FSM – FINANCE & STRATEGIC MANAGEMENT

PRIVATE REAL ESTATE INVESTMENT VERSUS RENTING AND INVESTING IN STOCKS AND DANISH GOVERNMENT BONDS

MASTER THESIS

Copenhagen
Business School
HANDELSHØJSKOLEN

COPENHAGEN BUSINESS SCHOOL, 2009
AUTHOR OF PROJECT:
ADAM HERSLAND POWERS

FINANCE & STRATEGIC MANAGEMENT
MASTER THESIS
SUBMISSION DATE: 16. FEBRUARY, 2009
SUPERVISOR: KARSTEN BELTOFT

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1 EXECUTIVE SUMMARY

Real estate investment has been a popular subject of discussion for the last decade, especially the rather significant increases in the real estate market prices, which have left many real estate owners with notable equities and sales profits. They suddenly became real estate investors, no matter what the original purpose was that initially made them enter the real estate market.

This Thesis analyses concludes how profitable real estate investment actually has been compared to rental and investment in stocks and Danish Government bonds – both investors with residence in Copenhagen, Denmark. The comparison is seen exclusively from a financial perspective with different allocations and risk preferences. It all begins with an analysis from the year 1978 and ends with the whole of 2007. The total yearly mortgage net expenses minus the total rental expenses made up the "rental excess capital" that the tenant had for investment each year. Relatively high interest rates, inflation, a heavily rising stock index (with no taxation up until 1993) and no actual growth on the real estate market from as long as 1978 to 1997, gave the then still real estate owner – not yet investor - a hard time during the first two decades. These circumstances also affected the subsequent analysed period from 1985 to the end of 1994. Renting and investing triumphed in both 1978 to 2007 and from 1985 to 1994. However, the suffering real estate market gained strength from 1998 up until 2006. Simultaneously, interest rates declined, which was one of the crucial factors influencing the next two analysed periods from 1995 to the end of 2004 and from 1998 to the end of 2007. In both periods, the real estate investor swept the tenant aside, and an interest deduction adjustment in the latter period only embellished the result. The real estate market dominated from 1995 up until 2006, while the previous decades favoured rental and investment in stocks and Danish Government bonds.

If one was to disregard the financial perspective, it is doubtful that many real estate purchases were made purely for this purpose. "Investors" were more likely to want to invest in the feeling of being a home-owner for their own enjoyment, and freedom from rental limitations. The real estate market from 1978 to 1997 experienced no overall increase, and therefore it makes no sense to believe that real estate, exclusively considered as investment, was as prevalent a trend as from 1998 up until 2006. Nonetheless, this Thesis analyses the scenario from a financial perspective.

2 INTRODUCTION

In 2006 almost every single media in Denmark mentioned – on a daily basis – the "golden days" for real estate owners. They gladly commented on, or analysed, the "sky high" real estate prices and their significant movements the preceding quarter. Real estate owners suddenly became "real estate investors", even though all they had done was to live normal lives in their respective homes.

As a result of the relatively high real estate increase in Copenhagen, Denmark during the last decade, private real estate was generally considered a very profitable investment – and even tax free. That created interest in buying private property in a big way! Everywhere and anywhere there was a gathering of people, real estate and enclosed equity became a topic of conversation. Countless people bought their own home – a dream come true. Others bought an apartment for their child or an extra apartment/house for the main purpose of investment, renting it out and making a profit etc. This positive madness trend went on and on. The possibility of the bubble "bursting" in the foreseeable future seemed far from peoples thoughts. But as we all are well aware of at present, the "golden days" have come to an end – at least for now!

An interesting question today is how profitable private real estate investment actually has been when considered it exclusively as an investment, without taking personal advantages and preferences into consideration. The results shall be held against other varieties of common investment opportunities that private households have had the possibility to invest their savings in. It is assumed that such common investment opportunities were financial investments in stocks and Danish Government bonds. One could imagine that being a tenant on the rental market and simultaneously investing in stocks and Danish Government bonds might indeed also have been a sensible/profitable decision. It is due to these facts and speculations that these two strategies are analysed.

The last decade has generally been fruitful for real estate owners and investors in Copenhagen. This is clear. It is, however, very interesting to analyse just how long that has been the case. Real estate has mainly been financed by thirty year mortgage bonds and additional bank loans. Therefore, it is the subject of this Thesis to analyse the "race" between the real estate investor and the tenant during different time periods from 1978 to 2007.

2.1 Problem formulation

This Master Thesis is an analysis of whether private investors should rent or buy their own homes, seen from a financial perspective. The objective is to analyse the historical difference between being a real estate investor, with residence in the respective property, and being a tenant with investments in other common financial assets (both investors with residence in Copenhagen, Denmark). A real estate investor has had multiple mortgage and bank loan payments. Especially the net payments have fluctuated rather widely in relation to interest deduction percentages and mortgage bond conversions. Being a tenant has brought numerous rental expenses, but it is expected that those have been less than the real estate net payments throughout the majority of the period. The difference between the total mortgage net expenses and the rental expenses are considered as "rental excess capital" that the tenant has for her disposal for stock and Danish Government bond investment.

Initially the analysis will strive to clarify and determine which investment strategy that has been most profitable in the time interval from 1978 to 2007, based on historical data. Since there has been a significant fluctuation among the key elements such as interest rates, inflation, deduction percentages, stock index movements, real estate price trends and rental price trends throughout the last thirty years, different entry and exit periods will be analysed in order to give a more realistic picture of the housing situation. Furthermore, different allocations in stocks and Government bonds, respectively, will be taken into account in the analysis in order to cover individual risk preferences.

- Which investment strategy has been the most profitable seen from a financial perspective? Is it Real estate investment or rental and investment in stocks and Danish Government bonds, with different risk preferences?

- Which investments have created the highest return during different time intervals; 1985 to 1994, 1995 to 2004 and 1998 to 2007?

- How would a decrease in interest deduction have affected the situation historically as well as for the future?

2.2 Delimitations of the paper

It will be very naive and ambitious to imagine that all scenarios and situations concerning real estate investment versus rental and investment in stocks and Danish Government bonds can be covered in one Master Thesis, and that is also far from the objective. The subject is very extensive and therefore the part of this Thesis, which pertains to analysis of real estate, has been limited to cover the private real estate market in Copenhagen, Denmark[1]. Additionally, only rental price trend data for Copenhagen has been extracted and applied. Furthermore the private real estate market is reduced to deal with one-family houses and freehold flats, as these are the most common private real estate types, which facilitate the search of statistical data.

Since private investors today have access to an unlimited number of investment opportunities, the part of the report which covers other investment opportunities, has been limited to some of the more common financial investment opportunities a private investor would have access to. These common financial investments are the stock indexes OMX C20, Standard & Poor's 500, FTSE 100, NIKKEI 225, Hang Seng and Danish Government bonds. Indexes are chosen in order to avoid countless diversification calculations. No single stocks are thereby selected and no individually sophisticated portfolios are included.

The majority of the analysis is exclusively seen from a financial perspective, and does not discuss which housing condition or selection is most desirable, and how personal preferences might be. It will therefore not become an issue, whether or not private investors prefer owing or renting their homes – however, it will become a subject of discussion in the latter part of the Thesis.

According to bonds, it is assumed that Danish Mortgage bonds are bought at price 99 and sold at price 100. Danish Government bonds are assumed "risk free" and therefore do not experience rate profits or losses.

[1] That concerns the entire Thesis analysis.

2.3 Source criticism

The majority of the empirical data in this Thesis is extracted from some of the most reliable databases available in Denmark. Though the historical data for real estate price trends and rental price trends are calculated as weighed averages, it is probable that situations, where the empirical data does not match the actual circumstances, will be found.

The statistics from Danmarks Statistik and Datastream are sometimes released significantly later than statistics from other sources. This means that it is difficult the collect the most recent information from these sources and that the majority of time series are relatively short. Therefore only historical data until the end of 2007 have been available. However, statistics from these sources are considered to be the most qualified and valid data for this analysis. Data has also been collected from The Danish National Bank (Nationalbanken) as well as from the Copenhagen Stock Exchange (OMX), SKAT, Realkreditrådet and Standard & Poor's, all of which are considered publishers of reliable information.

Relatively late in the data collection process, and after months of investigation, it became clear that empirical data on historical rental price trends was extremely difficult and almost impossible to trace. Fortunately, at the last moment, valid data was found in Statistisk Årbog (with help from Realkreditrådet). These data have been held against the rental price trend index, which was already in hand in the early stages of this project The index movements are surprisingly similar[2].

Again, the analysis is solely based on average real estate and rental price movements in Copenhagen, Denmark. Awareness of rental prices and trends way below what the empirical data state is well known. Almost everyone has an aunt that lives in a huge, old, grand flat in city, at an extremely reasonable rent - the reasons for that are endless.

[2] Appendix 12 - Rental

2.4 Methodology

The social sciences method shows us the way or the method whereby one wishes to get answers to a problem formulation. In general, it is usually distinguished by two investigative forms, the qualitative and the quantitative[3]. To examine the problem formulation of the project, usage of both the qualitative data collection in the form of various articles from reliable internet pages (se list of literature), and quantitative data collection methods in the form of statistical statements.

Already in the early stages of the project, a joint project plan was created, which was later to form the foundation for the final project structure. Compiling the final project has been a long and turbulent process, where changes have continuously been made.

First, this Thesis analyses and calculates the basic fundamentals of Portfolio Theory and The Efficient Frontier (Markowitz) as well as the factors influencing it. Secondly, an analysis of five different worldwide stock indexes, mortgage bonds and Danish government bonds is made. The Portfolio Theory and the financial investment data are used in the following three analyses of real estate investments versus rental and other common financial investment opportunities. From there the analyses are compared in order to determine and rank the most profitable investments decisions in different time perspectives. Next, other issues concerning real estate investments are considered and finally, a conclusion is drawn.

When calculating mortgage annuity loans and their repayment schemes, two different methods have been considered. Technically speaking, an annuity loan should have constant gross payments throughout the entire period until maturity, but according to Totalkredit and Realkredit Danmark that is not the case[4]. The two financial institutions have slightly decreasing gross payment, and that is caused by the fact that they add an administration fee after calculating the gross payment. Since the administration fee is calculated as 0,5 percent of the outstanding debt, the total gross payments will have a decreasing trend. This method results in higher net payments since the administration fees are not deducted. Even though it is difficult to confirm which method is the most correct one, the “real life” scenario has been chosen, whether it is right or wrong technically.

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[3] Source: Andersen, Ib. “Den skinbarlige virkelighed”, p. 41.

[4] Source: www.totalkredit.dk, www.rd.dk.

3 PORTFOLIO THEORY – RISK AND RETURN

Nearly everyone owns a handful of assets consisting of for example real estate, a car or furniture, as well as financial assets such as cash, stocks and bonds. The quantity of the assets is called a portfolio. The composition may result from a series of hap hazardous and unrelated decisions or a result of deliberate planning. Investors are faced with an extreme amount of assets and choices about possible proportions in which each can be held. All these options might seem immeasurable and overwhelming[5].

The majority of all investment opportunities are associated with some sort of risk. The problem for investors is to calculate exactly how much risk they can accept and how much the possible return varies with the respective risk undertaken. Fundamentally, an investor can be categorised as having risk aversion, risk neutrality or risk preference (risk seeking), and in the end these three profiles are a matter of individual preferences.

One of the most acknowledged investment theories is Modern Portfolio Theory (MPT), which is derived from an article written in 1952 by Harry Markowitz[6]. Markowitz illustrated exactly how investors can reduce the standard deviation of portfolio returns by selecting uncorrelated stocks. Today Markowitz's work and principles are the foundation for the relationship between risk and return[7]. MPT works with two different kinds of risk which are categorized as systematic and un-systematic risk, and how rational investors will use diversification to optimize their portfolios and price their "risky" assets. In the following, both expected returns, variances, standard deviations, correlation coefficients, covariances, the efficient frontier, diversification, un-systematic and systematic risk and beta coefficients will be described.

3.1 Expected Return and Standard deviation

Investments are always connected with a certain amount of risk and return. The expected return from a portfolio $E(R_p)$ is simply calculated as a weighed average of the expected returns from

[5] Elton, Gruber, Brown, Goetzmann, Modern portfolio theory and investment analysis, sixth edit., p.2.

[6] Markowitz, Harry M. (1952). "Portfolio Selection". Journal of Finance 7(1), p. 77–91.

[7] Brealey, Myers, Allen, Corporate finance, eighth edit., p.181.

the different assets. The expected return $E(R)$, the variance σ^2 and the standard deviation σ are given as illustrated in Equation 1.

$$E(R) = \sum P \times R$$

$$\sigma^2 = \sum P \times (R - E(R))^2$$

$$\sigma = \sqrt{\sigma^2}$$

Equation 1 – Expected return, variance and standard deviation.

If two different assets, A and B, have the outcomes as shown in Table 1 then the expected returns, variances and standard deviations are calculated as in Example 1.

	state	probability	return
A	good	25%	80%
	normal	50%	10%
	bad	25%	-40%
B	good	25%	-30%
	normal	50%	-20%
	bad	25%	100%

Table 1 – Asset A and B, state, probability and return. Appendix 24 - Risk and return.

Example 1 below shows the calculation of expected returns, variances and standard deviations for two assets, A and B. Asset A gives the investor an expected return of 15 percent with a standard deviation of 42,72 percent. The standard deviation tells how much the expected return can differ from the average return (risk). Asset B gives an expected return of 7,5 percent with a standard deviation of 53,56 percent. To determine whether or not a combination of the two stocks will minimise the risk, the equations for the correlation coefficient ρ, the covariance $\sigma_{A,B}$ and the portfolio variance $\sigma^2_{A,B}$ in Equation 2 is used.

$$E(R_A) = (0{,}25 \times 0{,}80) + (0{,}50 \times 0{,}10) + (0{,}25 \times (-0{,}40)) = 0{,}15$$

$$\sigma_A^2 = (0{,}25 \times (0{,}80 - 0{,}15)^2) + (0{,}5 \times (0{,}1 - 0{,}15)^2) + (0{,}25 \times (-0{,}4 - 0{,}15)^2 = 0{,}1825$$

$$\sigma_A = \sqrt{0{,}1825} = 0{,}4272$$

$$E(R_B) = (0{,}25 \times (-0{,}30)) + (0{,}50 \times (-0{,}20)) + (0{,}25 \times 1{,}00) = 0{,}075$$

$$\sigma_B^2 = (0{,}25 \times (-0{,}30 - 0{,}075)^2) + (0{,}5 \times (-0{,}2 - 0{,}075)^2) + (0{,}25 \times (1{,}00 - 0{,}075)^2 = 0{,}2869$$

$$\sigma_B = \sqrt{0{,}2869} = 0{,}5356$$

Example 1 – Expected return, variance and standard deviation, A and B separately.

$$\rho = \frac{\sigma_{A,B}}{\sigma_A \times \sigma_B}$$

$$\sigma_{A,B} = \sum P \times (R_A - E(R_A)) \times (R_B - E(R_B))$$

$$\sigma_{A,B}^2 = P_A^2 \times \sigma_A^2 + P_B^2 \times \sigma_B^2 + 2 \times P_A \times P_B \times \sigma_{A,B}$$

Equation 2 – Correlation coefficient, covariance and portfolio variance.

The correlation coefficient will lie between -1 and 1 and state how much the two stocks actually vary in relation to each other. It is the correlation coefficient that decides how large the advantage of a combination will become. The circumstances for correlation coefficients are enumerated in Table 2.

$\rho = 1$, stocks vary perfectly
$\rho < 1$, possible diversification
$\rho = 0$, return is independent
$\rho =$-1, stocks vary perfectly negative

Table 2 – Correlation coefficient explanation.

If ρ = 1 there will be no possible diversification. The movements of stock A will be exactly identical to the movements of stock B. If ρ = -1 the return of the two stocks are perfectly opposite from each other, which means that a negative movement in stock A will be matched

perfectly by a positive movement in stock B, and in this way "all" risk can be eliminated. The covariance and correlation coefficient is calculated below.

$$\sigma_{A,B} = 0{,}25\times(0{,}8-0{,}15)\times(-0{,}3-0{,}075)+0{,}5\times(0{,}1-0{,}15)\times(-0{,}2-0{,}075)$$
$$+0{,}25\times(-0{,}4-0{,}15)\times(1{,}0-0{,}075) = -0{,}18125$$

$$\rho = \frac{-0{,}18125}{0{,}4272\times 0{,}5356} = \underline{-0{,}7921}$$

Example 2 – Covariance and correlation coefficient calculation.

As calculated in Example 2, there is a negative correlation coefficient (– 0,7921), which means that there is a possible diversification profit. If one of the stocks experiences a positive movement, the other will experience a negative movement (or vice versa). It is assumed that the investor decides to invest in asset A and B with an allocation of 60/40[8], respectively. The covariance is used to calculate the portfolio variance in Example 3. The expected return and an alternative calculation of variance and standard deviation are illustrated in Example 4.

$$\sigma^2_{A,B} = 0{,}6^2\times 0{,}1825 + 0{,}4^2\times 0{,}2869 + 2\times 0{,}6\times 0{,}4\times(-0{,}18125) = 0{,}0246$$

$$\sigma_{A,B} = \sqrt{0{,}0246} = \underline{0{,}1568}$$

Example 3 – Variance and standard deviation calculation.

$$E(R_{A,B,good}) = (0{,}6\times 0{,}8)+(0{,}4\times(-0{,}3)) = 0{,}36$$

$$E(R_{A,B,normal}) = (0{,}6\times 0{,}1)+(0{,}4\times(-0{,}2)) = -0{,}02$$

$$E(R_{A,B,bad}) = (0{,}6\times(-0{,}4))+(0{,}4\times 1{,}0)) = 0{,}16$$

$$E(R_{A,B}) = (0{,}6\times 0{,}15)+(0{,}4\times 0{,}075) = \underline{0{,}12}$$

$$\sigma^2_{A,B} = (0{,}25\times(0{,}36-0{,}12)^2)+(0{,}5\times(-0{,}02-0{,}12)^2)+(0{,}25\times(-0{,}4-0{,}12)^2 = 0{,}0246$$

$$\sigma_{A,B} = \sqrt{0{,}0246} = \underline{0{,}1568}$$

Example 4 – Expected return, variance and standard deviation, A and B, 60/40.

[8] 60 % in stock A and 40 % in stock B.

When combining asset A and B, the investor now receives an expected return of 12 percent with a standard deviation of "only" 15,68 percent. By constructing a portfolio of stocks with different correlations, the investor minimises the risk and then actually receives a greater return than exclusively investment in stock B.

In Table 3, different allocations, expected returns and standard deviations are calculated for portfolio A, B. Since stock A and B are much uncorrelated the standard deviation is high when investing solely in one of them, but combining them decreases the risk.

A	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
B	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Expected return	0,1500	0,1425	0,1350	0,1275	0,1200	0,1125	0,1050	0,0975	0,0900	0,0825	0,0750
Std deviation	0,4272	0,3436	0,2651	0,1978	0,1568	0,1635	0,2132	0,2844	0,3646	0,4490	0,5356

Table 3 – Expected returns and standard deviations. Appendix 24 - Risk and return.

The results are plotted into Figure 1 and that creates The Efficient Frontier (Markowitz). The curve illustrates how expected return and standard deviation change according to different combinations of the two stocks. Through diversification a higher expected return, together with reduced risk, is achieved in contrast to investing entirely in stock B. Investing only in stock A gave a return of 15 percent but also with three times as much risk[9]. Efficient portfolios are those where increasing returns with similar risk levels can not be achieved.

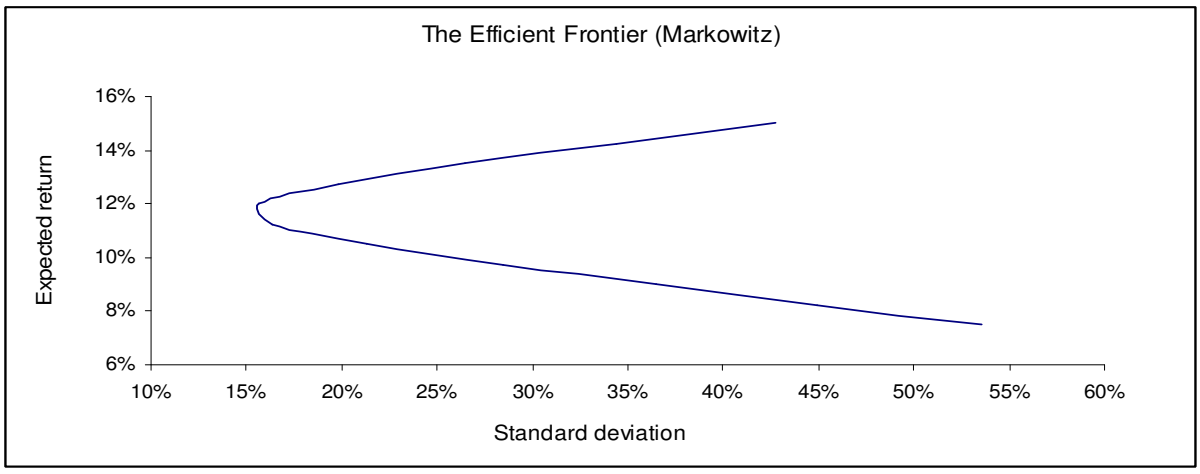

Figure 1 – The Markowitz Frontier. Appendix 24 - Risk and return.

[9] Example 1.

3.2 Diversification, Un-systematic and Systematic risk

As mentioned above, diversification is a keyword in understanding the risk underlying investments. The principle behind diversification is to spread investments across numerous assets and eliminate some, but not all risk. When an investor diversifies, investments are spread across assets in order to reduce risk as much as possible, and simultaneously in order to obtain an optimal amount of possible returns. Investment companies that handle stocks, always diversify between different sectors and industries on the economical market. An example could be that if the oil price increases then the stock of the listed oil company will increase as well, while the stock of a freight company will decrease because it will become more expensive to buy fuel. The investor who has both stocks in her portfolio will loose on one and gain on the other. More technical examples of diversification were illustrated in section 3.1.

The diversifiable part of risk, which affects a single or a small group of assets, is called the unsystematic risk (also called unique or asset specific risk). Holding a portfolio of several shares can reduce extreme overall movements, and actually at no extra costs, simply by spreading the investments. The "good" investor is therefore characterised as one who can reduce the un-systematic risk to a minimum.

Systematic risk (also called market risk) is the risk that lies within the market portfolio and is therefore non diversifiable, which means that the investor can not reduce the undertaken risk below that limit, no matter how well diversified the portfolio is. Systematic risk is a significant factor describing the expected return of an asset, and to measure the systematic risk the beta coefficient is introduced.

"to a diversified investor, only systematic risk matters…."[10]

3.3 Beta coefficient

The beta coefficient describes the risk of an asset in relation to the average market risk. A beta coefficient of 1,00 means that the asset has exactly the same systematic risk as the overall market, a beta of 0,5 means that it has half as much, and a beta of 2,0 means that it has twice as

[10]Quotation: Ross, Westerfield, Jordan, Fundamentals of Corporate Finance, Sixth edit., chapter 13, p.415.

much systematic risk as the average market. The beta coefficient β of an asset A is given by Equation 3 and the systematic risk for an asset is given by Equation 4.

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$$\beta_A = \frac{\sigma_{A,M}}{\sigma_M^2} = \rho_{A,M} \times \frac{\sigma_A}{\sigma_M}$$

Equation 3 – Beta coefficient.

$$\sigma_A^{sys} = \beta_A \times \sigma_M$$

Equation 4 – Systematic risk.

Example: It is assumed that the correlation coefficient between an asset A and the market portfolio is 0,9. The market variance is 25 percent and the variance of A is 35 percent. The beta is calculated for asset A:

$$\beta_A = 0{,}9 \times \frac{\sqrt{0{,}35}}{\sqrt{0{,}25}} = 1{,}06$$

Example 5 – Beta calculation.

Example 5 illustrates that asset A is only slightly more risky than the average market risk. The total risk of a portfolio is calculated as a simple average of the beta values for all the single assets in the portfolio.

3.4 Practicability

Section 3 has described and calculated the main elements of risk and return, but it is limited how much those methods will be carried out in the later analysis. The importance of diversification and reflections on that subject will though be implemented. To eliminate as much un-systematic risk as possible, investments in some of the world's largest stock indexes will be executed. All other things being equal, the later mentioned stock indexes are already constructed as very well diversified portfolios with some of the largest and stabile stocks across different sectors and industries in the respective countries. Therefore, no further beta coefficients are calculated in this Thesis.

4 STOCKS AND BONDS

This section describes and analyzes a selection of financial investment opportunities, which have been available for decades. The focus will be on the stock market. The global stock market is enormous and therefore five major stock indexes have been carefully selected, both in order to cover what might have been an obvious investment choice and to create as much diversification as possible. The five indexes chosen are: OMX C20, S&P 500, NIKKEI 225, HANG SENG and FTSE 100. The OMX C20 index has been chosen because of the fact that this report is based on Danish investors. Before the introduction of Internet trading and globalization in general, national investors' opportunity to invest in foreign securities was limited or at least more complicated. Today almost everybody has direct access to trade securities on international stock exchanges all over the world from their personal computers at home or elsewhere. Physical participation on the stock exchange or the need for brokers or dealers is not as propagating as it was before.

The S&P 500 is one of the leading indexes in the United States, and so is FTSE 100 in the United Kingdom, NIKKEI in Japan and HANG SENG in Hong Kong (the leading index in Asia[11]). Choosing these five indexes involves access to significant valid and historical data, which, in this Thesis, is of crucial importance for calculating as accurate investment returns as possible. The calculations will later be made and related to both real estate investments and the rental market in Copenhagen, Denmark. Furthermore Danish mortgage bonds, as well as Danish Government bonds and their historical movements, will be analysed mostly for the sake of giving a realistic description of a real estate buyer's economical situation throughout a thirty-year period. The Danish Government bonds are used and described as the least risky investment available for the tenant.

4.1 OMX C20

In Denmark, the former KFX index was the leading stock index on the Copenhagen Stock Exchange, consisting of the 20 most actively traded shares every year. In 2005, the KFX index was renamed OMX C20 as a joint index for the exchanges in Copenhagen, Stockholm, Helsinki and the Baltic exchanges in Riga, Tallin and Vilnius - but with no additional changes (therefore

[11] Source: www.borsen.dk/markedsberetninger

data from KFX will be used up until 2005)[12]. Major companies such as AP Møller Mærsk, Vestas Wind Systems, Novo Nordisk, Danske Bank and Carlsberg are represented on the OMX C20 index, and the historical movements are illustrated in Figure 2. Data from the period 1978 to the end of 2007 has been extracted from Datastream.

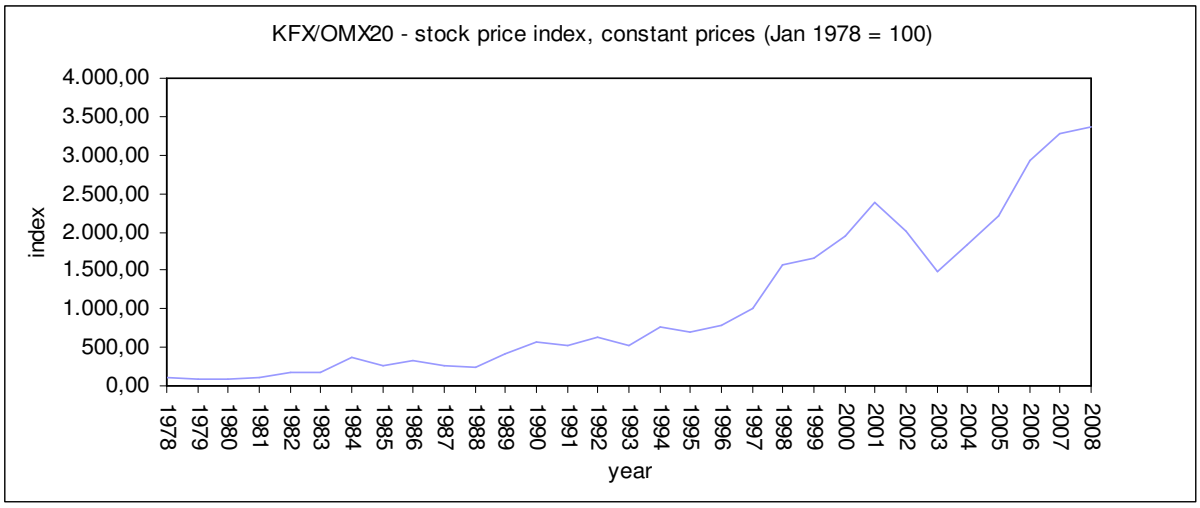

Figure 2 – KFX/OMX 20 index. Source: Datastream. Appendix 1 - KFX

As seen in Figure 2, there are no big surprising movements in the period up until 1997/1998. From 1978 to 1998 the curve is slightly increasing in relation to the inflation and decreasing interest rate (and the general expansion and growing interest/awareness). In 1998 and 1999 the "IT stocks" increased rapidly until the "IT burst" in 2000, which explains the drastic rise and the later decrease in the index. The OMX C20 rapidly recovered up until the "9-11" terrorist attacks in 2001, which lead to an unstable and decreasing market for the next three years. Mistrust in the world economic market, and the threat and fear of more terrorist attacks in the near future held back the investors' willingness to invest[13]. Since 2003/2004, the relatively low interest rate has kick started the world economy and caused the major increase on the stock market. Low interest rates make companies accept loans to gear their investments, which, if spent wisely, increase the future value of the company and therefore the respective stock. This development does not apply to all companies and branches of course, but in general the overall economy was increasing in that period. Private investors have also had the opportunity to make cheap loans for investments.

[12] Source: www.nasdaqomx.com.

[13] Source: www.borsen.dk (9/11 terrorist attacks).

4.2 Standard & Poor's 500

S&P 500, established in 1957, is a stock index covering more than 500 major American companies. The respective stocks are selected by a committee, which is represented by a broad section of all American industries – not only the 500 largest companies or stocks. The stock index is controlled by the company Standard & Poor's, which is a division of the company McGraw-Hill, who, among other things, publishes financial publications and analyses.[14] An index of S&P 500 is illustrated in Figure 3.

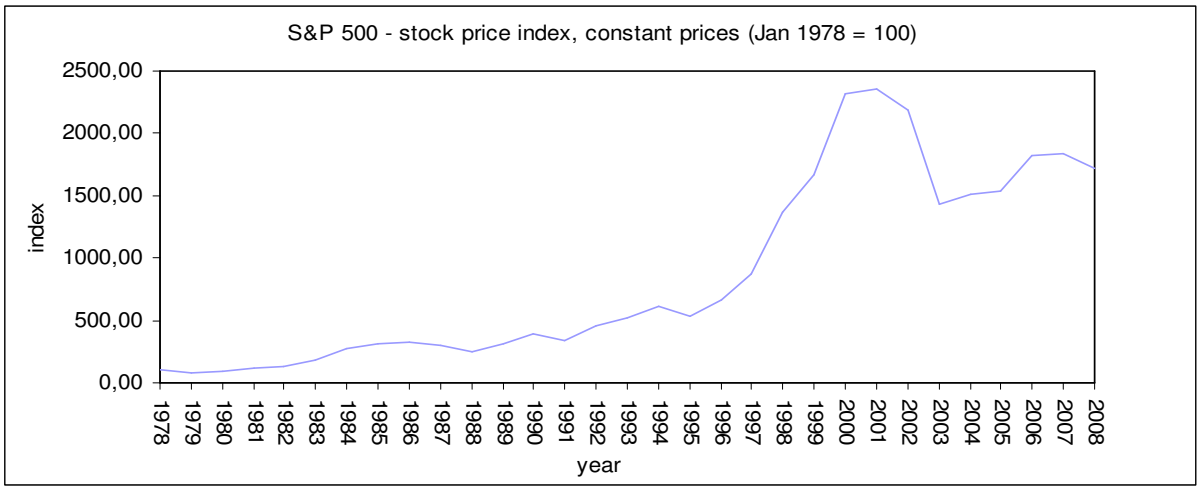

Figure 3 – S&P 500 index. Source: Datastream. Appendix 2 – S&P.

The development in the S&P 500 and the explanation to it is very much similar to the one explained according to the KFX/OMX C20 index movements. A slight increase in relation to the inflation and decreasing interest rates (and the general expansion and growing interest/awareness) from 1978 up until 1997/1998. The "IT boom" and "IT burst" in 1998 to 2000. The "9-11" terrorist attacks in 2001, and the increase since 2003/2004. The increase is, though, more moderate than the OMX C20 for the same period. Also a decrease is seen from 2007 to 2008 caused by the "Sub prime crisis" in the US.

[14] Source: www.standardandpoors.com.

4.3 FTSE 100

The London Stock Exchange is a joint owner of FTSE, who is responsible for calculating stock market indexes for global markets. The FTSE 100 is an index of the largest UK stocks in a broad spectrum of industries. Even though the FTSE 100 has quite high concentration of stocks within certain sectors such as banks, oil, pharmaceuticals and mining[15], it is still considered as an important indicator for the performance of the UK market. An index of the FTSE 100 is shown in Figure 4.

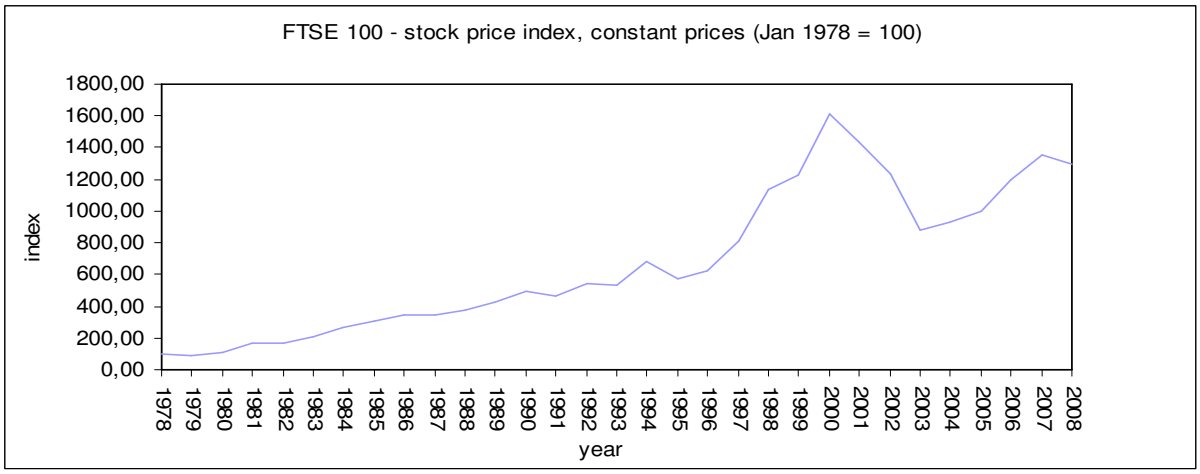

Figure 4 – FTSE 100 index. Source: DataStream. Appendix 3 - FTSE

The development in the FTSE 100 and the explanation to it is, again, very similar to the ones explained according to the two previous index movements. The "Sub prime" crisis in the US also affects the FTSE 100 in 2007.

4.4 NIKKEI 225

NIKKEI 225 is the most important stock index in Japan, and it is compounded by 225 of the largest Japanese stocks on the Tokyo Stock Exchange. The NIKKEI 225 is designed to reflect the overall market, so there is no specific weighing of industries. Just like the three previous index, a large amount of valid data can be extracted from the NIKKEI 225 index. The first three indexes have been rather correlated, while the NIKKEI 225 has had a much different history. The development of NIKKEI 225 is illustrated in Figure 5.

[15] Actually those four sectors sum 56 % of the entire index (source: www.londonstockexchange.com).

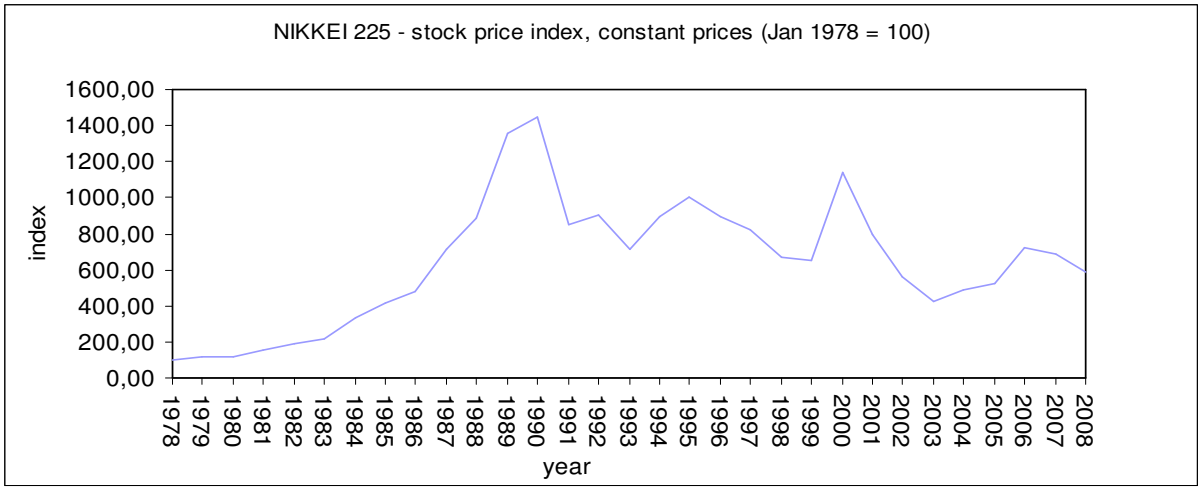

Figure 5 – NIKKEI 225 index. Source: DataStream. Appendix 4 - NIKKEI.

The NIKKEI 225 experienced one of the worst bear markets[16] in recent history from the late 80's through 2003. The Nikkei peaked at the end of 1989, but from there the recession induced a more than 64 percent loss up until 1992. The Japanese economy experienced yet three recessions between 1992 and 2003. The first recession (burst of the NIKKEI bubble) officially started in April 1992, although headline industrial production had been contracting since 1991. The official recession lasted until March 1994. Then came Japan's own financial market crisis in 1997 to 1998 and since then the index has had more or less similar movements as the previous indexes mentioned above[17].

4.5 HANG SENG

The Hang Seng index pictures 33 of the largest companies on the Hong Kong stock market, and is considered an important indicator for the overall market performance in Hong Kong. These companies aggregate capitalization that represents seventy percent of the total market capitalization of all eligible stocks listed on the Main Board of the Stock Exchange of Hong Kong[18]. There are four sector indices: commerce and industry, finance, properties, and utilities[19]. The Hang Seng historical movements are illustrated on Figure 6.

[16] A bear market is a steady drop in the stock market over a period of time.

[17] www.nikkei.co.jp

[18] www.bloomberg.com/apps/quote?ticker=HSI:IND

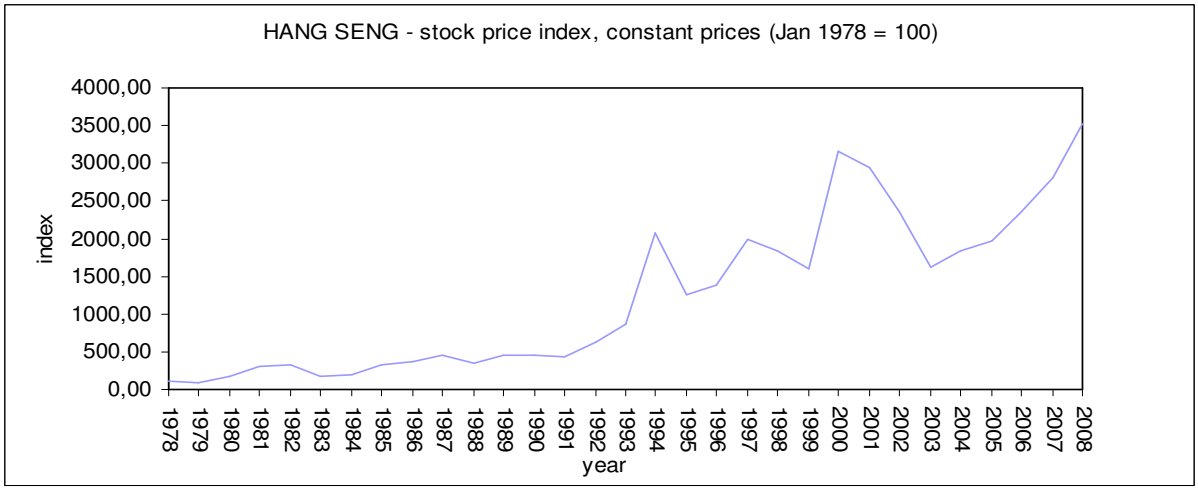

Figure 6 – Hang Seng index. Source: DataStream. Appendix 5 - HANG SENG.

4.6 Stock index average

To make the broadest and most diversified portfolio for the investor in the later analysis, she will be investing equally in all five above mentioned stocks indexes. An accumulated graph of the stock index average movements is illustrated in Figure 7.

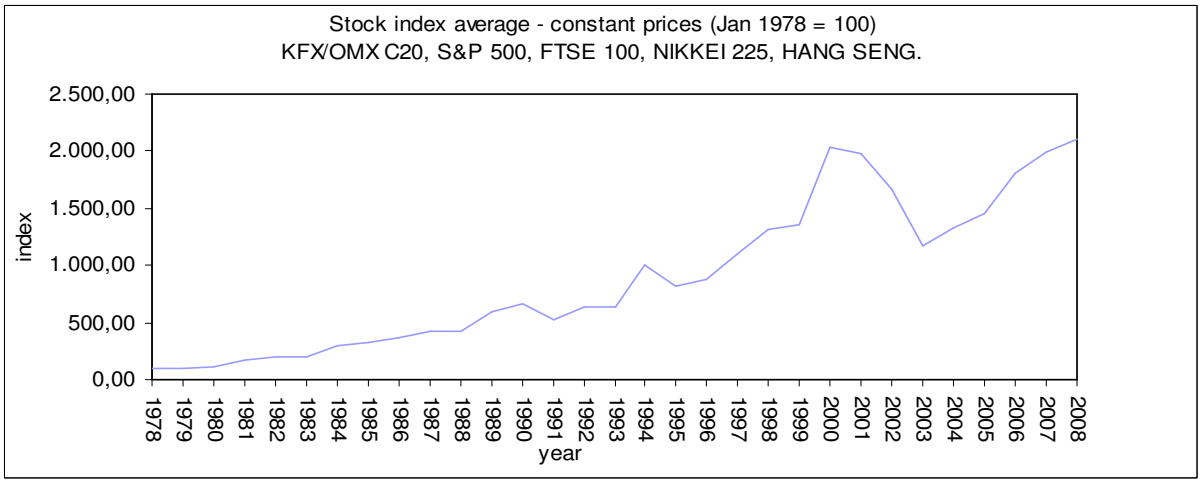

Figure 7 – Stock index average. Appendix 6 - Stock average.

[19] Source: http://www.stockexchangesecrets.com/hong-kong-stock-exchange-hang-seng-index.html

4.7 Danish mortgage bonds

In the case of calculating real estate investments, mortgage bonds will be used, and for the sake of maintaining a simplistic but realistic scenario, conversions will be executed when and if the market interest rate changes two percentage points and if the time to maturity is appropriate. The rates on the bonds invested in will correlate with the mortgage bond rate average in Figure 8. Rates from 1978 until today have been fluctuating relatively much, and therefore countless conversions have most likely been executed. For this reason, an approximate bond price will be calculated at the respective periods. The correction factor for the bond price is assumed to be around ten percent. This means, when the interest rate changes plus one percent, the underlying bond price changes minus ten points (or vice versa). Though in this Thesis, only convertible bonds and downward conversions are taken into account, which makes it possible for the real estate investor to sell at price 100 no matter how high the rate has become. The underlying rate therefore does not play an important role. Finally, all mortgage bonds are bought and price 99[20]. So the only "loss" the real estate investor suffers is the conversion fee, administration fee and the rate difference between selling at price 100 and buying at price 99. The history of the mortgage bond rate average is illustrated on Figure 8.

As illustrated on Figure 8, the interest rate on mortgage bonds was relatively high in the 80's and 90's, which made it considerably more expensive to borrow money. Deduction percentages were also higher than today[21], in the fall 1986 a political intervention in Denmark "Kartoffelkuren"[22] made an end to the loan financed private consumption. The purpose was to minimize the deficit on the Danish balance of payments in exchange for decreasing private consumption. That was also the result, but also in exchange, the unemployment rate increased, which lead to increasing public expenditures caused by more welfare payments[23].

[20] Cf. 5.5 and 5.6.

[21] Cf: 5.4.

[22] A new tax reform was imposed, where, among other things, interest deduction was decreased from 60,6 to 51 %.

[23] http://da.wikipedia.org/wiki/Kartoffelkuren.

4.8 Danish Government bonds

Danish Government bonds are issued by the Danish Government on MTS[24], and they are also traded on the Copenhagen Stock Exchange. Government bonds are issued whenever the Danish state has financial requirements or when the markets are favourable[25]. Since The Danish Government stands behind the issues, the risk of default is very small. The government bonds applied in this Thesis are all issued as convertible ten year bullet loans – with constant coupon rates throughout the entire period, and a principal payment at maturity. The interest rates are added to the principal continuously, re-invested, and paid out when the bond is redeemed.

All Danish Government bonds are "blue stamped", which means, that profit on the price of the bonds is tax free, and possible losses cannot be deducted. However, the received interest payments are continuously taxed as normal capital income at 43 percent[26]. Finally, because of the fact that Danish Government bonds are regarded as the "risk free" investment in this Thesis, all rates are held constant and therefore no possible rate losses will appear at maturity. The history of the Danish Government bond index average is illustrated on Figure 8.

