WID.world TECHNICAL NOTE SERIES N° 2013/4

Extending the Top-Income Shares for the Netherlands from 1999 to 2012: An explanatory note

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October 2013

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This quick note serves to enable the World Top Incomes Database to amend the existing data for the Netherlands with new results that update the available information from 1914–1999 to 1914–2012. In a separate paper (Salverda, forthcoming) the new findings are compared to the previous ones, including further scrutiny of the role of different sources of income and the importance of taxation and the one-year deviation of outcomes for 2007 as a result of a temporary tax measure.

Table 1 presents the extended data: for the year 2000 in accordance with the old series (1914–1999, see Salverda and Atkinson, 2007) on the one hand, and for the period 2001–2012 on the basis of newly defined data from Statistics Netherlands on the other hand. Figures A.1.A and B portray the extensions to the existing series. The table also presents the average incomes in the top quantiles for the latest year, and their ratios to the general average which amounts to € 45.500.

Table 1 Top-income shares Netherlands, 2000 and 2001-2012

Percentage of total gross income and average level in €/year

	Top-10%	Next vintile	Top-5%	Next-4%	Top-1%	Top-0.5%	Top-0.25%
2000	28.02	10.81	17.21	11.60	5.61	3.53	n.a.
Break*							
2001	29.69	10.97	18.72	12.08	6.64	4.32	2.32
2002	29.82	11.11	18.72	12.17	6.55	4.23	2.32
2003	29.84	11.23	18.61	12.25	6.36	4.07	2.29
2004	30.44	11.29	19.16	12.50	6.66	4.25	2.41
2005	30.69	11.35	19.34	12.53	6.81	4.40	2.40
2006	30.84	11.37	19.47	12.62	6.84	4.43	2.41
**2007	31.72	11.26	20.46	12.89	7.57	4.81	2.76
2008	30.69	11.35	19.35	12.58	6.76	4.33	2.44
2009	30.56	11.49	19.07	12.64	6.43	4.03	2.40
2010	30.71	11.53	19.18	12.73	6.45	4.03	2.42
2011	30.60	11.57	19.03	12.70	6.33	3.95	2.38
***2012	30.90	11.73	19.17	12.84	6.33	3.93	2.40
Average	141.800	107.700	176.000	147.300	290.700	361.100	447.600
Ratio to general average	*3.1*	*2.4*	*3.9*	*3.2*	*6.4*	*7.9*	*9.8*

*) For explanation see Section 2.

**) Deviates because of one-year tax lowering on a type of wealth income

***) Provisional

[1] I am grateful to the World Top Incomes Database for the financial support to the treatment of the data, to Facundo Alvaredo for his comments and help, and to Wim Bos at Statistics Netherlands for his work on the data and his patience in explaining the properties of the data, old and new.

