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Swedish Income Distribution and Wealth Concentration 1900-1985

The interconnection between data and contemporary news outlets

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Abstract

This paper holds a study of Swedish inequality from 1900-1985 with specific focus on the half-decades of 1900-1905 and 1980-1985. Subsequently constructed data and contemporary news outlets are presented to develop further understanding upon how inequality was depicted in comparison to data. Through a comparison of the time-periods, the developed understanding and changed stance of the public on the issue of inequality is examined. This method of examination gives new insight upon how the widening knowledge of inequality during the 1900s, through the development of micro-economic measurements, as well as more complete tax returns, has affected the depiction of the issue. The results of the study suggest that news articles of the latter period (1980-1985), tend to be more data-based than during the former time-period, where general assumptions were more frequent. It additionally suggests that the decreased inequality over the 20th century did not lessen the discussion of inequality, but rather the opposite. The news articles furthermore do not discuss inequality in relation to the presented data - the long-term changes are not clearly stated in the news outlets - but are in conclusion unconsciously considered, through the general knowledge of current inequality, through tax levels etc.

Keywords

Income distribution, inequality, capital concentration, 20th century, 1900s, long-term development, data, income, wealth, distribution, top decile, top percentile, 1900-1905, 1980-1985.

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1. Introduction

Since the beginning of the industrial revolution there has been global divergence, followed by converging tendencies over the last couple of decades. Sweden has, in the national perspective, endured a similar development. Though its relatively late industrialization, inequality in Sweden at the turn of the 20th century was much like other developed countries. Entrepreneurs and business owners had created a new upper class, which held a substantial part of the total private capital. Their working capital had created work opportunities for the working class, but had at the same time been used to depress wage gains to keep their margins high.¹

In the early 20th century the working conditions of the working class were on the other hand improving. In 1889 The Social Democratic Labor party (Socialdemokraterna) was founded, and in 1898 the Central Trade Union organization (LO). This was part of a large shift, the labor movement, leading to stronger negotiation power for the working class. The development of equal voting rights, first applied in the 1920s, created an information setting over the issues of inequality, which was different from what it had been previously. As inequality became an issue of wide debate, contemporary news outlets increasingly started addressing the issue.²

The transformation of the Swedish political scene during the first half of the 20th century, meant momentous changes to the societal structure of the country. As illustrated by the data of this paper, the shifts in income distribution and capital concentration were no exception. During the latter half of the 20th century however the divergence slowed. The tendencies were again rather of convergence, as the superior political power of the left parties decreased.³

Throughout the 20th century the grand clashes on inequality were mainly held on the political scene, between the left parties and the right, often through political blocs formed by the parties of parliament. The more direct issues between employers and employees were instead fought through the organization's LO representing Swedish employees and The Swedish Employer Association (SAF) representing the employers. The Swedish population, consisting

¹ Roine, Vlachos and Waldenström (2007) p. 20-23 and 28-30

² Edgren and Olsson (1989) p. 69-70 and 76. "1980-1999" Landsorganisationen i Sverige.

³ Statistik riksdagsval 1900-1985, Statistiska centralbyrån.

of both employers and employees of course, could through the written and spoken word take part in the discussion, as illustrated by speakers and writers. The general population however, had little firsthand knowledge of the issue, and instead relied on the already limited knowledge and statistics of the contemporary enlightened.⁴

This paper can best be summarized as a study of written sources and data, which are compared and combined to develop a deeper understanding of the interconnection between the two, in relation to the issue of inequality in Sweden during 1900-1985, with a particular focus on 1900-1905 and 1980-1985. Regarding organization, the paper has been divided into three main sections. The first section is comprised of an introduction, which includes the background on the area of the study, as well as further information on the composition of the paper. In the second section, the results of the study are presented through reconstruction and recombination of earlier constructed sources. The new findings that result in the new method of source usage, are then presented in the third section, followed by a reference list in section four.

1.1 Aim, research questions and limitations

The purpose of this paper, is to illustrate potential differences between actual income distribution and capital concentration, to the contemporary views of the Swedish population between 1900-1985. The ambition of this study is to depict how contemporary news outlets addressed income distribution and capital concentration; to compare numerous sources depicting multiple political influences; and to compare these with subsequently constructed data. To fulfill the stated purpose the following research questions are examined:

1. What are the contrasts of contemporary news outlets depiction of income distribution and capital concentration, to that of subsequently constructed data?
2. In what way has the interpretation of income distribution and capital concentration in contemporary news articles changed between the two time-periods (1900-1905 and 1980-1985), in relation to the development presented through data?

The primary limitations made in this paper are of time and place; with a specific focus on Sweden, and the time-periods of 1900-1905 and 1980-1985. In constructing this study and discussing the results, these limitations will be taken into consideration accordingly.

⁴ “1980-1999” Landsorganisationen i Sverige. Start of article; *Moderaternas livsluft är konfrontation: viktigare hindra...* (1981-05-07) Dagens industri. Title; *Vår tids industriella utveckling* (1905-05-11), No. 19A, Affärsvärlden

These limitations on the other hand enables a closer study on the specific time-periods, allowing a closer view of the debate around the given issue in a way that has not been done previously. The reason for studying these specific periods is for the sake of the purpose of this paper, which can best be examined in studying two periods where there in between has been a national divergence in relation to inequality; which is the case in Sweden between these time-periods. An argument can be made for examining the period 1905-1910 instead of 1900-1905, due to the more prevalent data during 1905-1910. As this is only the case for data however, where the long-term development is examined, this will not affect the results. The period 1980-1985 is examined to avoid the financial crisis, which created an abnormal environment for news presentation.

1.2 Earlier research

There has been a lot of research on the area of income distribution and capital concentration; there has however been less research done on how subsequently constructed historical data compares to contemporary depictions. As a result, the presented earlier research will mainly serve to illustrate the depictions made through data, whereas this study will allow a closer look into the contemporary debate in the examined time-periods.

Thomas Piketty is an economist with a specific focus on inequality of wages and wealth. He, like many other economists studying inequality in the historical perspective, tend to use data sets of top decile and percentile income and wealth. Piketty argues that studying the top income and wealth individuals is a logical method, as income tax records of the wealthy are more complete.⁵

Piketty furthermore address the structure of inequality. He for example argues that “the two world wars, and the public policies that followed from them, played a central role in reducing inequalities in the twentieth century”⁶. He specifically insists that institutional and political influences have a key role in determining wage and wealth inequality. As a result, Piketty explains; those with political power have a great responsibility in adjusting inequality through income redistribution etc. Representation of the lower classes in the political scene is therefore a determining factor of inequality levels in the long run. The contemporary articles

⁵ Atkinson and Piketty (2007) p. 18-39.