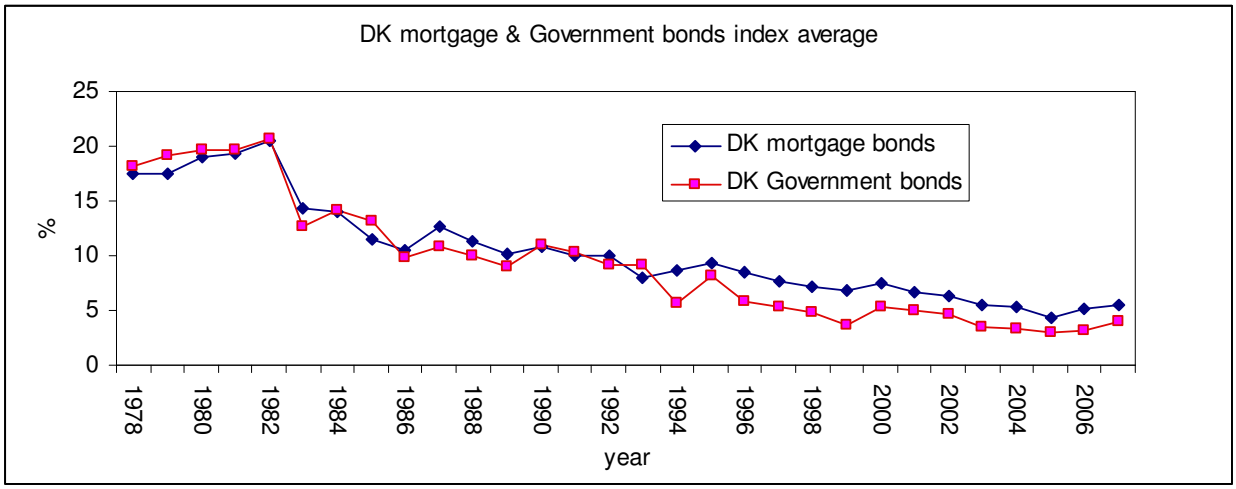

Figure 8 – DK mortgage & Government bond average, 78-07., Appendix 7 - Mortgage, Appendix 8 - Government.

[24] Source: MTS, Associated Markets. Established for the purpose of trading Danish Sovereign securities.

[25] Source: www.nationalbanken.dk

[26] An assumption in this report.

5 TAX REGULATIONS AND BOND CONVERSION

In this Thesis all financial decisions made are more or less exercised on the basis of the tax regulations given at the respective time period. Profit on stock investments has been taxed differently through the last thirty years, and so has the regulation concerning how much of the interest payments that can be deducted when investing in real estate. The following paragraph is essential for the calculations made later in this Thesis. The political changes of the regulations are fundamental and therefore very important to understand before reading through the heart of the analysis.

5.1 The Danish Government Tax Law (GTL)

The foundation for taxation in Denmark is to be found in the Government Tax Law (GTL) § 4 – 6, which derive all the way back from 1922. Because of the fact that the rules in GTL are the basic general rules for taxation, it is always these that count unless other specific tax rules exist. The GTL has been fundamental law since 1922 but the majority of the rules have been abrogated today, but § 4 – 6 remain. The GTL has been some sort of a framework law, which counts when the more specific laws fail to take something into consideration. Among the specific laws, taxation of real estate gain and taxation of stock premium is found, and the tax regulations for stock return are explained in section 5.2. Basically there has been no taxation of real estate gain unless it has been considered exclusively as a financial investment that is bought and sold within a period of three years with no purpose of residence[27]. The current GTL §1 clearly states, that as long as the real estate investment has been used as residence, an eventual sales profit is not taxed[28].

Apart from real estate investment as residence, GTL § 4 imposes that all income, no matter where it has been earned, and no matter whether the fee is received or accepted as money, goods or similar, is taxable in Denmark.

[27] Source: Ejendomsavancebeskatningsloven § 4 – 6.

[28] Source: Ejendomsavancebeskatningsloven § 1.

5.2 Stock taxation

From January 1st 2006 the tax regulations for profit and losses on stocks in Denmark have been simplified, so that profit is taxed as normal capital income, while a loss gives the right for deduction. As a basic rule, return on stock held or profit on stock sold is taxed at 28 percent on the amount less than DKK 46,700 for singles or DKK 93,400 for married couples. The exceeding amount is taxed at 43 percent[29]. But two new transitional rules have been introduced. The first rule ensures that all stock acquired before 2006 can be sold tax-free, as long as the holding is less than DKK 136,600 for singles or DKK 273,100 for married couples[30]. Additionally it is a condition that the stock has been owned for more than a three-year period if the tax-free rules shall prevail. The second rule relates to stocks that are purchased before 2006 but sold again after a holding less than three years. In this situation the potential profit will be taxed as normal capital income, but only if the taxation of capital income is less than taxation on stock. If an investor for example already finds herself in the top tax rate area (approximately seventy percent), then her potential profit will only be taxed at a 43 percent rate when selling stock. At the same time it is possible to deduct a potential loss from the return on other listed stocks or from the potential profit selling listed stock. If the loss cannot be deducted in the year where it occurs, it is then possible to transport it to future financial years, and therefore it is only the net profit that is taxed at 28 and 43 percent, respectively. Finally, there is a distinction in the rules which covers stocks being listed or unlisted. In this Thesis, though, for the sake of simplicity – all stocks are presumed to be listed.

For stock bought before May 19th 1993[31] special rules are effective. Until May 18th 1993 the market movements are not taken into account for taxation. This means that neither a profit nor a loss before May 19th 1993 will be taxed or deducted. From there and onwards, potential returns and profit will be taxed as mentioned above, and likewise all losses can be deducted from the profit of other listed stocks. The regulations are underlined in Figure 9. Note that "limited deduction" will not be discussed or explained further, since there are no occurrences of losses investing in the stock index in this Thesis between the years 1978 to 2007[32]. Even though, all

[29] 2007 – source: www.skat.dk.

[30] In this Thesis, though, the limit of DKK 136.000 is used. DKK 273.100 would not have changed any conclusions.

[31] In this thesis, that period includes the years from 1st Jan 1978 until the end of 1993.

[32] Stocks are bought and kept every single year until the end of 2007.

stock indexes decrease dramatically after the "9/11" incident, they still more than recover until the end of 2007.

Stock holding / before 19. May 1993 - tax class **A**		
Listed stock in holdings over DKK 136,600/273,100	Profit	Tax-free
	Loss	No deduction

Stock holding / 19. May 1993 to 31. Jan 2005 - tax class **B**			
		Less than 3 years	More than 3 years
Listed stock in holdings over DKK 136,600/273,100	Profit	Taxed as capital income	Taxed as stock income
	Loss	Deduction	Deduction
Listed stock in holdings less than DKK 136,600/273,100	Profit	Taxed as capital income	Tax-free
	Loss	Deduction	No deduction

Stock holding / from 1. Jan 2006 - tax class **C**			
		under 136/273 limit	over 136/273 limit
Stocks purchased before Jan 2006	3 years or more	Profit is tax-free	Profit is taxed as stock income
		No deduction of loss	
	under 3 years	Profit is taxed as stock income	Deduction of loss
		Deduction of loss	
Stocks purchased after Jan 2006 (under/over DKK 46,700)	No transitional rules Profit is taxed as stock income (28%/43%) Deduction of loss		

Figure 9 – Tax regulations for stock. Source: www.skatteministeriet.dk

5.3 Bond taxation

Acquiring a bond is similar to giving a loan to the investor that issues the bond. The issuer is committed to paying a certain interest at certain dates to the buyer. Furthermore the issuer is obligated to pay back the loan to the buyer. In this Thesis, the payment occurs at the end of the loan period. There exists different types of bonds where the most common are Government bonds and mortgage bonds, and they come in various series with different durations and repayment schemes. In this Thesis both Danish mortgage and Danish Government bonds are executed as annuity loans.

When a private person in Denmark holds a bond, all the interest income is taxed as normal capital income and the tax rate is assumed to be 43 percent in this Thesis. The Danish Government bonds used in this Thesis are assumed to have fixed rates, and therefore no gain or losses are treated.

5.4 Interest deduction

Most interest expenses in Denmark are deductible, and interest payments on mortgage loans are no exception, although the percentage than can be deducted has changed notably throughout the last thirty years. Table 4 shows the historical deduction percentages from 1978 until today. As it shows, the deduction percentages from 1978 to 1986 were reasonably high.

Deduction percentages for mortgage interest debt in Denmark						
Year	1978 - 1986	1987 - 1992	1993	1994 - 1997	1998 - 2001	2002 - 2007
Deduction percentages	60,6%	51,0%	52,2%	44,7%	40,4%	33,2%

Table 4 – Historical deduction percentages, 1978 – 2007. Appendix 9 - Deduction..

5.5 Downward conversion

Downward conversion means that the borrower exchanges her loan with a new and similar loan, but with a lower interest rate (coupon rate). The economical gain occurs because the interest rate payments on the new loan are lower than the interest payments on the former loan for the remaining loan period. The borrower will then obtain both a lower gross and net mortgage payment.

Converting downward usually occurs in relation to a decrease in the interest rate. This relation means that the rate on the loan, taken out prior to the interest rate decline, will increase. As a consequence the outstanding debt will increase as well. By converting downward to a lower coupon rate, the borrower therefore has to execute the outstanding debt at a higher rate than what was current the day she took out the loan. The rate that has to be paid at the time of conversion, however, cannot exceed par value 100, which is caused by the incorporated convertible right in the convertible bond.

5.6 Upward conversion

Upward conversion means that the borrower exchanges her loan with a new and similar loan, but with a higher interest rate (coupon rate). Upward conversion is undertaken after an increase in the interest rate, where the rate on the underlying bonds correspondingly decreases. The former loan can be paid by buying up the underlying bonds at a lower rate than what was current the day the loan was taken out. The underlying bonds on the low interest rate loan are therefore executed at a discount from their face value, which produces a lower outstanding debt on the new loan, but also a higher interest rate, which results in an increase of the interest payments.

To make an upward conversion profitable, the interest rate on the bond market has to decrease again in the near future. The longer it takes before a possible decrease occurs, the less profitable the upward conversion will become. If the interest rate decrease does not occur, the borrower has to live with higher payments.

Upward conversion can be seen as a game of speculation, where the price for speculating is the increased payments. The motives for upward conversion can be explained by the borrower's expectations about an interest decreases in the near future. Hereby a downward conversion will be executed.

If, however, the interest rate does decline in the near future, the borrower who made the upward conversion can make a downward conversion with a benefit. First, the high interest rate loan can be executed at par value 100, and because of the fact that it was taken out at a rate close to 100, the outstanding debt has not increased considerably. Secondly, the new loan will have a lower interest rate.

6 PRICE TRENDS AND INFLATION

6.1 Real estate price trends

It is no secret that the prices on the real estate market have grown rapidly since 2004. Actually the market has grown every single year from 1993 to 2006, and the inflation rate has been relatively low in the same period, which makes the increase even more significant. A high inflation rate from 1978 to 1989[33], a fluctuating mortgage bond interest rate and general investment decisions have affected the real estate price trend curve as seen on Figure 10. To make as precise a historical calculation as possible, the data collected for the real estate price trend index only covers family houses and freehold flats in Copenhagen, Denmark. Bringing other regions into consideration would have made the calculations very unreliable since there has been considerable variation among the largest cities and counties in Denmark.

It is noteworthy that from 1978 to 1997 no real estate growth was experienced[34]. From 1978 to 1982 the index declines from 100 to 75 after where it recovers again and ends at 113 in 1986. However from 1987 to 1993 the market prices decline once more down to 70, which was the last year of decrease until 2007.

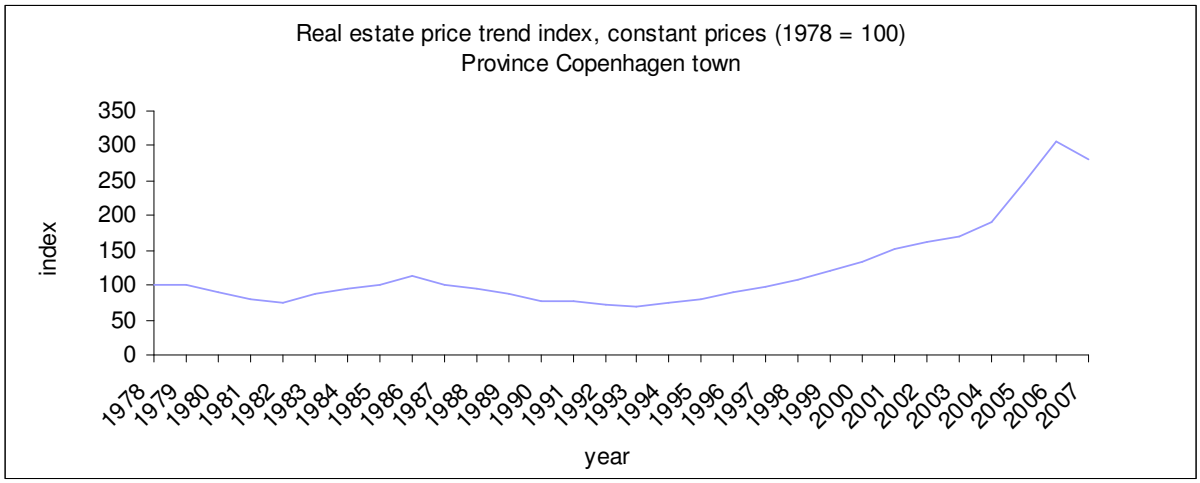

Figure 10 – Real estate price index. Source: www.dst.dk. Appendix 11 - Real estate.

[33] Section 6.3

[34] Index 1978 = 100, 1997 = 97

6.2 Rental prices

The entire population does not have economical resources to buy real estate, and not all might desire to own their own home. Therefore, an alternative to buying real estate is to rent a home. The rental prices have increased every single year from 1978, and the rental price index movements are illustrated in Figure 11. The index only concerns rental prices in Copenhagen, Denmark[35].

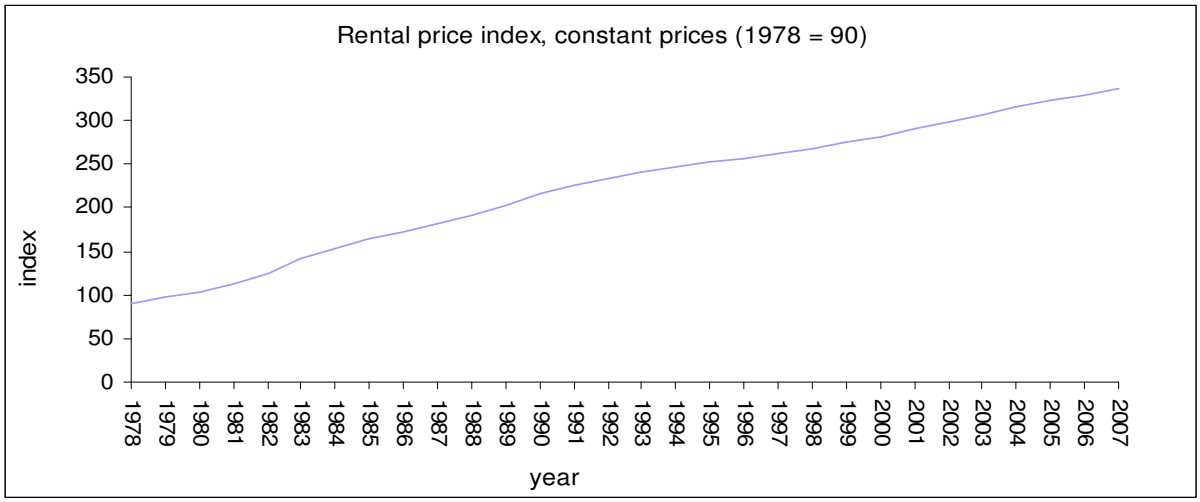

Figure 11 – Rental price index. Source: www.dst.dk. Appendix 12 - Rental.

In the later calculations the increasing rental price index will have a considerable effect on the available excess amount left for the tenants to invest in the stock market indexes. It will be shown that the "rental excess capital" left for investment is the difference between the total yearly real estate net expenses minus the total rental expenses, but the amount will decrease as the rental prices increase through the period. Though the mortgage borrower will pay the same amount every single year[36], the tenant will have to pay more and more rent. So even though the relation between rental expenses and buying expenses in some periods favour the tenants, the increase in rental prices will decrease the amount left for investments.

[35] Copenhagen and Frederiksberg.

[36] Unless a conversion is executed.

6.3 Inflation

The inflation rate is taken into account in all calculations in this Thesis, which means that the results are in constant prices (inflation corrected). The rate has fluctuated from 11,7 to 1,7 percent throughout the period and has had an important influence on the potential economical profit and losses. The movements in the inflation rate from 1978 to 2007 are illustrated in Figure 12.

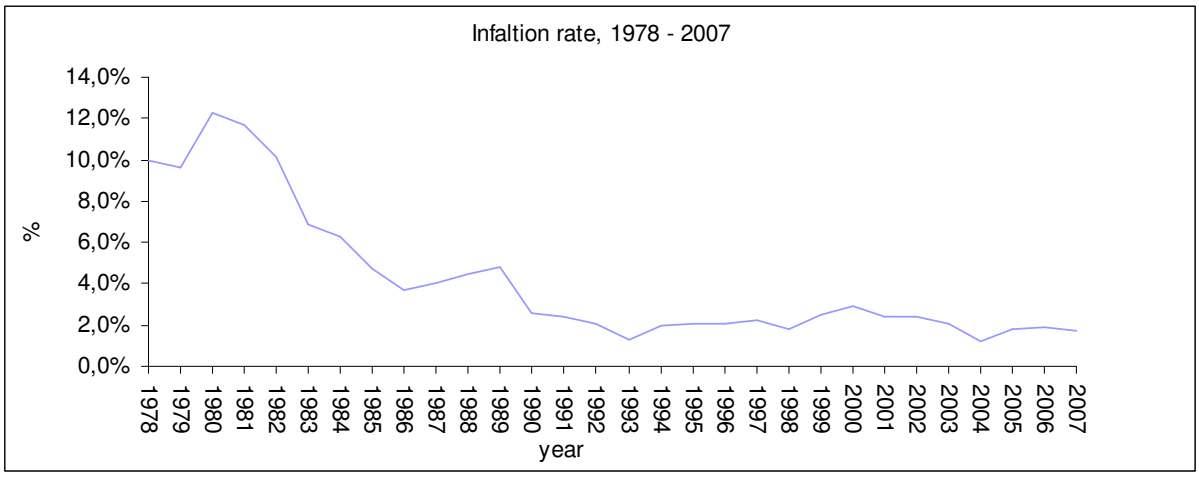

Figure 12 – Inflation rate. Source: www.dst.dk. Appendix 10 - Inflation.

7 THE HISTORICAL ANALYSIS – PART 1

The following analysis will be based on two individuals each having a separate housing preference – one renting and one purchasing a home. Investor A is the real estate investor (with purpose of residence), and investor B is renting a home, while investing any "rental excess capital" in stocks and Danish Government bonds. As calculations pertain to real estate, a period of thirty years has been chosen, the beginning of 1978 to the end of 2007[37]. In the following a description of the two fictive persons and a calculation of their value schemes are elaborated.

7.1 Investor A – real estate investment

In January 1978, investor A chose to buy 75 square meters real estate for the price of DKK 658.169[38], which was financed by a mortgage bond loan and a bank loan. The mortgage bond loan had duration of thirty years and made up eighty percent of the total financing, while the bank loan had duration of twenty years and covered the remaining twenty percent. The mortgage loan in 1978 had a coupon rate of eighteen percent, but through the period, downward conversion was made in 1982, 1994 and 1997 to twelve, ten and seven percent respectively. The mortgage bonds were bought at price 99 and sold at price 100. The bank loan had duration of twenty years with variable interest rates following the average mortgage bond interest rates plus one percent[39].

A principal of DKK 543.569 on the mortgage bond loan in 1978 was calculated as eighty percent of the real estate price minus a loan fee of DKK 727[40] and then divided by 0,97, which comes from the rate loss of one percent and a stamp fee of two percent. The bank loan had a principle in 1978 of DKK 135.008, which was calculated as twenty percent of the real estate price minus the same loan fee as above, and then divided by 0,98, as a result of the two percent stamp fee. A snapshot of both the mortgage loan and the bank loan is illustrated below on Table 5 and Table 6.

[37] Today the most common real estate investments are made on basis of 30 year mortgage bond loans.

[38] Appendix 11 - Real estate.

[39] Appendix 7 - Mortgage.

[40] Constant prices. Equals DKK 2.500 in 2007.

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding
4,50%	0,13%	120	01-03-1978	24.460,60	679,46	124,95	25.265,01	14.823,12	11.121,34	543.443,91
4,50%	0,13%	119	01-06-1978	24.454,98	679,30	130,57	25.264,85	14.819,72	11.124,44	543.313,34
4,50%	0,13%	118	01-09-1978	24.449,10	679,14	136,44	25.264,69	14.816,15	11.127,67	543.176,90
4,50%	0,13%	117	01-12-1978	24.442,96	678,97	142,59	25.264,52	14.812,43	11.131,05	543.034,31
4,50%	0,13%	116	01-03-1979	24.436,54	678,79	149,00	25.264,34	14.808,55	11.134,59	542.885,31
4,50%	0,13%	115	01-06-1979	24.429,84	678,61	155,71	25.264,15	14.804,48	11.138,28	542.729,60
4,50%	0,13%	114	01-09-1979	24.422,83	678,41	162,71	25.263,96	14.800,24	11.142,13	542.566,89
4,50%	0,13%	113	01-12-1979	24.415,51	678,21	170,04	25.263,75	14.795,80	11.146,16	542.396,86
4,50%	0,13%	112	01-03-1980	24.407,86	678,00	177,69	25.263,54	14.791,16	11.150,38	542.219,17
4,50%	0,13%	111	01-06-1980	24.399,86	677,77	185,68	25.263,32	14.786,32	11.154,78	542.033,49
4,50%	0,13%	110	01-09-1980	24.391,51	677,54	194,04	25.263,09	14.781,25	11.159,38	541.839,45
4,50%	0,13%	109	01-12-1980	24.382,78	677,30	202,77	25.262,84	14.775,96	11.164,18	541.636,68

Table 5 – Mortgage loan model, 30 years, 12 percent Appendix 14 - Real estate, 78-08.

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding
4,75%	0,13%	80	01-03-1978	6.412,87	168,76	160,50	6.742,13	3.886,20	2.855,93	134.847,36
4,75%	0,13%	79	01-06-1978	6.405,25	168,56	168,12	6.741,93	3.881,58	2.860,35	134.679,24
4,75%	0,13%	78	01-09-1978	6.397,26	168,35	176,11	6.741,72	3.876,74	2.864,98	134.503,14
4,75%	0,13%	77	01-12-1978	6.388,90	168,13	184,47	6.741,50	3.871,67	2.869,83	134.318,66
4,75%	0,13%	76	01-03-1979	6.380,14	167,90	193,23	6.741,27	3.866,36	2.874,91	134.125,43
4,75%	0,13%	75	01-06-1979	6.370,96	167,66	202,41	6.741,03	3.860,80	2.880,23	133.923,02
4,75%	0,13%	74	01-09-1979	6.361,34	167,40	212,03	6.740,77	3.854,97	2.885,80	133.710,99
4,75%	0,13%	73	01-12-1979	6.351,27	167,14	222,10	6.740,51	3.848,87	2.891,64	133.488,90
5,00%	0,13%	72	01-03-1980	6.674,44	166,86	205,08	7.046,39	4.044,71	3.001,68	133.283,81
5,00%	0,13%	71	01-06-1980	6.664,19	166,60	215,34	7.046,13	4.038,50	3.007,63	133.068,48
5,00%	0,13%	70	01-09-1980	6.653,42	166,34	226,10	7.045,86	4.031,97	3.013,89	132.842,37
5,00%	0,13%	69	01-12-1980	6.642,12	166,05	237,41	7.045,58	4.025,12	3.020,46	132.604,96

Table 6 – Bank loan model, 20 years, flexible interest rate. Appendix 14 - Real estate, 78-08.

While the mortgage investor pays of her debt, the real estate price simultaneously fluctuates in correlation with the real estate price trend index illustrated on Figure 10. Each year the real estate investor has additional expenses such as maintenance costs, real estate taxes and water and drain taxes. These additional expenses are summed each year in order to calculate the total expenses in addition to the loan expenses. Later the additional real estate expenses will be added to the net loan expenses in order to calculate the total real estate net expenses from which investor B's "rental excess capital" investment amount will be calculated. A fraction of how the real estate additional expenses are set up can be seen on Table 7.

Real estate expenses							
end year		1978	1979	1980	1981	1982	1983
real estate - market value		658.169	666.602	593.956	519.845	491.012	569.291
over/under limit		1.042.201	1.139.410	1.241.019	1.400.867	1.550.494	1.692.522
real estate tax (flat value)	90%	592.352	599.942	534.561	467.861	441.911	512.362
under	0,10%	592	600	535	468	442	512
over	0,30%	0	0	0	0	0	0
real estate tax (ground)	10%	65.817	66.660	59.396	51.985	49.101	56.929
	0,34%	224	227	202	177	167	194
total taxes		816	827	737	645	609	706
water & drain tax		257	275	293	318	340	360
maintenance costs		6.564	7.026	7.493	8.125	8.694	9.211
real estate agent fee	3,00%						
total expenses		7.637	8.128	8.522	9.088	9.643	10.277
accumulated expenses		7.637	15.765	24.287	33.375	43.018	53.295

Table 7 – Real estate additional expenses. Appendix 14 - Real estate, 78-08 and Appendix 13 - Main & water.

In 1978 real estate is bought for DKK 658,169 and in 1979 the real estate price trend increases approximately one percent[41], which totals a real estate market value of DKK 666,602. Then "flat value" and "ground" value taxes are calculated. 90 percent of the value "under the limit" is taxed by 0,10 percent and the rest by 0,30 percent (though, the value does not exceed the limit). And the remaining 10 percent is taxed by 0,34 percent no matter the value. Real estate taxes, water and drain taxes are paid and maintenance costs are added. The total expenses are shown at the bottom of the table. These amounts will be used later. The total accumulated expenses for the thirty-year period equaled DKK 450,335. A round up of the total real estate net expenses is accumulated in Table 8.

[41] Appendix 11 - Real estate

	Expenses	Mortgage net payment	Bank loan net payment	Total
1978	7.637	44.505	11.451	63.593
1979	8.128	44.561	11.533	64.222
1980	8.522	44.629	12.044	65.195
1981	9.088	44.709	12.154	65.952
1982	9.643	34.001	12.289	55.933
1983	10.277	34.137	11.127	55.541
1984	10.775	34.291	11.354	56.419
1985	11.210	34.463	10.766	56.439
1986	11.633	34.658	11.071	57.361
1987	11.825	41.136	12.727	65.689
1988	12.086	41.337	13.048	66.471
1989	12.337	41.563	13.408	67.309
1990	12.557	41.818	13.814	68.189
1991	12.793	42.104	14.271	69.169
1992	13.000	42.427	14.785	70.212
1993	13.220	42.054	15.104	70.377
1994	13.267	47.002	16.083	76.351
1995	13.782	34.572	16.609	64.963
1996	12.891	34.706	17.190	64.788
1997	14.257	28.554	17.771	60.582
1998	17.216	30.276	0	47.491
1999	15.720	30.415	0	46.136
2000	15.168	30.564	0	45.732
2001	15.844	30.724	0	46.569
2002	16.125	33.399	0	49.524
2003	17.079	33.543	0	50.623
2004	17.374	33.697	0	51.071
2005	17.826	33.863	0	51.689
2006	18.585	34.040	0	52.625
2007	18.670	34.230	0	52.900

Table 8 – Total real estate net expenses 1978-2007. Appendix 14 - Real estate, 78-08.

In January 2008, investor A sold her real estate for DKK 1.726.661[42]. The conversions in 1982, 1994 and 1997 to twelve, ten and seven percent respectively caused the remaining mortgage debt of DKK 444.280[43]. The bank loan, though, had duration of twenty years and therefore ended at the end of 1997. A real estate agent fee is subtracted from investor A's total value in the beginning of 2008.

[42] Appendix 14 - Real estate, 78-08.

[43] Conversions are made into yet a thirty year period, which makes the 1997 conversion a mortgage bond loan ending at the end of 2026.

Total value, real estate investor			
Buying amount (DKK)			658.169
		1978M01	2008M01
Mortgage loan	80%	543.569	444.280
Bank loan	20%	135.008	0
Real estate value		658.169	1.726.661
Real estate agent fee	3%		51.800
Total Value		20.408	1.230.581

Table 9 – Total value, real estate investor, 1978-2008M01. Appendix 14 - Real estate, 78-08.

Table 9 shows that investor A started in the beginning of 1978 with a total negative value of DKK 20.408 and ended up with a total value of DKK 1.230.581 in the beginning of 2008, after subtracting the remaining mortgage debt and the real estate agent fee from the real estate value. The development throughout the entire thirty years is illustrated below on Figure 13.

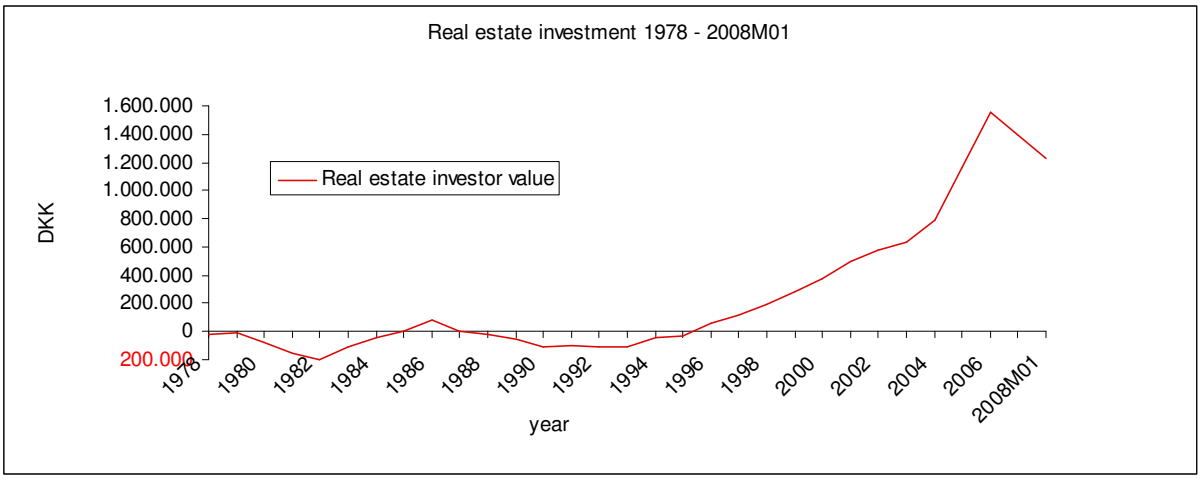

Figure 13 – Real estate value development, 1978 – 2008M01. Appendix 14 - Real estate, 78-08.

From 1978 to 1982 the real estate price index declined 25 percent[44] and the mortgage bond outstanding debt had actually increased by DKK 12.500 because of the downward conversion in 1982. The bank loan debt was reduced by DKK 4.500. In this case, investor A paid a relatively high interest, and seen from an annuity perspective, interest payments account for the majority of the gross payments in the beginning of the loan period, which reduces the instalments. The value decline was, however limited by the interest deduction of 60, 6 percent. From 1982 to 1986 the real estate market increased around fifty percent from index 75 to 113, and the outstanding

[44] Constant prices. Appendix 11 - Real estate

mortgage debt was further reduced, while the interest deduction percentage remained at 60, 6. From 1986 to 1993 the real estate price index declined 38 percent and in 1987 to 1992 the deduction percentage had been reduced to 51 percent, which increased the mortgage net payments. From 1993 until 2004 the real estate market increased significantly by 174 percent to index 192. During the following two years, it rose even more intense by 59 percent peaking at index 305 in 2006. Meanwhile, investor A made two downward conversions in 1994 and 1997 respectively, which decreased the coupon rate and made the net payments decline by thirty percent from 1997 to 1998. The net payments increased approximately twenty percent until "maturity", due to the fact that the deduction percentage fell to 44, 5 percent from 1994 to 2001 and 33,2 percent from there until the end of the loan period. The last two years the real estate market declined fourteen percent to index 262, and together with the real estate agent fee of DKK 51.800, thus the reason for the curve bend on Figure 13.

7.2 Investor B – renting and investing

In January 1978 investor B chose to rent 75 square meters real estate and invest possible rental excess capital in stock and Danish Government bonds with an 80/20 allocation[45]. The rental excess capital has been the difference between investor A's total real estate net expenses and the respective rental price the same year. The total real estate net expenses have already been calculated in Table 8 and the yearly rental expenses from 1978 to 2007 are added in Table 10.

[45] 80 % in the stock index average and 20 % in the Danish Government bonds index average.

	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1978	7.637	44.505	11.451	63.593	16.710	46.882
1979	8.128	44.561	11.533	64.222	18.241	45.980
1980	8.522	44.629	12.044	65.195	19.114	46.080
1981	9.088	44.709	12.154	65.952	20.794	45.158
1982	9.643	34.001	12.289	55.933	23.216	32.717
1983	10.277	34.137	11.127	55.541	26.174	29.367
1984	10.775	34.291	11.354	56.419	28.476	27.943
1985	11.210	34.463	10.766	56.439	30.329	26.111
1986	11.633	34.658	11.071	57.361	31.858	25.503
1987	11.825	41.136	12.727	65.689	33.535	32.153
1988	12.086	41.337	13.048	66.471	35.562	30.908
1989	12.337	41.563	13.408	67.309	37.626	29.683
1990	12.557	41.818	13.814	68.189	40.112	28.078
1991	12.793	42.104	14.271	69.169	41.830	27.338
1992	13.000	42.427	14.785	70.212	43.136	27.077
1993	13.220	42.054	15.104	70.377	44.626	25.752
1994	13.267	34.450	16.083	63.799	45.692	18.108
1995	13.782	34.572	16.609	64.963	46.530	18.433
1996	12.891	34.706	17.190	64.788	47.232	17.555
1997	14.257	28.554	17.771	60.582	48.564	12.018
1998	17.216	30.276	0	47.491	50.373	(2.882)
1999	15.720	30.415	0	46.136	51.525	(5.390)
2000	15.168	30.564	0	45.732	52.716	(6.984)
2001	15.844	30.724	0	46.569	54.234	(7.666)
2002	16.125	33.399	0	49.524	55.602	(6.078)
2003	17.079	33.543	0	50.623	57.178	(6.555)
2004	17.374	33.697	0	51.071	58.955	(7.883)
2005	17.826	33.863	0	51.689	60.317	(8.628)
2006	18.585	34.040	0	52.625	61.545	(8.920)
2007	18.670	34.230	0	52.900	62.807	(9.907)

Table 10 – Rental excess capital calculation. Appendix 12 - Rental and Appendix 14 - Real estate, 78-08.

As seen in Table 10, investor B had rental excess capital of DKK 46.882 for investment in stocks and Danish Government bonds in 1978. That amount more or less stagnated up until 1982, where the mortgage bond downward conversion from eighteen to twelve percent cut significantly in the real estate mortgage net payments and therefore also in the rental excess capital. From 1982 to 1986, the rental excess capital slowly decreased in correlation with the rental price index, but in 1987 a decrease in the deduction percentage from 60,6 to 51 percent increases the real estate mortgage net payments and the rental excess capital. From there the rental excess capital slowly decreased up until 1994 where the second conversion was made from twelve to ten percent. In 1997, Investor A executed her third downward conversion and the year after the bank loan reached maturity. This situation suddenly made the rental prices exceed the total real estate net expenses, and left investor B with no rental excess capital to invest from 1998 to 2007.

Each year starting with 1978, investor B placed her rental excess capital in the stock index average as mentioned in section 4.6. It might not have been possible to invest in that particular

joint index but alternatively, she created her own portfolio with sixteen percent investment in each of the five mentioned indexes every year[46]. The remaining twenty percent was invested in Danish Government bonds as mentioned in section 4.8. An illustration of the portfolio movements can be seen in Table 11 and Table 12.

stock	80%											
year	investnment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1978	37.318	37.318	34.739	42.438	63.769	73.093	72.158	108.615	119.973	138.641	156.063	156.553
1979	36.600	0	36.600	45.028	67.502	77.602	77.081	117.276	126.569	146.461	159.255	155.846
1980	36.680	0	0	36.680	53.581	62.704	66.150	102.854	108.408	125.331	136.910	138.461
1981	35.946	0	0	0	35.946	42.400	45.868	71.969	75.054	86.619	94.166	95.764
1982	26.043	0	0	0	0	26.043	28.012	42.935	46.007	52.737	57.714	58.530
1983	23.376	0	0	0	0	0	23.376	35.258	38.756	44.863	49.869	49.136
1984	22.242	0	0	0	0	0	0	22.242	25.701	29.536	33.367	32.446
1985	20.784	0	0	0	0	0	0	0	20.784	24.173	26.258	25.752
1986	20.300	0	0	0	0	0	0	0	0	20.300	22.165	21.750
1987	25.594	0	0	0	0	0	0	0	0	0	25.594	24.564
1988	24.603	0	0	0	0	0	0	0	0	0	0	24.603

Table 11 – Stock investment model 80 percent, 1978 – 2008 M01. Appendix 15 - Rent/invest 78-08.

Government bonds		20%													
year	Initial inv.	Inv + re inv	Adm fee	total inv	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1978	9.376		47	9.330	9.748	10.186	10.484	10.813	11.226	11.806	12.417	13.112	13.859	14.591	
1979	9.196		46	9.150		9.632	10.113	10.457	10.831	11.287	11.907	12.558	13.290	14.074	14.843
1980	9.216		46	9.170			9.514	9.889	10.346	10.967	11.620	12.354	13.140	13.910	14.654
1981	9.032		45	8.986				9.354	9.802	10.411	11.050	11.769	12.539	13.294	14.024
1982	6.543		33	6.511					6.872	7.349	7.849	8.407	9.001	9.584	10.149
1983	5.873		29	5.844						6.044	6.263	6.535	6.839	7.134	7.412
1984	5.589		28	5.561							5.800	6.090	6.411	6.722	7.018
1985	5.222		26	5.196								5.438	5.708	5.970	6.217
1986	5.101		26	5.075									5.254	5.425	5.581
1987	6.431		32	6.398										6.649	6.882
1988	6.182	20.772	104	20.669											21.305

Table 12 – Danish Government bond model 20 percent, 1978 – 2008M01. Appendix 15 - Rent/invest 78-08.

The stock portfolio was based on a "buy and keep" strategy, which means that investor B did not sell out of the portfolio until the end of 2007 where she sold the entire portfolio. The bond investments were based on ten year Danish Government bonds and after each maturity, the principal and the interest gain was re-invested[47] for yet another ten year period until the beginning of 2008, where the entire portfolio was sold. The total stock return was taxed as illustrated in Figure 9 and the Danish Government bonds were taxed continuously every year as explained in section 4.8.

From 1978 to 1993 there was no taxation of stock return. In this calculation it left investor B with a net amount of DKK 1.332.778 at the end of 1993 from an investment of DKK 419.277.

[46] 80 % divided by 5 indexes.

[47] 20.772 = 14.591 (end 1987) + initial investment of 6.182.

The invested amount was calculated as eighty percent of the accumulated investment amounts (rental excess capital) from 1978 to 1993 as illustrated in Table 10 minus a 0,5 percent administration fee[48]. The entire amount was held in the portfolio until the end of 2007 and totalled DKK 4.762.066. The return from 1994 to 2005 was taxed as illustrated in Table 13.

	1994-2005
Ultimo 2007 amount	4.762.066
- period 1978 to 1994M01	1.332.778
- Invested amount 1994-2005	52.626
	3.376.663
- tax free amount	136.600
taxable amount	3.240.063
tax class B - 43 %	1.393.227
net return	1.846.836
+ invested amount	52.626
+ tax free amount	136.600
total	2.036.062

Table 13 – Stock return taxation 1994 – 2005. Appendix 15 - Rent/invest 78-08.

The net value from the twenty percent investment in Danish Government bonds totalled DKK 214.284 from an initial investment of DKK 117.976. The total value scheme and the value development throughout the entire period are shown in Table 14[49] and Figure 14.

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		1.332.778
Value from 1994-2005		2.036.062
Value from 2006-2008		0
Total stock value		3.368.839
Bond value		214.284
Total value		3.583.123

Table 14 – Investment model 1978 – 2008M01. Appendix 15 - Rent/invest 78-08.

[48] Appendix 15 - Rent/invest 78-08

[49] 598.897 = 419.277 (1978-1993 stock invest) + 52.626 (1994-2005 stock invest) + 117.976 (bonds).

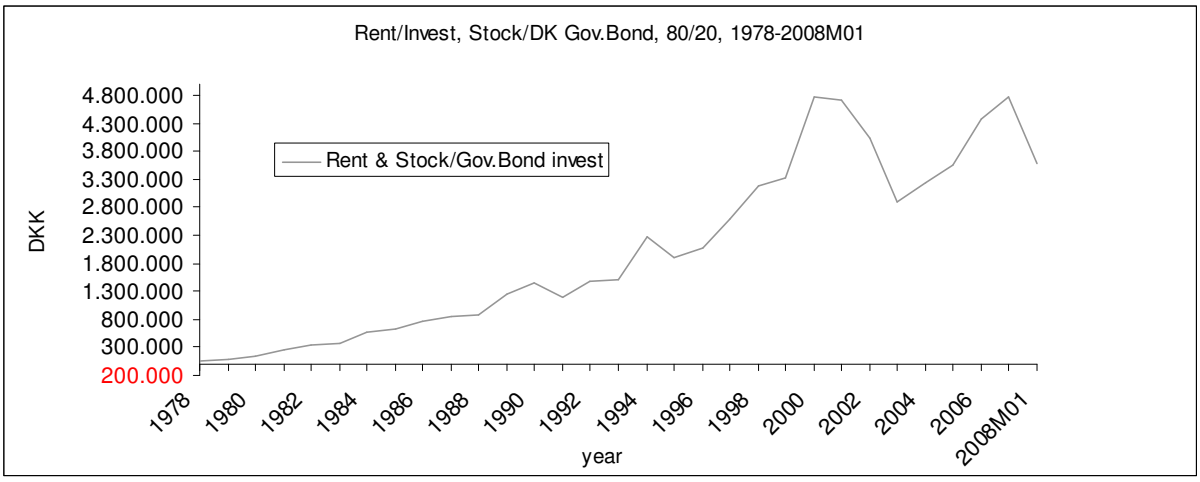

Figure 14 – Rent/invest, stock/DK Gov. bonds, 80/20, 1978 – 2008M01. Appendix 15 - Rent/invest 78-08.

The value scheme and development of the curve on Figure 14 is more or less a mirror of the stock index average from Figure 7, and the movements from 1978 to 2008 M01 are already described in section 4. The only difference here is that the effect of stock taxation made the curve bend and decline in the end.

7.3 Real estate investment vs. renting and investing 1978 – 2007

The calculations in section 7.1 and 7.2 lead to a total value of DKK 1.230.581 for investor A (the real estate investor) and DKK 3.583.123 for investor B (the tenant and stock / Danish Government bond investor). The "race" between the two investment strategies is illustrated below in Table 15 and Figure 15.

Rent & 80/20 vs real estate											
year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	
Rent & invest	47.066	91.157	154.258	261.311	330.919	370.510	568.055	637.512	754.703	858.712	
Real estate	(19.184)	(9.284)	(80.285)	(152.416)	(64.990)	(114.597)	(45.394)	(5.328)	74.849	(725)	
year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
Rent & invest	891.490	1.245.873	1.444.209	1.203.915	1.475.612	1.496.163	2.273.690	1.910.268	2.077.573	2.597.717	
Real estate	(25.562)	(60.791)	(113.243)	(107.321)	(119.285)	(117.503)	(82.096)	(42.046)	38.756	95.698	
year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Rent & invest	3.182.464	3.328.151	4.769.092	4.721.216	4.038.631	2.891.313	3.241.623	3.543.046	4.367.402	4.777.356	3.583.123
Real estate	193.168	278.747	369.552	497.012	578.368	635.221	786.148	1.160.152	1.552.507	1.398.507	1.230.581

Table 15 – Rent and invest, 80/20 vs. real estate value scheme 78-08M01. Appendix 16 - Round up.

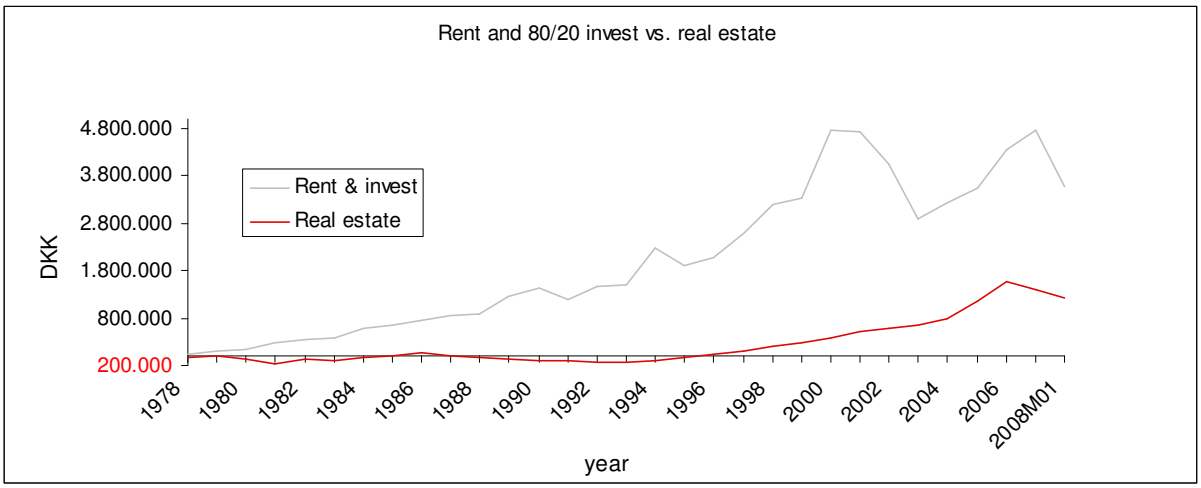

Figure 15 – Rent and invest, 80/20 vs. real estate invest, 78-08M01. Appendix 16 - Round up.

The value scheme in Table 15 shows how the value developed each year between the two investors. The real estate value was calculated as the real estate market price subtracted by the outstanding debt on both the mortgage and bank loan at the end of every year. The yearly value for investor B was calculated solely as the value of the rental excess capital investment on the stock and Danish Government bond market.

The development for the real estate curve was partly described earlier in section 7.1 (Figure 13). The real estate market declined from 1979 to 1982, while the payments on the two annuity loans mainly covered the relatively high interests. From 1982 until the end of 1986, both curves increased. The real estate curve increased on behalf of a mixture of high real estate market increases and a deduction percent of 60.6. The political intervention in Denmark "Kartoffelkuren"[50] in the fall 1986, and constant high interest rates, forced the real estate curve down from 1987 to the end of 1993, where a major conversion period for mortgage bonds occurred[51]. Investor B's stock and Danish Government bond curve increased steadily because of general rising stock indexes (especially the two Asian indexes), and even more significantly from 1993 to 1994, solely caused by the Hang Seng index movement. As a matter of fact, investor B's curve kept on increasing all the way from 1995 to 2000, where the "IT bubble burst" and "9-11" incidents occurred. Almost three years of downswing in the world economy followed.

