to the rise of wealth inequality in the Netherlands, as Wilterdink suggests, because net income inequality according to the official figures has hardly increased over the past decades. This leaves open the possibility that income from capital is underrepresented in the Dutch income statistics, as argued above, and that this did contribute to growing wealth inequality.

For some other countries of the Northern European welfare state type, the chronology has been charted with much better data. In Germany and Sweden for instance, long-term series of wealth inequality corroborate a rising trend during the last quarter of the twentieth century.⁶² And the causes mentioned are similar. These include the unprecedented rises in the value of stocks and real estate, and also the increasing asset mobility since the 1980s, which has contributed to the evasion and relaxation of wealth taxation. Stocks and other types of financial wealth are especially over-represented in the asset portfolios of the rich. It is generally assumed that there is a positive relationship between stock price developments and the share of wealth owned by the super-rich, because the latter tend to hold a disproportionately large share of their wealth in company shares,⁶³ and these are taxed only at a low rate and to an ever lesser extent.

Even though a rise of Dutch private wealth inequality in the period 1975-1995 is hard to establish empirically, the CBS estimates of 1991-2012 strongly suggest that current levels are high from an international perspective and consistent with other Northern European welfare states. What explains the contrast between income and wealth inequality in these countries? Our tentative explanation has three key components. First, because of the importance of collective arrangements for household asset portfolios in welfare states, the concept of 'private wealth' misses a substantial part of total household wealth in a broader sense. Second, the organisation of such collective arrangements tends to equalise the income distribution in the Northern European welfare states via progressive income taxes, but leaves

61 Piketty, *Capital*, 430-32.

62 J.R. Frick and M.M. Grabka, 'Wealth inequality on the rise in Germany', *German Institute for Economic Research* 10 (2009) 62-73; J. Roine and D. Waldenström, 'Wealth concentration over the path of development. Sweden, 1873-2006', *Scandinavian Journal of Economics* 111 (2009) 151-187.

63 M. Jäntti, 'Trends in the distribution of income and wealth. Finland, 1987-98', in: E.N. Wolff ed., *International perspectives on household wealth* (Cheltenham: Elgar 2006) 295-326; F. Torche and S. Spilerman, 'Household wealth in Latin America', in: J.B. Davies ed., *Personal wealth from a global perspective* (New York: Oxford University Press 2008) 150-176, 167.

the accumulation of private wealth largely untouched. Third, the incentives built into this system of collective welfare arrangements as well as the relatively high levels of income taxation required to sustain it, dis-incentivise the lower income strata to accumulate wealth.

The concept of 'private net worth' does not capture the collective and public arrangements that are put in place to guarantee lifetime income security. In Northern European welfare states, collective and public funds to a great degree secure people against the income risks of old-age, unemployment or incapacity. Also, the state tends to support human capital accumulation by providing easy and affordable access to education for all strata of society. Part of the 'inequality' in the private wealth distribution in Rhineland countries is thus compensated by a relatively egalitarian distribution of the claims to collectively held assets.

Therefore, the incentive on the part of lower income groups to save in order to counter the risk of income losses due to unemployment, illness or old age, is lower than in countries without encompassing social security systems. The provision of cheap public education of reasonable quality also lowers the propensity to increase household savings for education of children, potentially enhancing the inter-generational inequality in financial capital accumulation.⁶⁴ State-guaranteed income security thus may also in part explain the large size of negative wealth ownership in the Rhineland welfare states, both in terms of the percentage share of net debtors as well as the relative size of their debt. In Sweden, for instance, this group comprises 24 percent of total households, and in Denmark even more.⁶⁵

The inclusion of net debtors has a considerable impact on the skewing of the wealth distribution. It is not clear, however, to what extent the size of negative wealth ownership in the Rhineland countries in practice is larger than, for instance, in the Anglo-Saxon countries. The figures assembled in LWS do not indicate a fundamental difference: the percentage of households with negative net wealth ownership around 2000 is also large in Canada (twenty percent) and the USA (sixteen to nineteen percent), whereas in a Rhineland country like Germany this percentage is rather low (nine percent, although no less than 29 percent reported with nil net worth).⁶⁶

Security does play an important role in the decision to save for old age. Of the Dutch households in the social economic panel survey of 1988, when

64 See also: Skopek, Buchholz and Blossfeld, *Wealth inequality in Europe and the delusive egalitarianism of Scandinavian countries*.

65 P. Klein, *Accounting for Swedish wealth inequality*. Econometric Society World Congress 2000 contributed papers 0883 (2000).

