The Dutch statutory minimum wage:
Torn between fair pay, minimum income and inequality

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Six points to make

- Dutch minimum wages show unique features: a complex variation by age and by collective labour agreements (CLAs), and an uprating mechanism that is dependent on CLA wage growth and also operates under the shadow of public finance. The institutional features warrant Alan Manning's (2022) advocacy of broadening the minimum wage analysis.
- The complexity hampers precise measurement, and little proper analysis of its employment effects is available, though the recent cutback on age differentials has incited some new research.
- The strong age differentials may lead to arbitrage and a distortion of youth (un)employment.
- Uprating based on CLAs, which systematically lag actual wage growth, and also burdened by the link to public social spending reduces MW's significance for fair pay.
- At the same time, its significance for minimum income protection and income inequality is diluted by the massive shift towards a dual-earner world, which spreads low pay over the entire income distribution.
- The minimum wage may need the support of an EITC and an independent Living-wage Commission.

Set up

1. Trends in MW wage level and employment; recent & upcoming changes
2. Four key specifics
3. Four major implications
4. New research on MW employment effects
5. Pandemic impact
6. Significance for poverty and income inequality
7. What purpose the minimum wage?

Abbreviations

MW: minimum wage, AMW: adult MW, YMW: youth MWs

CBS: Central Bureau of Statistics

CLA: Collective Labour Agreement

CPB: Netherlands Bureau for Economic Policy Analysis (= Central Planning Bureau established in 1945 by Jan Tinbergen), the government's main advisory institution, comparable to British Office for Budget Responsibility.

Note

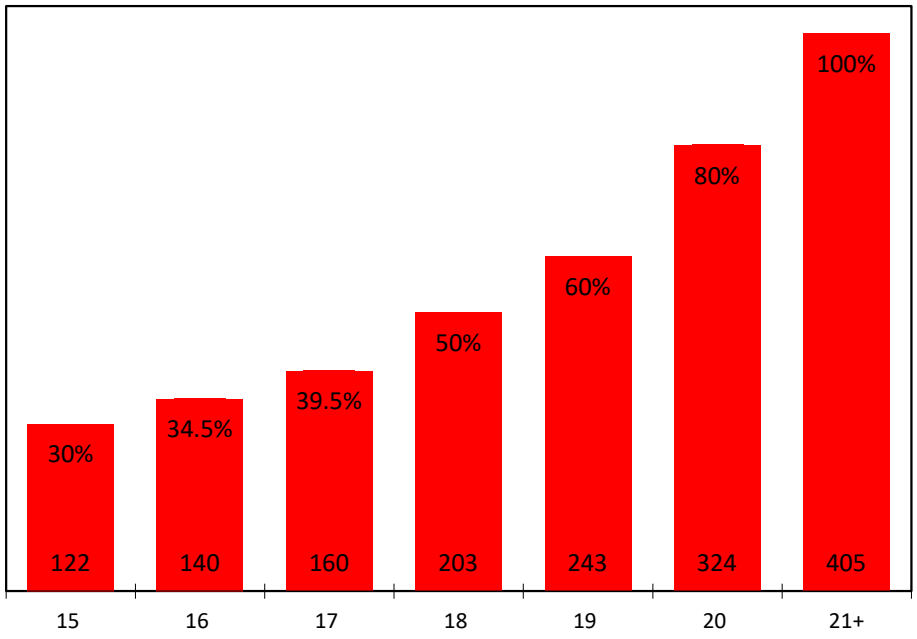
For explanations and sources of the graphs see References.

1 MW: *#1. MW wage level and employment structure*

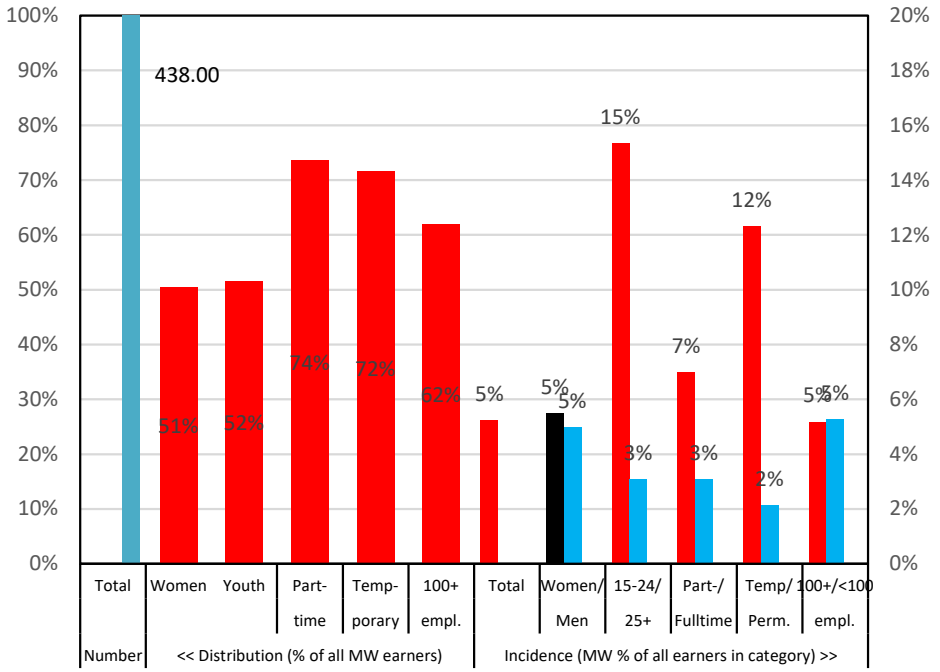
1. *YMW tail is long and steep in spite of a recent shortening (which made it only steeper)*

2. *Large overlaps with youth, part-time and temporary contracts; big and small employers are equally important*

1. MW-levels: Weekly amounts (€) by years of age, July 2022



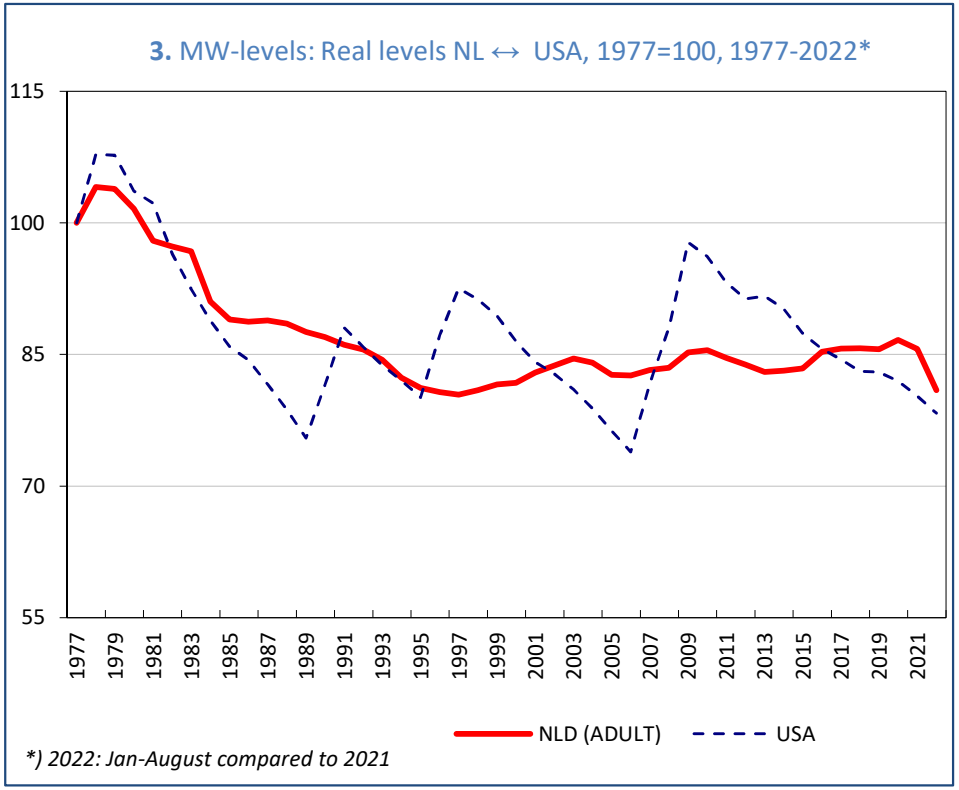
2. MW employment: Distribution and incidence, 2020