[50] Cf. 4.7

[51] Source: En analyse af konverteringsbølgen 1993/94, finans/invest 5/94

The rest of the period was characterized by increase in both curves, though the real estate curve suffered a minor decrease from 2006 to the end of 2007 (real estate burst and "sub prime" crises in the US). The sudden and significant decrease in the rental curve had nothing to do with market movements, but purely a cause of taxation on stock returns.

The relatively high market interest rates had together with the ailing real estate market (1978 to 1997) given the real estate investor a hard time. Meanwhile, the stock market index grew steadily up until 2000/2001, and not even the incidents in 2000 and 2001 could even the score between investor A and investor B. The gap had already grown too wide.

7.4 Different allocations and risk profiles 1978 – 2007

So far it has been assumed that investor B allocated her investments as 80/20 in stocks and Danish Government bonds, respectively. It is impossible to predict how investor B's risk preferences would have been like, and therefore the effect of other selected allocations have also been calculated.

First, it has been assumed that investor B took on maximum risk by allocating her portfolio entirely with stock investment. Even though the stock index average in this Thesis was a much diversified portfolio with a broad selection of stocks from various countries and industries, it is still considered as the most risky investment compared to Danish Government bonds. That is followed by an even allocation between stocks and bonds, a 20/80 allocation, and last an investment exclusively in Danish Government bonds, which has to be seen as the least risky security investment in this Thesis.

It should not come as a surprise that allocating a greater percentage of the investment in the stock index average simply lifted the "rent & invest" curve on Figure 15. This is, though, also the maximum risk profile that investor B could undertake, but simultaneously also the maximum obtainable value for all allocations. Table 16 sets up five different investment allocations between stocks and Danish Government bonds.

Value scheme	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Real estate	19.184	9.284	80.285	152.416	64.990	114.597	45.394	5.328	74.849	725
Rent & invest 100/0	46.648	89.174	155.183	275.997	352.303	390.808	626.437	701.563	835.828	951.699
Rent & invest 80/20	47.066	91.157	154.258	261.311	330.919	370.510	568.055	637.512	754.703	858.712
Rent & invest 50/50	47.693	94.132	152.871	239.281	298.842	340.063	480.482	541.436	633.017	719.232
Rent & invest 20/80	48.320	97.108	151.484	217.251	266.765	309.617	392.909	445.359	511.330	579.751
Rent & invest 0/100	48.738	99.091	150.559	202.564	245.381	289.319	334.527	381.308	430.206	486.764

Value scheme	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Real estate	25.562	60.791	113.243	107.321	119.285	117.503	82.096	42.046	38.756	95.698
Rent & invest 100/0	979.256	1.409.631	1.643.726	1.329.502	1.655.042	1.665.972	2.625.815	2.159.401	2.356.602	2.996.516
Rent & invest 80/20	891.490	1.245.873	1.444.209	1.203.915	1.475.612	1.496.163	2.273.690	1.910.268	2.077.573	2.597.717
Rent & invest 50/50	759.842	1.000.235	1.144.933	1.015.534	1.206.468	1.241.449	1.745.502	1.536.568	1.659.031	1.999.520
Rent & invest 20/80	628.194	754.598	845.657	827.154	937.324	986.735	1.217.314	1.162.868	1.240.489	1.401.322
Rent & invest 0/100	540.429	590.840	646.139	701.567	757.894	816.926	865.189	913.735	961.460	1.002.524

Value scheme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Real estate	193.168	278.747	369.552	497.012	578.368	635.221	786.148	1.160.152	1.552.507	1.230.581
Rent & invest 100/0	3.721.112	3.898.983	5.699.031	5.644.534	4.788.919	3.352.632	3.787.717	4.163.088	5.192.536	4.196.365
Rent & invest 80/20	3.182.464	3.328.151	4.769.092	4.721.216	4.038.631	2.891.313	3.241.623	3.543.046	4.367.402	3.583.123
Rent & invest 50/50	2.374.492	2.471.904	3.374.183	3.336.239	2.913.200	2.199.333	2.422.482	2.612.983	3.129.700	2.663.261
Rent & invest 20/80	1.566.520	1.615.656	1.979.274	1.951.261	1.787.768	1.507.353	1.603.341	1.682.920	1.891.999	1.743.399
Rent & invest 0/100	1.027.872	1.044.824	1.049.335	1.027.943	1.037.481	1.046.034	1.057.247	1.062.878	1.066.865	1.071.419

Table 16 – Total value scheme, 78-07. Appendix 16 - Round up.

It is clear to see that only a 100 percent allocation in Danish Government bonds would have lost to real estate investment under the given circumstances and available investment opportunities. A break-even allocation would have been approximately 3/97[52]. That is, all portfolios with an allocation up to 97 percent in Danish Government bonds have "beaten" real estate investment from the beginning of 1978 to the end of 2007, under the given circumstances. The stock return until 1993 surely gave investor B a favourable investment position with a non taxable value of DKK 1.3 million that grew with 343 percent up until the end of 2007. This was a nice consolation price for not having any rental excess capital for investment from 1998 to 2007[53].

[52] Calculated with Solver in Excel.

[53] Table 10.

8 THE HISTORICAL ANALYSIS – PART 2

The first part of the historical analysis focused on a thirty-year period from the beginning of 1978 to the end of 2007, where investor B invested her rental excess capital with an 80/20 allocation in stocks and Danish Government bonds, respectively. It was clear that renting and investing with the given allocation, risk profile and time period has been the best strategy economically.

Since the analysis concerns real estate investment, it is sensible to look at a thirty year period, but how would the development have been with different entry and exit periods? It is possible that many home owners have changed their homes at least once or twice in the thirty-year period, and therefore the following analysis will calculate the different value schemes according to different entry and exit periods. More specifically, the periods that will be analysed are; 1985 to 1994, 1995 to 2004 and 1998 to 2007.

It is important to mention that the techniques and calculation methods in the following are similar to those used in the previous analyses from 1978 to 2007, and therefore fewer explanations and illustrations will be executed. Though, if needed, all calculations can easily be found in appendix or on the attached CD-Rom.

8.1 Period 1985 – 1994

In 1985, investor A acquired 75 square meters real estate for DKK 667.924[54], which was financed with an 80/20 allocation by a mortgage loan and a bank loan. The mortgage loan and the bank loan started with a coupon interest rate at ten percent[55], and followed the same patterns as for the thirty-year period, the beginning of 1978 to the end of 2007. The new situation, though, was that the investors entered the market at the beginning of 1985 and made an exit in the end of 1994. Investor B rented 75 square meters for the same period, and the total yearly expenses for both investor A and investor B are show on Table 17.

[54] Appendix 11 - Real estate.

[55] Appendix 17 - Real estate, 85-94.

	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1985	11.210	30.893	8.957	51.060	30.329	20.732
1986	11.633	31.038	9.084	51.755	31.858	19.897
1987	11.825	37.504	10.760	60.089	33.535	26.554
1988	12.086	37.657	10.894	60.636	35.562	25.074
1989	12.337	37.829	11.044	61.210	37.626	23.584
1990	12.557	38.023	11.213	61.793	40.112	21.682
1991	12.793	38.241	11.403	62.438	41.830	20.608
1992	13.000	38.487	11.617	63.105	43.136	19.969
1993	13.220	38.008	11.246	62.474	44.626	17.848
1994	13.267	26.918	11.633	51.818	45.692	6.127

Table 17 – Rental excess capital calculation. Appendix 12 - Rental and Appendix 17 - Real estate, 85-94.

Table 17 shows that from 1985 to 1986 the rental excess capital declined mainly because of a five percent increase in the rental market prices from DKK 30.329 to DKK 31.858[56]. In 1987 the interest deduction percentage was decreased from 60,6 percent to 51 percent, which increased investor A's mortgage and bank loan net payments more than the increase on the rental market; the rental excess capital increased from DKK 19.897 to DKK 26.554 from 1986 to 1987. From 1987 to 1993 the rental prices increased approximately 33 percent, and in 1994 investor A converted her mortgage loan from twelve to ten percent, which decreased her net payments by 29 percent, even though the interest deduction percentage decreased from 52,2 to 44,7 percent. This conversion decreased the rental excess capital with 66 percent from DKK 17.848 to DKK 6.127.

Figure 16 illustrates the value development between the real estate investor (investor A) and the tenant and stock / Danish Government bond investor (investor B). Investor B invested her rental excess capital with an allocation of 80/20 in the stock index average and Danish Government bonds respectively, and aside from a slight decline from 1990 to 1991, which was caused mainly by the NIKKEI 225 index movement, the value curve increased steadily throughout the ten-year period ending at a net value of DKK 416.961. Contrarily, investor A ended up with a negative net value of DKK 156.915, which was caused by a real estate market price decline of almost 33 percent[57] from 1987 to 1994. She only had the lead in 1986 because of a twelve percent real estate market price increase from 1985 to 1986.

[56] Appendix 12 - Rental.

[57] Appendix 11 - Real estate.

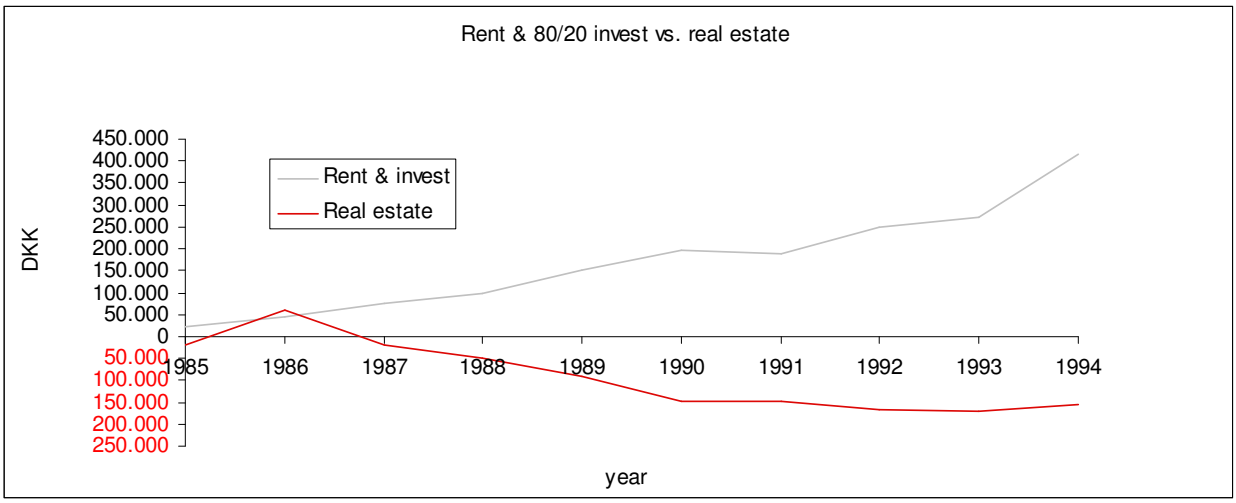

Figure 16 – Rent and invest, 80/20 vs. real estate invest, 85-94. Appendix 16 - Round up.

In this period, with the given investment allocation, investor B did not pay taxes on her stock return at all. Until 1993 stock returns were non taxable and the return from 1993 to 1994 did not exceed DKK 136.000, which was the taxable limit from mid 1993 until 2006[58]. The bond yields were, though, taxed continuously[59].

Also from this period it would be interesting to calculate the outcomes for investor B with different allocations and risk preferences. Table 18 maps the total value scheme of all the selected allocations. The value of investor B decreased in correlation with more allocation in Danish Government bonds.

Value scheme	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Real estate	18.254	58.617	20.677	49.702	89.644	147.401	147.449	166.133	171.265	156.915
Rent & invest 100/0	20.628	43.788	74.098	97.076	159.035	206.229	191.915	259.312	282.183	443.582
Rent & invest 80/20	20.820	43.662	73.742	97.778	152.783	196.084	190.170	249.703	273.507	416.961
Rent & invest 50/50	21.107	43.473	73.208	98.832	143.405	180.866	187.551	235.290	260.491	355.865
Rent & invest 20/80	21.395	43.283	72.674	99.886	134.026	165.647	184.932	220.877	247.476	294.770
Rent & invest 0/100	21.587	43.157	72.318	100.588	127.774	155.502	183.187	211.268	238.799	254.039

Table 18 – Value Scheme, 1985 – 1994. Appendix 16 - Round up,
Appendix 17 - Real estate, 85-94, Appendix 18 - Rent/invest 85-94.

[58] Cf. 5.2 and Appendix 18 - Rent/invest 85-94.

[59] Appendix 18 - Rent/invest 85-94.

8.2 Period 1995 – 2004

As in the previous section investor A acquired 75 square meters real estate that was financed with an 80/20 allocation by a mortgage loan and a bank loan. Only now the period ran from 1995 to 2004, and the real estate price was DKK 521.881[60]. The relatively low real estate price was an effect of the 22 percent decline from 1985 to 1995. The mortgage loan and the bank loan followed the same patterns as for the thirty-year period 1978 to 2007, only now with an entry at the beginning of 1995 and an exit in the end of 2004. Both loans started with an interest rate of ten percent. Investor B rented 75 square meters real estate for the same period, and the total yearly expenses for both investor A and investor B are show in Table 19.

	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1995	13.782	28.466	8.312	50.561	46.530	4.030
1996	12.891	28.567	8.387	49.845	47.232	2.613
1997	14.257	23.778	8.139	46.174	48.564	(2.390)
1998	17.216	25.212	8.620	51.048	50.373	674
1999	15.720	25.328	8.393	49.441	51.525	(2.084)
2000	15.168	25.452	8.483	49.103	52.716	(3.613)
2001	15.844	25.586	8.581	50.011	54.234	(4.223)
2002	16.125	27.813	8.815	52.753	55.602	(2.849)
2003	17.079	27.933	8.792	53.804	57.178	(3.373)
2004	17.374	28.062	9.093	54.528	58.955	(4.427)

Table 19 – Rental excess capital calculation. Appendix 12 - Rental, Appendix 19 - Real estate, 95-04.

From 1995 to 1996 the rental excess capital decreased from DKK 4.030 to DKK 2.613, both because of a relatively low real estate market price (real estate taxes follow the real estate price) and a minor increase in the rental market prices[61]. In 1997 investor A converted her mortgage bond loan from ten to seven percent, which decreased her net payments from 1996 to 1997 with approximately seventeen percent, and that actually resulted in a situation with negative rental excess capital for investor B. That situation was reversed again in 1998 because of increasing real estate prices (and taxes) and a 25 percent rise in real estate maintenance costs[62]. The period 1999 to 2001 again brought on less net payments for the real estate investor and therefore no rental excess investment capital for investor B. This period was characterised by steady net

[60] Appendix 11 - Real estate.

[61] Appendix 12 - Rental.

[62] Appendix 11 - Real estate.

payments for investor A and a three percent yearly rental price increase for investor B. In 2002 investor B recovered little of the negative rental excess capital trend, but not enough to break-even. In this year the interest deduction percentage was decreased from 44,4 to 33,2 percent, which increased investor A's net expenses with 5,5 percent against investor B's 2,5 percent. No further conversions, deduction percentage regulations or dramatically fluctuations were made, but the steady increasing rental price index held investor B's investment capital negative. The increase in rental expenses could be explained as an effect of the heavy rise in real estate market index.

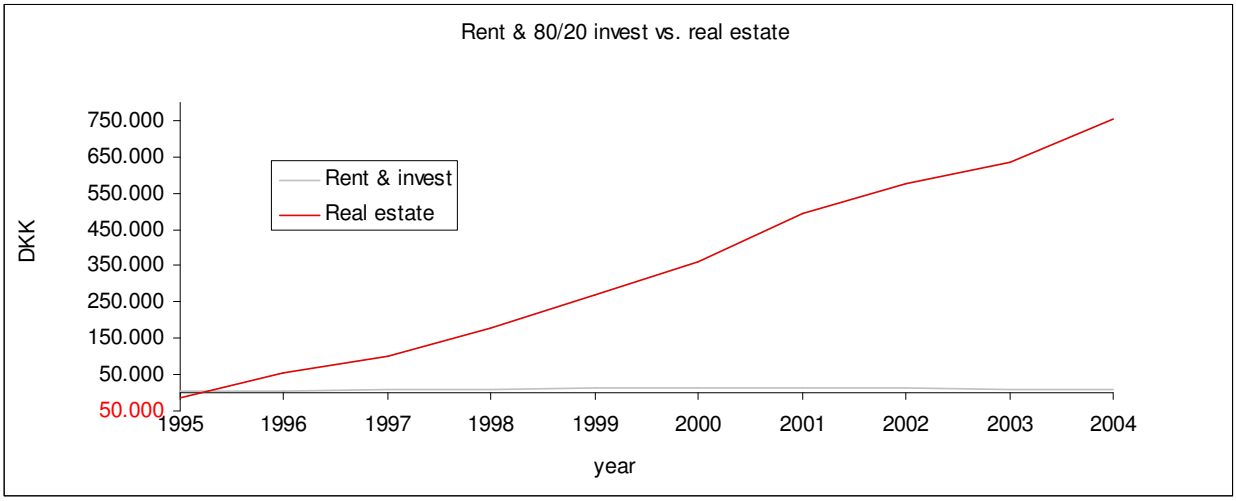

Figure 17 – Rent and invest, 80/20 vs. real estate invest, 95-04. Appendix 16 - Round up.

Figure 17 underlines the fact that investor B did not have much rental excess capital to invest. Even though this period contained the "It – bubble burst" and "9/11" the stock index average increased 63 percent from 1985 to 2004. The biggest increase occurred from 1999 to 2000, but that period was included in the years of negative rental excess capital for investor B. On top of that, investor A was further fortuned by an increasing real estate price index of significantly 143 percent from 1995 to 2004. This period was really fruitful for real estate investors, and investor A ended up with a total net value of DKK 752.507 after selling her real estate at the end of 2004, including a real estate agent fee. Investor B came out with a total net value of DKK 11.454, and as illustrated beneath on Table 20, not even other selected allocations and risk preferences could have changed the picture at all. A detail to be noticed is that investor B avoided tax payments on her stock returns this time.

Value scheme	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Real estate	14.729	53.070	98.587	180.592	268.342	361.506	491.532	575.679	635.850	752.507
Rent & invest 100/0	4.010	6.969	8.763	11.944	12.734	18.203	17.943	15.345	10.721	12.026
Rent & invest 80/20	4.036	6.961	8.433	11.155	11.824	16.232	16.062	14.021	10.362	11.454
Rent & invest 50/50	4.076	6.950	7.940	9.972	10.459	13.277	13.241	12.036	9.824	10.595
Rent & invest 20/80	4.116	6.939	7.446	8.789	9.094	10.322	10.420	10.051	9.286	9.737
Rent & invest 0/100	4.142	6.931	7.117	8.000	8.184	8.351	8.539	8.727	8.928	9.164

Table 20 – Value Scheme, 95-04. Appendix 16 - Round up, Appendix 19 - Real estate, 95-04, Appendix 20 - Rent/invest 95-04.

8.3 Period 1998 – 2007

The market price for 75 square meters real estate in 1998 was DKK 712.825[63], which again was financed with an 80/20 allocation by a mortgage loan and a bank loan. Both the mortgage loan and the bank loan had a coupon interest rate of seven percent[64], and followed the same patterns as for the thirty-year period 1978 to 2007. The period began in the beginning of 1998 and ended at the of 2007. Once again investor B rented 75 square meters for the same period, and the total yearly expenses for both investor A and investor B are shown in Table 21.

	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1998	17.216	33.502	11.376	62.094	50.373	11.721
1999	15.720	33.647	10.964	60.331	51.525	8.806
2000	15.168	33.802	11.060	60.029	52.716	7.313
2001	15.844	33.967	11.164	60.975	54.234	6.741
2002	16.125	36.969	12.037	65.130	55.602	9.528
2003	17.079	37.118	11.672	65.869	57.178	8.691
2004	17.374	37.278	11.767	66.419	58.955	7.464
2005	17.826	37.449	11.491	66.767	60.317	6.450
2006	18.585	37.633	11.586	67.804	61.545	6.259
2007	18.670	37.830	11.688	68.188	62.807	5.380

Table 21 – Rental excess capital calculation 98-07. Appendix 12 - Rental, Appendix 21 - Real estate, 98-07.

The period from 1998 to 2007 did not feature as many fluctuations as in the previous analysed periods. The maintenance expenses for investor A decreased from 1998 to 1999 but from there they increased steadily. The most significant movement in Table 21 was the interest deduction decrease from 40,4 to 33,2 percent in 2002, which increased the real estate net expenses. From 2003 to 2007 both the mortgage and the bank loan net payments increased

[63] Appendix 11 - Real estate.

[64] Appendix 17 - Real estate, 85-94

steadily, but not as much as the rental prices, which resulted in slightly decreasing rental excess capital.

The value development between investor A and investor B is illustrated on Figure 18. The real estate market prices increased massively from 1998 to 2006. From 1998 to 2004 the real estate price index increased 78 percent, and from 2004 to 2006 it rose by a further 59 percent. The bend and negative slope on the real estate curve from 2006 to the beginning of 2008 was a result of a real estate market price decrease of 14 percent and a real estate agent fee of DKK 55.284.

Figure 18 – Rent and invest, 80/20 vs. real estate invest, 98-07. Appendix 16 - Round up.

For the first time in this Thesis investor B had to pay taxes of stock returns from 2006 and 2007, though her relatively low return from 1998 to 2005 once again avoided taxation[65]. Even though the stock market experienced rather significant fluctuations in this particular period, it did not play an important role for investor B or for the "race" between the two investors in general. Investor B simply did not have enough rental excess capital to invest[66], and simultaneously the real estate market prices increased 143 percent totally, which made 1998 to 2007 yet another fruitful period for the real estate investor.

As mentioned above the real estate investment appeared to be the favourable investment from 1998 to 2007, compared to renting and investing in stocks and Danish Government bonds

[65] Appendix 22 - Rent/invest 98-07.

[66] Table 21.

with an 80/20 allocation. Table 22 shows that no other allocations and risk profiles would have helped investor B in this period either.

Value scheme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Real estate	15.910	73.304	168.042	299.755	385.713	447.943	566.807	1.097.820	1.490.548	1.336.949	1.182.721
Rent & invest 100/0	11.663	20.885	38.714	43.092	45.292	40.698	53.319	64.598	87.652	100.051	101.685
Rent & invest 80/20	11.704	20.882	36.656	41.590	45.364	43.560	55.351	65.836	85.702	96.916	98.223
Rent & invest 50/50	11.767	20.878	33.568	39.337	45.472	47.852	58.400	67.692	82.778	92.212	93.029
Rent & invest 20/80	11.830	20.874	30.481	37.084	45.580	52.145	61.448	69.549	79.854	87.509	87.836
Rent & invest 0/100	11.872	20.871	28.423	35.582	45.652	55.007	63.481	70.787	77.904	84.373	84.373

Table 22 – Value Scheme, 98-07. Appendix 16 - Round up, Appendix 21 - Real estate, 98-07, Appendix 22 - Rent/invest 98-07.

Three ten year periods with different entry and exit years have been analysed, and it was more than clear which investment strategy that was the favourable in each period. From 1985 to 1994, investor A suffered from the declining real estate market index that finally started to recover in 1995. As mentioned in section 6.1 the real estate market index clearly did not experience an overall actual growth in twenty years from 1978 to 1997[67], because of relatively high inflation rates from 1978 to 1982 and general decreasing real estate prices during the same period, and again from 1986 to 1994. Investor A lost 25 percent[68] on her real estate investment from 1985 to 1994 and there to was added a real estate agent fee. Furthermore, the interest rates were relatively high until 1994 and the deduction percentage was decreased both in 1987, 1993 and 1994. All things considered, 1985 to 1994 was a tough period for a real estate investor, especially if entry and exit was executed as mentioned above.

The next two periods showed a totally different picture. Both from 1995 to 2004 and from 1998 to 2007 the real estate market index increased significantly with 143 percent. From 1995 to 2004 the stock index average increased “only” 80 percent and from 1998 to 2007 approximately 47 percent, which does not quite reach the real estate increase. The relatively small yearly rental excess capital amounts that investor B had for investments in both periods (and even with negative and no investment capital most of the years from 1995 to 2004) was simply not enough, but again, the difference between the increasing indexes was the dominating factor.

[67] The entire period as a whole. 1978 = 100, 1997 = 97.

[68] Appendix 11 - Real estate.

9 THE HISTORICAL ANALYSIS – PART 3

Up to this point the analysis and calculations have been made on empirical data collected from various valid databases, articles and books. The research period was long and comprehensive, which made the historical results relatively reliable. Therefore, it is now time to reflect, in the form of a sensitivity analysis. Since it is very difficult – even impossible – to predict the future, changing one of the key drivers in the historical analysis might give a picture of what could happen, when and if the same driver is adjusted in the future. So instead of constructing a future scenario with numerous assumptions and fictive situations, the following analyses will use the past as a reference point, but with a few modifications.

9.1 Interest deduction decrease

It is clear that some key drivers correlate and therefore changing one key driver might provoke a chain reaction among other drivers. High interest rates could have forced the Government to increase the deduction percentages, and decreasing interest rates could have prompted increasing tendencies on the real estate market etc. Nevertheless, the analysis will try to examine how sensitive the results can be when only one key driver is changed.

Even though the historical analysis in this Thesis does not include empirical data from 2008 and 2009, it could be interesting to calculate on the current proposition from the Danish Tax Committee about decreasing the interest deduction percentage[69]. Decreasing the deduction will increase the mortgage net payments and therefore also the rental excess capital for investor B (the tenant). Since investor B already prevailed over investor A (the real estate investor) from the beginning of 1978 to the end of 2007, it will be redundant to focus on that period. Instead the analysis will be concentrated on the period from the beginning of 1998 to the end of 2007, where investor B trailed[70]. The deduction percentages during that period were as illustrated below in Table 23. Currently The Danish Tax Committee has made a proposition to decrease interest deduction from 33,2 to 25 percent, which is similar to a 25 percent decrease. In the following example it is assumed that the deduction percentage levels before 2002 also were 25 percent lower.

[69] http://dr.dk/Nyheder/Penge/2009/02/02/02110606.htm

[70] Table 22

Deduction percentages for mortgage interest debt in Denmark						
Year	1978 - 1986	1987 - 1992	1993	1994 - 1997	1998 - 2001	2002 - 2007
Deduction percentages	60,6%	51,0%	52,2%	44,7%	40,4%	33,2%
25 percent decrease					30%	25%

Table 23 – Adjusted deduction, 98-07.

As shown in Table 23, interest deduction from 1998 to 2001 has also been reduced 25 percent. The following analysis will now re-calculate the value scheme from the beginning of 1998 to the end of 2007 under these new circumstances. The new situation is not expected to turn the picture upside down, but solely an attempt to calculate what an effect the decrease would have had on the gap between the two investors. The new situation and the total yearly expenses for both investor A and investor B are show in Table 24.

	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1998	17.216	37.782	12.748	67.745	50.373	17.372
1999	15.720	37.881	12.158	65.759	51.525	14.234
2000	15.168	37.987	12.224	65.379	52.716	12.663
2001	15.844	38.101	12.297	66.242	54.234	12.008
2002	16.125	40.184	12.903	69.212	55.602	13.610
2003	17.079	40.286	12.404	69.769	57.178	12.592
2004	17.374	40.396	12.469	70.239	58.955	11.284
2005	17.826	40.514	12.065	70.404	60.317	10.087
2006	18.585	40.640	12.128	71.353	61.545	9.808
2007	18.670	40.775	12.196	71.641	62.807	8.833

Table 24 – Adjusted rental excess capital calculation 98-07. Appendix 12 - Rental, Appendix 23 - Deduction decrease, 98-07.

Not surprisingly the net payments and the rental excess capital in Table 24 have increased, compared to the ones from Table 21. The effect of the two scenarios is illustrated below.

	Adjusted	Normal	Effect
year	Rental excess capital	Rental excess capital	difference
1998	17.372	11.721	5.650
1999	14.234	8.806	5.428
2000	12.663	7.313	5.350
2001	12.008	6.741	5.267
2002	13.610	9.528	4.082
2003	12.592	8.691	3.900
2004	11.284	7.464	3.820
2005	10.087	6.450	3.637
2006	9.808	6.259	3.548
2007	8.833	5.380	3.453
			44.136

Table 25 – Effect of 25 percent deduction decrease, 98-07. Appendix 23 - Deduction decrease, 98-07.

A decrease of interest deduction by 25 percent would have increased the total rental excess capital by DKK 44.136 from the beginning of 1998 to the end of 2007. The excess amount, though, steadily declined because of increasing rental prices[71]. Each year investor B invested her rental excess capital in the stock index average and in Danish Government bonds with an 80/20 allocation exactly as in section 8.3. The Excel sheet for the portfolio calculations can be seen in Table 26 and Table 27.

stock	80%											
Year	investnment	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1998	13.828	13.828	14.374	21.495	20.189	16.832	11.867	13.358	14.573	18.304	19.833	20.299
1999	11.330	0	11.330	17.209	16.062	13.289	9.394	10.605	11.580	14.560	15.841	16.381
2000	10.080	0	0	10.080	9.609	8.026	5.679	6.425	7.069	8.911	9.689	9.900
2001	9.558	0	0	0	9.558	7.903	5.602	6.310	6.887	8.692	9.382	9.514
2002	10.833	0	0	0	0	10.833	7.709	8.703	9.499	12.040	12.958	13.124
2003	10.023	0	0	0	0	0	10.023	11.292	12.305	15.549	16.755	17.006
2004	8.982	0	0	0	0	0	0	8.982	9.759	12.298	13.246	13.423
2005	8.029	0	0	0	0	0	0	0	8.029	10.101	10.859	10.990
2006	7.807	0	0	0	0	0	0	0	0	7.807	8.419	8.553
2007	7.031	0	0	0	0	0	0	0	0	0	7.031	7.075
	97.501											126.265

Table 26 – Stock investment model 80 percent, 98-08 M01, deduction decrease.

Government bonds		20%												
Year	Initial inv.	Adm fee	invest	1998	1999	2000	2001	2002	2003	2004	2005	2006	2006	2008M01
1998	3.474	17	3.457	3.519	3.567	3.608	3.658	3.709	3.765	3.838	3.900	3.960	4.024	
1999	2.847	14	2.833		2.856	2.874	2.899	2.925	2.955	2.999	3.034	3.067	3.104	
2000	2.533	13	2.520			2.550	2.586	2.623	2.664	2.717	2.763	2.806	2.853	
2001	2.402	12	2.389				2.424	2.459	2.498	2.549	2.592	2.633	2.677	
2002	2.722	14	2.708					2.748	2.792	2.849	2.898	2.945	2.995	
2003	2.518	13	2.506						2.518	2.544	2.560	2.576	2.594	
2004	2.257	11	2.245							2.268	2.283	2.297	2.313	
2005	2.017	10	2.007								2.021	2.033	2.071	
2006	1.962	10	1.952									1.964	1.978	
2007	1.767	9	1.758										1.780	
	24.498		24.375	3.519	6.424	9.031	11.568	14.463	17.191	19.765	22.051	24.282	26.390	26.390

Table 27 – Danish Government bond model 20 percent, 98-08M01, deduction decrease.

[71] Appendix 12 - Rental

The stock portfolio was based on a "buy and keep" strategy and the bond investments were based on ten year Danish Government bonds. Investor B sold the entire portfolio at the end of 2007. The total stock return was taxed as illustrated in Figure 9 and the Danish Government bonds were taxed continuously every year as explained in section 4.8.

The invested amount was calculated as eighty percent of the rental excess capital minus a 0,5 percent administration fee[72]. The return from 1998 to the end of 2007 was taxed as illustrated in Table 28.

	1998-2005
	110.636
- period 1978 to 1994M01	0
- Invested amount	82.663
	27.973
- tax free amount	136.600
tax axable amount	(108.627)
tax class B - 43 %	0
net return	(108.627)
+ invested amount	82.663
+ tax free amount	136.600
total	110.636
	2006-2008
	15.629
- Invested amount	14.838
tax axable amount	791
tax class C - 28 %	221
	569
+ invested amount	14.838
total	15.407

Table 28 – Stock return taxation, 98-07, deduction decrease.

The net value from the twenty percent investment in Danish Government bonds totalled DKK 26.390 from an initial investment of DKK 24.375. The net value from the stock investment totalled DKK 126.044. The total value and the value development throughout the entire period are shown in Table 29 and Table 30.

[72] Appendix 15 - Rent/invest 78-08

Investment model 1998-2008M01		invested	2008M01
Investment amount		121.876	
Value from 1978-1994M01			0
Value from 1994-2005			110.636
Value from 2006-2008			15.407
Total stock value			126.044
Bond value			26.390
Total value			152.434

Table 29 – Investment model, 98-08M01, deduction decrease. [73]

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	13.828	25.704	48.784	55.418	56.883	50.274	65.675	79.702	108.263	124.012	126.044
Gov. Bond	3.519	6.424	9.031	11.568	14.463	17.191	19.765	22.051	24.282	26.390	26.390
Total	17.347	32.128	57.815	66.986	71.345	67.465	85.439	101.752	132.545	150.403	152.434

Table 30 – Total value scheme, 98-08M01, 80/20, deduction decrease.

The extra rental excess capital gave a total value of DKK 152.434 for investor B, and that was DKK 54.212 more than calculated in Table 22[74]. To round up the analysis of the deduction decrease, a result of all the different allocations and risk preferences are given in Table 31.

Value scheme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2008M01	effect
Real estate	15.910	73.304	168.042	299.755	385.713	447.943	566.807	1.097.820	1.490.548	1.336.949	0
Rent & invest 100/0	17.285	32.130	60.980	69.272	71.103	62.842	82.093	99.627	135.329	157.555	55.870
Rent & invest 80/20	17.347	32.128	57.815	66.986	71.345	67.465	85.439	101.752	132.545	152.434	54.212
Rent & invest 50/50	17.440	32.124	53.068	63.556	71.709	74.399	90.459	104.940	128.369	144.753	51.724
Rent & invest 20/80	17.533	32.121	48.321	60.126	72.072	81.333	95.478	108.129	124.193	137.072	49.237
Rent & invest 0/100	17.595	32.118	45.157	57.840	72.315	85.956	98.824	110.254	121.409	131.952	47.579

Table 31 – Total value scheme, 98-08M01, all allocations, deduction decrease.

Table 25 showed the immediate yearly effect of the interest deduction decrease of 25 percent. Investor B simply had more rental excess capital. Table 31 then calculates how much the rental excess capital changed the investment portfolio by allocating differently. The change was not close to bringing the two investors together, but as mentioned earlier that was not expected and not the purpose of the analysis. The purpose was to calculate how much the Governmental action affected the investors economically. Notice that the effect for the real estate investor is set to zero, and that is because the outstanding debt is unchanged no matter how much the deduction percentages fluctuate. Though, the net payments increased in favour of investor B.

[73] DKK 121.876 = 82.663 (stock, 98-05) + 14.838 (stock, 06-08M01) + 24.375 (DK Gov. bond).

[74] DKK 152.220 – DKK 98.223

By reducing the interest deduction percentage The Danish Tax Committee indirectly favour investor B and other tenants. Although the beginning of 1998 to the end of 2007 was a relatively profitable period for the real estate owner, a similar scenario might not be the case in the future. The decline in the real estate market index from 2006 (illustrated on Figure 10) has continued throughout 2007 and 2008. People who bought real estate just before the decline now sit with substantial mortgage payments, which initially were offered on basis of a interest deduction percent of 33,2. As calculated above, decreasing deduction percentages can have a considerable influence on the net mortgage payments, which, most likely, take up a great part of many real estate owners' private economy. It is important to notice that investor A "only" had net payments financing a real estate purchase of DKK 712.825. Since this Thesis concerns family houses and freehold flats in Copenhagen, where the prices today are substantially higher, the effect of reducing interest deduction can be multiple compared to the calculations above. All other things being equal, a situation with reduced interest deduction can very well force countless real estate owners to sell their homes and enter the rental market instead. The ongoing crisis on the real estate market may, however, obstruct possible home owners in their attempt to sell their real estate for a "reasonable" price. The Danish Tax Committee has promised that if the proposition becomes reality, the reduction will not become effective before 2012 and then executed gradually until 2015[75]. So if, real estate owners today already feel that the proposition will induce bankruptcy, they still have some time to readjust.

[75] http://dr.dk/Nyheder/Penge/2009/02/02/02110606.htm

10 A CRITICAL POINT OF VIEW

Although this Thesis has considered real estate investment exclusively from a financial perspective, it is impossible to avoid a discussion about individual preferences when investing in real estate as residence. As mentioned shortly in the introduction, the view on real estate owners has changes during the last decade. Real estate owners suddenly became real estate investors without necessarily giving financial investments a thought. The majority of real estate owners have most likely purchased their homes for residential purposes with a dream of *"this is where I'm going to live until I die"*. If real estate owners were not financial experts or in possession of sufficient knowledge about pension savings, they probably did not consider their real estate ownership as a relatively secure investment or a possible savings account for the latter part of life. It was a comparatively secure investment because it would never become worthless financially, and the sentimental value would at least exceed even the lowest real estate market valuation. Real estate owners during the decades from 1978 to 1997 did not experience a total real estate value increase[76], but they were "owners" of their own homes[77]. Even if the real estate market declined over one or two decades, they still had their homes, and all payments, up until then, had been spent on reducing the mortgage debt. So, no payments were considered as "wasted" compared to rental payments. If the real estate market prices decreased, their homes still had a value – it was just a matter of how much or how little. Whether or not it had been a comparatively expensive housing solution, seen from a financial perspective, was analysed earlier in this Thesis.

If real estate investment had been regarded from mainly a financial perspective, though, also with purpose of residence, the significantly higher transaction costs, compared to other financial investment opportunities, have had to be taken in to account. Two issues had to be pondered on; first, the expenses of buying real estate were quite high – much higher that the ones for stock and bond investment. As illustrated in this Thesis, stock investment contained a fee, which was a relatively small percentage of the stock price, and transactions were executed monthly. Investing

[76] Again, 1978 to 1997 is seen as a whole. 1978 = 100, 1997 = 97.

[77] Partly until the outstanding debt was paid off.

in real estate, however, carried considerably fees to both real estate agents and lawyers[78]. Therefore, real estate investments have primarily been relevant for investors with a long term and more passive strategy. Secondly, private investors have probably not possessed financial resources enough to acquire a portfolio of real estate, which is essential in order to diversify[79]. Alternatively, if diversification has been desired, investments in financial associations (financial investment companies) have been available – this would of course have eliminated the possibility and purpose of residence, and therefore been considered entirely as a financial investment – with taxation of eventual profits. The concerned investor could well have been a tenant, who bought shares in such a financial association or company.

[78] Lawyers formulate and compose the deed. In this Thesis that is included in the stamp fee.

[79] Cf.: 3.2, Diversification, Un-systematic and Systematic risk.

11 CONCLUSION

This Thesis has analysed the financial difference between being a real estate investor and being a tenant with "rental excess capital" investments in stocks and Danish Government bonds – both investors had their residence in Copenhagen, Denmark. The real estate investor had multiple mortgage and bank loan payments, maintenance costs and various taxes, while the tenant had numerous rental payments. The rental payments were subtracted from the total real estate net expenses in order to determine the rental excess capital left for investments. In addition to investments, simple Portfolio Theory was analysed to expound the importance of risk, return and diversification.

The fact that the majority of real estate investments have been financed over a thirty-year period made it obvious to analyse the period from the beginning of 1978 to the end of 2007[80]. An 80/20 allocation in stocks and Danish Government bonds, respectively, was assumed. Furthermore, three different entry and exit periods were analysed in the attempt to clarify situations in which real estate owners and tenants might have changed residence. The respective periods chosen ran from 1985 to 1994, 1995 to 2004 and finally from 1998 to 2007, all years included. The analysis was completed with a discussion and calculation of how decisive or crucial an eventual decrease in interest deduction would have been, and might become in the future. The latter was based on a current proposition from the Danish Tax Committee. All calculations were rounded up by different risk profiles and investment allocations for the tenant.

The initial analysed period from 1978 to 2007 was dominated by wide fluctuations in inflation rates, interest rates, real estate price trends and interest deduction percentages. Three mortgage bond conversions and steadily rising rental prices also contributed to the development. 1978 to 1982 was dominated by a 25 percent real estate price decrease, and in 1982 the first mortgage bond conversion from eighteen to twelve percent cut the tenants rental excess capital for investment down by 28 percent. Up until 1986 the interest deduction percentage of 60,6 kept the real estate net expenses from running wild. Real estate prices decreased thirty percent from 1987 to 1993. This, combined with relatively high interest rates on the mortgage and bank loan, resulting in a tough period for the real estate investor, ended in 1993 with a negative value of

[80] The end of 2007 equalled the beginning of 2008 (2008 M01).

DKK 117.503. Meanwhile the tenant's portfolio rose to a tax free DKK 1.5 million by the end of 1993. In 1993 and 1997 the real estate owner converted the mortgage loan twice from twelve to ten percent and from ten to seven percent, while the real estate prices increased 174 percent up until 2004. Simultaneously, interest deduction was reduced to 33,2 percent. The conversion in 1993 really set back the tenant's rental excess capital. From 1998 until the end of 2007 the rental expenses exceeded the real estate net payments, leaving the tenant with no investment capital at all. On top of the downward conversions the real estate bank loan ended at the end of 1997. Real estate prices exploded by a further 59 percent from 2004 to 2006. After that, a decline of fourteen percent was experienced until the end of 2007. Even though the tenant had no investment capital, the portfolio kept on rising until the beginning of the Millennium, when the "It-bubble burst" and "9-11" incidents occurred, resulting in a forty percent decrease over the next three years. However, the portfolio gained some strength again from 2004 until the end of 2007, where taxation reduced the value by 25 percent. The long "race" resulted in a clear victory for the tenant under the given circumstances and risk preferences. Though, an allocation exceeding 97 percent in Danish Government bonds would have favoured real estate investment. To round up the thirty year period, different risk preferences were calculated by adjusting the allocations among stocks and Danish Government bonds. A break even between the two investors was found at a 97 percent allocation in Danish Government bonds, which was seen as quite a risk free portfolio.

The second part of the analysis looked into different entry and exit periods with distinctly "winners" in each period. The real estate investor presented a 25 percent loss from 1985 to the end of 1994, caused by general falling real estate prices and relatively high interest rates from 1987 to 1997. Concurrently, the stock index average increased significantly by 59 percent from 1993 to the end of 1994. Once again, the allocation among stocks and Danish Government bonds were assumed to be 80/20, respectively. Different risk preferences and allocations for the tenant did not change the conclusion.

The crucial parameters during the period 1995 to the end of 2004 were the relatively low real estate purchase price of DKK 528.811, the following 141 percent real estate increase and the 1997 mortgage bond conversion from ten to seven percent. The low purchase price left the tenant with paltry rental excess capital, and only in three out of ten years. The invested amount of DKK 7.317 rose to DKK 11.454, while the real estate investor ended up with a total value of DKK

752.507. Again, and obviously, no other stock and Danish Government bond allocations saved the tenant during that period.

The beginning of 1998 until the end of 2007 had less fluctuations than the precious periods. Real estate was once again bought relatively cheap in relation to the price in 1978, which held the tenant's rental excess capital low. Apart from the 25 percent decrease in the real estate maintenance costs from 1998 to 1999, the interest deduction in 2002 caused the most notable movement. The tenant had more rental excess capital compared to the prior decade analysed, but still not nearly enough to beat real estate investment. A total real estate index increase of 242 percent swept the 62 percent rising stock index average aside.

Part three of the analysis calculated the effect of a 25 percent decrease of interest deduction, which recently has been propounded by The Danish Tax Committee. All other things being equal, real estate investors experienced higher mortgage and bank loan net payments, which resulted in more rental excess capital for the tenant. These additional investments, though, did not change the situation considerably between the two investors. However, the analysis enhanced the impact of the Governmental regulation. Even though the historical effect did not have crucial consequences, which may not be the same scenario looking in to the future. Real estate investors, who have entered the market within the last five years, have paid a relatively high price and therefore burdened with substantially higher mortgage payments than those calculated in the historical analysis. Thus, the future interest deduction increase will have fatal impact on real estate investors heavy mortgaging.

It is now appropriate to sum up the conclusion of this Thesis. Comparing real estate investment with rental and "rental excess capital" investments in stocks and Danish Government bonds from the beginning of 1978 to the end of 2007 clearly underlines that renting was the most profitable strategy under the given assumptions and circumstances – unless the tenant's portfolio exceeded more than a 97 percent allocation in Danish Government bonds. A dominating factor was the fact that real estate prices did not experience an actual growth from 1978 to 1997. At the same time the stock index average, in which the tenant invested rental excess capital, increased significantly 1.100 percent – and the return up until 1993 was even tax free. This situation also affected the analysed period from 1985 to the end of 1994, where renting also was most favourable seen from a financial perspective. The real estate investor presented a negative result, mainly because of a 33 percent decreasing real estate index, while the tenant made benefit of a

200 percent rising stock market. Interest rates fell throughout the entire period, while the real estate market gained strength and rose from 1998 until the end of 2006. These two parameters were decisive in the analysis of 1995 to 2004 and 1998 to 2007. Here real estate investment surely was superior, and adjustments in interest deduction in the latter period only embellished the result. The "golden" real estate days lasted from around 1995 to 2006, while the previous decades, broadly, favoured rental and investment in stocks and Danish Government bonds – under the given circumstances and in the respective analysed periods. Finally, it is questionable whether the majority of real estate purchases have been considered exclusively as a financial investment. The first two decades experienced no overall real estate market increase, and therefore it would be naive to believe that real estate was bought exclusively for the sake of investment. Nevertheless, this Thesis has clarified the scenario from a financial perspective.

12 PUTTING INTO PERSPECTIVE

It is now clear how the relation between real estate investors and tenants has been, seen exclusively from a financial perspective. It was assumed that the tenant rented real estate and invested the "rental excess capital" in well diversified stock portfolios and Danish Government bonds. The value created from these was compared with the real estate value minus the outstanding debt on the respective mortgage and bank loans. It is, though, tempting to raise the question "how many tenants would have invested their excess capital in stocks and Danish Government bonds"? If they had chosen not to, they would have lost the "race" under any circumstance. The objective of this Thesis would then have been redundant. It is also possible to imagine that not all individuals or families have had the opportunity or financial resources to invest in real estate. Furthermore, "rental excess capital" resources may not have been available at all. If so, it is then interesting to compare historical real estate investment directly with other financial investment opportunities in an attempt to identify similar financial investments. Again, real estate investment is exclusively considered from a financial perspective. A discussion pertaining to personal preferences and the advantages and disadvantages of owning real estate as a consumer benefit will follow later.