⁶ Piketty (2014) p. 247.

presented in this study display some documentation of the political debates on inequality in Sweden during this time; this invites the possibility of examining the applicability of Piketty's theory, included through a shorter section in the conclusion.⁷

The Chartbook of Economic Inequality is an attempt at summarizing the inequality of 25 countries from 1900-2015, including Sweden. Multiple authors have contributed to completing this chartbook, most notably Tony Atkinson, who was a well-known professor, specialized in inequality. The data on the first few decades of the 20th century is, same as with other sources, relatively limited.⁸

The data sets of the early 20th century are mainly of the share of top 1 percent in gross income. For the year 1903 the data suggests that the top 1 percent share was about 27% of total gross income. For the period 1980-1985 the top 1 percent's share was between 4-4,1%. According to their assumption that a lower percentage equals "less inequality", this factor exclusively suggests a significant decrease in income inequality as a result of top 1 percent gross income.⁹

The data of the top 1 percent's share in total net wealth is likewise limited during the beginning of the 20th century. For the year 1908 (first year in the data set) the data suggests that the top 1 percent share was 53,79% of total net wealth. For the period 1980-1985 there are two data points, in 1983 and 1985 which shows the top 1 percent share to be 17,7% and 16,5% respectively. This suggests about a threefold decrease in wealth inequality as a result of the top 1 percent's total net wealth.¹⁰

Lennart Schön was a professor in economic history with a specific focus on Sweden, and has been one of the main contributors to the field. His studies of societal development over time includes many theoretical explanations to shifts in the distribution of income. Schön for example discuss "The Swedish model" during "The Golden Age of Growth" (1950-1975) as a big driver of compressing the wage inequality. During a time of great growth, Schön

⁷ Piketty (2014) p. 247-257.

⁸ Atkinson, Hasell, Morelli, and Roser (2017) p. 2.

⁹ Atkinson, Hasell, Morelli, and Roser (2017) p. 51-52.

¹⁰ Atkinson, Hasell, Morelli, and Roser (2017) p. 51-52

describes how the new labor market program resulted in negotiations between trade unions and the employer organizations, leading to increased wages for low paid workers.¹¹

Jesper Roine and Daniel Waldenström are two economists who has collectively written numerous papers on historical equality in Sweden. In their studies of the early 20th century they have struggled to find considerable data over income and wealth across the entire population. As a result, they have mainly focused on the top decile and percentile.¹²

In the early parts of the 20th century, they do not tend to use the gini coefficient as a measurement of inequality. They argue that the lack of data makes it difficult to get adequate results through this method. Instead, they use data from later time-periods and conclude that changes in top income shares of total income, has a generally high correlation with the gini coefficient, and therefore a high correlation with the level of inequality. This suggests that top income shares are a good indicator for illustrating inequality, when other data is limited.¹³

Magnus Henrekson and Mikael Stenkula are two economists who have worked together on multiple papers at “Institutet för näringslivsforskning” (Research institute of Industrial Economics). In their paper, *Swedish Taxation since 1862: An Overview* they identify a longterm increase in the tax-to-GDP ratio during the 20th century. They additionally present the composition of total tax returns, which suggests that the income taxes as a part of total taxes were about 28-37% in 1900-1905 and then increased up until the midcentury, whereas it decreased to stand at about 42-44% between 1980-1985.¹⁴

In relation to inequality in Sweden, Henrekson and Stenkula argue that the influence of the tax system has increased in the long run.

“... 150 years ago, the dominant perspective held that tax revenue should be used to cover - chiefly military - expenses, and budget surpluses or deficits should be avoided. Currently, the tax system is used to not only raise needed revenue to finance government expenditure but also alter income distribution, stabilize the business cycle...”¹⁵

Without specifying the shorter-term alternations of tax revenue uses, they suggest that increased tax revenue as a share of GDP over time, generally made way for new types of

¹¹ Lennart Schön (2007)

¹² Roine and Waldenström (2005 and 2015)

¹³ Roine and Waldenström (2015) p 31-34 and 115-116 (figure 7 and 8)

¹⁴ Henrekson and Stenkula (2015) p. (1–2, 6, 13–14) and “Revenue statistics – OECD countries”, OECD Statistics.

¹⁵ Henrekson and Stenkula (2015) (p.14)

government expenditures. As expressed in the studied contemporary news outlets, taxes are a widely discussed topic in relation to inequality issues. The studied news outlets however, tend to focus on specific and current changes in the tax system, and less on the tax system as a whole and its long-term developments. Similar studies to that of Henrekson and Stenkula are therefore uncommon to spot in contemporary news outlets.¹⁶

Henrekson has additionally written the paper *Taxation of Swedish Firm Owners: The Great Reversal from the 1970s to the 2010s*, which includes a study of the contemporary depiction of the general public's view of individual wealth derived from business activity. Henrekson concludes that the acceptance of individual wealth has become less contentious "over time" (during the studied period of 1970-2010).¹⁷

1.3 Method, sources and demographics

This study is of a descriptive nature, in the sense of the intended method of compiling news articles and data to reach a conclusion. The discussion in the news outlets around the issue of inequality often tend to involve a discussion of taxes and tax-levels, as a tool of redistributing income and wealth. The study in its full will as a result greatly involve taxes, as they are also the underlying subject for the presented data.

First, the data on income distribution and capital concentration of Sweden during 1900-1985 is examined. By using subsequently constructed data sets, the income distribution and capital concentration during the two time-periods is presented with new statistics compared to that of contemporary news outlets.

Secondly, contemporary news outlets are used to illustrate the contemporary depiction of income distribution and capital concentration. By examining how contemporary news outlets discuss these issues, important insight can be gained on how the information distributed to the public on the issue, relates to what subsequently data suggests.

During the former five-year period, there is relatively limited data on income distribution and capital concentration. As a result, the presented data will not be limited to one calculation

¹⁶ Henrekson and Stenkula (2015) (p.14)

¹⁷ Henrekson (2017)

method, such as the gini coefficient. Due to the taxation methods in the early 20th century, a commonly used method to calculate income distribution and capital concentration is using data on income and wealth of the richest decile and percentile. This study similarly uses this method, relating income and wealth of the richest to the entirety of the population.

During the second five-year period, 1980-1985, similar calculation methods will be used to that of the formerly studied period. Though there is more complete data of this time-period, the accuracy in presenting the development between the two time-periods will suffer, if data collection methods are too scattered. With this said, some previous research has suggested a high correlation between changes in the top earners share of total income and the gini coefficient, which is likewise examined in this study.