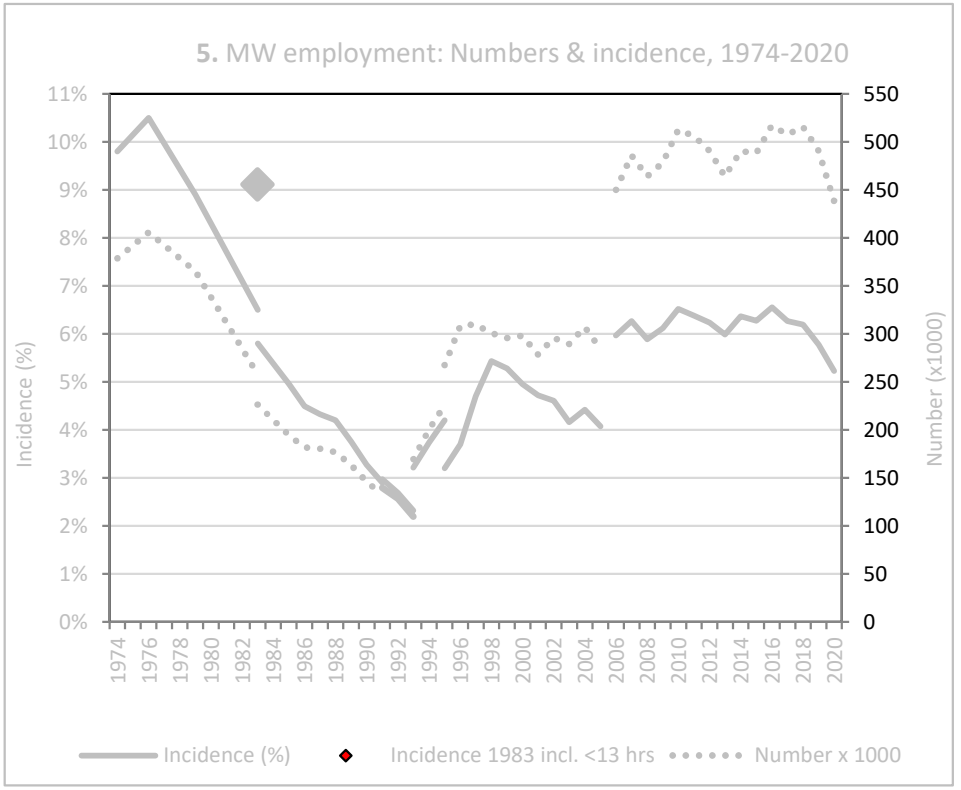


1 MW: *#1. Trends in MW wage level and employment*

***3**. Though institutionally uprated the purchasing power of the Dutch MW fell as much as the American MW, albeit gradually*

5. Importance of MW employment fell equally strongly



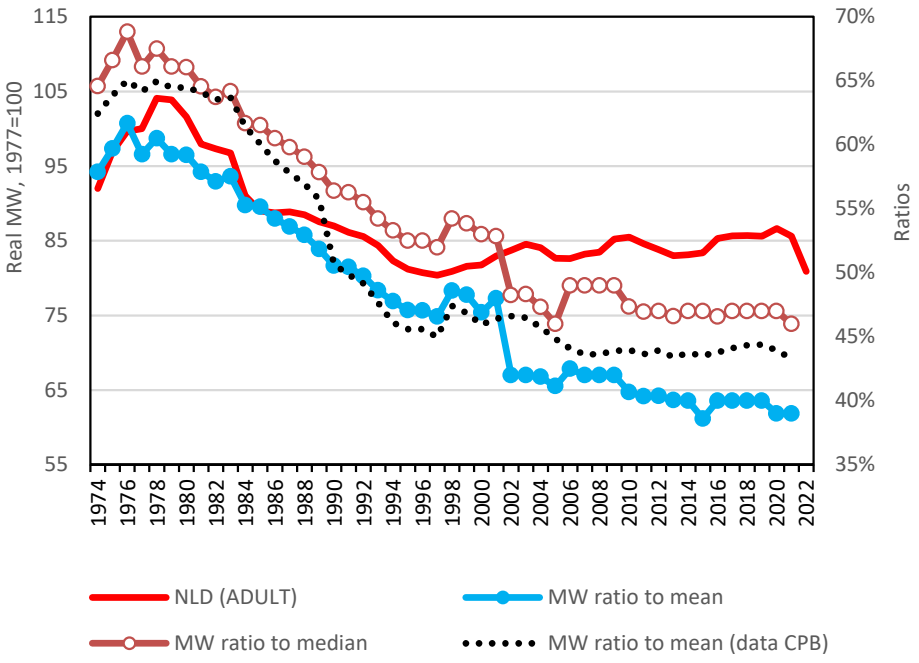


1 MW: *#2. Trends in MW wage level and employment*

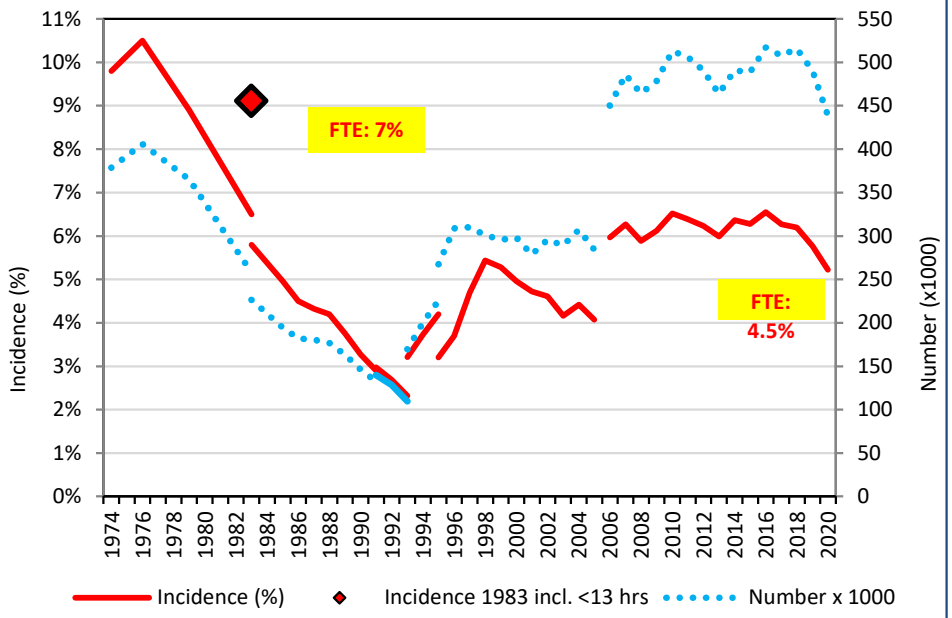
4. The relative importance of the MW fell markedly to mid-1990s and has remained roughly stable since