12.1 Ship shares and Windmills

It seems impossible to detect financial investments that are totally similar to real estate investments (as residence) in modern times in Copenhagen, mainly because some possible gains may be non-taxable if real estate investments have been considered solely as a financial investment. Furthermore, the relatively high transaction costs when buying and selling real estate makes real estate investment special. However, investments in ship shares and windmill operations have given similar historical returns with equal risk ratios and low correlation compared to stocks and bonds[81]. Investments in ships shares have entailed modified or simplified taxation, and returns covered by the respective tax regulation[82] have been calculated as a

[81] http://www.finansinvest.dk/Default.aspx?Page=159

[82] Tonnageskatteloven § 6-8.

"vehicle excise duty" on the ships in question. Furthermore, it has been possible to establish "tax free" companies in which personal shares have been transferred in order to receive deduction[83].

Fundamentally, returns from windmill investments have been considered as normal capital income and fully taxable. Investors have had the opportunity to deduct possible returns in one of two ways[84]. Either sixty percent of the commercial exploited electricity produced has been added to the income statement[85]. Else windmills have exclusively been considered as a commercial business activity with tax obligation of the associated income, minus various continuous operational expenses. To a great extent it has been a matter of individual taxation circumstances, whether one or the other tax payment method should have been used. It clarifies the fact, though, that investment in windmills has belonged to those financial investment opportunities that have been subject to "favourable" taxation.

12.2 Pension savings

Another interesting comparison could be investment in retirement or pension savings, which also carry advantageous tax benefits. Some individual investors may even regard these two investment opportunities as equal, as they both are considered long term investments that can be harnessed in the latter part of life. Pension savings are not totally tax exempt as real estate market profits are. The yearly contributions, which are completely deductable, are not considered as taxable income. The yearly compiled interest gains are, though, taxed by fifteen percent every year. So, the contributions, which normally would have been considered as normal taxable capital income, can be deposited as pension savings to avoid taxation. The decisive difference between real estate investments and pension savings is the fact that future payouts from the pension savings will be taxed as normal capital income. It is probably not all individuals that have considered their economical situation that far in to the future. As described earlier, an eventual profit when selling real estate has not been taxed so far, unless it was seen solely as an investment without purpose of residence.

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[83] http://www.express-shipping.dk/da/projekter/tonnageskatteordning/

[84] Source: www.dkvind.dk

[85] 60 percent of the value exceeding DKK 3.000.

12.3 Advantages, disadvantages and personal preferences

So far the analysis in this Thesis has taken basis exclusively on a financial investment perspective, and therefore no personal preferences concerning owning or renting homes have been taken into consideration. As mentioned briefly above, not all individuals or families have had the opportunity or resources to buy their own homes, and others probably did not wish to do so. The reason for these decisions may be explained by various personal preferences and, the practical advantages and disadvantages of owning or renting a home.

In the last decade a general conception has existed about real estate being a relatively profitable and secure investment. But what about the practicability, possible advantages and disadvantages? Profitability and security (risk) has already been analysed as the main theme earlier, so the following will deal with a few of examples of individual preferences, practical advantages and disadvantages of owning or renting a home.

In the majority of cases, buying real estate brings on quarterly mortgage and bank loan payments, but also maintenance costs, property taxes and water and drain taxes are added. Some of these expenses, especially sudden maintenance costs, may come as a surprise for some real estate owners. This can be seen as one of the disadvantages being a real estate owner and actually requires additional capital, which has to be raised by using ones savings or taking on further loans. In the case of freehold flats, most owners are members of a homeowner association, which usually makes sure that funds are accumulated every month for normal maintenance and sudden repair expenses. Some sudden damages will, though, be covered by insurance, but basically, real estate owners never know exactly what their expenses will be in the future or how their economy develops.

Another disadvantage is the fact that real estate investment is considered as a rather expensive and long term investment with relatively high transaction costs. This limits the possibility of moving frequently – unless the owner is very wealthy – but then the investment, seen from a financial perspective, truly becomes unprofitable. Therefore, respective real estate owners might want to investigate and carefully choose the location they are planning to move to, before they decide to invest in this. Buying real estate, most likely, reduces flexibility.

Advantages of being a real estate owner are independency and the self-chosen responsibility that follows. Real estate owners have the exclusive right to build, change, repair and demolish whatever and whenever it is needed or desired. However, some elaborate regulations by either

the community or the homeowners' association[86] normally exist for the security of neighbours and other surroundings, but generally the liberty of choice prevails.

Another advantage is the fact that being a potential real estate investor gives access to endless choices among house types and sizes, geographical locations and municipal regulations, which are most suitable for the respective individual or family. Surely, well desirable areas are always in high demand, and in those selected areas the real estate supply is reduced and prices higher. Hunting for a home on the rental market normally also has limits according to above mentioned preferences, unless the tenant wishes to pay a premium price, and that will usually be the case on the private rental market. Public or non profit rental institutions mainly offer curtain housing standards. Tenants are required to adhere to specific regulation and requirements, which thus prevents them from undertaking desirable changes or individual adjustments.

Paying rent is money that the tenant will never see again and what some audacious or sarcastic economists will call "lost money". The tenant of course receives accommodation for the monthly payments, but fundamentally it is a trade off and can not be considered as an investment with a possible future sales profit. As a tenant, he or she will not suffer a loss either if the underlying price of the rented accommodation decreases. Perhaps the tenant is a non-risk taker and therefore pleased with a prearranged rental budget.

As opposed to real estate owners, tenants have much more flexibility when it comes to being mobile. This can be first priority and an essential preference when deciding whether to buy or rent. The tenant might have a job that requires secondment or maybe her company requires mobility like contractors and task based operators. The reasons are varied and many, but flexibility can very well be a predominant factor for those tenants who have the choice between buying and renting.

12.4 Taxation of real estate profit

As mentioned earlier, The Danish Tax Committee has recently propounded a 25 percent decrease in interest deduction. Consequences thereof were analysed both historically and looking into the future. The regulation was proposed years ago, and concurrently another and even more crucial possible political initiative was discussed – taxation of real estate profit. With regard to the analysis in this Thesis, such an adjustment would not have altered any of the conclusions. The

[86] Freehold flat owners.

period from 1978 to 2007 was already lost significantly for the real estate investor and so was the following analysed period from 1985 to 1994 (here the real estate value loss, though, might have given the right to deduction). The next two periods would just have reduced the considerable gap from the real estate investor down to the tenant. However, observing the current crisis on the real estate market is more interesting. It is evident that political amendments do not occur over night. On the contrary, they become effectuated with reasonable years of notice. Nevertheless, a situation with taxation of real estate profits will most likely deteriorate the dream of making a great profit that many real estate investors have. On the other hand, a taxation of eventual profits will under normal circumstances simultaneously give right to deduction of eventual losses, which most likely will favour those who have invested in real estate during the years 2004 through 2006, having an upcoming sale in mind.

- The End -

13 LIST OF LITERATURE

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Databases

- DataStream (access from Copenhagen Business School)

14 APPENDIX

14.1.1 Appendix 1 - KFX

KFX/OMX (index - constant prices). Source: Datastream

01-01-1978	100,00																														
01-01-1979	78,82	100,00																													
01-01-1980	85,38	108,32	100,00																												
01-01-1981	116,16	147,38	136,06	100,00																											
01-01-1982	167,80	212,88	196,53	144,45	100,00																										
01-01-1983	180,06	228,45	210,90	155,01	107,31	100,00																									
01-01-1984	378,20	479,83	442,98	325,58	225,40	210,04	100,00																								
01-01-1985	254,04	322,30	297,54	218,69	151,40	141,08	67,17	100,00																							
01-01-1986	338,22	429,11	396,15	291,16	201,57	187,83	89,43	133,14	100,00																						
01-01-1987	268,56	340,72	314,55	231,19	160,05	149,15	71,01	105,72	79,40	100,00																					
01-01-1988	240,53	305,17	281,73	207,07	143,35	133,58	63,60	94,68	71,12	89,56	100,00																				
01-01-1989	424,65	538,76	497,38	365,57	253,08	235,83	112,28	167,16	125,55	158,12	176,55	100,00																			
01-01-1990	575,99	730,76	674,63	495,85	343,27	319,88	152,30	226,73	170,30	214,47	239,46	135,64	100,00																		
01-01-1991	524,37	665,28	614,18	451,42	312,51	291,21	138,65	206,42	155,04	195,26	218,01	123,48	91,04	100,00																	
01-01-1992	634,50	805,00	743,17	546,22	378,14	352,37	167,77	249,77	187,60	236,26	263,79	149,42	110,16	121,00	100,00																
01-01-1993	516,86	655,75	605,38	444,95	308,03	287,04	136,66	203,46	152,82	192,46	214,88	121,71	89,73	98,57	81,46	100,00															
01-01-1994	773,50	981,35	905,97	665,88	460,98	429,57	204,52	304,48	228,70	288,02	321,58	182,15	134,29	147,51	121,91	149,65	100,00														
01-01-1995	700,81	889,12	820,83	603,30	417,66	389,20	185,30	275,87	207,20	260,95	291,36	165,03	121,67	133,65	110,45	135,59	90,60	100,00													
01-01-1996	779,84	989,40	913,40	671,34	464,76	433,09	206,20	306,98	230,57	290,38	324,22	183,64	135,39	148,72	122,91	150,88	100,82	111,28	100,00												
01-01-1997	995,37	1262,85	1165,85	856,89	593,21	552,79	263,18	391,82	294,30	370,64	413,82	234,40	172,81	189,82	156,88	192,58	128,68	142,03	127,64	100,00											
01-01-1998	1.573,66	1996,53	1843,17	1354,71	937,85	873,95	416,09	619,46	465,27	585,97	654,24	370,58	273,21	300,10	248,02	304,47	203,45	224,55	201,79	158,10	100,00										
01-01-1999	1.650,81	2094,41	1933,54	1421,13	983,83	916,79	436,49	649,83	488,09	614,70	686,32	388,74	286,61	314,82	260,18	319,39	213,42	235,56	211,68	165,85	104,90	100,00									
01-01-2000	1.944,67	2467,24	2277,73	1674,11	1158,96	1079,99	514,19	765,51	574,97	724,12	808,49	457,94	337,62	370,86	306,49	376,25	251,41	277,49	249,37	195,37	123,58	117,80	100,00								
01-01-2001	2.382,66	3022,92	2790,73	2051,16	1419,98	1323,23	629,99	937,92	704,47	887,21	990,58	561,08	413,67	454,38	375,52	460,99	308,04	339,99	305,53	239,37	151,41	144,33	122,52	100,00							
01-01-2002	2.004,70	2543,40	2348,04	1725,78	1194,73	1113,33	530,06	789,14	592,72	746,47	833,45	472,08	348,05	382,31	315,95	387,86	259,17	286,06	257,06	201,40	127,39	121,44	103,09	84,14	100,00						
01-01-2003	1.481,95	1880,17	1735,76	1275,77	883,19	823,02	391,84	583,36	438,16	551,82	616,12	348,98	257,29	282,61	233,56	286,72	191,59	211,46	190,03	148,88	94,17	89,77	76,21	62,20	73,92	100,00					
01-01-2004	1.828,05	2319,27	2141,13	1573,71	1089,45	1015,22	483,35	719,60	540,49	680,69	760,01	430,48	317,38	348,62	288,11	353,68	236,34	260,85	234,41	183,65	116,17	110,74	94,00	76,72	91,19	123,35	100,00				
01-01-2005	2.213,05	2807,73	2592,07	1905,14	1318,90	1229,04	585,15	871,16	654,32	824,05	920,07	521,14	384,22	422,04	348,79	428,17	286,11	315,79	283,78	222,33	140,63	134,06	113,80	92,88	110,39	149,33	121,06	100,00			
01-01-2006	2.931,61	3719,38	3433,69	2523,73	1747,14	1628,10	775,14	1154,01	866,77	1091,61	1218,81	690,35	508,97	559,07	462,04	567,20	379,01	418,32	375,92	294,52	186,29	177,59	150,75	123,04	146,24	197,82	160,37	132,47	100,00		
01-01-2007	3.268,66	4147,00	3828,47	2813,89	1948,01	1815,28	864,26	1286,69	966,43	1217,12	1358,94	769,73	567,49	623,35	515,16	632,41	422,58	466,41	419,14	328,39	207,71	198,00	168,08	137,19	163,05	220,56	178,81	147,70	111,50	100,00	
01-01-2008	3374,99	4281,90	3953,01	2905,42	2011,38	1874,33	892,37	1328,55	997,86	1256,71	1403,14	794,77	585,95	643,63	531,92	652,98	436,33	481,59	432,78	339,07	214,47	204,44	173,55	141,65	168,35	227,74	184,62	152,50	115,12	103,25	

14.1.2 Appendix 2 – S&P

S&P500 (index - constant prices). Source: Datastream

01-01-1978	100,00																													
01-01-1979	81,31	100,00																												
01-01-1980	90,00	110,69	100,00																											
01-01-1981	117,25	144,21	130,28	100,00																										
01-01-1982	133,75	164,50	148,61	114,07	100,00																									
01-01-1983	187,55	230,67	208,39	159,96	140,22	100,00																								
01-01-1984	269,76	331,77	299,73	230,07	201,68	143,83	100,00																							
01-01-1985	315,69	388,26	350,76	269,24	236,02	168,32	117,03	100,00																						
01-01-1986	319,98	393,54	355,53	272,90	239,23	170,61	118,62	101,36	100,00																					
01-01-1987	301,56	370,88	335,06	257,19	225,46	160,79	111,79	95,52	94,24	100,00																				
01-01-1988	253,46	311,73	281,62	216,17	189,50	135,14	93,96	80,29	79,21	84,05	100,00																			
01-01-1989	310,38	381,74	344,87	264,72	232,06	165,49	115,06	98,32	97,00	102,93	122,46	100,00																		
01-01-1990	384,33	472,69	427,04	327,79	287,35	204,92	142,47	121,75	120,11	127,45	151,64	123,83	100,00																	
01-01-1991	333,83	410,58	370,92	284,72	249,59	178,00	123,75	105,75	104,33	110,70	131,71	107,55	86,86	100,00																
01-01-1992	460,83	566,77	512,03	393,03	344,54	245,71	170,83	145,98	144,02	152,82	181,82	148,47	119,90	138,04	100,00															
01-01-1993	523,59	643,96	581,76	446,55	391,46	279,17	194,10	165,86	163,63	173,63	206,58	168,69	136,23	156,84	113,62	100,00														
01-01-1994	606,14	745,49	673,49	516,96	453,18	323,19	224,70	192,01	189,43	201,00	239,15	195,29	157,71	181,57	131,53	115,77	100,00													
01-01-1995	537,87	661,52	597,63	458,73	402,14	286,79	199,39	170,38	168,09	178,36	212,21	173,29	139,95	161,12	116,72	102,73	88,74	100,00												
01-01-1996	668,41	822,07	742,67	570,07	499,74	356,39	247,78	211,73	208,89	221,65	263,72	215,35	173,91	200,22	145,04	127,66	110,27	124,27	100,00											
01-01-1997	876,58	1078,10	973,97	747,61	655,37	467,38	324,95	277,68	273,95	290,68	345,85	282,42	228,08	262,58	190,22	167,42	144,62	162,97	131,14	100,00										
01-01-1998	1368,73	1683,39	1520,80	1167,35	1023,33	729,79	507,39	433,57	427,75	453,89	540,02	440,98	356,13	410,01	297,01	261,41	225,81	254,47	204,77	156,14	100,00									
01-01-1999	1665,47	2048,35	1850,51	1420,43	1245,19	888,01	617,40	527,57	520,49	552,29	657,10	536,58	433,34	498,89	361,41	318,09	274,77	309,64	249,17	190,00	121,68	100,00								
01-01-2000	2320,38	2853,82	2578,18	1978,98	1734,83	1237,20	860,17	735,03	725,16	769,46	915,48	747,58	603,74	695,07	503,52	443,17	382,81	431,40	347,15	264,71	169,53	139,32	100,00							
01-01-2001	2354,48	2895,76	2616,08	2008,06	1760,33	1255,39	872,82	745,83	735,82	780,77	928,94	758,57	612,61	705,29	510,92	449,68	388,44	437,74	352,25	268,60	172,02	141,37	101,47	100,00						
01-01-2002	2188,50	2691,63	2431,66	1866,51	1636,23	1166,89	811,29	693,25	683,95	725,73	863,45	705,10	569,43	655,57	474,90	417,98	361,06	406,88	327,42	249,66	159,89	131,40	94,32	92,95	100,00					
01-01-2003	1434,68	1764,51	1594,08	1223,60	1072,64	764,96	531,84	454,47	448,36	475,76	566,04	462,23	373,29	429,76	311,32	274,01	236,69	266,73	214,64	163,67	104,82	86,14	61,83	60,93	65,56	100,00				
01-01-2004	1515,45	1863,85	1683,83	1292,48	1133,03	808,02	561,78	480,05	473,61	502,54	597,91	488,25	394,31	453,96	328,85	289,44	250,02	281,75	226,73	172,88	110,72	90,99	65,31	64,36	69,25	105,63	100,00			
01-01-2005	1541,37	1895,72	1712,63	1314,59	1152,41	821,84	571,39	488,26	481,71	511,14	608,13	496,60	401,05	461,72	334,48	294,39	254,29	286,57	230,60	175,84	112,61	92,55	66,43	65,47	70,43	107,44	101,71	100,00		
01-01-2006	1824,50	2243,94	2027,21	1556,06	1364,09	972,80	676,35	577,95	570,19	605,03	719,84	587,82	474,72	546,53	395,91	348,46	301,00	339,21	272,96	208,14	133,30	109,55	78,63	77,49	83,37	127,17	120,39	118,37	100,00	
01-01-2007	1840,45	2263,56	2044,94	1569,66	1376,01	981,31	682,26	583,00	575,17	610,32	726,13	592,96	478,87	551,31	399,38	351,51	303,63	342,18	275,35	209,96	134,46	110,51	79,32	78,17	84,10	128,28	121,45	119,40	100,87	100,00
01-01-2008	1714,53	2108,69	1905,02	1462,27	1281,87	914,17	635,58	543,11	535,82	568,56	676,45	552,39	446,10	513,59	372,05	327,46	282,86	318,76	256,51	195,59	125,26	102,95	73,89	72,82	78,34	119,51	113,14	111,23	93,97	93,16

14.1.3 Appendix 3 - FTSE

FTSE100 (index - constant prices). Source: Datastream

01-01-1978	100,00																													
01-01-1979	90,66	100,00																												
01-01-1980	109,86	121,18	100,00																											
01-01-1981	163,75	180,62	149,06	100,00																										
01-01-1982	168,82	186,21	153,67	103,09	100,00																									
01-01-1983	203,69	224,68	185,41	124,39	120,66	100,00																								
01-01-1984	267,58	295,14	243,57	163,41	158,50	131,36	100,00																							
01-01-1985	302,68	333,86	275,52	184,84	179,29	148,60	113,12	100,00																						
01-01-1986	348,06	383,92	316,83	212,55	206,17	170,88	130,08	114,99	100,00																					
01-01-1987	350,31	386,40	318,88	213,93	207,51	171,98	130,92	115,74	100,65	100,00																				
01-01-1988	376,40	415,17	342,62	229,86	222,96	184,79	140,67	124,36	108,14	107,45	100,00																			
01-01-1989	423,48	467,10	385,48	258,61	250,85	207,90	158,26	139,91	121,67	120,89	112,51	100,00																		
01-01-1990	490,46	540,99	446,45	299,52	290,52	240,79	183,30	162,04	140,91	140,01	130,30	115,82	100,00																	
01-01-1991	466,57	514,63	424,70	284,92	276,37	229,05	174,36	154,14	134,05	133,18	123,95	110,17	95,13	100,00																
01-01-1992	539,02	594,55	490,65	329,17	319,29	264,62	201,44	178,08	154,86	153,87	143,20	127,28	109,90	115,53	100,00															
01-01-1993	530,61	585,27	482,99	324,03	314,30	260,49	198,30	175,30	152,45	151,47	140,97	125,30	108,18	113,73	98,44	100,00														
01-01-1994	679,82	749,85	618,82	415,15	402,69	333,75	254,06	224,60	195,32	194,06	180,61	160,53	138,61	145,71	126,12	128,12	100,00													
01-01-1995	573,27	632,32	521,82	350,08	339,57	281,44	214,24	189,40	164,70	163,64	152,30	135,37	116,88	122,87	106,35	108,04	84,33	100,00												
01-01-1996	622,86	687,03	566,97	380,37	368,95	305,78	232,78	205,78	178,95	177,80	165,48	147,08	126,99	133,50	115,55	117,39	91,62	108,65	100,00											
01-01-1997	815,78	899,82	742,58	498,18	483,23	400,50	304,87	269,52	234,38	232,87	216,73	192,64	166,33	174,85	151,35	153,75	120,00	142,30	130,97	100,00										
01-01-1998	1134,13	1250,96	1032,36	692,59	671,80	556,78	423,85	374,70	325,84	323,75	301,31	267,81	231,24	243,08	210,41	213,74	166,83	197,84	182,08	139,02	100,00									
01-01-1999	1226,00	1352,29	1115,98	748,69	726,22	601,89	458,18	405,05	352,24	349,97	325,72	289,51	249,97	262,77	227,45	231,06	180,34	213,86	196,83	150,29	108,10	100,00								
01-01-2000	1611,81	1777,85	1467,17	984,30	954,75	791,29	602,37	532,51	463,08	460,10	428,22	380,61	328,63	345,46	299,03	303,77	237,09	281,16	258,77	197,58	142,12	131,47	100,00							
01-01-2001	1438,11	1586,25	1309,06	878,22	851,86	706,02	537,45	475,13	413,18	410,52	382,07	339,59	293,21	308,23	266,80	271,03	211,54	250,86	230,89	176,29	126,80	117,30	89,22	100,00						
01-01-2002	1240,35	1368,13	1129,05	757,46	734,72	608,93	463,54	409,79	356,36	354,07	329,53	292,90	252,89	265,85	230,11	233,76	182,45	216,37	199,14	152,04	109,37	101,17	76,95	86,25	100,00					
01-01-2003	878,36	968,84	799,54	536,39	520,29	431,22	328,26	290,19	252,36	250,73	233,36	207,41	179,09	188,26	162,95	165,54	129,20	153,22	141,02	107,67	77,45	71,64	54,49	61,08	70,81	100,00				
01-01-2004	928,29	1023,91	844,99	566,88	549,87	455,73	346,92	306,69	266,70	264,99	246,62	219,20	189,27	198,96	172,22	174,95	136,55	161,93	149,04	113,79	81,85	75,72	57,59	64,55	74,84	105,68	100,00			
01-01-2005	1002,08	1105,31	912,16	611,95	593,58	491,96	374,50	331,07	287,90	286,05	266,23	236,63	204,31	214,78	185,91	188,86	147,40	174,80	160,88	122,84	88,36	81,74	62,17	69,68	80,79	114,09	107,95	100,00		
01-01-2006	1200,52	1324,19	1092,79	733,13	711,12	589,38	448,66	396,63	344,91	342,70	318,95	283,49	244,77	257,31	222,72	226,25	176,59	209,42	192,74	147,16	105,85	97,92	74,48	83,48	96,79	136,68	129,33	119,80	100,00	
01-01-2007	1353,27	1492,68	1231,83	826,41	801,60	664,37	505,74	447,10	388,80	386,30	359,53	319,56	275,92	290,05	251,06	255,04	199,06	236,06	217,27	165,89	119,32	110,38	83,96	94,10	109,10	154,07	145,78	135,05	112,72	100,00
01-01-2008	1291,49	1424,53	1175,60	788,68	765,01	634,04	482,66	426,69	371,05	368,67	343,12	304,97	263,32	276,81	239,60	243,40	189,97	225,29	207,35	158,31	113,88	105,34	80,13	89,80	104,12	147,03	139,13	128,88	107,58	95,43

14.1.4 Appendix 4 - NIKKEI

NIKKEI 225 (index - constant prices). Source: Datastream

01-01-1978	100,00																														
01-01-1979	120,80	100,00																													
01-01-1980	113,50	93,96	100,00																												
01-01-1981	156,68	129,70	138,04	100,00																											
01-01-1982	192,55	159,40	169,65	122,90	100,00																										
01-01-1983	219,54	181,74	193,43	140,12	114,01	100,00																									
01-01-1984	335,33	277,59	295,45	214,03	174,15	152,75	100,00																								
01-01-1985	414,57	343,19	365,27	264,60	215,30	188,84	123,63	100,00																							
01-01-1986	474,61	392,89	418,17	302,92	246,48	216,19	141,54	114,48	100,00																						
01-01-1987	713,74	590,84	628,85	455,54	370,67	325,11	212,85	172,16	150,38	100,00																					
01-01-1988	885,93	733,39	780,57	565,45	460,09	403,55	264,20	213,70	186,66	124,13	100,00																				
01-01-1989	1355,56	1122,16	1194,35	865,19	703,99	617,47	404,25	326,98	285,61	189,92	153,01	100,00																			
01-01-1990	1448,94	1199,46	1276,62	924,79	752,49	660,00	432,09	349,50	305,29	203,01	163,55	106,89	100,00																		
01-01-1991	845,28	699,74	744,75	539,50	438,98	385,03	252,07	203,89	178,10	118,43	95,41	62,36	58,34	100,00																	
01-01-1992	906,09	750,08	798,33	578,31	470,56	412,73	270,21	218,56	190,91	126,95	102,28	66,84	62,53	107,19	100,00																
01-01-1993	711,48	588,97	626,86	454,10	369,50	324,08	212,17	171,62	149,91	99,68	80,31	52,49	49,10	84,17	78,52	100,00															
01-01-1994	894,11	740,16	787,77	570,67	464,34	407,27	266,64	215,67	188,39	125,27	100,92	65,96	61,71	105,78	98,68	125,67	100,00														
01-01-1995	1007,14	833,73	887,36	642,81	523,04	458,76	300,34	242,93	212,20	141,11	113,68	74,30	69,51	119,15	111,15	141,56	112,64	100,00													
01-01-1996	892,70	738,99	786,53	569,77	463,61	406,63	266,22	215,33	188,09	125,07	100,76	65,85	61,61	105,61	98,52	125,47	99,84	88,64	100,00												
01-01-1997	822,93	681,23	725,06	525,23	427,37	374,85	245,41	198,50	173,39	115,30	92,89	60,71	56,79	97,36	90,82	115,66	92,04	81,71	92,18	100,00											
01-01-1998	671,35	555,75	591,51	428,49	348,66	305,80	200,21	161,94	141,45	94,06	75,78	49,53	46,33	79,42	74,09	94,36	75,09	66,66	75,20	81,58	100,00										
01-01-1999	655,19	542,38	577,27	418,17	340,26	298,44	195,39	158,04	138,05	91,80	73,95	48,33	45,22	77,51	72,31	92,09	73,28	65,05	73,39	79,62	97,59	100,00									
01-01-2000	1139,57	943,35	1004,04	727,33	591,82	519,08	339,83	274,88	240,11	159,66	128,63	84,07	78,65	134,81	125,77	160,17	127,45	113,15	127,65	138,48	169,74	173,93	100,00								
01-01-2001	796,04	658,98	701,37	508,08	413,41	362,60	237,39	192,01	167,73	111,53	89,85	58,72	54,94	94,18	87,85	111,89	89,03	79,04	89,17	96,73	118,57	121,50	69,86	100,00							
01-01-2002	560,05	463,62	493,45	357,46	290,86	255,11	167,02	135,09	118,00	78,47	63,22	41,32	38,65	66,26	61,81	78,72	62,64	55,61	62,74	68,06	83,42	85,48	49,15	70,35	100,00						
01-01-2003	426,64	353,18	375,90	272,31	221,57	194,34	127,23	102,91	89,89	59,78	48,16	31,47	29,45	50,47	47,09	59,97	47,72	42,36	47,79	51,84	63,55	65,12	37,44	53,60	76,18	100,00					
01-01-2004	491,83	407,15	433,34	313,91	255,43	224,03	146,67	118,64	103,63	68,91	55,52	36,28	33,94	58,19	54,28	69,13	55,01	48,83	55,10	59,77	73,26	75,07	43,16	61,78	87,82	115,28	100,00				
01-01-2005	520,59	430,96	458,68	332,27	270,36	237,13	155,25	125,57	109,69	72,94	58,76	38,40	35,93	61,59	57,46	73,17	58,22	51,69	58,32	63,26	77,54	79,46	45,68	65,40	92,95	122,02	105,85	100,00			
01-01-2006	724,10	599,42	637,99	462,16	376,05	329,83	215,94	174,66	152,57	101,45	81,73	53,42	49,97	85,66	79,92	101,77	80,99	71,90	81,11	87,99	107,86	110,52	63,54	90,96	129,29	169,72	147,22	139,09	100,00		
01-01-2007	684,89	566,96	603,44	437,13	355,69	311,97	204,24	165,20	144,31	95,96	77,31	50,52	47,27	81,03	75,59	96,26	76,60	68,00	76,72	83,23	102,02	104,53	60,10	86,04	122,29	160,53	139,25	131,56	94,58	100,00	
01-01-2008	586,84	485,79	517,04	374,55	304,76	267,31	175,00	141,55	123,65	82,22	66,24	43,29	40,50	69,42	64,77	82,48	65,63	58,27	65,74	71,31	87,41	89,57	51,50	73,72	104,78	137,55	119,32	112,72	81,04	85,68	

14.1.5 Appendix 5 - HANG SENG

HANG SENG (index - constant prices). Source: Datastream

01-01-1978	100,00																												
01-01-1979	93,85	100,00																											
01-01-1980	169,86	180,99	100,00																										
01-01-1981	300,55	320,25	176,94	100,00																									
01-01-1982	316,40	337,13	186,27	105,27	100,00																								
01-01-1983	175,95	187,48	103,59	58,54	55,61	100,00																							
01-01-1984	204,37	217,77	120,32	68,00	64,59	116,15	100,00																						
01-01-1985	320,45	341,45	188,66	106,62	101,28	182,12	156,79	100,00																					
01-01-1986	376,67	401,36	221,75	125,33	119,05	214,08	184,30	117,55	100,00																				
01-01-1987	456,79	486,74	268,93	151,99	144,37	259,62	223,51	142,55	121,27	100,00																			
01-01-1988	341,20	363,57	200,88	113,53	107,84	193,92	166,95	106,48	90,58	74,70	100,00																		
01-01-1989	444,35	473,47	261,60	147,84	140,44	252,54	217,42	138,66	117,97	97,27	130,23	100,00																	
01-01-1990	449,10	478,54	264,40	149,43	141,94	255,24	219,74	140,15	119,23	98,32	131,62	101,07	100,00																
01-01-1991	430,64	458,86	253,53	143,28	136,11	244,75	210,71	134,39	114,33	94,27	126,21	96,91	95,89	100,00															
01-01-1992	628,67	669,87	370,11	209,17	198,70	357,30	307,61	196,18	166,90	137,63	184,25	141,48	139,98	145,99	100,00														
01-01-1993	862,30	918,82	507,66	286,91	272,54	490,08	421,92	269,09	228,93	188,77	252,72	194,06	192,01	200,24	137,16	100,00													
01-01-1994	2069,10	2204,73	1218,13	688,44	653,96	1175,96	1012,41	645,69	549,32	452,96	606,41	465,65	460,72	480,47	329,13	239,95	100,00												
01-01-1995	1245,40	1327,03	733,20	414,37	393,62	707,81	609,37	388,64	330,63	272,64	365,00	280,28	277,31	289,20	198,10	144,43	60,19	100,00											
01-01-1996	1394,24	1485,63	820,83	463,90	440,66	792,41	682,20	435,09	370,15	305,22	408,62	313,77	310,45	323,76	221,78	161,69	67,38	111,95	100,00										
01-01-1997	1980,98	2110,83	1166,25	659,12	626,11	1125,88	969,29	618,19	525,92	433,67	580,59	445,82	441,10	460,01	315,11	229,73	95,74	159,06	142,08	100,00									
01-01-1998	1827,98	1947,80	1076,18	608,21	577,75	1038,92	894,43	570,45	485,30	400,18	535,74	411,39	407,03	424,48	290,77	211,99	88,35	146,78	131,11	92,28	100,00								
01-01-1999	1599,02	1703,82	941,38	532,03	505,38	908,79	782,39	499,00	424,51	350,05	468,64	359,86	356,05	371,31	254,35	185,44	77,28	128,39	114,69	80,72	87,47	100,00							
01-01-2000	3148,80	3355,20	1853,78	1047,68	995,21	1789,60	1540,70	982,63	835,96	689,33	922,85	708,64	701,13	731,20	500,87	365,16	152,18	252,83	225,84	158,95	172,26	196,92	100,00						
01-01-2001	2946,85	3140,01	1734,89	980,49	931,38	1674,82	1441,89	919,61	782,34	645,12	863,66	663,19	656,17	684,30	468,75	341,74	142,42	236,62	211,36	148,76	161,21	184,29	93,59	100,00					
01-01-2002	2349,63	2503,64	1383,28	781,78	742,62	1335,39	1149,67	733,23	623,79	514,37	688,63	528,78	523,18	545,62	373,75	272,48	113,56	188,66	168,52	118,61	128,54	146,94	74,62	79,73	100,00				
01-01-2003	1628,81	1735,57	958,92	541,94	514,80	925,72	796,97	508,29	432,42	356,57	477,37	366,56	362,68	378,23	259,09	188,89	78,72	130,79	116,82	82,22	89,10	101,86	51,73	55,27	69,32	100,00			
01-01-2004	1846,54	1967,57	1087,10	614,39	583,62	1049,47	903,51	576,24	490,23	404,24	541,18	415,56	411,16	428,79	293,72	214,14	89,24	148,27	132,44	93,21	101,02	115,48	58,64	62,66	78,59	113,37	100,00		
01-01-2005	1970,34	2099,49	1159,99	655,58	622,75	1119,83	964,08	614,87	523,09	431,34	577,47	443,42	438,73	457,54	313,41	228,50	95,23	158,21	141,32	99,46	107,79	123,22	62,57	66,86	83,86	120,97	106,70	100,00	
01-01-2006	2350,08	2504,11	1383,55	781,92	742,77	1335,65	1149,89	733,37	623,91	514,47	688,76	528,88	523,28	545,72	373,82	272,54	113,58	188,70	168,56	118,63	128,56	146,97	74,63	79,75	100,02	144,28	127,27	119,27	100,00
01-01-2007	2808,11	2992,17	1653,20	934,32	887,53	1595,97	1374,00	876,31	745,51	614,74	823,00	631,96	625,27	652,08	446,68	325,65	135,72	225,48	201,41	141,75	153,62	175,61	89,18	95,29	119,51	172,40	152,07	142,52	119,49
01-01-2008	3527,26	3758,46	2076,59	1173,60	1114,83	2004,69	1725,88	1100,73	936,43	772,18	1033,77	793,81	785,40	819,08	561,07	409,05	170,47	283,22	252,99	178,06	192,96	220,59	112,02	119,70	150,12	216,55	191,02	179,02	150,09

14.1.6 Appendix 6 - Stock average

Stock index average (index - constant prices). Source: Datastream & own calculations

01-01-1978	100,00																													
01-01-1979	93,09	100,00																												
01-01-1980	113,72	123,03	100,00																											
01-01-1981	170,88	184,43	146,08	100,00																										
01-01-1982	195,86	212,03	170,95	117,96	100,00																									
01-01-1983	193,36	210,60	180,34	127,60	107,56	100,00																								
01-01-1984	291,05	320,42	280,41	200,22	164,86	150,83	100,00																							
01-01-1985	321,48	345,81	295,55	208,80	176,66	165,79	115,55	100,00																						
01-01-1986	371,51	400,16	341,69	240,97	202,50	191,92	132,79	116,30	100,00																					
01-01-1987	418,19	435,12	373,25	261,97	221,61	213,33	150,01	126,34	109,19	100,00																				
01-01-1988	419,50	425,80	377,48	266,41	224,75	210,20	145,87	123,90	107,14	95,98	100,00																			
01-01-1989	591,68	596,65	536,73	380,39	316,08	295,85	201,45	174,21	149,56	133,83	138,95	100,00																		
01-01-1990	669,77	684,49	617,83	439,47	363,11	336,17	225,98	200,03	171,17	156,65	163,32	116,65	100,00																	
01-01-1991	520,14	549,82	481,62	340,77	282,71	265,61	179,91	160,92	137,17	130,37	139,06	100,10	85,45	100,00																
01-01-1992	633,82	677,25	582,86	411,18	342,25	326,55	223,57	197,71	168,86	161,50	175,07	126,70	108,50	125,55	100,00															
01-01-1993	628,97	678,55	560,93	391,31	331,16	328,17	232,63	197,07	169,55	161,20	179,09	132,45	115,05	130,71	101,84	100,00														
01-01-1994	1.004,53	1.084,31	840,84	571,42	487,03	533,95	392,46	316,49	270,23	252,26	289,73	213,92	190,61	212,21	161,47	151,83	100,00													
01-01-1995	812,90	868,74	712,17	493,86	415,21	424,80	301,73	253,45	216,57	203,34	226,91	165,65	145,06	165,20	128,55	126,47	87,30	100,00												
01-01-1996	871,61	944,62	766,08	531,09	447,54	458,86	327,03	274,98	235,33	224,03	252,56	185,14	161,67	182,36	140,76	136,62	93,99	108,96	100,00											
01-01-1997	1.098,33	1.206,57	954,74	657,41	557,06	584,28	421,54	351,14	300,39	288,63	329,98	243,20	213,02	236,92	180,87	171,83	116,22	137,62	124,80	100,00										
01-01-1998	1.315,17	1.486,89	1.212,80	850,27	711,88	701,05	488,39	432,02	369,12	371,57	421,42	308,06	262,79	291,42	224,06	217,19	151,90	178,06	158,99	125,42	100,00									
01-01-1999	1.359,30	1.548,25	1.283,74	908,09	760,18	722,78	497,97	447,90	384,67	391,76	442,35	324,61	274,24	305,06	235,14	229,21	163,82	190,50	169,15	133,29	103,95	100,00								
01-01-2000	2.033,05	2.279,49	1.836,18	1.282,48	1.087,11	1.083,43	771,45	658,11	567,86	560,54	640,73	475,77	409,96	455,48	347,13	329,70	230,19	271,21	241,76	191,02	155,44	151,89	100,00							
01-01-2001	1.983,63	2.260,78	1.830,42	1.285,20	1.075,39	1.064,41	743,91	654,10	560,71	567,03	651,02	476,23	406,12	449,28	341,97	327,07	227,89	268,85	237,84	185,95	146,00	141,76	95,33	100,00						
01-01-2002	1.668,65	1.914,08	1.557,09	1.097,80	919,83	895,93	624,31	552,10	474,96	483,82	555,66	408,03	346,44	383,12	291,30	278,16	195,78	230,72	202,98	157,96	121,72	117,29	79,62	82,68	100,00					
01-01-2003	1.170,09	1.340,45	1.092,84	770,00	642,50	627,85	435,23	387,85	332,24	338,93	388,21	283,33	240,36	265,87	202,80	195,03	136,78	160,91	142,06	110,86	85,82	82,91	56,34	58,62	71,16	100,00				
01-01-2004	1.322,03	1.516,35	1.238,08	872,28	722,28	710,50	488,45	440,24	374,93	384,27	440,25	317,96	269,21	297,70	227,44	220,27	153,43	180,33	159,54	124,66	96,60	93,60	63,74	66,02	80,34	112,66	100,00			
01-01-2005	1.449,49	1.667,84	1.367,10	963,91	791,60	779,96	530,07	486,19	411,34	425,10	486,13	347,24	292,85	323,53	248,01	242,62	168,25	197,41	174,98	136,75	105,39	102,20	70,13	72,06	87,69	122,77	108,65	100,00		
01-01-2006	1.806,16	2.078,21	1.715,05	1.211,40	988,23	971,15	653,19	607,33	511,67	531,05	605,62	428,79	360,34	398,86	306,88	303,24	210,23	245,51	218,26	171,29	132,37	128,51	88,41	90,94	111,14	155,13	136,92	125,80	100,00	
01-01-2007	1.991,08	2.292,47	1.872,38	1.316,28	1.073,77	1.073,78	726,10	671,66	564,04	584,89	668,98	472,95	398,96	439,56	337,57	332,18	227,52	267,63	237,98	185,84	143,43	139,81	96,13	98,16	119,61	167,17	147,47	135,25	107,83	100,00
01-01-2008	2.099,02	2.411,87	1.925,45	1.340,91	1.095,57	1.138,91	782,30	708,13	592,96	609,67	704,54	497,85	424,26	464,51	353,88	343,07	229,05	273,43	243,07	188,47	146,80	144,58	98,22	99,54	121,14	169,68	149,44	136,87	109,56	100,63

14.1.7 Appendix 7 - Mortgage

Danish mortgage bonds. Source: The Danish national bank

Year	Interest	Index	av. Interest	rate
1978	17,52	1,0000	0,18	99,00
1979	17,44	0,9954	0,18	99,79
1980	19,08	1,0890	0,18	83,56
1981	19,32	1,1027	0,18	81,18
1982	20,50	1,0000	0,18	99,00
1983	14,37	0,7010	0,12	159,69
1984	14,04	0,6849	0,12	162,95
1985	11,55	0,5634	0,12	187,61
1986	10,55	0,5146	0,12	197,51
1987	12,72	0,6206	0,12	175,99
1988	11,40	0,5562	0,12	189,07
1989	10,16	0,4955	0,12	201,39
1990	10,88	0,5310	0,12	194,19
1991	10,06	0,4909	0,12	202,33
1992	10,07	0,4914	0,12	202,21
1993	8,07	0,3938	0,12	222,02
1994	8,61	1,0000	0,1	99,00
1995	9,38	1,0896	0,1	91,36
1996	8,44	0,9808	0,1	100,64
1997	7,65	1,0000	0,07	99,00
1998	7,13	0,9322	0,07	104,13
1999	6,87	0,8982	0,07	106,71
2000	7,45	0,9739	0,07	100,98
2001	6,72	0,8787	0,07	108,18
2002	6,33	0,8281	0,07	112,01
2003	5,45	0,7123	0,07	120,78
2004	5,30	0,6926	0,07	122,26
2005	4,35	0,5690	0,07	131,62
2006	5,09	0,6661	0,07	124,27
2007	5,44	0,7115	0,07	120,84
2008	5,27	0,6893	0,07	122,52

The Danish National bank - interest rates, money market interest rates
bond rate average ultimo (% p.a.) after type and time
Mortgage bonds average

14.1.8 Appendix 8 - Government

Danish Government bonds. Source: The Danish national bank

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
av.rate	18,12	19,12	19,62	19,63	20,63	12,73	14,16	13,09	9,86	10,76
interst rate (constant prices)	8,00%	8,40%	5,70%	6,30%	7,90%	11,10%	11,70%	13,30%	14,30%	14,00%

Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
av.rate	9,95	8,99	11,07	10,3	9,09	9,14	5,66	8,23	5,9	5,28
interst rate (constant prices)	5,5%	5,2%	7,4%	7,6%	7,9%	8,7%	8,0%	7,9%	7,9%	7,8%

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
av.rate	4,85	3,72	5,34	4,98	4,71	3,48	3,4	2,95	3,24	4,04
interst rate (constant prices)	3,2%	2,5%	2,1%	2,6%	2,6%	2,9%	3,8%	3,2%	3,1%	3,3%

The Danish National bank - interest rates, money market interest rate
bond rate average ultimo (% p.a.) after type and time
Government bonds (bond rate average)

Effektiv rente af et udvalg af børsnoterede obligationer samt mindsterenten Tabel 41

Ultimo	Statsgældsbeviser[1] (2-årige)	Statsobligationer			Realkreditobligationer				Gennemsnit af effektiv obligationsrente[5]	Mindsterenten[6]
		10 pct.	10 pct.[2]	5 pct.	10 pct.[3]	10 pct.[3]	10 pct.[3]	9 pct.[4]		
		Færdigamortiseret senest			Færdigamortiseret antal år efter seriens lukning					
		2004	1993	2007	30	20	10	5		
	Procent p.a.									
1977	17.12	•	17.85	17.23	17.37	17.68	17.61	16.37	17.47	•
1978	17.10	•	18.12	16.42	18.49	18.94	18.39	17.02	18.15	•
1979	17.82	•	19.12	18.33	18.26	18.68	19.04	18.14	18.11	•
1980	18.17	19.98	19.62	19.72	18.93	19.52	19.79	17.61	18.60	•
1981	18.87	20.91	19.63	20.02	19.93	20.38	19.96	18.55	19.45	•
1982	19.05	20.14	20.63	18.40	19.10	19.69	19.65	18.78	19.38	•
1983	12.16	12.96	12.73	11.87	12.83	12.61	12.65	12.65	12.64	•
1984	13.30	14.60	14.16	11.92	14.75	14.77	14.18	13.94	14.02	•
1985	9.13	9.67	9.47	8.76	10.31	10.32	9.65	9.29	9.86	9
1986	10.59	11.70	10.82	11.49	12.48	11.96	11.60	10.85	11.61	8
1987	10.34	12.05	10.61	10.14	12.79	12.61	11.67	9.61	11.73	10
1986 Jan.	9.43	10.12	9.98	8.99	10.71	10.60	10.11	9.59	10.26	9
Feb.	8.42	9.27	9.06	8.27	10.03	9.91	9.30	9.17	9.55	9
Marts ...	8.68	9.26	9.06	8.29	9.96	9.83	9.29	8.35	9.50	9
April ...	8.56	8.63	8.31	8.31	9.49	9.23	9.06	8.37	9.19	7
Maj	9.30	10.17	9.44	8.69	10.66	10.35	9.96	9.78	10.12	7
Juni	9.18	10.17	9.65	9.59	10.73	10.22	10.09	10.23	10.20	7
Juli.....	10.03	10.64	10.46	10.19	11.63	11.10	11.02	10.48	11.01	8
Aug. ...	10.28	11.24	10.91	10.23	12.06	11.43	11.23	10.18	11 35	8
Sept. ...	10.27	11.11	10.58	10.57	11.80	11.25	10.89	10.51	11.08	8
Okt.....	9.99	11.16	10.34	9.79	11.72	11.31	10.76	10.46	10.99	8
Nov. ...	10.35	11.80	10.72	10.41	12.33	11.89	11.27	6.56	11.68	8
Dec.....	10.59	11.70	10.82	11.49	12.48	11.96	11.60	10.85	11.61	8
1987 Jan.	10.58	11.33	10.77	11.07	11.96	11.68	11.23	10.87	11.26	10
Feb.	11.94	12.63	12.21	11.60	12.94	12.88	12.28	10.55	12.42	10
Marts ...	11.36	12.23	11.80	11.10	12.94	12.69	12.01	11.29	12.12	10
April ...	11.31	11.96	11.42	10.89	12.59	12.40	11.67	11.33	11.91	10
Maj	10.88	11.87	11.04	10.55	12.42	12.26	11.46	10.74	11.66	10
Juni	10.58	12.06	11.05	10.37	12.59	12.36	11.61	10.85	11.63	10
Juli.....	10.87	12.18	11.17	10.66	12.59	12.41	11.55	11.08	11.84	10
Aug. ...	10.58	11.76	10.67	10.34	12.30	12.03	11.27	9.94	11.52	10
Sept. ...	11.05	12.59	11.48	10.38	13.09	13.03	11.64	11.57	12.33	10
Okt.....	11.45	12.56	11.66	10.54	13.43	13.31	12.10	11.52	12.65	10
Nov. ...	10.58	11.84	10.97	9.86	12.84	12.70	11.79	8.33	11.91	10
Dec.....	10.34	12.05	10.61	10.14	12.79	12.61	11.67	9.61	11.73	10

Anm.: Den effektive rente på helårsbasis som beregnet af Københavns Fondsbørs. Til og med 1979 beregnede Fondsbørsen effektiv rente som den dobbelte halvårsrente. Omregnet af Nationalbanken til helårsbasis. – Som hovedregel den til enhver tid værende åbne serie eller afdeling.

