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### To navigate the family economy during a lifetime

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At the beginning of the nineteenth century most people in Sweden were living in the countryside. In many respects traditions and practices were as they had been several centuries before. Compared to for example the U.K. and several other West European countries, Sweden can be seen as economically backward. We mean that the living conditions in Sweden in many respects were characteristic of a pre-industrial society although there were some signs of proto-industrialization.<sup>1</sup>

At that time the family was the basic consumption unit as well as a unit of production. As a consequence families living of their own work were extremely sensitive to income losses in case of sickness, accidents and death. Also more predictable life cycle events such as having children (“early adulthood squeeze”) and getting old and weak (“retirement squeeze”) put great stresses on the family economy. Studies of nineteenth century material show squeezes when the breadwinner was 30 years old and 50 years old respectively.<sup>2</sup> The first one was a consequence of having children. The latter one was more a result of decreasing income than of rising costs for children.<sup>3</sup>

International research has shown that children were not only a cost for the family, but also contributed to the family income during part of their life cycle. Children’s earnings seem to have been very important for worker family incomes when the parents aged. In a classic study of data on the U.S. and five European countries for the years 1889-1890, Haines found that incomes for men peaked already when they were 30-39 years old. Family income, however, continued to increase and reached its peak when the male household head was at an age of 50-59 years. The explanation was mainly income contributions from the children. In comparison with the other two main strategies to increase family income – the wife working for wages or taking lodgers – children’s work was definitely the most important strategy. Of course, the family’s expenses also increased when the children grew older. This took much of the extra income they earned, but it seems that in fact also family savings increased and were at their highest when the male household head was 50-59 years old. After that, when the children began to move away from home, family income declined rapidly. However, the part of the family earnings contributed by the children still staying at home increased. In families where the father was 60 years or older, children provided 30-40 per cent of the family income.<sup>4</sup> Similarly, in Swedish ironworkers’ households during the nineteenth century, earnings from sons played a major role and resulted in family incomes’ peaking when the male household head was 55-60 years old.<sup>5</sup>

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<sup>1</sup> Lennart Schön, *En modern svensk ekonomisk historia. Tillväxt och omvandling under två sekel*, Stockholm 2007, pp. 88-92

<sup>2</sup> Livio Di Matteo, “Wealth accumulation and the life-cycle in economic history: Implications of alternative approaches to data”, *Explorations in Economic History*, 35 (3) 1998, pp. 296-324.

<sup>3</sup> Brian Gratton, “The Poverty of Impoverishment Theory: The Economic Well-being of the Elderly 1890-1950” *Journal of Economic History*, Volume 56, No. 1, 1996, pp. 39-61.

<sup>4</sup> Michel R. Haines, “Industrial Work and the Family Life Cycle, 1889-1890” *Research in Economic History*, Vol. 4, 1979, pp. 299-302.

<sup>5</sup> Mats Larsson, ”Sparandet som ekonomiskt problemområde och nationalekonomisk teori”, *Historisk Tidskrift*, 3 1989, pp. 354-374.

The importance of children's incomes to the family savings/wealth has also been highlighted in other studies. Furthermore, these studies give a more detailed picture of the importance of the children's age, number and sex. In a study of French-Canadian working families in Lowell, Massachusetts in 1875, Early demonstrated how significant the number of children was. The larger the number of working children, the higher the family income and material living standard. In families where the father had unskilled work, children's incomes were essential to stay above the poverty line.<sup>6</sup> In a study of Indianapolis 1860-1880, Robinson found that the number of working children in a family depended on the number of sons older than 10 years, whereas the number of daughters above the age of 10 was not a significant factor.<sup>7</sup>