*5. The incidence of MW employment fell similarly over time: equally strongly and rather flat since mid-1990s**

4. MW levels: Real and % mean or median wages, 1974-2021



5. MW employment: Incidence and numbers, 1974-2020



**Roughly flat since mid-1990s if corrected for important series breaks. Up to 1993 the MW did not apply to jobs of less than 13 hours but the effect was measured once in 1983*

1. MW: *#2. Recent and upcoming changes*

- Recently (2017-19, 2 steps) *the long tail of YMW was shortened* from ages 15-22 to 15-20 by lowering of the age of the AMW from 23 years to 21 years. For ages 18-19-20 the derivation from AMW also changed, from 47.5-55-70% to a steeper 50-60-80%. The changes were the response to the *Young & United* trade union campaign of 2015 aimed at applying the AMW from the age of 18.

  This targeted change provides the opportunity for the new research discussed below. It also illustrates the role of institutions. (Effects of gradual uprating more important but harder to analyse microeconomically).

- As of 1/1/2023 the level of the MW will be increased by 10.15%: the usual bi-annual uprating (2.1%) plus a special adjustment (8.05%) aimed at alleviating effects of excessive inflation (also for benefits). In addition, the MW will now also be defined hourly: € 12.40, based on 36-hour working week – implying an increase by 16% for a 38-hour week and 22% for a 40-hour week (16% on average). The shift to hours was first discussed in the 2000s and proposed by the minister in 2016, a 10% increase was debated in 2019; both materialise only now under the pressure of high inflation.

  The hourly definition will improve transparency for employees and facilitate measurement.

2. Four key specifics

2A. Defined on *weekly/monthly basis* for full-time weekly hours (36-40) as agreed in applicable CLAs $\Rightarrow$ the effective hourly MW varies according to CLAs.

2B. Long tail of *youth minimum wages* by years of age, defined as % of AMW (from 30% at age 15).

2C. *Uprated* bi-annually by Ministerial order on the basis of a national index of CLA wages ("one statistic to rule them all"). Thus the MW fits wage increases that have already happened, and, evidently, this will be too slow a process for adjusting to inflation. Also, an evaluation of the need for a special adjustment is required max. every 4 years. The underlying MW-law allows/prescribes to deviate (incl. nominal freezes) depending on the macroeconomic situation.

2D. S*ocial benefits linked*: minimum benefits equal the level of MW (net after taxes), and all benefits are uprated in accordance with the MW uprating.

3. Major implications: *#1. Measurement problem*

3A. The complex definition of MW (2A) together with the significance of YMWs (2B) hamper precise measurement of MW employment and accurate analysis:

- No precise CBS data anyway: no data exits for pay below MW; the standard age bracket 15-24 disregards the YMW age boundary. Observation is further hampered by volatility of temporary contracts and working hours and the mass of very small part-time jobs.
- The variation in weekly hours depends on applicable CLAs, which are hard to link to individual wage data (20% of cases only, CPB 2020c). Consequently, CPB (2020c) defines hourly MW as +/-5% and considers lower wage levels administratively mistaken.
- Very different YMW levels lend same absolute or %-increase of MW a rather different meaning across the wage distribution. This may distort the view on spill-overs.
- No study applies the uniform AMW to all employees (including youth paid up to AMW).

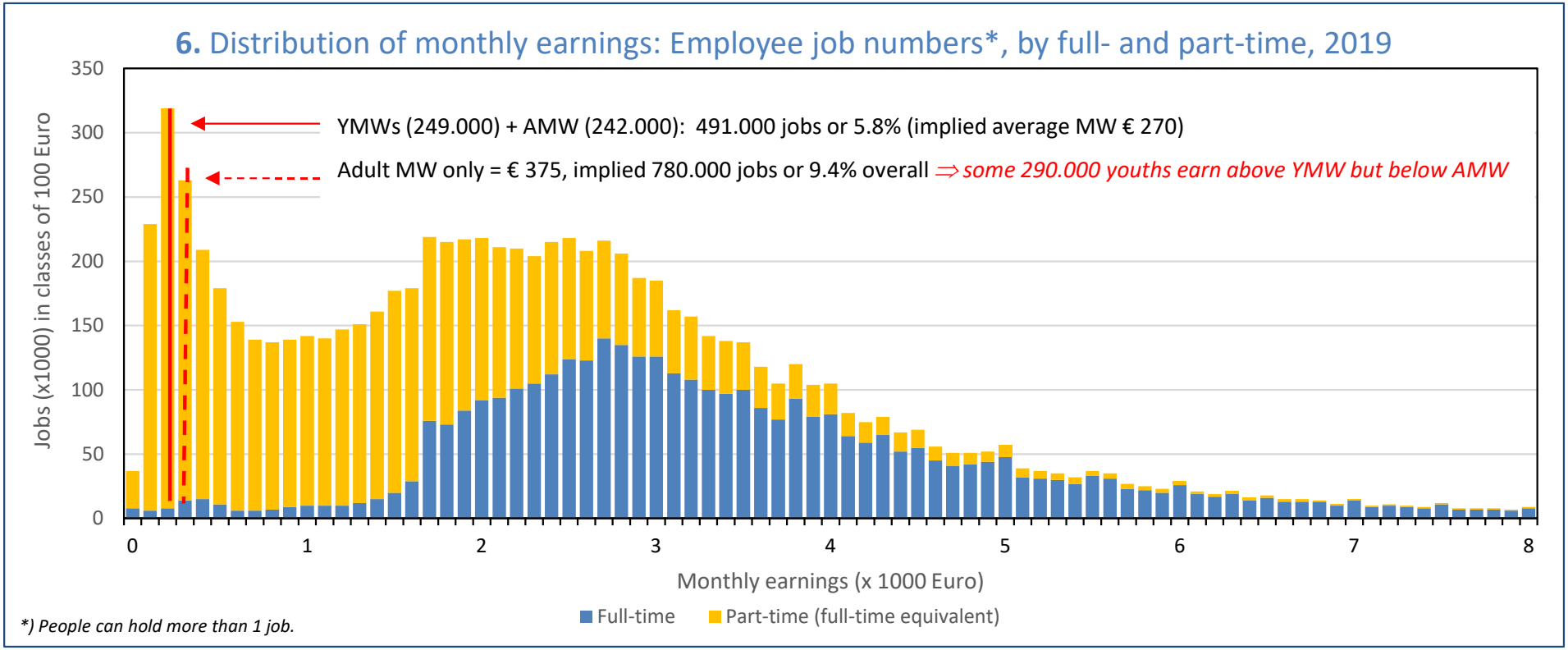
3. Major implications: *#2. Arbitrage bloats youth employment*

3B. YMWs provide a long tail to the wage distribution and make up half of all MW employment. It is mostly in tiny part-time jobs (46% <12 hours, of which 88% students) and temporary jobs concentrated in retail trade and bars and restaurants ("horeca"). While only 15% are paid YMWs, more of the rest are paid below AMW. It raises the incidence of AWM to 9.4%.