[1]) Til og med 1979 8 pct. Til og med 1982 12 pct. Til og med 1984 10 pct. Til og med marts 1986 9 pct. Til og med december 1986 8 pct. Derefter 10 pct.

[2]) Til og med marts 1986 10 pct. 8-10-årigt serielån. Til og med december 1986 8 pct. 5-6-årigt serielån.

[3]) Til og med 1980 10 pct. Til og med 1982 12 pct. Til og med marts 1986 10 pct. Fra og med april 1986 4 kreditorterminer. Til og med december 1986 9 pct.

[4]) Rentetilpasningslån. Til og med 1980 9 pct. Til og med 1982 12 pct. Til og med marts 1986 10 pct.

[5]) Vejet gennemsnit af samtlige serier/afdelinger på kurslistens sektion I og II. Til og med 1981 vejet gennemsnit af samtlige statspapirer samt alle åbne serier af almindelig og særlig realkredit.

[6]) I henhold til kursgevinstloven.

14.1.9 Appendix 9 - Deduction

Deduction percentages, Denmark.

Tabel 6. Skalamarginalskatteprocenter for negativ nettokapitalindkomst og ligningsmæssige fradrag 1986-2002						
	1986	1987	1993	1994	1998	2002
	-- Kommuneskat --					
	28,1 pct.	29,0 pct.	30,2 pct.	30,2 pct.	32,4 pct.	33,2 pct.
	-- Pct.--					
Laveste	48,0	51,0	52,2	44,7	40,4	33,2
Mellemste	62,4	51,0	52,2	49,2	46,4	33,2
Højeste	73,2	51,0	52,2	v49,2	46,4	33,2
Ligningsmæssige fradrag	48-73,2	51,0	52,2	44,7	40,4	33,2
Anm.: Gennemsnitskommune. Marginalskatterne er ekskl. virkningen af overgangsordninger.						

Source: Skatteministeriet, http://www.skm.dk/publikationer/skat/1595/1604/

Deduction percentages for mortgage interest debt in Denmark						
Year	1978 - 1986	1987 - 1992	1993	1994 - 1997	1998 - 2001	2002 - 2007
Deduction percentages	60,6%	51,0%	52,2%	44,7%	40,4%	33,2%

14.1.10 Appendix 10 - Inflation

Annual inflation percentages, Denmark.

year	%
1978	10
1979	9,6
1980	12,3
1981	11,7
1982	10,1
1983	6,9
1984	6,3
1985	4,7
1986	3,7
1987	4
1988	4,5
1989	4,8
1990	2,6
1991	2,4
1992	2,1
1993	1,3
1994	2
1995	2,1
1996	2,1
1997	2,2
1998	1,8
1999	2,5
2000	2,9
2001	2,4
2002	2,4
2003	2,1
2004	1,2
2005	1,8
2006	1,9
2007	1,7

Source: www.statistikbanken.dk/statbank5a/default.asp?w=1280

14.1.11 Appendix 11 - Real estate

Real estate prices and price trends, Denmark (index and DKK/year).

		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
One-family houses	All Denmark	100	100	88	75	67	76	82	92	100	88	86	81	74	73	69	68	73	77	83	87	93	96	99	104	105	109	119	136	164	168	*NA*
	Province Copenhagen Town	100	98	85	73	70	81	89	100	108	94	88	80	73	73	71	70	78	82	91	99	110	117	127	140	146	153	174	224	275	260	248
	Copenhagen county (all municipalities herein)	100	99	86	73	67	79	88	100	108	91	85	79	71	71	68	66	74	81	87	94	102	110	114	122	126	130	143	179	223	205	*NA*
	Frederiksborg and Roskilde counties	100	102	89	76	66	76	85	98	108	92	89	84	74	73	69	68	76	81	89	94	102	109	115	127	131	136	148	176	216	200	*NA*
	Municipalities outside the capital area	100	100	88	75	67	76	83	91	98	87	85	83	74	74	71	70	77	81	87	92	97	99	100	104	103	106	116	134	*NA*	*NA*	*NA*
	(Copenhagen and Frederiksberg) with the following amount of inhabitants	100	101	90	76	68	76	82	90	97	88	87	82	74	73	71	69	75	77	82	86	89	92	94	98	99	103	111	126	*NA*	*NA*	*NA*
		100	101	88	75	64	72	77	85	91	83	80	76	69	68	64	62	66	68	73	77	80	83	85	89	89	91	100	111	*NA*	*NA*	*NA*
Owner-occupied flats	All Denmark	100	106	98	87	82	93	101	116	131	118	118	113	100	98	88	86	91	94	104	109	120	133	143	157	168	175	193	233	275	256	*NA*
	Province Copenhagen town	100	105	95	85	79	92	103	103	117	105	101	95	82	80	73	69	74	76	86	95	107	124	139	163	179	187	209	270	335	300	277
	Copenhagen, Frederiksborg, and Roskilde cou	100	105	96	84	78	88	97	139	156	141	139	132	116	111	98	95	101	104	112	118	127	142	154	171	187	194	211	249	294	264	*NA*
	Odense, Århus, and Aalborg municipalities	100	105	99	86	80	91	96	106	123	110	114	111	97	99	88	88	97	100	111	119	130	137	140	140	143	147	168	197	*NA*	*NA*	*NA*
	The rest of the country	100	102	98	88	80	90	92	79	87	79	83	81	73	72	63	62	65	68	73	75	80	83	85	91	93	99	102	113	*NA*	*NA*	*NA*

Average (Province Copenhagen Town)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	100	101	90	79	75	86	96	101	113	100	94	87	78	76	72	70	76	79	89	97	108	120	133	151	163	170	192	247	305	280	262

Average (Province Copenhagen town)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
index 1978 - 2007 (contant prices)	100	101	90	79	75	86	96	101	113	100	94	87	78	76	72	70	76	79	89	97	108	120	133	151	163	170	192	247	305	280	262
											100	93	82	81	76	74	80	84	94	103	115	127	141	160	172	180	203	261	323	296	278
																					100	111	123	140	150	157	177	228	282	259	242

Source: 1st half-year 1977 till 2nd half-year 1986: -One-family houses; Table X e. p. 77, Real estate sale 2. half year 1986, Statsskattedirektoratet, vurderingsafdelingen, Copenhagen, May 1987, Stougaard Jensen, København.
- Freehold flats; Table X j. p. 82, Real estate sale 2. half year 1986, Udarbejdet af Statsskattedirektoratet, vurderingsafdelingen, Copenhagen, May 1987, Stougaard Jensen, København.

1st half-year 1987 till 2nd half-year 2000: -One-family houses; Table X e. p. 85, Told Ska,t Real estate sale 2. half year 2000, Statens Information, Statens Publikationer, Copenhagen, July 2001, Stougaard Jensen/Scantryk A/S København.
- Freehold flats;Table X l. p. 92, Told Ska,t Real estate sale 2. half year 2000, Statens Information, Statens Publikationer, Copenhagen, July 2001, Stougaard Jensen/Scantryk A/S København.

1st half-year 2000 till 1st half-year 2006: -One-family houses; Table 64 p. 64, Ejendomssalg 1. halvår 2006, Hovedtabeller, Skat, København, oktober 2006, www.skat.dk/getFile.aspx?ID=13633
- Freehold flats;Table 72 p. 72, Real estate sale 1. half year 2000, Hovedtabeller, Skat, Copenhagen, October 2006, www.skat.dk/getFile.aspx?ID=13633

1st half-year 2006 till 1st quarter 2007: The price trend of the square metre prices has been used to estimate a meassure of the general price trend of one-family houses and freehold flats. Realkreditrådet, Statistik, Ejendomsprisstatistik, www.realkreditraadet.dk/

Average (Province Copenhagen town)	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
index 2007 - 1978 (contant prices)	36	36	32	28	27	31	34	36	40	36	34	31	28	27	26
m2 price	8.776	8.888	7.919	6.931	6.547	7.591	8.447	8.906	9.873	8.751	8.290	7.675	6.813	6.708	6.341
75 m2	658.169	666.602	593.956	519.845	491.012	569.291	633.539	667.924	740.464	656.293	621.781	575.662	510.954	503.082	475.591

Average (Province Copenhagen town)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
index 2007 - 1978 (contant prices)	25	27	28	32	35	39	43	48	54	58	61	68	88	109	100	100
m2 price	6.132	6.638	6.958	7.800	8.511	9.504	10.562	11.684	13.287	14.270	14.918	16.812	21.673	26.769	24.571	24.571
75 m2	459.899	497.869	521.881	584.980	638.357	712.825	792.160	876.272	996.558	1.070.224	1.118.835	1.260.927	1.625.462	2.007.666	1.842.788	1.842.788

Source: Realkreditrådet

Real estate prices/m2, Denmark (DKK/year).

m2 price		1. kvt. 1995	2. kvt. 1995	3. kvt. 1995	4. kvt. 1995	1. kvt. 1996	2. kvt. 1996	3. kvt. 1996	4. kvt. 1996	1. kvt. 1997	2. kvt. 1997	3. kvt. 1997	4. kvt. 1997	1. kvt. 1998
Houses	Copenhagen	7.124	7.310	7.598	7.828	8.093	8.206	8.107	8.544	8.450	9.005	9.430	9.455	9.856
Flats	Copenhagen	6.344	6.469	6.712	6.942	7.177	7.160	7.267	7.553	7.612	7.894	8.390	8.466	8.713
Average		6.734	6.890	7.155	7.385	7.635	7.683	7.687	8.049	8.031	8.450	8.910	8.961	9.285
With real estate price index		6.958												

m2 price		2. kvt. 1998	3. kvt. 1998	4. kvt. 1998	1. kvt. 1999	2. kvt. 1999	3. kvt. 1999	4. kvt. 1999	1. kvt. 2000	2. kvt. 2000	3. kvt. 2000	4. kvt. 2000	1. kvt. 2001	2. kvt. 2001
Houses	Copenhagen	10.086	10.288	10.452	10.731	11.104	11.254	11.448	11.643	11.885	12.352	12.497	12.731	13.228
Flats	Copenhagen	9.357	9.238	9.537	9.833	10.316	10.735	10.969	11.337	11.835	12.311	12.444	12.924	13.671
Average		9.722	9.763	9.995	10.282	10.710	10.995	11.209	11.490	11.860	12.332	12.471	12.828	13.450

m2 price		3. kvt. 2001	4. kvt. 2001	1. kvt. 2002	2. kvt. 2002	3. kvt. 2002	4. kvt. 2002	1. kvt. 2003	2. kvt. 2003	3. kvt. 2003	4. kvt. 2003	1. kvt. 2004	2. kvt. 2004	3. kvt. 2004
Houses	Copenhagen	13.546	13.363	13.734	14.154	14.376	14.509	14.562	14.693	14.880	15.219	15.398	15.896	16.476
Flats	Copenhagen	14.485	14.631	14.876	15.282	15.934	16.129	16.074	16.414	16.346	16.354	17.355	17.681	17.950
Average		14.016	13.997	14.305	14.718	15.155	15.319	15.318	15.554	15.613	15.787	16.377	16.789	17.213

m2 price		4. kvt. 2004	1. kvt. 2005	2. kvt. 2005	3. kvt. 2005	4. kvt. 2005	1. kvt. 2006	2. kvt. 2006	3. kvt. 2006	4. kvt. 2006	1. kvt. 2007	2. kvt. 2007	3. kvt. 2007	4. kvt. 2007
Houses	Copenhagen	17.073	17.742	18.804	20.554	22.243	24.252	25.550	26.970	26.387	26.491	25.605	25.714	24.946
Flats	Copenhagen	18.283	19.625	20.706	22.215	24.082	25.514	28.025	28.122	28.152	26.887	25.883	26.099	24.195
Average		17.678	18.684	19.755	21.385	23.163	24.883	26.788	27.546	27.270	26.689	25.744	25.907	24.571

Source: Realkreditrådet

14.1.12 Appendix 12 - Rental

Rental expenses, Denmark (DKK/year).

1978 = 100		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Rent, all year residence		100	108	115	124	135	148	160	168	176	185	197	208	220	228	235
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rent, all year residence		243	249	254	258	265	270	277	285	293	300	308	317	325	331	338

		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Constant prices		90	98	103	112	125	141	154	164	172	181	192	203	217	226	233
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Constant prices		241	247	252	256	263	268	275	282	290	298	306	316	323	329	336

Source: Statistikbanken, Tables: PRIS1 and PRIS6

year	m2	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
index (2000=100)		32	35	36	40	44	50	54	58	61	64	68	72	77	80	83
rental price per m2 (Cph & Frb)		219	240	251	273	305	344	375	399	419	442	468	496	529	551	569
yearly rental price (Cph & Frb)	75	16.453	17.966	18.821	20.476	22.875	25.813	28.100	29.938	31.455	33.121	35.136	37.188	39.663	41.314	42.669
water & drain		257	275	293	318	340	360	376	391	404	415	426	438	449	516	467
total yealy rental expense		16.710	18.241	19.114	20.794	23.216	26.174	28.476	30.329	31.858	33.535	35.562	37.626	40.112	41.830	43.136
monthly expense		1.393	1.520	1.593	1.733	1.935	2.181	2.373	2.527	2.655	2.795	2.964	3.136	3.343	3.486	3.595
statistic yearbook									388						570	
									start							
year	m2	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
index (2000=100)		86	88	89	91	93	95	97	100	103	105	108	111	114	116	119
rental price per m2 (Cph & Frb)		589	603	614	624	640	654	670	688	707	724	744	765	783	799	815
yearly rental price (Cph & Frb)	75	44.149	45.215	46.075	46.777	48.023	49.044	50.233	51.570	52.997	54.316	55.777	57.367	58.730	59.929	61.162
water & drain		476	476	456	455	541	1.329	1.292	1.146	1.238	1.286	1.401	1.588	1.588	1.616	1.645
total yealy rental expense		44.626	45.692	46.530	47.232	48.564	50.373	51.525	52.716	54.234	55.602	57.178	58.955	60.317	61.545	62.807
monthly expense		3.719	3.808	3.878	3.936	4.047	4.198	4.294	4.393	4.520	4.634	4.765	4.913	5.026	5.129	5.234
statistic yearbook									688							

Source: Statistic yearbook 2000, p. 345, 1991 p. 292 and 1985 p.268

Tabel 322 Gennemsnitlig årlig husleje pr. m² efter forskellige kriterier 2000

2000

	Uden installationsmangler				Med installationsmangler				I alt			
	Hele landet	Hovedstadsområdet	Heraf København, Frederiksberg	Øvrige kommuner	Hele landet	Hovedstadsområdet	Heraf København, Frederiksberg	Øvrige kommuner	Hele landet	Hovedstadsområdet	Heraf København, Frederiksberg	Øvrige kommuner
	kr. pr. m²											
I alt samtlige boliger	**485**	**498**	**487**	**478**	**431**	**411**	**407**	**450**	**482**	**490**	**475**	**477**
Boligens art:												
Parcelhuse	387	422	421	384	371	381	349	366	386	415	365	383
Række-, kæde- og dobbelthuse	528	553	496	521	436	464	530	426	527	552	498	520
Etageboliger	475	490	486	465	430	410	407	451	472	482	474	464
Kvadratmeterinterval:												
Under 40 kv. m.	574	573	581	575	550	481	472	583	571	559	551	575
40- 59 kv. m.	519	504	487	530	449	430	429	467	508	491	473	521
60- 79 kv. m.	496	501	493	493	415	407	404	423	492	494	481	490
80- 99 kv. m.	469	507	514	449	381	378	372	385	467	501	501	447
100-119 kv. m.	432	466	438	414	345	339	340	355	429	459	426	413
120-159 kv. m.	395	419	372	375	335	338	334	328	392	414	368	374
160 kv. m. +	326	348	344	299	317	324	327	292	325	346	343	299
Ejerforhold:												
Privatperson o.l.	468	436	429	478	434	398	397	453	461	425	418	473
Almennyttigt boligselskab	482	517	530	462	445	455	444	429	481	516	525	462
Aktie- og anpartsselskab m.m.	495	462	444	527	427	404	405	471	487	453	436	522
Kommuner og stat	502	488	477	504	420	439	447	409	485	469	463	489
Udlejede ejerlejligheder	521	505	511	538	351	316	305	479	518	499	501	537
Opførelsesperiode:												
Opført før år 1900	489	464	463	506	422	402	402	455	469	439	438	495
1900-1919	463	416	415	484	422	395	393	447	451	408	407	475
1920-1939	434	408	410	465	433	409	409	450	434	408	410	462
1940-1949	443	481	499	412	451	458	459	444	444	478	495	414
1950-1959	417	448	464	393	452	463	445	447	418	448	464	394
1960-1964	423	454	454	401	434	408	408	434	423	454	454	402
1965-1969	442	483	493	422	444	425	425	445	442	483	493	422
1970-1974	474	513	537	454	465	489	371	463	474	513	537	454
1975-1979	544	594	628	518	558	550	-	566	544	594	628	518
1980-1984	538	606	610	517	572	405	-	573	538	606	610	518
1985-1989	603	695	706	577	521	655	647	487	602	695	705	577
1990-1994	629	738	775	595	575	835	835	569	629	738	775	595
1995-	646	729	719	618	601	687	-	588	646	729	719	618

Anm. Gennemsnitstal for husleje pr. m² er ikke beregnet, såfremt antallet af boliger er mindre end 50. Beregningen af gennemsnitlig husleje pr. m² er blevet ændret siden 1991.

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Tabel 313. **Gennemsnitlig årlig husleje pr. m² efter forskellige kriterier**

Annual rent per m² by quality, size, etc.

1. september 1991	Kvalitetsgruppe 1				Kvalitetsgruppe 2				I alt			
	Hele landet	Hoved-stads-områ-det[1]	Heraf Køben-havn, Frede-riks-berg	Øvrige kom-muner	Hele landet	Hoved-stads-områ-det[1]	Heraf Køben-havn, Frede-riks-berg	Øvrige kom-muner	Hele landet	Hoved-stads-områ-det[1]	Heraf Køben-havn, Frede-riks-berg	Øvrige kom-muner
	1	2	3	4	5	6	7	8	9	10	11	12
	kr. pr. m²											
1. I alt samtlige boliger	**393**	**403**	**380**	**385**	**306**	**300**	**296**	**315**	**383**	**388**	**360**	**380**
2. Boligens art:												
a. Parcelhuse	314	352	254	311	306	332	264	294	313	348	260	310
b. Rækkehuse-, kæde- og dobbelthuse	459	476	426	453	369	379	398	364	456	472	424	451
c. Boliger i flerfamiliehuse	379	393	379	366	303	298	295	311	369	378	358	361
3. Kvadratmeterinterval:												
Under 40 kv. m.	472	485	450	467	390	358	356	425	448	430	393	458
40- 59 «	425	407	389	441	326	319	317	335	399	381	362	417
60- 79 «	407	406	390	407	309	308	305	309	396	392	368	398
80- 99 «	397	429	432	378	282	279	265	287	391	417	406	375
100-119 «	368	395	348	351	261	259	248	262	362	384	331	348
120-159 «	323	334	279	312	229	229	228	228	316	324	271	308
160 kv. m. og derover	242	256	252	221	212	205	207	238	240	251	248	221
4. Ejerforhold:												
a. Privatperson o.l.	320	315	296	322	289	266	266	302	311	299	284	317
b. Almennyttigt boligselskab	414	448	465	394	377	383	366	367	413	445	455	394
c. Aktie- og anpartsselskab m.m.	372	352	337	397	290	272	273	329	360	338	323	389
d. Kommuner og stat	361	368	367	355	313	321	321	285	341	343	341	337
e. Udlejede ejerlejligheder	371	333	331	427	277	257	248	353	367	329	325	425
5. Opførelsesperiode:												
Opført før år 1900	326	302	302	353	280	271	272	298	307	287	288	335
1900-1919	313	297	301	326	284	267	269	305	302	284	287	318
1920-1939	310	316	322	300	313	321	320	299	311	317	322	300
1940-1949	343	386	403	308	353	374	384	330	344	384	399	311
1950-1959	341	378	381	310	344	368	374	329	341	378	381	310
1960-1964	353	381	386	332	339	332	181	340	353	381	386	332
1965-1969	379	410	412	361	374	459	303	353	379	410	412	361
1970-1974	424	476	500	395	415	438	-	402	424	476	500	395
1975-1979	481	516	556	460	529	542	815	478	482	517	557	460
1980-1984	488	563	577	462	498	577	-	497	488	563	577	463
1985-1990	560	633	671	541	495	536	540	487	559	632	670	541

Anm. Kvalitetsgruppe 1 omfatter boliger med eget køkken, eget toilet, eget bad, fjernvarme, centralvarme fra eget anlæg samt for enfamiliehuse opvarmning vha. elovne eller elpaneler. Kvalitetsgruppe 2 omfatter boliger, der mangler en eller flere af de i kvalitetsgruppe 1 nævnte installationer.

[1] Se tekstafsnittet, Befolkning og valg.

Kilde: Bygge- og *anlægsvirksomhed 1992:14* (Statistiske Efterretninger).

TRANSLATION - Columns, 1-4: quality group 1 (with all installations). 5-8: quality group 2 (not with all installations). 9-12: total. 1, 5 and 9: all Denmark. 2, 6 and 10: Copenhagen metropolitan area. 3, 7 and 11: of which Copenhagen and Frederiksberg municipalities. 4, 8 and 12: rest of Denmark. - Rows, 1: dwelling stock, total. 2: by type of dwelling. a: one-family houses (detached). b: one-family houses (undetached or semi-detached). c: dwellings in multi-family buildings. 3: by gross square meters. 4: by ownership. a: individuals, etc. b: non-profit building societies. c: limited liability companies/co-operative socie ties. d: public authorities. e: rented freehold flats. 5: by construction period.

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Tabel 282. Gennemsnitlig årlig husleje pr. m² efter forskellige kriterier

Annual rent per m² by quality, size, etc.

30. september 1985

	Kvalitetsgruppe 1				Kvalitetsgruppe 2				I alt			
	Hele landet	Hovedstadsområdet[1]	Heraf København, Frederiksberg	Øvrige kommuner	Hele landet	Hovedstadsområdet[1]	Heraf København, Frederiksberg	Øvrige kommuner	Hele landet	Hovedstadsområdet[1]	Heraf København, Frederiksberg	Øvrige kommuner
	1	2	3	4	5	6	7	8	9	1	11	12
	kr. pr. m²											
1. I alt samtlige boliger	**257**	**266**	**237**	**250**	**176**	**172**	**169**	**184**	**243**	**243**	**211**	**242**
2. Boligens art:												
a. Parcelhuse	198	214	196	196	193	207	194	189	198	213	195	196
b. Række-, kæde- og dobbelthuse	315	339	355	304	242	257	273	235	312	335	343	301
c. Boliger i flerfamiliehuse	249	258	235	241	174	171	168	181	234	235	210	232
3. Samlet areal:												
Under 50 kv. m.	293	294	280	291	204	197	194	211	255	249	231	261
50- 59 «	268	258	242	280	189	187	184	193	241	232	217	253
60- 79 «	259	264	241	255	174	170	167	182	242	239	211	245
80- 99 «	267	286	268	254	170	166	160	177	256	265	231	249
100-119 «	256	275	225	244	158	159	152	156	247	257	203	239
120 kv. m. og derover	201	211	176	190	137	141	142	124	193	199	168	186
4. Ejerforhold												
a. Privatperson o.l.	198	204	201	195	171	165	165	176	188	186	182	188
b. Almennyttigt boligselskab	288	316	324	271	266	284	266	247	287	315	316	270
c. Aktie- og anpartsselskab	222	225	217	219	166	163	163	179	210	209	200	213
d. Kommuner og stat	218	239	232	197	179	181	182	173	198	204	199	188
e. Udlejede ejerlejligheder	231	229	218	234	177	165	159	231	228	225	212	234
5. Opførelsesperiode:												
Før 1900	186	191	191	179	164	163	163	165	173	173	173	173
1900-1919	187	188	189	186	169	166	167	174	177	175	176	180
1920-1939	196	205	205	180	167	162	160	177	189	194	193	179
1940-1959	234	260	258	212	229	240	254	219	234	258	257	213
1960-1964	244	266	257	227	206	...	...	207	243	266	257	227
1965-1969	272	310	324	252	249	...	...	225	272	310	324	252
1970-1974	311	361	403	285	308	...	...	287	311	361	404	285
1975-1979	355	388	432	336	384	...	...	303	356	389	432	335
1980-	370	423	446	355	393	...	...	382	371	423	447	356

Anm. Kvalitetsgruppe 1 omfatter boliger med eget køkken, eget toilet, eget bad, fjernvarme, centralvarme fra eget anlæg samt for enfamiliehuse opvarmning vha. elovne eller elpaneler. Kvalitetsgruppe 2 omfatter boliger, der mangler en eller flere af de i kvalitetsgruppe 1 nævnte installationer.

[1] Se tekstafsnit, Befolkning og valg side 1–4.

Kilde: Danmarks Statistik

TRANSLATION – Columns, 1-4: quality group 1 (with all installations). 5-8: quality group 2 (not with all installations). 9-12: total. 1, 5 and 9: all Denmark. 2, 6 and 10: Copenhagen metropolitan area. 3, 7 and 11: of which Copenhagen and Frederiksberg municipalities. 4, 8 and 12: rest of Denmark. – Rows, 1: dwelling stock, total. 2: by type of dwelling. a: one-family houses (detached). b: one-family houses (undetached or semi-detached). c: dwellings in multi-family buildings. 3: by floorspace. 4: by ownership. a: individuals, etc. b: non-profit building societies. c: limited liability companies/co-operative socie ties. public authorities. e: rented freehold flats. 5: by construction period.

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14.1.13 Appendix 13 - Main & water

Maintenance costs and water & drain taxes, Denmark (DKK/year).

		1993:1995	1994:1996	1995:1997	1996:1998	1997:1999	1998:2000	1999:2001	2000:2002	2001:2003	2002:2004	2003:2005
Houses and Freehold flats	Number of households in the study	166	215	198	160	149	145	150	164	166	177	162
	4311 Materials to reparation etc. of house	1359,4	1399,3	1020,8	1614,1	1120,9	2384,3	1928,2	1846,3	1796,7	2260,1	1922,5
	4321 Reparation etc., workman, house	1661,5	1568,9	910,4	986,2	532	753	2042,7	1807,1	2190,5	2160,9	2792,9
	4421 Renovation	416	435,4	383,3	400	503,2	516,1	467,7	617,8	703,7	899,2	1098,8
	4431 Water & drain tax	476,4	455,6	455,2	541	1328,8	1291,9	1146,4	1237,7	1286	1400,5	1587,6
	4441 Diverse maintenance etc.	8736,1	9275,8	9395,9	9924,3	12846,7	9792,9	8496,1	9099,6	8820,7	8971,4	8408,7
	Total maintenance	12.173	12.679	11.710	12.925	15.003	13.446	12.935	13.371	13.512	14.292	14.223
	Water & drain taxes	476	456	455	541	1.329	1.292	1.146	1.238	1.286	1.401	1.588

Source: Statistikbanken, Inkomst, forbrug og priser, Tabel FU5 http://www.statistikbanken.dk/statbank5a/SelectVarVal/saveselections.a

back/forward factor	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1
year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
maintance costs	6.564	7.026	7.493	8.125	8.694	9.211	9.613	9.991	10.311	10.597	10.889	11.186	11.475	11.711	11.943
water & drain tax	257	275	293	318	340	360	376	391	404	415	426	438	449	458	467

back/forward factor	read	read	read	read	read	read	read	read	read	read	read	read	read	1	2
year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
maintance costs	12.173	12.173	12.679	11.710	12.925	15.003	13.446	12.935	13.371	13.512	14.292	14.223	14.223	14.479	14.740
water & drain tax	476	476	456	455	541	1.329	1.292	1.146	1.238	1.286	1.401	1.588	1.588	1.616	1.645

14.1.14 Appendix 14 - Real estate, 78-08

Real estate, 1978 – 2008 M01.

Real estate expenses																																
end year		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
real estate - market value		658.169	666.602	593.996	519.845	491.012	569.291	633.539	667.924	740.464	656.293	621.781	575.662	510.954	503.082	475.591	459.899	497.869	521.881	584.980	638.357	712.825	792.160	876.272	996.558	1.070.224	1.118.835	1.260.927	1.625.462	2.007.666	1.842.788	1.726.661
over/under limit		1.042.201	1.139.410	1.241.019	1.400.867	1.550.494	1.692.522	1.798.827	1.901.604	1.983.693	2.052.291	2.127.751	2.213.794	2.307.457	2.364.159	2.418.271	2.467.928	2.504.361	2.554.119	2.606.512	2.659.750	2.715.367	2.765.451	2.826.459	2.891.304	2.946.939	2.998.028	3.040.000	3.040.000	3.040.000	3.040.000	
real estate tax (flat value)	90%	592.352	599.942	534.561	467.861	441.911	512.362	570.185	601.132	666.417	590.664	559.603	518.096	459.858	452.774	428.032	413.909	448.082	469.693	526.482	574.522	641.543	712.944	788.645	896.902	963.202	1.006.951	1.134.835	1.462.916	1.806.900	1.658.509	
under	0,10%	592	600	535	468	442	512	570	601	666	591	560	518	460	453	428	414	448	470	526	575	642	713	789	897	963	1.007	1.135	1.463	1.807	1.659	
over	0,30%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
real estate tax (ground)	10%	65.817	66.660	59.396	51.985	49.101	56.929	63.354	66.792	74.046	65.629	62.178	57.566	51.095	50.308	47.559	45.990	49.787	52.188	58.498	63.836	71.283	79.216	87.627	99.656	107.022	111.883	126.093	162.546	200.767	184.279	
	0,34%	224	227	202	177	167	194	215	227	252	223	211	196	174	171	162	156	169	177	199	217	242	269	298	339	364	380	429	553	683	627	
total taxes		816	827	737	645	609	706	786	828	918	814	771	714	634	624	590	570	617	647	725	792	884	982	1.087	1.236	1.327	1.387	1.564	2.016	2.490	2.285	
water & drain tax		257	275	293	318	340	360	376	391	404	415	426	438	449	458	467	476	476	456	455	541	1.329	1.292	1.146	1.238	1.286	1.401	1.588	1.588	1.616	1.645	
maintenance costs		6.564	7.026	7.493	8.125	8.694	9.211	9.613	9.991	10.311	10.597	10.889	11.186	11.475	11.711	11.943	12.173	12.173	12.679	11.710	12.925	15.003	13.446	12.935	13.371	13.512	14.292	14.223	14.223	14.479	14.740	
real estate agent fee	3,00%																															51.800
total expenses		7.637	8.128	8.522	9.088	9.643	10.277	10.775	11.210	11.633	11.825	12.086	12.337	12.557	12.793	13.000	13.220	13.267	13.782	12.891	14.257	17.216	15.720	15.168	15.844	16.125	17.079	17.374	17.826	18.585	18.670	398.535
accumulated expenses		7.637	15.765	24.287	33.375	43.018	53.295	64.070	75.280	86.912	98.738	110.823	123.161	135.718	148.511	161.512	174.731	187.998	201.780	214.671	228.928	246.144	261.864	277.032	292.876	309.001	326.080	343.454	361.280	379.865	450.335	1.276.326

Mortgage bond annuity loan 1978 – 2007 M12

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding	
4,50%	0,13%	120	01-03-1978	24.460,60	679,46	124,95	25.265,01	14.823,12	11.121,34	543.443,91	
4,50%	0,13%	119	01-06-1978	24.454,98	679,30	130,57	25.264,85	14.819,72	11.124,44	543.313,34	
4,50%	0,13%	118	01-09-1978	24.449,10	679,14	136,44	25.264,69	14.816,15	11.127,67	543.176,90	
4,50%	0,13%	117	01-12-1978	24.442,96	678,97	142,59	25.264,52	14.812,43	11.131,05	543.034,31	44.504,51
4,50%	0,13%	116	01-03-1979	24.436,54	678,79	149,00	25.264,34	14.808,55	11.134,59	542.885,31	
4,50%	0,13%	115	01-06-1979	24.429,84	678,61	155,71	25.264,15	14.804,48	11.138,28	542.729,60	
4,50%	0,13%	114	01-09-1979	24.422,83	678,41	162,71	25.263,96	14.800,24	11.142,13	542.566,89	
4,50%	0,13%	113	01-12-1979	24.415,51	678,21	170,04	25.263,75	14.795,80	11.146,16	542.396,86	44.561,16
4,50%	0,13%	112	01-03-1980	24.407,86	678,00	177,69	25.263,54	14.791,16	11.150,38	542.219,17	
4,50%	0,13%	111	01-06-1980	24.399,86	677,77	185,68	25.263,32	14.786,32	11.154,78	542.033,49	
4,50%	0,13%	110	01-09-1980	24.391,51	677,54	194,04	25.263,09	14.781,25	11.159,38	541.839,45	
4,50%	0,13%	109	01-12-1980	24.382,78	677,30	202,77	25.262,84	14.775,96	11.164,18	541.636,68	44.628,71
4,50%	0,13%	108	01-03-1981	24.373,65	677,05	211,89	25.262,59	14.770,43	11.169,20	541.424,78	
4,50%	0,13%	107	01-06-1981	24.364,12	676,78	221,43	25.262,33	14.764,65	11.174,45	541.203,35	
4,50%	0,13%	106	01-09-1981	24.354,15	676,50	231,39	25.262,05	14.758,62	11.179,94	540.971,96	
4,50%	0,13%	105	01-12-1981	24.343,74	676,21	241,81	25.261,76	14.752,31	11.185,67	540.730,15	44.709,27
3,00%	0,13%	104	01-03-1982	16.742,41	697,60	496,65	17.936,65	10.145,90	8.488,35	557.583,57	
3,00%	0,13%	103	01-06-1982	16.727,51	696,98	511,54	17.936,03	10.136,87	8.496,14	557.072,03	
3,00%	0,13%	102	01-09-1982	16.712,16	696,34	526,89	17.935,39	10.127,57	8.504,16	556.545,14	
3,00%	0,13%	101	01-12-1982	16.696,35	695,68	542,70	17.934,73	10.117,99	8.512,42	556.002,44	34.001,08
3,00%	0,13%	100	01-03-1983	16.680,07	695,00	558,98	17.934,06	10.108,12	8.520,93	555.443,46	
3,00%	0,13%	99	01-06-1983	16.663,30	694,30	575,75	17.933,36	10.097,96	8.529,70	554.867,71	
3,00%	0,13%	98	01-09-1983	16.646,03	693,58	593,02	17.932,64	10.087,50	8.538,73	554.274,69	
3,00%	0,13%	97	01-12-1983	16.628,24	692,84	610,81	17.931,90	10.076,71	8.548,02	553.663,88	34.137,38
3,00%	0,13%	96	01-03-1984	16.609,92	692,08	629,14	17.931,13	10.065,61	8.557,60	553.034,75	
3,00%	0,13%	95	01-06-1984	16.591,04	691,29	648,01	17.930,35	10.054,17	8.567,47	552.386,74	
3,00%	0,13%	94	01-09-1984	16.571,60	690,48	667,45	17.929,54	10.042,39	8.577,63	551.719,29	
3,00%	0,13%	93	01-12-1984	16.551,58	689,65	687,47	17.928,70	10.030,26	8.588,09	551.031,81	34.290,79
3,00%	0,13%	92	01-03-1985	16.530,95	688,79	708,10	17.927,84	10.017,76	8.598,87	550.323,72	
3,00%	0,13%	91	01-06-1985	16.509,71	687,90	729,34	17.926,96	10.004,89	8.609,98	549.594,38	
3,00%	0,13%	90	01-09-1985	16.487,83	686,99	751,22	17.926,04	9.991,63	8.621,41	548.843,15	
3,00%	0,13%	89	01-12-1985	16.465,29	686,05	773,76	17.925,11	9.977,97	8.633,19	548.069,40	34.463,45
3,00%	0,13%	88	01-03-1986	16.442,08	685,09	796,97	17.924,14	9.963,90	8.645,32	547.272,43	
3,00%	0,13%	87	01-06-1986	16.418,17	684,09	820,88	17.923,14	9.949,41	8.657,82	546.451,55	
3,00%	0,13%	86	01-09-1986	16.393,55	683,06	845,51	17.922,12	9.934,49	8.670,69	545.606,04	
3,00%	0,13%	85	01-12-1986	16.368,18	682,01	870,87	17.921,06	9.919,12	8.683,95	544.735,17	34.657,79
3,00%	0,13%	84	01-03-1987	16.342,06	680,92	897,00	17.919,97	8.334,45	10.266,44	543.838,18	
3,00%	0,13%	83	01-06-1987	16.315,15	679,80	923,91	17.918,85	8.320,72	10.277,92	542.914,27	
3,00%	0,13%	82	01-09-1987	16.287,43	678,64	951,62	17.917,69	8.306,59	10.289,75	541.962,64	
3,00%	0,13%	81	01-12-1987	16.258,88	677,45	980,17	17.916,51	8.292,03	10.301,93	540.982,47	41.136,04
3,00%	0,13%	80	01-03-1988	16.229,47	676,23	1.009,58	17.915,28	8.277,03	10.314,48	539.972,89	
3,00%	0,13%	79	01-06-1988	16.199,19	674,97	1.039,87	17.914,02	8.261,59	10.327,40	538.933,03	
3,00%	0,13%	78	01-09-1988	16.167,99	673,67	1.071,06	17.912,72	8.245,68	10.340,71	537.861,97	
3,00%	0,13%	77	01-12-1988	16.135,86	672,33	1.103,19	17.911,38	8.229,29	10.354,42	536.758,77	41.337,00
3,00%	0,13%	76	01-03-1989	16.102,76	670,95	1.136,29	17.910,00	8.212,41	10.368,54	535.622,49	
3,00%	0,13%	75	01-06-1989	16.068,67	669,53	1.170,38	17.908,58	8.195,02	10.383,08	534.452,11	
3,00%	0,13%	74	01-09-1989	16.033,56	668,07	1.205,49	17.907,12	8.177,12	10.398,07	533.246,62	
3,00%	0,13%	73	01-12-1989	15.997,40	666,56	1.241,65	17.905,61	8.158,67	10.413,50	532.004,97	41.563,18
3,00%	0,13%	72	01-03-1990	15.960,15	665,01	1.278,90	17.904,06	8.139,68	10.429,39	530.726,06	
3,00%	0,13%	71	01-06-1990	15.921,78	663,41	1.317,27	17.902,46	8.120,11	10.445,76	529.408,79	
3,00%	0,13%	70	01-09-1990	15.882,26	661,76	1.356,79	17.900,81	8.099,95	10.462,62	528.052,01	
3,00%	0,13%	69	01-12-1990	15.841,56	660,07	1.397,49	17.899,12	8.079,20	10.479,99	526.654,51	41.817,75
3,00%	0,13%	68	01-03-1991	15.799,64	658,32	1.439,42	17.897,37	8.057,81	10.497,87	525.215,10	
3,00%	0,13%	67	01-06-1991	15.756,45	656,52	1.482,60	17.895,57	8.035,79	10.516,30	523.732,50	
3,00%	0,13%	66	01-09-1991	15.711,97	654,67	1.527,08	17.893,72	8.013,11	10.535,28	522.205,42	
3,00%	0,13%	65	01-12-1991	15.666,16	652,76	1.572,89	17.891,81	7.989,74	10.554,82	520.632,53	42.104,27
3,00%	0,13%	64	01-03-1992	15.618,98	650,79	1.620,08	17.889,84	7.965,68	10.574,96	519.012,46	
3,00%	0,13%	63	01-06-1992	15.570,37	648,77	1.668,68	17.887,82	7.940,89	10.595,69	517.343,78	
3,00%	0,13%	62	01-09-1992	15.520,31	646,68	1.718,74	17.885,73	7.915,36	10.617,05	515.625,04	
3,00%	0,13%	61	01-12-1992	15.468,75	644,53	1.770,30	17.883,58	7.889,06	10.639,05	513.854,74	42.426,75
3,00%	0,13%	60	01-03-1993	15.415,64	642,32	1.823,41	17.881,37	8.046,97	10.476,72	512.031,33	
3,00%	0,13%	59	01-06-1993	15.360,94	640,04	1.878,11	17.879,09	8.018,41	10.500,72	510.153,22	
3,00%	0,13%	58	01-09-1993	15.304,60	637,69	1.934,46	17.876,74	7.989,00	10.525,44	508.218,76	
3,00%	0,13%	57	01-12-1993	15.246,56	635,27	1.992,49	17.874,33	7.958,71	10.550,89	506.226,27	42.053,77

