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PAYMENT FOR CARE, IMPACT ON THE ECONOMIC SITUATION OF THE PENSIONER IN DENMARK, SWEDEN, NORWAY, FINLAND, GREAT BRITAIN AND GERMANY

RESEARCH DEPARTMENT OF SOCIAL POLICY AND WELFARE SERVICES

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Introduction.

The aim of this paper is to trace the impact of user payment for care on the economic situation of pensioner families. Care can be for few or many hours per time period, e.g. per week, and it can be delivered at an institution or in the private home of the pensioner. Care can be of different types varying from help with daily routines to specialized medical care.

In this study the focus is on care delivered by professionals in the private home of the pensioner. The type of care is basically help with daily routines, cleaning, shopping, personal care and, maybe, medication. It was decided to use two cases, one where care is used sparsely, i.e. one visit or one hour a week, another where care is used more intensively, i.e. seven visits or seven hours a week. It is also assumed that the care services are delivered during the day or evening, not during the night.

This approach to care is very stylised with the objective of being comparable across the countries included in the study. It should be approximately the same amount of care per time period delivered by professionals in the private home of the pensioner and of approximately the same type and quality, which is being compared.

Some countries charge the pensioner for care, other countries don't. The pay schemes for each country will be described in a separate section. First the economic situation of the pensioner will have to be specified.

The Economic Situation of the Pensioner.

A single pensioner has been selected to represent the pensioner family in this study. This is simple and transparent, and it reveals the basic impact of pay schemes for care. He, it is a male, retires in 2003 at the 'norm' age for retirement for men, which is 65 in all the countries included in this study except in Denmark and Norway, where the 'norm' age of retirement is 67 years. From 2004 the 'norm' age of retirement in Denmark is 65 years for those born after July 1st 1939. Similar results for the pensioner couple are available on www.sfi.dk/sw20973.asp.

The single pensioner receives public old-age pensions, i.e. pensions from column one in the usual classification of pension schemes. Some countries, e.g. the Netherlands and the Nordic countries included in this study, have residence based pensions or pension components. For these pension components it is assumed that the stay in the country is long enough to earn full pension rights. Other countries, e.g. Germany and Great Britain, have pensions or pension components determined by former income and work, the Nordic countries also belong to this category of countries, as far as pension components are concerned. For these pension components it is assumed that the former work record has a length of 40 years.

Based on long series of gross wages for OECD's average production worker, the APW, and additional information pension rights were calculated for the relevant years according to the rules of the different schemes. The pensions are then based on 'real' historic pension rights assuming the APW is 'real'. It is also possible to calculate pension rights for other income levels than that of the APW. The former wage income must, however, be expressed in terms of the APW income level,

e.g. 0.3 APW or 3.7 APW. When an income level has been selected, e.g. 0.3 APW, it is assumed to last for the whole of the working life, i.e. for 40 years. This may not be very realistic with such horizontal linear earnings profiles. In the real world they are probably curved. Curved earnings profiles could be constructed, but for this study we have to rely on the linear horizontal ones.

Gross pensions are calculated for varying former income levels, and the variation is very gradual, it takes place in small steps in the micro simulation model where the pension schemes are implemented as algorithms. Pensions are taxed in some countries, not in others, why tax schedules for pension income also had to be implemented in the micro simulation model, making it possible to calculate net pensions when relevant to do so.

Net pension is one important component of the economic situation of the pensioner, but not the only one. Housing benefits are important income supplements for pensioners in many countries. Algorithms for housing benefits for pensioners were therefore also implemented in the model. Housing benefits vary with the housing costs of the pensioner and his income. Assumptions about gross housing costs therefore had to be made. In this study pensioners only live in rented accommodations. Gross housing costs, i.e. rent, are calculated in two ways. One way is as 20 percent of the former gross income level. This is a very simple 'housing cost' model, it only reflects that housing costs usually vary positively with income and in this variant it is with former income. The interpretation is that the pensioner stays in the accommodation he had when he was working. The other variant is that the person moves to another flat when he retires, the housing costs will now be calculated as 20 percent of his gross pension income.

In our stylised world these two components, the net pension (gross pension – taxes and social contributions) and net housing costs (gross housing costs – housing benefits) constitute the economic situation of the pensioner. The income concept used to express the economic situation is called the 'Family Purse' (F.P.) and is formally calculated in this way:

Gross pension
- taxes and social contributions
- gross housing costs
+ housing benefits

Family Purse

This is a relatively simple income concept, but it includes the most important aspects of the economic situation of the pensioner.

Payment for care can be included by subtracting the payment as a separate item in the calculation of the F.P. In this way there is a F.P. before payment for care and one after payment for care, the impact of payment for care on the economic situation of the pensioner can be measured as the difference between the two F.P.es.

The results of the calculations are also presented as net replacement rates for old-age pension. The net replacement rate is the 'Family Purse' as pensioner in percent of the 'Family Purse' when the person was working and earned the wage income, which generated the corresponding pension. The difference between the net replacement rates calculated before and after payment for care is an alternative way of illustrating the impact of payment for care on the economic situation of the pensioner.

Both ways will be used and the results will be presented in graphic and in tabular form, cf. the section on country situations. Now we will briefly describe the pay schemes for care, which might have an impact on the economic situation of the pensioner.

Pay Schemes for Care.

This section covers the basic components of the pay schemes for care. Care is allocated according to the needs of the pensioner. The procedures for assessment of needs etc. are not included in this paper, which focuses on payment for care and possible impacts on the economic situation of pensioners from such payments.

Denmark: The user does not pay directly for the type of care we focus on in this study. Home help and care is provided by the local authorities and financed by general taxation. There is therefore no direct impact on the economic situation of the Danish pensioner from receiving care services, they are free when considered from the point of view of the recipient.

Sweden: Swedish pensioners (and others) receiving home care services have to pay directly for the services. There is some variation across the municipalities in Sweden. The scheme presented here is the one for Stockholm municipality, the Swedish capital, for 2003. The amounts are maximum rates.

For up to 2 hours of Home Service or 'meals on wheels' per month the payment is 355 SEK/month.
Home Service for 1-2 times per week costs 645 SEK/month.
Home Service every weekday (only daytime) costs 860 SEK/month.
Home Service every day (also evenings) costs 1,190 SEK/month.
Home Service every day (also nights) costs 1,544 SEK/month.

Our cases will be 645 SEK/month and 1,190 SEK per month respectively.

The maximum rates are paid if the pensioner is not willing to submit information on his income and net wealth situation. If such information is submitted the payment may be reduced, even to zero, for pensioners with a low 'Family Purse'. If the F.P. after payment for services for a single pensioner falls below 4,162 SEK/month in 2003 the payment is reduced or suspended to defend this minimum income level, which is not a generally secured minimum income level for single Swedish pensioners. For those receiving housing benefits (BTP) the minimum is secured, if the housing costs are within a certain limit.

Norway: Norwegian pensioners using home care services have to pay for them. There is variation across the country. The scheme presented here is for Oslo municipality, the Norwegian capital. The housing benefit scheme applied is also for Oslo municipality.

The payment increases with income and there is an annual maximum payment. The rates for 2003 were:

Gross income	Price per hour	Max. payment
Up to 111,928 NOK	20 NOK	1,800 NOK
111,928 – 167,892 NOK	45 NOK	4,050 NOK
167,892 – 223,856 NOK	91 NOK	8,190 NOK
Above 223,856 NOK	182 NOK	16,380 NOK

Our cases imply 52 hours per year (low intensity) and 364 hours per year, the last case will, however, be curtailed to 90 hours, which is the maximum number of hours to be paid for in 2003.

Finland: Finland has pay schemes for continuous care services, the scheme for Helsinki, the Finnish capital, has been applied for 2003.

Finnish pensioners using care services are entitled to receive a care allowance as a supplement to the pension. The care allowance has three levels according to the need or costs for care, 51.48 EUR/month, 128.17 EUR/month and 256.32 EUR/month.

Payment for single Pensioner: 2.5% of the gross pension (including the care allowance, cf. below) above 445 EUR/month up to a maximum payment of 85.86 EUR/month is paid for 1 hour a week. The care allowance is the highest of the three levels, which is lower than the payment. 25% of the gross pension (including the care allowance) above 445 EUR/month up to a maximum payment of 601.02 EUR/month is paid for 7 hours a week. The care allowance is the highest of the three levels, which is lower than the payment.

Great Britain: Pay schemes for home care are the responsibility of the councils. We have not yet obtained a scheme for a London council, and until then a rate of 10 GBP/visit is used. The payment for services in our two cases is 520 GBP and 3,640 GBP respectively on an annual basis.

An Attendance Allowance (AA) can be received when the pensioner needs care and help in the home. There are two rates, one when care is received during day or night hours, it is 38.30 GBP/week, and one covering care received during day and night, 57.20 GBP/week. The rate of 38.30 GBP/week was selected for our cases.

Great Britain has, just as Sweden, a minimum income level setting limits for the payment for care. In 2003 the minimum level for a pensioner receiving Attendance Allowance at the lower rate was 102.10 GBP/week augmented by 25 percent, in total 128 GBP/week. If the payment for services brings the F.P. below this minimum income level, the payment is reduced or suspended.

The implications of receiving care services in Great Britain are quite far reaching. Firstly an Attendance Allowance is received as a supplement to the pension. Secondly the standard amount in the guarantee credit component of the Pension Credit is augmented by an ‘extra’ due to disability derived from receiving the AA (this ‘extra’ is 42.95 GBP/week here) and thirdly, the savings credit component of the Pension Credit scheme is tapered from a higher income than for a pensioner not receiving care services. The Pension Credit is relevant for pensioners with small pensions. Finally the applicable amount in the Housing Benefit scheme is augmented,

Germany: Care services in Germany are delivered by professionals according to the assessed needs of the pensioner as ‘Sachleistungen’, and there is no direct payment from the pensioner receiving

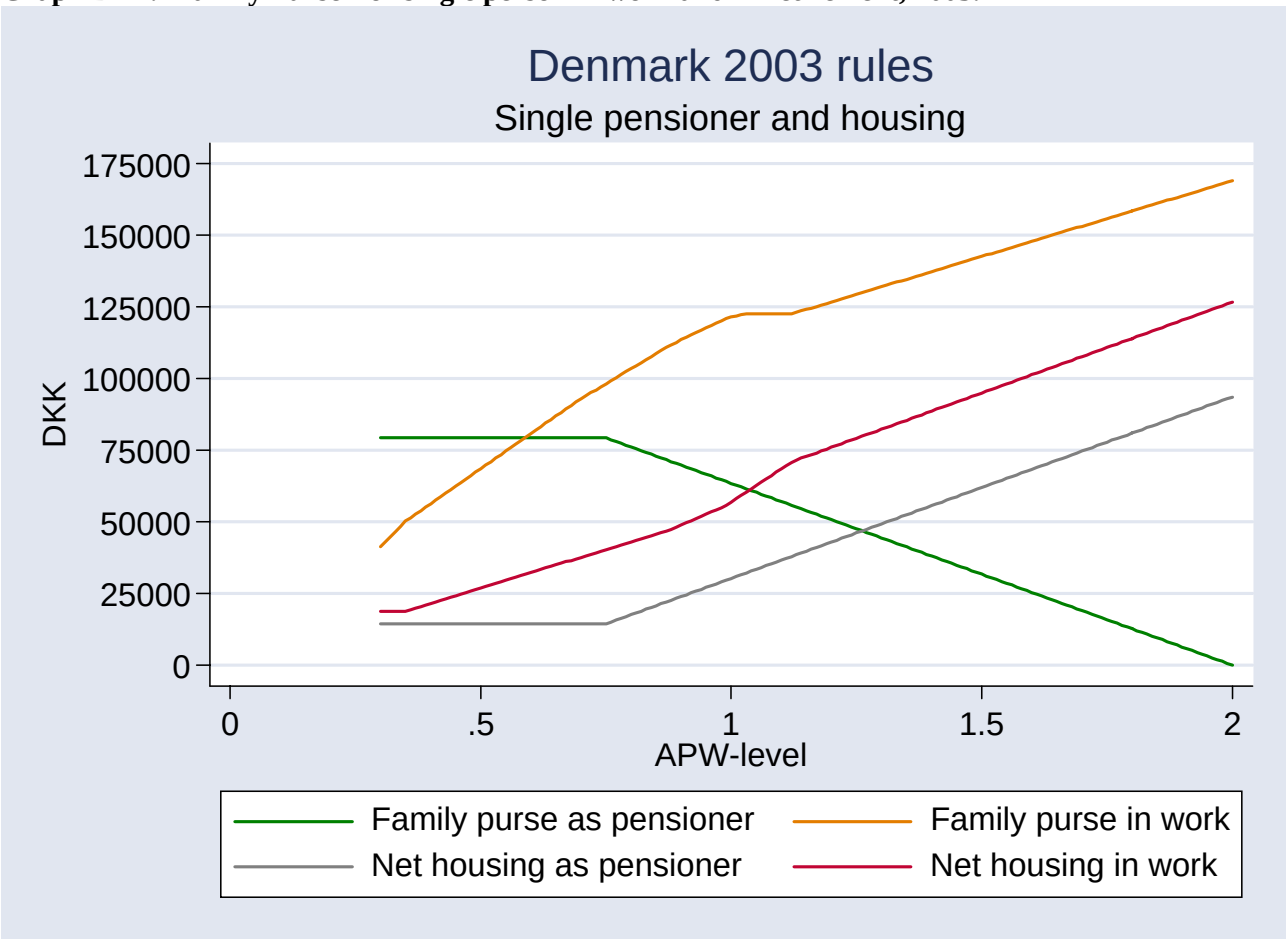
the care services. Care is financed through the ‘Pflegeversicherung’, which is a mandatory insurance scheme for persons working as well as for pensioners. Just as in Denmark, there is no direct impact on the economic situation of the pensioner from receiving care services.

There is, however, an alternative to ‘Sachleistungen’ and that is ‘Pflegegeld’. The pensioner receives an amount of money and uses them for payment for services primarily delivered by relatives and friends. There is no guarantee that the ‘Pflegegeld’ received and the expenditures for care services balance, but this could be assumed to be the case and then there would be no impact on the economic situation of the pensioner. This variant, where it is not professionals who deliver the services, is strictly speaking outside the scope of our study.

Country Situations.

Denmark.
There is, as already mentioned, no direct payment for care services in Denmark. The analysis will therefore be restricted to the economic situation of the pensioner only receiving public pensions. This situation is illustrated in Graph DK1.

Graph DK1. 'Family Purse' for single person in work and in retirement, 2003.