- The YMWs go together with an huge overlap between participation in employment and enrolment in education: 69% both ways (accidentally), resulting in a 50% Edu-EPOP.
- The youth EPOP (15-24) is exceptionally high internationally: 72% on head count (EU27 33%), but 39% on hours count (EU27 27%). One quarter is working full-time (EU 68%).
- The mass of tiny jobs distorts the common unemployment rate (10% vs EU27 17%); taken over the young population (UPOP) the rate falls to 7.4%, above the level of EU27 (6.5%). The fragmentation of jobs also reduces the chances of finding substantial jobs for youth with appropriate qualifications from shorter educational careers.

3. Major implications: *#2. Youth intensely paid <AMW*

6. *Even at age 20, when MW youth earn 80% of the AMW, all persons earning up to 125% of the YMW will earn less than the AMW. At ages 19 (60%) and 18 (50%) this extends to 166% and 200% respectively of their YMW.*



3. Major implications: *#3. Constrained wage formation*

3C. The uprating based on CLA wage scales together with the linkage of (public spending on) social benefits to the MW have served to strongly press the MW downward in the wage distribution.

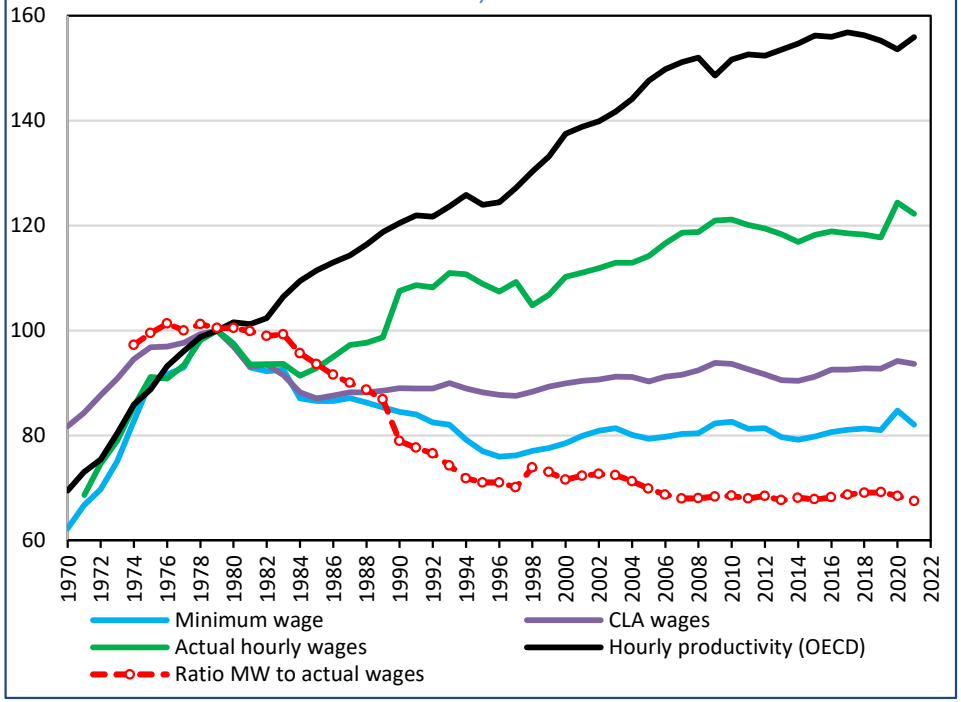
- CLAs concern nominal wage scales which differ from actually earned wages and increasingly lag those as they almost stand still in real terms.
- Union behaviour in CLA negotiations has been very moderate and increasingly lagged productivity growth; this may reveal a kind of regulatory capture and give the whole apparatus of CLA's a slight taste of (national) monopsony.
- MW was also lowered (-3% 1984) and nominally frozen (for 10 yrs between 1985 and 2006) by government prerogative.
- Government has inverted the pressure from low CLA wages to MW since the mid-1990s.
- This could go on largely unnoticed as inflation was low. As a result, the MW level has lagged 40% behind average actual wages.

3. Major implications: *#3. Constrained wage formation*

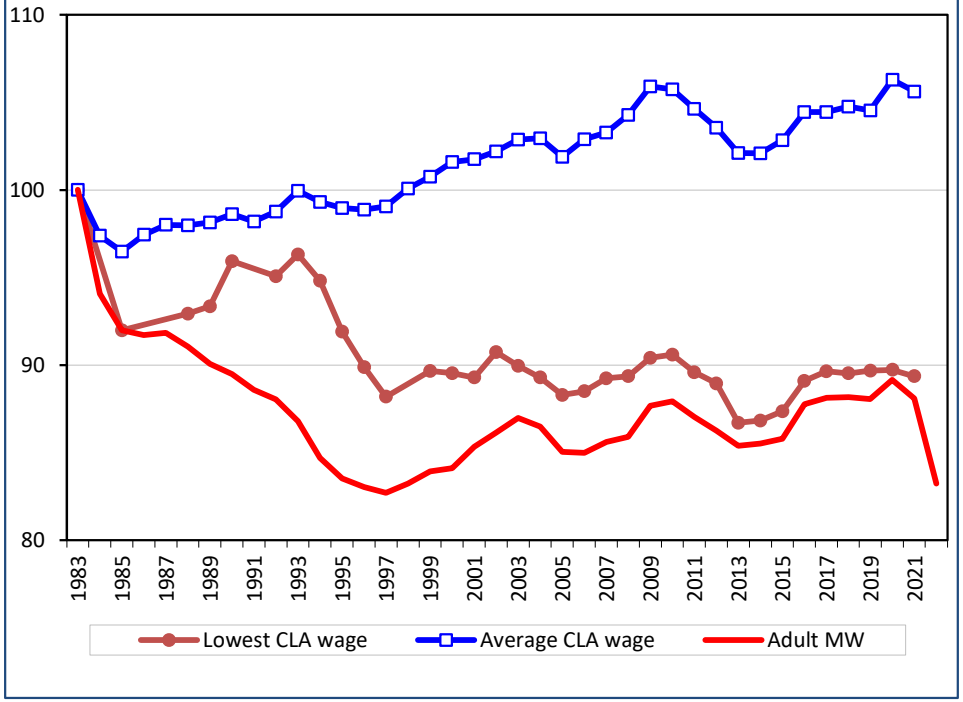
7. *Productivity growth far exceeds actual average wage growth (top wages just kept pace); real CLA wages remained unchanged and provided no repair for preceding strong policy interventions.*

8. *Under government pressure since the mid-1990s the lowest scales in CLAs have moved down towards the MW; before, in the 1970s, uplifting the lowest scales helped uplifting the MW.*

