

## THE NETHERLANDS: WORKING EVER HARDER FOR A MIDDLE-CLASS LIFE 1990-2014\*

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This essay demonstrates the importance of the contributions made to the evolution of the middle class by independently acquired market incomes, the redistribution of incomes resulting from transfers and taxation, and the changing patterns of household formation as reflected by the equivalisation of incomes. The consequent reallocation of households over the classes (poor, middle, and rich) is measured by the changes in gross incomes of the shifting households. This shows that the direct share of the middle class in market incomes is small and has shrunk significantly – to the advantage of the rich class, which has expanded strongly. This is due to the upward shift of labour earnings, especially of two-earner households. However, taxation and the equivalisation of incomes largely neutralise the decline of the middle class. An important implication is that many two-earner households obtain rich earnings in the labour market initially, mostly by combining middle-class jobs, but they can afford only a middle-class lifestyle.

Il presente contributo mostra l'importanza del ruolo che i redditi individuali di mercato, la redistribuzione dei redditi derivante dai trasferimenti e dalla tassazione e la trasformazione dei modelli di formazione dei nuclei familiari – riflessi nelle stime del reddito equivalente – hanno giocato nell'evoluzione della classe media. La conseguente ricollocazione delle famiglie nelle diverse classi sociali (classe povera, classe media e classe ricca) viene misurata sulla base delle variazioni nei redditi lordi delle famiglie che si spostano da una classe all'altra. Questo mostra che la partecipazione diretta della classe media ai redditi di mercato è limitata e ha subito una forte flessione a favore della classe ricca, che è fortemente cresciuta. Tutto ciò è dovuto all'aumento dei redditi da lavoro, in particolar modo delle famiglie bireddito. Tuttavia, la tassazione e la stima in termini di reddito equivalente neutralizzano in larga parte il declino della classe media. Un'implicazione importante è che molte famiglie bireddito percepiscono redditi da lavoro elevati, principalmente sommando occupazioni tradizionalmente appannaggio della classe media, ma possono permettersi solamente uno stile di vita tipico della classe media.

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### 1. INTRODUCTION

The rapidly growing international debate about inequality and a deteriorating position of the middle class are undermining Dutch complacency concerning poverty and income

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\* The paper builds on Salverda (2016b) and (2016c). The former is largely based on interpolations in published tabulated data, the latter makes use of Inkomenspanelonderzoek (IPO) microdataset of Statistics Netherlands, which is used also here. See Salverda and de Jong (2016) for more details about method, data and results, and their caveats.

inequality. At first sight, complacency regarding the middle class may seem justified because (as we will see) it comprises a large and sustained majority of around 80% of Dutch households if measured between 60% and 200% of the median of *after-tax equivalised* household incomes. However, the focus on this type of income – common currency of the European poverty rate and the OECD Income Distribution Database – ignores the important roles played by the acquisition of market incomes and their subsequent redistribution and equivalisation. Market incomes should be at the core of the analysis as they lend the middle class its independent position in society. The public debate worries about the weakening of that foundation, due to rising income inequality and increasing polarisation of the job structure, and fears the potential destabilisation of the political backbone of society.

We start our study of the middle class from the distribution of *gross* incomes to enable examining the significance of market incomes<sup>1</sup>. Proceeding from gross to net incomes allows analysing the role of income redistribution as a support of and/or a drain on the middle class. The adjustment of the after-tax income for the size and composition of the receiving household by means of equivalisation<sup>2</sup> enables considering the effects of household formation, which has changed markedly in recent decades as single households mushroomed and larger households thinned. It also permits scrutinising the combination of individual incomes into household incomes, which has increased strongly and led to the demise of the single-breadwinner model<sup>3</sup>. As a result, economic efforts and incomes are sorted rather differently nowadays in terms of households and income distribution, than they were previously. These issues are vital to an up-to-date consideration of the middle class.

The layout is as follows. Section 2 provides some background with a short sketch of the Dutch economy, labour market, household demographics and income distribution since 1990. Section 3 briefly introduces the approach and the data<sup>4</sup> and presents the evolution of the middle class vis-à-vis the two other classes: the poor class, up to 60% of the median, and the rich class, above 200%. Section 4 details the contributions that are made by taxation and transfers, on the one hand, and the equivalisation of incomes, on the other. Section 5 discusses the impact of earnings in the labour market and the role played by the number of earners that individual households supply. Section 6 concludes with a discussion of the findings and suggestions for further research and policy implications.

## 2. GENERAL BACKGROUND: ECONOMY, EMPLOYMENT, HOUSEHOLDS AND INCOMES

Figure 1 compares three macroeconomic outcomes for the Netherlands: GDP, private consumption and gross capital formation, with the average trends for 10 comparable EU countries<sup>5</sup>, on a per capita basis to control for diverging population growth over time and

<sup>1</sup> Note that gross incomes are not identical to market incomes but include transfers. Definitional and statistical complications impede a systematic correction but we discuss the issue separately in Section 4.

<sup>2</sup> In contrast to directly observed gross and net incomes, equivalised incomes result from a treatment by the data user, aimed at estimating what a given income means depending on needs and economies of scale of the receiving household. As different methods can be used, this lends equivalisation a certain degree of arbitrariness. Importantly, equivalisation commonly proceeds regardless of the level of income. It can be argued, however, that needs and economies of scale may depend on income – with potentially very different outcomes as a result (cf. Aaberge, Melby, 1998).