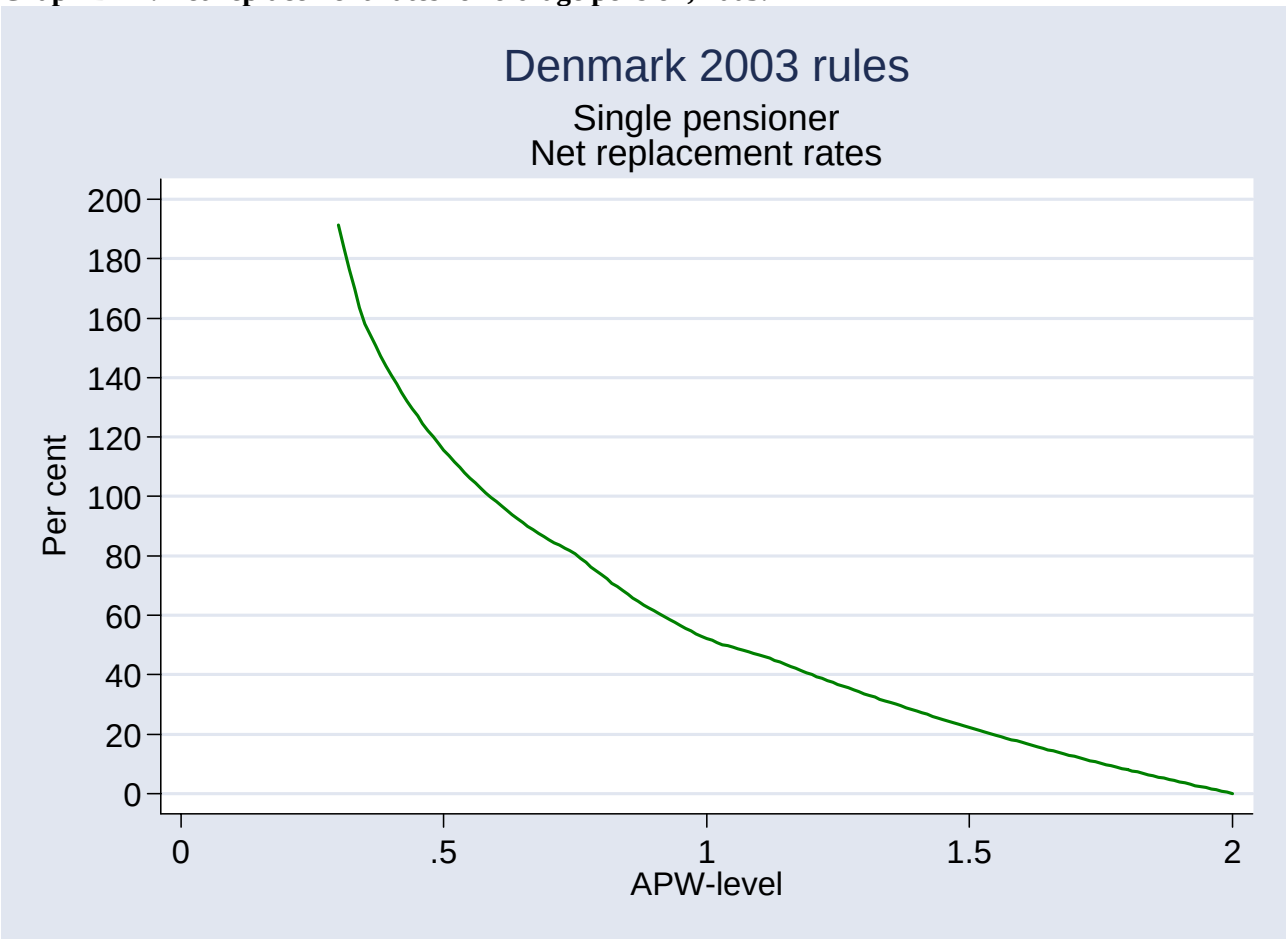
The yellow curve is the F.P. of the single person working at varying income levels in the interval from 0.3 to 2.0 times that of the APW. All income levels are assumed to be on full time basis, which is not very realistic for income levels below 0.6 APW. The F.P. is calculated as net wage income (gross wage minus taxes and social contributions) minus net housing costs (gross housing costs minus housing benefits). The gross housing costs are assumed to be 20 percent of the gross wage. Net housing costs are illustrated by the red curve.

The green curve is the F.P. when the single person has retired at the age of 67 in 2003. It is strongly influenced by the increasing net housing costs (the grey curve), which are based on the gross housing costs from the situation in work. Even if the housing benefits are substantial in the situation as pensioner, they cannot stop the F.P. from declining towards the zero level at a former income of approx. 2 times that of the APW. For high former income levels implying high gross housing costs the economic situation as a pensioner is not sustainable, there is very little or nothing to live from, the Family Purse is empty. The Danish public old-age pension consists of two flat rate components,

a basic residence based pension and a relatively modest occupational pension, here based on full time former work.

Graph DK2 is the F.P. for the pensioner, the green curve in Graph DK1, in percent of the F.P. for the person in work, the yellow curve in Graph DK1. The green curve in Graph DK2 illustrates the net replacement rates for public old-age pension.

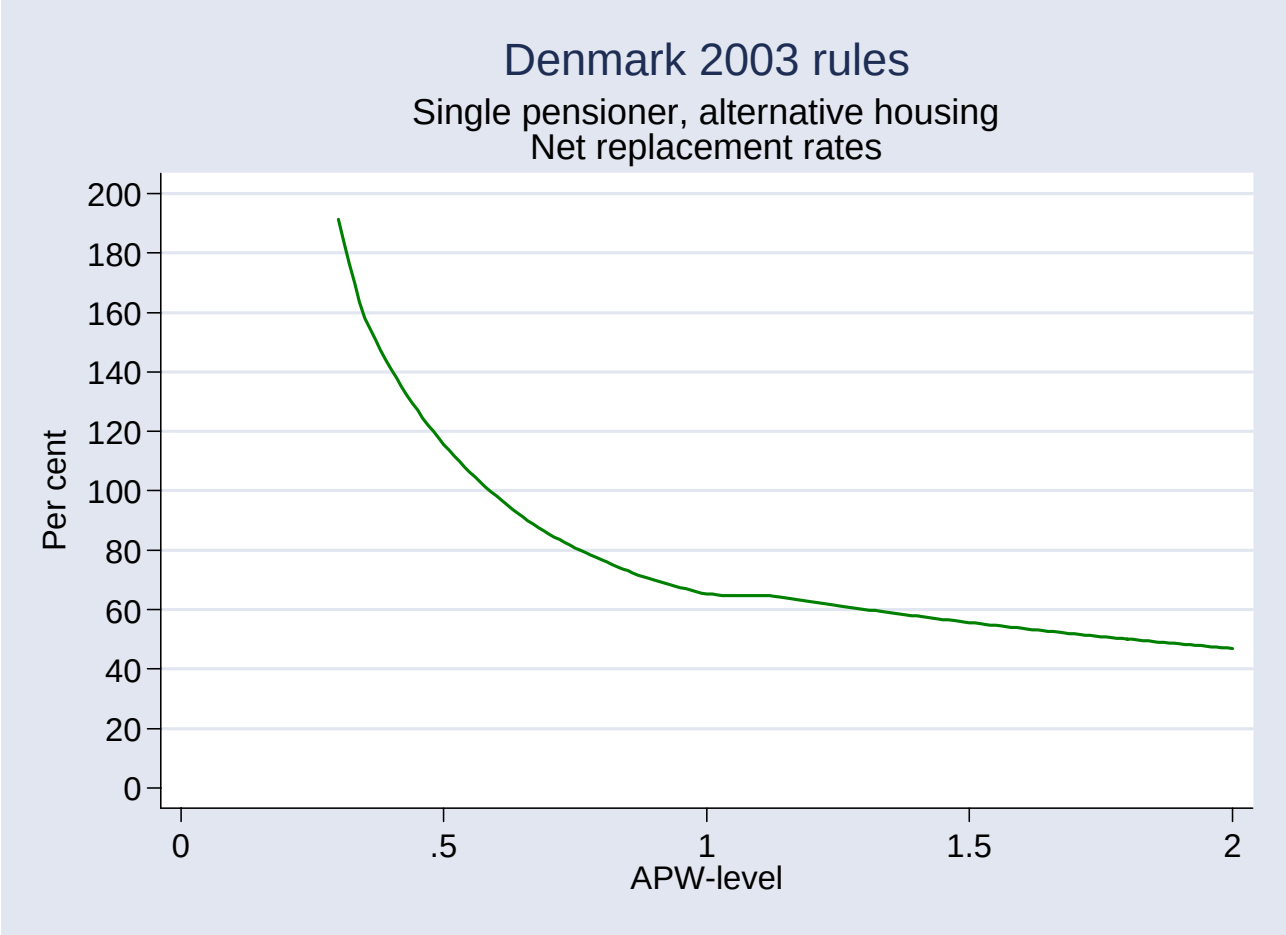
Graph DK2. Net replacement rates for old-age pension, 2003.



The replacement rates decline rapidly with former increasing income and end in zero at a former income level of approx. 2 times that of the APW, as we have already seen in Graph DK1, now just illustrated in a different way. The situation is unsustainable. If the pensioner cannot increase his income, and that is assumed not to be possible, he will have to move to a cheaper accommodation, at least if he had a high former income.

This has happened in Graph DK3, where the gross housing costs are now 20 percent of the flat rate gross pension consisting of the basic national pension and the supplementary occupational pension, ATP, at full time basis for the former work record.

Graph DK3. Net replacement rates for old-age pension, alternative housing, 2003.



It is obvious that the economic situation has now improved significantly for former middle to high income earners, but the housing standard is presumably lower than in the first case.

<u>Summary on payment for care.</u>

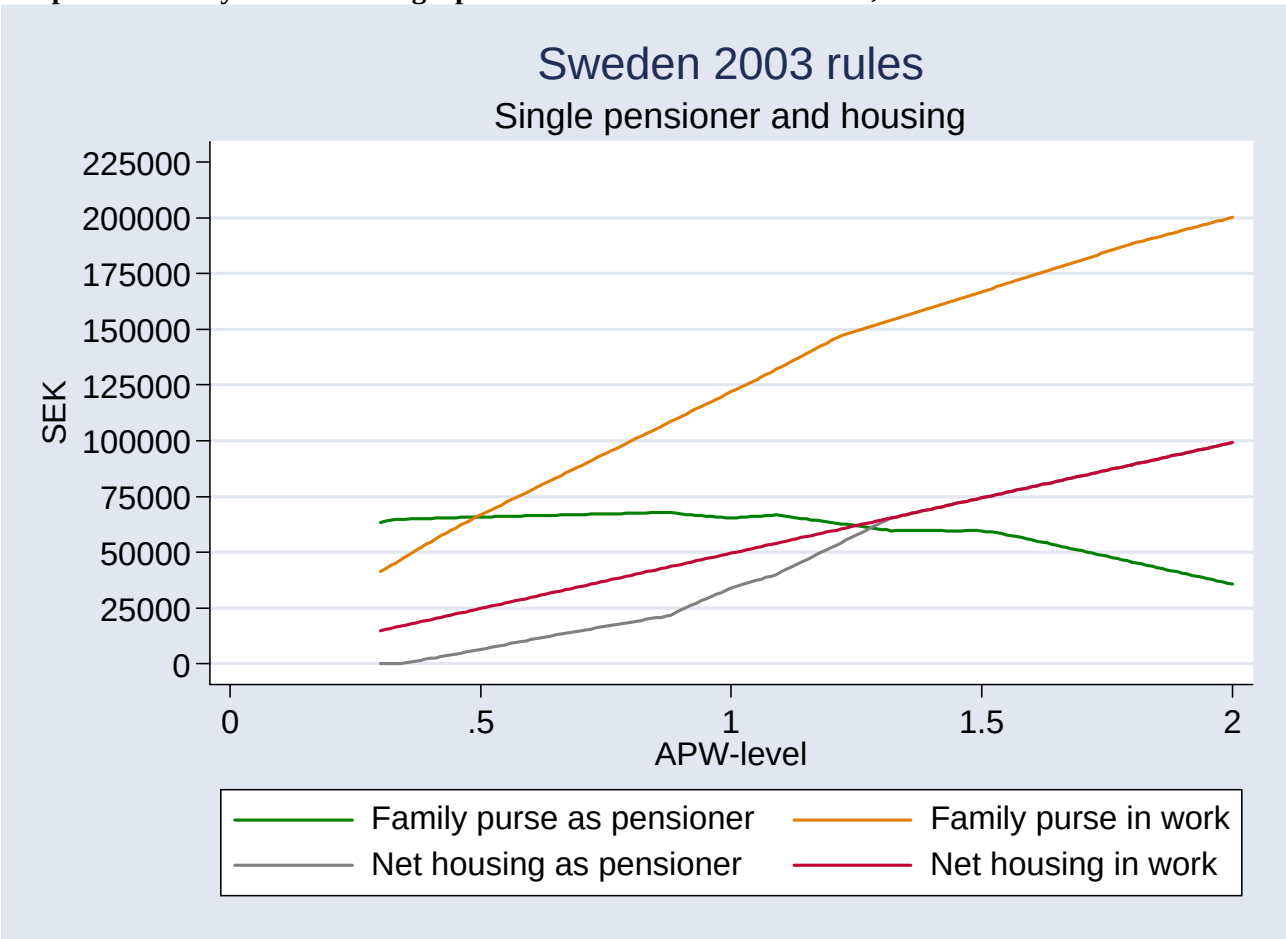
This is not relevant for Denmark, as there is no direct payment for care for the elderly.

Sweden.

Sweden has pay schemes for home services, we use the one for Stockholm municipality. The payment for low intensity care is 7,740 SEK and for the higher intensity care it is 14,280 SEK on an annual basis in 2003, for more detail, cf. the section 'Pay Schemes for Care'.

The first Graph S1 is parallel to the corresponding Danish Graph DK1, it illustrates the economic situation of the single Swedish person working and as a pensioner retiring at the age of 65 in 2003, without receiving care services.

Graph S1. 'Family Purse' for single person in work and in retirement, 2003.



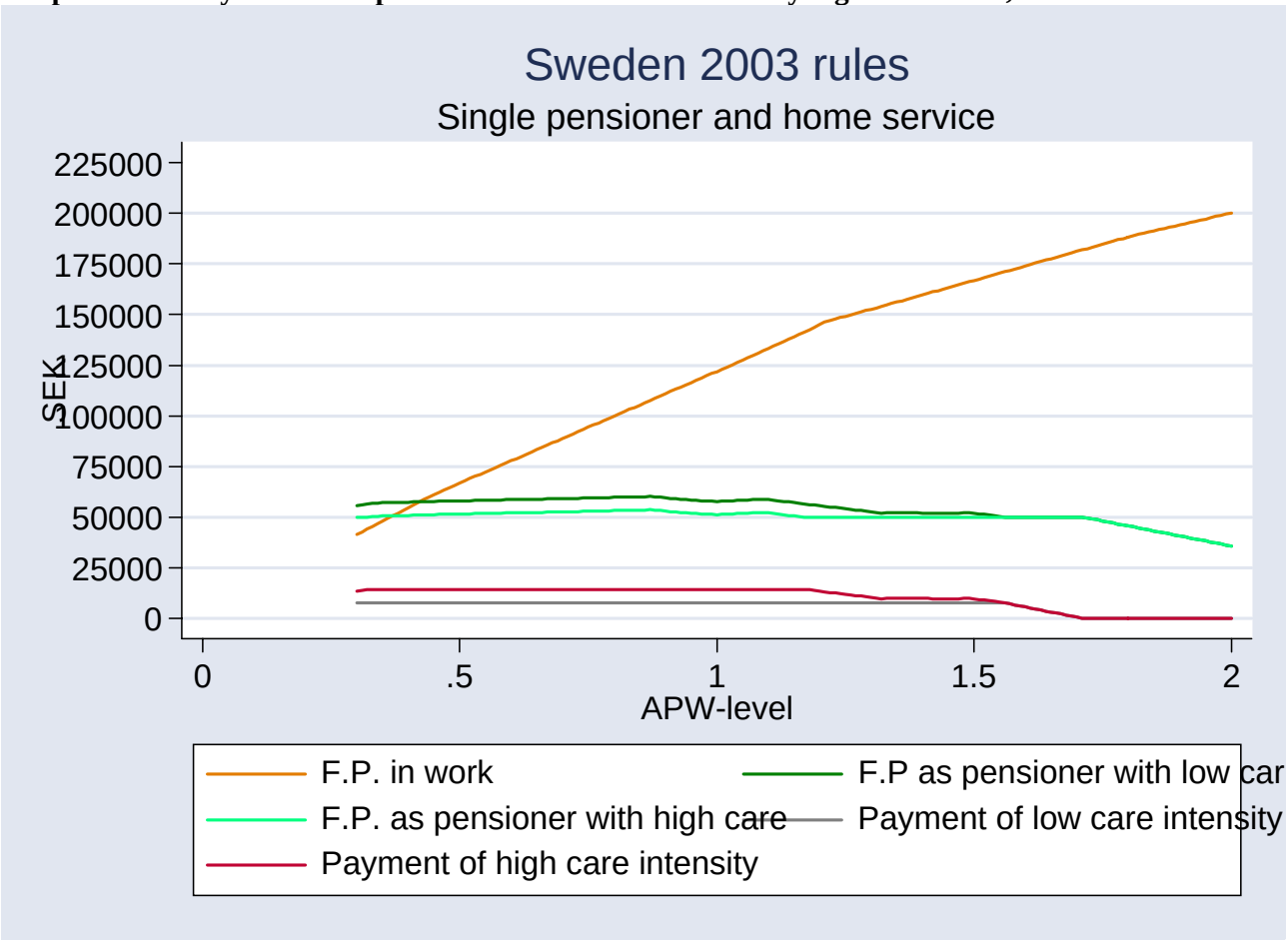
The yellow curve is of the same kind as in Graph DK1, it is the 'Family Purse' for the single person working at varying income levels in the interval from 0.3 to 2 times that of the APW.