One indication of children's importance in urban areas is that parents, even when they grew older, often lived together with their children. Alter, in a study of Verviers in 1831, showed that more than half of the parents even in their seventies were living together with one of their unmarried children. This proportion was significantly lower among the oldest parents, who more often lived together with their married children. Alter's interpretation is that children stayed with their parents until a comparatively old age and that some parents, after being widowed, moved in with their married children.<sup>8</sup> Data from pre-industrial Bilbao in 1825 likewise indicate a very high rate of cohabitation between parents and their children and, also, that this was not substantially affected by industrialization.<sup>9</sup> Similar conditions seem to have prevailed in Sweden. Högman, in a study of Sundsvall in 1845, found that two thirds of the men and half of the women older than 60 years were living together with their children.<sup>10</sup>

It follows that those who had children should have been able to support themselves in old age better than those who were childless. This is supported by a study of wealth, reflected by the proportion of tax payers among old people, by Alter. There was almost no difference between married and unmarried aged 55-59 years. However, for married people the proportion that paid taxes increased up to age 75 years, while for the unmarried it started to decline after circa 60 years of age. His conclusion was that the unmarried funded their own old age by consuming their assets/savings, while the married, thanks to support from their children, could postpone this until a later stage in life.<sup>11</sup>

## Aim and research questions

The aim of this paper is to investigate how artisans and workers used assets and debts to navigate the family economy during a lifetime. Special emphasis is put on wealth during the years of building a family to a life cycle stage characterized by phasing out. This means that variations over time in the ages of children and variations in debts and assets are of special interest in this study. We investigate if life cycle squeezes occurred at certain stages in life. What impact did family size and socioeconomic position have on the duration and depth of the life cycle squeezes for artisans and workers in the beginning of the nineteenth century? Is it likely that children's incomes were important for family

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<sup>6</sup> Frances Early, "The French-Canadian family economy and standard-of-living in Lowell, Massachusetts, 1870" *Journal of Family history*, Summer 1982, pp. 184-189.

<sup>7</sup> Robert Robinson, "Economic necessity and the life cycle in the family economy of nineteenth-century Indianapolis", *American Journal of Sociology*, Volume 99, No. 1 (July 1993), p. 63.

<sup>8</sup> George Alter, "The European Marriage Pattern as Solution and Problem: Household of the Elderly in Verviers, Belgium, 1831", *The History of the Family*, Vol. 1:2, 1996, pp. 123-138;

<sup>9</sup> Pilar Pérez-Fuentes Hernández & Arantza Pareja Alonso, "Ageing alone or in a family: the case of Bilbao, 1825-1935. *Continuity and Change* 12 (1), 1997, pp. 79-102.

<sup>10</sup> Ann-Kristin Högman, *Ageing in a changing society. Elderly Men and Women in Urban Sweden 1830-1930*. Umeå 1999, p. 104.

<sup>11</sup> Alter 1996, pp. 131-134.

wealth? Is it probable that children also continued to help their parents economically even during and after the “retirement squeeze”? Quantitative methods and cross-sectional analysis are used to analyse the relationship between family assets, debts, children and age at different periods. The main sources are probate records from the Swedish towns of Eskilstuna, Falun and Uppsala 1820-1825.

## Methods and sources

We assessed levels of wealth by studying probate inventories. These records of both assets and liabilities constitute a kind of summation of one's life in economic terms. The probate inventories also contain other kinds of information of interest for the investigation, such as the marital status of the deceased, the number of children and their ages, and sometimes the professional affiliation and age at death of the deceased. These data have, when necessary, been supplemented by parish registers. By comparing different age-groups we try to analyse how assets, debts and wealth changed over the life cycle. In order to get a more homogenous population, we limit the study to those who were married or widowed.

Probate inventories were only established for those deceased who had assets. This means that the results are only valid for rather well-established families and not for the poor ones without assets. The probate rates were approximately 40 per cent for married and 30 per cent for widowed, which means that only a minority of the deceased were probated. However, this is perhaps not a big issue considering that we are interested in studying asset management over the lifetime.