<sup>3</sup> Cf. Salverda, Brals (2016a, 2016b).

<sup>4</sup> Note the important break in the data in 2000, which is shown in the graphs. When discussing trends, we will indicate the effects.

<sup>5</sup> Naturally, there is substantial variation between countries around these averages as Ireland exploded and Italy

across countries. Fluctuations are substantial, as one might expect for a period that includes the recession of the early 1990s, the dot-com crisis and the financial crisis – not exactly signs of the famous ‘great moderation’ so beloved by the central banks. The variables seem mutually synchronised but their fluctuations differ significantly. GDP growth does relatively better in the early 1990s but much worse after the dot-com crisis and, in spite of a comeback, lags the other countries after 2009. Investments follow the same path with much larger fluctuations. The two crises hit investments very strongly relative to other countries. Household consumption tends to do better up to the dot-com crisis but has been secularly declining since. Notably, it has not profited from the upswing of GDP and investment between 2004 and 2009.

Figure 1. Dutch economic performance per capita relative to average of 10 EU countries, 1990-2014 (1991 = 100)



Note: volume figures. Unweighted averages. Comparable countries: AT, BE, DE, DK, FI, FR, IR, IT, SE and UK.

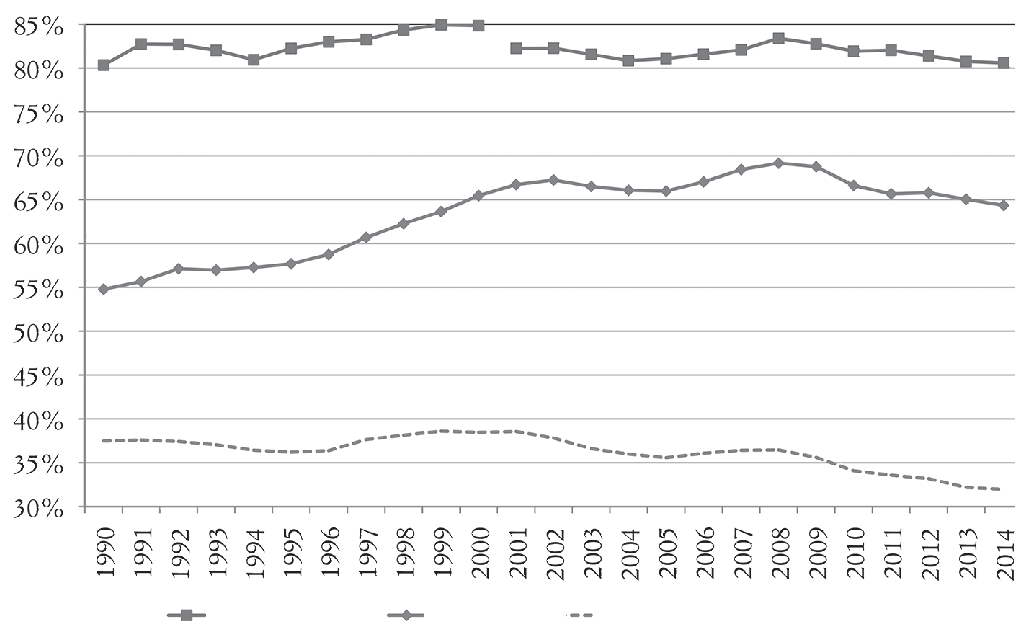
Source: OECD, Economic Outlook No. 98, Labour Force Survey and Population Projections for some countries for 2014.

Households are the fundamental unit of analysis here. Their absolute number increases between 1990 and 2014 by more than 20%, from 6.1 million to 7.5 million. At the same time, household formation changes drastically as the average household size shrinks by 8%, from 2.39 to 2.20 persons – due to an increasing share of single households (32% to

stalled. Over 1990-2013 the Netherlands' growth ended near the bottom of the pack (sixth for GDP, ninth/tenth for consumption, and eighth for investment out of 10).

36% of all households), and a declining number of persons in the non-single households (3.05 to 2.88 persons). The literature on household joblessness shows a different level and evolution of the employment rate on a household basis from the commonly used rate on a personal basis, due to increasing numbers of earners in a household. This is reflected in Dutch outcomes (FIG. 2). The personal rate increases strongly in one long shot up to 2002 (55% to 69%), followed by a quick decline in recent years (5%). In contrast, the household rate remains flat, fluctuating between 80% and 85%, and ends roughly where it started in 1990. The difference implies an increasing concentration of persons with an income from labour in households where there is already such a person. Note that full-time personal employment (the dashed line) tends to decline, which implies that personal job growth is overwhelmingly in part-time jobs, which are an important vector for the concentration of employed persons in households.

Figure 2. Employment rate: households versus persons, 1990-2014



Note: persons and households aged 15-74 years. The household rate covers *any* income from labour or enterprise – not the main income in the household – as in the labour force statistics.