The Swedish public old-age pension scheme in 2003 is composed of components from the old scheme (16/20 of a pension from this scheme) and of components from the new scheme (4/20 of a pension from this scheme), for more detail cf. Hansen 1). The pension in 2003 has both flat rate and former income related components. The income related components have their maximum at a former income level of approx. 1.5 times that of the APW. It is obvious that the Swedish pensioner is doing better than the Danish one. The green F.P. curve starts to decline steadily after the maximum pension has been reached, but at a former income level of 2 times that of the APW there is still approximately 36,000 SEK left in the 'Family Purse', in Denmark it was empty. The

possibility of staying in the same accommodation as when the person was working and earned a relatively high income is substantially better in Sweden than in Denmark, when public old-age pension is the only income source.

In Graph S2 we look at the impact of paying for home services.

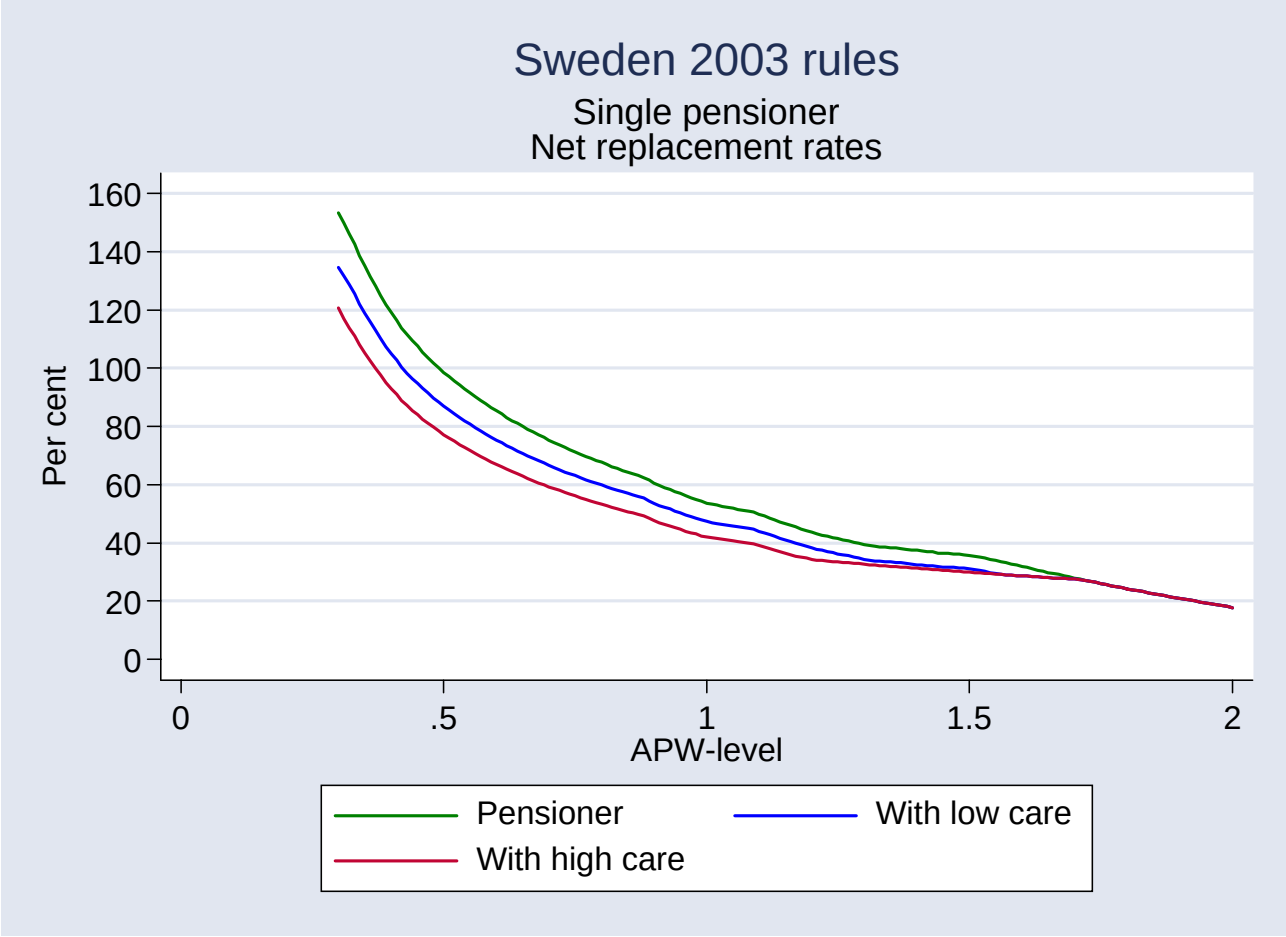
Graph S2. 'Family Purse' for pensioners with low and relatively high use of care, 2003.



The red line in the bottom of the graph is payment for one visit a day, the grey line is for one visit a week. The light green and the dark green curves are the corresponding F.P.'s. At full payment, i.e, in the interval from approx. 0.35 to 1.2 times the former income of the APW, the light green curve is 14,280 SEK below the pensioner F.P. curve in Graph S1 and the dark green curve is 7,740 SEK below. The low income protection against payment for care (active when the F.P. falls below 49,944 SEK in 2003) is active for the red curve just in the start and again from a former income level of approx. 1.2 APW. From a former income level of approx. 1.6 APW the payment for care in both cases decline gradually to zero. The Family Purse is the same as in the case without care at a former income level of 2 APW.

Graph S3 illustrates the results in terms of net replacement rates.

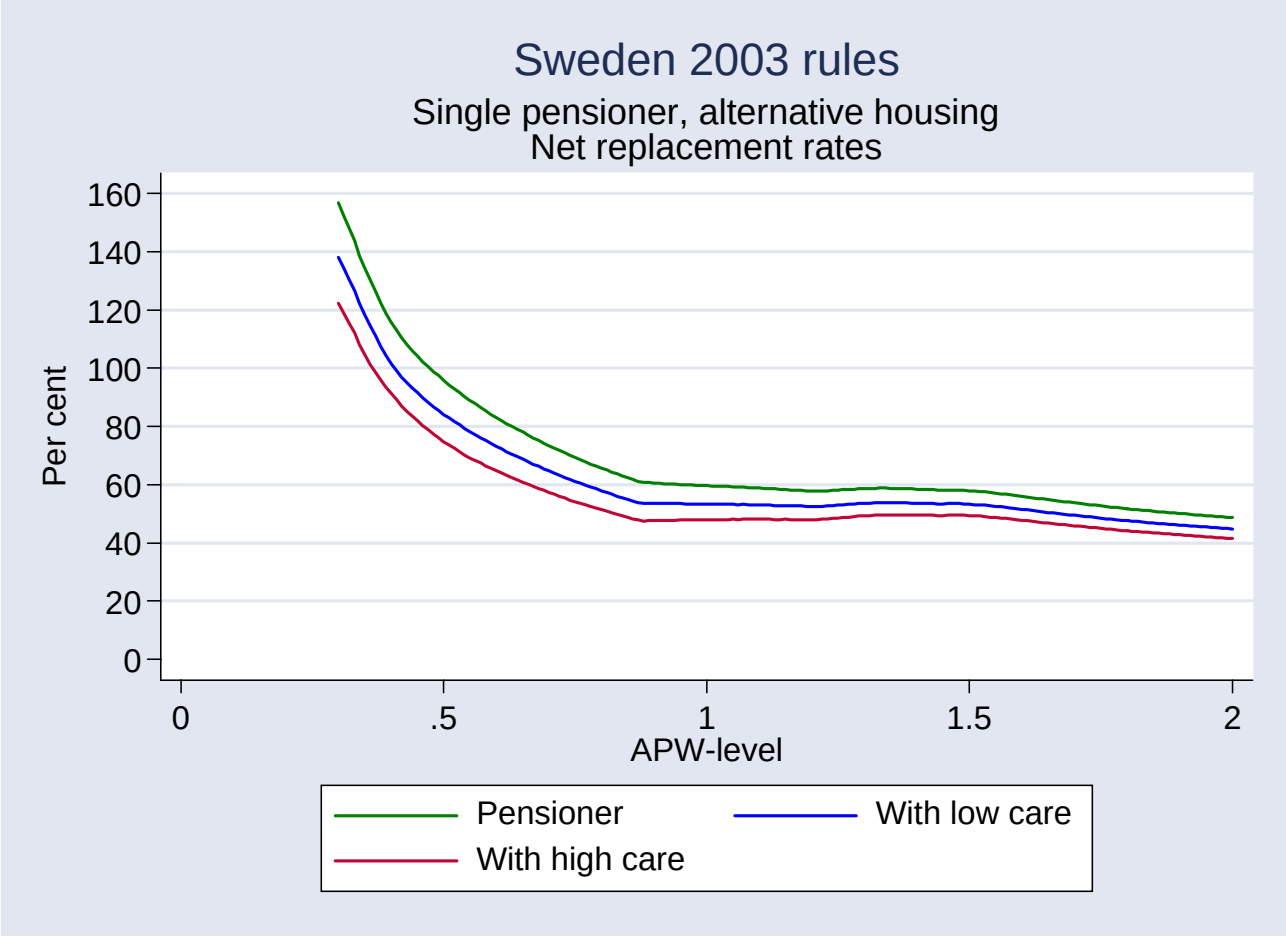
Graph S3. Net replacement rates for single pensioner not using care and using care at two different levels, 2003.



The dark green curve is the net replacement rate profile for the pensioner not receiving care services, the blue curve is for the low intensity care user and the red one is for the higher intensity care user. At low former income levels the impact of payment for care is quite substantial, approximately 25 percentage points for the high level of care at the 0.5 APW former income level, at the 1.0 APW level the difference is approx. 15 percentage points, at 1.5 APW it is close to 7 percentage points, cf. Table S1 and S2 for more precise impact measures. At even higher former income levels the payment is zero, the net replacement rates for the 3 cases merge. When the housing costs are sufficiently high, home services become free of charge.

In Graph S4 the Swedish pensioner has moved to a different accommodation, the housing costs are now 20 percent of his gross pension income.

Graph S4. Net replacement rates for single pensioner not using care and using care at two different levels, alternative housing, 2003.



One result of the alternative accommodation is that the pensioner now pays the full fee for care services, the F.P. is now above the level for income protection, the net replacement rates are, as a consequence, at higher levels for medium to high former income levels than in the first case.

Summary on payment for care.

Table S1 is based on the same results as Graph S1 and S2.

Table S1. Impact from payment for care at selected former income levels. Housing costs: 20% of former gross wage income.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	7,740 SEK	7,740 SEK	7,740 SEK	0 SEK
	Reduction, %	11.7	11.8	13	0
7 hours a week	Absolute diff.	14,280 SEK	14,280 SEK	9529 SEK	0 SEK
	Reduction, %	21.5	21.8	16	0

The difference between the dark green curve in Graph S1 (no care) and the dark green curve in Graph S2 (low intensity care) is the entry in Table S1 under the heading 'F.P., absolute diff.' in the 1 hour a week case. The corresponding entry in the 7 hours a week case is the difference between the dark green curve in Graph S1 and the light green curve in Graph S2 (high intensity of care). The 'F.P., reduction,%' is calculated in relation to the dark green curve in Graph S1. It has the F.P. levels of 66,355 SEK, 65,463 SEK, 59,473 SEK and 35,742 SEK respectively at the four selected former income levels.

The percentage impact from payment for care is almost constant for each of the two intensities at the first two former income levels. At the next income level the impact increases for the low intensity case (lower F.P., same payment) but declines for the 'high intensity' case (the payment drops to a little above that in the low intensity case due to the 'low income ' protection), and at the highest former income level there is no payment at all. Payment for high intensity care implies a maximum reduction of close to 22% of the F.P. for the pensioner not using care, it is at the 0.6 and 1.0 APW levels of former income.

Table S2 is calculated on basis of similar results as Table S1 but this time the housing costs are 20% of the gross pension, cf. www.sfi.dk/sw20973.asp for the corresponding graphs.

Table S2. Impact from payment for care at selected former income levels. Housing costs: 20% of gross pension.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	7,740 SEK	7,740 SEK	7,740 SEK	7,740 SEK
	Reduction, %	12	10.6	8	7.9
7 hours a week	Absolute diff.	14,280 SEK	14,280 SEK	14,280 SEK	14,280 SEK
	Reduction, %	22.1	20	14.8	14.7

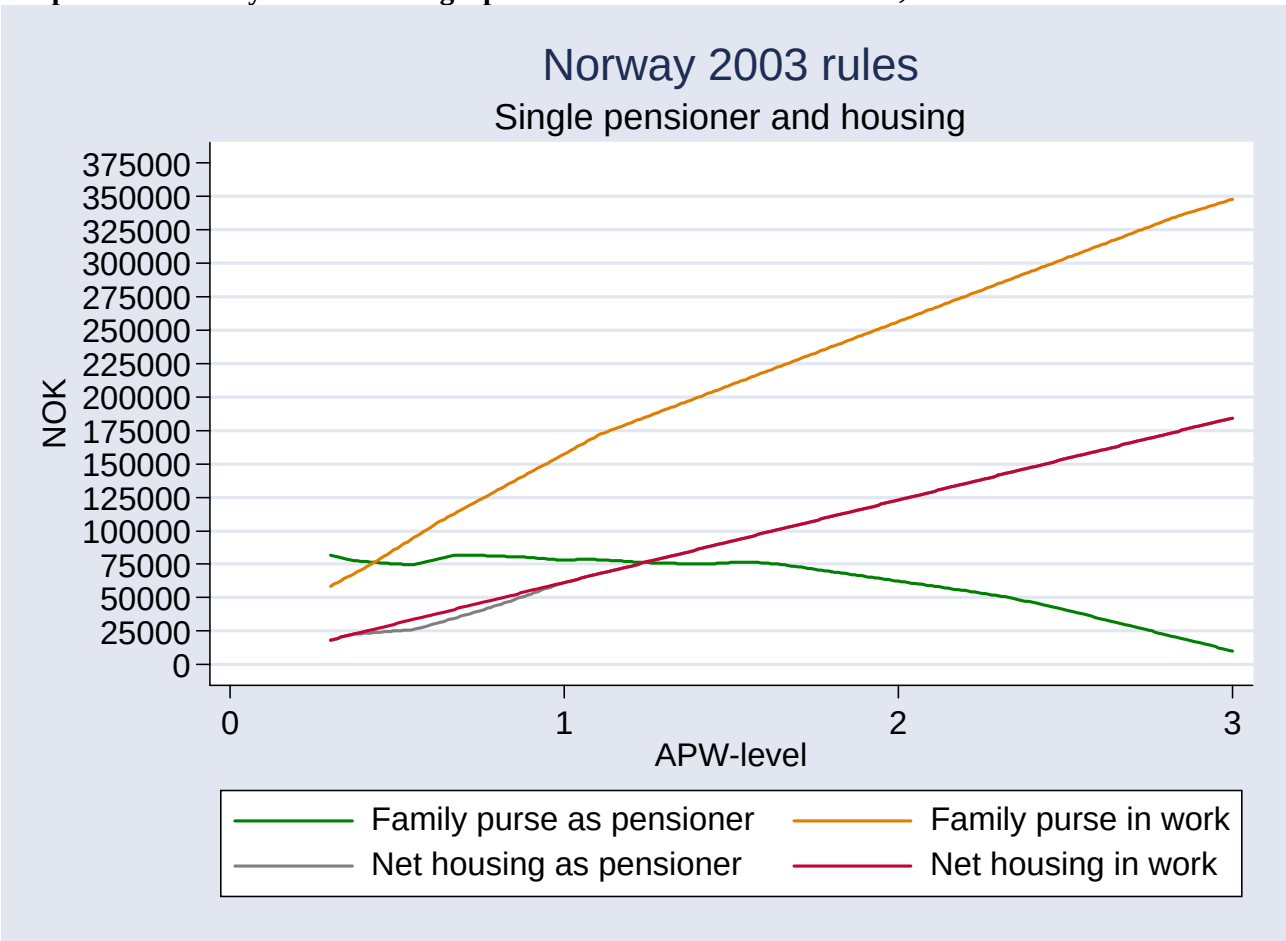
This time the reference F.P. (that of the pensioner not using care) starts a little lower than the reference F.P. for Table S1, but then it increases with former income until the maximum pension is reached a little after 1.5 APW in former income. This implies full payment for care and decreasing negative impact from payment with increasing former income. The maximum negative impact from payment for high intensity care is 22% at a former income level of 0.6 APW, slightly higher than in Table S1, implying a gross replacement rate for pensions alone a little above 100% at this income level, the housing costs in this alternative case are higher than they are in Table S1.