2,50%	0,13%	120	01-03-1994	13.082,97	654,15	712,65	14.449,77	5.848,09	8.601,68	522.606,27	
2,50%	0,13%	119	01-06-1994	13.065,16	653,26	730,47	14.448,88	5.840,13	8.608,76	521.875,81	
2,50%	0,13%	118	01-09-1994	13.046,90	652,34	748,73	14.447,97	5.831,96	8.616,01	521.127,08	
2,50%	0,13%	117	01-12-1994	13.028,18	651,41	767,45	14.447,03	5.823,60	8.623,44	520.359,63	34.449,89
2,50%	0,13%	116	01-03-1995	13.008,99	650,45	786,63	14.446,07	5.815,02	8.631,06	519.572,99	
2,50%	0,13%	115	01-06-1995	12.989,32	649,47	806,30	14.445,09	5.806,23	8.638,86	518.766,69	
2,50%	0,13%	114	01-09-1995	12.969,17	648,46	826,46	14.444,08	5.797,22	8.646,87	517.940,24	
2,50%	0,13%	113	01-12-1995	12.948,51	647,43	847,12	14.443,05	5.787,98	8.655,07	517.093,12	34.571,85
2,50%	0,13%	112	01-03-1996	12.927,33	646,37	868,30	14.441,99	5.778,52	8.663,48	516.224,82	
2,50%	0,13%	111	01-06-1996	12.905,62	645,28	890,00	14.440,91	5.768,81	8.672,09	515.334,81	
2,50%	0,13%	110	01-09-1996	12.883,37	644,17	912,25	14.439,79	5.758,87	8.680,93	514.422,56	
2,50%	0,13%	109	01-12-1996	12.860,56	643,03	935,06	14.438,65	5.748,67	8.689,98	513.487,50	34.706,48
1,75%	0,13%	120	01-03-1997	9.291,08	663,65	1.323,67	11.278,39	4.153,11	7.125,28	529.594,95	
1,75%	0,13%	119	01-06-1997	9.267,91	661,99	1.346,83	11.276,74	4.142,76	7.133,98	528.248,12	
1,75%	0,13%	118	01-09-1997	9.244,34	660,31	1.370,40	11.275,05	4.132,22	7.142,83	526.877,71	
1,75%	0,13%	117	01-12-1997	9.220,36	658,60	1.394,38	11.273,34	4.121,50	7.151,84	525.483,33	28.553,94
1,75%	0,13%	116	01-03-1998	9.195,96	656,85	1.418,79	11.271,60	3.715,17	7.556,43	524.064,54	
1,75%	0,13%	115	01-06-1998	9.171,13	655,08	1.443,62	11.269,83	3.705,14	7.564,69	522.620,93	
1,75%	0,13%	114	01-09-1998	9.145,87	653,28	1.468,88	11.268,02	3.694,93	7.573,09	521.152,05	
1,75%	0,13%	113	01-12-1998	9.120,16	651,44	1.494,58	11.266,18	3.684,54	7.581,64	519.657,46	30.275,85
1,75%	0,13%	112	01-03-1999	9.094,01	649,57	1.520,74	11.264,32	3.673,98	7.590,34	518.136,72	
1,75%	0,13%	111	01-06-1999	9.067,39	647,67	1.547,35	11.262,42	3.663,23	7.599,19	516.589,37	
1,75%	0,13%	110	01-09-1999	9.040,31	645,74	1.574,43	11.260,48	3.652,29	7.608,19	515.014,94	
1,75%	0,13%	109	01-12-1999	9.012,76	643,77	1.601,98	11.258,51	3.641,16	7.617,36	513.412,96	30.415,08
1,75%	0,13%	108	01-03-2000	8.984,73	641,77	1.630,02	11.256,51	3.629,83	7.626,68	511.782,94	
1,75%	0,13%	107	01-06-2000	8.956,20	639,73	1.658,54	11.254,47	3.618,31	7.636,17	510.124,40	
1,75%	0,13%	106	01-09-2000	8.927,18	637,66	1.687,57	11.252,40	3.606,58	7.645,82	508.436,83	
1,75%	0,13%	105	01-12-2000	8.897,64	635,55	1.717,10	11.250,29	3.594,65	7.655,64	506.719,73	30.564,31
1,75%	0,13%	104	01-03-2001	8.867,60	633,40	1.747,15	11.248,14	3.582,51	7.665,64	504.972,58	
1,75%	0,13%	103	01-06-2001	8.837,02	631,22	1.777,72	11.245,96	3.570,16	7.675,80	503.194,85	
1,75%	0,13%	102	01-09-2001	8.805,91	628,99	1.808,83	11.243,74	3.557,59	7.686,15	501.386,02	
1,75%	0,13%	101	01-12-2001	8.774,26	626,73	1.840,49	11.241,48	3.544,80	7.696,68	499.545,53	30.724,27
1,75%	0,13%	100	01-03-2002	8.742,05	624,43	1.872,70	11.239,18	2.902,36	8.336,82	497.672,83	
1,75%	0,13%	99	01-06-2002	8.709,27	622,09	1.905,47	11.236,84	2.891,48	8.345,36	495.767,36	
1,75%	0,13%	98	01-09-2002	8.675,93	619,71	1.938,82	11.234,45	2.880,41	8.354,05	493.828,54	
1,75%	0,13%	97	01-12-2002	8.642,00	617,29	1.972,75	11.232,03	2.869,14	8.362,89	491.855,80	33.399,11
1,75%	0,13%	96	01-03-2003	8.607,48	614,82	2.007,27	11.229,56	2.857,68	8.371,88	489.848,53	
1,75%	0,13%	95	01-06-2003	8.572,35	612,31	2.042,40	11.227,06	2.846,02	8.381,04	487.806,13	
1,75%	0,13%	94	01-09-2003	8.536,61	609,76	2.078,14	11.224,50	2.834,15	8.390,35	485.728,00	
1,75%	0,13%	93	01-12-2003	8.500,24	607,16	2.114,50	11.221,90	2.822,08	8.399,83	483.613,49	33.543,09
1,75%	0,13%	92	01-03-2004	8.463,24	604,52	2.151,51	11.219,26	2.809,79	8.409,47	481.461,98	
1,75%	0,13%	91	01-06-2004	8.425,58	601,83	2.189,16	11.216,57	2.797,29	8.419,28	479.272,82	
1,75%	0,13%	90	01-09-2004	8.387,27	599,09	2.227,47	11.213,84	2.784,58	8.429,26	477.045,35	
1,75%	0,13%	89	01-12-2004	8.348,29	596,31	2.266,45	11.211,05	2.771,63	8.439,42	474.778,90	33.697,42
1,75%	0,13%	88	01-03-2005	8.308,63	593,47	2.306,11	11.208,22	2.758,47	8.449,75	472.472,79	
1,75%	0,13%	87	01-06-2005	8.268,27	590,59	2.346,47	11.205,34	2.745,07	8.460,27	470.126,32	
1,75%	0,13%	86	01-09-2005	8.227,21	587,66	2.387,53	11.202,40	2.731,43	8.470,97	467.738,78	
1,75%	0,13%	85	01-12-2005	8.185,43	584,67	2.429,32	11.199,42	2.717,56	8.481,86	465.309,47	33.862,85
1,75%	0,13%	84	01-03-2006	8.142,92	581,64	2.471,83	11.196,38	2.703,45	8.492,93	462.837,64	
1,75%	0,13%	83	01-06-2006	8.099,66	578,55	2.515,09	11.193,29	2.689,09	8.504,21	460.322,55	
1,75%	0,13%	82	01-09-2006	8.055,64	575,40	2.559,10	11.190,15	2.674,47	8.515,67	457.763,45	
1,75%	0,13%	81	01-12-2006	8.010,86	572,20	2.603,88	11.186,95	2.659,61	8.527,34	455.159,57	34.040,16
1,75%	0,13%	80	01-03-2007	7.965,29	568,95	2.649,45	11.183,69	2.644,48	8.539,22	452.510,11	
1,75%	0,13%	79	01-06-2007	7.918,93	565,64	2.695,82	11.180,38	2.629,08	8.551,30	449.814,30	
1,75%	0,13%	78	01-09-2007	7.871,75	562,27	2.742,99	11.177,01	2.613,42	8.563,59	447.071,30	
1,75%	0,13%	77	01-12-2007	7.823,75	558,84	2.791,00	11.173,58	2.597,48	8.576,10	444.280,30	34.230,21
									1.099.427,43		

Bank loan 1978 – 1997 M12

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding	
4,75%	0,13%	80	01-03-1978	6.412,87	168,76	160,50	6.742,13	3.886,20	2.855,93	134.847,36	
4,75%	0,13%	79	01-06-1978	6.405,25	168,56	168,12	6.741,93	3.881,58	2.860,35	134.679,24	
4,75%	0,13%	78	01-09-1978	6.397,26	168,35	176,11	6.741,72	3.876,74	2.864,98	134.503,14	
4,75%	0,13%	77	01-12-1978	6.388,90	168,13	184,47	6.741,50	3.871,67	2.869,83	134.318,66	11.451,08
4,75%	0,13%	76	01-03-1979	6.380,14	167,90	193,23	6.741,27	3.866,36	2.874,91	134.125,43	
4,75%	0,13%	75	01-06-1979	6.370,96	167,66	202,41	6.741,03	3.860,80	2.880,23	133.923,02	
4,75%	0,13%	74	01-09-1979	6.361,34	167,40	212,03	6.740,77	3.854,97	2.885,80	133.710,99	
4,75%	0,13%	73	01-12-1979	6.351,27	167,14	222,10	6.740,51	3.848,87	2.891,64	133.488,90	11.532,57
5,00%	0,13%	72	01-03-1980	6.674,44	166,86	205,08	7.046,39	4.044,71	3.001,68	133.283,81	
5,00%	0,13%	71	01-06-1980	6.664,19	166,60	215,34	7.046,13	4.038,50	3.007,63	133.068,48	
5,00%	0,13%	70	01-09-1980	6.653,42	166,34	226,10	7.045,86	4.031,97	3.013,89	132.842,37	
5,00%	0,13%	69	01-12-1980	6.642,12	166,05	237,41	7.045,58	4.025,12	3.020,46	132.604,96	12.043,65
5,00%	0,13%	68	01-03-1981	6.630,25	165,76	249,28	7.045,28	4.017,93	3.027,35	132.355,68	
5,00%	0,13%	67	01-06-1981	6.617,78	165,44	261,74	7.044,97	4.010,38	3.034,59	132.093,94	
5,00%	0,13%	66	01-09-1981	6.604,70	165,12	274,83	7.044,64	4.002,45	3.042,20	131.819,11	
5,00%	0,13%	65	01-12-1981	6.590,96	164,77	288,57	7.044,30	3.994,12	3.050,18	131.530,54	12.154,33
5,00%	0,13%	64	01-03-1982	6.576,53	164,41	303,00	7.043,94	3.985,38	3.058,57	131.227,54	
5,00%	0,13%	63	01-06-1982	6.561,38	164,03	318,15	7.043,56	3.976,19	3.067,37	130.909,39	
5,00%	0,13%	62	01-09-1982	6.545,47	163,64	334,06	7.043,16	3.966,55	3.076,61	130.575,33	
5,00%	0,13%	61	01-12-1982	6.528,77	163,22	350,76	7.042,75	3.956,43	3.086,31	130.224,57	12.288,86
4,00%	0,13%	60	01-03-1983	5.208,98	162,78	547,18	5.918,95	3.156,64	2.762,30	129.677,38	
4,00%	0,13%	59	01-06-1983	5.187,10	162,10	569,07	5.918,26	3.143,38	2.774,88	129.108,31	
4,00%	0,13%	58	01-09-1983	5.164,33	161,39	591,83	5.917,55	3.129,59	2.787,97	128.516,48	
4,00%	0,13%	57	01-12-1983	5.140,66	160,65	615,51	5.916,81	3.115,24	2.801,57	127.900,97	11.126,72
4,00%	0,13%	56	01-03-1984	5.116,04	159,88	640,13	5.916,04	3.100,32	2.815,72	127.260,85	
4,00%	0,13%	55	01-06-1984	5.090,43	159,08	665,73	5.915,24	3.084,80	2.830,44	126.595,11	
4,00%	0,13%	54	01-09-1984	5.063,80	158,24	692,36	5.914,41	3.068,67	2.845,74	125.902,75	
4,00%	0,13%	53	01-12-1984	5.036,11	157,38	720,06	5.913,54	3.051,88	2.861,66	125.182,70	11.353,57
3,00%	0,13%	52	01-03-1985	3.755,48	156,48	1.028,65	4.940,61	2.275,82	2.664,79	124.154,05	
3,00%	0,13%	51	01-06-1985	3.724,62	155,19	1.059,51	4.939,32	2.257,12	2.682,20	123.094,54	
3,00%	0,13%	50	01-09-1985	3.692,84	153,87	1.091,29	4.938,00	2.237,86	2.700,14	122.003,24	
3,00%	0,13%	49	01-12-1985	3.660,10	152,50	1.124,03	4.936,63	2.218,02	2.718,62	120.879,21	10.765,74
3,00%	0,13%	48	01-03-1986	3.626,38	151,10	1.157,75	4.935,23	2.197,58	2.737,65	119.721,46	
3,00%	0,13%	47	01-06-1986	3.591,64	149,65	1.192,49	4.933,78	2.176,54	2.757,25	118.528,97	
3,00%	0,13%	46	01-09-1986	3.555,87	148,16	1.228,26	4.932,29	2.154,86	2.777,43	117.300,71	
3,00%	0,13%	45	01-12-1986	3.519,02	146,63	1.265,11	4.930,76	2.132,53	2.798,23	116.035,60	11.070,55
3,00%	0,13%	44	01-03-1987	3.481,07	145,04	1.303,06	4.929,17	1.775,34	3.153,83	114.732,54	
3,00%	0,13%	43	01-06-1987	3.441,98	143,42	1.342,15	4.927,55	1.755,41	3.172,14	113.390,39	
3,00%	0,13%	42	01-09-1987	3.401,71	141,74	1.382,42	4.925,87	1.734,87	3.191,00	112.007,97	
3,00%	0,13%	41	01-12-1987	3.360,24	140,01	1.423,89	4.924,14	1.713,72	3.210,42	110.584,08	12.727,38
3,00%	0,13%	40	01-03-1988	3.317,52	138,23	1.466,61	4.922,36	1.691,94	3.230,42	109.117,47	
3,00%	0,13%	39	01-06-1988	3.273,52	136,40	1.510,61	4.920,53	1.669,50	3.251,03	107.606,86	
3,00%	0,13%	38	01-09-1988	3.228,21	134,51	1.555,92	4.918,64	1.646,38	3.272,25	106.050,94	
3,00%	0,13%	37	01-12-1988	3.181,53	132,56	1.602,60	4.916,69	1.622,58	3.294,11	104.448,34	13.047,82
3,00%	0,13%	36	01-03-1989	3.133,45	130,56	1.650,68	4.914,69	1.598,06	3.316,63	102.797,66	
3,00%	0,13%	35	01-06-1989	3.083,93	128,50	1.700,20	4.912,63	1.572,80	3.339,82	101.097,46	
3,00%	0,13%	34	01-09-1989	3.032,92	126,37	1.751,21	4.910,50	1.546,79	3.363,71	99.346,25	
3,00%	0,13%	33	01-12-1989	2.980,39	124,18	1.803,74	4.908,31	1.520,00	3.388,32	97.542,51	13.408,48
3,00%	0,13%	32	01-03-1990	2.926,28	121,93	1.857,85	4.906,06	1.492,40	3.413,66	95.684,65	
3,00%	0,13%	31	01-06-1990	2.870,54	119,61	1.913,59	4.903,74	1.463,98	3.439,76	93.771,06	
3,00%	0,13%	30	01-09-1990	2.813,13	117,21	1.971,00	4.901,34	1.434,70	3.466,65	91.800,06	
3,00%	0,13%	29	01-12-1990	2.754,00	114,75	2.030,13	4.898,88	1.404,54	3.494,34	89.769,93	13.814,40
3,00%	0,13%	28	01-03-1991	2.693,10	112,21	2.091,03	4.896,34	1.373,48	3.522,86	87.678,90	
3,00%	0,13%	27	01-06-1991	2.630,37	109,60	2.153,76	4.893,73	1.341,49	3.552,24	85.525,14	
3,00%	0,13%	26	01-09-1991	2.565,75	106,91	2.218,38	4.891,04	1.308,53	3.582,50	83.306,76	
3,00%	0,13%	25	01-12-1991	2.499,20	104,13	2.284,93	4.888,26	1.274,59	3.613,67	81.021,84	14.271,28
3,00%	0,13%	24	01-03-1992	2.430,66	101,28	2.353,47	4.885,41	1.239,63	3.645,77	78.668,36	
3,00%	0,13%	23	01-06-1992	2.360,05	98,34	2.424,08	4.882,47	1.203,63	3.678,84	76.244,28	
3,00%	0,13%	22	01-09-1992	2.287,33	95,31	2.496,80	4.879,44	1.166,54	3.712,90	73.747,48	
3,00%	0,13%	21	01-12-1992	2.212,42	92,18	2.571,71	4.876,31	1.128,34	3.747,98	71.175,77	14.785,49
2,50%	0,13%	20	01-03-1993	1.779,39	88,97	2.786,33	4.654,69	928,84	3.725,85	68.389,45	
2,50%	0,13%	19	01-06-1993	1.709,74	85,49	2.855,99	4.651,21	892,48	3.758,73	65.533,46	
2,50%	0,13%	18	01-09-1993	1.638,34	81,92	2.927,39	4.647,64	855,21	3.792,43	62.606,08	
2,50%	0,13%	17	01-12-1993	1.565,15	78,26	3.000,57	4.643,98	817,01	3.826,97	59.605,51	15.103,97
2,50%	0,13%	16	01-03-1994	1.490,14	74,51	3.075,58	4.640,23	666,09	3.974,14	56.529,92	
2,50%	0,13%	15	01-06-1994	1.413,25	70,66	3.152,47	4.636,38	631,72	4.004,66	53.377,45	
2,50%	0,13%	14	01-09-1994	1.334,44	66,72	3.231,29	4.632,44	596,49	4.035,95	50.146,16	
2,50%	0,13%	13	01-12-1994	1.253,65	62,68	3.312,07	4.628,40	560,38	4.068,02	46.834,10	16.082,77
2,50%	0,13%	12	01-03-1995	1.170,85	58,54	3.394,87	4.624,26	523,37	4.100,89	43.439,23	
2,50%	0,13%	11	01-06-1995	1.085,98	54,30	3.479,74	4.620,02	485,43	4.134,59	39.959,49	
2,50%	0,13%	10	01-09-1995	998,99	49,95	3.566,73	4.615,67	446,55	4.169,12	36.392,75	
2,50%	0,13%	9	01-12-1995	909,82	45,49	3.655,90	4.611,21	406,69	4.204,52	32.736,85	16.609,13
2,50%	0,13%	8	01-03-1996	818,42	40,92	3.747,30	4.606,64	365,83	4.240,81	28.989,55	
2,50%	0,13%	7	01-06-1996	724,74	36,24	3.840,98	4.601,96	323,96	4.278,00	25.148,57	
2,50%	0,13%	6	01-09-1996	628,71	31,44	3.937,01	4.597,16	281,04	4.316,12	21.211,56	
2,50%	0,13%	5	01-12-1996	530,29	26,51	4.035,43	4.592,24	237,04	4.355,20	17.176,13	17.190,13
2,25%	0,13%	4	01-03-1997	386,46	21,47	4.151,79	4.559,73	172,75	4.386,98	13.024,33	
2,25%	0,13%	3	01-06-1997	293,05	16,28	4.245,21	4.554,54	130,99	4.423,55	8.779,12	
2,25%	0,13%	2	01-09-1997	197,53	10,97	4.340,73	4.549,23	88,30	4.460,94	4.438,39	
2,25%	0,13%	1	01-12-1997	99,86	5,55	4.438,39	4.543,81	44,64	4.499,17	0,00	17.770,63
									268.598,55		

14.1.15 Appendix 15 - Rent/invest 78-08

	Stock	Gov bonds
	80%	20%
administration fee	0,5%	0,5%

stock	80%																																
year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	37.318	37.318	34.739	42.438	63.769	73.093	72.158	108.615	119.973	138.641	156.063	156.553	220.807	249.946	194.107	236.532	234.720	374.877	303.360	325.272	409.879	490.801	507.268	758.701	740.260	622.713	436.659	493.362	540.926	674.031	743.038	783.322
1979	36.600	0	36.600	45.028	67.502	77.602	77.081	117.276	126.589	146.461	159.255	155.846	218.375	250.525	201.235	247.878	248.353	396.864	317.964	345.737	441.608	544.206	566.666	834.303	827.456	700.561	490.612	554.991	610.437	760.633	839.055	882.766
1980	36.680	0	0	36.680	63.581	62.704	66.150	102.854	108.408	125.331	136.910	138.461	196.874	226.620	176.657	213.793	205.749	308.419	261.224	280.999	350.200	444.857	470.875	673.512	671.401	571.143	400.854	454.128	501.454	629.079	686.788	706.257
1981	35.946	0	0	0	35.946	42.400	45.868	71.969	75.054	86.619	94.166	95.764	136.732	157.971	122.491	147.801	140.657	205.400	177.520	190.903	236.308	305.634	326.418	460.994	461.972	394.608	276.781	313.544	346.481	435.444	473.145	481.995
1982	26.043	0	0	0	0	26.043	28.012	42.935	46.007	52.737	57.714	58.530	82.316	94.565	73.626	89.130	86.244	126.836	108.131	116.553	145.073	185.392	197.970	283.113	280.061	239.549	167.324	188.101	206.153	257.362	279.638	285.315
1983	23.376	0	0	0	0	0	23.376	35.258	38.756	44.863	49.869	49.136	69.159	78.584	62.090	76.395	76.715	124.818	99.303	107.265	136.584	163.880	168.961	253.268	248.822	209.436	146.769	166.088	182.327	227.021	251.011	266.236
1984	22.242	0	0	0	0	0	0	22.242	25.701	29.536	33.367	32.446	44.808	50.263	40.016	49.727	51.742	87.293	67.112	72.740	93.761	108.630	110.760	171.589	165.463	138.862	96.805	108.642	117.901	145.286	161.502	174.002
1985	20.784	0	0	0	0	0	0	0	20.784	24.173	26.258	25.752	36.207	41.575	33.445	41.093	40.958	65.780	52.676	57.153	72.982	89.792	93.092	136.783	135.949	114.750	80.610	91.501	101.050	126.227	139.599	147.178
1986	20.300	0	0	0	0	0	0	0	0	20.300	22.165	21.750	30.361	34.747	27.845	34.278	34.418	54.957	43.963	47.772	60.978	74.932	78.089	115.275	113.823	96.418	67.445	76.111	83.503	103.869	114.501	120.372
1987	25.594	0	0	0	0	0	0	0	0	0	25.594	24.564	34.252	40.093	33.367	41.335	41.258	64.564	52.043	57.337	73.873	95.099	100.267	143.463	145.125	123.829	86.746	98.351	108.801	135.917	149.696	166.038
1988	24.603	0	0	0	0	0	0	0	0	0	0	24.603	34.186	40.180	34.212	43.072	44.062	71.283	55.827	62.137	81.184	103.681	108.830	157.639	160.170	136.707	95.511	108.314	119.602	148.999	164.589	173.338
1989	23.628	0	0	0	0	0	0	0	0	0	0	0	23.628	27.561	23.650	29.936	31.294	50.543	39.140	43.744	57.461	72.786	76.696	112.412	112.522	96.408	66.944	75.125	82.044	101.313	111.746	117.629
1990	22.350	0	0	0	0	0	0	0	0	0	0	0	0	22.350	19.098	24.249	25.714	42.601	32.422	36.134	47.610	58.733	61.292	91.625	90.768	77.429	53.720	60.169	65.451	80.537	89.168	94.821
1991	21.761	0	0	0	0	0	0	0	0	0	0	0	0	0	21.761	27.322	28.444	46.179	35.949	39.685	51.558	63.417	66.386	99.119	97.769	83.372	57.857	64.784	70.405	86.797	95.655	101.083
1992	21.050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.050	21.950	34.002	27.707	30.200	39.904	49.291	50.979	74.010	73.704	62.705	43.710	49.019	53.450	66.142	72.756	76.271
1993	20.498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.498	31.123	25.924	28.004	35.222	44.521	46.985	67.584	67.044	57.019	39.977	45.151	49.733	62.160	68.091	70.325
1994	14.414	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.414	12.583	13.547	16.751	21.895	23.612	33.179	32.848	28.219	19.716	22.115	24.251	30.303	32.794	33.015
1995	14.672	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.672	15.987	20.192	26.126	27.951	39.793	39.447	33.852	23.610	26.458	28.965	36.022	39.267	40.118
1996	13.974	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.974	17.440	22.218	23.637	33.783	33.236	28.364	19.852	22.294	24.452	30.499	33.255	33.967
1997	9.566	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.566	11.998	12.751	18.273	17.788	15.110	10.605	11.925	13.081	16.386	17.778	18.029
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	471.903																1.332.778																4.762.066

Government bonds	20%																																
year	Initial inv.	Inv + re inv	Adm fee	total inv	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	9.376		47	9.330	9.748	10.186	10.484	10.813	11.226	11.806	12.417	13.112	13.859	14.591																					
1979	9.196		46	9.150		9.632	10.113	10.457	10.831	11.287	11.907	12.558	13.290	14.074	14.843																				
1980	9.216		46	9.170			9.514	9.889	10.346	10.967	11.620	12.354	13.140	13.910	14.654	15.384																			
1981	9.032		45	8.986				9.354	9.802	10.411	11.050	11.769	12.539	13.294	14.024	14.738	15.564																		
1982	6.543		33	6.511					6.872	7.349	7.849	8.407	9.001	9.584	10.149	10.704	11.338	11.980																
1983	5.873		29	5.844						6.044	6.263	6.535	6.839	7.134	7.412	7.680	8.020	8.367	8.724															
1984	5.589		28	5.561							5.800	6.090	6.411	6.722	7.018	7.304	7.659	8.021	8.391	8.787														
1985	5.222		26	5.196								5.438	5.708	5.970	6.217	6.456	6.759	7.067	7.384	7.725	8.045													
1986	5.101		26	5.075									5.254	5.425	5.581	5.729	5.939	6.155	6.379	6.627	6.854	7.079												
1987	6.431		32	6.399										6.649	6.862	7.104	7.405	7.714	8.032	8.380	8.702	9.021	9.340											
1988	6.182	20.772	104	20.669											21.305	21.907	22.763	23.643	24.558	25.564	26.490	27.405	28.319	29.222										
1989	5.937	20.780	104	20.676												21.162	21.903	22.667	23.466	24.368	25.168	25.967	26.766	27.553	28.387									
1990	5.616	20.999	105	20.894													21.877	22.883	23.925	25.060	26.113	27.154	28.195	29.225	30.302	31.296								
1991	5.468	21.031	105	20.926														21.817	22.743	23.762	24.700	25.625	26.551	27.465	28.426	29.305	30.137							
1992	5.415	17.395	87	17.308															17.977	18.723	19.402	20.070	20.739	21.390	22.096	22.726	23.317	23.957						
1993	5.150	13.874	69	13.805																14.400	14.941	15.475	16.008	16.534	17.091	17.593	18.065	18.575	19.085						
1994	3.622	12.408	62	12.346																	12.623	12.892	13.162	13.425	13.715	13.957	14.171	14.420	14.689	14.939					
1995	3.687	11.731	59	11.673																		12.058	12.444	12.823	13.228	13.588	13.921	14.267	14.653	15.039	15.483				
1996	3.511	10.590	53	10.537																			10.767	10.991	11.239	11.445	11.628	11.841	12.053	12.283	12.567	12.814			
1997	2.404	11.744	59	11.685																				11.868	12.078	12.241	12.379	12.549	12.719	12.909	13.157	13.367	13.570		
1998	0	28.646	143	28.502																					29.013	29.412	29.747	30.162	30.577	31.040	31.647	32.158	32.652	33.179	
1999	0	27.309	137	27.172																						27.401	27.568	27.811	28.055	28.344	28.770	29.105	29.424	29.774	
2000	0	28.740	144	28.597																							28.933	29.349	29.766	30.230	30.838	31.351	31.847	32.376	
2001	0	22.424	112	22.312																								22.637	22.961	23.324	23.799	24.198	24.586	24.998	
2002	0	22.741	114	22.628																									22.957	23.325	23.806	24.212	24.604	25.023	
2003	0	17.774	89	17.685																										17.774	17.963	18.072	18.181	18.309	
2004	0	13.362	67	13.295																											13.429	13.519	13.601	13.697	
2005	0	13.758	69	13.689																												13.781	13.865	14.126	
2006	0	11.030	55	10.975																													11.043	11.123	
2007	0	11.588	58	11.530																														11.679	
	117.976				9.748	19.818	30.112	40.513	49.076	57.864	66.905	76.262	86.041	97.353	108.086	118.168	129.228	140.313	151.579	163.385	173.038	182.747	192.292	200.505	205.574	208.965	209.867	205.589	207.496	209.207	211.449	212.576	213.373	214.284	214.284

	1994-2005
End 2007 amount	4.762.066
- period 1978 to 1994M01	1.332.778
- Invested amount 1994-2005	52.626
	3.376.663
- tax free amount	136.600
taxable amount	3.240.063
tax class B - 43 %	1.393.227
net return	1.846.836
+ invested amount	52.626
+ tax free amount	136.600
total	2.036.062

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		1.332.778
Value from 1994-2005		2.036.062
Value from 2006-2008		0
Total stock value		3.368.839
Bond value		214.284
Total value		3.583.123

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	
Stock	37.318	71.339	124.146	220.798	281.843	312.646	501.150	561.251	668.662	761.360	783.405	1.127.705	1.314.981	1.063.601	1.324.034	
Gov. Bond	9.748	19.818	30.112	40.513	49.076	57.864	66.905	76.262	86.041	97.353	108.086	118.168	129.228	140.313	151.579	
Total	47.066	91.157	154.258	261.311	330.919	370.510	568.055	637.512	754.703	858.712	891.490	1.245.873	1.444.209	1.203.915	1.475.612	
Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	1.332.778	2.100.652	1.727.521	1.885.281	2.397.212	2.976.889	3.119.186	4.559.225	4.515.627	3.831.135	2.682.106	3.030.174	3.330.471	4.154.029	4.563.072	3.368.839
Gov. Bond	163.385	173.038	182.747	192.292	200.505	205.574	208.965	209.867	205.589	207.496	209.207	211.449	212.576	213.373	214.284	214.284
Total	1.496.163	2.273.690	1.910.268	2.077.573	2.597.717	3.182.464	3.328.151	4.769.092	4.721.216	4.038.631	2.891.313	3.241.623	3.543.046	4.367.402	4.777.356	3.583.123

	Stock	Gov bonds
	100%	0%
administration fee	0,5%	0,5%

stock	100%																														
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	46.648	46.648	43.423	53.048	79.712	91.366	90.199	135.769	149.966	173.302	195.078	195.691	276.009	312.433	242.634	295.665	293.400	468.596	379.200	406.590	512.349	613.501	634.086	948.376	925.325	778.391	545.623	616.702	676.157	842.539	928.798	979.152
1979	45.751	0	45.751	56.285	84.378	97.003	96.352	146.595	158.211	183.077	199.068	194.808	272.969	313.157	251.544	309.847	310.441	496.080	397.455	432.171	552.010	680.258	708.333	1.042.878	1.034.320	875.702	613.265	693.738	763.046	950.791	1.048.818	1.103.445
1980	45.850	0	0	45.850	66.976	78.380	82.688	128.568	136.509	156.663	171.137	173.076	246.093	283.274	220.821	267.241	257.187	385.524	326.530	351.249	437.750	556.071	588.594	841.890	839.251	713.929	501.068	567.669	626.818	786.349	868.485	882.821
1981	44.932	0	0	0	44.932	53.001	57.335	89.961	93.817	108.274	117.707	119.704	170.915	197.464	153.113	184.751	175.822	256.750	221.901	238.628	295.385	382.042	408.023	576.242	577.466	493.260	345.976	391.930	433.101	544.305	591.431	602.494
1982	32.553	0	0	0	0	32.553	35.015	53.669	57.508	65.921	72.142	73.163	102.896	118.206	92.032	111.412	107.805	158.545	135.163	145.691	181.341	231.739	247.463	353.892	350.076	299.436	209.155	235.126	257.692	321.703	349.548	356.644
1983	29.221	0	0	0	0	0	29.221	44.072	48.445	56.079	62.336	61.420	86.448	98.230	77.612	95.419	95.894	156.022	124.129	134.082	170.729	204.850	211.201	316.585	311.027	261.795	183.461	207.611	227.908	283.776	313.764	332.795
1984	27.803	0	0	0	0	0	0	27.803	32.126	36.920	41.708	40.557	56.010	62.829	50.020	62.159	64.678	109.117	83.889	90.925	117.201	135.787	138.450	214.486	206.828	173.578	121.006	135.803	147.376	181.607	201.878	217.502
1985	25.980	0	0	0	0	0	0	0	25.980	30.216	32.823	32.190	45.259	51.969	41.807	51.366	51.198	82.225	65.845	71.441	91.227	112.240	116.364	170.978	169.936	143.437	100.763	114.376	126.312	157.784	174.498	183.972
1986	25.375	0	0	0	0	0	0	0	0	25.375	27.707	27.188	37.951	43.434	34.806	42.848	43.022	68.571	54.954	59.715	76.223	93.665	97.611	144.093	142.279	120.522	84.306	95.139	104.378	129.836	143.126	150.466
1987	31.992	0	0	0	0	0	0	0	0	0	31.992	30.705	42.815	50.117	41.708	51.669	51.572	80.705	65.054	71.672	92.341	118.874	125.334	179.329	181.407	154.787	108.433	122.939	136.001	169.897	187.120	195.047
1988	30.754	0	0	0	0	0	0	0	0	0	0	30.754	42.732	50.225	42.766	53.840	55.077	89.104	69.783	77.671	101.479	129.602	136.037	197.049	200.213	170.884	119.388	135.392	149.603	186.249	205.736	216.673
1989	29.534	0	0	0	0	0	0	0	0	0	0	0	29.534	34.451	29.563	37.420	39.118	63.179	48.925	54.680	71.827	90.963	95.870	140.516	140.653	120.511	83.680	93.907	102.556	126.642	139.682	147.036
1990	27.937	0	0	0	0	0	0	0	0	0	0	0	0	27.937	23.873	30.311	32.143	53.251	40.527	45.167	59.513	73.416	76.615	114.531	113.460	96.787	67.150	75.211	81.814	100.671	111.460	118.526
1991	27.202	0	0	0	0	0	0	0	0	0	0	0	0	0	27.202	34.152	35.555	57.724	44.936	49.606	64.447	79.271	82.982	123.899	122.211	104.215	72.321	80.980	88.006	108.497	119.569	126.353
1992	26.941	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.941	27.437	43.003	34.634	37.923	49.729	60.304	63.249	93.522	92.130	79.401	54.630	61.274	66.916	82.677	90.946	95.339
1993	25.623	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.623	38.904	32.405	35.006	44.028	55.652	58.731	84.480	83.804	71.273	49.972	56.439	62.166	77.701	85.113	87.906
1994	18.017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.017	15.729	16.934	20.939	27.369	29.515	41.474	41.060	35.273	24.645	27.644	30.314	37.878	40.993	41.269
1995	18.341	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.341	19.983	25.240	32.657	34.939	49.741	49.309	42.314	29.512	33.073	36.206	45.028	49.084	50.148
1996	17.467	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.467	21.800	27.772	29.547	42.229	41.545	35.455	24.815	27.868	30.565	38.124	41.569	42.458
1997	11.958	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.958	14.998	15.939	22.841	22.235	18.888	13.256	14.907	16.352	20.482	22.222	22.536
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	589.879																1.665.972														5.952.583

	1994-2005
End 2007 amount	5.952.583
- period 1978 to 1994M01	1.665.972
- Invested amount 1994-2005	65.783
	4.220.828
- tax free amount	136.600
taxable amount	4.084.228
tax class B - 43 %	1.756.218
net return	2.328.010
+ invested amount	65.783
+ tax free amount	136.600
total	2.530.393

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		1.665.972
Value from 1994-2005		2.530.393
Value from 2006-2008		0
Total stock value		4.196.365
Bond value		0
Total value		4.196.365

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	
Stock	46.648	89.174	155.183	275.997	352.303	390.808	626.437	701.563	835.828	951.699	979.256	1.409.631	1.643.726	1.329.502	1.655.042	
Gov. Bond	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	46.648	89.174	155.183	275.997	352.303	390.808	626.437	701.563	835.828	951.699	979.256	1.409.631	1.643.726	1.329.502	1.655.042	
Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	1.665.972	2.625.815	2.159.401	2.356.602	2.996.516	3.721.112	3.898.983	5.699.031	5.644.534	4.788.919	3.352.632	3.787.717	4.163.088	5.192.536	5.703.840	4.196.365
Gov. Bond	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1.665.972	2.625.815	2.159.401	2.356.602	2.996.516	3.721.112	3.898.983	5.699.031	5.644.534	4.788.919	3.352.632	3.787.717	4.163.088	5.192.536	5.703.840	4.196.365

	Stock	Gov bonds
	50%	50%
administration fee	0,5%	0,5%

stock	50%																																
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	23.324	23.324	21.712	26.524	39.856	45.683	45.099	67.884	74.983	86.651	97.539	97.845	138.005	156.216	121.317	147.833	146.700	234.298	189.600	203.295	256.174	306.750	317.043	474.188	462.662	389.196	272.912	308.351	338.079	421.269	464.399	489.576
1979	22.875	0	22.875	28.143	42.189	48.602	48.176	73.298	79.105	91.538	99.534	97.404	136.494	156.578	125.772	154.924	155.221	248.040	198.728	216.085	276.005	340.129	354.166	521.439	517.160	437.851	306.632	346.869	381.523	475.396	524.409	551.723
1980	22.925	0	0	22.925	33.488	39.190	41.344	64.284	67.755	78.332	85.569	86.538	123.047	141.637	110.411	133.620	128.593	192.762	163.265	175.624	218.875	278.035	294.297	420.945	419.625	356.964	250.534	283.830	313.409	393.175	429.243	441.410
1981	22.466	0	0	0	22.466	26.500	28.667	44.981	46.909	54.137	58.854	59.852	85.457	98.732	76.557	92.376	87.911	128.375	110.950	119.314	147.692	191.021	204.011	288.121	288.733	246.630	172.988	195.965	216.551	272.153	295.716	301.247
1982	16.277	0	0	0	0	16.277	17.508	26.834	26.754	32.961	36.071	36.582	51.448	59.103	46.016	55.706	53.903	79.272	67.582	72.845	90.671	115.870	123.731	176.946	175.038	149.718	104.577	117.563	128.846	160.851	174.774	178.322
1983	14.610	0	0	0	0	0	14.610	22.036	24.223	28.040	31.168	30.710	43.224	49.115	38.806	47.709	47.947	78.011	62.064	67.041	85.365	102.425	105.601	158.292	155.513	130.898	91.731	103.805	113.954	141.888	156.882	166.397
1984	13.901	0	0	0	0	0	0	13.901	16.063	18.460	20.854	20.279	28.005	31.415	25.010	31.080	32.339	54.558	41.945	45.463	58.600	67.894	69.225	107.243	103.414	86.789	60.503	67.901	73.688	90.804	100.939	108.751
1985	12.990	0	0	0	0	0	0	0	12.990	15.108	16.411	16.095	22.630	25.985	20.903	25.683	25.599	41.112	32.923	35.721	45.614	56.120	58.182	85.489	84.968	71.718	50.381	57.188	63.156	78.892	87.249	91.986
1986	12.688	0	0	0	0	0	0	0	0	12.688	13.853	13.594	18.976	21.717	17.403	21.424	21.511	34.285	27.477	29.858	38.112	46.833	48.806	72.047	71.140	60.261	42.153	47.569	52.189	64.918	71.563	75.232
1987	15.996	0	0	0	0	0	0	0	0	0	15.996	15.353	21.407	25.058	20.854	25.835	25.786	40.353	32.527	35.836	46.170	59.437	62.667	89.664	90.703	77.393	54.216	61.469	68.001	84.948	93.560	97.524
1988	15.377	0	0	0	0	0	0	0	0	0	0	15.377	21.366	25.113	21.383	26.920	27.539	44.552	34.892	38.836	50.740	64.801	68.019	98.525	100.106	85.442	59.694	67.696	74.752	93.125	102.868	108.336
1989	14.767	0	0	0	0	0	0	0	0	0	0	0	14.767	17.226	14.781	18.710	19.559	31.589	24.462	27.340	35.913	45.491	47.935	70.258	70.326	60.255	41.840	46.953	51.278	63.321	69.841	73.518
1990	13.969	0	0	0	0	0	0	0	0	0	0	0	0	13.969	11.936	15.156	16.071	26.625	20.264	22.584	29.757	36.708	38.307	57.266	56.730	48.393	33.575	37.605	40.907	50.335	55.730	59.263
1991	13.601	0	0	0	0	0	0	0	0	0	0	0	0	0	13.601	17.076	17.777	28.862	22.468	24.803	32.224	39.635	41.491	61.949	61.105	52.107	36.160	40.490	44.003	54.248	59.784	63.177
1992	13.471	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.471	13.710	21.751	17.317	19.961	24.305	30.102	31.674	46.701	46.065	39.240	27.319	30.637	33.400	41.329	45.473	47.670
1993	12.812	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.812	19.452	16.203	17.503	22.014	27.826	29.366	42.240	41.902	35.637	24.986	28.220	31.083	38.850	42.557	43.963
1994	9.009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.009	7.864	8.467	10.469	13.884	14.758	20.737	20.530	17.637	12.322	13.822	15.157	18.939	20.496	20.636
1995	9.170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.170	9.992	12.620	16.329	17.470	24.870	24.654	21.157	14.756	16.536	18.103	22.514	24.542	25.074
1996	8.734	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.734	10.900	13.886	14.773	21.114	20.772	17.727	12.407	13.934	15.282	19.062	20.784	21.229
1997	5.979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.979	7.499	7.969	11.421	11.118	9.444	6.628	7.453	8.176	10.241	11.111	11.268
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	294.940																832.986																2.976.291

Government bonds		50%																															
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	23.441		117	23.324	24.369	25.466	26.211	27.033	28.065	29.515	31.043	32.781	34.648	36.477																					
1979	22.990		115	22.875		24.079	25.284	26.142	27.077	28.217	29.767	31.394	33.226	35.186	37.107																				
1980	23.040		115	22.925			23.785	24.722	25.866	27.418	29.049	30.865	32.849	34.775	36.636	38.459																			
1981	22.579		113	22.466				23.384	24.504	26.026	27.624	29.423	31.348	33.235	35.059	36.846	38.909																		
1982	16.398		82	16.277					17.179	18.373	19.622	21.016	22.502	23.961	25.373	26.769	28.345	29.949																	
1983	14.684		73	14.610						15.109	15.658	16.337	17.098	17.834	18.529	19.200	20.051	20.918	21.810																
1984	13.971		70	13.901							14.501	15.225	16.027	16.805	17.545	18.261	19.148	20.051	20.978	21.967															
1985	13.055		65	12.990								13.594	14.270	14.925	15.543	16.140	16.896	17.668	18.460	19.312	20.112														
1986	12.751		64	12.688									13.135	13.561	13.952	14.322	14.847	15.387	15.949	16.567	17.135	17.697													
1987	16.077		80	15.996										16.623	17.206	17.761	18.513	19.284	20.081	20.960	21.756	22.553	23.351												
1988	15.454	51.931	260	51.671											53.263	54.767	56.909	59.108	61.394	63.911	66.226	68.612	70.798	73.055											
1989	14.841	51.949	260	51.689												52.905	54.757	56.668	58.665	60.894	62.920	64.917	66.915	68.883	70.967										
1990	14.039	52.498	262	52.235													54.693	57.208	59.812	62.649	65.282	67.886	70.489	73.063	75.754	78.240									
1991	13.669	52.578	263	52.316														54.542	56.857	59.405	61.749	64.064	66.378	68.663	71.065	73.263	75.343								
1992	13.530	43.407	217	43.270															44.942	46.000	48.504	50.176	51.040	53.495	55.240	56.015	58.292	59.092							
1993	12.876	34.686	173	34.513																36.001	37.354	38.687	40.021	41.335	42.727	43.983	45.162	46.437	47.713						
1994	9.054	31.020	155	30.865																	31.557	32.231	32.905	33.562	34.288	34.893	35.429	36.051	36.673	37.347					
1995	9.216	29.328	147	29.181																		30.146	31.110	32.058	33.071	33.970	34.803	35.718	36.633	37.597	38.709				
1996	8.778	26.474	132	26.342																			26.917	27.478	28.097	28.613	29.071	29.602	30.133	30.708	31.416	32.036			
1997	6.009	29.360	147	29.213																				29.671	30.194	30.603	30.947	31.372	31.797	32.272	32.894	33.417	33.924		
1998	0	71.614	358	71.256																					72.533	73.531	74.368	75.406	76.443	77.601	79.117	80.394	81.631	82.948	
1999	0	68.272	341	67.931																						68.501	68.920	69.529	70.137	70.860	71.925	72.762	73.661	74.436	
2000	0	71.851	359	71.491																							72.332	73.373	74.414	75.576	77.096	78.377	79.618	80.940	
2001	0	56.059	280	55.779																								56.591	57.403	58.309	59.496	60.496	61.464	62.495	
2002	0	56.853	284	56.569																									57.393	58.311	59.515	60.529	61.511	62.556	
2003	0	44.435	222	44.213																										44.436	44.882	45.179	45.451	45.773	
2004	0	33.405	167	33.238																											33.573	33.797	34.001	34.243	
2005	0	34.394	172	34.222																												34.452	34.663	35.315	
2006	0	27.576	138	27.438																													27.607	27.807	
2007	0	29.971	145	28.826																														29.197	
	296.422				24.369	49.546	75.279	101.282	122.690	144.659	167.264	190.654	215.103	243.382	270.214	295.420	323.070	350.784	378.947	408.463	432.594	456.868	480.730	501.262	513.936	522.412	524.667	513.972	518.740	523.017	528.623	531.439	533.432	535.710	535.710

	1994-2005
End 2007 amount	2.976.291
- period 1978 to 1994M01	832.986
- Invested amount 1994-2005	32.891
	2.110.414
- tax free amount	136.600
taxable amount	1.973.814
tax class B - 43 %	848.740
net return	1.125.074
+ invested amount	32.891
+ tax free amount	136.600
total	1.294.565

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		832.986
Value from 1994-2005		1.294.565
Value from 2006-2008		0
Total stock value		2.127.551
Bond value		535.710
Total value		2.663.261

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	
Stock	23.324	44.587	77.591	137.999	176.152	195.404	313.218	350.782	417.914	475.850	489.628	704.816	821.863	664.751	827.521	
Gov. Bond	24.369	49.546	75.279	101.282	122.690	144.659	167.264	190.654	215.103	243.382	270.214	295.420	323.070	350.784	378.947	
Total	47.693	94.132	152.871	239.281	298.842	340.063	480.482	541.436	633.017	719.232	759.842	1.000.235	1.144.933	1.015.534	1.206.468	
Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	832.986	1.312.907	1.079.700	1.178.301	1.498.258	1.860.556	1.949.492	2.849.516	2.822.267	2.394.459	1.676.316	1.893.858	2.081.544	2.596.268	2.851.920	2.127.551
Gov. Bond	408.463	432.594	456.868	480.730	501.262	513.936	522.412	524.667	513.972	518.740	523.017	528.623	531.439	533.432	535.710	535.710
Total	1.241.449	1.745.502	1.536.568	1.659.031	1.999.520	2.374.492	2.471.904	3.374.183	3.336.239	2.913.200	2.199.333	2.422.482	2.612.983	3.129.700	3.387.630	2.663.261

	Stock	Gov bonds
	20%	80%
administration fee	0,5%	0,5%

stock	20%																																
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	9.330	9.330	8.685	10.610	15.942	18.273	18.040	27.154	29.993	34.660	39.016	39.136	55.202	62.467	48.527	59.133	58.680	93.719	75.840	81.318	102.470	122.700	126.817	169.675	186.065	155.678	109.165	123.340	135.231	168.508	186.760	195.830
1979	9.150	0	9.150	11.257	16.876	19.401	19.270	29.319	31.642	36.615	39.814	38.962	54.594	62.631	50.309	61.969	62.088	99.216	79.491	86.434	110.402	136.052	141.667	208.576	206.864	175.140	122.653	138.748	152.609	190.158	209.764	220.689
1980	9.170	0	0	9.170	13.395	15.676	16.538	25.714	27.102	31.333	34.227	34.615	49.219	56.655	44.164	53.448	51.437	77.105	65.306	70.250	87.550	111.214	117.719	168.378	167.850	142.786	100.214	113.632	125.364	157.270	171.697	176.564
1981	8.986	0	0	0	8.986	10.600	11.467	17.992	18.763	21.655	23.541	23.941	34.183	39.493	30.623	36.950	35.164	51.350	44.380	47.726	59.077	76.408	81.605	115.248	115.493	98.652	69.195	78.386	86.620	108.861	118.286	120.499
1982	6.511	0	0	0	0	6.511	7.003	10.734	11.502	13.184	14.428	14.633	20.579	23.641	18.406	22.282	21.561	31.709	27.033	29.138	36.268	46.348	49.493	70.778	70.015	59.887	41.831	47.025	51.538	64.341	69.910	71.329
1983	5.844	0	0	0	0	0	5.844	8.814	9.689	11.216	12.467	12.284	17.290	19.646	15.522	19.084	19.179	31.204	24.826	26.816	34.146	40.970	42.240	63.317	62.205	52.359	36.692	41.522	45.582	56.755	62.753	66.559
1984	5.561	0	0	0	0	0	0	5.561	6.425	7.384	8.342	8.111	11.202	12.566	10.004	12.432	12.936	21.823	16.778	18.185	23.440	27.157	27.690	42.897	41.366	34.716	24.201	27.161	29.475	36.321	40.376	43.500
1985	5.196	0	0	0	0	0	0	0	5.196	6.043	6.565	6.438	9.052	10.394	8.361	10.273	10.240	16.445	13.169	14.288	18.245	22.448	23.273	34.196	33.987	28.687	20.153	22.875	25.262	31.557	34.900	36.794
1986	5.075	0	0	0	0	0	0	0	0	5.075	5.541	5.438	7.590	8.687	6.961	8.570	8.604	13.714	10.991	11.943	15.245	18.733	19.522	28.819	28.456	24.104	16.861	19.028	20.876	25.967	28.625	30.093
1987	6.398	0	0	0	0	0	0	0	0	0	6.398	6.141	8.563	10.023	8.342	10.334	10.314	16.141	13.011	14.334	18.468	23.775	25.067	35.866	36.281	30.957	21.687	24.588	27.200	33.979	37.424	39.009
1988	6.151	0	0	0	0	0	0	0	0	0	0	6.151	8.546	10.045	8.553	10.768	11.016	17.821	13.957	15.534	20.296	25.920	27.207	39.410	40.043	34.177	23.878	27.078	29.901	37.250	41.147	43.335
1989	5.907	0	0	0	0	0	0	0	0	0	0	0	5.907	6.890	5.913	7.484	7.824	12.636	9.785	10.936	14.365	18.197	19.174	28.103	28.131	24.102	16.736	18.781	20.511	25.328	27.936	29.407
1990	5.587	0	0	0	0	0	0	0	0	0	0	0	0	5.587	4.775	6.062	6.429	10.650	8.105	9.033	11.903	14.683	15.323	22.906	22.692	19.357	13.430	15.042	16.363	20.134	22.292	23.705
1991	5.440	0	0	0	0	0	0	0	0	0	0	0	0	0	5.440	6.830	7.111	11.545	8.987	9.921	12.889	15.954	16.596	24.780	24.442	20.843	14.464	16.196	17.601	21.699	23.914	25.271
1992	5.300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.300	5.407	9.701	6.927	7.595	9.746	12.072	12.670	18.704	18.426	15.686	10.920	12.225	13.363	16.535	18.108	19.960
1993	5.125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.125	7.781	6.481	7.001	8.806	11.130	11.746	16.896	16.761	14.255	9.994	11.288	12.433	15.540	17.023	17.581
1994	3.603	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.603	3.146	3.387	4.188	5.474	5.903	8.295	8.212	7.055	4.929	5.529	6.063	7.576	8.199	8.254
1995	3.668	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.668	3.997	5.048	6.531	6.988	9.948	9.862	8.463	5.902	6.615	7.241	9.006	9.817	10.030
1996	3.493	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.493	4.360	5.554	5.909	8.446	8.309	7.091	4.963	5.574	6.113	7.625	8.314	8.492
1997	2.392	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.392	3.000	3.188	4.568	4.447	3.778	2.651	2.981	3.270	4.096	4.444	4.507
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	117.976																333.194																1.190.517