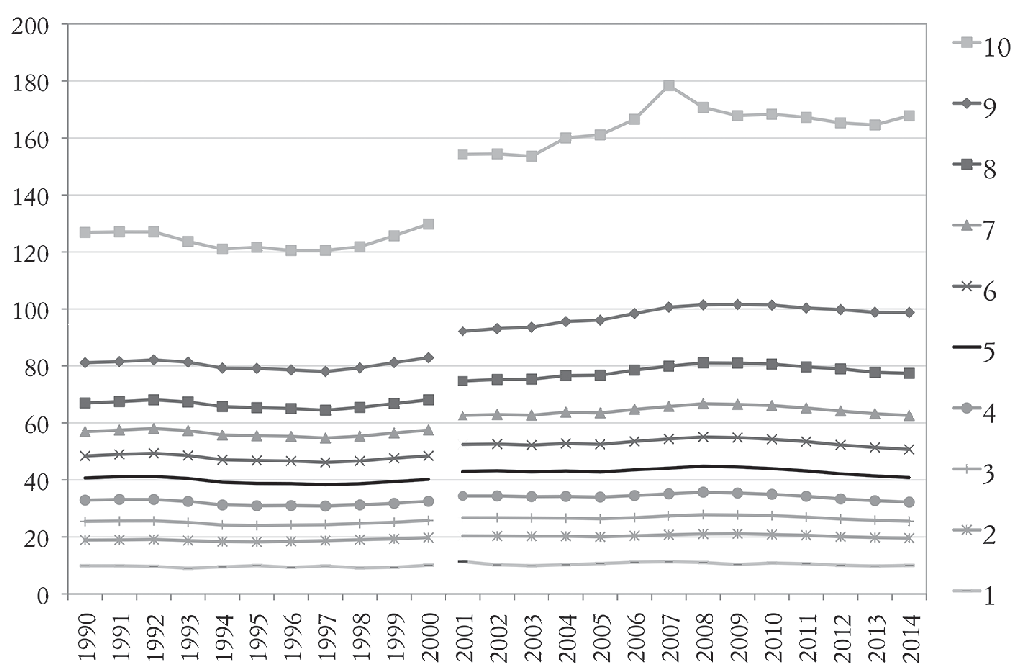
Source: Statistics Netherlands, Income Statistics for Household Rates; Statistics Netherlands, Population Statistics; and Eurostat, Labour Force Survey for Personal Rate.

Figure 3 sketches the income distribution with the help of average gross real incomes across all 10 deciles<sup>6</sup>. It is characterised by a massive long-term stagnation of real incomes

<sup>6</sup> Decile averages are used, not cut-offs, to allow including the tenth decile for which the upper cut-off is not known.

in more than the bottom half of the distribution, and by a rapid growth at the very top. No Gini coefficient is available as an aggregate measure of inequality; however, the S10:S1 ratio between the income shares of the first and 10<sup>th</sup> deciles, which measures the inequality across the two sensitive tails of the distribution, increases between 1990 and 2013 from 12.8 to 16.6 (plus 23% excluding the 2000-2001 break). The median gross income, which is the starting point for delineating the middle class, declines by 4%, but the median of net incomes remains unchanged and that of net-equivalised incomes increases by almost 9%. Apparently, some positive effects of income redistribution and household formation can be detected.

Figure 3. Average real gross incomes of households in deciles, 1990-2014 (€, 2014)



Source: Salverda (2014, figure 2.1) updated to 2014.

In summary, we find no outstanding economic performance for the Netherlands relative to the other countries, while household consumption and investments clearly lag behind. The employment rate for persons, which does much better than elsewhere, reflects the growth of part-time jobs whilst the household employment rate stagnates, pointing to an important shift in the distribution of employment over households. In real terms, gross incomes remain virtually unchanged in the lower half of the distribution, while the top runs away and inequality grows. This provides an uncomfortable starting point for examining the situation of the middle class.

### 3. EVOLUTION OF THE MIDDLE CLASS

Taking our starting point in gross incomes, we consider how households are reranked individually after tax and after equivalisation, and how simultaneously the three classes are redefined using the 60% and 200% thresholds of the medians of after-tax incomes and net-equivalised incomes, and the density of distributions may change. However, we keep counting households' same gross incomes also in the other two 'income spaces'. This aims to show the incomes that households take with them from one situation to the other, and allows for a direct and comparable measurement of how the class positions of households are affected by taxation and household formation. We use the IPO microdata of individual annual incomes in the context of their households. These are derived by Statistics Netherlands from administrative data of the tax authorities. They specify the sources of income, especially employee earnings, but contain no detail about the nature of employment participation, such as working hours, hourly pay or type of job. Every individual receiving an income during part of the year is counted fully while labour force survey data account for the part of the year only.