Norway.

Norway has, just like Sweden, pay schemes for home services, we use the one for Oslo municipality. The payment increases in steps with increasing gross pension income up to a maximum, which is 182 NOK/hour. There is a further maximum of payment for 90 hours of service a year implying a maximum payment of 16,380 NOK in 2003.

The first Graph NO1 is parallel to the corresponding ones for Denmark and Sweden. It illustrates the economic situation of the single Norwegian person working and as a pensioner retiring at the age of 67 years in 2003, without using care services.

Graph NO1. 'Family Purse' for single person in work and in retirement, 2003.



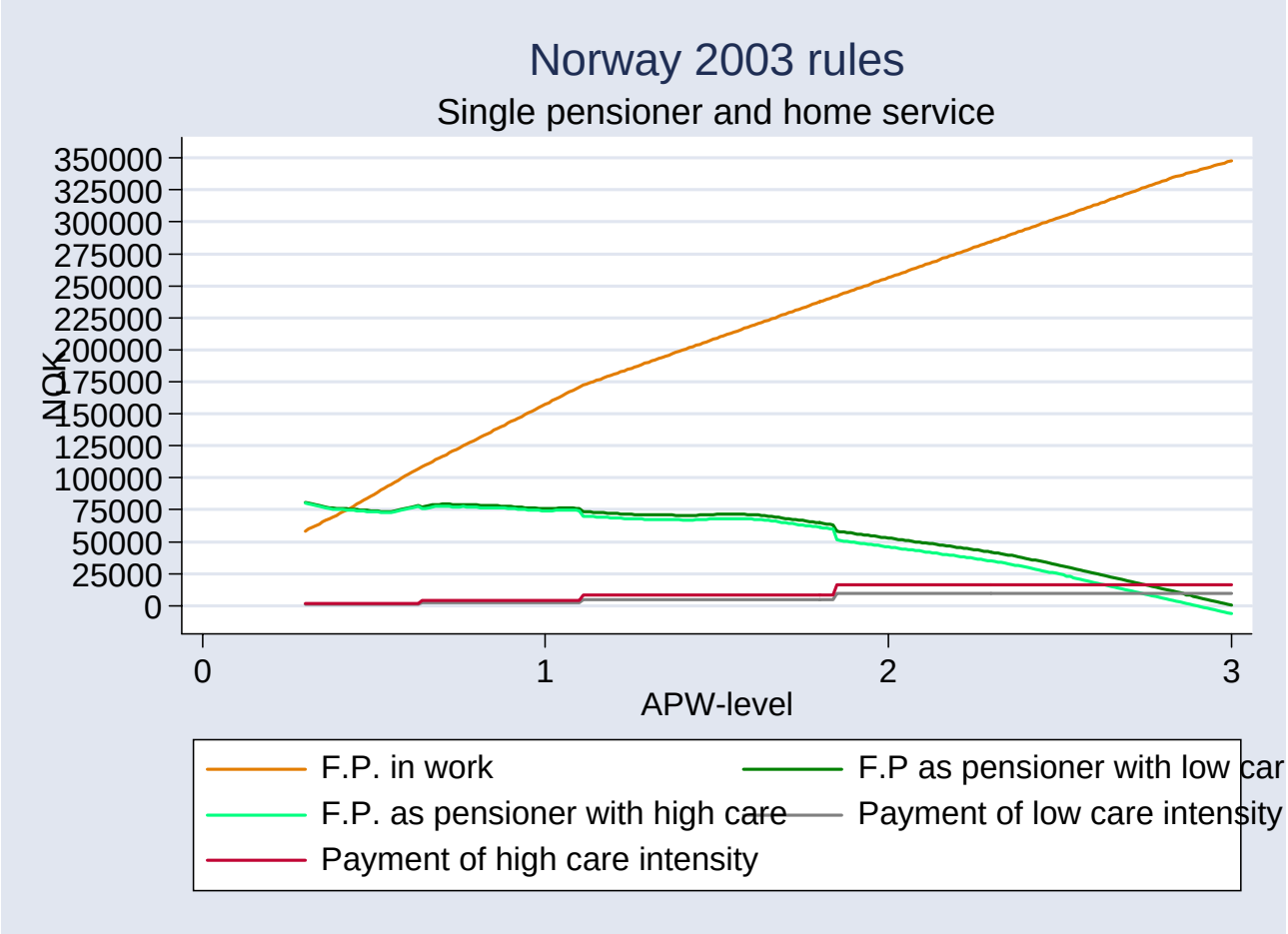
The yellow curve is, just as for Denmark and Sweden, the 'Family Purse' for the single person working at varying income levels in the interval from 0.3 to 3 times that of the APW.

The Norwegian public old-age pension scheme is calculated according to the rules for 2003. The pension reaches its maximum at a relatively high income level, somewhere around 2.2 APW in former income. Income up to 12 times the Norwegian 'Grunnbeløb' is generating pension rights. This is the reason why the calculations are stretched up to a former income level of 3 APW. The green curve illustrates the F.P. for the pensioner. At a former income level of 2 APW there is approx. 62,000 NOK left in the 'Family Purse', more than in Sweden with approx. 36,000 SEK at the same former income level. At a former income level of 3 times that of the APW very little is left

in the ‘Family Purse’ if the pensioner stays in the flat he had when he was working and if his only income source is public Norwegian old-age pensions.

Graph NO2 illustrates the impact from payment for home services.

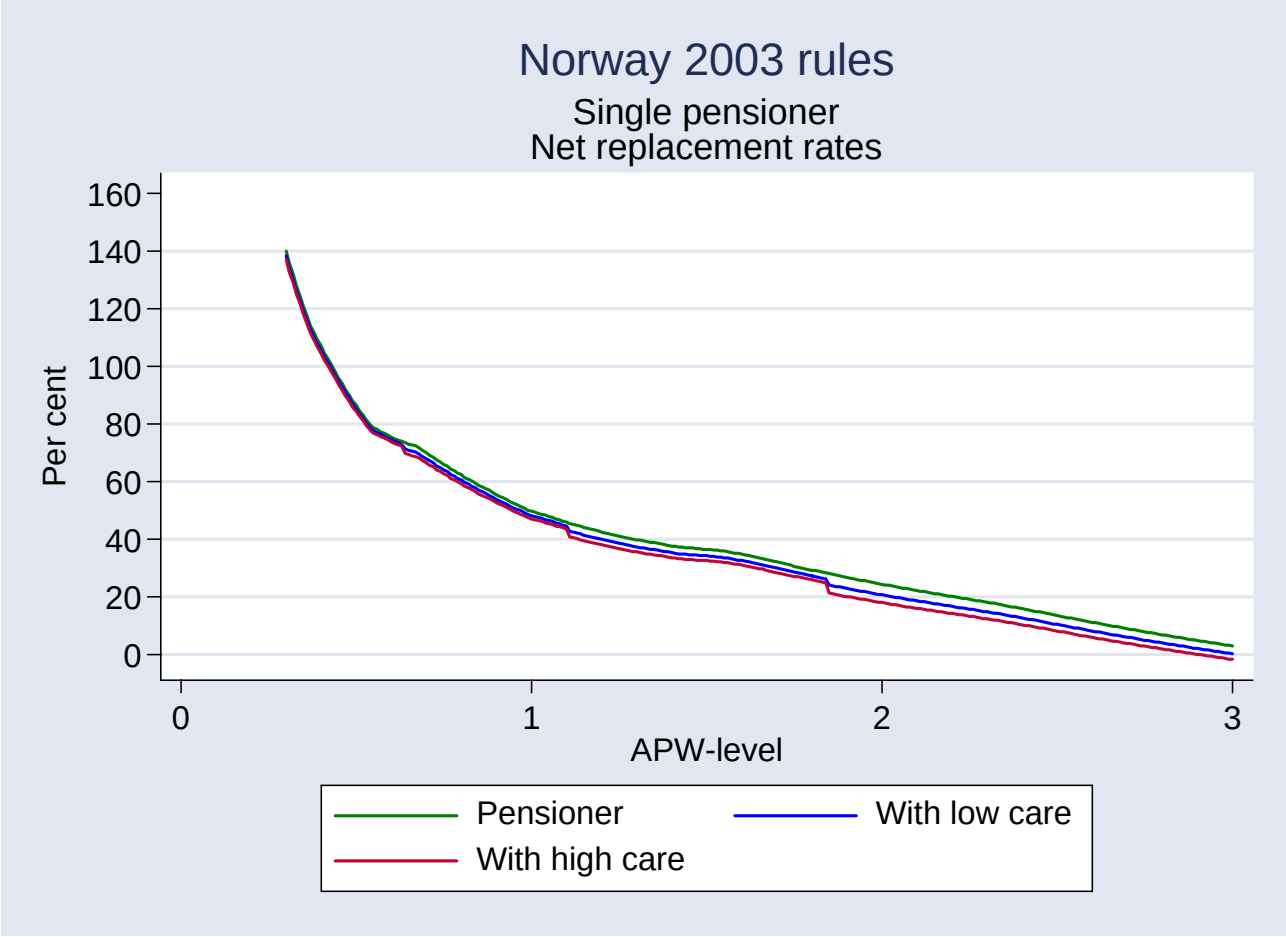
Graph NO2. ‘Family Purse’ for pensioners with low and relatively high use of care, 2003.



The red lines in the bottom of the graph are payments for one visit a day, the grey lines are for one visit a week. The light green and the dark green curves are the corresponding F.P.’s. As already mentioned, the payment increases in steps with increasing pension income until a maximum price per hour is reached. There is also a maximum annual number of hours, 90, for which payment can be required. The first part of the grey and red ‘staircase’ has payments of 1,040 NOK and 1,800 NOK respectively for the low and high intensity cases. The next step has payments of 2,340 NOK and 4,050 NOK respectively, followed by 4,732 NOK and 8,190 NOK in payment for the two cases on the third step. The final step has payments of 9,464 NOK for the low intensity case and 16,380 NOK for the high intensity case. The mentioned amounts are also equal to the differences between the dark green curve and the pensioner F.P. curve in Graph NO1 for the low intensity case and between the light green curve and the F.P. curve in Graph NO1 for the high intensity case at the respective levels of former income where the mentioned parts of the ‘staircase’ are valid. Payment for care in Norway does not involve care allowances, tax credits or tax allowances, it is the same in Sweden.

Graph NO3 illustrates the results in terms of net replacement rates.

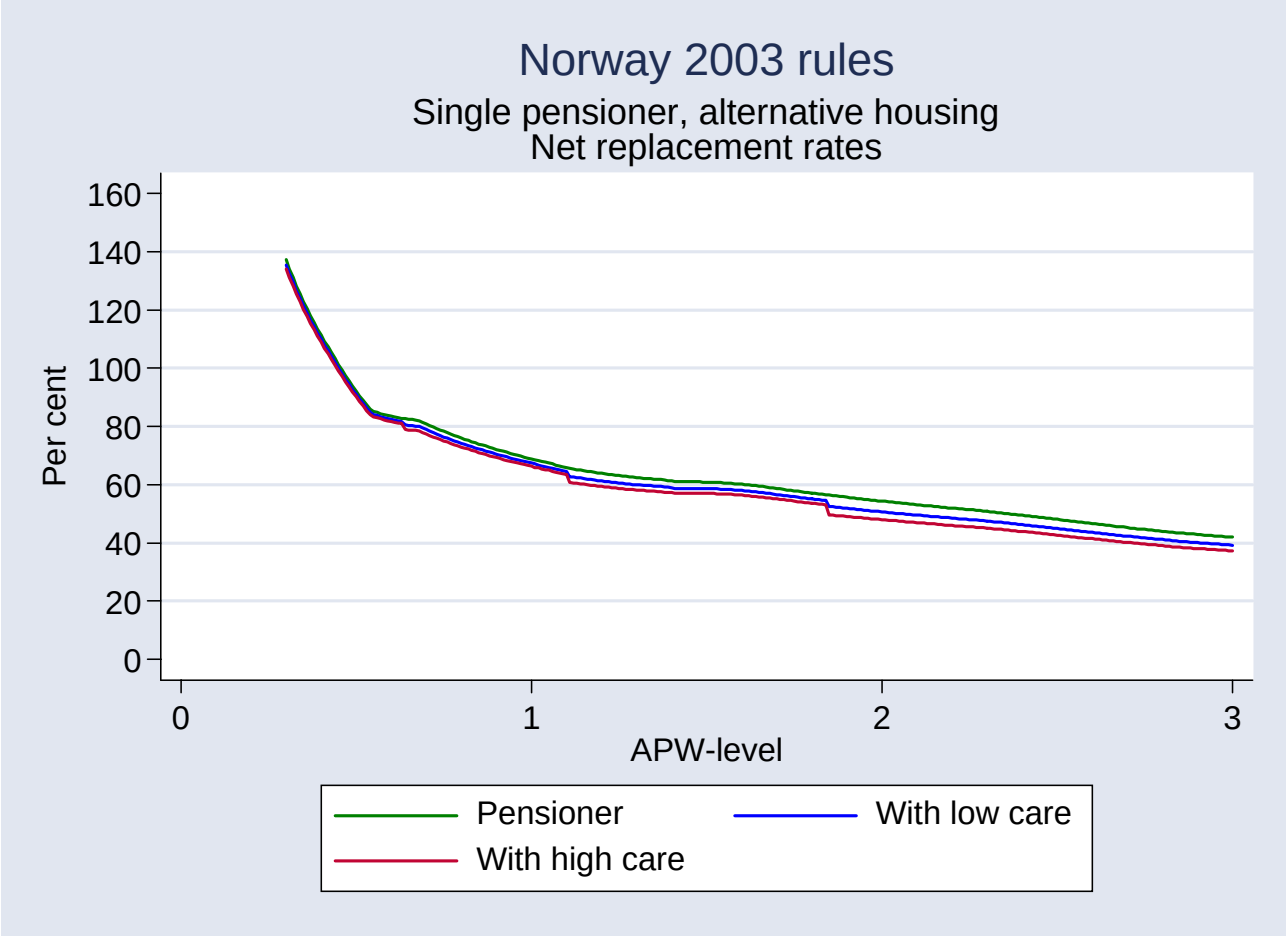
Graph NO3. Net replacement rates for single pensioner not using care and using care at two different levels, 2003.



The dark green curve is the net replacement rate profile for the pensioner not using care services, the blue curve is for the low intensity care user and the red one is for the higher intensity care user. It should be noted that the impact from payment is the opposite of the Swedish case. At low pension incomes the impact in Norway is small, the three replacement rate profiles are close to each other, in Sweden they were 'far' from each other. At higher pension incomes the impact is larger, the replacement profiles are moving away from each other. In Sweden they merged.

In Graph NO4 the Norwegian pensioner has moved to a different accommodation, the housing costs are now 20 percent of his gross pension income.

Graph NO4. Net replacement rates for single pensioner not using care and using care at two different levels, alternative housing, 2003.



The replacement rates are now higher at all former income levels except the lower ones. It is the contribution from the cheaper flat at least at middle to high former income levels.

<u>Summary on payment for care.</u>

Table NO1 is based on the same results as Graph NO1 and NO2.

Table NO1. Impact from payment for care at selected former income levels. Housing costs: 20% of former gross wage.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	1,040 NOK	2,340 NOK	4,732 NOK	9,464 NOK
	Reduction, %	1.3	3	6.2	15.2
7 hours a week	Absolute diff.	1,800 NOK	4,050 NOK	8,190 NOK	16,380 NOK
	Reduction, %	2.3	5.2	10.7	26.3

Table NO1 is constructed in the same way as Table S1. The reference is the green curve in Graph NO1 (no care). It has the F.P. levels of 77,506 NOK, 78,214 NOK, 76,208 NOK and 62,373 NOK respectively at the four selected former income levels.

The percentage impact from payment for care is increasing with increasing pension income for each of the two intensity cases. The decreasing F.P. at the highest former income level contributes to this result, which, however, primarily is generated by the stepwise pay scheme for care for the elderly. It is also evident that the 90 hours limit for payment has a significant impact. The high intensity case has a payment of less than twice the amount for the low intensity case, a result, which is similar to the Swedish case, when it has full payment. The maximum reduction of the reference F.P. is by a little more than 26% in the high intensity case, this is at the highest level for former income, 2 times that of the APW.