While probate inventories can be considered reliable regarding data on debts and claims, they are less so in the valuation of personal property and real estate. Research has shown that the probated values of personal property and estates often were below market values.<sup>12</sup> For personal property Isacson estimated that a revaluation by 33.3 per cent was needed, while Montelius considered that 25 per cent was enough. Regarding real property Isacson believed that it was greatly undervalued. Montelius did not mention anything about this, but he revaluated all the assets by increasing them by 25 per cent.<sup>13</sup> We assume, however, that cash, claims, financial assets and liabilities were included in the inventories at their actual amounts. We have therefore restricted ourselves to raising the value of personal property and real estate by 25 per cent.

In order to be able to isolate, if possible, the covariance between children and assets/debts/wealth we also use multiple regression analysis, where the following variables are included.

Dependent variable: Assets/debts/wealth in riksdaler riksgälds.

Independent variables: Age and Age<sup>2</sup> in years, dummy variables for Dch0-10 (children aged 0-10 years), Dch11-20 (children aged 11-20 years), Dchad (adult children), Ds11-20 and Dd11-20 (sons/daughters 11-20 years), Dsad and Ddad (adult sons/daughters), Male (1 = male), Widowed (1 = widowed), Falun (1 = living in Falun), Eskilstuna (1 = living in Eskilstuna).

When testing this model we found that outliers strongly affected the results. Normally this is handled by using logarithms. This transformation is easy to do for assets. However, some of the probated had no debts. To include also these in the analysis we have given debts the value of 0.1 instead of 0.

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<sup>12</sup> Christer Persson, *Jorden, bonden och hans familj*, Stockholm 1992, s. 243. Se även Maths Isacson, *Ekonomisk tillväxt och social differentiering 1680-1860. Bondeklassen i By socken, Kopparbergs län*, Uppsala 1979, pp. 223-224; Carl-Johan Gadd, *Järn och potatis. Jordbruk, teknik och social omvandling i Skaraborgs län 1750-1860*, Göteborg 1983, p. 73.

<sup>13</sup> Isacson 1979, p. 139; Sigvard Montelius, *Västerås genom tiderna. Del III*. Stockholm 1993, pp. 445-448.

Regarding wealth many probated artisans and workers had net debts which mean that they would be excluded from the analysis when using logarithms. As a consequence we decided to use a modified model. The modifications are two. As a dependent variable we have used logarithms for assets. Further we have added logarithms for debts among the independent variables. This means that we are analysing not wealth but instead assets taking debts into consideration. Another problem with the original model was that age was missing for some of the probated. When we used the model it turned out that Age and Age<sup>2</sup> were not significant. Consequently, these two variables were excluded in the final analysis (Appendix).

A particular problem relates to the question whether the family assets were divided among the heirs when the spouse died or when children left home. Moring showed in a study of Finland and Sweden during the seventeenth to the nineteenth centuries that the assets of widows were substantially less than those of married. She interpreted this as a result of the fact that the legacies of the deceased men had been partially or totally divided. This seems primarily to have been a rural phenomenon, while her data from Stockholm, 1680-1750, does not show any significant differences between widows' wealth and married person's wealth.<sup>14</sup> Lundh, in his study of the Swedish countryside however, stressed that the legacy was to be divided upon remarriage, and that according to the inheritance rules widows in this situation lost more than widowers. According to him, this was an important reason why fewer widows than widowers remarried. Provided his interpretation is correct, this must mean that normally the inheritance was not divided until remarriage.<sup>15</sup> We have shown, in an earlier study, that the inheritance probably was not distributed between the heirs.<sup>16</sup>

### The three towns

The three studied towns are all located in central Sweden. In 1820 Eskilstuna was the smallest of them with only just over 2000 inhabitants, while Falun and Uppsala at that time were twice as large. However, Eskilstuna was quickly expanding, while the other two towns, especially Falun, were rather stagnant during the first decades of the nineteenth century. Between 1820 and 1850 the population nearly doubled in Eskilstuna, increased by 50 per cent in Uppsala and by only 10 per cent in Falun.<sup>17</sup> Behind these disparities in population development were great differences in terms of trade and industry.