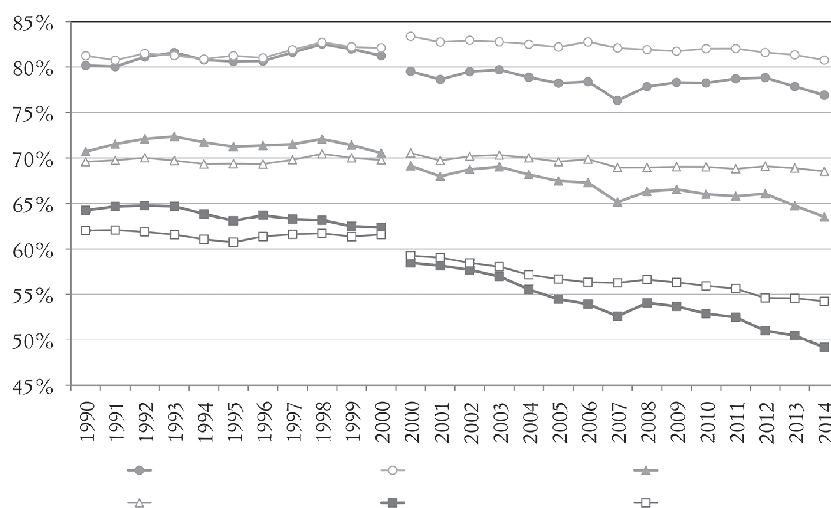
Figure 4 demonstrates the importance of the choice of the income space – gross, net or net-equivalised – for examining the middle class. The shares of the middle class in the totals are pictured for household numbers and gross incomes. Three radically different outcomes are found, both over time and in cross-section. These obviously hang together but have to be addressed separately. The differences are large and persistent, and they grow over time. In gross-income space a relatively small and strongly declining middle class is found. Its share of households shrinks from 62% in 1990 to 54% in 2014 (8% including 2% for the series break), and from 64% to 49% of total income (15% with 4% break). The class now receives less than half of gross incomes. In net-income space the middle class still shows a decline for incomes (7% with 1% break) but hardly for households. Similarly for the net-equivalised-income space, household shares are steady, just above 80%, while a small decline is found for income shares (80% to 77%). From a cross-section perspective, the size of the middle class grows much larger with the steps from gross to net and from net to net-equivalised incomes. In addition, the size of the step grows significantly larger over time for the gross-to-net income gap (7% with 3% break) while the net-to-net-equivalised income gap is always large (12-13%). The substantial divergences demonstrate the importance of the mechanisms underlying the income types. Most of the action seems to occur after 2001, while the 1990s show flatter trends.

This three-fold pattern of the middle class is fully mirrored in the opposite evolution and cross-sectional divergences of the rich class (FIG. 5): strong growth for gross incomes (27% to 42% with 4% break), less for net income (23% to 31% with 1% break) and much less for net-equivalised incomes (17% to 20% with 2% break). Given the higher average incomes of the rich class, the household shares change much less, the most for gross incomes (11% to 18% with 1% break). By contrast, the poor class (not shown) displays virtually stable income shares over time while its household shares show a slowly increasing trend since 2000. This stability goes together with substantial cross-sectional differences, which imply large unchanged effects of taxation and equivalisation.

The complete picture suggests very important cross-sectional shifts of household incomes and corresponding smaller shifts of household numbers between the middle class and the rich class, and also household shifts but only very small income shifts between the middle class and the poor class. Evidently, a lot of action in gross incomes pushes

households over time from the middle class to the rich class, while subsequently a large part of them return to the middle classes once taxation and equivalisation kick in.

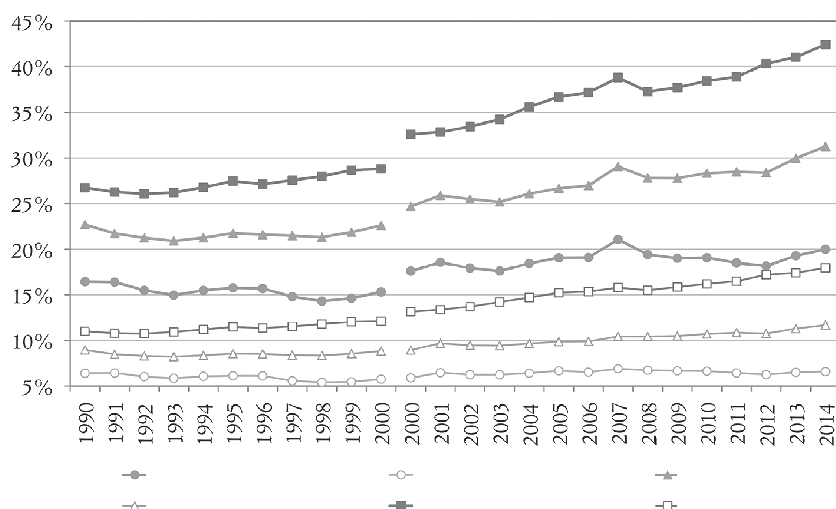
Figure 4. Middle class: share of all household numbers and gross incomes, ranked by type of income, 1990-2014



Note: HH – household frequency or numbers share; INC – income share. The income dip for the middle class and peak for the rich class in 2007 are due to a temporary tax measure that boosted declaration of the highest income; no effect is found for the bottom.

Source: authors' calculations from IPO data.

Figure 5. Rich class: share of all household numbers and gross incomes, ranked by type of income, 1990-2014



Notes and sources: see FIG. 4.

In 2014 one third of all households in the often-used net-equivalised middle class are not a member of this class on the basis of their independent income in itself but only due to the effects exerted by taxation and household formation on such incomes situated above the middle class. This is up from one quarter in 1990. For incomes the share is somewhat larger than one third and the decline has been stronger as in 1990 it was slightly more than one fifth. At the same time, the difference between the income shares of the middle and the rich in gross-income space dwindles by 31 percentage points (p.p.) between 1990 and 2014 (37% to 7% with 8% break) in 2014, while in net-equivalised-income space it declines by 7 p.p. only (with 4% break). Apparently, the evolution of the middle class and the rich class are intricately related.