Table NO2 is calculated on basis of similar results as Table NO1, but this time the housing costs are 20% of the gross pension, cf. www.sfi.dk/sw20973.asp for the corresponding graphs.

Table NO2. Impact from payment for care at selected former income levels. Housing costs: 20% of gross pension income.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	1,040 NOK	2,340 NOK	4,732 NOK	9,464 NOK
	Reduction, %	1.2	2.2	3.7	6.8
7 hours a week	Absolute diff.	1,800 NOK	4,050 NOK	8,190 NOK	16,380 NOK
	Reduction, %	2.1	3.7	6.4	11.8

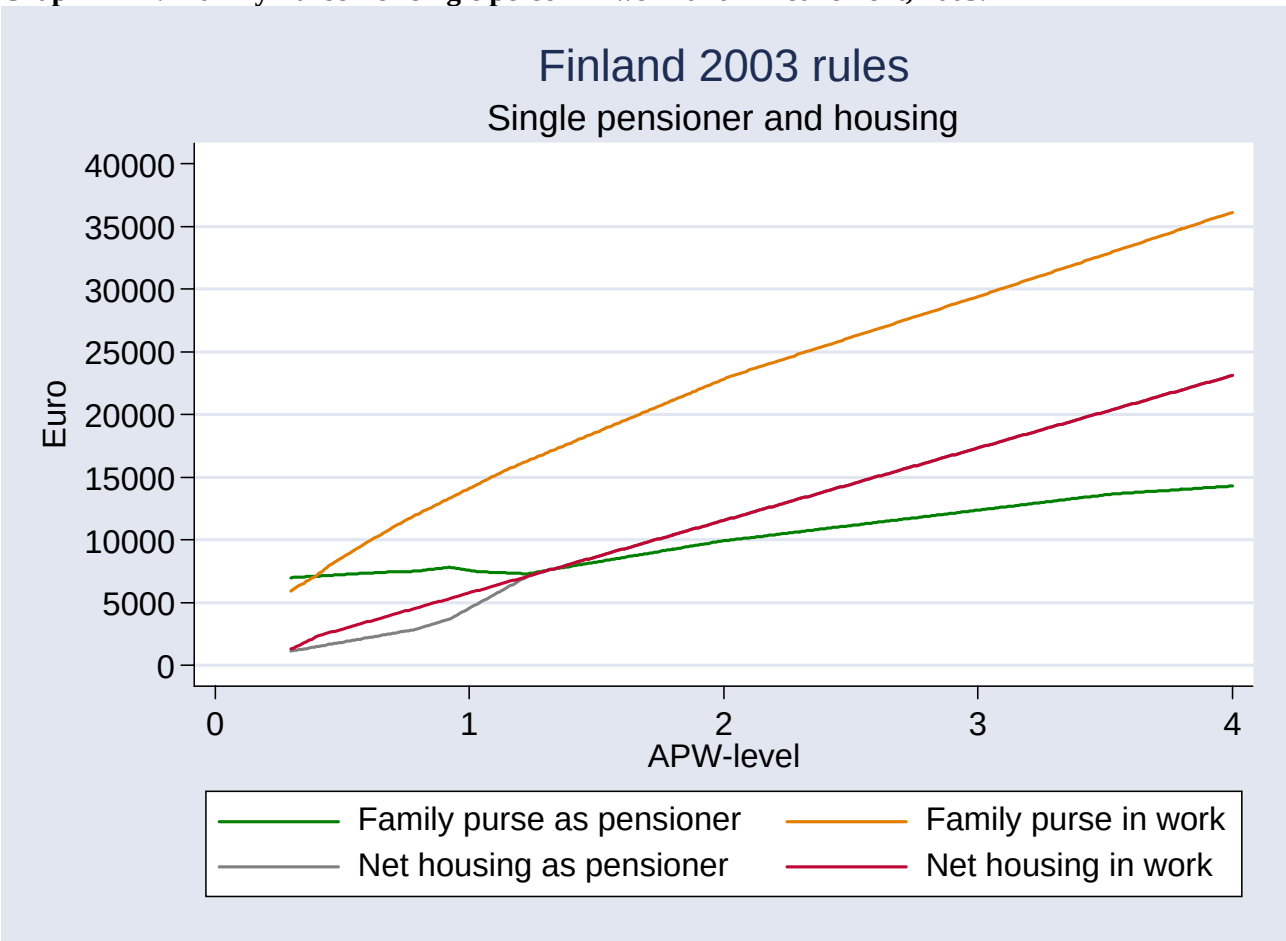
The reference curve is now above the former one, but only by very little at the lowest income level. It is increasing for the entire income span from 0.6 to 2.0 APW, the highest former income level in the table. The percentage impact from payment is smaller than in Table NO1, the maximum reduction is approx. 12% from payment for high intensity care at the highest income level.

Finland.

Finland also has pay schemes for home care. There is one scheme for payment for continuous services and one for ad hoc services, the first mentioned is used here. The payment depends on the amount of service (payment percentage) and the gross pension income. The relevant 'payment percentage' is applied to the income (above a family size specific threshold) until a maximum payment is reached. The payment is partly compensated by a care allowance.

The first Graph FIN1 is parallel to the corresponding ones for Denmark, Sweden and Norway. It illustrates the economic situation of the single Finnish person working and as a pensioner retiring at the age of 65 in 2003, without receiving care services.

Graph FIN1. 'Family Purse' for single person in work and in retirement, 2003.



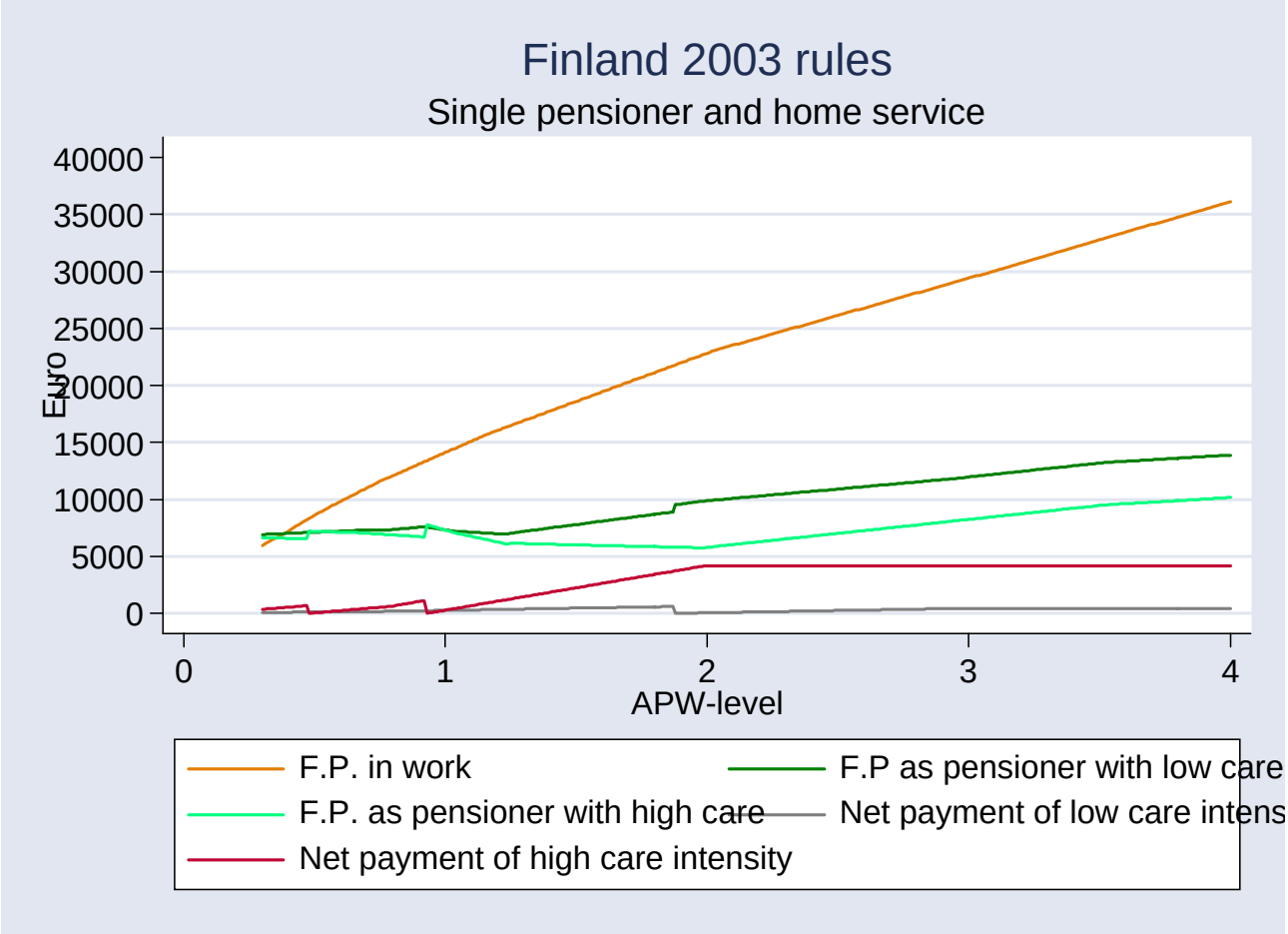
The yellow curve is the familiar one from the corresponding Danish, Swedish and Norwegian graphs, it illustrates the economic situation of the single person when he is working. The income interval has been extended up to 4 times the APW gross wage because the derived pension is without a maximum.

The Finnish old-age pension in 2003 consists of a basic flat rate pension, which is being tapered by an occupational pension above a low threshold. The taper is 50 percent. The occupational pension depends on the length of the contribution period and the last 10 years of income (2003 rules) indexed to the year before retirement. The pension can as maximum be 60 percent of the base (the

average of the last 10 years of income indexed as mentioned), but there is no maximum for the base, for more detail, cf. Hansen 1). The green curve illustrates the F.P. of the pensioner. The occupational pension has, as already mentioned, no maximum and it is evident that the possibility for the Finnish pensioner with medium and high former income levels to stay in the flat he had when he was working is substantially better than in both Denmark, Sweden and Norway. At a former income level of 2 APW the F.P. of the Finnish pensioner is 10,000 EUR, more than twice the amount of the Swedish one using official exchange rates, and it is also higher than the Norwegian one. Furthermore, the Finnish pensions continue to increase with increasing former income, and so does the F.P. of the pensioner.

In Graph FIN2 the payment for care is included.

Graph FIN2. 'Family Purse' for pensioners with low and relatively high use of care, 2003.

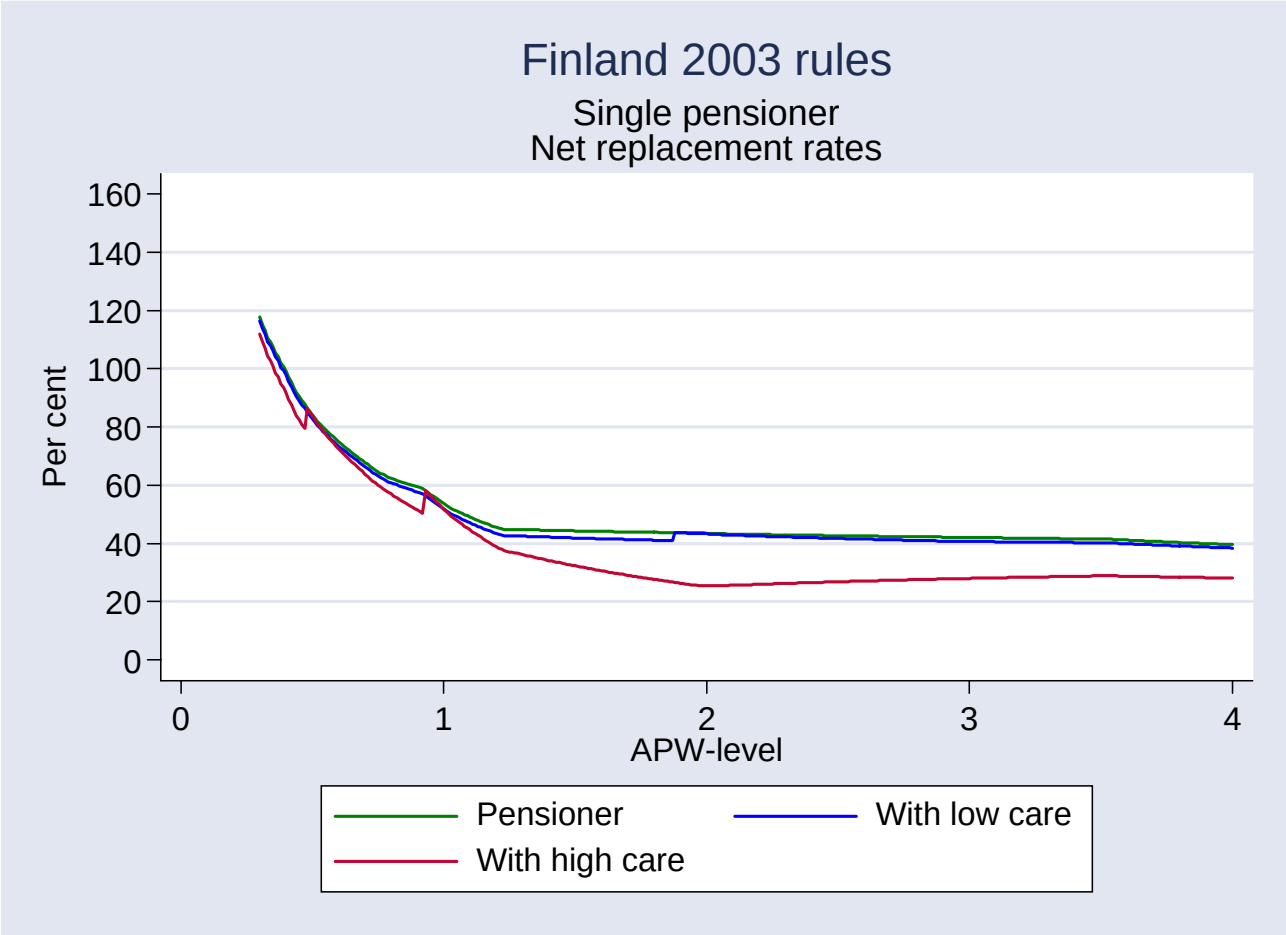


The red curve is the net payment for the high intensity case. The gross payment is 25% of the gross pension (including the care allowance) above 5,340 EUR up to a maximum payment of 7,212 EUR. The care allowance has three levels. The highest, which is lower than the gross payment is deducted from this, the result is the net payment. This mechanism causes the somewhat 'ragged' profile of the red curve, implying considerable variations in the net payments over the income span considered here. For income up to approx. 1 APW increasing income may result in lower net payment. The maximum care allowance is 3,076 EUR, implying a max. net payment of 4,136 EUR, which is paid from a former income level of approx. 2 times that of the APW.

The grey curve reflects the pay scheme for the low intensity case. It is constructed in a similar way as just explained for the red curve. The gross payment is 2.5% of the gross pension (including the care allowance) above 5,340 EUR up to a max. payment of 1,030 EUR. Only the smallest care allowance is relevant here, it is 618 EUR. It can be deducted, if the gross payment is above 618 EUR. This pay scheme also results in highly varying payments. The max. net payment is 412 EUR (1,030 – 618) when the max. gross payment has been reached, which is the case for former income levels from a little below 3 APW and up. 412 EUR is, however, not the highest payment, it is 617 EUR, which is the payment at a former income of approx. 1.8 APW. Cf. Table FIN1 and FIN2 for a more detailed presentation of the impacts from payment.

Graph FIN3 illustrates the result in terms of net replacement rates.

Graph FIN3. Net replacement rates for single pensioner not using care and using care at two different levels, 2003.