Government bonds		80%																															
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	37.506		188	37.318	38.990	40.746	41.937	43.254	44.905	47.224	49.669	52.449	55.437	58.363																					
1979	36.784		184	36.600		38.527	40.454	41.827	43.323	45.147	47.627	50.230	53.161	56.297	59.372																				
1980	36.864		184	36.680			38.056	39.556	41.384	43.869	46.478	49.415	52.558	55.639	58.618	61.534																			
1981	36.126		181	35.946				37.415	39.207	41.642	44.199	47.077	50.157	53.176	56.095	58.954	62.255																		
1982	26.174		131	26.043					27.486	29.397	31.395	33.626	36.003	38.337	40.597	42.814	45.352	47.919																	
1983	23.494		117	23.376						24.175	25.052	26.139	27.356	28.534	29.647	30.720	32.082	33.469	34.896																
1984	22.354		112	22.242							23.201	24.360	25.643	26.888	28.072	29.218	30.638	32.082	33.565	35.147															
1985	20.889		104	20.784								21.750	22.833	23.880	24.869	25.824	27.034	28.268	29.537	30.898	32.179														
1986	20.402		102	20.300									21.016	21.698	22.324	22.915	23.756	24.620	25.518	26.507	27.416	28.314													
1987	25.723		129	25.594										26.597	27.529	28.418	29.621	30.854	32.130	33.520	34.810	36.085	37.361												
1988	24.727	83.090	415	82.674											85.220	87.628	91.054	94.573	98.230	102.258	105.962	109.619	113.277	116.888											
1989	23.746	83.118	416	82.702												84.648	87.612	90.668	93.864	97.430	100.672	103.868	107.063	110.213	113.547										
1990	22.462	83.997	420	83.577													87.508	91.533	95.699	100.239	104.451	108.616	112.782	116.900	121.206	125.185									
1991	21.871	84.125	421	83.705														87.267	90.970	95.049	98.799	102.502	106.205	109.861	113.705	117.220	120.548								
1992	21.661	69.580	348	69.232															71.907	74.892	77.606	80.281	82.956	85.593	88.384	90.904	93.269	95.828							
1993	20.601	55.498	277	55.220																57.601	59.766	61.900	64.033	66.136	68.363	70.373	72.259	74.300	76.341						
1994	14.486	49.633	248	49.385																	50.491	51.569	52.648	53.699	54.860	55.828	56.686	57.681	58.677	59.755					
1995	14.746	46.925	235	46.690																		48.233	49.776	51.292	52.913	54.351	55.685	57.149	58.613	60.156	61.934				
1996	14.044	42.359	212	42.147																			43.067	43.964	44.956	45.782	46.513	47.363	48.213	49.133	50.266	51.257			
1997	9.614	46.975	235	46.740																				47.473	48.311	48.965	49.515	50.195	50.876	51.636	52.630	53.467	54.279			
1998	0	114.583	573	114.010																					116.053	117.649	118.990	120.650	122.310	124.161	126.587	128.630	130.609	132.716		
1999	0	109.235	546	108.689																						109.602	110.272	111.246	112.220	113.376	115.080	116.419	117.697	119.097		
2000	0	114.961	575	114.386																							115.731	117.397	119.062	120.920	123.354	125.404	127.389	129.503		
2001	0	89.695	448	89.247																								90.546	91.846	93.295	95.194	96.793	98.343	99.992		
2002	0	90.965	455	90.510																									91.828	93.298	95.224	96.846	98.417	100.090		
2003	0	71.097	356	70.741																										71.098	71.811	72.286	72.722	73.237		
2004	0	53.449	267	53.181																											53.717	54.075	54.402	54.790		
2005	0	55.031	275	54.756																												55.124	55.461	55.504		
2006	0	44.121	221	43.901																													44.171	44.491		
2007	0	46.353	232	46.121																														46.715		

	1994-2005
End 2007 amount	1.190.517
- period 1978 to 1994M01	333.194
- Invested amount 1994-2005	13.157
	844.166
- tax free amount	136.600
taxable amount	707.566
tax class B - 43 %	304.253
net return	403.312
+ invested amount	13.157
+ tax free amount	136.600
total	553.069

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		333.194
Value from 1994-2005		553.069
Value from 2006-2008		0
Total stock value		886.263
Bond value		857.135
Total value		1.743.399

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	
Stock	9.330	17.835	31.037	55.199	70.461	78.162	125.287	140.313	167.166	190.340	195.851	281.926	328.745	265.900	331.008	
Gov. Bond	38.990	79.273	120.447	162.051	196.305	231.455	267.622	305.047	344.165	389.411	432.343	472.672	516.911	561.254	606.315	
Total	48.320	97.108	151.484	217.251	266.765	309.617	392.909	445.359	511.330	579.751	628.194	754.598	845.657	827.154	937.324	
Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	333.194	525.163	431.880	471.320	599.303	744.222	779.797	1.139.806	1.128.907	957.784	670.526	757.543	832.618	1.038.507	1.140.768	886.263
Gov. Bond	653.541	692.151	730.988	769.168	802.019	822.298	835.859	839.468	822.354	829.984	836.827	845.797	850.302	853.492	857.135	857.135
Total	986.735	1.217.314	1.162.868	1.240.489	1.401.322	1.566.520	1.615.656	1.979.274	1.951.261	1.787.768	1.507.353	1.603.341	1.682.920	1.891.999	1.997.903	1.743.399

Government bonds		100%																															
Year	Initial inv.	Inv + re inv.	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	46.882		234	46.648	48.738	50.932	52.421	54.067	56.131	59.030	62.087	65.561	69.297	72.954																					
1979	45.980		230	45.751		48.159	50.567	52.284	54.154	56.434	59.534	62.788	66.452	70.372	74.215																				
1980	46.080		230	45.850			47.570	49.445	51.730	54.837	58.096	61.769	65.698	69.549	73.272	76.918																			
1981	45.156		226	44.932				46.769	49.008	52.053	55.248	58.846	62.696	66.470	70.119	73.692	77.818																		
1982	32.717		164	32.553					34.358	36.746	39.244	42.033	45.004	47.921	50.747	53.518	56.690	59.888																	
1983	29.367		147	29.221						30.219	31.315	32.673	34.195	35.668	37.059	38.400	40.102	41.837	43.620																
1984	27.943		140	27.803							29.002	30.450	32.053	33.610	35.090	36.522	38.297	40.103	41.956	43.933															
1985	26.111		131	25.980								27.188	28.541	29.850	31.087	32.280	33.793	35.335	36.921	38.623	40.223														
1986	25.503		126	25.375									26.270	27.123	27.904	28.643	29.695	30.775	31.897	33.134	34.270	35.393													
1987	32.153		161	31.992										33.247	34.411	35.522	37.027	38.568	40.162	41.900	43.512	45.107	46.701												
1988	30.908	103.862	519	103.343											106.526	109.536	113.617	118.216	122.788	127.622	132.452	137.024	141.596	146.110											
1989	29.683	103.898	519	103.378												105.809	109.515	113.335	117.330	121.788	125.840	129.835	133.829	137.766	141.934										
1990	28.078	104.996	525	104.471													109.385	114.417	119.623	125.298	130.564	135.770	140.977	146.126	151.508	156.481									
1991	27.338	105.157	526	104.631														109.084	113.713	118.811	123.498	128.127	132.756	137.326	142.131	146.525	150.685								
1992	27.077	06.975	435	06.540															09.004	93.615	97.000	100.352	103.695	106.991	110.400	113.630	116.906	119.705							
1993	25.752	69.372	347	69.025																72.002	74.707	77.375	80.042	82.670	85.453	87.966	90.324	92.875	95.426						
1994	18.108	62.041	310	61.731																	63.114	64.462	65.810	67.124	68.575	69.785	70.857	72.101	73.346	74.694					
1995	18.433	58.656	293	58.363																		60.291	62.219	64.115	66.141	67.939	69.606	71.436	73.266	75.195	77.417				
1996	17.555	52.948	265	52.684																			53.834	54.955	56.194	57.227	58.142	59.204	60.266	61.416	62.833	64.072			
1997	12.018	58.719	294	58.425																				59.342	60.388	61.206	61.894	62.744	63.595	64.544	65.787	66.834	67.848		
1998	0	143.228	716	142.512																					145.066	147.061	148.737	150.812	152.887	155.201	158.234	160.788	163.262	165.895	
1999	0	136.544	683	135.862																						137.003	137.840	139.057	140.274	141.720	143.850	145.524	147.122	148.872	
2000	0	143.701	719	142.983																							144.664	146.746	148.828	151.150	154.192	156.755	159.237	161.879	
2001	0	112.119	561	111.558																								113.183	114.807	116.619	118.993	120.992	122.928	124.990	
2002	0	113.707	569	113.138																									114.795	116.623	119.030	121.068	123.022	125.113	
2003	0	88.871	444	88.427																										88.872	89.764	90.358	90.903	91.546	
2004	0	66.811	334	66.477																											67.147	67.593	68.003	68.487	
2005	0	68.789	344	68.445																												68.905	69.327	70.630	
2006	0	55.152	276	54.876																													55.214	55.613	
2007	0	57.941	290	57.651																														58.394	
	592.843				48.738	99.091	150.559	202.564	245.381	289.319	334.527	381.308	430.206	486.764	540.429	590.840	646.139	701.567	757.894	816.926	865.189	913.735	961.460	1.002.524	1.027.872	1.044.824	1.049.335	1.027.943	1.037.481	1.046.034	1.057.247	1.062.878	1.066.865	1.071.419	1.071.419

Investment model 1978-2008M01	invested	2008M01
Investment amount	589.879	
Value from 1978-1994M01		0
Value from 1994-2005		0
Value from 2006-2008		0
Total stock value		0
Bond value		1.071.419
Total value		1.071.419

14.1.16 ***Appendix 16 - Round up***

1978-2007	Value scheme	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
	Real estate	19.184	9.284	80.285	152.416	64.990	114.597	45.394	5.328	74.849	725
	Rent & invest 100/0	46.648	89.174	155.183	275.997	352.303	390.808	626.437	701.563	835.828	951.699
	Rent & invest 80/20	47.066	91.157	154.258	261.311	330.919	370.510	568.055	637.512	754.703	858.712
	Rent & invest 50/50	47.693	94.132	152.871	239.281	298.842	340.063	480.482	541.436	633.017	719.232
	Rent & invest 20/80	48.320	97.108	151.484	217.251	266.765	309.617	392.909	445.359	511.330	579.751
	Rent & invest 0/100	48.738	99.091	150.559	202.564	245.381	289.319	334.527	381.308	430.206	486.764

	Value scheme	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	Real estate	25.562	60.791	113.243	107.321	119.285	117.503	82.096	42.046	38.756	95.698
	Rent & invest 100/0	979.256	1.409.631	1.643.726	1.329.502	1.655.042	1.665.972	2.625.815	2.159.401	2.356.602	2.996.516
	Rent & invest 80/20	891.490	1.245.873	1.444.209	1.203.915	1.475.612	1.496.163	2.273.690	1.910.268	2.077.573	2.597.717
	Rent & invest 50/50	759.842	1.000.235	1.144.933	1.015.534	1.206.468	1.241.449	1.745.502	1.536.568	1.659.031	1.999.520
	Rent & invest 20/80	628.194	754.598	845.657	827.154	937.324	986.735	1.217.314	1.162.868	1.240.489	1.401.322
	Rent & invest 0/100	540.429	590.840	646.139	701.567	757.894	816.926	865.189	913.735	961.460	1.002.524

	Value scheme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Real estate	193.168	278.747	369.552	497.012	578.368	635.221	786.148	1.160.152	1.552.507	1.230.581
	Rent & invest 100/0	3.721.112	3.898.983	5.699.031	5.644.534	4.788.919	3.352.632	3.787.717	4.163.088	5.192.536	4.196.365
	Rent & invest 80/20	3.182.464	3.328.151	4.769.092	4.721.216	4.038.631	2.891.313	3.241.623	3.543.046	4.367.402	3.583.123
	Rent & invest 50/50	2.374.492	2.471.904	3.374.183	3.336.239	2.913.200	2.199.333	2.422.482	2.612.983	3.129.700	2.663.261
	Rent & invest 20/80	1.566.520	1.615.656	1.979.274	1.951.261	1.787.768	1.507.353	1.603.341	1.682.920	1.891.999	1.743.399
	Rent & invest 0/100	1.027.872	1.044.824	1.049.335	1.027.943	1.037.481	1.046.034	1.057.247	1.062.878	1.066.865	1.071.419

1985-1994	Value scheme	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	Real estate	18.254	58.617	20.677	49.702	89.644	147.401	147.449	166.133	171.265	156.915
	Rent & invest 100/0	20.628	43.788	74.098	97.076	159.035	206.229	191.915	259.312	282.183	443.582
	Rent & invest 80/20	20.820	43.662	73.742	97.778	152.783	196.084	190.170	249.703	273.507	416.961
	Rent & invest 50/50	21.107	43.473	73.208	98.832	143.405	180.866	187.551	235.290	260.491	355.865
	Rent & invest 20/80	21.395	43.283	72.674	99.886	134.026	165.647	184.932	220.877	247.476	294.770
	Rent & invest 0/100	21.587	43.157	72.318	100.588	127.774	155.502	183.187	211.268	238.799	254.039

1995-2004	Value scheme	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	Real estate	14.729	53.070	98.587	180.592	268.342	361.506	491.532	575.679	635.850	752.507
	Rent & invest 100/0	4.010	6.969	8.763	11.944	12.734	18.203	17.943	15.345	10.721	12.026
	Rent & invest 80/20	4.036	6.961	8.433	11.155	11.824	16.232	16.062	14.021	10.362	11.454
	Rent & invest 50/50	4.076	6.950	7.940	9.972	10.459	13.277	13.241	12.036	9.824	10.595
	Rent & invest 20/80	4.116	6.939	7.446	8.789	9.094	10.322	10.420	10.051	9.286	9.737
	Rent & invest 0/100	4.142	6.931	7.117	8.000	8.184	8.351	8.539	8.727	8.928	9.164

1998-2007	Value scheme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Real estate	15.910	73.304	168.042	299.755	385.713	447.943	566.807	1.097.820	1.490.548	1.182.721
	Rent & invest 100/0	11.663	20.885	38.714	43.092	45.292	40.698	53.319	64.598	87.652	101.685
	Rent & invest 80/20	11.704	20.882	36.656	41.590	45.364	43.560	55.351	65.836	85.702	98.223
	Rent & invest 50/50	11.767	20.878	33.568	39.337	45.472	47.852	58.400	67.692	82.778	93.029
	Rent & invest 20/80	11.830	20.874	30.481	37.084	45.580	52.145	61.448	69.549	79.854	87.836
	Rent & invest 0/100	11.872	20.871	28.423	35.582	45.652	55.007	63.481	70.787	77.904	84.373

14.1.17 Appendix 17 - Real estate, 85-94

Real estate expenses											
end year		1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
real estate - market value		667.924	740.464	656.293	621.781	575.662	510.954	503.082	475.591	459.899	497.869
over/under limit		1.901.604	1.983.693	2.052.291	2.127.751	2.213.794	2.307.457	2.364.159	2.418.271	2.467.928	2.504.361
real estate tax (flat value	90%	601.132	666.417	590.664	559.603	518.096	459.858	452.774	428.032	413.909	448.082
under	0,10%	601	666	591	560	518	460	453	428	414	448
over	0,30%	0	0	0	0	0	0	0	0	0	0
real estate tax (ground)	10%	66.792	74.046	65.629	62.178	57.566	51.095	50.308	47.559	45.990	49.787
	0,34%	227	252	223	211	196	174	171	162	156	169
total taxes		828	918	814	771	714	634	624	590	570	617
water & drain tax		391	404	415	426	438	449	458	467	476	476
maintenance costs		9.991	10.311	10.597	10.889	11.186	11.475	11.711	11.943	12.173	12.173
real estate agent fee	3,00%										14.936
total expenses without agent fee		11.210	11.633	11.825	12.086	12.337	12.557	12.793	13.000	13.220	13.267
accumulated expenses		11.210	22.843	34.668	46.754	59.091	71.649	84.442	97.442	110.662	123.929

Mortgage bond annuity loan and bank loan, 1985 – 1994 M12

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding	
3,00%	0,13%	120	01-03-1985	16.569,78	690,41	491,52	17.751,71	10.041,29	7.710,43	551.834,50	
3,00%	0,13%	119	01-06-1985	16.555,03	689,79	506,27	17.751,10	10.032,35	7.718,75	551.328,23	
3,00%	0,13%	118	01-09-1985	16.539,85	689,16	521,46	17.750,47	10.023,15	7.727,32	550.806,77	
3,00%	0,13%	117	01-12-1985	16.524,20	688,51	537,10	17.749,81	10.013,67	7.736,15	550.269,67	30.892,64
3,00%	0,13%	116	01-03-1986	16.508,09	687,84	553,22	17.749,14	10.003,90	7.745,24	549.716,45	
3,00%	0,13%	115	01-06-1986	16.491,49	687,15	569,81	17.748,45	9.993,85	7.754,61	549.146,64	
3,00%	0,13%	114	01-09-1986	16.474,40	686,43	586,91	17.747,74	9.983,49	7.764,25	548.559,73	
3,00%	0,13%	113	01-12-1986	16.456,79	685,70	604,51	17.747,00	9.972,82	7.774,19	547.955,22	31.038,29
3,00%	0,13%	112	01-03-1987	16.438,66	684,94	622,65	17.746,25	8.383,71	9.362,53	547.332,57	
3,00%	0,13%	111	01-06-1987	16.419,98	684,17	641,33	17.745,47	8.374,19	9.371,28	546.691,24	
3,00%	0,13%	110	01-09-1987	16.400,74	683,36	660,57	17.744,67	8.364,38	9.380,29	546.030,68	
3,00%	0,13%	109	01-12-1987	16.380,92	682,54	680,39	17.743,84	8.354,27	9.389,57	545.350,29	37.503,68
3,00%	0,13%	108	01-03-1988	16.360,51	681,69	700,80	17.742,99	8.343,86	9.399,13	544.649,49	
3,00%	0,13%	107	01-06-1988	16.339,48	680,81	721,82	17.742,12	8.333,14	9.408,98	543.927,67	
3,00%	0,13%	106	01-09-1988	16.317,83	679,91	743,48	17.741,21	8.322,09	9.419,12	543.184,20	
3,00%	0,13%	105	01-12-1988	16.295,53	678,98	765,78	17.740,29	8.310,72	9.429,57	542.418,42	37.656,80
3,00%	0,13%	104	01-03-1989	16.272,55	678,02	788,75	17.739,33	8.299,00	9.440,33	541.629,67	
3,00%	0,13%	103	01-06-1989	16.248,89	677,04	812,42	17.738,34	8.286,93	9.451,41	540.817,25	
3,00%	0,13%	102	01-09-1989	16.224,52	676,02	836,79	17.737,33	8.274,50	9.462,82	539.980,46	
3,00%	0,13%	101	01-12-1989	16.199,41	674,98	861,89	17.736,28	8.261,70	9.474,58	539.118,57	37.829,14
3,00%	0,13%	100	01-03-1990	16.173,56	673,90	887,75	17.735,20	8.248,51	9.486,69	538.230,82	
3,00%	0,13%	99	01-06-1990	16.146,92	672,79	914,38	17.734,09	8.234,93	9.499,16	537.316,44	
3,00%	0,13%	98	01-09-1990	16.119,49	671,65	941,81	17.732,95	8.220,94	9.512,01	536.374,63	
3,00%	0,13%	97	01-12-1990	16.091,24	670,47	970,07	17.731,77	8.206,53	9.525,24	535.404,56	38.023,10
3,00%	0,13%	96	01-03-1991	16.062,14	669,26	999,17	17.730,56	8.191,69	9.538,87	534.405,40	
3,00%	0,13%	95	01-06-1991	16.032,16	668,01	1.029,14	17.729,31	8.176,40	9.552,91	533.376,25	
3,00%	0,13%	94	01-09-1991	16.001,29	666,72	1.060,02	17.728,03	8.160,66	9.567,37	532.316,23	
3,00%	0,13%	93	01-12-1991	15.969,49	665,40	1.091,82	17.726,70	8.144,44	9.582,26	531.224,42	38.241,41
3,00%	0,13%	92	01-03-1992	15.936,73	664,03	1.124,57	17.725,34	8.127,73	9.597,60	530.099,84	
3,00%	0,13%	91	01-06-1992	15.903,00	662,62	1.158,31	17.723,93	8.110,53	9.613,40	528.941,53	
3,00%	0,13%	90	01-09-1992	15.868,25	661,18	1.193,06	17.722,48	8.092,81	9.629,68	527.748,47	
3,00%	0,13%	89	01-12-1992	15.832,45	659,69	1.228,85	17.720,99	8.074,55	9.646,44	526.519,62	38.487,12
3,00%	0,13%	88	01-03-1993	15.795,59	658,15	1.265,72	17.719,45	8.245,30	9.474,16	525.253,91	
3,00%	0,13%	87	01-06-1993	15.757,62	656,57	1.303,69	17.717,87	8.225,48	9.492,40	523.950,22	
3,00%	0,13%	86	01-09-1993	15.718,51	654,94	1.342,80	17.716,24	8.205,06	9.511,18	522.607,42	
3,00%	0,13%	85	01-12-1993	15.678,22	653,26	1.383,08	17.714,56	8.184,03	9.530,53	521.224,34	38.008,27
2,50%	0,13%	120	01-03-1994	13.469,17	673,46	733,69	14.876,32	8.162,32	6.714,00	538.033,25	
2,50%	0,13%	119	01-06-1994	13.450,83	672,54	752,03	14.875,40	8.151,20	6.724,20	537.281,21	
2,50%	0,13%	118	01-09-1994	13.432,03	671,60	770,83	14.874,46	8.139,81	6.734,65	536.510,38	
2,50%	0,13%	117	01-12-1994	13.412,76	670,64	790,10	14.873,50	8.128,13	6.745,37	**535.720,28**	26.918,22

coupon	fee	t	due date	interest	fee	instalment	gross payment	deduction	net payment	outstanding	
3,00%	0,13%	80	01-03-1985	4.131,05	172,13	428,49	4.731,67	2.503,42	2.228,25	137.273,16	
3,00%	0,13%	79	01-06-1985	4.118,19	171,59	441,35	4.731,13	2.495,63	2.235,51	136.831,81	
3,00%	0,13%	78	01-09-1985	4.104,95	171,04	454,59	4.730,58	2.487,60	2.242,98	136.377,22	
3,00%	0,13%	77	01-12-1985	4.091,32	170,47	468,23	4.730,01	2.479,34	2.250,68	135.909,00	8.957,42
3,00%	0,13%	76	01-03-1986	4.077,27	169,89	482,27	4.729,43	2.470,83	2.258,60	135.426,73	
3,00%	0,13%	75	01-06-1986	4.062,80	169,28	496,74	4.728,83	2.462,06	2.266,77	134.929,98	
3,00%	0,13%	74	01-09-1986	4.047,90	168,66	511,64	4.728,20	2.453,03	2.275,18	134.418,34	
3,00%	0,13%	73	01-12-1986	4.032,55	168,02	526,99	4.727,56	2.443,73	2.283,84	133.891,35	9.084,39
3,00%	0,13%	72	01-03-1987	4.016,74	167,36	542,80	4.726,91	2.048,54	2.678,37	133.348,55	
3,00%	0,13%	71	01-06-1987	4.000,46	166,69	559,09	4.726,23	2.040,23	2.685,99	132.789,46	
3,00%	0,13%	70	01-09-1987	3.983,68	165,99	575,86	4.725,53	2.031,68	2.693,85	132.213,61	
3,00%	0,13%	69	01-12-1987	3.966,41	165,27	593,13	4.724,81	2.022,87	2.701,94	131.620,47	10.760,15
3,00%	0,13%	68	01-03-1988	3.948,61	164,53	610,93	4.724,07	2.013,79	2.710,27	131.009,54	
3,00%	0,13%	67	01-06-1988	3.930,29	163,76	629,26	4.723,30	2.004,45	2.718,86	130.380,29	
3,00%	0,13%	66	01-09-1988	3.911,41	162,98	648,13	4.722,52	1.994,82	2.727,70	129.732,15	
3,00%	0,13%	65	01-12-1988	3.891,96	162,17	667,58	4.721,71	1.984,90	2.736,81	129.064,58	10.893,64
3,00%	0,13%	64	01-03-1989	3.871,94	161,33	687,60	4.720,87	1.974,69	2.746,18	128.376,97	
3,00%	0,13%	63	01-06-1989	3.851,31	160,47	708,23	4.720,01	1.964,17	2.755,85	127.668,74	
3,00%	0,13%	62	01-09-1989	3.830,06	159,59	729,48	4.719,13	1.953,33	2.765,80	126.939,26	
3,00%	0,13%	61	01-12-1989	3.808,18	158,67	751,36	4.718,22	1.942,17	2.776,05	126.187,90	11.043,87
3,00%	0,13%	60	01-03-1990	3.785,64	157,73	773,91	4.717,28	1.930,67	2.786,60	125.413,99	
3,00%	0,13%	59	01-06-1990	3.762,42	156,77	797,12	4.716,31	1.918,83	2.797,48	124.616,87	
3,00%	0,13%	58	01-09-1990	3.738,51	155,77	821,04	4.715,31	1.906,64	2.808,68	123.795,83	
3,00%	0,13%	57	01-12-1990	3.713,87	154,74	845,67	4.714,29	1.894,08	2.820,21	122.950,17	11.212,96
3,00%	0,13%	56	01-03-1991	3.688,50	153,69	871,04	4.713,23	1.881,14	2.832,09	122.079,13	
3,00%	0,13%	55	01-06-1991	3.662,37	152,60	897,17	4.712,14	1.867,81	2.844,33	121.181,96	
3,00%	0,13%	54	01-09-1991	3.635,46	151,48	924,08	4.711,02	1.854,08	2.856,94	120.257,88	
3,00%	0,13%	53	01-12-1991	3.607,74	150,32	951,81	4.709,86	1.839,95	2.869,92	119.306,07	11.403,28
3,00%	0,13%	52	01-03-1992	3.579,18	149,13	980,36	4.708,67	1.825,38	2.883,29	118.325,71	
3,00%	0,13%	51	01-06-1992	3.549,77	147,91	1.009,77	4.707,45	1.810,38	2.897,07	117.315,94	
3,00%	0,13%	50	01-09-1992	3.519,48	146,64	1.040,06	4.706,19	1.794,93	2.911,25	116.275,88	
3,00%	0,13%	49	01-12-1992	3.488,28	145,34	1.071,27	4.704,89	1.779,02	2.925,87	115.204,61	11.617,48
2,50%	0,13%	48	01-03-1993	2.880,12	144,01	1.267,94	4.292,06	1.503,42	2.788,64	113.936,67	
2,50%	0,13%	47	01-06-1993	2.848,42	142,42	1.299,64	4.290,48	1.486,87	2.803,60	112.637,03	
2,50%	0,13%	46	01-09-1993	2.815,93	140,80	1.332,13	4.288,85	1.469,91	2.818,94	111.304,90	
2,50%	0,13%	45	01-12-1993	2.782,62	139,13	1.365,43	4.287,19	1.452,53	2.834,66	109.939,46	11.245,84
2,50%	0,13%	44	01-03-1994	2.748,49	137,42	1.399,57	4.285,48	1.401,73	2.883,75	108.539,90	
2,50%	0,13%	43	01-06-1994	2.713,50	135,67	1.434,56	4.283,73	1.383,88	2.899,85	107.105,34	
2,50%	0,13%	42	01-09-1994	2.677,63	133,88	1.470,42	4.281,94	1.365,59	2.916,35	105.634,91	
2,50%	0,13%	41	01-12-1994	2.640,87	132,04	1.507,18	4.280,10	1.346,85	2.933,26	104.127,73	11.633,20

14.1.18 ***Appendix 18 - Rent/invest 85-94***

	Stock	Gov bonds
	80%	20%
administration fee	0,5%	0,5%

stock	80%																																
Year	investment	0	0	0	0	0	0	0	0	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	16.502	0	0	0	0	0	0	0	16.502	19.193	20.849	20.446	28.748	33.010	26.555	32.627	32.520	52.228	41.824	45.379	57.947	71.294	73.914	108.604	107.942	91.110	64.003	72.650	80.232	100.223	110.840	116.857	
1986	15.838	0	0	0	0	0	0	0	0	15.838	17.293	16.969	23.687	27.110	21.725	26.744	26.852	42.799	34.300	37.272	47.575	58.462	60.924	89.936	88.804	75.224	52.620	59.381	65.148	81.038	89.333	93.913	
1987	21.137	0	0	0	0	0	0	0	0	0	21.137	20.286	28.267	33.111	27.556	34.137	34.073	53.320	42.980	47.362	61.007	78.537	82.805	118.479	119.851	102.264	71.639	81.223	89.863	112.247	123.626	128.863	
1988	19.959	0	0	0	0	0	0	0	0	0	0	19.959	27.733	32.596	27.754	34.941	35.744	57.827	45.289	50.408	65.868	84.110	88.267	127.862	129.936	110.902	77.482	87.868	97.026	120.874	133.520	140.618	
1989	18.773	0	0	0	0	0	0	0	0	0	0	0	18.773	21.898	18.791	23.785	24.865	40.158	31.098	34.756	45.655	57.831	60.938	89.316	89.403	76.600	53.190	59.690	65.188	80.497	88.786	93.461	
1990	17.259	0	0	0	0	0	0	0	0	0	0	0	0	17.259	14.748	18.725	19.856	32.896	25.036	27.903	36.765	45.354	47.329	70.753	70.091	59.791	41.483	46.462	50.542	62.191	68.856	73.221	
1991	16.404	0	0	0	0	0	0	0	0	0	0	0	0	0	16.404	20.595	21.441	34.810	27.098	29.914	38.864	47.803	50.041	74.715	73.697	62.845	43.612	48.834	53.071	65.427	72.104	76.196	
1992	15.095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.095	16.100	25.666	20.434	22.374	29.750	35.615	37.376	55.170	54.357	46.304	32.236	36.152	39.421	48.779	53.650	56.250	
1993	14.207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.207	21.571	17.968	19.409	24.412	30.857	32.565	46.841	46.467	39.519	27.708	31.294	34.469	43.082	47.193	48.741	
1994	4.877	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.877	4.257	4.584	5.668	7.408	7.989	11.226	11.114	9.547	6.671	7.482	8.205	10.253	11.096	11.170	
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160.850																	225.747															839.290

Government bonds		20%																															
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0		0	0	0	0	0	0	0	0	0	0	0	0																			
1979	0		0	0		0	0	0	0	0	0	0	0	0	0																		
1980	0		0	0			0	0	0	0	0	0	0	0	0	0																	
1981	0		0	0				0	0	0	0	0	0	0	0	0	0																
1982	0		0	0					0	0	0	0	0	0	0	0	0	0															
1983	0		0	0						0	0	0	0	0	0	0	0	0	0														
1984	0		0	0							0	0	0	0	0	0	0	0	0	0													
1985	4.146		21	4.126								4.317	4.532	4.740	4.937	5.126	5.366	5.611	5.863	6.133	6.387												
1986	3.979		20	3.959									4.099	4.232	4.354	4.469	4.634	4.802	4.977	5.170	5.348	5.523											
1987	5.311		27	5.284										5.491	5.684	5.867	6.116	6.370	6.634	6.921	7.187	7.450	7.714										
1988	5.015		25	4.990											5.143	5.299	5.495	5.708	5.929	6.172	6.395	6.616	6.837	7.055									
1989	4.717		24	4.693												4.804	4.972	5.145	5.327	5.529	5.713	5.894	6.076	6.254	6.444								
1990	4.336		22	4.315													4.518	4.725	4.940	5.175	5.392	5.607	5.822	6.035	6.257	6.463							
1991	4.122		21	4.101														4.275	4.457	4.657	4.840	5.022	5.203	5.382	5.571	5.743	5.906							
1992	3.994		20	3.974															4.127	4.299	4.454	4.600	4.762	4.913	5.073	5.210	5.354	5.500						
1993	3.570		18	3.552																3.705	3.844	3.981	4.119	4.254	4.397	4.526	4.648	4.779	4.910					
1994	1.225		6	1.219																	1.246	1.273	1.300	1.326	1.354	1.378	1.399	1.424	1.449	1.475				
1995																						0	0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998																									0	0	0	0	0	0	0	0	0	0	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	0	
2005																																0	0	0	
2006																																	0	0	
2007																																		0	
				40.213	0	0	0	0	0	0	0	4.317	8.631	14.464	20.118	25.555	31.100	36.637	42.254	47.760	50.808	45.975	41.832	35.219	29.096	23.328	17.307	11.703	6.359	1.475	0	0	0	0	0

	1994-2005
End 1994 amount	366.153
- period 1978 to 1994M01	225.747
- Invested amount	4.877
	135.530
- tax free amount	136.600
tax axable amount	(1.070)
tax class B - 43 %	0
net return	(1.070)
+ invested amount	4.877
+ tax free amount	135.530
total	140.406

Investment model 1985-1995M01		invested	1995M01
Investment amount		201.063	
Value from 1978-1994M01			225.747
Value from 1994-2005			140.406
Value from 2006-2008			0
Total stock value			366.153
Bond value			50.808
Total value			416.961

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Stock	16.502	35.031	59.279	77.661	127.228	164.983	153.532	207.449	225.747	366.153
Gov. Bond	4.317	8.631	14.464	20.118	25.555	31.100	36.637	42.254	47.760	50.808
Total	20.820	43.662	73.742	97.778	152.783	196.084	190.170	249.703	273.507	416.961

	Stock	Gov bonds
	100%	0%
administration fee	0,5%	0,5%

stock	100%																														
Year	investment	0	0	0	0	0	0	0	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	20.626	0	0	0	0	0	0	0	20.626	23.991	26.061	25.558	35.935	41.263	33.194	40.784	40.650	65.285	52.280	56.723	72.433	89.117	92.392	135.755	134.927	113.887	80.004	90.813	100.290	125.278	138.549	146.071
1986	19.797	0	0	0	0	0	0	0	0	19.797	21.617	21.212	29.609	33.887	27.156	33.430	33.566	53.498	42.875	46.589	59.469	73.077	76.156	112.420	111.005	94.030	66.775	74.226	81.435	101.297	111.666	117.391
1987	26.421	0	0	0	0	0	0	0	0	0	26.421	25.358	35.358	41.389	34.445	42.671	42.591	66.650	53.725	59.190	76.259	98.171	103.507	148.098	149.814	127.830	89.549	101.529	112.316	140.309	154.532	161.079
1988	24.948	0	0	0	0	0	0	0	0	0	0	24.948	34.666	40.745	34.693	43.677	44.681	72.284	56.611	63.010	82.324	105.137	110.368	159.853	162.420	138.627	96.852	109.835	121.282	151.092	166.900	175.772
1989	23.466	0	0	0	0	0	0	0	0	0	0	0	23.466	27.373	23.489	29.732	31.081	50.198	38.873	43.446	57.069	72.289	76.173	111.645	111.754	95.750	66.487	74.613	81.484	100.622	110.983	116.826
1990	21.573	0	0	0	0	0	0	0	0	0	0	0	0	21.573	18.435	23.406	24.821	41.121	31.295	34.878	45.956	56.692	59.162	88.441	87.614	74.739	51.853	58.078	63.177	77.738	86.070	91.526
1991	20.504	0	0	0	0	0	0	0	0	0	0	0	0	0	20.504	25.744	26.801	43.512	33.873	37.393	48.580	59.754	62.551	93.394	92.122	78.557	54.515	61.042	66.339	81.784	90.130	95.245
1992	19.069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.069	20.230	32.003	25.543	27.960	35.930	44.510	46.720	69.972	67.946	57.079	40.295	45.109	49.277	60.974	67.072	70.313
1993	17.759	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.759	26.964	22.459	24.262	30.515	38.571	40.706	58.552	58.084	49.399	34.634	39.117	43.086	53.853	58.991	60.926
1994	6.096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.096	5.322	5.729	7.084	9.260	9.988	14.032	13.892	11.934	8.338	9.353	10.257	12.816	13.869	13.963
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	201.063																282.183														1.049.113

	1994-2005
End 1994 amount	457.692
- period 1978 to 1994M01	282.183
- Invested amount	6.096
	169.412
- tax free amount	136.600
tax axable amount	32.812
tax class B - 43 %	14.109
net return	18.703
+ invested amount	6.096
+ tax free amount	136.600
total	161.399

Investment model 1985-1995M01		invested	1995M01
Investment amount		201.063	
Value from 1978-1994M01			282.183
Value from 1994-2005			161.399
Value from 2006-2008			0
Total stock value			443.582
Bond value			0
Total value			443.582

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Stock	20.628	43.788	74.098	97.076	159.035	206.229	191.915	259.312	282.183	443.582
Gov. Bond	0	0	0	0	0	0	0	0	0	0
Total	20.628	43.788	74.098	97.076	159.035	206.229	191.915	259.312	282.183	443.582

	Stock	Gov bonds
	50%	50%
administration fee	0,5%	0,5%

stock	50%																															
Year	investment	0	0	0	0	0	0	0	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	10.314	0	0	0	0	0	0	0	10.314	11.996	13.030	12.779	17.968	20.631	16.597	20.392	20.325	32.643	26.140	28.362	36.217	44.559	46.196	67.877	67.464	56.944	40.002	45.406	50.145	62.639	69.275	73.036
1986	9.899	0	0	0	0	0	0	0	0	9.899	10.808	10.606	14.805	16.943	13.578	16.715	16.783	26.749	21.437	23.295	29.734	36.538	38.078	56.210	55.503	47.015	32.887	37.113	40.718	50.649	55.833	58.696
1987	13.210	0	0	0	0	0	0	0	0	0	13.210	12.679	17.679	20.694	17.222	21.335	21.295	33.325	26.862	29.595	38.130	49.086	51.753	74.049	74.907	63.915	44.774	50.764	56.158	70.154	77.266	80.540
1988	12.474	0	0	0	0	0	0	0	0	0	0	12.474	17.333	20.372	17.346	21.838	22.340	36.142	28.305	31.505	41.162	52.589	55.179	79.927	81.210	69.314	48.426	54.917	60.641	75.646	83.460	87.886
1989	11.733	0	0	0	0	0	0	0	0	0	0	0	11.733	13.886	11.744	14.866	15.540	25.099	19.436	21.723	28.535	36.145	38.086	55.823	55.877	47.875	33.244	37.306	40.742	50.311	55.491	58.413
1990	10.787	0	0	0	0	0	0	0	0	0	0	0	0	10.787	9.217	11.703	12.410	20.560	15.648	17.439	22.978	28.346	29.581	44.221	43.807	37.369	25.927	29.039	31.589	38.869	43.035	45.763
1991	10.252	0	0	0	0	0	0	0	0	0	0	0	0	0	10.252	12.872	13.401	21.756	16.936	18.696	24.290	29.877	31.276	46.697	46.061	39.278	27.257	30.521	33.169	40.892	45.065	47.622
1992	9.935	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.935	10.117	16.042	12.771	13.904	17.969	22.259	23.360	34.406	33.973	29.940	20.140	22.595	24.630	30.407	33.536	35.156
1993	8.879	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.879	13.482	11.230	12.131	15.257	19.286	20.353	29.276	29.042	24.699	17.317	19.559	21.543	26.927	29.495	30.463
1994	3.048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.048	2.661	2.865	3.542	4.630	4.993	7.016	6.946	5.967	4.169	4.677	5.128	6.408	6.935	6.981
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100.531																141.092															524.556

Government bonds		50%																																
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
1979	0	0	0	0		0	0	0	0	0	0	0	0	0	0																				
1980	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0																		
1981	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0																	
1982	0	0	0	0					0	0	0	0	0	0	0	0	0	0	0																
1983	0	0	0	0						0	0	0	0	0	0	0	0	0	0	0															
1984	0	0	0	0							0	0	0	0	0	0	0	0	0	0	0														
1985	10.366	52	10.314									10.793	11.330	11.850	12.341	12.815	13.416	14.028	14.657	15.333	15.988														
1986	9.948	50	9.899										10.248	10.581	10.885	11.174	11.584	12.005	12.443	12.925	13.369	13.807													
1987	13.277	66	13.210											13.728	14.209	14.668	15.289	15.925	16.584	17.301	17.967	18.626	19.284												
1988	12.537	63	12.474												12.868	13.222	13.739	14.269	14.821	15.429	15.988	16.540	17.092	17.637											
1989	11.792	59	11.733													12.009	12.430	12.863	13.317	13.823	14.283	14.736	15.189	15.636	16.109										
1990	10.841	54	10.787														11.294	11.814	12.351	12.937	13.481	14.018	14.556	15.088	15.643	16.157									
1991	10.304	52	10.252															10.689	11.142	11.642	12.101	12.554	13.008	13.456	13.927	14.357	14.765								
1992	9.994	50	9.935																10.310	10.747	11.130	11.520	11.904	12.202	12.600	13.044	13.004	13.751							
1993	8.924	45	8.879																	9.262	9.610	9.954	10.297	10.635	10.993	11.316	11.619	11.947	12.276						
1994	3.063	15	3.048																		3.116	3.183	3.249	3.314	3.386	3.446	3.499	3.560	3.621	3.688					
1996																						0	0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0	0	
1998																									0	0	0	0	0	0	0	0	0	0	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	0	
2005																																0	0	0	
2006																																	0	0	
2007																																		0	
				100.531	0	0	0	0	0	0	0	10.793	21.578	36.159	50.294	63.887	77.751	91.593	105.634	119.399	127.019	114.937	104.579	88.047	72.741	59.320	43.267	29.258	15.897	3.688	0	0	0	0	0

	1994-2005
End 1994 amount	228.846
- period 1978 to 1994M01	141.092
- Invested amount	3.048
	84.706
- tax free amount	136.600
tax axable amount	(51.894)
tax class B - 43 %	0
net return	(51.894)
+ invested amount	3.048
+ tax free amount	84.706
total	87.754

Investment model 1985-1995M01		invested	1995M01
Investment amount		201.063	
Value from 1978-1994M01			141.092
Value from 1994-2005			87.754
Value from 2006-2008			0
Total stock value			228.846
Bond value			127.019
Total value			355.865

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Stock	10.314	21.894	37.049	48.538	79.517	103.115	95.958	129.656	141.092	228.846
Gov. Bond	10.793	21.578	36.159	50.294	63.887	77.751	91.593	105.634	119.399	127.019
Total	21.107	43.473	73.208	98.832	143.405	180.866	187.551	235.290	260.491	355.865

	Stock	Gov bonds
	20%	80%
administration fee	0,5%	0,5%

stock	20%																															
Year	investment	0	0	0	0	0	0	0	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	4.126	0	0	0	0	0	0	0	4.126	4.798	5.212	5.112	7.187	8.253	6.639	8.157	8.130	13.057	10.456	11.345	14.487	17.823	18.478	27.151	26.985	22.777	16.001	18.163	20.058	25.056	27.710	29.214
1986	3.959	0	0	0	0	0	0	0	0	3.959	4.323	4.242	5.922	6.777	5.431	6.686	6.713	10.700	8.575	9.318	11.894	14.615	15.231	22.484	22.201	18.806	13.155	14.845	16.287	20.259	22.333	23.478
1987	5.284	0	0	0	0	0	0	0	0	0	5.284	5.072	7.072	8.278	6.889	8.534	8.518	13.330	10.745	11.838	15.252	19.634	20.701	29.620	29.963	25.566	17.910	20.306	22.463	28.062	30.906	32.216
1988	4.990	0	0	0	0	0	0	0	0	0	0	4.990	6.933	8.149	6.939	8.735	8.936	14.457	11.322	12.602	16.465	21.027	22.072	31.971	32.484	27.725	19.370	21.967	24.256	30.218	33.380	35.154
1989	4.693	0	0	0	0	0	0	0	0	0	0	0	4.693	5.475	4.898	5.946	6.216	10.040	7.775	8.688	11.414	14.458	15.295	22.329	22.951	19.160	13.297	14.923	16.297	20.124	22.197	23.365
1990	4.315	0	0	0	0	0	0	0	0	0	0	0	0	4.315	3.687	4.681	4.964	8.224	6.259	6.976	9.191	11.338	11.832	17.688	17.523	14.948	10.371	11.616	12.635	15.548	17.214	18.305
1991	4.101	0	0	0	0	0	0	0	0	0	0	0	0	0	4.101	5.149	5.360	8.702	6.775	7.479	9.716	11.951	12.510	18.679	18.424	15.711	10.903	12.208	13.268	16.357	18.026	19.049
1992	3.974	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.974	4.047	6.417	5.109	5.594	7.100	8.904	9.344	13.794	13.589	11.576	8.059	9.000	9.955	12.195	13.414	14.063
1993	3.552	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.552	5.393	4.492	4.852	6.103	7.714	8.141	11.710	11.617	9.880	6.927	7.823	8.617	10.771	11.798	12.186
1994	1.219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.219	1.064	1.146	1.417	1.852	1.997	2.806	2.778	2.387	1.668	1.871	2.051	2.563	2.774	2.793
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40.213																56.437															209.823