#### 4. EFFECTS OF INCOME REDISTRIBUTION AND HOUSEHOLD FORMATION

To get a handle on these shifts and their changes over time, Table 1 details the movements of both households (Panel A) and gross incomes (Panel B) between the three classes, which occur as a result of the transitions due to taxation and equivalisation. Vertically the cross-sectional shifts are given whilst their horizontal reading indicates the changes over time. The middle class is the focus of the table, spelled out in detail including the movements back and forth with the poor class and the rich class, while these classes are not further detailed. All percentages relate to the national totals of households and gross incomes, and can be compared mutually and (bold italics) to FIG. 4. The first thing to note is that in cross-section most of the flows are directed towards the middle class while there are hardly any outward flows from this class. This applies equally to households and incomes, and to taxation and equivalisation. The stylised fact seems to be that gross (in-going plus out-going) flows are virtually identical to net flows (balance of in-going and out-going)<sup>7</sup>. It also implies that virtually all the households found initially in the middle class in gross-income space retain their position in that class. Note, however, this partly rests on the large width of the middle class, which makes it more difficult to escape.

Table 1 Cross-section class shifts, 5-year intervals 1990-2014

	Old series			New series				change*
	1990	1995	2000	2000	2005	2010	2014	
A. HOUSEHOLDS	% of all households							
Middle class, gross-incomes ranking	62%	61%	62%	59%	57%	56%	54%	-5%
Throughout in middle class	59%	59%	59%	57%	55%	54%	53%	-5%
Net effect of taxation	8%	9%	8%	11%	13%	13%	14%	3%
Into middle class	9%	10%	10%	13%	15%	15%	16%	3%
From rich class	3%	3%	4%	5%	6%	6%	7%	3%
From poor class	7%	7%	6%	8%	9%	9%	9%	0%
Out of middle class	-2%	-1%	-2%	-2%	-2%	-2%	-1%	0%

(continued on next page)

<sup>7</sup> It supports the application, as an assumption, to earlier years of the observation by Salverda (2016a) for 2013 derived from SILC microdata.



Table 1 (continued from previous page)

	Old series			New series				change*
	1990	1995	2000	2000	2005	2010	2014	
To rich class	-1%	0%	0%	-1%	-1%	-1%	-1%	0%
To poor class	-1%	-1%	-1%	-1%	-1%	-1%	-1%	0%
<i>Middle class, net-incomes ranking</i>	70%	69%	70%	71%	70%	69%	69%	-2%
Net effect of equivalisation	12%	12%	12%	13%	13%	13%	12%	0%
Into middle class	12%	13%	12%	13%	12%	13%	13%	0%
From rich class	3%	3%	4%	3%	3%	4%	5%	2%
From poor class	9%	10%	9%	10%	9%	9%	8%	-2%
Out of middle class	-1%	-1%	0%	0%	0%	0%	0%	0%
To rich class	-1%	-1%	-1%	0%	0%	0%	0%	0%
To poor class	0%	0%	0%	0%	1%	0%	0%	0%
<i>Middle class, equivalised-incomes ranking</i>	81%	81%	82%	83%	82%	82%	81%	-2%
<i>Total net gap to gross ranking</i>	19%	21%	21%	24%	26%	26%	27%	4%
<i>Contribution of rich class</i>	5%	5%	6%	7%	9%	10%	11%	6%
<i>Contribution of poor class</i>	15%	15%	14%	17%	17%	17%	15%	-2%
B. INCOMES	% of total gross income							
<i>Middle class, gross-incomes ranking</i>	64%	63%	62%	58%	54%	49%	49%	-11%
Throughout in middle class	61%	61%	60%	56%	53%	48%	48%	-10%
Net effect of taxation	7%	8%	8%	11%	13%	14%	14%	5%
Into middle class	8%	9%	10%	12%	15%	16%	16%	5%
From rich class	5%	6%	7%	9%	11%	12%	12%	5%
From poor class	3%	3%	3%	4%	4%	4%	4%	0%
Out of middle class	-2%	-1%	-2%	-2%	-2%	-1%	-1%	1%
To rich class	-1%	-1%	-1%	-1%	-1%	-1%	-1%	0%
To poor class	-1%	-1%	-1%	-1%	-1%	0%	0%	0%
<i>Middle class, net-incomes ranking</i>	71%	71%	71%	69%	67%	64%	64%	-6%
Net effect of equivalisation	9%	9%	11%	11%	11%	13%	13%	4%
Into middle class	10%	10%	11%	11%	11%	14%	14%	4%
From rich class	7%	7%	8%	7%	8%	11%	11%	5%
From poor class	3%	3%	3%	3%	3%	2%	2%	-1%
Out of middle class	-1%	-1%	0%	0%	0%	0%	0%	1%
To rich class	-1%	-1%	-1%	0%	0%	0%	0%	1%
To poor class	0%	0%	0%	0%	0%	0%	0%	0%
<i>Middle class, equivalised -incomes ranking</i>	80%	81%	81%	80%	78%	77%	77%	-1%
<i>Total net gap to gross ranking</i>	16%	18%	19%	21%	24%	28%	28%	9%
<i>Contribution of rich class</i>	11%	12%	14%	15%	18%	22%	22%	10%
<i>Contribution of poor class</i>	6%	6%	6%	6%	6%	5%	5%	-1%

\* Excluding break 2000 old to 2000 new. Percentages do not always add up due to rounding.