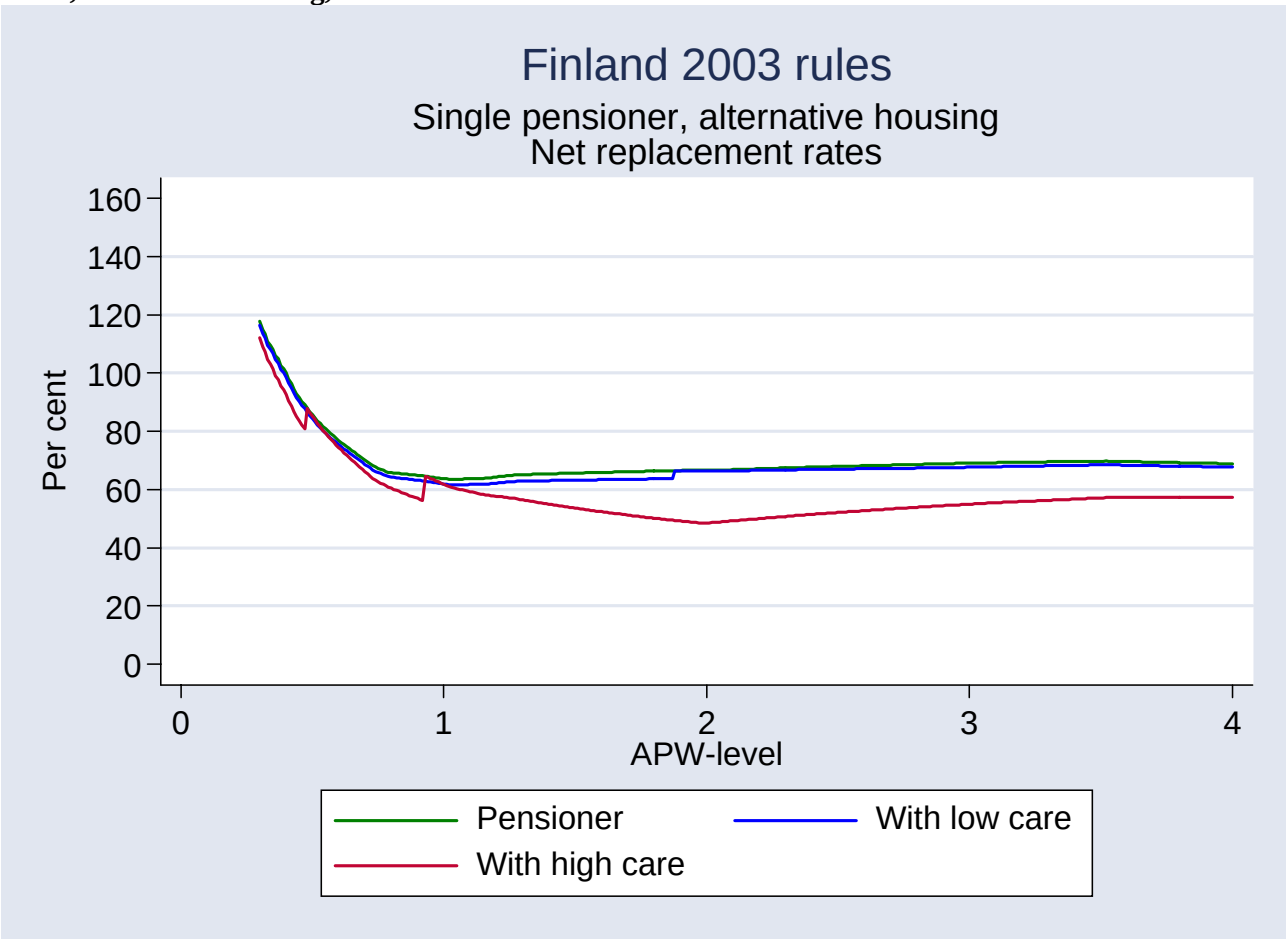


The green curve reflects the net replacement rate profile for the pensioner not using care. Located a little below is the blue curve illustrating the net replacement rates for the pensioner using care sparsely, 1 visit a week. The variations in the payments are visible, but the payments in this case are relatively modest, maximum 617 EUR on an annual basis. The red curve is for the pensioner using care with a relatively high intensity, 1 visit a day. The considerable variations in the payments below a former income of 1 APW are clearly seen. The impact from payment for care is substantial in this case for former medium to high income levels. At a former income level of 2 APW the

difference to the green curve is almost 20 percentage points, this is reduced to approx. 12 percentage points at a former income level of 4 APW.

In Graph FIN 4 the Finnish pensioner has moved to a different flat, the rent is now 20 percent of his gross pension income.

Graph FIN 4. Net replacement rates for single pensioner not using care and using care at two different levels, alternative housing, 2003.



The replacement rates are now at a higher level for medium and high former income levels than when the first housing assumption was applied.

<u>Summary on payment for care.</u>

Table FIN1 is based on the same results as Graph FIN1 and FIN2.

Table FIN1. Impact from payment for care at selected former income levels. Housing costs: 20% of former gross wage income.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	139 EURO	259 EURO	454 EURO	48 EURO
	Reduction, %	1.9	3.4	5.5	0.5
7 hours a week	Absolute diff.	237 EURO	277 EURO	2,236 EURO	4,136 EURO
	Reduction, %	3.2	3.6	27.1	41.7

Table FIN1 is constructed in the same way as Table S1 and NO1. The reference is the green curve in Graph FIN1 (no care). It has F.P. levels of 7,352 EUR, 7,578 EUR, 8,242 EUR and 9,927 EUR respectively at the four selected former income levels.

The negative impact from payment for care is increasing with income for each of the two intensity levels except at the highest income level, 2 APW in the table, in the low intensity case. These results could, however, be different if other income levels were selected. As already mentioned, the Finnish pay schemes for care implies considerable variations in the actual payments. Sometimes higher income results in lower payments because a care allowance or a higher level of the care allowance becomes active, this is precisely the case in the above mentioned ‘exception’ case. The small increase in payment in the 7 hours a week case when moving from a former income level of 0.6 APW to 1.0APW is also due to a higher level of the care allowance. A little below a former income level of 1.0 APW the payment is substantially higher. The impact from the payment in the high intensity case is considerable at the higher former income levels, the reference F.P. is being reduced by almost 42% at the former income level of 2 APW. The span between payment for high and low intensity care is also, in most cases, different from what it is in Sweden and Norway, where it is relatively small, it is much larger in Finland, at least at the two highest income levels in the table.

Table FIN2 is calculated on basis of similar results as Table FIN1, but this time the housing costs are 20% of the gross pension, cf. www.dfi.dk/sw20973.asp for the corresponding graphs.

Table FIN2. Impact from payment for care at selected former income levels. Housing costs: 20% of gross pension income.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	139 EURO	259 EURO	454 EURO	48 EURO
	Reduction, %	1.8	2.9	3.7	0.3
7 hours a week	Absolute diff.	237 EURO	277 EURO	2,236 EURO	4,136 EURO
	Reduction, %	3.1	3.1	18.3	27.2

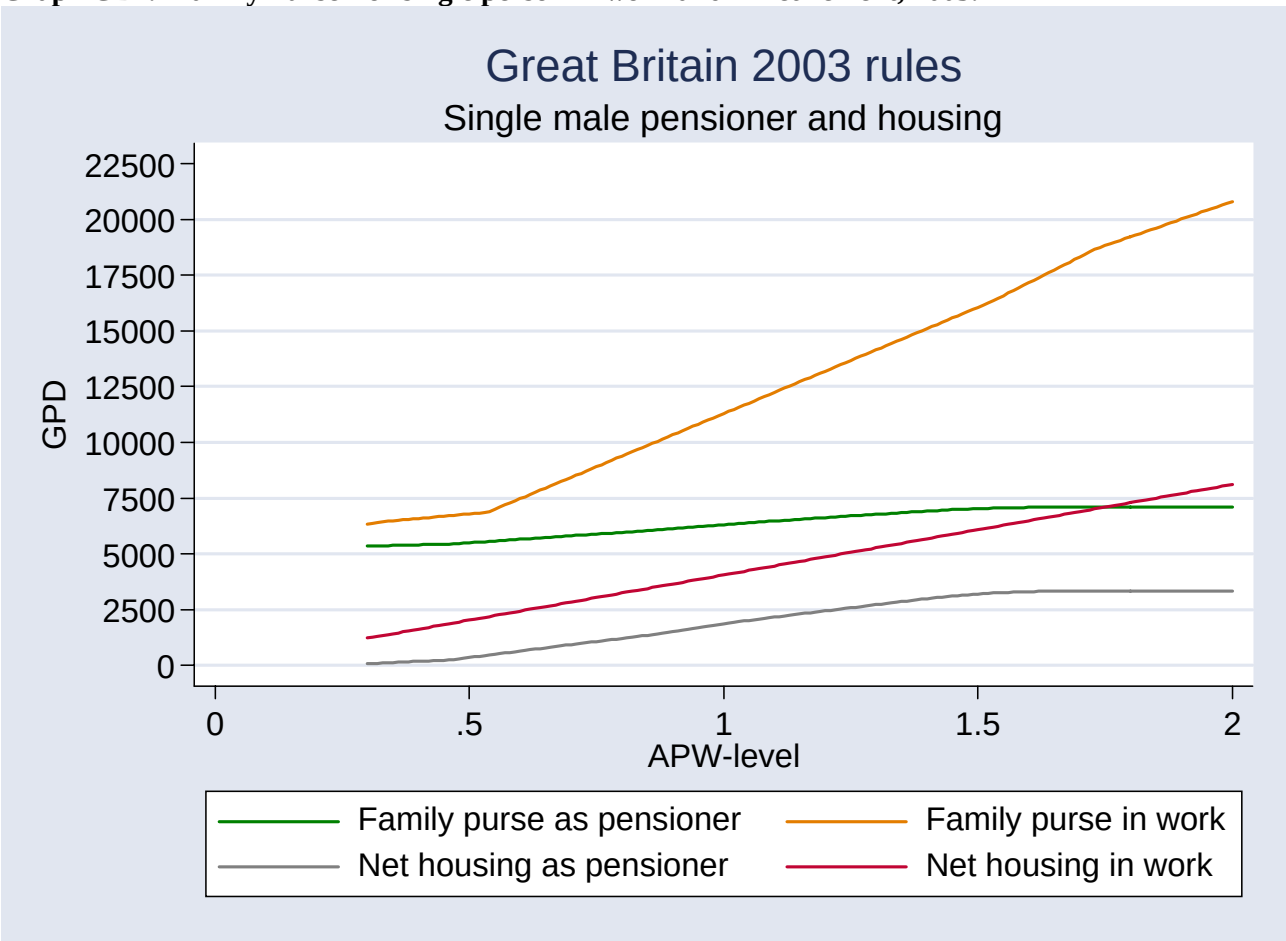
The reference curve is now above the former one, but not by very much at the lowest income level. The percentage impact from payment for care is smaller than in Table FIN1, the maximum reduction is approx. 27% from payment for high intensity care at the highest income level.

Great Britain.

Home care in Great Britain is the responsibility of the councils, which also determine the price policy within national guidelines. We have not been able to obtain a pay scale for home care for a London council yet, why an estimated price of 10 GBP per visit was used instead, i.e. 520 GBP and 3,640 GBP respectively for our cases in 2003. There is, just as in Sweden, a threshold for F.P., if the income is below this threshold the payment for care is reduced or suspended. For more detail cf. the section 'Pay Schemes for Care'.

The first graph GB1 illustrates the economic situation of the single British person working and as a pensioner retiring at the age of 65 in 2003, without receiving care services.

Graph GB1. 'Family Purse' for single person in work and in retirement, 2003.



The yellow curve is the F.P. for the single male when he is working at varying income levels in the interval from 0.3 to 2 times that of the APW. It is the denominator in the net replacement graphs.

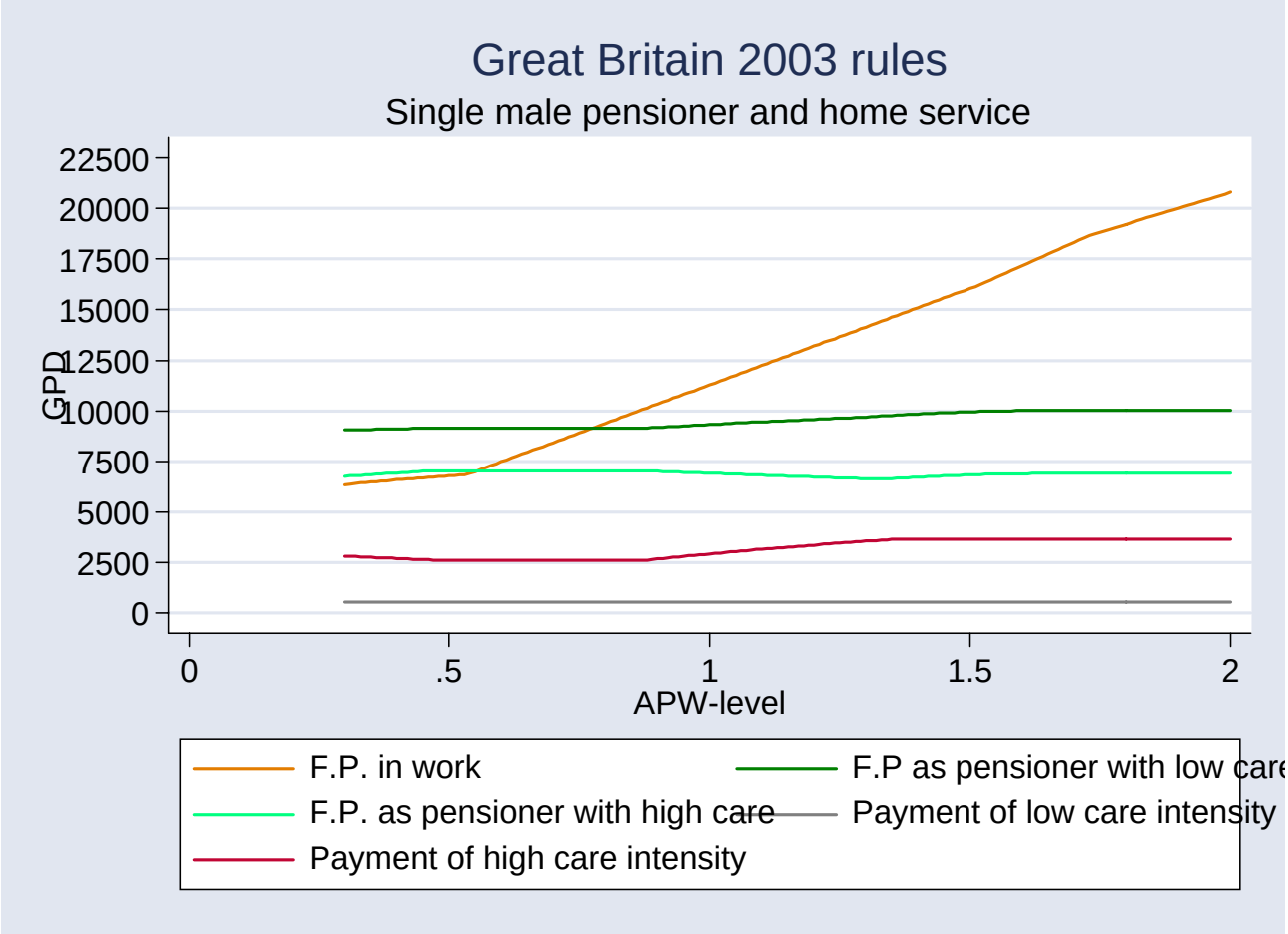
The British public old-age pension scheme in 2003 consists of several components, i.e. the basic national pension, the graduated retirement benefit (GRAD), the state earnings related pension scheme (SERPS), the state second pension (SSP), the minimum income guarantee (MIG) until October 2003 and from then the pension credit (PC). For more detail cf. Hansen 1). Some of these components are flat rate components, i.e. the basis national pension, the MIG and the PC, the others are related to former income. The schemes related to former income have their maximum at a

former income level of approximately 1.5 times that of the APW. The green curve illustrates the F.P. for the single pensioner. It is remarkable that the generous British housing benefits can keep the F.P. horizontal after the maximum of the income related components have been reached, despite increasing housing costs, 20 percent of the former gross wage income.

The possibility for a British pensioner to stay in the flat he had when working is as good as in the Finnish case and the F.P. at the former income level of 2 times that of the APW is of the same magnitude as in the Finnish case. In Finland it is the pension without a maximum, which makes this possible, in Great Britain it is the generous housing benefit scheme.

Graph GB2 illustrates the impact on the economic situation of the pensioner from payment for care.

Graph GB2. 'Family Purse' for pensioners with low and relatively high use of care, 2003.



