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On Household Wealth Trends in Sweden over the 1990s.

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Abstract

Influenced by a major tax reform in the beginning of the 1990s and by the exceptional boom in the stock market at the end of this decade the level as well as the inequality of the wealth of Swedish households have increased. The large baby-boom cohorts of the 1940s have been successful in accumulating wealth and they also have large claims on the public pension system. The implicit wealth in the form of these claims dominates private wealth in most Swedish households, and in this paper it is argued that private life-cycle savings have been small in Sweden. Most of these savings have been done though the public pension systems. However, concern about the future viability of the pension systems has probably increased private life-cycle savings in the 1990s.

Key words: Distribution of wealth, tax reform, pension wealth, age-cohort effects
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1. **Introduction**

Sweden is known as a relatively wealthy country with an inequality of income and wealth that is low in an international comparison. The public sector is large and it includes rather generous transfers to private households many of which are not means tested. Largest among them are the public pensions. Most Swedes who retire thus receive a major share of their pensions from the public. Until recently the incentives to accumulate private wealth for retirement have thus been less in Sweden than in countries with different pension systems. A relatively high taxation of the return to capital, on the stock of wealth and of gifts and bequests have reduced these incentives even further.

It is possible to identify major changes in policy and markets at the end of the last century that have had an impact on the wealth distribution. In the end of the 1980s the financial markets were deregulated which resulted in a credit expansion and increased the demand for credit financed real estate and consumer durables. In the beginning of the 1990s a major tax reform was passed in the Swedish Parliament that lowered marginal tax rates for labor incomes, introduced a flat tax rate of 30 per cent on capital incomes and broadened the tax base. Capital incomes were previously taxed at the high marginal rates of labor incomes, but the reform made taxation of labor and capital incomes more conformable.

Like many other countries Sweden also experienced volatile asset prices in the 1990s. In particular the prices of stocks and shares showed an exceptional increase until 1999 when the market turned down (see Figure 1). Compared to the price of these assets house prices were relatively stable during the whole period. But a closer look reveals that they decreased by almost 25 per cent from 1990 to 1993 and did not reach the 1990 level again until the end of 1999 or beginning of year 2000. There were also regional differences in the movements of house prices. All these changes did not only inflate the average wealth of Swedish households but also increased wealth inequality.

It is also possible to trace effects from demographic changes on the distribution of wealth. In the 1990s the large baby-boom cohorts of the 1940s reached the age when people typically reach the peak of their wealth. They also started to retire at the end of the 1990s.

The plan of this paper is first to give some background information about of the level and inequality of household wealth in Sweden. Unfortunately there is no data source that

measures the distribution of wealth consistently, but we have to jump between different data sources and try to piece them together. Then follows a discussion of the changes mentioned above and their effects on the distribution of wealth. The paper ends with a few concluding comments.

2. **General features of the Swedish distribution of wealth**

2.1 Data difficulties dim a longer perspective

Using the estimates of Statistics Sweden median household wealth was just above 80 000 crowns in the end of the 1970s (in 1997 prices).[1] This level reached a peak in 1990 at 115 000 and then stayed just above 100 000 crowns in this decade (see Table 1). This is an increase by about 30 per cent in about 20 years. Even if the year 1999 with exceptionally high values of stocks and shares is excluded the increase in the top decile of the distribution was much higher, about 50%, while there was no increase in the left tail of the distribution. The inequality of wealth thus increased.

The estimates in Spånt(1987) suggested that the inequality of declared net wealth declined from the beginning of the previous century to the middle of the 1970s. According to Jansson & Johansson(1988) the decline then came to a halt in the 1970s. Statistics Sweden (2000) estimated the Gini coefficient of household net worth to 0.78 in 1978. It then increased to 0.84 in the beginning of the 1990s and remained at about 0.86 until 1997.[2] Due to the large increase in the value of stocks and shares in the last few years of this decade inequality probably increased even more in these years.

These estimates were based on register data collected from self-assessments for taxation and in later years also on reports directly to the tax authorities from banks, brokers and insurance companies. The quality of these data has thus increased but they suffer from the constraints imposed by the taxation system, this is in particular true for the estimates before the second half of the 1990s. Certain assets like most consumer durables are not included because they were not taxed, others such as bonds, condominiums and unlisted stocks and shares are

[1] In the 1980s and 1990s the exchange rate between the USD and the SEK varied from 5 crowns per dollar to 8.50. In Klevmarken et al (2003) we used the PPP 9.85

[2] Statistics Sweden (2000) Table 16

underreported or their market value underestimated.[3] This will influence very much both the estimates of levels and inequality. Compare the estimates from Statistics Sweden in the right panel of Table 1 with those of the left panel from the Swedish household panel surveys (HUS)! The latter estimates, mostly based on survey responses, show a much higher median level, a little more than 500 000 crowns in the 1980s that increased to 676 000 in 1997. This is also an increase by about 30 per cent but for a five year shorter period.

Table 1 also shows that the inequality of these survey data is smaller than that of register data. The right tail of the distribution has increased relative to the median, but so has the left tail. There is an increase in inequality according to these estimates too, but not as strong as in the estimates of Statistics Sweden. At first one might think that this is not totally unexpected. With survey data it is usually difficult to capture the extreme right tail of the wealth distribution while register data do cover the very wealthy. But this is not the main explanation for the difference in inequality. It is found in the fact that data from Statistics Sweden use a household concept that originate from the taxation process and not a concept suitable for economic analysis.