7. Real MW, CLA wages, actual hourly wages and productivity, 1970-2021, 1979=100



8. Lowest CLA wage, average CLA wage and MW, 1983-2021

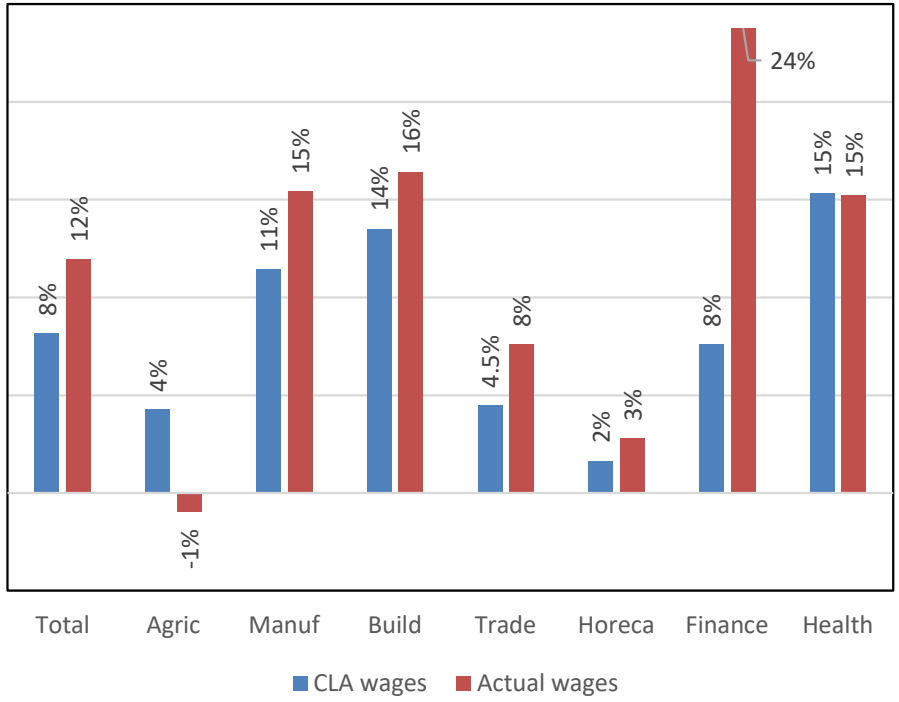


3. Major implications: *#3. Constrained wage formation*

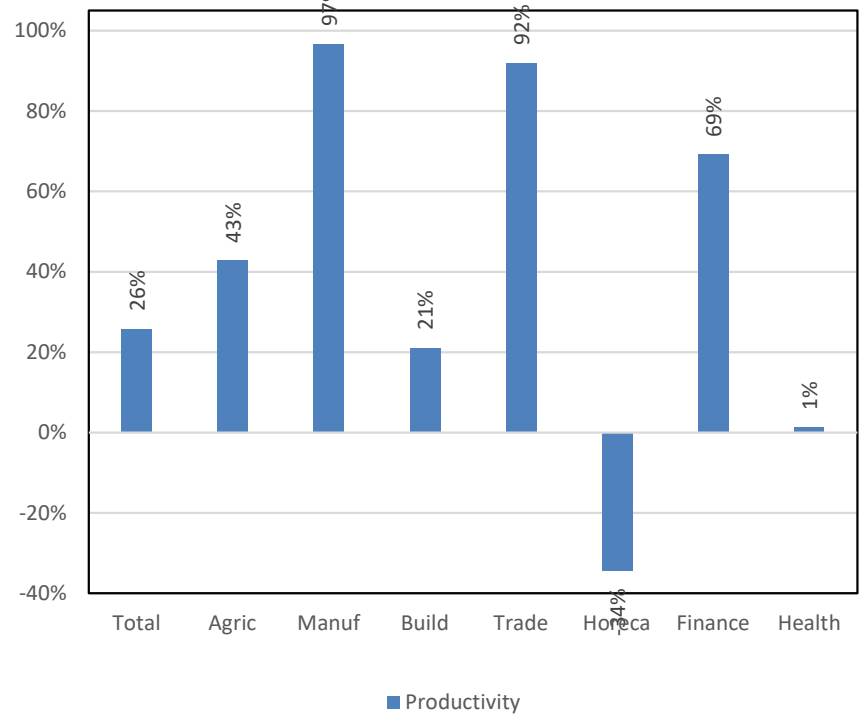
9. *CLA wages have lagged actual wage increase across the board, particularly in banking.*

10. *Both types of wages have also lagged productivity growth across the board, except in Horeca and Health.*

9. Real wages: CLA vs actual wage growth, 1995-2021



10. Labour productivity growth, 1995-2021



3. Major implications: *#4. Macroeconomic pressure*

3D. In CPB modelling a higher MW will increase public expenditure because of the linkage to benefits, the financing of which then generates a macroeconomic effect of higher wage costs. This adds to the decline of employment beyond the effect of a higher MW on wages as such.

- CPB (2020a) spelled this out for different levels of MW increase:

Increases of MW

	Effects of MW only:			*Effects including the linkage*:		
	Wage bill		Employment	Public spending		Employment
+10%	+0.5 bln	(0.1%)	-0.1%	+6.3 bln	(2.5%)	-0.5%
+40%	+5.8 bln	(1.4%)	-2.0%	+24.7 bln	(10%)	-3.5%

4. New research on MW employment: *#1. Before the change*

CPB, the government's monopolistic economic adviser, is traditionally negative on the employment effects.

- CPB (2015) reported to Parliament in response to the *Young & United* campaign that starting the AMW at age 21 would lower their employment by 5%, and at age 18 by 20%.
- But recently it became more positive, stimulated by new literature (esp. Cengiz et al.) and challenged by the public debate on inequalities.
- Still, it derives a choice of elasticities from the international literature of the day and posits that they apply also to NL. CPB (2020c) explicitly considers Dutch data inadequate for researching employment effects.
- CPB (2020a) reports no serious direct effects: virtually nil for a 10% AMW increase, while even a 40% increase would dent employment by only 2%. However, the 40% effect is considerably enlarged (3.5%) via the linkage of MW to public expenditure.

4. New research on MW employment: *#1. Before the change*

Interestingly, Kabátek (2021) researches the way the YMW system operates and affects the individuals involved, but not the effects of system change.

- Using data 2006-2012 for the old YMW system, with eight pretty considerable (14% to 18%) age steps (age 15 to 23). In the current system the steps are fewer but steeper (15% to 33%).
- He estimates the probability of job separation dependent on the proximity (6 to 0 month) of a person's next birthday. He finds that job separations spike significantly in the three months preceding a worker's birthday, while the frequency of job accessions increases immediately after birthdays and increase is sustained throughout the following months.
- He takes this to suggest that firms are dismissing workers whose costs are about to go up.

4. New research on MW employment: *#2. After the change*

The recent YMW alterations enabled three new investigations of system change.

Two consecutive examinations SEO (2018, 2020) report on immediate employment effects.

- Both consider the evolution of indicators (employment rate, contractual hours worked, hourly pay, educational participation), derived from microdata, applying a difference-in-difference approach to youth affected or not by the changes (20-22 vs 23-25, 18-19 vs 15-17; and 22 vs 23, 18 vs 17 for the margin) (one may doubt how similar they are).
- They find negligible employment effects, positive income effects and (only in 2017) some reduction in educational participation.