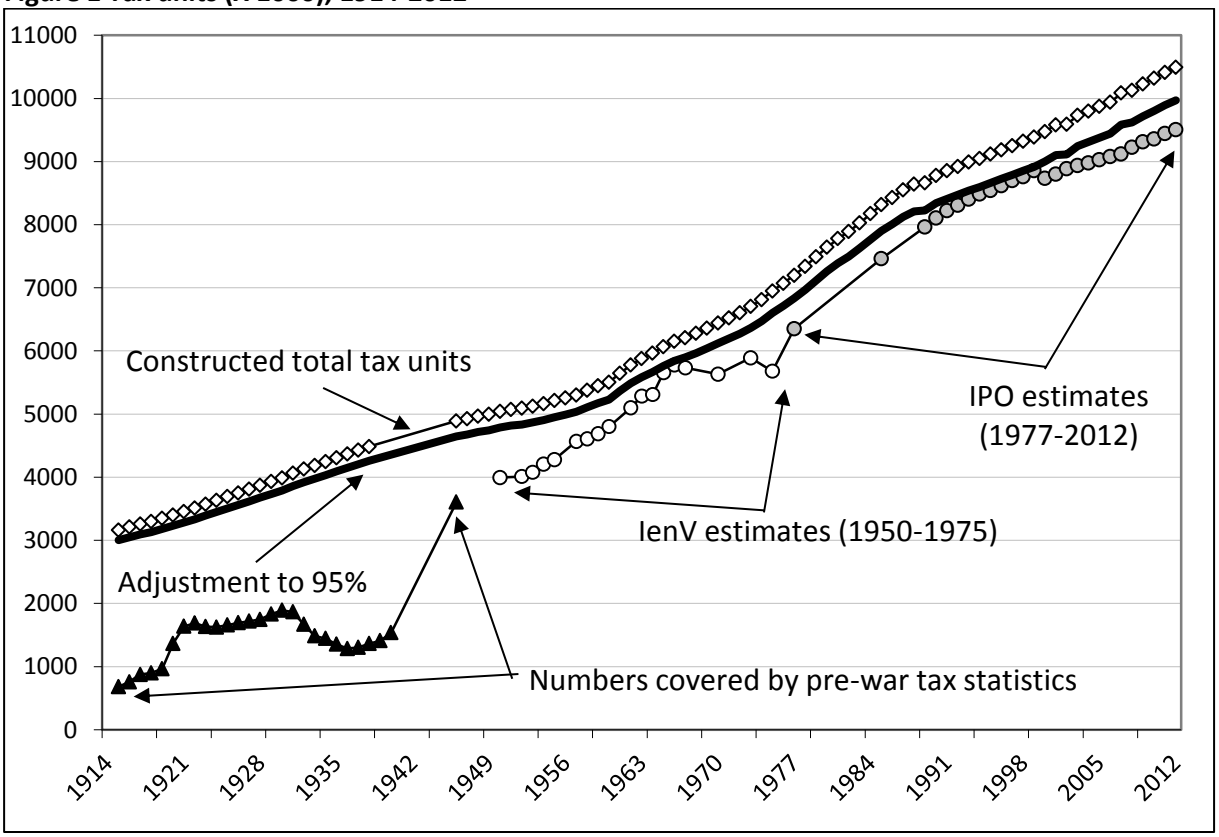
This note, first, presents the underlying basics of the approach and the corresponding empirical detail for the extension period. Second, it discusses the serious series break that occurs between the years 2000 and 2001 as a result of considerable changes of definitions and observations that were made to Dutch income statistics by Statistics Netherlands. This break brings the top-income shares to a comparatively higher level. Unfortunately, no overlapping year is available to gauge the precise effect of the break.

1. Main calculation details and a change in data treatment

First, we determine the top shares directly from the same Inkomens Panel Onderzoek (IPO) data of Statistics Netherlands, which had been used for the years 1977–1999 of the existing series. It is based on a sample of tax records. From there, we treat those in line with the existing approach as explained in Atkinson and Piketty (2007) aiming to bring the top shares in line with the general principles of the World database. Thereto a control total of incomes is constructed that can account for the non-filers to the tax administration. This is done in two steps: estimating their number and attributing an income. For more detail of method see Salverda and Atkinson (2007), Appendix 10B.

First, non-filer numbers are estimated as follows (see Figure 1 for an illustration that extends Figure 10B.1 of Salverda and Atkinson, 2007). The potential maximum of fiscal units is determined from population statistics as the number of individuals aged 15 years and over minus the minimum number of married men or women (implicitly assuming that apparently one partner is outside the country while the remaining one is still a fiscal unit; the gap is less than 0.1% over the updated period). For historical consistency a share of 95% of the found number is taken as the point of departure for a comparison to the number of fiscal units found in IPO; the difference between the two is qualified as the number of 'non-filers'.

Figure 1 Tax units (X 1000), 1914-2012



As a second step these non-filers are attributed, again for reasons of historical consistency, 20% of the mean income of the filers, and the resulting total amount is added to the total income found in IPO. Subsequently, that amount is taken as the denominator for determining the top shares. Consequently, the top shares that are found directly from IPO are slightly lowered. Effectively, they are divided by a correction factor varying between 1.00517 and 1.01015 over the years under scrutiny.