A household in HUS is a group of people that share the same dwelling and share meals, while the household concept used by Statistics Sweden depends on who might be considered for joint taxation. People who live together without being legally married and do not have common children are considered single, and adult children (parents) that live with their parents (children) are also considered single. As a result Statistics Sweden gets too many one-person households compared to an economically meaningful definition, and most of them have very little wealth.

Table 2 compares HUS-data with data from Statistics Sweden by type of asset. The fact that Statistics Sweden does not have any data on durables except for cars implies a major underestimate of this type of asset. However, the HUS mean estimates of all assets and also of liabilities exceed those of Statistics Sweden. These differences in measures do not only result because HUS data cover more assets and value them at market prices, but primarily from the differences in household definitions.

[3] The notional and real wealth in the form of public and negotiated group pensions are not included. This form of wealth is not included in data from the HUS surveys either.

Another important difference between the two data sources is the difference in age range covered. While Statistics Sweden covers the whole age range from the age of 16 without any upper limit, HUS starts at the age of 18 and has too few households above the age of 75 compared to the Swedish population.[4] This will inflate the HUS mean and median estimates, and probably reduce measures of inequality.

2.2 Who is wealthy and who is poor?

Even if the wealth distribution in Sweden is less unequal than in most other countries and even if we disregard the extreme right tail of the distribution, there are large differences in wealth also among ordinary people. Table 3 reproduces results from Andersson et al (2002) based on relatively new data from Statistic Sweden.[5] The table shows the results of a regression of net worth per adult equivalent in 1997 and 1999 on a number of socio-economic variables including age, marital status, schooling, work, geographical region and type of housing.

The relation between wealth and age is not exactly the same we are used to see. Equivalized wealth first decreases to a minimum in the age bracket 30-34.[6] Then it increases without any decrease at the end of the life-cycle. The initial decrease could be a result of households incurring debts when families are formed, children arrive and they buy houses or condominiums. In the beginning of the working career immediately after school there is uncertainty about future jobs and incomes and people hesitate to take up loans, but after a few years most people have found a good job and count on future increases in incomes. They then become more willing to borrow. At this age income uncertainty is also reduced by marriage or union formation. The probability that both spouses will loose their incomes is smaller than that one will do it. The larger flow of incomes and the reduced uncertainty about the future thus make people more willing to borrow.

[4] The sample of the first HUS wave in 1984 was limited to the age range 18-75. In later waves people have been followed even beyond this age, but refreshment samples have been restricted to the ages 18-75.

[5] These data originate from banks, brokers, insurance companies and not from self assessment forms. Tax-assessed values of owner occupied houses, secondary houses and condominiums have been replaced by estimates of market values. Also the market values of cars hold by the household have been estimated. Private pension insurances and annuities are not included.

[6] The age group 20-24 is the base of comparison.

The normally observed decrease in wealth among older people is in this analysis picked up by other variables than the age variable. The share of single women is high among old people and single women have more than 100 000 crowns less in wealth than single men and about 70 000 less than married. We also find rather many elderly in rented apartments and they are on average less wealthy than those who live in a condominium or in an owned house. Finally, due to an error in the coding of education everyone above 74 got the code unspecified education and this group has less wealth than other educational groups. Population heterogeneity in other dimensions than age thus explains the hump shaped age-wealth relation.

Though not included in the analysis above one could add that bequests are likely to contribute the cross-sectional hump shape too. About 30 per cent of Swedish households have received bequests. Although most bequests are small and the average bequest is smaller in Sweden than in the United States (compare the results of Klevmarken, 2002b, and Wolff, 2002), they do contribute to the peak of the cross-sectional age-wealth profile because most bequests are given to middle aged people. Although not conclusive, these results suggest that population heterogeneity and bequests rather than the life-cycle hypothesis explain the shape of the raw age – wealth relationship.

We also find that those who had disability pension and those who were immigrants had relatively less wealth. Self-employed and in particular farmers had much more wealth than employees. Farmers had on average about 1 million crowns more than employees and other self-employed on average 140 000 more.

Schooling is a good predictor of wealth. Those who lived in households with a head with college or university on average had 270 000 – 280 000 more than if the head only had compulsory schooling.[7]

The area in which the household lives and whether they have invested in a house or not also become very important for their accumulated wealth. The trends in real estate prices have

[7] These estimates average out any cohort differences in schooling. The share of a birth cohort that goes to higher education has increased in the period after World War II and the return to an additional year of schooling has decreased (Edin & Holmlund, 1995 and LeGrand et al 2001).

depended on area, and price differences between them are large. Our results show that those who live in own houses or in condominiums are wealthier than those who live in rented apartments. The difference depends though on where the household lives. Those who own a house in Stockholm have on average almost 550 000 crowns more than those who have a house in a middle sized or small city, and on average about 650 000 more than a comparable household that lives in a rented apartment in Stockholm. Those who own their house in Gothenburg or Malmö have on average 250 000 – 300 000 less in equivalized net wealth than those who own a house in Stockholm. People who have a condominium in Stockholm have almost 400 000 more in equivalized wealth than comparable people having a condominium somewhere else in Sweden. The housing market in Stockholm has been a tighter market for a longer period than markets elsewhere in Sweden.