66 Sierminska, Brandolini and Smeeding, *Comparing wealth distribution across rich countries*, 31.

asked for their motives to save, only two percent responded by citing old age.⁶⁷ People in the Netherlands and other Rhineland countries are clearly counting on the encompassing nature of state subsidies for old-age and the vast collective pension schemes to which many employees contribute considerable parts of their labour earnings. This effect has also been demonstrated for Finland (2004), with its mainly employment-based schemes, and pension rights making up no less than 47 percent of total wealth, and Germany (2007), with its huge pension funds and its pension rights with a total present value of € 4,590 billion in 2007, making up 43 percent of total wealth. In both cases, the effect would decrease the Gini by sixteen percentage points.⁶⁸

Low variability of income caused by tight labour regulations and extensive social security schemes may induce private risk-taking behaviour, but it also incentivises financial institutions to supply consumer credit or mortgage loans if household incomes are more secure. They 'help' people to incur debt at some points in their life-cycle, especially when starting a family, buying a house or for consumption purposes, especially people in their thirties. However, this pattern is also observed in the Anglo-Saxon countries like the US and the UK,⁶⁹ leaving open the question of the extent to which the role of financial institutions can be regarded as a distinctive characteristic of Northern European welfare states.

The extent of private debt-creation may be a relatively new phenomenon. Most of the Rhineland countries have built up encompassing systems of social security, including old-age income provisions, labour disability insurances and extensive unemployment benefits, only after the Second World War. It is therefore only recently that the political ideal and the economic practice of state guaranteed 'lifetime income security' has started to affect the asset management decisions of households. The changes in the anticipation of risk and the different attitude towards incurring debts are arguably affecting mentality changes within our own generation, but apply to our parents' or grandparents' generation only to a lesser extent.

That said, the very idea of lifetime income security has come under strain in recent years due to increasing liberalisation of labour market reg-

67 Rob Alessie and Arie Kapteyn, *Wealth and savings. Data and trends in the Netherlands*, VU Research Memorandum 46 (1999) 11-12.

68 Joachim R. Frick and Markus M. Grabka, 'Old-age pension entitlements mitigate inequality. But concentration of wealth remains high', *DIW Berlin, German Institute for Economic Research Weekly Report* 6 (2010) 55-64; Tallamaria Maunu, *The distribution of pension wealth in Finland*. Finnish Centre for Pensions working papers 2010:3 (2010).

69 Sierminska, Brandolini and Smeeding, *Comparing wealth distribution across rich countries*, 34.

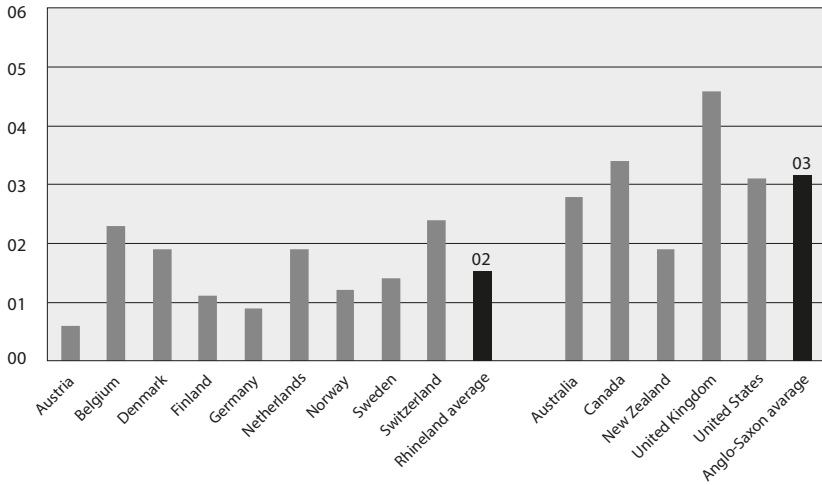
ulations as well as the growing number of freelance jobs, temporary contracts and project-based labour hires. This has led to renewed insecurity about people's income position and related difficulties to build up sufficient pension rights or conclude a mortgage for the purchase of real estate. If our argument is correct that the design and expansion of the Dutch social security system has created disincentives to accumulate wealth, we would see a reversal of this trend in times of a retreating state, thus creating more incentives for lower income groups to save. However, the same changes in the labour market and the downward pressure on real wages may also reduce the opportunity for ordinary households to save and accumulate at all.

7 Comparative tax regimes

Tax regimes supporting the heavy weight of social security expenditures on government budgets also have an impact on wealth distribution. In Northern European welfare states, the taxes press mainly on labour and consumption (V.A.T.), and to a lesser extent on wealth. This reduces opportunities for lower income groups to accumulate wealth, while it increases opportunities for wealth owners to expand their wealth. As shown in Figure 5, in the Rhineland countries wealth taxes (including taxes on wealth inheritance and transaction) constitute about 1.5 percent of GDP, which is less than half the proportion in the Anglo-Saxon countries (3.2 percent). Apart from the question of whether there is sufficient political leverage to tax wealth, the costs of monitoring and levying wealth taxes are higher than in the case of income or consumption. Asset mobility has increased in the last decades of the twentieth century, which has made it easier to avoid or escape wealth taxes. Hence, the rich have clear incentives to have part of their income (i.e. the part not needed to fulfil short-term consumption desires) paid in the form of company shares or other types of assets, in order to subsequently shield them from taxation.