Uppsala had Sweden's first university and was the seat of the Swedish archbishop. In the early nineteenth century the town still had several administrative functions. Unlike the other two towns Uppsala had an academic and religious elite, which affected the town life in general.<sup>18</sup> An expression for this is that artisans and workers together constituted less of the population in Uppsala than in the other two towns (Table 1). Economic stagnation during the first decades of the nineteenth century may further have added to this.<sup>19</sup>

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<sup>14</sup> Beatrice Moring "The standard of living of widows: Inventories as an indicator of the economic situation of widows", *History of the Family*, 12, 2007, pp. 236, 239 and 245.

<sup>15</sup> Christer Lundh, "Remarriage, gender and social class: a longitudinal study of remarriage in southern Sweden, 1766 – 1894", *Continuity and Change* 22 (3), 2007, pp. 379 and 400.

<sup>16</sup> Dan Bäcklund & Kristina Lilja, Children and the wealth of widowed. *ESSHC 13-16 April 2010, Ghent, Belgium*.

<sup>17</sup> Lars Nilsson, *Historisk tätortsstatistik. Del 1. Folkmängden i administrativa tätorter 1800-1870*, Stockholm 1992, p. 9.

<sup>18</sup> Gurli Taube, *Från gångna tiders Uppsala*, Uppsala 1950; Herbert Lundh *Uppsala stads historia IV. De dominerande landshövdingarnas tidsskede 1786-1862*, Uppsala 1977, pp. 437-457.

<sup>19</sup> Herbert Lundh 1977, pp. 500-507.

Falun, too, is one of Sweden's oldest towns. Copper mining had been the main industry since the Middle Ages and, on a national level, the town was a very important mining region. However Falun's economic development stagnated in the early nineteenth century due to the declining profitability in copper mining.<sup>20</sup> As a result employment in mining decreased and the number of inhabitants fell. Notwithstanding this, a comparison of the population shares for workers and artisans gives a hint of the special character of Falun as a town of mine-workers (Table 1).

The youngest of the three towns, Eskilstuna, was dominated by artisans who specialized in wrought iron manufacture. The town consisted of two parts, the Old Town and the Freetown; the latter had been founded in 1771 as an attempt to establish manufacturing production without craft guild coercion. Wrought iron manufacturing was the dominant craft and almost half of the Freetown artisans were knife smiths, frail smiths and locksmiths in the early nineteenth century.<sup>21</sup> They produced not only for the local but also for the national and the international market.<sup>22</sup> Eskilstuna was entirely dominated by craftsmen and workmen who made up more than half of the population in the Old Town and around 85 per cent in Freetown in the beginning of the nineteenth century.<sup>23</sup> Table 1 also gives an idea of this dominance and it was so great that it even left special cultural traits on Eskilstuna.<sup>24</sup>

Table 1 Percentage of the male population older than 10 years working as artisans and workers (including apprentices) in Eskilstuna, Falun and Uppsala in 1820

	Artisans	Workers
Eskilstuna	20	61
Falun	9	58
Uppsala	9	42

Sources: Folkmängden formulär 320, Tabellverket på nätet DDB, Umeå.

## Wealth, assets and debts

Probate inventories indicate that for artisans as well as for workers family wealth varied with age (Table 2). During a life-time two periods of economic stress were relatively marked. An early adulthood squeeze occurred for worker families when the husband was 40-45 years old. For artisan families this squeeze came earlier, when the husband was approximately 35-40 years old. Workers had something of a retirement squeeze at the age of 60-65 years, while this squeeze came a little later for craftsmen. Probably, this difference mirrored the higher content of skill in artisans' work.