Finally we find that those who had claimed deductions in their self assessment for income taxation for payments to a private pension policy on average owned about 100 000 more than those who had no claims. Because the accumulated value of these pension policies were not included in the wealth concept used in this analysis one might have expected to find a negative effect, but the current result is probably explained by wealthy people claiming a deduction more frequently than less wealthy.

The analysis above was limited to household private wealth. Wealth in the form of notional or real accounts in the public pension system and the negotiated group pensions were not included. It takes a large share of the total wealth of Swedish households as will be discussed below in section 3.2.

3. **Three major changes in the 1990s**

3.1 The 1991 tax reform changed the portfolio composition

At the end of the 1980s and in the beginning of the 1990s major changes in the Swedish income tax system influenced household portfolios. Cuts in the marginal tax rates and limitations in the possibilities to deduct interest paid had been introduced in the second half of the 1980s and then followed the major tax reform in 1990/91. To recapitulate, this reform decreased the marginal income taxes, broadened the tax basis and included major changes in the taxation of the returns from financial assets and real estate. The expected effects on the distribution of wealth were a decrease in the share of liabilities, real estate and consumer

durables and an increase in the share of financial assets, in particular, bank deposits and bonds. Table 2 confirms that most of these changes took place. Using HUS-data the table shows that the ratio of debts relative to gross wealth decreased from 28 per cent to 22 per cent. The share of financial assets increased from 17 per cent to 28 per cent while that of durables decreased from 31 per cent to 21 per cent. The share of real estate remained approximately the same.

3.2 Doubts about a viable public pension system give incentives to increase private savings in pension policies.

In the post war period all Swedes above the age of 65 have been covered by a basic social security pension[8] and in 1960 an income related supplementary pension was introduced in the form of a pay-as-you-go system that covered all employees and many self-employed. Above a low income threshold and below a ceiling the income related pensions were 60 per cent of the average incomes for the 15 best years. These pensions were indexed by the CPI. In the 1990s the viability of this system became a concern facing the aging of the large baby boom cohorts and the relatively low growth of the Swedish economy. Economic and political discussions of the future of the pension system and proposals for reforms resulted in 1994 in a decision in Parliament about a new pension system. It is less vulnerable to demographic and economic shocks, but it might also result in lower pensions than the previous system. (See Klevmarken, 2002a)

In addition to the public social security pensions most workers in Sweden are covered by negotiated group pensions (occupational pensions). Similar to the public pensions some of them were of the defined benefit type, but after the reform of the public system most of them have been changed in the direction of a defined contribution system. For most workers these pensions have a replacement rate of about 10 per cent after the age of 65, for workers with high wages – mostly white collar workers – the replacement ratio is higher.[9]

Although an unfunded pension system like the (old) Swedish system does not have any funds expect for buffer funds, it implies a liability to those who have participated in the system. Workers have a claim on a future stream of pension payments that can be evaluated in the

[8] Before 1976 the eligibility age was 67.
[9] Depending on group plan the occupational group pensions also allow for early retirement with more generous replacement rates.

form of an implicit pension capital that can be attributed to everyone who is covered. For most Swedes this is a large amount compared to private wealth. The magnitude of the capital value of public pensions and negotiated group pensions was estimated in Andersson et al (2002) using 1999 data from Statistics Sweden and assumptions about the future that are detailed in an appendix of this publication. Table 4 is obtained from two of the tables in Andersson et al (2002). It compares for two age groups and four major occupational groups private wealth to the capital value of public old age and negotiated group pensions. The table shows median assets, so it is not possible to add public and private assets and compare, but it is still quite clear that the claims on the public pension system and on the negotiated group systems by far exceed private wealth. For blue collar workers the value of the public old age pensions exceeds 60 per cent of the median gross wealth (including pension wealth) and for white-collar workers it amounts to about half median gross wealth.

Reduced pensions would thus have a major impact on total wealth of an average Swedish household and the increased uncertainty about future pensions have increased private investments in pension policies. Table 5 illustrates this. In the middle of the 1980 less than 15 per cent of all households had private pension policies and the mean holding was rather small, about 90 000 crowns among those who had the asset. At the end of the 1990s more than 30 per cent had this kind of asset and the average value had increased to an estimated 150 000 crowns per household. It is not possible to get more than an informed guess of the latter amount because the first three rows of the table are based on survey data from HUS using the consumption based household concept while the last two rows of the table are estimates for individuals obtained from Flood (2003) that used register data from a longitudinal data base called LINDA.[10]

3.3 The large baby-boom cohorts retire wealthy

The life-cycle hypothesis is a main vehicle in analysing the wealth distribution and its implications have been studied empirically in the previous literature. Most cross-sectional

[10] Below a ceiling investments in a private pension policy can be deducted against income in assessing taxable income. The tax authorities thus know when a tax payer claimed a deduction and the amount claimed truncated by the ceiling. These data that are available longitudinally in LINDA have been used in Flood(2003) to estimate the current accumulated value of the investments of each individual in LINDA. It is encouraging to see that these two different approaches to estimate investments in private pension policies give approximately comparable results.