Lastly, a share of private wealth remains outside all registration and is not taxed at all. This share is probably fairly substantial, especially where it concerns top wealth, as this consists largely of financial wealth that is easier to move and hide, and that is possessed by wealth owners who have the means to hire the financial, legal and fiscal expertise needed to this end. The exact size of this wealth is very difficult to estimate. Recent investigation on the basis of disclosed bank data concludes that about 12 percent of European private wealth is stored in tax havens, of which about

Figure 5. Taxes on property as percentage of GDP, 2006



Source: OECD, *Growing unequal? Revenue Statistics 1965-2007*.

Notes: The taxes refer to category 4000 in the OECD revenue statistics; it includes recurrent taxes on immoveable property, recurrent taxes on net wealth, estate, inheritance and gift taxes, taxes on financial and capital transactions and other (non-) recurrent taxes on property.

half is in Switzerland. About three-quarters of this wealth is unregistered and not taxed.⁷⁰

The declining importance of wealth tax revenue, the difficulties in monitoring and possibly also ideological reasons have induced several policy-makers to advocate further reductions in taxes on wealth and income from wealth, and even fuelled propositions to abolish them altogether. Perhaps surprisingly, in an international perspective this has happened most conspicuously in the Northern European welfare states. The taxation of wealth revenue was abolished in Austria in 1994, in Denmark and Germany in 1997 and in the Netherlands in 2001. During the latest tax reform in the Netherlands in that year, the capital levy was raised from 0.7 to 1.2 percent, but at the same time taxation of actual income from savings or investments was abolished.⁷¹ Previously, the larger wealth owners had been paying 60 percent income tax on income generated from capital or wealth. This implies that in the case of an average annual net return of four percent the fiscal rate has declined from 3.1 percent ($2.4 + 0.7$) to 1.2 percent. To be sure,

70 G. Zucman, 'The missing wealth of nations. Are Europe and the U.S. net debtors or net creditors?', *The quarterly journal of economics* 128 (2013) 1321-1364.

71 B. Jacobs, 'Belastingen op kapitaalinkomen in Nederland', *Tijdschrift voor Openbare Financien* 47 (2015) 24-48.



Illustration 2: An estimated 12 percent of European private wealth is stored in tax havens, of which about half is in Switzerland. About three-quarters of this wealth is unregistered (see Zucman, note 70). Source of the picture: www.forbes.com/sites/robertwood/2014/05/19/credit-suisse-guilty-2-5-billion-fine-but-avoids-death-in-u-s-ubs-was-luckier/#7a816fi82df8.

the average net return of this example may be too high for small capital owners, especially in the light of low interest paid on savings, but on average fairly mild for large capital owners who hold different asset portfolios.

In view of the fierce international competition in financial markets, many governments, including those of the Rhineland countries, have been pressed to adopt a relatively mild fiscal regime for businesses and their capital assets. An analysis of changes in the corporate income tax in sixteen countries (part of the EU plus G7) over the period 1982 to 2001 shows that the effective average tax rate was reduced substantially, that is, more than 20 percentage points, in five of these countries. Of these, four are Rhineland welfare states: Austria, Finland, Germany and Sweden.⁷² In part, this was a process of convergence with rates in the Anglo-Saxon countries, and the levels reached were broadly similar around 2000. However, the process proceeded thereafter. In the Netherlands, the period 2003-2011 saw a de-

⁷² M.P. Devereux, R. Griffith and A. Klemm, 'Corporate income tax reforms and international tax competition', *Economic policy* 35 (2002) 450-497.

cline in the implicit tax rate on capital, business income and corporations amounting to no less than 44 percent in total.⁷³ This happened while the Rhineland countries, much more so than the Anglo-Saxon countries, were struggling to fund their relatively extensive welfare systems.

The revenues to fund the welfare state are hardly found in the realm of property, wealth transfers or wealth revenue taxes. Inheritance taxes, for instance, have been reduced or even abolished in most Rhineland countries in the past decades. In 2005, succession taxes in the Netherlands amounted to no more than € 1,709 billion or eighteen percent of the € 9,450 billion declared and taxed as net wealth inherited that year and no more than eight percent of the total amount of €22 billion inherited that year.⁷⁴ In all Western countries, including both the Rhineland and Anglo-Saxon types, the weight of inheritance taxes has shrunk to insignificance since the 1970s and makes up only a very small share of total state revenues, usually lower than one percent.⁷⁵ Inheritances can result in lower wealth inequality (Wolff, 2002), especially when distributed among many children, but this inter-generational effect has decreased as a result of declining birth rates, while wealth can now be transferred to the next generation relatively unaffected by taxation.