During the retirement squeeze assets were decreasing more than debts (Table 2). The early adulthood squeeze had reversed characteristics. For young artisans levels of debts were much higher than for artisans aged 45-60 years. For workers debts were generally small and only just over 40 per cent of

<sup>20</sup> Kristina Lilja 2004, *Marknad och hushåll. Sparande och krediter i Falun 1820-1910 utifrån ett livscykelerspektiv (Market and Household. A study of savings and credit on the local credit market in the town of Falun 1820-1910 from a life-cycle perspective)*, pp. 59-70.

<sup>21</sup> *Eskilstuna historia. Del 3. 1800- och 1900-talen*, Bror Erik Ohlsson (ed.) Örebro 2001, pp. 15-31; Ann Hörsell *Borgare, smeder och änkor. Ekonomi och befolkning i Eskilstuna gamla stad och Fristad 1750-1850*, Uppsala 1983.

<sup>22</sup> Lars Magnusson, *Den bråkiga kulturen*, Stockholm 1988, pp. 85 and 103-106.

<sup>23</sup> Hörsell 1983, pp. 62 and 88.

<sup>24</sup> Magnusson 1988, pp. 251-345.

those aged 31-40 years had debts. This proportion increased to nearly 100 per cent in the age of 41-50 years, while assets were approximately the same.

Table 2 Median wealth, assets and debts for craftsmen and workers 1820-1825, riksdaler riksgälds

Age	Craftsmen				Workers			
	N	Wealth	Assets	Debts	N	Wealth	Assets	Debts
31-40	25	35	503	306	19	80	111	0
36-45	33	37	370	277	24	59	87	8
41-50	23	96	326	104	15	60	143	52
46-55	16	91	301	192	12	140	478	126
51-60	20	97	317	203	15	183	396	72
56-65	18	191	654	104	16	57	72	11
61-70	17	75	93	81	18	85	89	0
66-75	22	82	87	16	17	200	200	13
71-80	20	145	222	24	10	125	159	26

Source: ULA. Eskilstuna Rådhusrätt och magistrat. Bouppteckningar, FII, Volym 14, 1819-1823:

Volym 15, 1824-1828; Eskilstuna, Klosters och Fors kyrkoarkiv, Alb, Husförhörslängder för Eskilstuna: Gamla staden, Nya staden, Carl-Gustafs församling ("Stadsförsamlingen") samt Gredby i Fors socken, Volym 7, 1819-1822; Volym 8, 1823-1825; A1c, Husförhörslängder för Eskilstuna Fristaden, Volym 8, 1820-1821; Volym 9, 1822-1824; Falu Rådhusrätt och magistrat.

Bouppteckningar och arvskiften 1820-1825, FII 35-37; Falu Kristine församling. Död- och begravningsböcker F3, 1810-1841; Stora Kopparbergs församling. Död- och begravningsböcker F1, 1799-1830; Uppsala Rådhusrätt och magistrat. Bouppteckningar, FIIa, Volym 38-41, 1811-1820; Volym 42-44, 1821-1830; Uppsala Domkyrkoförsamling. Död- och begravningsböcker, Fa, volym 4 (1818-1846).

According to the probates, artisans generally had considerably more assets and debts than workers (Table 2). It is tempting to believe that the main difference concerning assets was that artisans, but not workers, were property-holders. However, at this time many workers, at least many of those probated, owned real estate, too. It constituted circa 60 per cent of total assets for both groups. Of course, this means that the value of real estate was higher for artisans. Young artisans also had much more personal property than young workers. As tools, raw materials and finished products were included among personal property in the probate records an important explanation for the fact that artisans' assets were greater is that they were self-employed or employers and used some of these assets in their business. This is also shown by the fact that assets decreased much more for artisans than for workers when they became older and retired from work.