studies show a hump shaped relation between wealth and age while studies based on panel data do not always confirm that households consume their wealth after retirement. Figure 2 displays cross-sectional profiles for equivalized household net worth for 1999. The age-wealth profile for the 90th percentile of the distribution shows a strong hump shape while it is much less pronounced for the median and has completely disappeared in the 10th percentile. Those who permanently are in the left part of the distribution have very little they could liquidize for consumption when they retire. The wealth of the large group in the middle of the wealth distribution primarily consists of owner occupied houses and condominiums and many choose not to liquidize this asset when they grow old. They prefer to stay in their old home and they also seem reluctant to increase their mortgages. As a result we only see a weak hump shape. Only in the right upper part of the wealth distribution we find households with financial wealth that is easier to use for consumption purposes. Is this the explanation to the hump shape of the 90th percentile? The wealth of many of these households generate a return that jointly with pensions are likely to maintain the consumption standard of these people when they grow old. Thus they might not need to reduce their wealth. So, can we find an alternative explanation to the hump shape?

In section 2.2 it was pointed out that age is associated with population heterogeneity that is able to pick up the hump in the age-wealth profile. We will now focus on one particular aspect of heterogeneity, namely that different birth cohorts have different experiences which influence their accumulated wealth. Figure 3 shows median age – net worth profiles for two years 1983 and 1997. The shape of the profiles has changed. The peak is higher in 1997 than in 1983 and in these 14 years it is pushed from the age range around 50 years beyond the age of 60. The lack of stability in the age – wealth profiles suggests that there are other forces than stable life-cycle savings that determine the wealth distribution. In Klevmarken (2002b) and Andersson et al (2002) it was argued that most of the cross-sectional hump shape originated from cohort differences in wealth accumulation. In an attempt to separate birth cohort effects on wealth from the age effect it was shown that the cohorts of the 1940s and 1950s did better than older cohorts. They also did better than younger cohort in the left tail of the distribution while among those who were relatively wealthy the cohorts of the 1960s and 1970s had succeeded better than any previous cohorts relative to their age. The latter observations might be a “dot.com” effect that would have vanished if we had have access to more recent data covering the period after the recent stock market decrease. The relative success of the large baby boom cohorts is though likely to have survived the stock market

swings (Berg, 2002). The cohorts of the 1940s could take advantage of the relatively prosperous 1960s and 1970s, periods of relatively high growth not disturbed by periods of high unemployment. These cohorts were able to get a job and to keep it, buy a house or a condominium and then surface on the price increases in the real estate and stock markets. Some of them also benefited from subsidies to those who invested in their own houses. Older generations had to carry on the heritage of the depression in the 1930s and the war-time economy in the 1940s.

The age – wealth profiles estimated net of these cohort effects showed almost now hump shape. Only the profile for the 90th percentile had a week tendency to level off after the age of 70 (see Klevmarken 2002b, Figure 8). The estimates in this age range were however rather uncertain because the number of observations of the oldest-old is small in the HUS surveys.

The implication of these findings is that there is relatively little private life-cycle savings in Sweden. Most of this kind of saving is done through the social security system and through the negotiated group pensions. Although Swedish households do accumulate wealth, active saving out of regular incomes is not the main explanation to changes in household private wealth, as pointed out by Pålsson (2002). More important are price changes in the asset markets and the ability of households to manage their portfolios.

4. **Conclusions**

At the end of the 1990s median household net wealth was about 700 000 crowns while the mean was above 1 million. Compared to the United States the Swedish median wealth is somewhat higher while the mean is only about half of that of the United States (c f Klevmarken et al ,2003). Although the Swedish distribution of wealth is unequal, for instance compared to the income distribution, it is much less unequal than that of the United States.

In the 1990s household median wealth in Sweden increased by about 30 per cent in real terms. Part of this increase came from increased savings after the tax reform in the beginning of the 1990s. The Swedish savings rate peaked at about 12-13 per cent in 1993/94, but dropped back down below 5 per cent in 1998/99. We have observed that savings in private pension policies have increased, but it is hard to know to what extent this is new savings and to what extent it is a reallocation of portfolios. Part of the increase in wealth can also be attributed to the exceptional increase in the stock market, but its influence on median wealth

is not as large as one might think because stocks and shares take a large share of the portfolio only among the wealthy. The increase in the value of stocks and shares is though the major explanation to the increase in inequality of wealth during this period. More important for ordinary people than stock prices is the value of one and two family houses. It only increased by a modest 3 per cent in real terms in the 1990s. However, the difference between peak and trough was larger and there were large regional differences. Price increases were higher in the three big cities and in particular in Stockholm that contributed to an increased regional inequality in wealth and probably also to the over all increase in inequality (c f Berg 2001).