It is important to note, however, that though the same data source IPO has been used the actual treatment of the data differs. The data of the new series from 2001 are approached in a different way from before. Instead of the own treatment of the IPO microdata we now use taylor-made tabulations from Statistics Netherlands from which we can derive the top shares. We calibrate this new approach by applying it also to the last year of the published series, 1999, as well as to the year 2000 which is the last possible year for which the old-style definitions of Dutch income statistics are still available in the data. This tabulated treatment leads to a tiny change for 1999, which reduces the total amount of gross income by 0.7% compared to what was used previously. It also reduces the amounts found for the top income shares and there the effects are slightly larger: -1.2% for the Top-10% share and -1.5% for the Top-1% share respectively. We used these shifts in 1999 to correct (linearly) the new-approach old-style results for the year 2000, slightly augmenting the top shares that are found by the new approach for that year (see Table 2). Thus we extend the old series with one more year before the break to the new series occurs for the year 2001. Note that because of the new data treatment the Top-0.1% share is no longer available as it has not been tabulated by Statistics Netherlands for reasons of data reliability and confidentiality. Instead, a Top-0.25% share is introduced in 2001, which has no counterpart in the old series up to 1999.

Table 2 Top-income shares Netherlands, correction of 2000 for new data treatment
Percentage of total gross income

	Top-10%	**Next vintile**	**Top-5%**	**Next-4%**	**Top-1%**	**Top-0.5%**
1999 old-style	28.09	10.96	17.13	11.75	5.38	3.28
new data treatment						
1999 old-style	27.76	10.90	16.85	11.55	5.30	3.26
2000 old-style	27.69	10.76	16.93	11.40	5.53	3.50
correction						
2000 old-style	28.02	10.81	17.21	11.60	5.61	3.53

2. Break of old/new series in 2000: shifts in labour and wealth incomes, and a tax revision

The change from the 'old' to the 'new' series of income statistics was introduced by Statistics Netherlands in the year 2000, aimed at producing two outcomes, 'old' and 'new', for that year. Unfortunately, the 'new' 2000 data are unreliable and cannot be used for examining the effects of the break. However, 'old' 2000 could be used above to extend from 1999 to 2000. The formal break (old to new 2000) is due to two different factors in the first place: changes in definitions with the corresponding extension of observations, and improved statistical observation. The effective break (old 2000 to new 2001) includes the effects of a fundamental revision of the system of income taxation.

The changes in definition are several. The common income statistics are household-based and an improvement was made in the observation of household demographics. At the same time the

characterisation of households by their main source of income was changed, especially for distinguishing between income from labour or from enterprise. That complicates comparing the household income distribution before and after the break. Fortunately, these two observational changes have little or no importance for our aggregate outcomes here as, instead of households, fiscal units are used in our analysis, and, understandably, their total numbers have hardly changed as a result of the break (-0.2%; ibidem for all top quantiles apart from rounding errors). These aggregate numbers determine the deciles and other quantiles of the distribution and all breakdowns, demographic or economic, fill these in with further detail. There have been some shifts within this aggregate though. On the demographic side the category of fiscal units of 'main earners without a partner' – read single-person households – lost some 5%, to the advantage largely of the 'other' category and slightly of couples (Panel A). On the sources of income side, the number of fiscal units with income from enterprise expanded by 5% (Panel B). An additional and important difference to households is that fiscal units are ranked only by their level of gross income. Their source of income does not affect that though we know what the units receive from different sources. Note that this implies that we have no information about the combination of incomes from different sources within individual fiscal units; instead we know how many fiscal units dispose of an income from a particular source and we know the combination of sources for the aggregate of fiscal units in a quantile. A downside of this is that we ignore the number of fiscal units whose main incomes are from wealth or from transfers as these sources may often combine as a source of income with, e.g., wage earnings or income from enterprise. The latter two sources may also be combined in units but here the quantitative significance may be limited.