For artisans debts and assets were positively correlated. Their debts seem to have concerned purchases of real estate as well as personal property. However, debts were more strongly correlated with personal property.<sup>25</sup> Consequently a large part of the artisans' debts almost certainly applied to the establishment of their own source of income. Young artisans were heavily indebted (Table 2). Debts decreased with age and this, not increasing assets, was the main component behind increasing wealth. Our interpretation is that debts were more or less necessary for the artisans to be able to run their businesses. When the artisan was in the late sixties and probably phased out his business debts were small.

Implicit in the term early adulthood squeeze is that increasing debts for young artisans may also have been an effect of establishing a household and having children. We found that median debts for

<sup>25</sup> Covariance between assets and debts was  $r = 0.32^{***}$ , between real estate and debts  $r = 0.16^*$  and between personal property and debts  $r = 0.39^{***}$ .

artisans who only had children 10 years or younger were higher than debts for other categories of artisans (Table 3). With regard to assets there was no difference. Consequently artisans with small children financed their assets with debts to a higher degree than artisans in general. Their median wealth was also very small, which clearly corresponds to an early adulthood squeeze. Moreover this category of artisans was highly overrepresented among the probated who had net debts.<sup>26</sup> However, a closer examination shows that also the few young artisans (30-45 years old) without children were also heavily indebted, only had small wealth and that net debts were approximately as common among them as among those with only small children.<sup>27</sup> Regression analysis confirms this result. Our interpretation is that the early adulthood squeeze for artisans foremost was not a consequence of having small children but of starting a business.

Table 3 Median wealth, assets and debts for different categories of craftsmen 1820-1825, riksdaler riksgälds

Category	N	Wealth	Assets	Debts
Only children 0-10 years	23	37	268	293
Children 11- years	68	145	261	104
No children	30	103	315	153

Source: See Table 1.

Table 3 shows that artisans with children older than 10 years had less debts and more wealth than other categories. This was not only an effect of now having a well-established business but also of having able-bodied youngsters. Regression analysis shows that wealth was greater if the artisan family had children, especially boys, aged 11-20 years (Appendix). This was mainly a result of greater assets, not of smaller debts. Probably, boys of that age were working for the artisan thereby helping him make better use of his productive assets. It has been suggested that sons were used instead of employees.<sup>28</sup> Perhaps this extra work from able-bodied children also explains why artisan families attained their maximum wealth when the breadwinner was as old as approximately 60 years (Table 2).

Five to ten years later in the life-cycle (at the end of the sixties) there seems to have been a moderate retirement squeeze (Table 2). Personal property and debts decreased quickly, while assets in real estate remained relatively unchanged. As already mentioned this indicates that the artisan phased out his productive activity and retired from work. Regression analysis further shows that personal property and wealth were significantly smaller if families had adult boys. This may indicate that some parts of personal property were given to them when they left home, perhaps as payment for their work as youngsters. A study of the town of Eskilstuna shows that boys left home at a mean age of 17 years old.<sup>29</sup> Of course this does not mean that all boys left home at that age but obviously girls remained at home longer.<sup>30</sup> As can be seen from the regression analysis there was a tendency for personal property and wealth to be greater if the artisan had adult girls, though this result is not significant (Appendix). An explanation could be that adult girls more often remained at home and took care of their ageing parents and thereby helped to maintain family wealth.

As already mentioned workers had less assets and debts than artisans (Table 2). Debts and assets were positively correlated, and as for artisans the correlation with personal property was stronger than with

<sup>26</sup> Approximately one out of four probated artisans had net debts. Among those who only had children 10 years or younger, 10 out of 23 (43 per cent) had net debts.

<sup>27</sup> Only ten artisans belonged to this category. Median wealth was 22 riksdaler riksgälds and four out of ten had net debts.

<sup>28</sup> Hörsell 1983, p. 95.

<sup>29</sup> Hörsell 1983, p. 171.

<sup>30</sup> Their mean age was 18.5 years when they left home. Hörsell 1983, p. 171.