An important finding that has implications for the future is that the baby-boom cohorts have become relatively wealthy, both in terms of private wealth and in claims on the pension system. They will now retire, but still keep an influence in society, not only because of their size but also because of their wealth. Their wealth is though more vulnerable to volatile prices in the financial markets than before because the share of financial assets has increased and because the pension reforms have made future pensions more depended on the financial markets. There is also a political risk that the large baby-boom cohorts to an increasing extent will have to pay for the health services and care they will need in the future, services that now are financed through the general tax fund. If these forces will not erode the wealth of the baby-boomers their children will inherit. Bequests will then become more common than it is today and the amounts inherited will most likely increase. Most people think this will in the future increase the inequality of the wealth distribution even further, but as demonstrated in Klevmarken (2002b) that is not necessarily the case.

Finally, it has been argued in this paper that private life-cycle savings is not so strong in Sweden, but that most of this kind of savings have been done through the public and collective pension systems. The “savings boom” in the beginning of the 1990s should be seen as an exception, an adjustment to the change in the tax system. However, the concern for the future viability of the pension systems, the change of these systems in the direction of funded systems and the boom in the stock market have made Swedish households more aware of financial instruments like mutual funds, stocks and shares. Ownership of these assets have spread down the wealth distribution and this change jointly with the increased savings in pension policies might well signify a change in the savings behavior of Swedish households towards more life-cycle savings.

References

Andersson, B., L. Berg and A. Klevmarken (2002), "Inkomst och förmögenhetsfördelningen för dagens och morgondagens äldre", in SOU 2002:29, *Riv ålderstrappan! Livslopp i förändring,* Bilagedel B

Bager-Sjögren, L. and N.A. Klevmarken (1993), "The distribution of Wealth in Sweden 1984-1986", *Research in Economic Inequality*, Vol 4, pp 203-224, JAI Press Greenwich, 1993

Bager-Sjögren, L. and N.A. Klevmarken (1998), "Inequality and mobility of wealth in Sweden 1983/84 – 1992/93", *Review of Income and Wealth*, 44,4,473-495

Berg, L. (2001), *I slott och koja. De svenska hushållens förmögenhetsfördelning*, Ekonomiska sekretariatet, Nordbanken, Stockholm

Berg, L. (2002), *Gungorna och karusellen. De svenska hushållens förmögenhetsfördelning*, Nordea, Stockholm

Edin P-A och B Holmlund (1995), The Swedish Wage Structure: The Rise and Fall of Solidarity Wage Policy?, in R Freeman and L Katz (red), *Differences and Changes in Wage Structures*, University of Chicago Press.

Flood, L. (2003), "Formation of Wealth, income of capital and cost of housing in SESIM" Report. Ministry of Finance, Stockholm, www.sesim.org

Klevmarken, N.A. (2002a), "Swedish Pension Reforms in the 1990s", Working Paper 2002:6, Department of Economics, Uppsala University

Klevmarken, N.A. (2002b), "On the wealth dynamics of Swedish families 1984-1998", Research Report, Department of Economics, Uppsala University

Klevmarken, N. A., J.P. Lupton and F.P. Stafford (2003), "Wealth Dynamics in the 1980s and 1990s. Sweden and United States." *The Journal of Human Resources*, XXXVIII, 2, 322-353

Le Grand, C, R Szulkin och M Tåhlin (2001), Lönestrukturens förändring i Sverige, i SOU 2001:53 *Välfärd och arbete i arbetslöshetens årtionde*, Fritzes.

Pålsson, A-M. (2002), ”Myt och verklighet om de svenska hushållens förmögenheter”, *Ekonomisk Debatt*, 30,8, 679-691

Statistics Sweden (1990), ”Förmögenhetsfördelningen 1975-1988. Urvalsbaserad statistik för hushåll på riksnivå”, *Statistiska Meddelanden* Be21 SM9002

Statistics Sweden (2000), *Förmögenhetsfördelningen i Sverige 1997 med en tillbakablick till 1975*, Rapport 2000:1, Örebro ISSN 1400-3147

Wolff, E.N. (2002), ”Inheritances and Wealth Inequality, 1989-1998”, *American Association Papers and Proceedings*, Vol 92 No 2 (May 2002), pp 260-264

Table 1 Percentiles of networth 1978-1999 according to two different Surveys (1999 price level)

	HUS-survey					Statistics Sweden HINK/HEK					
Year	P10	P50	P90	P10/P50	P90/P50	Median in decile 1	5	10	P50	MD1/P50	MD10/P50
1978						- 33	50	1271	83	-0.40	15.31
1983	6	518	1407	0.012	2.716	- 70	57	1155	90	-0.78	12.83
	(9)	*(33)*	*(104)*								
1985	36	516	1362	0.069	2.639	- 88	64	1217	104	-0.85	11.70
	(6)	*(13)*	*(59)*								
1988						-138	75	1600	115	-1.20	13.91
1990						-154	70	1758	116	-1.33	15.16
1992	30	553	1692	0.055	3.058	-167	64	1494	101	-1.65	14.79
	(11)	*(27)*	*(74)*								
1995	55	624	1803	0.088	2.887						
	(10)	*(15)*	*(71)*								
1997	54	676	1972	0.080	2.916	-167	69	1900	109	-1.53	17.43
	(11)	*(18)*	(59)								
1999						-427	59	3815	106	-4.03	35.99

Note: The sample size of the HUS-surveys range from 2619 to 4187 individuals, and the sample size of the HIN/HEK surveys from approximately 10000 to 19000 individuals. The two data sources differ in coverage and household definition, see text!