A pensioner receiving care services is not only paying for them, he is also entitled to supplementary benefits. One of these is the 'Attendance Allowance' (AA), which in our cases is allocated at the lower rate. It is assumed that AA at this level can be received in both of the cases considered here. This is a crucial assumption for the results presented in the following. AA alone will outweigh the payment for low intensity care by 28.30 GBP/week at full payment, i.e. without low income protection. In the high intensity case the payment is reduced to 31.70 GBP/week at full payment. There is, as already mentioned, a protection for low income, cf. the section 'Pay Schemes for Care'. Further more, the MIG and the Guarantee Credit in the Pension Credit scheme are augmented by an 'extra' due to being a recipient of AA, and the income at which the Savings Credit component of

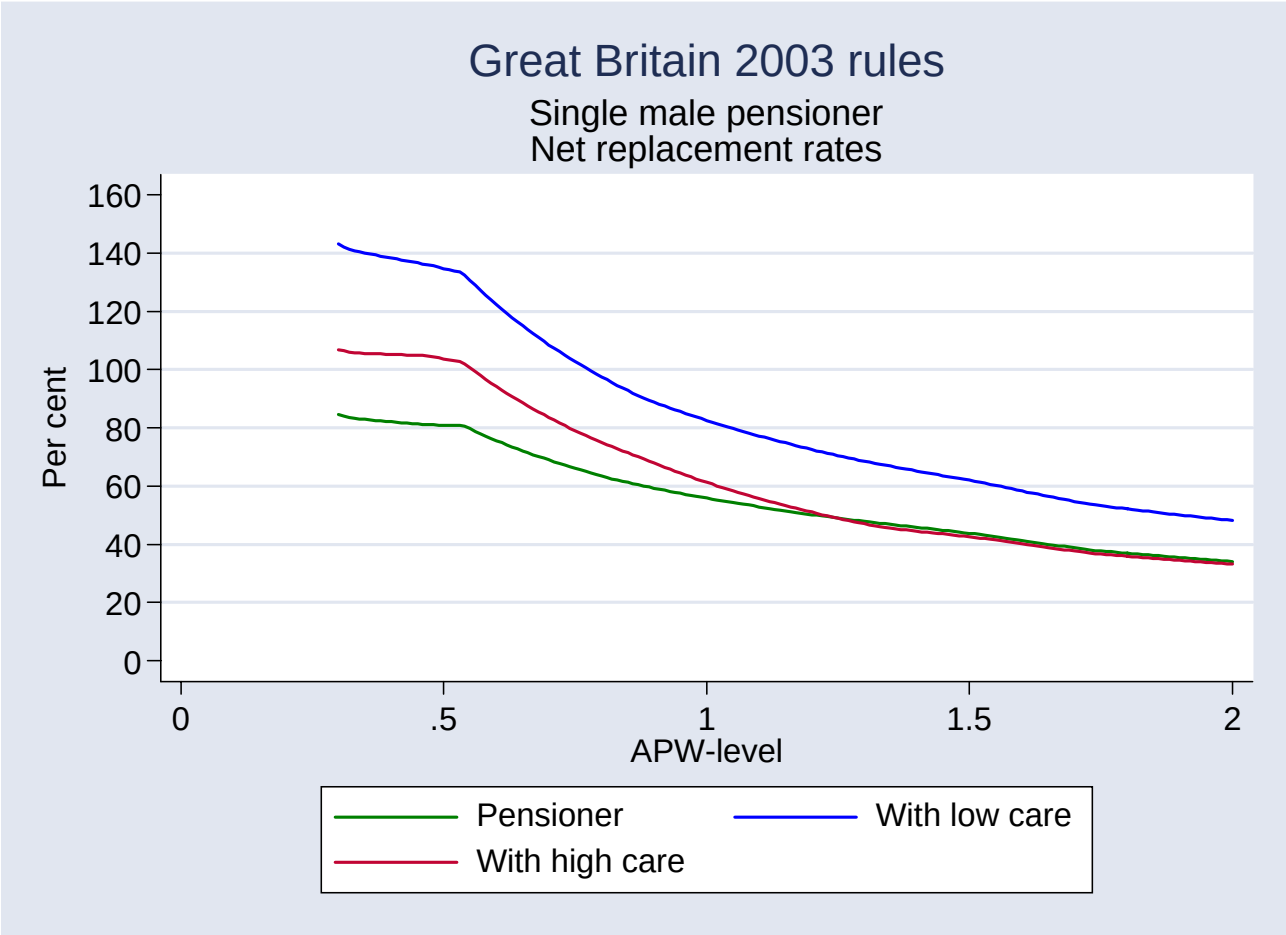
the Pension Credit is tapered is higher when the attendance allowance is received. The applicable amount in the Housing Benefit scheme is also higher. These are very substantial supplements.

The gross payment in the low intensity case is full, i.e. 520 GBP on an annual basis, but the AA and the other supplements just mentioned imply that the F.P., the dark green curve in Graph GB2, is substantially larger, especially at lower former income levels, than the F.P. in the no use of care case, cf. Graph GB1.

In the high intensity case the 'low income protection' is active at the first two former income levels, i.e. the gross payment is reduced. The F.P., the light green curve in Graph GB2, is, however, larger than the reference F.P., cf. Graph GB1, at these two income levels implying that the 'low income protection level' is not a generally guaranteed minimum level for pensioners in Great Britain. This is parallel to the Swedish case. It is first at the two highest former income levels that there is a negative impact from payment for care, the F.P. is a little below that of the reference. The F.P. for the high intensity case, light green curve, is always below the F.P. for the low intensity case, dark green curve.

Graph GB3 presents the results in terms of net replacement rates.

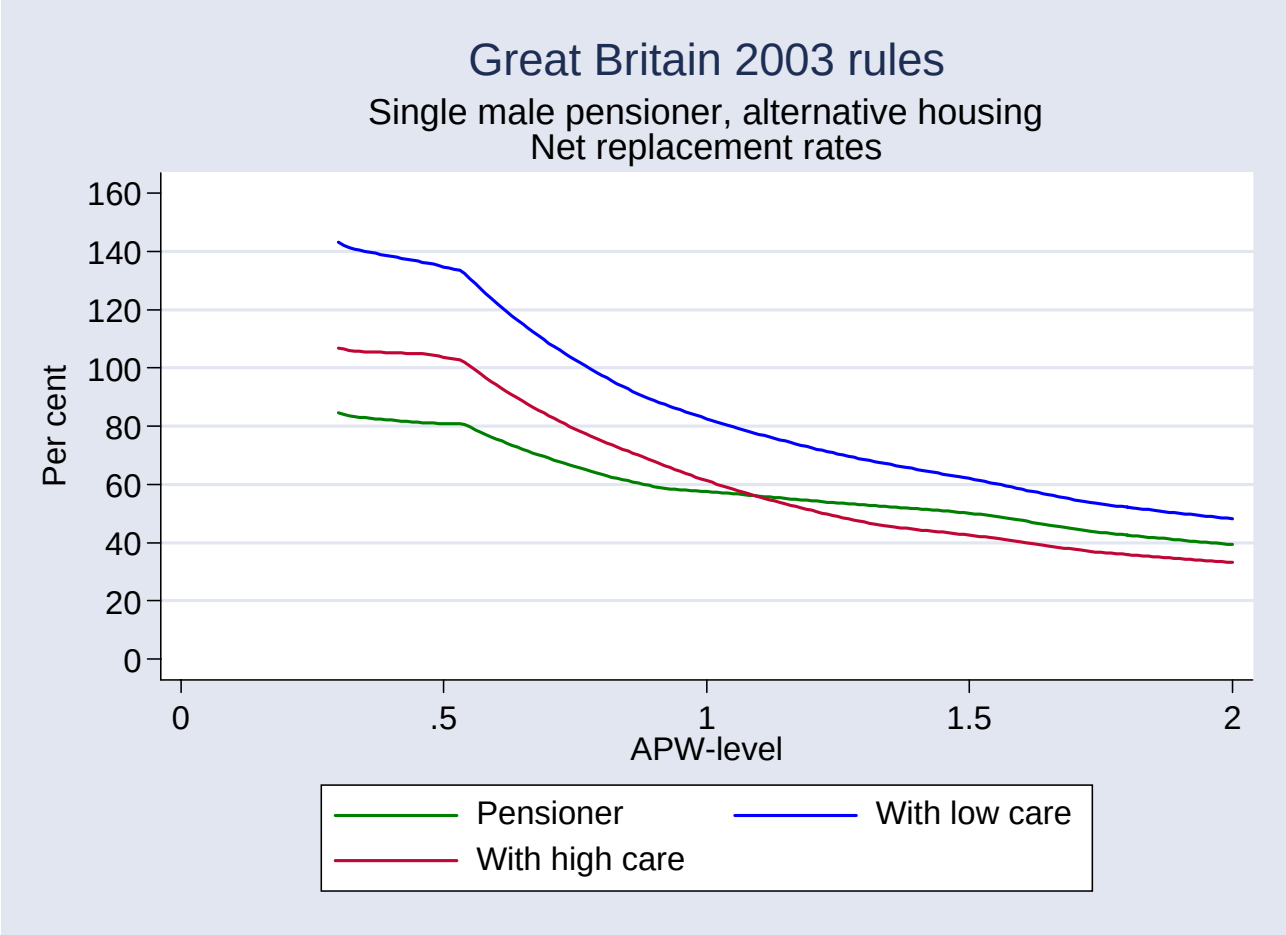
Graph GB3. Net replacement rates for single pensioner not using care and using care at two different levels, 2003.



The replacement rates for the low intensity case, blue curve, are higher than those for the high intensity case, red curve, as well as those for the reference case, green curve, by a substantial margin. At the first two levels of former income the high intensity case also has higher replacement rates than those for the reference case, at the 0.6 APW income level it is by approximately 20 percentage points, and at the 1.0 APW income level it is by approximately 7 percentage points. At a former income level of approx. 1.25 APW the net replacement profile crosses the reference profile from above and the replacement rates at the two highest former income levels are a little below those from the reference case, cf. Table GB1 and GB2 for more precise impact measures.

In Graph GB4 the housing costs are replaced by the alternative assumption, they are now 20 percent of the gross pension of the pensioner not using care.

Graph GB4. Net replacement rates for single pensioner not using care and using care at two different levels, alternative housing, 2003.



The reference case, the green curve, has higher replacement rates than the reference case in Graph GB3 at all former income levels above 0.92 APW. This is, how contradictory it sounds, because the housing benefits become zero at this income level and the net rent (gross rent minus housing benefits) then becomes equal to the lower gross rent in this case. When the net income and the applicable amount for housing benefits (H.B.) are the same in two cases, and H.B. is positive, then the net rent is also the same even if the gross rent is not. This is a consequence of the design of the British H.B. scheme.

This consequence is also the reason for the identity between the blue curves in Graph GB3 and GB4, as well as between the red curves in the two graphs. All that has happened in the alternative housing case compared to the ordinary case is that the green curve in Graph GB4 has moved up for former incomes above the 0.92 APW level, and is now closer to but still below the blue curve. The blue and red curves have the same positions as in Graph GB3.

Summary on payment for care.

Table GB1 is based on the same results as Graph GB1 and GB2.

Table GB1. Impact from payment for care at selected former income levels. Housing costs: 20% of former gross wage income.

Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	-3,494 GBP	-3,015 GBP	-2,924 GBP	-2,923 GBP
	Change, %	+61.8	+47.8	+41.6	+41.2
7 hours a week	Absolute diff.	-1,386 GBP	-612 GBP	196 GBP	197 GBP
	Change, %	+24.1	+9.7	-2.8	-2.8

Table GB1 is constructed in the same way as for the other countries. The reference is the green curve in Graph GB1 (no care). It has the F.P. levels of 5,655 GBP, 6,306 GBP, 7,031 GBP and 7,100 GBP respectively at the four selected former income levels.

The very substantial increases in F.P. when low intensity care is used compared to the F.P. with no use of care are due to the very substantial supplements already mentioned. The AA alone results in a surplus of 1,472 GBP after payment for care and receiving AA also implies the other supplements as well. When the absolute difference reaches its 'low' stable level of 2,923 GBP at the two highest former income levels the 1,472 are from the AA surplus just mentioned, and 1,452 GBP are from the housing benefit scheme where the applicable amount is 2,233 GBP higher when AA is received and this results in a reduction of the net rent by 65% of 2.233 = 1,452 GBP. The assumption that AA is received also in the low intensity case is, as already mentioned, crucial for the results in Table GB1.

In the high intensity case it is first at the two highest former income levels, when the payment is not reduced by the 'low income protection', that a negative impact is seen and even then it is quite modest, less than 3% of the reference F.P. The pay scheme used here results mostly in substantial gains, especially in the low intensity case and at lower former income levels. When net payments take place it has modest impacts. The British case is a good example of the necessity to study the total impact of the schemes, in this case pay schemes for care, partial studies will give misleading results.

Table GB2 is calculated on basis of similar results as Table GB1 but this time the housing costs are 20% of the gross pension of the pensioner not using care, cf. www.sfi.dk/sw20973.asp for the corresponding graphs. The gross pension at low former income levels is higher when care is used

and paid for because the Pension Credit is higher than when care is not used. It was, however, decided to use the gross pension of the pensioner not using care as basis for the alternative housing cost assumption. There is then only one alternative for housing costs, just as for the other countries.

Table GB2. Impact from payment for care at selected former income levels. Housing costs: 20% of gross pension.

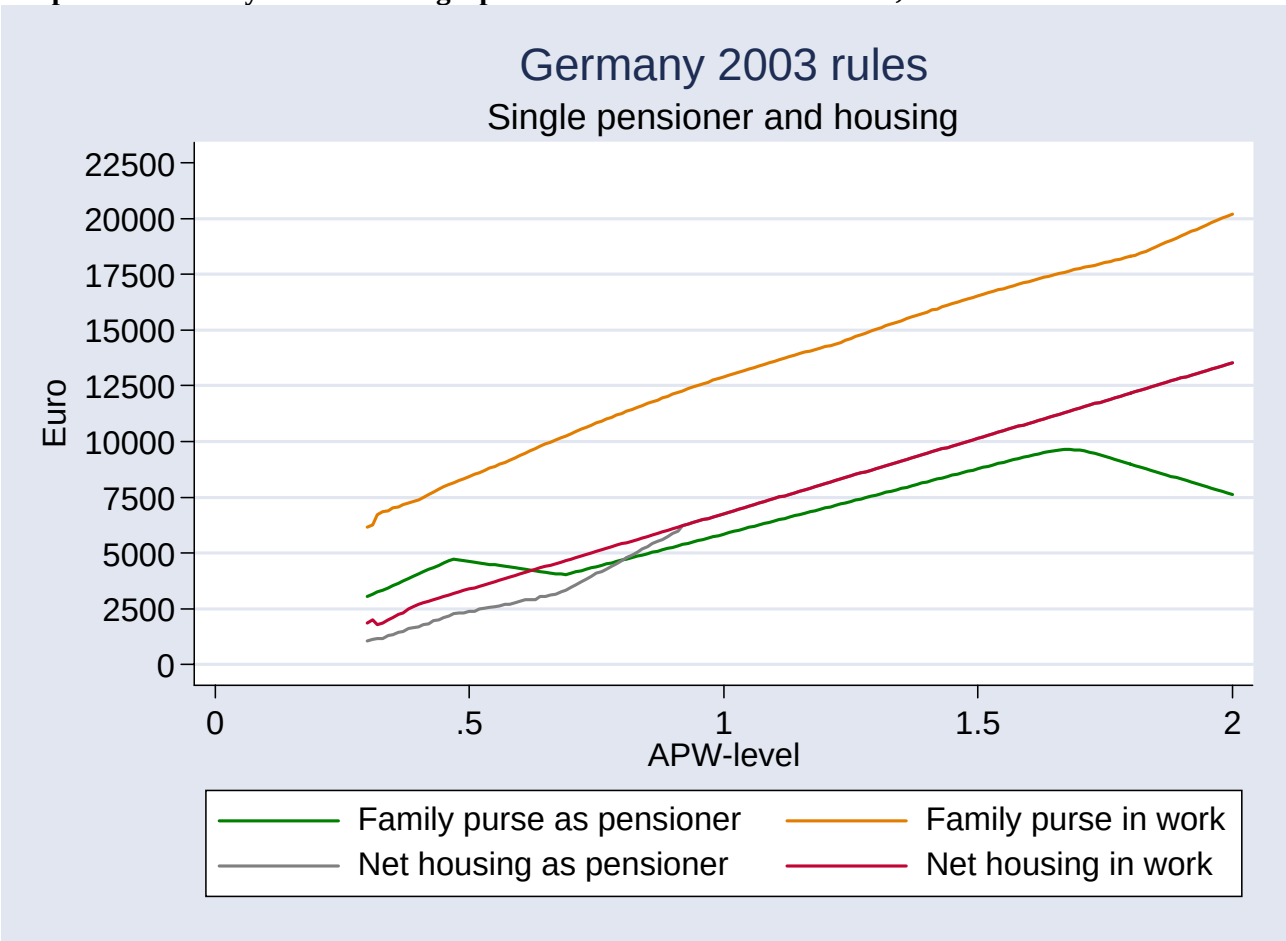
Family Purse		Income level, APW			
		0.6	1	1.5	2
1 hour a week	Absolute diff.	-3,494 GBP	-2,829 GBP	-1,915 GBP	-1,838 GBP
	Change, %	+61.8	+43.6	+23.8	+22.5
7 hours a week	Absolute diff.	-1,386 GBP	-426 GBP	1,205 GBP	1,282 GBP
	Change, %	+24.5	+6.6	-15.0	-15.7

The impacts at the first income level are identical to those in Table GB1. For the other three income levels the negative impacts are larger and the positive ones are smaller due to the higher F.P.es of the reference case for alternative housing costs. The F.P.es for the payment cases are identical in the two tables GB1 and GB2.