The third examination, under the flag of CPB (2021), reports the careful research by three authors attached to Utrecht University (Van Bezooijen, Van den Berge and Salomons), and is evidently meant as a contribution to the scientific literature.

- They consider the period 2000-2019 focussing on the first change with a brief comparison to the second; notably, they construct applicable hourly wages themselves.

4. New research on MW employment: *#2. After the change*

- A difference-in-difference method contrasts ages 20-22 with 23-25 and follows Cengiz et al. (2019) to account for spillover effects along the entire distribution of wages earned by youth.
- They find no negative employment effects and positive income effects, for 75% due to spillover effects, mostly found up to € 2.5 above the new MW (close to 130% of the MW).
- The large spillover raises questions that cannot be answered by microeconomic analysis alone but are likely due to the institutional embedding of the change. Initiated in Spring 2015 it took four years until half the demands were realised. Along the way union and employer federations agreed to the change (SER, 2016), conditioned on a wage subsidy for ages 18-21. The process provided ample opportunity for partners to the most relevant CLAs, who pride themselves on paying slightly more than the minimum wage, to have a say and prepare.
- This puts doubt on the credulous application of the international literature and may add the institutional setting as another determinant to Alan Manning's (2021, figure 5) on 'stylised representation of the impact of the minimum wage on employment'.

5. Pandemic impact

- Between 2019 and 2020 a clear fall occurred in MW employment (-11%: -52.000), much stronger than higher up the wage distribution (-1%: -110.000). Thus it was responsible for 48% of the total jobs decline.
- All of this decline concerns temporary contracts, lowering their share in MW from 75% to 72% of all MW as against 28% for other employees. However, temporary contracts higher up the distribution actually fell more strongly but that was largely compensated by a growth of permanent contracts which did not occur for MW earners.

6. Significance for poverty and income inequality

Poverty

- The Netherlands uses an absolute definition of poverty which contrasts with the EU's (at 60% of median), and leads to opposite outcomes: a historic low vs a historic high.
- In-work poverty depends on the significance of earnings for the household given its size and composition. In work-poverty ≠ low pay and the in-work poor can actually earn a high wage.

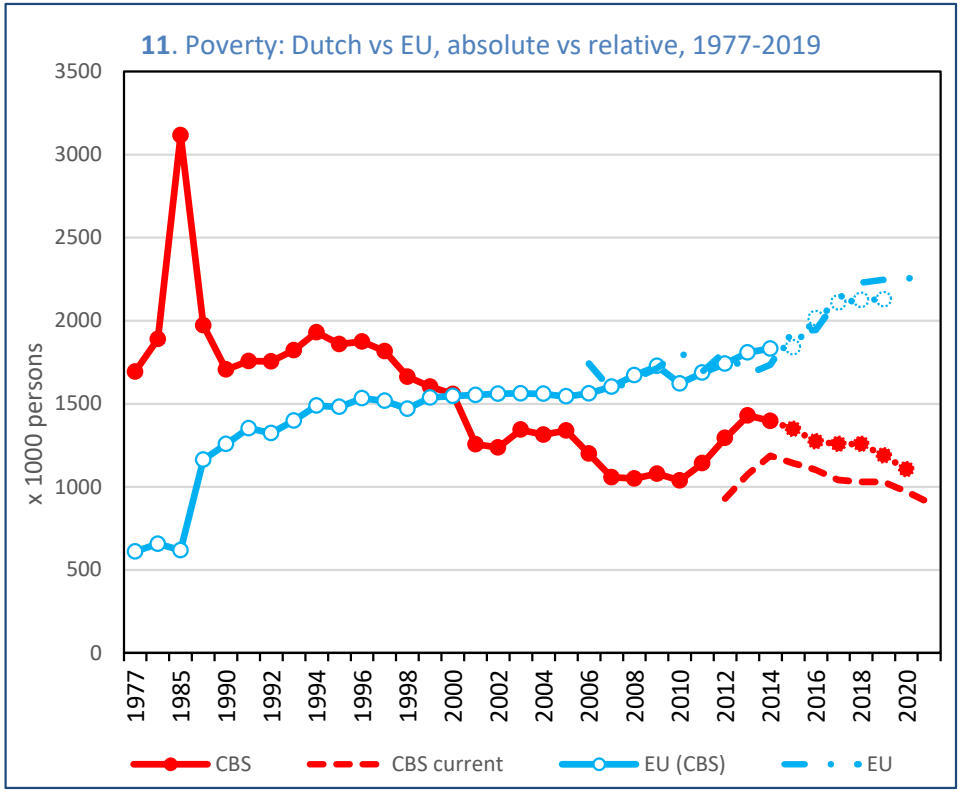
Income inequality

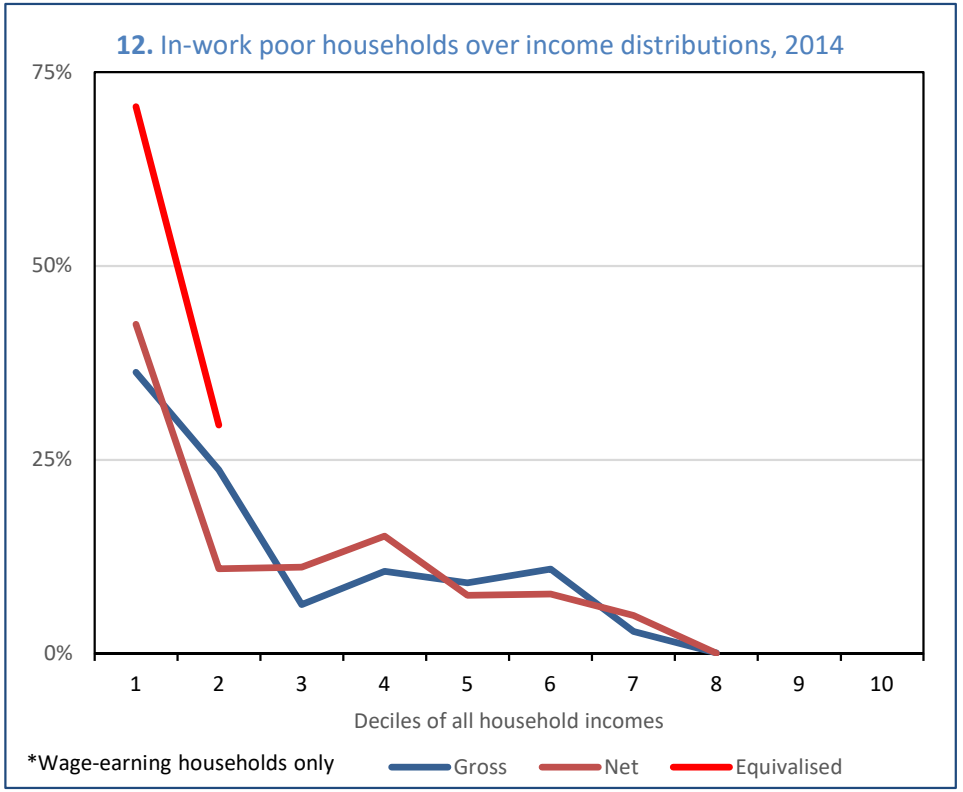
- Low pay ≠ in-work poverty, as many low paid are members of non-poor households.
- A broad spread of minimum wages / low wages over the distribution incomes has become a fundamental feature of the dual-earner world unknown to the single-earner world.