Sources: HUS: Klevmarken(2002) Table 1. HINK/HEK: Pålsson(2002) Table 2 and SCB(2000).

Table 2. Estimates of 1985 and 1997 portfolio shares and mean wealth per household by type of asset and data source (1997 1000SEK)

	HUS		**HINK/HEK**	
	1000SEK	%	1000SEK	%
	1985			
Real estate	492	52.2		59
Financial assets	156	16.6		33
Other assets (durables)	294	31.2		8
Gross total	942	100.0		100
Debts	268	28.4		39
Net total	674	71.6		61
	1997			
Real estate	642	51.0	374	57.9
Financial assets	354	28.1	224	34.7
Other assets (durables)	264	20.9	48	7.4
Gross total	1259	100.0	646	100.0
Debts	276	21.9	179	27.8
Net total	983	78.1	467	72.2

Sources: Klevmarken et.al (2003), SCB(2000) Table 6, SCB(1990) Tables 2-4

Tabell 3 Regression of net worth 1997 and 1999 on selected socio-economic variables

Net worth per adult equivalent (Current SEK)	Slope estimate	Standard error	t
Married/cohabiting	-38442	22272	-1,73
Single woman	-109700	19557	-5,61
Indicator of workhours	-36678	18529	-1,98
If part-time old-age pension	55499	43703	1,27
If other pension and age < 65	-69603	19844	-3,51
If deducted payment to private pension policy	108170	12825	8,43
Immigrant from Nordic country	-149791	15064	-9,94
Other immigrant	-80546	15427	-5,22
Self employed	140430	43430	3,23
Farmer	1012459	94431	10,72
Unspecified education	-109549	24756	-4,43
At most 9 years of schooling	-98706	14922	-6,61
High school or equivalent	-33431	13209	-2,53
College/university < 3 år, technical	-7275	18571	-0,39
College/university >= 3 år, technical	169317	32964	5,14
College/university >= 3 år, nontechnical	180340	43460	4,15
Living in Stockholm	-105834	28471	-3,72
Living in Göteborg	-102740	16128	-6,37
Living in Malmö	-99379	17177	-5,79
Living in middle Sw. outside the three big cities	-61453	13366	-4,60
Urban living in northern Swedeni	-80805	19656	-4,11
Rural living in nothern Sweden	-54529	21961	-2,48
Interaction own hourse x Stockholm	647459	93437	6,93
Interaction own house x Göteborg	344589	25933	13,29
Interaction own house x Malmö	391637	57224	6,84
Interaction own house x South Sweden.	142340	20017	7,11
Interaction own house x urban north.	164095	40476	4,05
Interaction own house x rural north	55360	27113	2,04
Interaction co-op x Stockholm	417397	65563	6,37
Interaction co-op x Göteborg	55320	18374	3,01
Interaction co-op x Malmö	35235	21890	1,61
Interaction co-op x southern Sweden.	56430	73409	0,77
Interaction co-op x urban north.	44289	42365	1,05
Interaction co-op x rural north.	-67496	35081	-1,92
age 25-29	-49748	9944	-5,00
age 30-34	-77732	11991	-6,48
age 35-39	-44509	13164	-3,38
age 40-44	5501	20980	0,26
age 45-49	53320	16905	3,15
age 50-54	236107	31803	7,42
age 55-59	340954	30921	11,03
age 60-64	359995	22461	16,03
age 65-69	391351	28638	13,67
age 70-74	426649	33427	12,76
age 75-79	445588	32953	13,52
age 80-84	493207	55077	8,95
If 1997	-58369	11499	-5,08
Constant	204889	21498	9,53
Number of obsrvations	33861		
R^2	0,074		

Note. Source Andersson et al (2002) Table 3.2. Heteroskedasticity robust standard errors estimated according to White. The indicator for work hours is the sum of the indicators for all adult members of the household, and for each adult the indicator can take one of fours values: 1, 0.75. 0.35 and 0, indicating the share of full time.

Table 4 Private wealth and the capital value of public pensions and negotiated group pensions in 1999. (Medians in 1000SEK computed at the individual level)