Germany.

Germany has, just as Denmark, no direct payment for care services in the form of 'Sachleistungen', the case applied in this study. The analysis will therefore be restricted to the economic situation of the pensioner only receiving public pensions. This situation is illustrated in Graph DE1.

Graph DE1. 'Family Purse' for single person in work and in retirement, 2003.

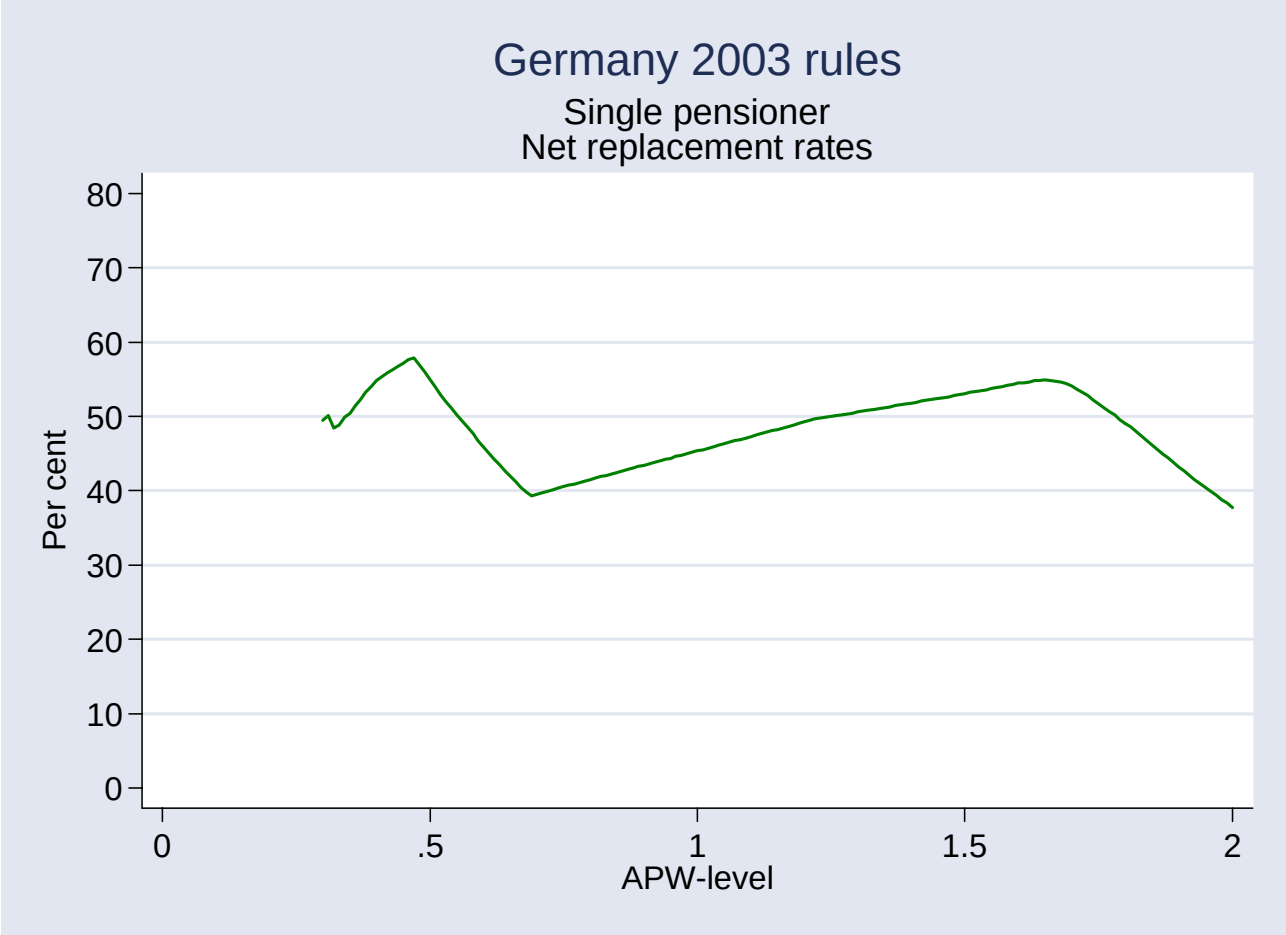


The yellow curve is, as usual, the F.P. for the single male when he is working at varying income levels in the interval from 0.3 to 2 times that of the APW.

The green curve is the F.P. when the single person has retired at the age of 65 years in 2003. The profile is somewhat unusual. The first 'hump' is because the German public old-age pension scheme has an augmentation mechanism, which increases the pension for low former income levels. For higher income levels this augmentation mechanism is being restricted and when this effect is exhausted the F.P. increases until the pension reaches its maximum level at a former income level of approx. 1.7 APW, for more detail cf. Hansen 1). Thereafter the F.P. declines as the housings costs continue to increase. There are no problems in staying in the same flat as when the person was working. The F.P. at a former income level of 2 APW is approx. 7,500 EUR, it is between the F.P. for Sweden and Norway in the same situation, closest to the Norwegian situation.

Graph DE2 presents the results in form of net replacement rates.

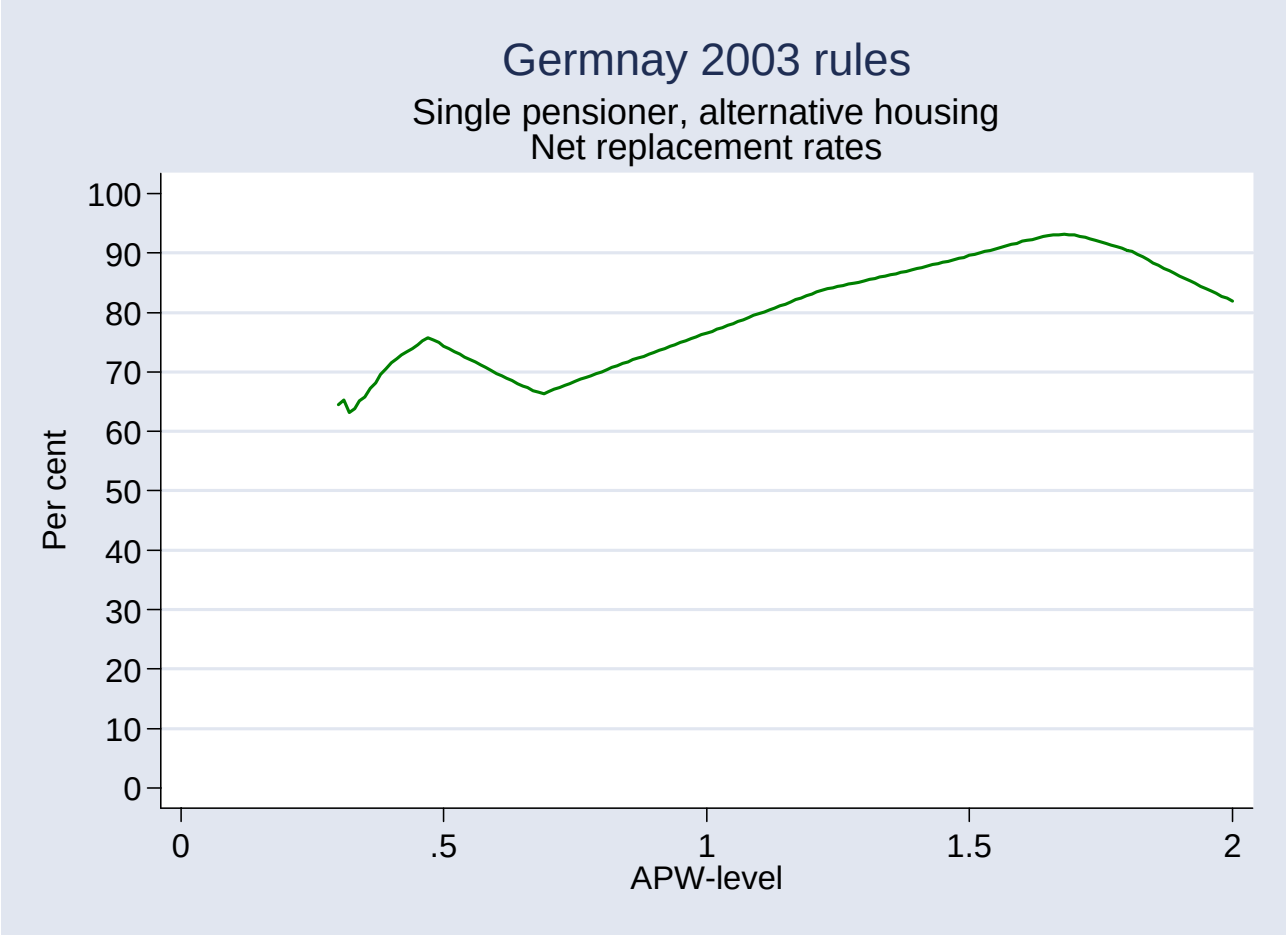
Graph DE2. Net replacement rates for old-age pension, 2003.



The shape of the F.P. curve from Graph DE1 is recognizable in the profile for net replacement rates in Graph DE2.

Just as for the other countries, the German pensioner also moves to a different flat, the impact of this move, where the gross housing costs are 20 percent of the gross pension, is illustrated in Graph DE3.

Graph DE3. Net replacement rates for old-age pension, alternative housing, 2003.



The result is, as would be expected, higher net replacement rates when the gross housing costs in the pension case has been reduced.

<u>Summary on payment for care.</u>

This is not relevant for Germany, as there is no direct payment for care for the elderly.

Comparisons.

For countries without payment for care, i.e. Denmark and Germany, there is no impact on the economic situation of the pensioner from receiving care services.

For the other countries, Sweden, Norway, Finland and Great Britain, the results are compared in the following tables, COMP1 and COMP2.

Table COMP1 is based on the F.P.es in the no-care situations, when the housing costs are 20% of the former wage income. This will usually have significant impacts on the F.P.es especially when the pension has reached its maximum while the housing costs continue to increase, the exception here is Finland, which do not have a maximum on its public old-age pension. Table COMP2 is based on the F.P.es where the housing costs follow the gross pension, they are calculated as 20% of this basis. This will usually result in lower housing costs, but also a lower housing standard.

Table COMP1. Impact from payment for care at selected former income levels. Housing costs: 20% of former gross wage.

Family Purse		Income level, APW			
		0.6	1	1.5	2
Sweden	Low care intensity	-11.7	-11.8	-13	0
	High care intensity	-21.5	-21.8	-16	0
Norway	Low care intensity	-1.3	-3	-6.2	-15.2
	High care intensity	-2.3	-5.2	-10.7	-26.3
Finland	Low care intensity	-1.9	-3.4	-5.5	-0.5
	High care intensity	-3.2	-3.6	-27.1	-41.7
Great Britain	Low care intensity	61.8	47.8	41.6	41.2
	High care intensity	24.1	9.7	-2.8	-2.8

Among the Nordic countries Denmark has, as already mentioned, no direct payment for care for the elderly.

In Sweden the absolute payment is constant up to approx. 1.6 APW in former income in the low intensity case, then the payment starts to drop to zero due to the ‘low income protection’. The F.P. is approximately constant at the first two income levels but somewhat lower at the third. The result is an almost constant relative negative impact on he F.P. in the no-care situation from payment for low intensity care at the first two income levels and an increase at the third level. At the highest former income level, 2 APW, the payment is zero and so is the relative impact. Payment for the high intensity case is constant and full at the first two former income levels but substantially lower at the third level and zero at the highest level, in both cases due to the ‘low income protection’. The

result is an almost constant negative impact at the first two income levels, then the negative impact declines and it becomes zero at the highest former income level.

Norway has increasing payment with increasing pension income which together with a decreasing F.P. at the highest former income level, 2 APW, results in increasing relative negative impacts from payment for care over the span of former income considered here.

Finland has increasing relative negative impacts with increasing pension income except at the highest income level, 2 APW, in the low intensity case. The result could, however, be different for other selected former income levels. For former income levels beyond the 2 APW level the net payment for Finnish care becomes constant in each of the two cases, and as the reference F.P. continues to increase with increasing former income, the relative negative impact from payment declines.

Great Britain has substantial gains for the pensioner using and paying for care in the low intensity case especially at low former income levels on the assumption that AA can be received also in this case. In the high intensity case there is also gains at the first two former income levels and when net payment takes place the negative impact on the reference F.P. is relatively modest, i.e. less than 3%. It is especially the substantial supplements to the ordinary schemes such as Pension Credit and Housing Benefits from being a recipient of the ‘Attendance Allowance’ (AA), which are the reason for these results. The ‘low income protection’ also plays a role in the high intensity case at the lower income levels.

Germany has, just like Denmark, no direct payment for care in the home when delivered as ‘Sachleistungen’, the case considered here.

Table COMP2. Impact from payment for care at selected former income levels. Housing costs: 20% of gross pension income (excluding possible care allowances).

Family Purse		Income level, APW			
		0.6	1	1.5	2
Sweden	Low care intensity	-12.0	-10.6	-8.0	-7.9
	High care intensity	-22.1	-20.0	-14.8	14.7
Norway	Low care intensity	-1.2	-2.2	-3.7	-6.8
	High care intensity	-2.1	-3.7	-6.4	-11.8
Finland	Low care intensity	-1.8	-2.9	-3.7	-0.3
	High care intensity	-3.1	-3.1	-18.3	-27.2
Great Britain	Low care intensity	61.8	43.6	28.3	22.5
	High care intensity	24.5	6.6	-15.0	-15.7

In this table the housing costs follow the gross pension income, not the former income, implying that the reference F.P. never declines.

For Finland, where the reference F.P. did not decline in the first place, the result is as in Table COMP1, only with smaller relative negative impacts, because the reference F.P. is larger, especially for medium to high former income levels.

Sweden now has gradually declining relative impacts until the maximum pension is reached a little above 1.5 APW in former income. The 'low income protection' is not active when the alternative housing assumption is used, the payment is constant in each of the two cases over the entire income span (0.6 APW to 2 APW). At the lowest income level the gross pension is higher than the gross wage resulting in higher housing costs and a smaller reference F.P. than in Table COMP1.

For Norway the relative negative impacts from payment for care are just smaller than in Table COMP1.

Great Britain has smaller positive impacts and larger negative ones from payment for care for the three highest former income levels compared to Table COMP1. The reason is that the F.P.es for the reference case with alternative housing costs are larger than those for the reference case for ordinary housing costs in Table COMP1 at the three former income levels mentioned.

Applied literature.

1) Hansen, 'Public Pension Schemes in Seven European Countries, A Micro Simulation Approach'. Nova Publishers, New York, to be published in 2006.

Further information.

Results of the same kind for the pensioner couple are available on www.sfi.dk/sw20973.asp, which also contains a comprehensive documentation of all the public schemes included in the calculations.