Contemporary news outlets, in the form of news articles, are presented in the second and third part of the study. In examining articles of two time-periods, potential changes over time in the attitude towards, and depiction of actual income distribution and capital concentration can be distinguished. The goal is to affirm the contemporary depiction of income distribution and capital concentration, and study its relation to the most reliable data available. The news articles are furthermore used to gain an understanding of how the issue of inequality was described to the public. They are in other words not meant as the main tool of understanding actual wage and wealth equality, which is instead to be portrayed through data.

The selected method is in no way absolute, it has however been carefully selected to attempt to reach a reasonable conclusion in relation to the expressed purpose of this study. This study could have been conducted differently, using dissimilar sources to examine the same questions. The chosen sources are however in conformity to the applied method, to attempt a complete conclusion, within the limitations of the study.

The demographic factors studied in this paper are distribution wise of wealth, income and interests (in the topic of inequality) as well as population size. Population size, income and wealth, are all crucial factors in calculating income distribution and capital concentration, as the income and wealth of the top decile and percentile as a part of total population, lay the grounds for the presented data. The interests of the Swedish population are not studied separately, but is nonetheless a factor which will be discussed in relation to the presented data, as well as the contemporary understanding of income distribution and capital concentration.

1.4 Source application and criticism

The sources of this study are a combination of data on income distribution and wealth concentration, as well as news articles of the contemporary time-periods. The presented data will be based on collections from earlier studies.

The data is selected based on the largest amount of underlying tax records examined, in order to perceive a complete and painting picture through the data. The reliability of the authors presenting the data are also carefully considered, through a study of their backgrounds, as well as underlying sources. For the top 1 percent share of total wealth and income (presented in figure 1) the data is collected from *The Chartbook Of Economic Inequality*. Their data for the time-period 1900-1985 is in turn a summary of data from Roine and Waldenström (2010) for top income shares and Roine and Waldenström (2009 and 2015) for wealth inequality. The data on the top deciles share of total wealth is collected from Roine and Waldenström (2007).

For the top decile income share, the *World wealth and income database* is used. It is an organization providing a large database on the historical evolution of distribution of income and wealth. They collect data through a large number of different sources. The used data of this paper was collected from Roine and Waldenström (2010) and Atkinson and Piketty (2010).

As a substantial amount of the presented data can be traced back to data sets created by Roine and Waldenström the data of this study heavily relies on the data collection methods of these authors. As introduced earlier, Roine and Waldenström tend to use the common method of studying the top decile and percentile income and wealth shares of total income and wealth. The main reason, is the limited number of sources over income and wealth of the rest of the population, as the tax records of the 20th century generally kept better track of the rich. The data sets are created through income tax records, estate- and wealth tax data etc. For the early parts of the 20th century, incomplete tax records have in some cases required partly calculated estimates. In multiple papers, they also point out that tax records may be somewhat misleading due to tax evasion.

The examined news articles are of three different news outlets, *Affärsvärlden* for the period 1900-1905 and *Dagens Industri* as well as *Tidningarnas telegrambyrå* for the period 1980-1985. Other news outlets have furthermore been examined; but have been excluded from

the study due to lack of relatable content. The selection of news outlets is in other words mainly based on the factor of most relatable content. The selection of news articles within each news outlet is likewise based on most relatable content, as well as arguments of different societal ideologies. The number of articles examined from the used news outlets are as follow:

News outlet	Articles examined	Articles presented
Affärsvärlden	82	4
Dagens industri	24	2
Tidningarnas telegrambrå (TT)	37	3 (7)
Total	143	9 (13)

Figure 1: Examined articles

Note: The number of referenced articles are nine; there is however multiple articles from Tidningarnas telegrambyrå under the label “Skattefusks” (5), which were presented collectively. This is presented to clarify why there are significantly more news articles retrieved from TT.

The news articles are used to illustrate the subsequent depiction of inequality. While the presented news articles cannot be equated to the public, it is arguably the best method of understanding the knowledge and thinking of the contemporary population.

Affärsvärlden was at the time a business news outlet mainly aimed at the upper class, which is illustrated partly by their way of writing, but perhaps even more by the advertising. The advertisements of *Affärsvärlden* are clearly angled at upper class men, as advertisements of gentleman's clubs, cigar clubs for men etc. are the common type of advertisement.

Dagens industri, similarly to *Affärsvärlden*, targets the upper class with its advertisements. This would suggest that the intended readers are upper class citizens. As suggested by the business jargon, it is aimed at readers with knowledge over the business sector.

The articles presented from *Tidningarnas telegrambyrå* propose a very impartial stance on topic of inequality. As the presented articles are either informative or summaries on already constructed studies, the authors subjective opinions should in theory have a limited effect. The largest issue of partiality in the presented studies is likely of the LO-study, which presents the income levels of employees in different sectors, based on their trade union

memberships. As the members of the organization LO mainly include low wage workers, the risk of partiality is substantially higher.

2. Swedish income and wealth inequality

The presentation of this study is divided into three subsections. First, the data on income distribution and capital concentration over the two time-periods is examined. In the second part, contemporary news articles during the period 1900-1905 are presented. The articles presented are those of relation to income and wealth distribution; such as tax related news, news on wage inequality etc. In the final part of the body, contemporary news articles of the period 1980-1985 are presented, giving an insight into the general interpretation and understanding of wage- and wealth inequality during this time-period.

2.1 Data presentation

This subsection mainly involves data, and discussions around the presented data, based on previous research on the use of similar data sets. The purpose of this discussion is not to draw conclusions in relation to the research questions, but rather to present the actual meaning of the data and how it may be interpreted.

There is limited data on economic inequality in Sweden during the first half of the 20th century. The data that exists is mainly comprised on the income levels and wealth of the top decile and percentile. As a result, the presented data involve the top percentile and decile wealth and income as a share of the total, for all Swedish citizens.