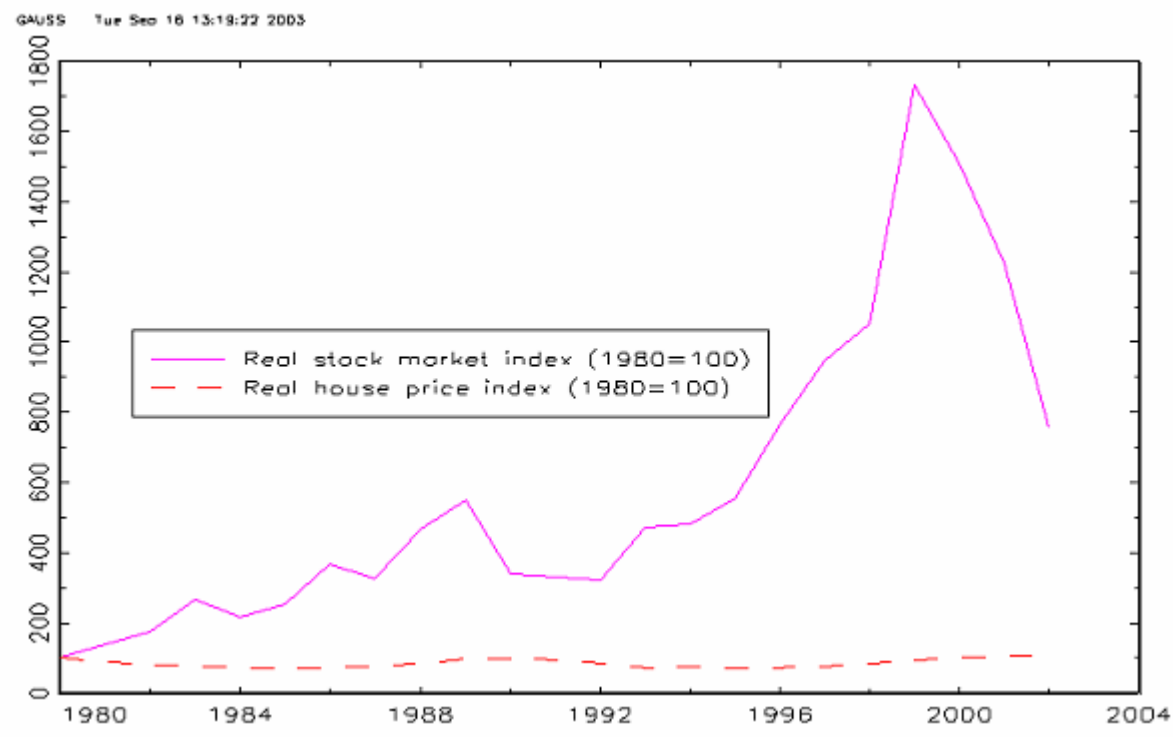
	Age 45-64				Age 65 -
	Blue collar workers	White collar workers	Government Employees	Local government employees	
Financial assets	70	121	119	80	114
Tangeble assets	293	429	439	362	34
Debts	128	167	176	140	0
Old age pension	1117	1286	1278	1087	660
"Premiepension" (funded social security)	37	45	41	34	
Negotiated group pensions					76
Blue collar workers	204				
White collar workers ITP		245			
White collar workers ITPK		207			
Government employees STAT			232		
Government empl. STATF			129		
Local gov. empl. KOM				177	
Local gov. empl. KOMF				72	
Gross wealth	1690	2522	2362	1775	1238
Net wealth	1546	2354	2199	1634	1222

Source: Andersson et al (2002) Tables 3.8 and 3.10. Computational details in Andersson et al (2002) Appendix.
Note: This table was obtained using the individual and not the household as a unit.

Table 5 Estimates of mean wealth in private pension policies using alternative methods. (1997 1000SEK)

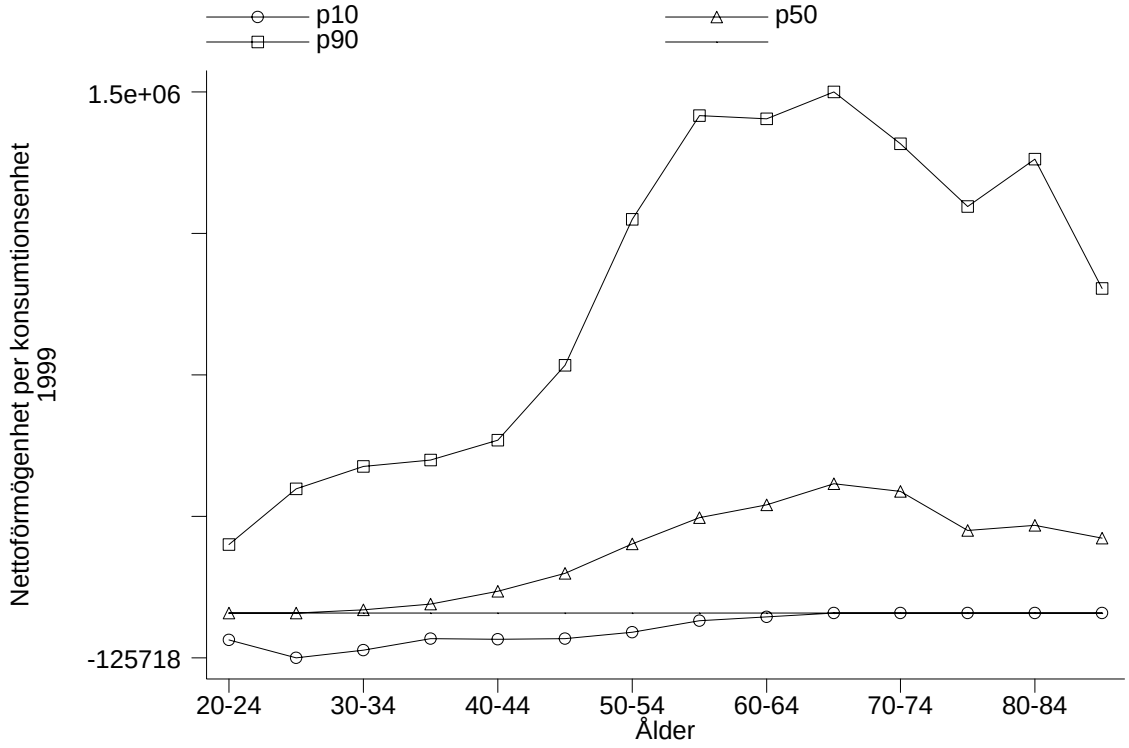
	Percent with policy	Over all mean	Mean if holding
	The HUS surveys (households)		
1985	14.4	13	89
1992	32.6	33	103
1997	24.9	30	120
	Flood (2003) using LINDA (individuals)		
1999	30.3	31	104
2000	32.0	36	111