Second, at 13 p.p. to 14 p.p. in all four cases the net effects of taxation and equivalisation for household and incomes respectively are equally substantial at the end of the period. The corresponding shifts between classes are substantial: in 2014, out of the initial 2.1 million households at the bottom, 1.1 million move up to the middle, including 0.5 million due to equivalisation; conversely, out of the initial 1.4 million at the top, 0.9 million move to the middle, including 0.4 million due to equivalisation. Over time the net effects increase in three out of four cases to a roughly similar extent (3-5%) with the exception of equivalisation effects for households that are large from the start.

The usual approach to the income distribution based on net-equivalised incomes shows little or no awareness of these effects, or implicitly but erroneously attributes them to policies of income redistribution. Clearly, the equivalisation of household incomes is of equal importance for understanding the evolution of the three classes. The effects of taxation depend on policymaking with regard to the level of income, which by definition increases with class. Equivalisation, by contrast, depends on the size of the household, and results from an underlying, more structural process of household formation by individuals. The larger the household, the greater the downward effect of equivalisation on the level of income. Like income, household size increases with a clear gradient by class in gross-income space, which is largely taken away by equivalisation.

Understandably, effects on incomes concentrate more on the rich class, while household effects concentrate on the poor class, although the changes concentrate on the rich. The table confirms the growing cross-sectional gaps for the middle class between gross-income and net-equivalised-income spaces. They increase to similar levels for households and incomes in 2014, involving movements of no less than 27% to 28% of total gross incomes and households. The widening gaps are more than fully filled by the inward flows into the middle class from the rich class, while inflows from the poor class are actually somewhat reduced. The widening since 1990 is stronger for incomes than for households, and the effects of taxation and equivalisation on the rich class amount to 22% out of 28% in 2014 (see TAB. 1).

Finally, the thorough pattern of the changes over time in the table seems to suggest stronger income effects after 2000 than before, especially in relation to taxation and to the rich class.

#### *4.1. Income redistribution extended*

Gross incomes conceptually include two components: primary incomes, which directly originate in markets of labour or capital, together with social transfers. A complete picture of income redistribution shall balance the latter with the taxation effects highlighted in Table 1. However, the data situation is too complex for a systematic balancing. First, transfers in the Netherlands are equally subject to income taxation but their actual taxation cannot be determined. Second, the definition of transfers in the available statistics is of dubious quality as they include occupational pensions, which are better considered as primary incomes as, in the extensive capital-funded system of the Netherlands, they originate in contributions made from wages and returns from investing those. Third, the measurement of households receiving primary incomes – and therewith its counterpart: receiving transfers – is cumbersome as their numbers have been strongly inflated after a fundamental overhaul of the income tax system in 2001. Since then any household with a bank account is formally

attributed an income from interest, which counts as primary income. Finally, note that, with the shifts between the classes that are due to taxation, the incomes from transfers also move with the households. As a result, the best we can do is to consider, on the income side only, the importance of transfers among the income of the classes in the three income spaces. It allows us to see to what extent transfers prop up the different classes in gross terms.

Table 2 spells out some of the details. The contribution of transfers to total income is largely unchanged at around 25%. Evidently, the incidence of transfers in the classes is strongly skewed towards the poor class where transfers make up a large majority of all incomes notwithstanding a decline over the 1990s when access to social security was restricted. Transfer significance for the middle class is about average and it is much less for the rich class. The two classes share the decline over the 1990s with the poor class but this is followed by increases after 2000. Both taxation and equivalisation appear to diminish the role of transfers in the poor class while enhancing it in the other two classes. Especially, in net-equivalised-income space the rich class shows an increase after the 2000. In the distribution of transfers over the classes that accounts for the changes in the size of the classes (not shown), we find a surprising shift towards the rich class but, unfortunately, we cannot tell whether this is due to the inclusion of occupational pensions.

Table 2 Within-class shares of transfers in gross incomes, 5-year intervals 1990-2014

	Old series			New series				change*
	1990	1995	2000	2000	2005	2010	2014	
Total	25%	25%	23%	22%	23%	24%	25%	2%
A. Within-class shares								
<i>Gross-incomes ranking</i>								
Poor class	81%	79%	76%	77%	79%	76%	77%	-5%
Middle class	23%	24%	22%	21%	24%	26%	30%	7%
Rich class	10%	10%	8%	6%	8%	8%	9%	1%
<i>Net-incomes ranking</i>								
Poor class	74%	72%	65%	63%	67%	65%	70%	-3%
Middle class	25%	25%	23%	23%	24%	26%	28%	4%
Rich class	11%	11%	10%	8%	10%	10%	11%	2%
<i>Net-equivalised-incomes ranking</i>								
Poor class	74%	72%	64%	59%	65%	64%	63%	-7%
Middle class	25%	26%	23%	23%	24%	25%	26%	1%
Rich class	13%	13%	13%	10%	13%	13%	14%	5%

\* Excluding break 2000 old to 2000 new. Note that transfers are determined as gross incomes minus primary incomes.