More significant is the change that has been made to the definition of labour income. The old series left out occupational-pension contributions made by employees and their employers; understandably, as these contributions are tax-exempt (note that in due course the received pensions will be subject to income tax) and not observed by the income tax administration which is the source of the IPO data. The new series, by contrast, does include these contributions. The effect is substantial, increasing wage earnings by close to € 13 billion or 6% on average. In addition, the effect is skewed towards the top: for example, pension contributions add twice as much, 12%, to the average wage earnings of the Top-1%. This is an important improvement over the old series and the new, higher level of the top shares provides a more adequate reflection of reality which unfortunately cannot be applied to the old series.

Note, that for incomes from enterprise the new series introduces a censoring at € 1 million, which was absent before. This may lower the share at the very top.

A second important change has been made to the income from wealth. The wealth concept comprises on the positive side both financial wealth and property, including self-owned housing, and on the negative side interest payments that have been made, including those for housing mortgages. As usual, the income from self-owned housing is not observed directly but statistically attributed by means of imputed rent. Here a major change was made in 2000 by shifting to another method of determining 'net' imputed rent (based now on a 30-year depreciation of the house). This increased the amount of depreciation and sharply lowered the amount of the net imputation. The new approach more than halved the amount of imputed rent, from € 15.5 billion to 6.9 billion.
At the same time, also on the wealth income side, the interest payments – which particularly regard housing mortgages – remained unaffected. Those involve very substantial and rapidly increasing amounts in the Netherlands, rising from € 18.3 billion in 2001 to € 32.7 billion in 2012 (of which € 10.5 billion for the Top-10% and € 1.7 billion for the Top-1%) compared to a total income from

wealth in that last year of € -12.9 billion. The sheer size of interest payments is due to the full tax deductibility of such payments at the marginal rate; as a type of primary income it is not balanced with those tax advantages. Together with the above lowering of imputed rent this has contributed to turning the income from wealth negative not only for the aggregate (shifting from +€ 2.2 billion in old-series 2000 to € -1.3 billion in new-series 2001) but also for each and every quantile of the income distribution of fiscal units with the sole exception of the Top-1%.
In addition, incomes from the withdrawal of profits from a substantial interest in firms are capped at € 250,000, while also here there was no cap in place before. All in all, we may be more pessimistic about the validity of the new data for wealth: they may be underestimating true wealth incomes more than before, contrary to the observation of labour incomes which as we saw has improved.

It is particularly unfortunate that so far the intended overlap of old and new series for the year 2000 has not been realised as between the two years that are now available 'old' 2000 and 'new'2001 a radical change was made to the Dutch system of income taxation. Though the actual structure of taxation, which affects the individual transition from gross to disposable income, was changed fundamentally by introducing e.g. tax credits, this is of little interest for our purpose here as long as we focus on gross incomes. However, the tax revision did affect the amount of gross income which is subject to taxation. This regards in particular the income from wealth as the tax treatment of this and wealth as such was also fundamentally altered by the tax revision. Up to 1999 the stock of wealth was subject to a separate wealth tax while the actual yield of wealth, such as interest received, was part of normal income and subject to the progressive rates of income taxation. In that last year the separate wealth tax generated receipts of € 1017 million, of which € 471 million was contributed by households in the top decile. With the new law the two types of taxation were brought together in a new feature in the income taxation: the stock of wealth was now attributed a fixed 4% yield which was taxed at the single rate of 30% - effectively amounting to a 1.2% wealth tax and implying that any wealth income exceeding the 4% yield was now tax exempt. At the same time all fiscal units were brought under this new regime while before many were not captured by the separate wealth tax. Thus the number of fiscal units with an income from wealth expanded considerably (5.4 to 6.9 billion) as any savings account or cheap apartment was now also covered, and the aggregate amount of financial wealth more than doubled (5.2 to 10.6 billion) – counteracting to some extent the decrease resulting from the change in imputed rent. However, the increase mainly concerned the very top of the income distribution: of the € 5.4 billion increase between 2000-old and 2001-new €3.4 billion was in the Top-1%, € 800 million in the Next 4%, and € 300 million in the next vintile. Evidently, this adds, from 2001 on, a third factor of change: the broader coverage of gross incomes by the tax system.