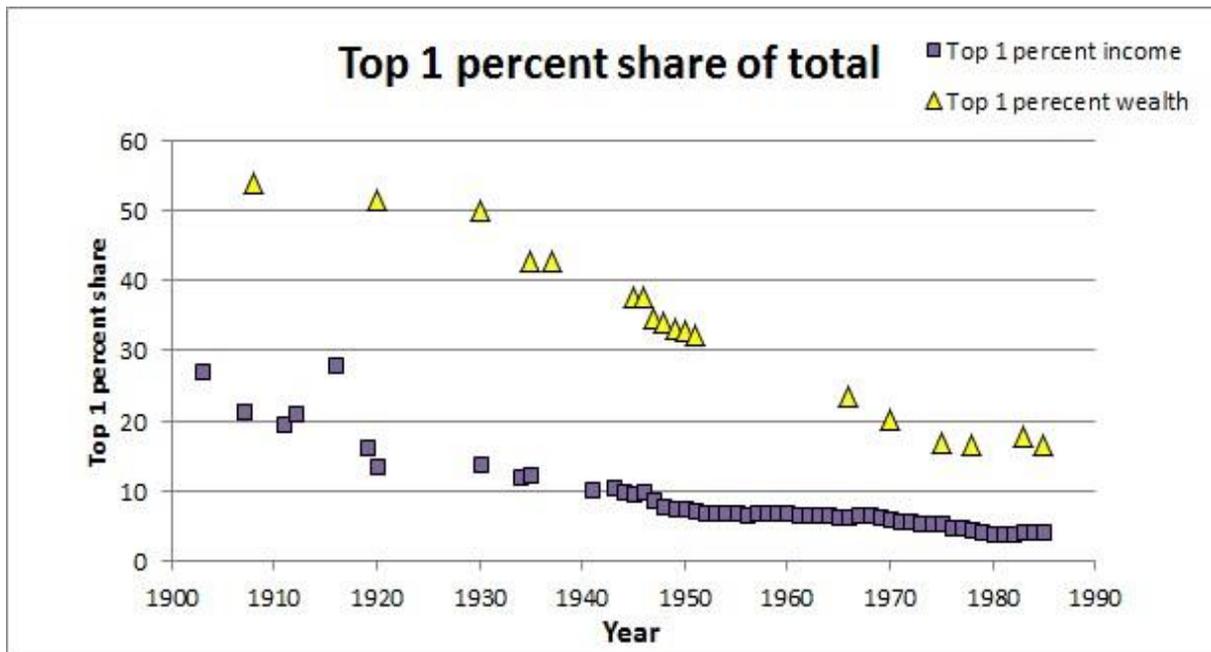


Figure 2: Top percentile share of total wealth and income (1903-1985)

Source: Atkinson, A. B., Hasell, J., Morelli, S., & Rosser, M. (2017).

Note: The presented data, going back to the early parts of the 20th century are of share of top 1 percent in gross income, and share of top 1 percent in total net wealth. In the first half of the century the number of data points are scarce due to inadequate data. For top 1 percent income shares the data points start from 1903 and gradually increase in frequency, to be reported yearly from 1943 and onwards. In 1971 the tax unit changed. The period before 1971 is calculated with joint tax returns, and from 1971 and onwards with individual tax returns. The top 1 percent share of total net wealth is first represented as late as 1908, and keeps a sporadic frequency throughout the period.

The presented data suggests that the top percentile share of total net wealth and total gross income has decreased over the examined time-period (figure 2). The decrease of the top 1 percent's income share of total gross income is about twenty-nine percentage points between 1903-1985, suggesting a large decrease in the gross income inequality of Sweden. The decrease of top 1 percent's share of total net worth is about thirty-seven percentage points between 1908-1985, showing a larger percentage point decrease in total net wealth inequality than in gross income inequality.

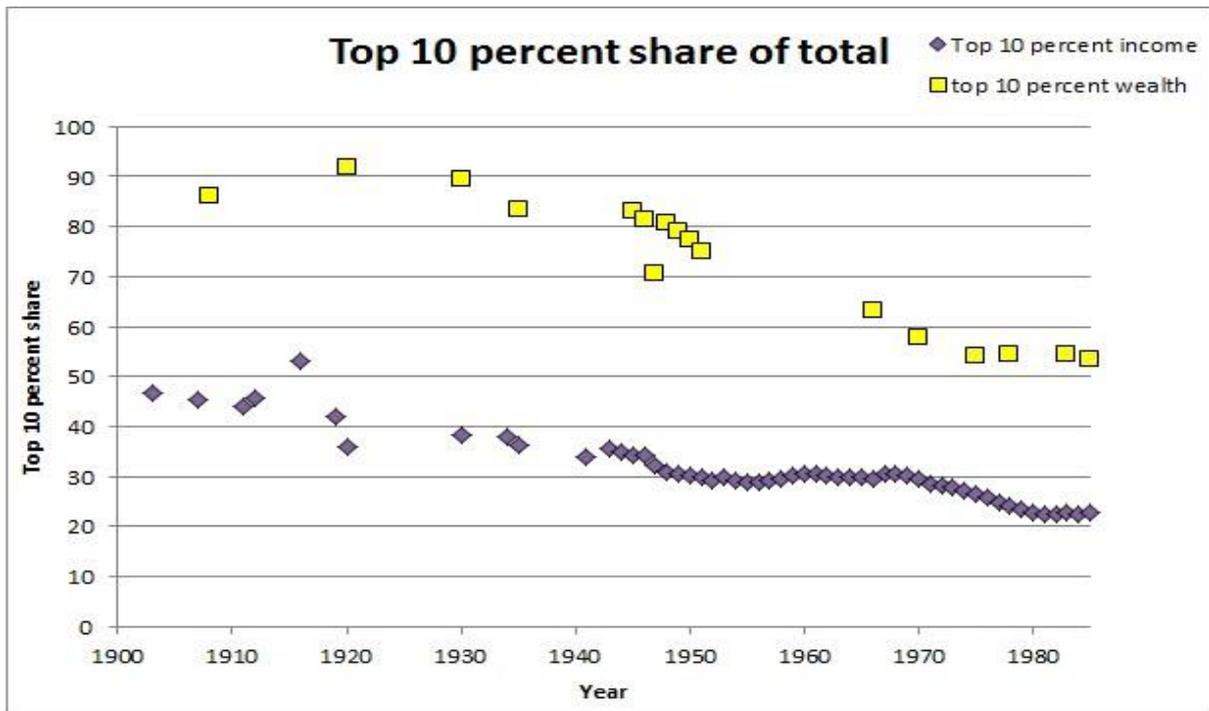


Figure 3: Top decile share of total wealth and income (1903-1985)

Source: Roine and Waldenström (2007) and *World wealth and income database*.

Note: The data on the top wealth decile is gathered from Roine and Waldenström, and is expressed in net market valued wealth. The data on income is gathered from the *World wealth and income database* and is expressed in fiscal income, or in other words, taxable income.

The data suggests a decrease in the top decile share of total wealth and income over the illustrated period. The decrease in net marketable wealth is about thirty-two percentage points over the period 1908-1985 (figure 2). The decrease of top deciles share of total fiscal income amounts to about twenty-four percentage points.