## 5. THE CONTRIBUTION OF LABOUR EARNINGS

The strong, mirroring changes of the middle class and the rich class of FIGG. 4 and 5 suggest an important role for market incomes as drivers of the changing distribution. The labour market is by far the most important source of household incomes and the only one big enough to account for such large changes. We focus on it here with the help of what we term ‘main labour households’ (MLHH), defined as those households who retrieve more than half of their gross incomes from employee earnings.

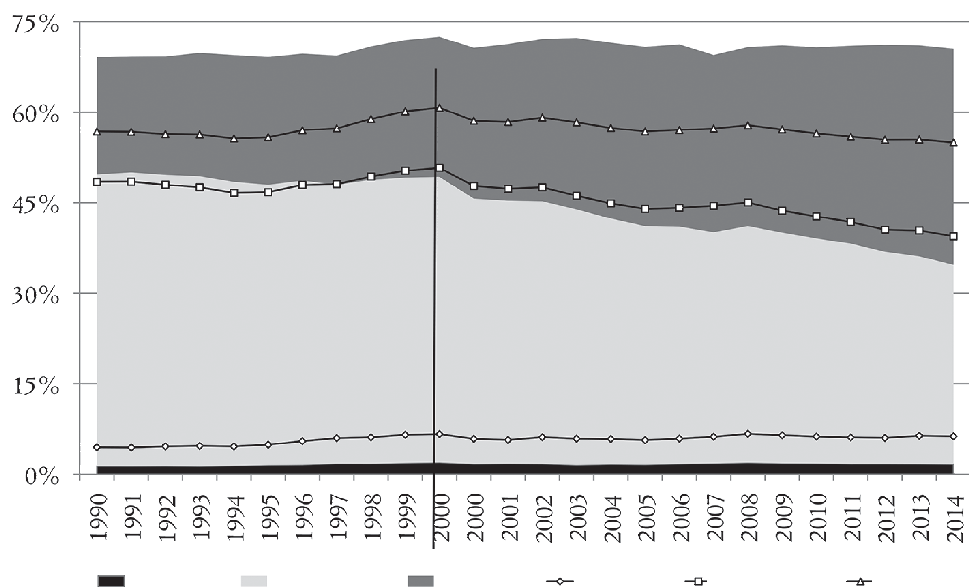
The aggregate shares of MLHH among all households and total gross income (70-75%) change little (FIG. 6). This seems consistent with FIG. 2. However, over time they become very differently distributed over the three classes. Again hardly any change is found for the poor class; understandably its income share of a few per cent is significantly smaller than its household share. The share of the middle class strongly declines by 12% while that of the rich class increases equally strongly by 15%. The two shifts mirror each other and the changes for MLHH are virtually identical to those of the classes’ gross incomes as a whole shown in FIGG. 4 and 5. In other words the changes between 1990 and 2014 are almost entirely driven by the growth of the rich class in the labour market at the disadvantage of the middle class. It is mostly concentrated in the period since 2000.

The change is a phenomenon of household incomes that can come about in two different ways: (i) higher earnings for individuals already in work (intensive margin), or (ii) increased earnings when the household’s number of individuals in work expands (extensive margin). The growing gap between the stagnating household employment rate and the increasing personal employment rate (FIG. 2) gives credence to the extensive margin. A full analysis of the phenomenon is beyond the aim of this contribution. However, it is interesting to consider the way households supply their labour to the market by means of the number of earners that they field in employment: one, two, or three and above (on average 3.3). Earners are counted regardless of their relationships within the household and they can be partners, children aged 15 and over, or other members. The poor class is not discussed as it comprises hardly any MLHH with more than one earner.

Figure 7 breaks down by the numbers of earners the MLHH class shares of Figure 6. The decline of the middle class is shared almost equally by the three categories; two-earner households remain a (large) minority. By contrast, all three categories rise in the rich class. However, here the rise of two-earner category is far stronger and they have been the majority since the mid-1990s. The upward shift of two-earner households accounts for 75% of the growth of rich MLHH, 40% of the decline of middle MLHH, and 60% of the total MLHH shift from the middle to the rich. Note that the stronger presence of household categories supplying two or more workers implies a growing concentration of individual employees and their earnings in the rich class – their number doubles to 2.5 million and the rich share of all employees increases from 20% to 36% (including 2% for the break) while their income share among employees now amounts to more than half<sup>8</sup>.