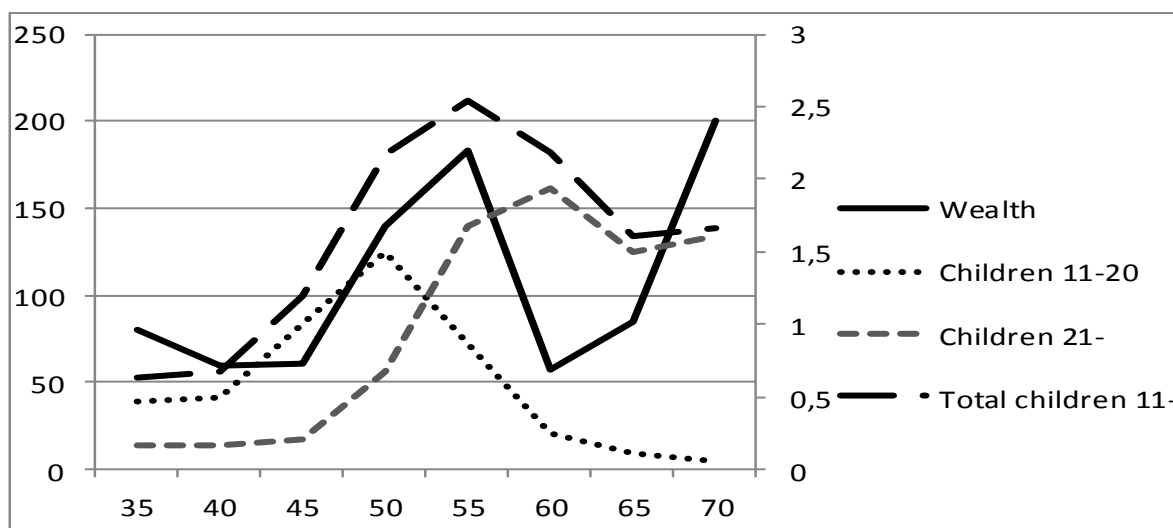
real estate. The latter was not even significant.<sup>31</sup> In contrast to artisans young workers seem to have had very few assets. Debts were small, too, and surpluses if any were probably used to buy personal property as young workers seldom owned real estate.

When workers were in their forties debts rose. At that age income most likely reached its maximum.<sup>32</sup> In spite of this many workers seem to have acquired debts in order to be able to buy minor real estate of some sort (a house or a small plot of land to grow vegetables for example). Seemingly the workers prioritized real estate instead of personal property as medians for the latter were very low for workers aged 40-45 years. The result was that wealth was very low, too (Table 2). Was this early adulthood squeeze a consequence of extra costs connected with raising a family?

The number of small children (0-10 years) was at its maximum when the husband was around 40 years old. A regression analysis shows that debts were significantly higher for families with children aged 11-20 years and that the presence of children up to 10 years was nearly significant. Our conclusion is that children for workers in contrast to artisans were an important determinant of the early adulthood squeeze.

Considering that most male workers reached their maximum earning capacity early in life, we suppose that income from children was important for family wealth later in life. Seemingly wealth reached a peak when workers were in their fifties (Table 2). At that age few families had small children but more often youngsters or adult children. Figure 1 shows that the number of children aged 11-20 years was at its highest level when the husband was circa 50 years old and that the number of adult children peaked ten years later. Summed up the number of children older than 10 years was at its highest at the same age as wealth culminated. On the whole it seems as if there was a rather strong covariance between wealth and the number of children older than 10 years (Figure 1). Our interpretation is that youngsters

Figure 1 Median wealth (left axis), and mean values for the number of children 11-20 years, the number of children 21- years and the total number of children 11- years (right axis). Workers, riksdaler riksgälds



Source: See Table 2.

<sup>31</sup> Correlation between assets and debts was  $r = 0.29^{***}$ , between real estate and debts  $r = 0.13$  and between personal property and debts  $r = 0.30^{***}$ .