Figure 2 and 3 suggest a larger decrease in income inequality than in wealth inequality over this time-period. It furthermore suggests a larger decrease in the top percentiles share of total income and wealth compared to that of the top decile.

It should be noted however that this data is based on data sets using different calculation methods. The different wording for example, of gross income and fiscal income, as well as net marketable wealth and net wealth, should theoretically however not result in any unwanted deviations, as the terms can be used synonymously.

It should furthermore be noted that the decrease of top share of total wealth is calculated for the time-period 1908-1985, while the decrease of top share of total income is calculated from the time-period 1903-1985. Assuming that there was no large divergence or convergence in wealth concentration between 1903-1908 the presented long run tendencies are however relatively unaffected by this factor.

In several studies Roine and Waldenström, as well as other authors, examine the relationship between top income data and other measures of inequality. They illustrate that their data suggests a relatively high correlation between the gini coefficient and the top deciles income share of total gross income. A similar examination is presented in figure 4 and 5.¹⁸

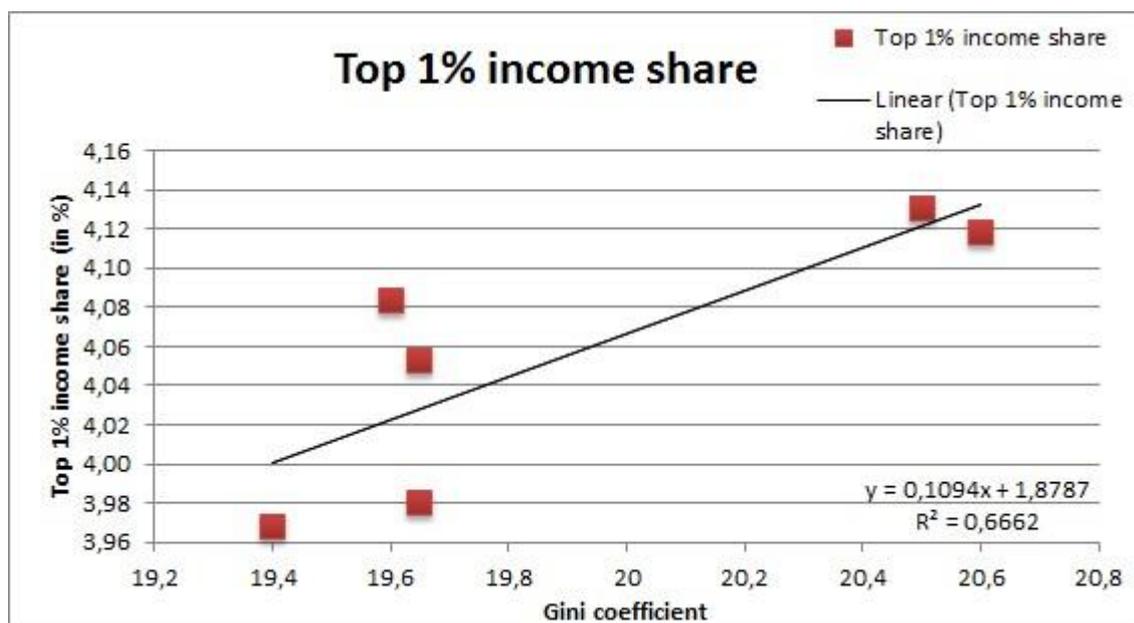


Figure 4: Top 1% income shares, correlation to the gini coefficient 1980-1985

Source: Brandolini, A., (1998) and figure 2.

Note: The R^2 measurement of 0,6662 illustrates that 66,22% of the movement in top 1% income share of total income can be attributed to the gini coefficient. The data for top percentile share of total income was gathered from figure 2. The data on the gini coefficient was collected from Brandolini (1998).

¹⁸ Roine and Waldenström (2015) p 31-34 and 115-116 (figure 7 and 8).

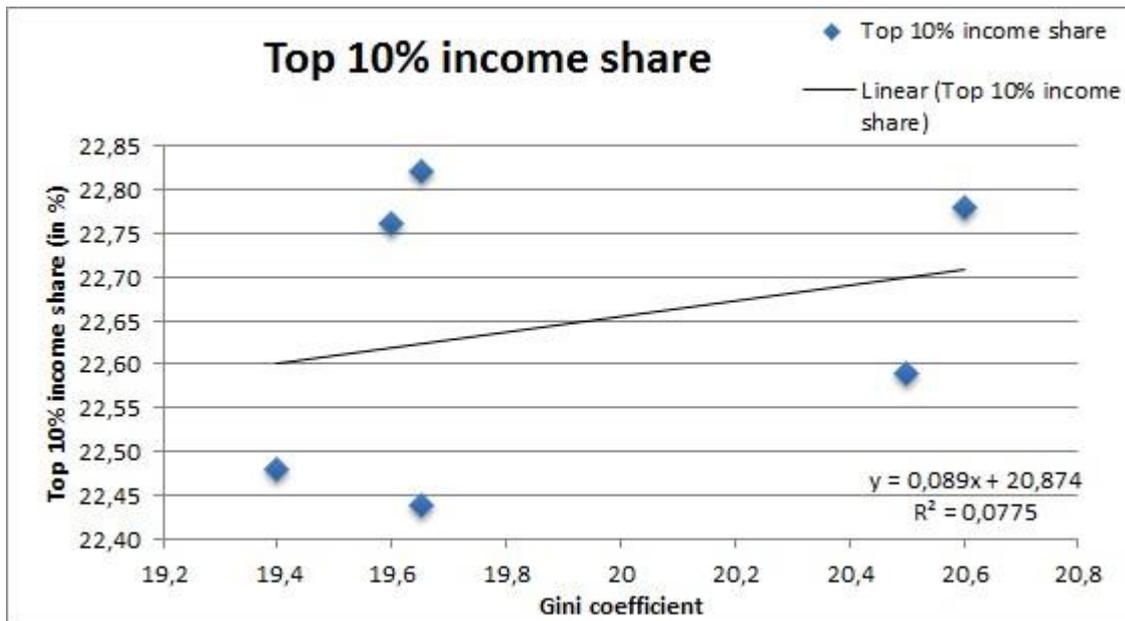


Figure 5: Top 10% income shares, correlation to the gini coefficient 1980-1985

Sources: Brandolini, A., (1998) and figure 3.

Note: The R^2 measurement of 0,0775 illustrates that 7,75% of the movement in top 10% income share of total income can be attributed to the gini coefficient. The data for top decile share of total income was gathered from figure 3. The data on the gini coefficient was collected from Brandolini (1998).