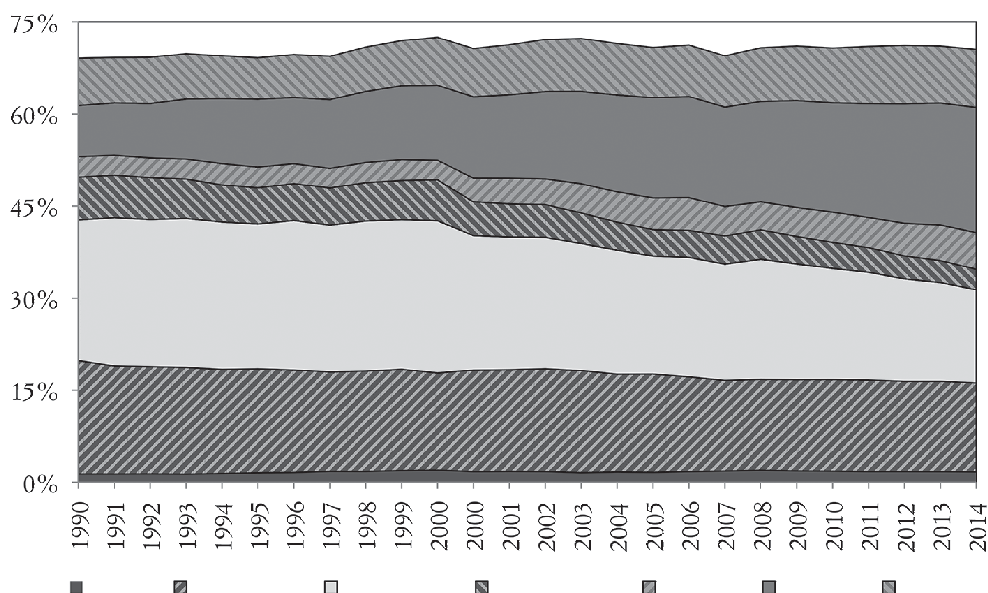
<sup>8</sup> Compare the concentration in the top decile across Europe shown by Salverda and Haas (2014, figure 3.8).

Figure 6. Main labour households and their earnings over gross-income classes, percentage of national totals, 1990-2014



Notes and sources: see FIG. 4.

Figure 7. Gross-income shares of main labour households in classes by number of earners, percentage of national totals, 1990-2014



Notes and sources: see FIG. 4.

The rise of single earners among the rich is modest but points unequivocally to higher individual earnings, which is consistent with the phenomenon of rising hourly wage inequality. However, the same cannot be said with certainty for the two-earner and three-and-above-earner categories as many of them may instead be extending their (part-time) working hours, or part-time hours may be spreading to better-paid jobs. Actually, the average joint earnings of two-earner and three-and-above-earner households are slightly below the single earnings of the one-earner households. Obviously, the latter find themselves at the top of the distribution of individual earnings while the former are situated lower down where they possibly occupy jobs which one would associate with the middle class. In addition, households with two or more earners are overrepresented in the cross-section incomes shifts between gross and net-equivalised-income space. In the middle class they make up almost 90% of this in 2014, which is well above their initial share of 56%. In other words, those households manage to obtain higher incomes in the labour market as a result of their increased labour supply which lifts them to the rich class, but after paying taxes and accounting for the size of their households they end up with consumption levels that fit the middle class. They are running hard enough in the labour market to reach the rich but they stand still at middle-class levels of living.

## 6. DISCUSSION

Over a 25-year period we find a significant decline of the middle class in terms of households and gross incomes, and it currently covers roughly half of all households and total income. This is mirrored in an expansion of the rich class while the poor class remains unchanged. The upward shift is largely based on earnings from labour, particularly those of two-earner households. Taxation and equivalisation of incomes subsequently shift a large part of them down to the middle class, which then covers a hardly changing 80% of households and gross incomes. Increasingly, households need to obtain a higher labour income to enable a middle-class consumption style. Indeed, the great majority of the downward-shifting households are larger dual and multiple-earner households, and equivalisation makes a major contribution to their shift. Average *individual* earnings in more-earner households are relatively low as their households' joint earnings are below those for single earners in the rich class, who are really at the top of the wage distribution<sup>9</sup>. These individual earnings may mostly benefit the middle class. In other words, the more-earner households are running harder in the labour market but stand still in the class distribution of levels of living, likely because they also bring relatively larger households with them. Evidently, this is an important caveat for using the label 'rich class'.

The results raise interesting questions for further research. The mutual interdependence of the three classes may put a different light on the result that seemingly a category of households is outgrowing the middle class. Against the background of secular stagnation of real gross incomes in more than the lower half of the Dutch income distribution (FIG. 3), the real issue may in fact be that the incomes of other households have not grown equally but lagged behind instead. In a situation of massive long-run stagnation, the

<sup>9</sup> Compare Salverda and Checchi (2015) and Salverda (2015) for a discussion of the household income distribution in relation to the individual wage distribution.

extensive growth of household income by supplying more earners would seem the best option left for covering enhanced household needs. This would make family formation increasingly a matter of enhanced work effort and rich-class joint earnings. Together with the lower position in the wage distribution of the individuals involved, this suggests that their working lives may actually qualify as being middle class, creating a tension with the fact that the household has left the middle class by attaining earnings at the top. It provides a good reason to consider this category of households in depth and examine whether the attitudes of work and their political and cultural views have been influenced by their elevated market-income position or not.

Policy making regarding the middle class shall look beyond the end result after taxation and equivalisation, and consider the efforts needed to reach that position and the danger that family formation may tend to become a privilege of the rich class in market incomes. In addition, it needs to reflect on the position of single earners in the poor and middle classes and the distribution of jobs over households, which has become an essential ingredient of the extensive growth of household incomes.

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