Figure 1 **Relative price indices for stocks and shares on the Stockholm Stock Exchange and for the prices on one and two family houses** (1980=100)



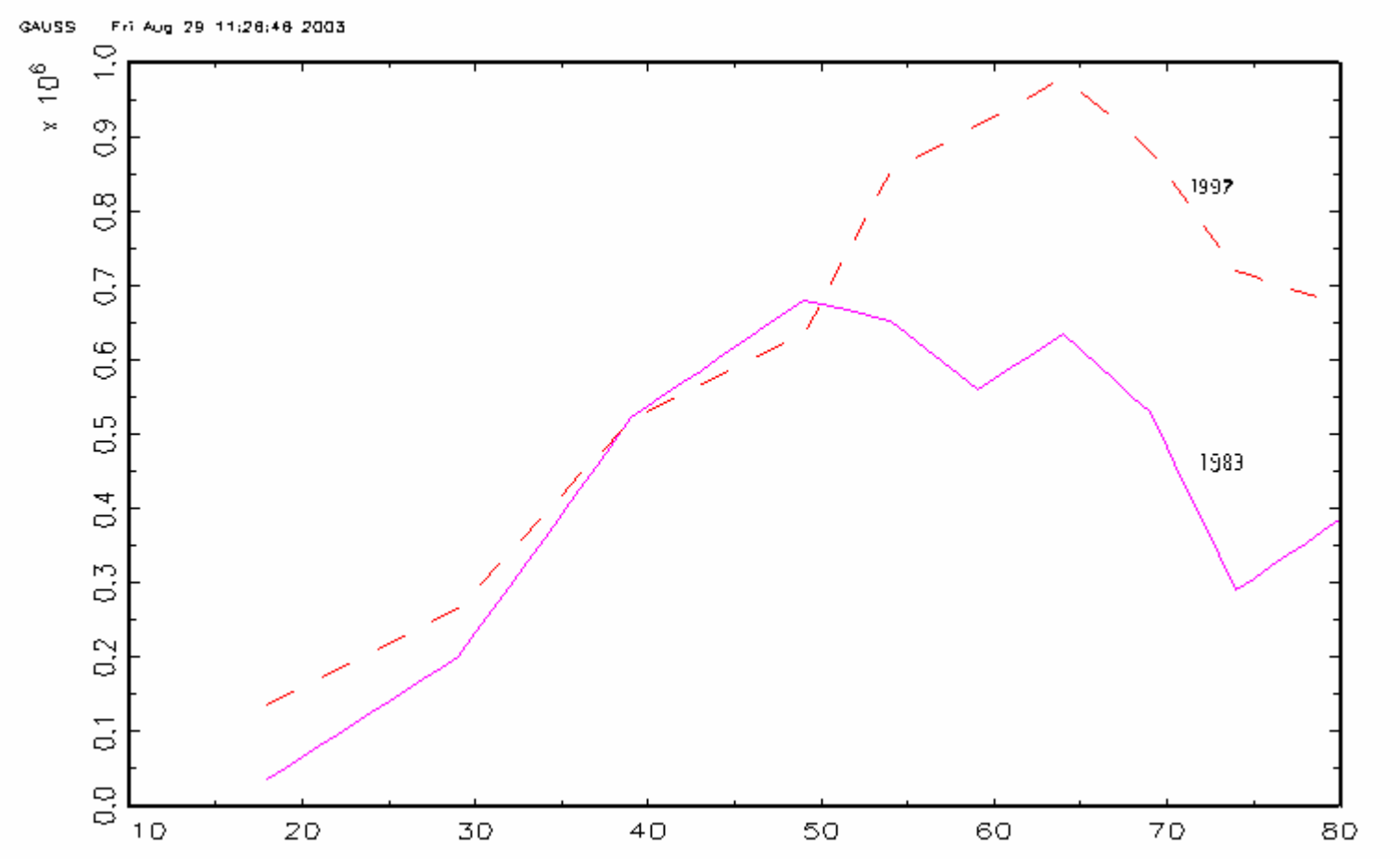
Note: Both price indices are relative to the CPI with the same base year.

Figure 2 Age - wealth profiles for the 10th, 50th and 90th percentile of the 1999 net worth distribution (Equivalized household net worth, 1999 SEK)



Source: Andersson et.al. (2002), primary source HINK/HEK 1999

Figure 3. Median age – net worth profiles 1983 and 1997 (1993 SEK)



Note: Source Klevmarken(2002) Table 2. The figure shows cross-sectionally estimated piecewise linear splines. Data originate from the HUS surveys. Net worth does not include private pension policies and annuities