The calculation method of the data samples of figure 4 and 5 notably uses different calculation methods than Roine and Waldenström. The data points are furthermore a lot fewer, which should be considered before drawing any conclusions from it. The reason for excluding the earlier examined period, 1900-1905, is that lack of data unables usage of the gini coefficient in the beginning of the 20th century.

Figure 4 and 5 suggests that there is a larger correlation between the gini-coefficient and the top 1% income share, than between the gini-coefficient and top 10% income share. The reason is likely because of the relatively few data points examined; this should in other words not be the case in the long-run. As the combined correlation is no more than moderately close, the accuracy of using taxes to calculate inequality may not give the full picture, which need to be considered before drawing any conclusions in relation to the data presented in figure 2 and 3.

2.2 News articles 1900–1905

The general discussion in *Affärsvärlden* during this time-period, is of the dangers of disfavoring businesses and business owners on the one hand; and the dangers of a free markets effects on purchasing power and inequality on the other. In the news articles *Faran af för höga direkta skatter* the author calls forth an example of a Norwegian shipping company moving their headquarters to Sweden to avoid the higher taxes in Norway. In relation to this, the author cites another news article in *Örebladet*, which harshly cranks down on the new proposition of expanding the Swedish tax system and increasing its progressivity. The news articles suggest that increased taxes worsen Sweden's competitiveness to retain and attract competent workers and businesses.¹⁹

In the news articles *Vår tids industriella utveckling* the author discuss how wealth is becoming more and more concentrated, one reason as illustrated, is the large industries permeating smaller once, making the amount of rich people fewer. The poor, the author says, are at the same time becoming even poorer and more outspoken. The author describes how socialists argue that the problem is getting even worse while capitalists claim that socialists are miscalculating inequality, by overstating the devastation of the middle and lower classes. The author formulates a personal openness to the discussion of capitalism leading to unwantedly large inequality, the author concludes however, that this is not a big enough problem yet for any substantial changes to be necessary.²⁰

In relation to the news articles presented above, the article *Inkomstskatteförslagets innebörd* illustrates the new proposition on income taxes. This proposition is presents in figure 6, illustrating the actual tax proposition discussed in the news article presented above. The income tax proposition of 1902 was later also adapted into the financial plan of the Swedish government.²¹

¹⁹ Title; *Faran af för höga direkta skatter* (1902-04-11), No. 15, *Affärsvärlden*.

²⁰ Title; *Vår tids industriella utveckling* (1905-05-11), No. 19A, *Affärsvärlden*.

²¹ Title; *Inkomstskatteförslagets innebörd* (1902-02-14), No. 7, *Affärsvärlden*. Title; *Den nya inkomstskatten* (1903-04-11), No. 15, *affärsvärlden*.

Income	Tax in kronor	Tax in percent	Income	Tax in kronor	Tax in percent
2 000 kr	10 kr	0,5%	11 000 kr	145 kr	1,3%
2 500 kr	15 kr	0,6%	12 000 kr	165 kr	1,4%
3 000 kr	25 kr	0,8%	15 000 kr	225 kr	1,5%
3 500 kr	30 kr	0,9%	18 000 kr	300 kr	1,7%
4 000 kr	40 kr	1,0%	20 000 kr	330 kr	1,7%
4 500 kr	45 kr	1,0%	25 000 kr	500 kr	2,0%
5 000 kr	50 kr	1,0%	30 000 kr	650 kr	2,2%
5 200 kr	53 kr	1,0%	40 000 kr	1 000 kr	2,5%
5 500 kr	57 kr	1,0%	50 000 kr	1 450 kr	2,9%
6 000 kr	65 kr	1,1%	60 000 kr	1 950 kr	3,3%
6 500 kr	72 kr	1,1%	75 000 kr	2 700 kr	3,6%
7 000 kr	80 kr	1,1%	100 000 kr	3 950 kr	4,0%
7 500 kr	87 kr	1,2%	150 000 kr	6 950 kr	4,6%
8 000 kr	95 kr	1,2%	200 000 kr	9 950 kr	5,0%
9 000 kr	110 kr	1,2%	≤ 205 000 kr	10 250 kr	≥ 5%
10 000 kr	125 kr	1,3%			

Figure 6: The proposition for a new income tax 1902

Source: *Inkomstskatteförslagets innebörd*, (1902-02-14), and *Den nya inkomstskatten*, (1903-04-11), *Affärsvärlden*.

Note: This data set illustrate the 1902 proposition for a new income tax. The tax in percent is rounded to one decimal place.

2.3 News articles 1980–1985

The presented articles from *Dagens Industri* are first presented, and will mainly involve content of arguments from different political angles and identities, in relation to inequality related discussions in Sweden. The official political stance of *Dagens Industri* during the studied time-period is independent.

The article *Moderaternas livsluft är konfrontation: viktigare hindra....* involves a discussion over the tax debate between the political blocs. The bourgeois bloc (right) argues that the marginal taxes are too progressive, driving down incentives, stimulating tax avoidance etc. The author points out however, that the bourgeois bloc acknowledges the difficulties of altering the marginal tax system, as the political opposition (left) is relatively strong on this point, especially from Socialdemokraterna (The social democratic labor party). The discussion runs

similarly on interest deductions, of canceling out capital income to interest expenditures; where Socialdemokraterna portray the issue as high-income individuals seeking larger deductions.²²

In the article *Rika försvinner, fattiga blir fler. Det är en egendomligt och förvirrande debatt...* the author debates over the issue of large business owners leaving the country to avoid taxes. The author argues that increased tax revenue from wealth taxes, will have a long term negative effect due to the current mismanagement of the tax money, used in investments without any direct or even indirect yield (e.g. the welfare programs). The argument is that excluding private companies from different sectors, as well as taxing wealth; worsen the business environment, and forces the government to induce ineffective solutions for these sectors, such as healthcare etc.²³

The articles in *Tidningarnas telegrambyrå* presented in this study, are publications of contemporary data based studies as well as informative articles on news events. In the data based studies, the underlying sources are represented as to enable consideration to possible partiality.