The supposed inefficiency of wealth taxation alone cannot explain why income and consumption in the Rhineland countries are increasingly targeted instead of wealth. Figure 5 has shown that Rhineland countries in general tend to tax property less than Anglo-Saxon countries such as the US, UK and Australia. As a percentage share of GDP the Anglo-Saxon countries, with the exception of New Zealand, tend to tax wealth at least twice as heavily as the average Rhineland welfare state. Also compared to the OECD Total (2.0) or the EU15 (2.2), the Rhineland countries remain below average. In other words, the Rhineland welfare states tend to base the additional tax effort required to maintain the supply of social security and collective goods, on income and consumption, but certainly not on private wealth.

As a result, taxes on income from labour in Rhineland countries are much higher than those on income from wealth. The disparity in tax levels is huge. For the Netherlands, where extensive negative income from wealth is subsidised it is estimated that taxation on income from labour amounts to 40-45 percent, while for income from wealth this is c. 9 percent.⁷⁶ Simi-

73 Eurostat, *2014 edition Taxation trends in the European Union Data for the EU Member States, Iceland and Norway* (Luxembourg: Publications Office of the European Union 2014).

74 Gilst, Nijboer and Caminada, 'De successiebelasting vanuit economisch perspectief'.

75 Graziella Bertocchi, 'The vanishing bequest tax. The comparative evolution of bequest taxation in historical perspective', *Economics & politics* 23 (2011) 107-132.

76 Jacobs, 'Belastingen op kapitaalinkomen', 29.

lar differences may be found in the Scandinavian countries with their dual taxation systems,⁷⁷ where nominal tax rates on corporate profits and capital gains are much lower than the top rates of taxes on labour income, while the first can easily be further reduced by using exemptions and other tax-reducing measures. It is striking that this dual taxation system is prevalent in these Scandinavian countries and the other countries that have components of this system include Austria, Belgium and the Netherlands, while introduction is considered in Germany and Switzerland, all being Northern European welfare states.

8 Conclusion

Despite the difficult interpretation of the very fragmented data, three 'stylised facts' have emerged from earlier and recent attempts to reconstruct the broad trends in Dutch wealth inequality since the Second World War. First, Dutch wealth inequality has declined, and probably rather substantially, up to the 1970s. Second, but this is more tentative, wealth inequality has started to rise in the 1980s, and continued to rise, with temporary interruptions, since then. Although the data required to make solid comparisons over time are lacking, because of the absence of a consistent post-war time-series, there are two reasons to believe that current levels of private wealth inequality are (much) higher than they were in the early post-war decades (1950s-1970s).

First, because the factors that caused a considerable reduction in wealth inequality during the 1930s and 1940s (i.e. collapse of stock markets, war-time destructions and dispossessions, post-war monetary reforms) have not occurred ever since, so that new processes of selective accumulation got free play. The absence of such shocks in the second half of the twentieth century allowed private wealth portfolios to grow undisturbed.

Second, because wealth tax regulations were much more progressive up to the mid-1960s than they were after the tax reforms of 1964 and the later reductions of wealth taxes, a process that still continues. The recent shock of the 2008 financial crisis did not lead to a levelling of wealth inequality but to a further sharpening. It shows that the wealth of the richest groups in society has become increasingly immune to shocks at a local or national level. Instead of being invested in local real estate, much of this wealth is

77 S. Cnossen, *What Kind of Corporation Tax Regime?* CESifo Working Paper Series No. 5108 (CPB Netherlands Bureau of Economic Policy Analysis 2014) 23-25 and Table 2.

invested as financial capital outside the national borders. The strong intervention of national authorities and central banks in financial markets has avoided a sharp reduction in financial wealth, while the costs of 'rescuing' financial institutions were borne by income and consumption taxes, thus shifting the burden to the lower strata of the wealth distribution.

A third stylised fact is that, while levels of income inequality are low by any international standard, levels of private wealth inequality are not. Some evidence even suggests that current private wealth inequality in the Netherlands is exceptionally high in international perspective. This paradox of low income inequality and high private wealth inequality, as we have argued, is probably inherent to the particularities of Northern European welfare state systems and can at least in part be explained by the extensive social arrangements and collective pension systems in these countries. These arrangements reduce the need for households to save wealth as a safety net, while the funding of these systems mainly presses on income from labour and consumption and thus precludes the opportunity for many households to accumulate wealth. So even if the rise in private wealth inequality is offset by the large entitlements of the middling households to collective pension savings or that of poorer households to social arrangements, the fundamental change of the structure of the wealth distribution over the past decades remains a fact of social, political and economic importance.

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