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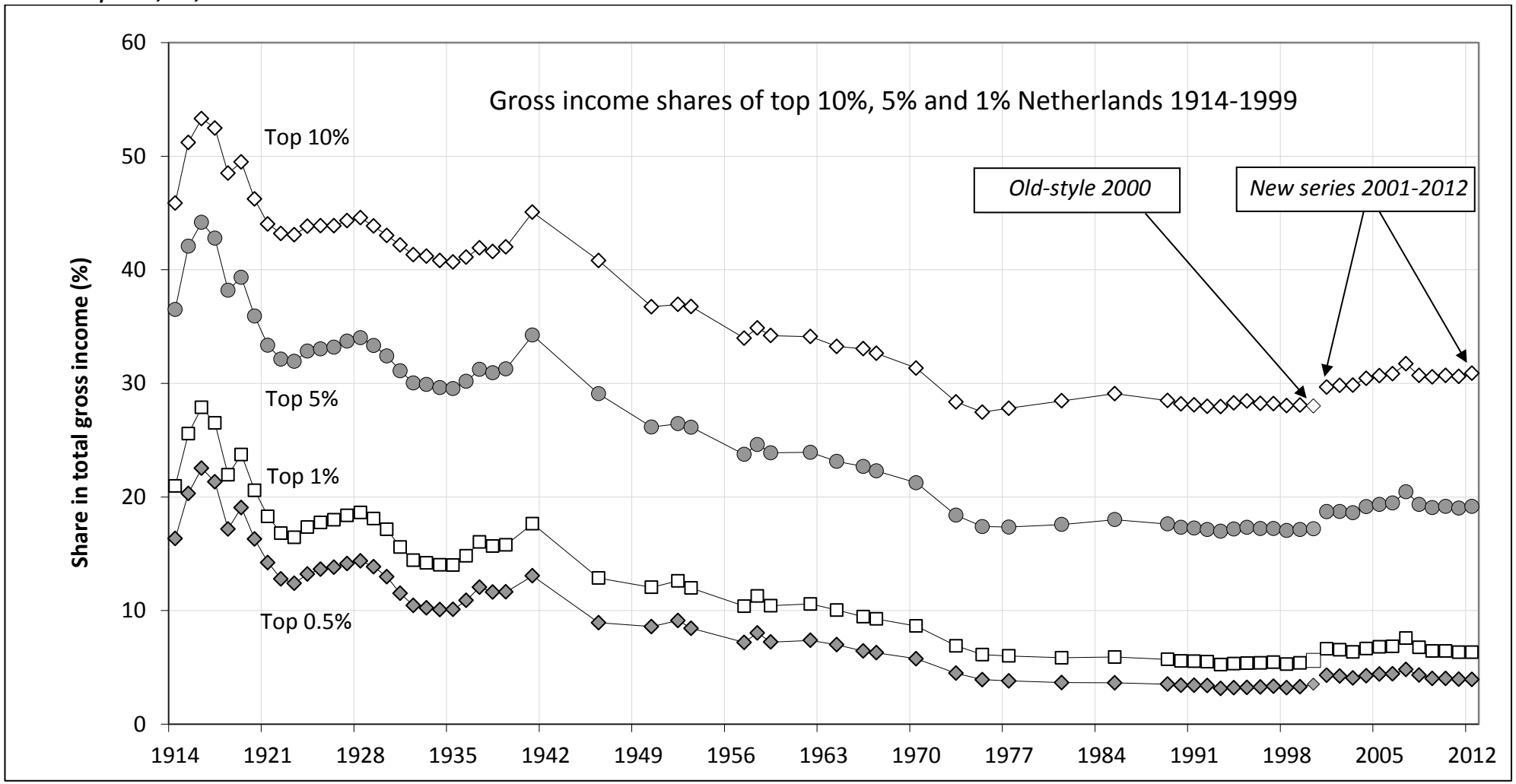
Figure 1. Top shares in total gross income, %, 1914-2012

A. Top-10%, 5%, 1% and 0.5%



B. Next-4% and Second vintile