<sup>32</sup> Haines 1979, pp. 299-302.



and adult children were important economic resources for workers and made the asset management of families easier. Regression analysis also shows that families with adult children had significantly more wealth and more assets than other working-class families (Appendix). In this case a differentiation between girls and boys did not affect the results. According to the regression analysis children aged 11-20 years had no significant influence on wealth (Appendix).

Figure 1 also illustrates the retirement squeeze. Wealth decreased sharply in the sixties, perhaps as a consequence of adult children leaving home and no longer paying part of their income to their parents. However, it seems as if workers older than 60 years without children had greater difficulties to manage their livelihood. Median wealth for them was only 69 riksdaler riksgälds while median wealth for those with children was 113 riksdaler riksgälds. The results should not be over-interpreted as there were very few families without children.<sup>33</sup> Nevertheless, the outcome is in accordance with findings showing that children were supporting their parents economically in old age.<sup>34</sup>

Is it possible that the causal connection was the other way around, meaning that only the wealthier working class families had opportunities to raise children? We do not believe that this holds true. As already mentioned the results show that families with small children had greater debts (nearly significant) and those with adult children had greater assets (significant). We mean that this shows that working class families incurred debts when children were small, assuming that incomes from the children could be used to accumulate assets and pay off debts later in life. This is also indicated by a regression analysis where we only differentiate between small children (0-10 years) and children older than 10 years. In this case wealth was affected negatively by small children and positively by older children. The coefficients were significant.

## Conclusion

This investigation confirms that also in pre-industrial time squeezes occurred during the life cycle. Asset management, as well as having children, could have effects on these squeezes. Incomes were low and economic surpluses small. As a consequence debt-incurrence was important to navigate the family economy during a lifetime. The study confirms that artisans and workers had different opportunities in life. Artisans were incurring great debts early in life and this coincided with having a family and starting a business. Seemingly the latter was most decisive for debts and wealth during the early adulthood squeeze. When children grew older and became able-bodied wealth increased probably as an effect of children's income.

For workers the early adulthood squeeze seems to have been more a consequence of having a family. Probably this made it necessary to buy some sort of real estate and thereby debts rose. Children's negative impact on family wealth was reversed when they became older than 10 years and family wealth consequently increased despite the breadwinners' decreasing incomes.

Both artisans and workers had a retirement squeeze in their sixties. This coincided with decreasing working capacity and children moving away from home. For artisans this squeeze was deeper if they had adult boys, while it was milder for those with adult girls. For workers children generally seem to have made this crisis easier to overcome and also to have had a positive economic impact on old age.

Our final conclusion is that in the beginning of the nineteenth century children's incomes were important for the family economy and made asset management easier during the family life cycle.

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<sup>33</sup> Among those families where the husband was older than 60 years 24 had children and 8 had no children.

<sup>34</sup> See also Alter 1996, pp. 131-134.

## Appendix

### Regression analysis of artisans' and workers' wealth

Independent variable	Artisans		Workers	
	Coefficient	T-Statistic	Coefficient	T-Statistic
C	5.41***	16.43	3.55***	9.22
LNdebt	0.129***	3.37	0.141***	3.31
Male	-0.58**	-2.19	0.66**	2.10
Widowed	-0.97***	-3.22	0.19	0.55
Eskilstuna	0.36	1.38	-0.13	-0.24
Falun	0.62*	1.86	0.47	1.64
Dch0-10	-0.16	-0.61	-0.35	-1.08
Dch11-20	0.50*	1.98	0.13	0.42
Dchad	-0.14	-0.54	0.80**	2.48
	N = 121, R <sup>2</sup> = 27.2%, F = 5.24		N = 107, R <sup>2</sup> = 25.2%, F = 4.13	

\*= Significant at the 10 per cent level.

\*\*= Significant at the 5 per cent level.

\*\*\*= Significant at the 1 per cent level.

Source: See Table 2.