In the article called *SCB*, a study from *Statistiska Centralbyrån* (Central Bureau of Statistics) on household disposable income compares the years 1979 and 1981, suggesting an uneven development in regard to the demographic factors of age and employment. The study, in simplified terms, concluded that senior citizens saw the largest increase in this time-period, both in real disposable income and wealth. The younger age groups of 20-24 and 25-34 meanwhile saw a decrease in real, both disposable income and wealth.²⁴

The even more interesting findings in the study, was that the “worker family” household’s wealth only accounts for one third the wealth of people with higher employment status (officers). The study suggests that the average officer in 1981 had 226 000 kr to their name, an increase of 31 000 kr from 1979; while “the worker’s” average wealth was 90 000 kr in 1981, a decrease by 11 000 kr from 1979. “The workers” similarly had an average decrease in

²² Start of article; *Moderaternas livsluft är konfrontation: viktigare hindra* (1981-05-07), Dagens industri.

²³ Start of article; *Rika försvinner, fattiga blir fler. Det är en egendomlig och förvirrande debatt...* (1985-09-31), Dagens industri.

²⁴ Label; *Statistiska centralbyrån*. (1984-05-22 02:44), Tidningarnas telegrambyrå.

disposable income of 2 000 kr between the examined years, while the officers had an increase of 12 000 kr.²⁵

In multiple articles labeled *Skattefusk* (tax evasion) the authors discuss a harshening stance from the courts and the Swedish Tax Agency on tax evasion. One article reported that out of 400 audited large corporation around the Malmö area, 321 were in some way evading taxes. Other articles report on political leaders and business owners being forced to pay tax penalties after leaving out part of their income in their tax reports. There are furthermore multiple articles on individuals being sentenced to prison, after avoiding turning in tax reports to the tax agency, such as employer information etc.²⁶

In an article from 1983 labeled *Inkomst* (Income) an LO-study is presented. They present the following numbers of average income in 1981 for individuals with different organization memberships i.e. working in different sectors.

- LO-members average income: 74 600 kr
- TCO-connected individuals' average income: 93 600 kr
- SACO/SR members average income: 129 400 kr

The study furthermore emphasize that LO-members are mainly low- and mid-income individuals; that TCO-connected individuals are widely spread out in terms of wage size; and that most members of SACO/SR are top wage individuals.²⁷

3. Discussion

In this section of the paper, the findings of the study are presented, with a particular focus on the findings with the largest relation to the stated purpose of the study. A comparison of the new findings and earlier research will also illustrate how these findings give new insight into the subject.

²⁵ Label; *Statistiska centralbyrån* (1984-05-22 02:44), Tidningarnas telegrambyrå.

²⁶ Label; *Skattefusk* (1985-12-18 15:05, 1985-11-20 14:18, 1985-07-20 13:01, 1985-04-25 11:52 and 1985-06-08 12:12), Tidningarnas telegrambyrå.

²⁷ Label; *Inkomst* (1983-10-08 09:18), Tidningarnas telegrambyrå.

3.1 First research question

As the presented earlier research illustrate, studies of contemporary sources of this kind is uncommon. The new knowledge developed through this study is therefore, without surprise, mainly of the examined news articles. As illustrated in earlier research, the period 1900-1985 saw considerable decreases in the top decile and percentile share of total wealth and income. Examining news articles with this knowledge, did however present new findings that can be useful to gaining a wider understanding of inequality in Sweden during the 20th century. As these development in many ways contributed to the societal structure of Sweden today, considered one of the most equal countries in the world, any further knowledge may be of great use even today.

The correlation between the depiction of examined contemporary news outlets and subsequently constructed data, is no easy task to evaluate. Starting in the period 1900-1905, earlier research would suggest very limited knowledge of actual inequality depicted in data, based on limited data etc. It can be interpreted then that discussions of contemporary literature should be experience based; that due to lacking data, the discussions would be based on general assumptions. To a certain extent, the presented news articles from *Affärsvärlden* illustrate this to be the case. Special regards should however be taken to the article *Inkomstskatteförslagets innebörd*, which reveal a data-based discussion, partly presented through figure 6. Being able to compare the wording of the authors to actual data, enables a further understanding of the author's view of inequality compared to that of the subsequent data. As illustrated in figure 6 the suggested tax levels of the proposition are between 0,5% and 5% depending on income size. In *Faran af för höga direkta skatter* the author describes the size of this tax proposition to be discouraging, endangering the competitiveness of Swedish businesses. In relation to the inequality in 1900-1905, as represented through the data sets of figure 2 and 3, his resistance to the tax proposition can be described as more valid, than had it been done later in the 20th century, as the tax-to-GDP ratio is higher (as illustrated by Henrekson and Stenkula). The strong reactions to what later in the century would be considered low income taxes illustrate that contemporary writers did have some understanding of actual inequality at the time, and the effects of changes in the tax system.

3.2 Second research question

The contemporary news outlets of the time-period 1980-1985 depict a similar discussion of income distribution and capital concentration, as the news outlets of 1900-1905. The debate on redistribution of capital and income continues on the political scene, with largely the same arguments in regard to liberalism vs. capitalism. The long-term development on the issue of inequality illustrated through the presented data, are in other words not reflected in the studied news outlets. This brings back the argument which was presented in relation to the earlier research of Henrekson and Stenkula; that the studied news outlets tend to focus on specific, current changes in the tax system, and less on the tax system as a whole and its long-term developments. As contemporary literature of the time-period 1980-1985 (*Dagens industri* and *Tidningarnas telegrambyrå*) generally fails to take the long-term developments into regard, the presented data must either be unknown to contemporary writers, or known but voluntarily excluded, from the articles content. So, does contemporary literature depict a contradictory view to subsequently constructed data? A somewhat cryptic answer would be that they fail to take the data into regards, voluntarily or not, the studied news outlets of 1980-1985 fail to illustrate both the long-term development, as well as illustrate the actual inequality as expressed in the top percentile and decile share of total wealth and income. If the authors illustration is contradictory to the data must be a question of further definition, we can however conclude that the discussion tends to be based on various sources, which does not represent the same factors (top percentile and decile), and which fails to represent the long-term development.

The interpretation of fair income distribution and capital concentration has widely changed between the two time-periods, as illustrated by the examined articles. The contrasts could none the less be explained through the use of different news outlets, so the following reflections should be treated with this in mind. The presented news articles however, propose a widely different view on desired measures to affect inequality. The systemic developments between the two time-periods are in this way made clear. The articles on tax evasion suggests an aggressive approach from Skatteverket (The Swedish Tax Agency) on punishing those who do not obey the tax related laws, which was not expressed similarly in the examined news articles of 1900-1905. In contrast to the earlier research of Henrekson (2017) the examined articles present no evidence of a wider acceptance of individual wealth derived from business activity. The personal opinions of the authors may however not correctly represent the general public's view, but should, at the very least, be an indication of it.