6. Significance for poverty and income inequality: *#1. Poverty*

11. *The Dutch measure better indicates crises in the short run but does not allow the poor to share in the growth of welfare, the latter does the inverse – and can actually fall in a crisis.*

12. *Households* can be poor (relative) with high pay (low = bottom 20%), strongly depending on household (equivalised). (similarly for US poverty – see Salverda, 2021, 533)*



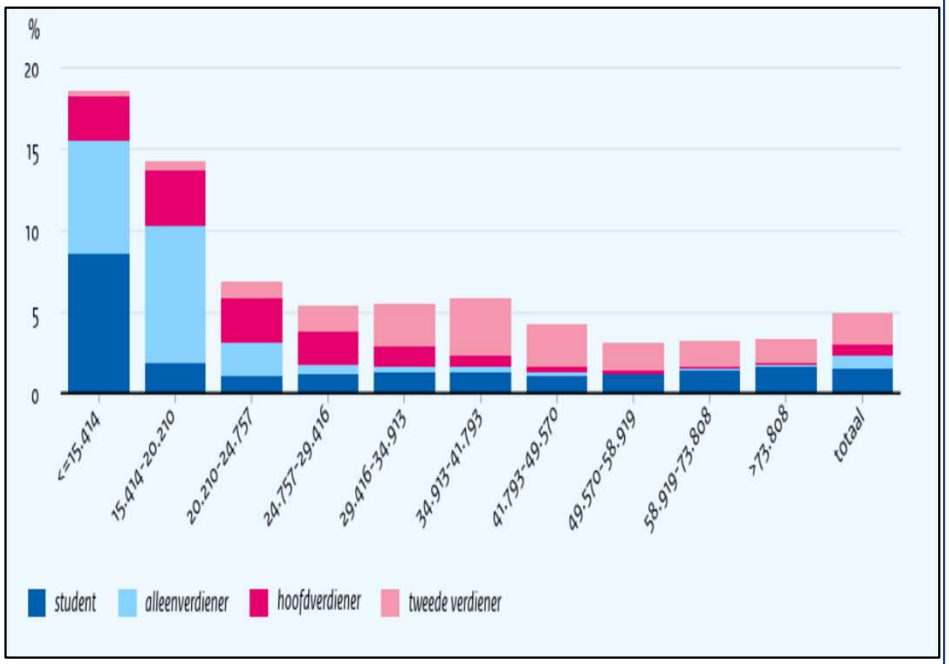


6. Significance for poverty and income inequality: *#2. Inequality*

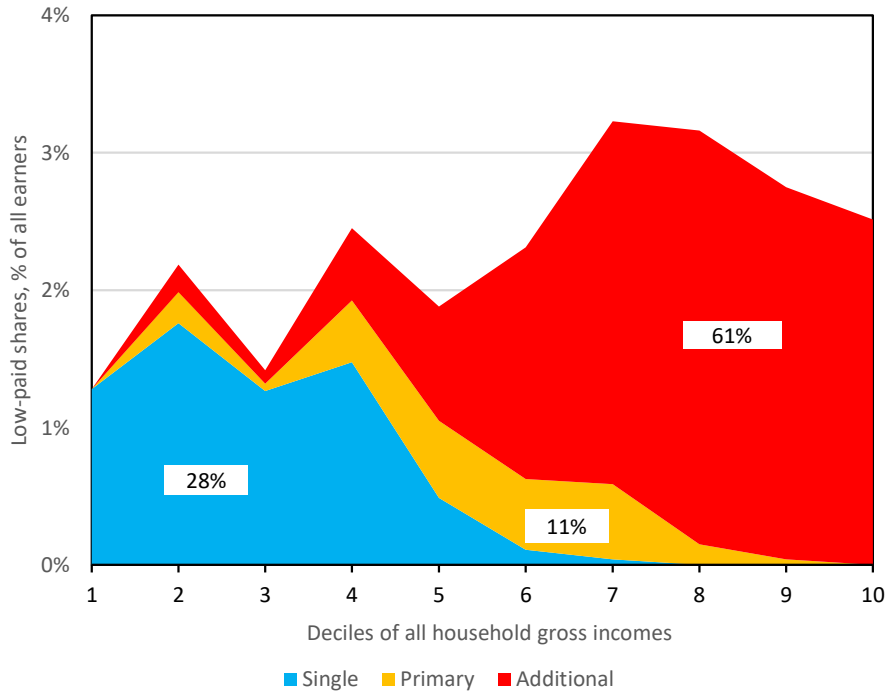
13. *CPB (2020c, fig. 2.7) shows significant* role in MW employment for students and second earners (=> household position of earner)**, stretching over the distribution of household (primary) incomes.*

14. *Similarly, low-wage employment depends largely (61%) on additional earners with upper-half household gross incomes, and often better educated.****

13. Within-decile shares of minimum-wage earners by type: student, single earner, primary earner, additional earner, 2018



14. Low pay over income deciles, by type of earners , 2014



* The contribution will be much larger if AMW were taken as a uniform measure, adding an estimated 290.000 earners, virtually all students and secondary earners. ** Household position is omitted from multivariate regression of chances of a MW job (CPB, 2020c, 12).

**** Own research on SILC data, wave 2015. It concerns wage-earnings households only but over the full household income distribution.*
NB: The AMW corresponds with about 69% of the low-wage threshold in 2014.

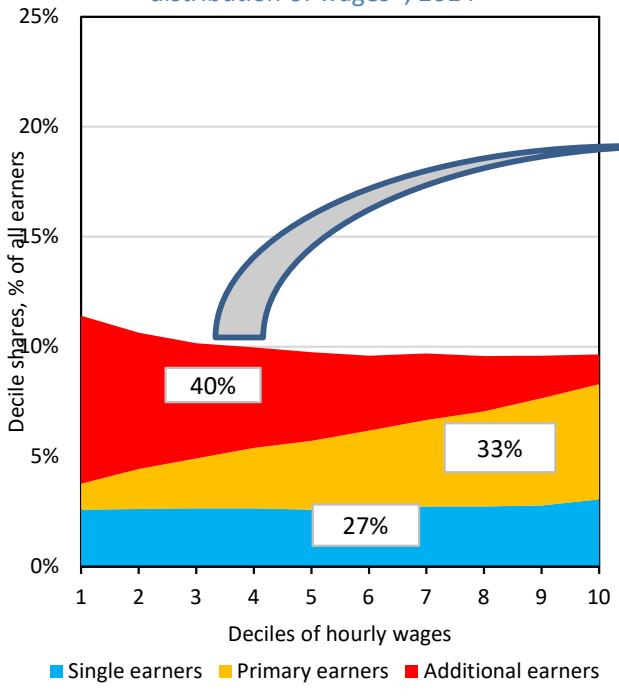
6. Significance for poverty and income inequality: *#2. Inequality*