The earlier research of Piketty (2014) and Schön (2007) might suggest the best explanation to the changed interpretation of fair income distribution. Piketty argues that institutional and political influence have a key role in determining wage and wealth inequality. Schön meanwhile argues that *The Swedish model*, a result of political efforts, was a large driver of compressing wage inequality from the midcentury and onwards. The political developments between the time-periods 1900-1905 and 1980-1985 may therefore best explain the changed interpretation of fair income- and wealth inequality. This changed interpretation follows a similar pattern to the long-term developments presented through data. It is however so that contemporary literature of the latter period suggests a harsher approach to the subsequent state of inequality, than the contemporary literature of the former period. Again, this conclusion is based on the studied news outlets, which may not depict the beliefs of the general public. It however suggests, that the long-term development towards lower inequality, as presented through data, did not lead to less discussions around the matter. The studied news outlets rather suggest the opposite, an inverse relationship. It could be explained through a generally larger understanding of the issue, as well as growing interest around it. As suggested by the harsher stance from Skatteverket on tax evaders, a changed ideology of the public sector may also be the subject of this development.

3.3 Concluding reflections

It would seem, from the evidence presented in this study, that the contemporary depiction on the issue of inequality moderately changes over the examined time-period. The assumption and ideology based news articles of different political ideologies present similar arguments in both examined time-periods, regarding required changes in the factors of inequality, such as taxes. The data based news articles on the other hand, offer evidence of a change in the depiction of how fair inequality is defined. An involuntary regard to the development presented through data is in other words suggested by this changed depiction. As the tax-to-GDP ratio increases in the long run for example, the discussion of fair tax levels naturally changes also. So because of societal developments, due to changed population sentiments (represented through the political power shifts), the base of the discussion changes. The large societal developments between 1900-1985 are in other words reflected in terms of the depiction of inequality. The depiction of the news outlets does not however follow a linear development in relation to the presented data, as is evidenced by the biased assumption and ideology based news articles.

4. References

4.1 Printed sources

All publication dates of the printed sources are presented in accordance with the ISO 8601 system (YYYY-MM-DD).

Affärsvärlden

Yearly article collection of 1902

Faran af för höga direkta skatter, (1902-04-11). No 15, p.210.

Inkomstskatteförslagets innebörd, (1902-02-14). No 7, p. 94

Yearly article collection of 1903

Den nya inkomstskatten, (1903-04-11). No 15, p. 218.

Yearly article collection of 1905

Vår tids industriella utveckling, (1905-05-11). No 19A, p. 453–454.

Dagens industri

Start of article; *Moderaternas livsluft är konfrontation: viktigare hindra* (1981-05-07).

Retrieved May 15, 2017 from, <http://web.retriever-info.com/>.

Start of article; *Rika försvinner, fattiga blir fler. Det är en egendomlig och förvirrande debatt...* (1985-09-31). Retrieved May 15, 2017 from, <http://web.retriever-info.com/>.

Tidningarnas telegrambyrå (TT)

Label; *Statistiska centralbyrån*. (1984-05-22 02:44). Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; *Skattefusk* (1985-12-18 15:05). Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; *Skattefusk*. (1985-11-20 14:18) Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; *Skattefusk*. (1985-07-20 13:01) Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; *Skattefusk*. (1985-04-25 11:52) Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; *Skattefusk*. (1985-06-08 12:12) Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

Label; “Inkomst” (1983-10-08 09:18). Retrieved May 20, 2017 from, <http://web.retrieverinfo.com/>.

4.2 Non-printed sources

Central trade union organization (LO)

Holmqvist, K., Landstingsorganisationen i Sverige. Retrieved May 22, 2017, from https://www.lo.se/start/om_oss/historisk_tillbakablick/1880_1899.

Holmqvist, K., Landstingsorganisationen i Sverige. Retrieved May 22, 2017, from https://www.lo.se/start/om_oss/historisk_tillbakablick/1900_1919.

Holmqvist, K., Landstingsorganisationen i Sverige. Retrieved May 21, 2017, from https://www.lo.se/start/om_oss/historisk_tillbakablick/1980_1999.

Organization for Economic Co-Operation and Development

“Revenue statistics – OECD countries: comparative tables”. Retrieved May 18 2017, from <http://stats.oecd.org/Index.aspx?DataSetCode=REV>.

Statistiska centralbyrån

Historical election statistics 1900. Retrieved May 22, 2017, from <http://www.scb.se/>.

Historical election statistics 1910-1985. Retrieved May 22, 2017, from <http://www.scb.se/>.

World income inequality database

Historical gini coefficient 1980-1985. Retrieved May 15, 2017, from <https://www.wider.unu.edu/>.

World wealth and income database

Top 10% income share 1900-1985. Retrieved May 12, 2017, from <http://wid.world/>.

4.3 Literature

Atkinson, A. B., & Piketty, T. (2007). *Top Income over the Twentieth Century: A Contrast Between European and English-Speaking Countries*. Oxford: Oxford University press.

Atkinson, A. B., Hasell, J., Morelli, S., & Rosser, M. (2017). *The Chartbook of Economic Inequality*. Institute for New Economic Thinking.

Brandolini, A., (1998) *A bird's eye view of long-run changes in income inequality*. Bank of Italy Research Department, Rome.

Edgren, L., & Olsson, L. (1989). *Swedish Working-Class History*. International Labor and Working-Class History, 35, 69-80.

Henrekson, M., & Stenkula, M. (2015). *Swedish Taxation since 1862: An Overview*. Research Institute of Industrial Economics.

Lundberg, J., & Waldenström, D. (2016). *Wealth inequality in Sweden: What can we learn from capitalized income tax data?* Review of Income and Wealth.

Piketty, T., & Goldhammer, A. (2014). *Capital in the twenty-first century*. Cambridge Massachusetts: The Belknap Press of Harvard University Press.

Roine, J., & Waldenström, D. (2005). 1 *Top Incomes in Sweden over the Twentieth Century*. Economics and Finance No. 602.

Roine, J., & Waldenström, D. (2007). *Wealth Concentration over the Path of Development: Sweden 1873-2005*. Economics and Finance No. 677.

Roine, J., Vlachos, J., & Waldenström, D. (2007). *What Determines Top Income Shares? Evidence from the Twentieth Century*. Research Institute of Industrial Economics.

Roine, J., & Waldenström, D. (2015). *Long-Run Trends in the Distribution of Income and Wealth*. Handbook of Income Distribution vol. 2, Elsevier, Amsterdam.

Schön, L. (2007). *Sweden - Economic Growth and Structural Change, 1800-2000*. EH.Net Encyclopedia