***15.** Complementarity of hourly wages: Additional earners massively low paid, Primary earners the highest paid.*

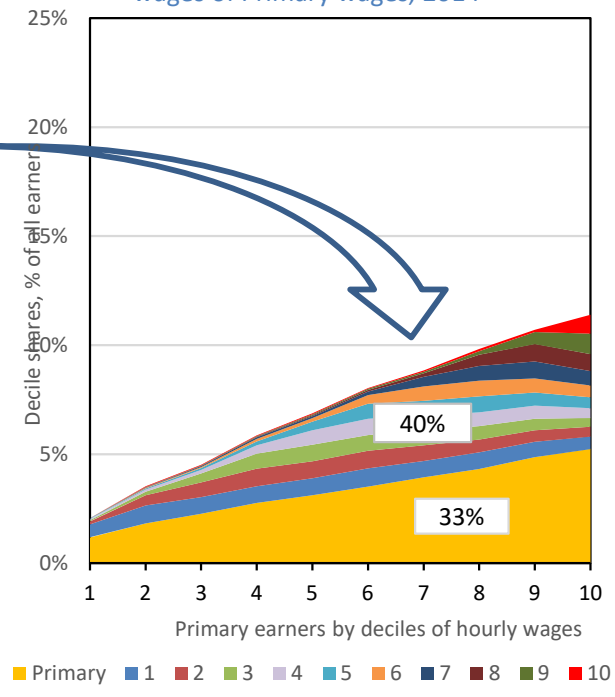
***16.** Additional low wages combine all over wage distribution of Primary earners. Top-10% combinations remain modest.*

***17.** Additional and Primary earners high up the income distribution. Top decile has 21% of employees (and 34% of earnings).*

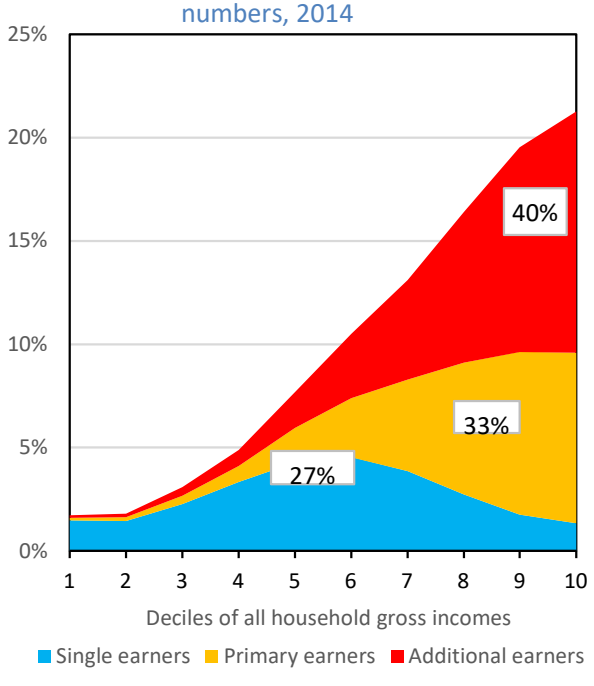
15. Earners by household position over distribution of wages*, 2014



16. Additional earners crossed by hourly wages of Primary wages, 2014



17. Households over distribution of incomes by type of earners earner-numbers, 2014



Own research on SILC data, wave 2015. It concerns wage-earnings households only but over the full household income distribution.

6. Significance for poverty and income inequality: *#2. Inequality*

18. *Also imilarly, low-wage employment depends largely (61%) on additional earners with upper-half household gross incomes, and often better educated.****

7. What purpose the minimum wage?

- The purchasing power of MW and CLA wages in tandem have almost been standing still for decades, and therewith social benefits.
- There is more to the weakening of the MW than declining union power due to globalisation and deregulation. The elephant in the room is the rise of dual-earner society: a national 'doubling', largely due to increased educational attainment, next to Richard Freeman's Great Doubling after the demise of communism. Consequently, 70% of employees now share a household, but at the same time of (labour) households almost half are still single earner.
- Additional earners in households radically change the relationship between the wage and income distributions, bringing MW to high incomes. That may diminish public pressure for increasing the level, which is strongly needed however for single earners in lower-income households. It affects both roles of the MW: wage protection and income protection. It also makes MW increasingly ineffective for reducing income (in)equality, including when taxes and contributions on MW would be reduced.

7. What purpose the minimum wage?

- A well-targeted *Earned Income Tax Credit* can possibly mend this. A Living wage commission could oversee its adequacy next to social partners and government who have other interests.
- A *higher* MW level could then limit the costs of an EITC and thus help public finance.
- This could help the MW to better focus on its role as a labour-market instrument: fair pay and the enhancement of productivity and quality of production.

References: *#1. Graph explanations and sources*

#1. MW-levels: Weekly amounts (€) by years of age, July 2022
Ministry of Social Affairs.

#2. MW employment: Distribution and incidence, 2020
CBS: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/81487NED/table?dl=6E67A and https://opendata.cbs.nl/statline/#/CBS/nl/dataset/81405ned/table?dl=6E363

#3. MW-levels: Real levels NL ↔ USA, 1977=100, 1977-2022
Levels: Ministry of Social Affairs and Bureau of Labor Statistics. CBS: CPI and BLS: CPI-U

#4. MW levels: Real and % mean or median wages, 1974-2021
Median and Mean wage: OECD (full-time); data CPB: Average hourly wage calculated from National account sum of wages (excl. employer contributions) and employee hours worked.

#5. MW employment: Incidence and numbers, 1974-2020
De Beer et al. (2017), Figure 22 updated.

#6. Distribution of monthly earnings: Employee job numbers, by full- and part-time, 2019
Source: CBS (2021), figure 4.4.2.

#7. Real MW, CLA wages, actual hourly wages and productivity, 1970-2021, 1979=100
Been et al (2021), figure 7.2 updated.

#8. Lowest CLA wage, average CLA wage and MW, 1983-2021
Been et al (2021), figure 7.3 updated.

References: *#1. Graph explanations and sources*

#9. Real wages: CLA vs actual wage growth, 1995-2021
CBS: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82838NED/table?dl=6FED9 and https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84165NED/table?dl=6FED8

#10. Labour productivity growth, 1995-2021
CBS: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84546NED/table?dl=6FEDA

#11. Poverty: Dutch vs EU, absolute vs relative, 1977-2019
Salverda (2021).

#12. In-work poor households over income distributions, 2014
Own research on EU-SILC data. Compare Salverda and Haas (2014) and Salverda (2015).

#13. Within-decile shares of minimum-wage earners by type: student, single earner, primary earner, additional earner, 2018
CPB (2021c), figure 2.7

#14. Low pay over income deciles, by type of earners , 2014

#15. Earners by household position over distribution of wages, 2014*

#16. Additional earners crossed by hourly wages of Primary wages, 2014

#17. Households over distribution of incomes by type of earners earner-numbers, 2014
See #12.

#18. Distribution of wage households and wages over equivalised distribution, 2020
CBS: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84493NED/table?dl=703AE

References: *#2. Further reading*

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Beer, P. de, W. Been and W. Salverda (2017). *The interplay between the minimum wage and collective bargaining in the Netherlands. An overview and a case study of three sectors.* AIAS Working Paper 173. http://www.uva-aias.net/nl/working-papers/aias/2017/the-interplay-between-the-minimum-wage-and-collective-bargaining-in-the-netherlands

Cengiz, D., A. Dube, A. Lindner en B. Zipperer (2019). The Effect of Minimum Wages on Low-Wage Jobs. *Quarterly Journal of Economics*, 134(3), 1405–1454.

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