Government bonds		80%																																
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
1979	0	0	0	0		0	0	0	0	0	0	0	0	0	0																			
1980	0	0	0	0			0	0	0	0	0	0	0	0	0	0																		
1981	0	0	0	0				0	0	0	0	0	0	0	0	0	0																	
1982	0	0	0	0					0	0	0	0	0	0	0	0	0	0																
1983	0	0	0	0						0	0	0	0	0	0	0	0	0	0															
1984	0	0	0	0							0	0	0	0	0	0	0	0	0	0														
1985	16.585	83	16.502									17.269	18.129	18.960	19.746	20.504	21.465	22.444	23.452	24.533	25.550													
1986	15.917	80	15.838										16.397	16.929	17.417	17.678	18.534	19.208	19.909	20.681	21.390	22.091												
1987	21.243	106	21.137											21.965	22.735	23.469	24.463	25.481	26.534	27.682	28.748	29.801	30.855											
1988	20.059	100	19.959												20.573	21.155	21.962	22.831	23.714	24.687	25.581	26.464	27.347	28.218										
1989	18.867	94	18.773													19.215	19.887	20.581	21.307	22.116	22.852	23.577	24.303	25.018	25.775									
1990	17.345	87	17.259														18.071	18.902	19.762	20.699	21.569	22.429	23.290	24.140	25.029	25.851								
1991	16.486	82	16.404															17.102	17.827	18.627	19.361	20.087	20.813	21.529	22.283	22.972	23.624							
1992	15.975	80	15.895																16.928	17.195	17.910	18.432	19.046	19.622	20.292	20.971	21.414	22.002							
1993	14.279	71	14.207																	14.820	15.377	15.926	16.475	17.016	17.588	18.106	18.591	19.116	19.641						
1994	4.901	25	4.877																		4.986	5.092	5.199	5.303	5.417	5.513	5.598	5.696	5.794	5.901					
1995																						0	0	0	0	0	0	0	0	0	0				
1996																							0	0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998																									0	0	0	0	0	0	0	0	0	0	
1999																										0	0	0	0	0	0	0	0	0	
2000																										0	0	0	0	0	0	0	0	0	
2001																											0	0	0	0	0	0	0	0	
2002																											0	0	0	0	0	0	0	
2003																												0	0	0	0	0	0	
2004																													0	0	0	0	0	
2005																														0	0	0	0	
2006																															0	0	0	
2007																																0	0	
				160.850	0	0	0	0	0	0	0	17.269	34.525	57.855	80.471	102.219	124.401	146.549	169.014	191.039	203.231	183.900	167.326	140.876	116.385	93.312	69.226	46.814	25.435	5.901	0	0	0	0	0

	1994-2005
End 1994 amount	91.538
- period 1978 to 1994M01	56.437
- Invested amount	1.219
	33.882
- tax free amount	136.600
tax axable amount	(102.718)
tax class B - 43 %	0
net return	(102.718)
+ invested amount	1.219
+ tax free amount	33.882
total	35.102

Investment model 1985-1995M01		invested	1995M01
Investment amount		201.063	
Value from 1978-1994M01			56.437
Value from 1994-2005			35.102
Value from 2006-2008			0
Total stock value			91.538
Bond value			203.231
Total value			294.770

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Stock	4.126	8.758	14.820	19.415	31.807	41.246	38.383	51.862	56.437	91.538
Gov. Bond	17.269	34.525	57.855	80.471	102.219	124.401	146.549	169.014	191.039	203.231
Total	21.395	43.283	72.674	99.886	134.026	165.647	184.932	220.877	247.476	294.770

	Stock	Gov bonds
	0%	100%
administration fee	0,5%	0,5%

Government bonds		100%																																		
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0		0	0	0	0	0	0	0	0	0	0	0	0																					
1979	0		0	0		0	0	0	0	0	0	0	0	0	0																				
1980	0		0	0			0	0	0	0	0	0	0	0	0	0																			
1981	0		0	0				0	0	0	0	0	0	0	0	0	0																		
1982	0		0	0					0	0	0	0	0	0	0	0	0	0																	
1983	0		0	0						0	0	0	0	0	0	0	0	0	0																
1984	0		0	0							0	0	0	0	0	0	0	0	0	0															
1985	20.732		104	20.628								21.587	22.661	23.701	24.683	25.630	26.831	28.056	29.315	30.666	31.937														
1986	19.897		99	19.797									20.496	21.161	21.771	22.347	23.168	24.010	24.886	25.851	26.738	27.613													
1987	26.554		133	26.421										27.457	28.418	29.336	30.578	31.851	33.168	34.603	35.935	37.251	38.568												
1988	25.074		125	24.948											25.717	26.443	27.477	28.539	29.643	30.858	31.976	33.080	34.183	35.273											
1989	23.584		118	23.466												24.018	24.959	25.727	26.633	27.645	28.656	29.472	30.378	31.272	32.218										
1990	21.682		108	21.573													22.588	23.627	24.702	25.874	26.962	28.037	29.112	30.175	31.287	32.313									
1991	20.608		103	20.504														21.377	22.284	23.283	24.202	25.109	26.016	26.912	27.853	28.714	29.530								
1992	19.969		100	19.069															20.637	21.494	22.272	23.040	23.000	24.564	25.366	26.009	26.700	27.502							
1993	17.848		89	17.759																18.525	19.221	19.907	20.593	21.270	21.986	22.632	23.239	23.895	24.551						
1994	6.127		31	6.096																	6.232	6.366	6.499	6.628	6.772	6.891	6.997	7.120	7.243	7.376					
1995																						0	0	0	0	0	0	0	0	0	0				
1996																							0	0	0	0	0	0	0	0	0	0			
1997																								0	0	0	0	0	0	0	0	0	0		
1998																									0	0	0	0	0	0	0	0	0	0	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	0	
2005																																0	0	0	
2006																																	0	0	
2007																																		0	
				201.063	0	0	0	0	0	0	0	21.587	43.157	72.318	100.588	127.774	155.502	183.187	211.268	238.799	254.039	229.875	209.158	176.094	145.481	116.640	86.533	58.517	31.794	7.376	0	0	0	0	0

Investment model 1985-1995M01		invested	1995M01
Investment amount		201.063	
Value from 1978-1994M01			0
Value from 1994-2005			0
Value from 2006-2008			0
Total stock value			0
Bond value			254.039
Total value			254.039

14.1.19 Appendix 19 - Real estate, 95-04

Real estate expenses											
end year		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
real estate - market value		521.881	584.980	638.357	712.825	792.160	876.272	996.558	1.070.224	1.118.835	1.260.927
over/under limit		2.554.119	2.606.512	2.659.750	2.715.367	2.765.451	2.826.459	2.891.304	2.946.939	2.998.028	3.040.000
real estate tax (flat value	90%	469.693	526.482	574.522	641.543	712.944	788.645	896.902	963.202	1.006.951	1.134.835
under	0,10%	470	526	575	642	713	789	897	963	1.007	1.135
over	0,30%	0	0	0	0	0	0	0	0	0	0
real estate tax (ground)	10%	52.188	58.498	63.836	71.283	79.216	87.627	99.656	107.022	111.883	126.093
	0,34%	177	199	217	242	269	298	339	364	380	429
total taxes		647	725	792	884	982	1.087	1.236	1.327	1.387	1.564
water & drain tax		456	455	541	1.329	1.292	1.146	1.238	1.286	1.401	1.588
maintenance costs		12.679	11.710	12.925	15.003	13.446	12.935	13.371	13.512	14.292	14.223
real estate agent fee	3,00%										37.828
total expenses without agent fee		13.782	12.891	14.257	17.216	15.720	15.168	15.844	16.125	17.079	17.374
accumulated expenses		13.782	26.673	40.930	58.146	73.866	89.034	104.878	121.003	138.082	155.456

Mortgage and bank annuity loans, 1995-2004

2,50%	0,13%	120	01-03-1995	10.810,55	540,53	588,87	11.939,94	4.832,31	7.107,63	431.832,96	
2,50%	0,13%	119	01-06-1995	10.795,82	539,79	603,59	11.939,21	4.825,73	7.113,47	431.229,36	
2,50%	0,13%	118	01-09-1995	10.780,73	539,04	618,68	11.938,45	4.818,99	7.119,46	430.610,68	
2,50%	0,13%	117	01-12-1995	10.765,27	538,26	634,15	11.937,68	4.812,07	7.125,60	429.976,54	28.466,17
2,50%	0,13%	116	01-03-1996	10.749,41	537,47	650,00	11.936,89	4.804,99	7.131,90	429.326,54	
2,50%	0,13%	115	01-06-1996	10.733,16	536,66	666,25	11.936,07	4.797,72	7.138,35	428.660,28	
2,50%	0,13%	114	01-09-1996	10.716,51	535,83	682,91	11.935,24	4.790,28	7.144,96	427.977,38	
2,50%	0,13%	113	01-12-1996	10.699,43	534,97	699,98	11.934,39	4.782,65	7.151,74	427.277,40	28.566,95
1,75%	0,13%	120	01-03-1997	7.737,14	552,65	1.102,28	9.392,08	3.458,50	5.933,58	441.019,93	
1,75%	0,13%	119	01-06-1997	7.717,85	551,27	1.121,57	9.390,70	3.449,88	5.940,82	439.898,35	
1,75%	0,13%	118	01-09-1997	7.698,22	549,87	1.141,20	9.389,30	3.441,10	5.948,19	438.757,15	
1,75%	0,13%	117	01-12-1997	7.678,25	548,45	1.161,17	9.387,87	3.432,18	5.955,69	437.595,98	23.778,28
1,75%	0,13%	116	01-03-1998	7.657,93	546,99	1.181,49	9.386,42	3.093,80	6.292,61	436.414,48	
1,75%	0,13%	115	01-06-1998	7.637,25	545,52	1.202,17	9.384,94	3.085,45	6.299,49	435.212,31	
1,75%	0,13%	114	01-09-1998	7.616,22	544,02	1.223,21	9.383,44	3.076,95	6.306,49	433.989,11	
1,75%	0,13%	113	01-12-1998	7.594,81	542,49	1.244,61	9.381,91	3.068,30	6.313,61	432.744,49	25.212,20
1,75%	0,13%	112	01-03-1999	7.573,03	540,93	1.266,39	9.380,35	3.059,50	6.320,85	431.478,10	
1,75%	0,13%	111	01-06-1999	7.550,87	539,35	1.288,56	9.378,77	3.050,55	6.328,22	430.189,54	
1,75%	0,13%	110	01-09-1999	7.528,32	537,74	1.311,11	9.377,16	3.041,44	6.335,72	428.878,43	
1,75%	0,13%	109	01-12-1999	7.505,37	536,10	1.334,05	9.375,52	3.032,17	6.343,35	427.544,38	25.328,14
1,75%	0,13%	108	01-03-2000	7.482,03	534,43	1.357,40	9.373,85	3.022,74	6.351,12	426.186,99	
1,75%	0,13%	107	01-06-2000	7.458,27	532,73	1.381,15	9.372,16	3.013,14	6.359,02	424.805,84	
1,75%	0,13%	106	01-09-2000	7.434,10	531,01	1.405,32	9.370,43	3.003,38	6.367,05	423.400,51	
1,75%	0,13%	105	01-12-2000	7.409,51	529,25	1.429,91	9.368,67	2.993,44	6.375,23	421.970,60	25.452,42
1,75%	0,13%	104	01-03-2001	7.384,49	527,46	1.454,94	9.366,89	2.983,33	6.383,55	420.515,66	
1,75%	0,13%	103	01-06-2001	7.359,02	525,64	1.480,40	9.365,07	2.973,05	6.392,02	419.035,26	
1,75%	0,13%	102	01-09-2001	7.333,12	523,79	1.506,31	9.363,22	2.962,58	6.400,64	417.528,96	
1,75%	0,13%	101	01-12-2001	7.306,76	521,91	1.532,67	9.361,33	2.951,93	6.409,40	415.996,29	25.585,62
1,75%	0,13%	100	01-03-2002	7.279,94	520,00	1.559,49	9.359,42	2.416,94	6.942,48	414.436,80	
1,75%	0,13%	99	01-06-2002	7.252,64	518,05	1.586,78	9.357,47	2.407,88	6.949,59	412.850,02	
1,75%	0,13%	98	01-09-2002	7.224,88	516,06	1.614,55	9.355,49	2.398,66	6.956,83	411.235,47	
1,75%	0,13%	97	01-12-2002	7.196,62	514,04	1.642,80	9.353,47	2.389,28	6.964,19	409.592,67	27.813,09
1,75%	0,13%	96	01-03-2003	7.167,87	511,99	1.671,55	9.351,41	2.379,73	6.971,68	407.921,12	
1,75%	0,13%	95	01-06-2003	7.138,62	509,90	1.700,80	9.349,32	2.370,02	6.979,30	406.220,32	
1,75%	0,13%	94	01-09-2003	7.108,86	507,78	1.730,57	9.347,20	2.360,14	6.987,06	404.489,75	
1,75%	0,13%	93	01-12-2003	7.078,57	505,61	1.760,85	9.345,04	2.350,09	6.994,95	402.728,89	27.932,99
1,75%	0,13%	92	01-03-2004	7.047,76	503,41	1.791,67	9.342,83	2.339,85	7.002,98	400.937,23	
1,75%	0,13%	91	01-06-2004	7.016,40	501,17	1.823,02	9.340,60	2.329,45	7.011,15	399.114,20	
1,75%	0,13%	90	01-09-2004	6.984,50	498,89	1.854,92	9.338,32	2.318,85	7.019,46	397.259,28	
1,75%	0,13%	89	01-12-2004	6.952,04	496,57	1.887,39	9.336,00	2.308,08	7.027,92	**395.371,89**	28.061,51

2,50%	0,13%	80	01-03-1995	2.711,17	135,56	436,61	3.283,34	1.211,89	2.071,45	108.010,08	
2,50%	0,13%	79	01-06-1995	2.700,25	135,01	447,53	3.282,79	1.207,01	2.075,78	107.562,55	
2,50%	0,13%	78	01-09-1995	2.689,06	134,45	458,71	3.282,23	1.202,01	2.080,22	107.103,83	
2,50%	0,13%	77	01-12-1995	2.677,60	133,88	470,18	3.281,66	1.196,89	2.084,77	106.633,65	8.312,22
2,50%	0,13%	76	01-03-1996	2.665,84	133,29	481,94	3.281,07	1.191,63	2.089,44	106.151,72	
2,50%	0,13%	75	01-06-1996	2.653,79	132,69	493,99	3.280,47	1.186,25	2.094,22	105.657,73	
2,50%	0,13%	74	01-09-1996	2.641,44	132,07	506,34	3.279,85	1.180,73	2.099,13	105.151,39	
2,50%	0,13%	73	01-12-1996	2.628,78	131,44	518,99	3.279,22	1.175,07	2.104,15	104.632,40	8.386,94
2,25%	0,13%	72	01-03-1997	2.354,23	130,79	594,03	3.079,05	1.052,34	2.026,71	104.038,37	
2,25%	0,13%	71	01-06-1997	2.340,86	130,05	607,39	3.078,30	1.046,37	2.031,94	103.430,98	
2,25%	0,13%	70	01-09-1997	2.327,20	129,29	621,06	3.077,55	1.040,26	2.037,29	102.809,92	
2,25%	0,13%	69	01-12-1997	2.313,22	128,51	635,03	3.076,77	1.034,01	2.042,76	102.174,89	8.138,69
2,25%	0,13%	68	01-03-1998	2.298,93	127,72	649,32	3.075,97	928,77	2.147,21	101.525,57	
2,25%	0,13%	67	01-06-1998	2.284,33	126,91	663,93	3.075,16	922,87	2.152,30	100.861,64	
2,25%	0,13%	66	01-09-1998	2.269,39	126,08	678,87	3.074,33	916,83	2.157,50	100.182,77	
2,25%	0,13%	65	01-12-1998	2.254,11	125,23	694,14	3.073,48	910,66	2.162,82	99.488,62	8.619,83
2,00%	0,13%	64	01-03-1999	1.989,77	124,36	779,85	2.893,98	803,87	2.090,11	98.708,78	
2,00%	0,13%	63	01-06-1999	1.974,18	123,39	795,44	2.893,00	797,57	2.095,44	97.913,33	
2,00%	0,13%	62	01-09-1999	1.958,27	122,39	811,35	2.892,01	791,14	2.100,87	97.101,98	
2,00%	0,13%	61	01-12-1999	1.942,04	121,38	827,58	2.891,00	784,58	2.106,41	96.274,40	8.392,83
2,00%	0,13%	60	01-03-2000	1.925,49	120,34	844,13	2.889,96	777,90	2.112,06	95.430,27	
2,00%	0,13%	59	01-06-2000	1.908,61	119,29	861,01	2.888,91	771,08	2.117,83	94.569,26	
2,00%	0,13%	58	01-09-2000	1.891,39	118,21	878,23	2.887,83	764,12	2.123,71	93.691,02	
2,00%	0,13%	57	01-12-2000	1.873,82	117,11	895,80	2.886,73	757,02	2.129,71	92.795,23	8.483,31
2,00%	0,13%	56	01-03-2001	1.855,90	115,99	913,71	2.885,61	749,79	2.135,83	91.881,51	
2,00%	0,13%	55	01-06-2001	1.837,63	114,85	931,99	2.884,47	742,40	2.142,07	90.949,52	
2,00%	0,13%	54	01-09-2001	1.818,99	113,69	950,63	2.883,31	734,87	2.148,43	89.998,89	
2,00%	0,13%	53	01-12-2001	1.799,98	112,50	969,64	2.882,12	727,19	2.154,93	89.029,25	8.581,25
2,00%	0,13%	52	01-03-2002	1.780,59	111,29	989,03	2.880,91	591,15	2.289,75	88.040,22	
2,00%	0,13%	51	01-06-2002	1.760,80	110,05	1.008,81	2.879,67	711,36	2.168,30	87.031,41	
2,00%	0,13%	50	01-09-2002	1.740,63	108,79	1.028,99	2.878,41	703,21	2.175,19	86.002,42	
2,00%	0,13%	49	01-12-2002	1.720,05	107,50	1.049,57	2.877,12	694,90	2.182,22	84.952,85	8.815,47
1,75%	0,13%	48	01-03-2003	1.486,67	106,19	1.143,95	2.736,81	600,62	2.136,20	83.808,90	
1,75%	0,13%	47	01-06-2003	1.466,66	104,76	1.163,97	2.735,39	592,53	2.142,86	82.644,93	
1,75%	0,13%	46	01-09-2003	1.446,29	103,31	1.184,34	2.733,93	480,17	2.253,76	81.460,59	
1,75%	0,13%	45	01-12-2003	1.425,56	101,83	1.205,06	2.732,45	473,29	2.259,16	80.255,53	8.791,98
1,75%	0,13%	44	01-03-2004	1.404,47	100,32	1.226,15	2.730,94	466,28	2.264,66	79.029,37	
1,75%	0,13%	43	01-06-2004	1.383,01	98,79	1.247,61	2.729,41	459,16	2.270,25	77.781,76	
1,75%	0,13%	42	01-09-2004	1.361,18	97,23	1.269,44	2.727,85	451,91	2.275,94	76.512,32	
1,75%	0,13%	41	01-12-2004	1.338,97	95,64	1.291,66	2.726,26	444,54	2.281,73	**75.220,66**	9.092,58

14.1.20 Appendix 20 - Rent/invest 95-04

	Stock	Gov bonds
	80%	20%
administration fee	0,5%	0,5%

stock	80%																															
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	3.208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.208	3.495	4.415	5.712	6.111	8.700	8.625	7.401	5.162	5.785	6.333	7.876	8.585	8.771
1996	2.080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.080	2.595	3.306	3.518	5.027	4.946	4.221	2.954	3.318	3.639	4.539	4.949	5.055
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	537	558	834	784	653	461	519	566	711	770	788
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5.824																0															14.614
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.208	5.575	7.010	9.555	10.187	14.562	14.354	12.276	8.577	9.621	10.537	13.125	14.304	14.614

Government bonds		20%																														
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																				
1979						0	0	0	0	0	0	0	0	0	0	0																		
1980							0	0	0	0	0	0	0	0	0	0	0																	
1981								0	0	0	0	0	0	0	0	0	0	0																
1982									0	0	0	0	0	0	0	0	0	0	0															
1983										0	0	0	0	0	0	0	0	0	0	0														
1984											0	0	0	0	0	0	0	0	0	0	0													
1985												0	0	0	0	0	0	0	0	0	0	0												
1986													0	0	0	0	0	0	0	0	0	0	0											
1987														0	0	0	0	0	0	0	0	0	0	0										
1988															0	0	0	0	0	0	0	0	0	0	0									
1989																0	0	0	0	0	0	0	0	0	0	0								
1990																	0	0	0	0	0	0	0	0	0	0	0							
1991																		0	0	0	0	0	0	0	0	0	0	0						
1992																			0	0	0	0	0	0	0	0	0	0	0					
1993																				0	0	0	0	0	0	0	0	0	0	0				
1994																					0	0	0	0	0	0	0	0	0	0	0			
1995	806		4	802																		828	855	881	909	934	956	982	1.007	1.033	1.064				
1996	523		3	520																			531	542	555	565	574	584	595	606	620	632			
1997	0		0	0																				0	0	0	0	0	0	0	0	0	0		
1998	135		1	134																					137	138	140	142	144	146	149	151	154	156	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	0	
2005																																0	0	0	
2006																																	0	0	
2007																																		0	
				1.456	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	828	1.386	1.423	1.600	1.637	1.670	1.708	1.745	1.786	1.833	784	154	156	156

	1994-2005
	9.621
- period 1978 to 1994M01	0
- Invested amount	5.824
	3.797
- tax free amount	136.600
tax axable amount	(132.803)
tax class B - 43 %	0
net return	(132.803)
+ invested amount	5.824
+ tax free amount	136.600
total	9.621

Investment model 1995-2005M01		invested	2005M01
Investment amount		7.280	
Value from 1978-1994M01			0
Value from 1994-2005			9.621
Value from 2006-2008			0
Total stock value			9.621
Bond value			1.833
Total value			11.454

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stock	3.208	5.575	7.010	9.555	10.187	14.562	14.354	12.276	8.577	9.621
Gov. Bond	828	1.386	1.423	1.600	1.637	1.670	1.708	1.745	1.786	1.833
Total	4.036	6.961	8.433	11.155	11.824	16.232	16.062	14.021	10.362	11.454

	Stock	Gov bonds
	100%	0%
administration fee	0,5%	0,5%

stock	100%																															
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	4.010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.010	4.369	5.518	7.140	7.639	10.875	10.781	9.252	6.453	7.231	7.916	9.845	10.732	10.964
1996	2.599	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.599	3.244	4.133	4.397	6.284	6.183	5.276	3.693	4.147	4.549	5.674	6.186	6.319
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	671	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	671	698	1.043	980	817	576	648	707	888	962	986
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.280																0															18.268
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.010	6.969	8.763	11.944	12.734	18.203	17.943	15.345	10.721	12.026	13.172	16.407	17.880	18.268

	1994-2005
	12.026
- period 1978 to 1994M01	0
- Invested amount	7.280
	4.746
- tax free amount	136.600
tax axable amount	(131.854)
tax class B - 43 %	0
net return	(131.854)
+ invested amount	7.280
+ tax free amount	136.600
total	12.026

Investment model 1995-2005M01		invested	2005M01
Investment amount		7.280	
Value from 1978-1994M01			0
Value from 1994-2005			12.026
Value from 2006-2008			0
Total stock value			12.026
Bond value			0
Total value			12.026

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stock	4.010	6.969	8.763	11.944	12.734	18.203	17.943	15.345	10.721	12.026
Gov. Bond	0	0	0	0	0	0	0	0	0	0
Total	4.010	6.969	8.763	11.944	12.734	18.203	17.943	15.345	10.721	12.026

	Stock	Gov bonds
	50%	50%
administration fee	0,5%	0,5%

stock	50%																																
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	2.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.005	2.185	2.759	3.570	3.820	5.438	5.390	4.626	3.226	3.615	3.958	4.922	5.366	5.482	0
1996	1.300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.300	1.622	2.066	2.199	3.142	3.091	2.638	1.846	2.074	2.274	2.837	3.093	3.159	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	336	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	336	349	522	490	408	288	324	354	444	481	493	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3.640																0																9.134
																	Tax free																
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.005	3.484	4.381	5.972	6.367	9.101	8.971	7.672	5.361	6.013	6.586	8.203	8.940	9.134	

Government bonds		50%																															
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																					
1979						0	0	0	0	0	0	0	0	0	0	0																			
1980							0	0	0	0	0	0	0	0	0	0	0																		
1981								0	0	0	0	0	0	0	0	0	0	0																	
1982									0	0	0	0	0	0	0	0	0	0	0																
1983										0	0	0	0	0	0	0	0	0	0	0															
1984											0	0	0	0	0	0	0	0	0	0	0														
1985												0	0	0	0	0	0	0	0	0	0	0													
1986													0	0	0	0	0	0	0	0	0	0	0												
1987														0	0	0	0	0	0	0	0	0	0	0											
1988															0	0	0	0	0	0	0	0	0	0	0										
1989																0	0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0	0	0				
1995	2.015		10	2.005																		2.071	2.137	2.203	2.272	2.334	2.391	2.454	2.517	2.583	2.660				
1996	1.306		7	1.300																			1.328	1.366	1.386	1.412	1.434	1.461	1.487	1.515	1.550	1.581			
1997	0		0	0																				0	0	0	0	0	0	0	0	0	0		
1998	337		2	336																					342	346	350	355	360	365	373	379	384	391	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	0	
2005																																0	0	0	
2006																																	0	0	
2007																																		0	
				3.640	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.071	3.466	3.568	4.000	4.092	4.176	4.270	4.364	4.464	4.682	1.959	384	391	391

	1994-2005
	6.013
- period 1978 to 1994M01	0
- Invested amount	3.640
	2.373
- tax free amount	136.600
tax axable amount	(134.227)
tax class B - 43 %	0
net return	(134.227)
+ invested amount	3.640
+ tax free amount	136.600
total	6.013

Investment model 1995-2005M01		invested	2005M01
Investment amount		7.280	
Value from 1978-1994M01			0
Value from 1994-2005			6.013
Value from 2006-2008			0
Total stock value			6.013
Bond value			4.582
Total value			10.595

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stock	2.005	3.484	4.381	5.972	6.367	9.101	8.971	7.672	5.361	6.013
Gov. Bond	2.071	3.466	3.558	4.000	4.092	4.176	4.270	4.364	4.464	4.582
Total	4.076	6.950	7.940	9.972	10.459	13.277	13.241	12.036	9.824	10.595

	Stock	Gov bonds
	20%	80%
administration fee	0,5%	0,5%

stock	20%																															
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	802	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	802	874	1.104	1.428	1.528	2.175	2.156	1.850	1.291	1.446	1.583	1.969	2.146	2.193
1996	520	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520	649	827	879	1.257	1.237	1.055	739	829	910	1.135	1.237	1.264
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134	140	209	196	163	115	130	141	178	192	197
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.456																0															3.654
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	802	1.394	1.753	2.389	2.547	3.641	3.589	3.069	2.144	2.405	2.634	3.281	3.576	3.654

Government bonds		80%																														
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																				
1979						0	0	0	0	0	0	0	0	0	0																			
1980							0	0	0	0	0	0	0	0	0	0																		
1981								0	0	0	0	0	0	0	0	0	0																	
1982									0	0	0	0	0	0	0	0	0	0																
1983										0	0	0	0	0	0	0	0	0	0															
1984											0	0	0	0	0	0	0	0	0	0														
1985												0	0	0	0	0	0	0	0	0	0													
1986													0	0	0	0	0	0	0	0	0	0												
1987														0	0	0	0	0	0	0	0	0	0											
1988															0	0	0	0	0	0	0	0	0	0										
1989																0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0				
1995	3.224		16	3.208																		3.314	3.420	3.524	3.636	3.734	3.826	3.927	4.027	4.133	4.255				
1996	2.090		10	2.080																			2.125	2.169	2.218	2.259	2.295	2.337	2.379	2.424	2.480	2.529			
1997	0		0	0																				0	0	0	0	0	0	0	0	0	0		
1998	540		3	537																					546	554	560	568	576	585	596	606	615	625	
1999																										0	0	0	0	0	0	0	0	0	
2000																											0	0	0	0	0	0	0	0	
2001																												0	0	0	0	0	0	0	
2002																													0	0	0	0	0	0	
2003																														0	0	0	0	0	
2004																															0	0	0	
2005																																0	0	
2006																																	0	0	
2007																																		0	
				5.824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.314	5.545	5.693	6.400	6.547	6.681	6.832	6.982	7.142	7.331	3.135	615	625	625

	1994-2005
	2.405
- period 1978 to 1994M01	0
- Invested amount	1.456
	949
- tax free amount	136.600
tax axable amount	(135.651)
tax class B - 43 %	0
net return	(135.651)
+ invested amount	1.456
+ tax free amount	136.600
total	2.405

Investment model 1995-2005M01		invested	2005M01
Investment amount		7.280	
Value from 1978-1994M01			0
Value from 1994-2005			2.405
Value from 2006-2008			0
Total stock value			2.405
Bond value			7.331
Total value			9.737

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stock	802	1.394	1.753	2.389	2.547	3.641	3.589	3.069	2.144	2.405
Gov. Bond	3.314	5.545	5.693	6.400	6.547	6.681	6.832	6.982	7.142	7.331
Total	4.116	6.939	7.446	8.789	9.094	10.322	10.420	10.051	9.286	9.737

	Stock	Gov bonds
	0%	100%
administration fee	0,5%	0,5%

Government bonds		100%																																		
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																					
1979						0	0	0	0	0	0	0	0	0	0																				
1980							0	0	0	0	0	0	0	0	0	0																			
1981								0	0	0	0	0	0	0	0	0	0																		
1982									0	0	0	0	0	0	0	0	0	0																	
1983										0	0	0	0	0	0	0	0	0	0																
1984											0	0	0	0	0	0	0	0	0	0															
1985												0	0	0	0	0	0	0	0	0	0														
1986													0	0	0	0	0	0	0	0	0	0													
1987														0	0	0	0	0	0	0	0	0	0												
1988															0	0	0	0	0	0	0	0	0	0											
1989																0	0	0	0	0	0	0	0	0	0										
1990																	0	0	0	0	0	0	0	0	0	0									
1991																		0	0	0	0	0	0	0	0	0	0								
1992																			0	0	0	0	0	0	0	0	0	0							
1993																				0	0	0	0	0	0	0	0	0	0						
1994																					0	0	0	0	0	0	0	0	0	0						
1995	4.030		20	4.010																		4.142	4.275	4.405	4.544	4.668	4.782	4.908	5.034	5.166	5.319				
1996	2.613		13	2.599																			2.656	2.712	2.773	2.824	2.869	2.921	2.974	3.030	3.100	3.161				
1997	0		0	0																				0	0	0	0	0	0	0	0	0	0			
1998	674		3	671																					683	692	700	710	720	731	745	757	769	781		
1999																										0	0	0	0	0	0	0	0	0		
2000																											0	0	0	0	0	0	0	0		
2001																												0	0	0	0	0	0	0		
2002																													0	0	0	0	0	0		
2003																														0	0	0	0	0		
2004																															0	0	0	0		
2005																																0	0	0		
2006																																	0	0		
2007																																		0		
				7.280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.142	6.931	7.117	8.000	8.184	8.351	8.539	8.727	8.926	9.164	3.918	769	781	781

Investment model 1995-2005M01		invested	2005M01
Investment amount		7.280	
Value from 1978-1994M01			0
Value from 1994-2005			0
Value from 2006-2008			0
Total stock value			0
Bond value			9.164
Total value			9.164

14.1.21 Appendix 21 - Real estate, 98-07

Real estate expenses												
end year		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
real estate - market value		712.825	792.160	876.272	996.558	1.070.224	1.118.835	1.260.927	1.625.462	2.007.666	1.842.788	1.842.788
over/under limit		2.715.367	2.765.451	2.826.459	2.891.304	2.946.939	2.998.028	3.040.000	3.040.000	3.040.000	3.040.000	
real estate tax (flat value	90%	641.543	712.944	788.645	896.902	963.202	1.006.951	1.134.835	1.462.916	1.806.900	1.658.509	
under	0,10%	642	713	789	897	963	1.007	1.135	1.463	1.807	1.659	
over	0,30%	0	0	0	0	0	0	0	0	0	0	
real estate tax (ground)	10%	71.283	79.216	87.627	99.656	107.022	111.883	126.093	162.546	200.767	184.279	
	0,34%	242	269	298	339	364	380	429	553	683	627	
total taxes		884	982	1.087	1.236	1.327	1.387	1.564	2.016	2.490	2.285	
water & drain tax		1.329	1.292	1.146	1.238	1.286	1.401	1.588	1.588	1.616	1.645	
maintenance costs		15.003	13.446	12.935	13.371	13.512	14.292	14.223	14.223	14.479	14.740	
real estate agent fee	3,00%							37.828				55.284
total expenses without agent fee		17.216	15.720	15.168	15.844	16.125	17.079	17.374	17.826	18.585	18.670	169.607
accumulated expenses		17.216	32.936	48.104	63.948	80.073	97.152	114.526	132.352	150.937	224.890	1.617.897

Mortgage and bank annuity loans, 1998-2008M01

1,75%	0,13%	120	01-03-1998	10.325,57	737,54	1.471,05	12.534,16	4.171,53	8.362,63	588.561,33	
1,75%	0,13%	119	01-06-1998	10.299,82	735,70	1.496,79	12.532,32	4.161,13	8.371,19	587.064,54	
1,75%	0,13%	118	01-09-1998	10.273,63	733,83	1.522,99	12.530,45	4.150,55	8.379,90	585.541,55	
1,75%	0,13%	117	01-12-1998	10.246,98	731,93	1.549,64	12.528,54	4.139,78	8.388,76	583.991,91	33.502,48
1,75%	0,13%	116	01-03-1999	10.219,86	729,99	1.576,76	12.526,61	4.128,82	8.397,78	582.415,15	
1,75%	0,13%	115	01-06-1999	10.192,27	728,02	1.604,35	12.524,64	4.117,68	8.406,96	580.810,80	
1,75%	0,13%	114	01-09-1999	10.164,19	726,01	1.632,43	12.522,63	4.106,33	8.416,30	579.178,37	
1,75%	0,13%	113	01-12-1999	10.135,62	723,97	1.660,99	12.520,59	4.094,79	8.425,80	577.517,38	33.646,84
1,75%	0,13%	112	01-03-2000	10.106,55	721,90	1.690,06	12.518,51	4.083,05	8.435,47	575.827,32	
1,75%	0,13%	111	01-06-2000	10.076,98	719,78	1.719,64	12.516,40	4.071,10	8.445,30	574.107,68	
1,75%	0,13%	110	01-09-2000	10.046,88	717,63	1.749,73	12.514,25	4.058,94	8.455,31	572.357,95	
1,75%	0,13%	109	01-12-2000	10.016,26	715,45	1.780,35	12.512,06	4.046,57	8.465,49	570.577,60	33.801,57
1,75%	0,13%	108	01-03-2001	9.985,11	713,22	1.811,51	12.509,84	4.033,98	8.475,85	568.766,09	
1,75%	0,13%	107	01-06-2001	9.953,41	710,96	1.843,21	12.507,57	4.021,18	8.486,40	566.922,88	
1,75%	0,13%	106	01-09-2001	9.921,15	708,65	1.875,47	12.505,27	4.008,14	8.497,13	565.047,41	
1,75%	0,13%	105	01-12-2001	9.888,33	706,31	1.908,29	12.502,93	3.994,89	8.508,04	563.139,13	33.967,42
1,75%	0,13%	104	01-03-2002	9.854,93	703,92	1.941,68	12.500,54	3.271,84	9.228,70	561.197,44	
1,75%	0,13%	103	01-06-2002	9.820,96	701,50	1.975,66	12.498,11	3.260,56	9.237,56	559.221,78	
1,75%	0,13%	102	01-09-2002	9.786,38	699,03	2.010,23	12.495,64	3.249,08	9.246,56	557.211,55	
1,75%	0,13%	101	01-12-2002	9.751,20	696,51	2.045,41	12.493,13	3.237,40	9.255,73	555.166,13	36.968,55
1,75%	0,13%	100	01-03-2003	9.715,41	693,96	2.081,21	12.490,57	3.225,52	9.265,06	553.084,93	
1,75%	0,13%	99	01-06-2003	9.678,99	691,36	2.117,63	12.487,97	3.213,42	9.274,55	550.967,30	
1,75%	0,13%	98	01-09-2003	9.641,93	688,71	2.154,69	12.485,33	3.201,12	9.284,21	548.812,61	
1,75%	0,13%	97	01-12-2003	9.604,22	686,02	2.192,40	12.482,63	3.188,60	9.294,03	546.620,21	37.117,84
1,75%	0,13%	96	01-03-2004	9.565,85	683,28	2.230,76	12.479,89	3.175,86	9.304,03	544.389,45	
1,75%	0,13%	95	01-06-2004	9.526,82	680,49	2.269,80	12.477,10	3.162,90	9.314,20	542.119,65	
1,75%	0,13%	94	01-09-2004	9.487,09	677,65	2.309,52	12.474,27	3.149,72	9.324,55	539.810,13	
1,75%	0,13%	93	01-12-2004	9.446,68	674,76	2.349,94	12.471,38	3.136,30	9.335,08	537.460,19	37.277,86
1,75%	0,13%	92	01-03-2005	9.405,55	671,83	2.391,06	12.468,44	3.122,64	9.345,80	535.069,12	
1,75%	0,13%	91	01-06-2005	9.363,71	668,84	2.432,91	12.465,45	3.108,75	9.356,70	532.636,22	
1,75%	0,13%	90	01-09-2005	9.321,13	665,80	2.475,48	12.462,41	3.094,62	9.367,80	530.160,74	
1,75%	0,13%	89	01-12-2005	9.277,81	662,70	2.518,80	12.459,32	3.080,23	9.379,08	527.641,93	37.449,38
1,75%	0,13%	88	01-03-2006	9.233,73	659,55	2.562,88	12.456,17	3.065,60	9.390,57	525.079,05	
1,75%	0,13%	87	01-06-2006	9.188,88	656,35	2.607,73	12.452,96	3.050,71	9.402,26	522.471,32	
1,75%	0,13%	86	01-09-2006	9.143,25	653,09	2.653,37	12.449,71	3.035,56	9.414,15	519.817,95	
1,75%	0,13%	85	01-12-2006	9.096,81	649,77	2.699,80	12.446,39	3.020,14	9.426,25	517.118,15	37.633,22
1,75%	0,13%	84	01-03-2007	9.049,57	646,40	2.747,05	12.443,01	3.004,46	9.438,56	514.371,10	
1,75%	0,13%	83	01-06-2007	9.001,49	642,96	2.795,12	12.439,58	2.988,50	9.451,08	511.575,98	
1,75%	0,13%	82	01-09-2007	8.952,58	639,47	2.844,04	12.436,09	2.972,26	9.463,83	508.731,94	
1,75%	0,13%	81	01-12-2007	8.902,81	635,91	2.893,81	12.432,53	2.955,73	9.476,80	**505.838,13**	37.830,27
									359.195,43		

2,25%	0,13%	80	01-03-1998	3.319,40	184,41	673,29	4.177,10	1.341,04	2.836,06	146.855,60	
2,25%	0,13%	79	01-06-1998	3.304,25	183,57	688,44	4.176,26	1.334,92	2.841,34	146.167,17	
2,25%	0,13%	78	01-09-1998	3.288,76	182,71	703,93	4.175,40	1.328,66	2.846,74	145.463,24	
2,25%	0,13%	77	01-12-1998	3.272,92	181,83	719,76	4.174,52	1.322,26	2.852,25	144.743,48	11.376,39
2,00%	0,13%	76	01-03-1999	2.894,87	180,93	826,13	3.901,92	1.169,53	2.732,40	143.917,35	
2,00%	0,13%	75	01-06-1999	2.878,35	179,90	842,65	3.900,89	1.162,85	2.738,04	143.074,71	
2,00%	0,13%	74	01-09-1999	2.861,49	178,84	859,50	3.899,84	1.156,04	2.743,79	142.215,20	
2,00%	0,13%	73	01-12-1999	2.844,30	177,77	876,69	3.898,76	1.149,10	2.749,67	141.338,51	10.963,90
2,00%	0,13%	72	01-03-2000	2.826,77	176,67	894,22	3.897,67	1.142,02	2.755,65	140.444,29	
2,00%	0,13%	71	01-06-2000	2.808,89	175,56	912,11	3.896,55	1.134,79	2.761,76	139.532,18	
2,00%	0,13%	70	01-09-2000	2.790,64	174,42	930,35	3.895,41	1.127,42	2.767,99	138.601,83	
2,00%	0,13%	69	01-12-2000	2.772,04	173,25	948,96	3.894,25	1.119,90	2.774,34	137.652,87	11.059,75
2,00%	0,13%	68	01-03-2001	2.753,06	172,07	967,94	3.893,06	1.112,24	2.780,83	136.684,93	
2,00%	0,13%	67	01-06-2001	2.733,70	170,86	987,30	3.891,85	1.104,41	2.787,44	135.697,64	
2,00%	0,13%	66	01-09-2001	2.713,95	169,62	1.007,04	3.890,62	1.096,44	2.794,18	134.690,59	
2,00%	0,13%	65	01-12-2001	2.693,81	168,36	1.027,18	3.889,36	1.088,30	2.801,06	133.663,41	11.163,50
2,00%	0,13%	64	01-03-2002	2.673,27	167,08	1.047,73	3.888,07	887,53	3.000,55	132.615,68	
2,00%	0,13%	63	01-06-2002	2.652,31	165,77	1.068,68	3.886,76	880,57	3.006,20	131.547,00	
2,00%	0,13%	62	01-09-2002	2.630,94	164,43	1.090,06	3.885,43	873,47	3.011,96	130.456,95	
2,00%	0,13%	61	01-12-2002	2.609,14	163,07	1.111,86	3.884,07	866,23	3.017,83	129.345,09	12.036,53
1,75%	0,13%	60	01-03-2003	2.263,54	161,68	1.235,68	3.660,90	751,49	2.909,41	128.109,41	
1,75%	0,13%	59	01-06-2003	2.241,91	160,14	1.257,30	3.659,36	744,32	2.915,04	126.852,11	
1,75%	0,13%	58	01-09-2003	2.219,91	158,57	1.279,31	3.657,78	737,01	2.920,77	125.572,80	
1,75%	0,13%	57	01-12-2003	2.197,52	156,97	1.301,70	3.656,19	729,58	2.926,61	124.271,10	11.671,83
1,75%	0,13%	56	01-03-2004	2.174,74	155,34	1.324,47	3.654,56	722,02	2.932,54	122.946,63	
1,75%	0,13%	55	01-06-2004	2.151,57	153,68	1.347,65	3.652,90	714,32	2.938,58	121.598,97	
1,75%	0,13%	54	01-09-2004	2.127,98	152,00	1.371,24	3.651,22	706,49	2.944,73	120.227,74	
1,75%	0,13%	53	01-12-2004	2.103,99	150,28	1.395,23	3.649,50	698,52	2.950,98	118.832,50	11.766,83
1,50%	0,13%	52	01-03-2005	1.782,49	148,54	1.524,96	3.455,99	591,79	2.864,20	117.307,54	
1,50%	0,13%	51	01-06-2005	1.759,61	146,63	1.547,84	3.454,08	584,19	2.869,89	115.759,70	
1,50%	0,13%	50	01-09-2005	1.736,40	144,70	1.571,05	3.452,15	576,48	2.875,67	114.188,65	
1,50%	0,13%	49	01-12-2005	1.712,83	142,74	1.594,62	3.450,19	568,66	2.881,53	112.594,03	11.491,29
1,50%	0,13%	48	01-03-2006	1.688,91	140,74	1.618,54	3.448,19	560,72	2.887,47	110.975,49	
1,50%	0,13%	47	01-06-2006	1.664,63	138,72	1.642,82	3.446,17	552,66	2.893,51	109.332,67	
1,50%	0,13%	46	01-09-2006	1.639,99	136,67	1.667,46	3.444,12	544,48	2.899,64	107.665,21	
1,50%	0,13%	45	01-12-2006	1.614,98	134,58	1.692,47	3.442,03	536,17	2.905,86	105.972,74	11.586,48
1,50%	0,13%	44	01-03-2007	1.589,59	132,47	1.717,86	3.439,92	527,74	2.912,17	104.254,88	
1,50%	0,13%	43	01-06-2007	1.563,82	130,32	1.743,63	3.437,77	519,19	2.918,58	102.511,26	
1,50%	0,13%	42	01-09-2007	1.537,67	128,14	1.769,78	3.435,59	510,51	2.925,08	100.741,48	
1,50%	0,13%	41	01-12-2007	1.511,12	125,93	1.796,33	3.433,38	501,69	2.931,68	**98.945,15**	11.687,52

14.1.22 Appendix 22 - Rent/invest 98-07

	Stock	Gov bonds
	80%	20%
administration fee	0,5%	0,5%

stock	80%																																
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	9.330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.330	9.699	14.503	13.622	11.357	8.007	9.013	9.833	12.351	13.382	13.696
1999	7.010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.010	10.647	9.937	8.221	5.812	6.561	7.164	9.008	9.800	10.134
2000	5.821	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.821	5.549	4.635	3.279	3.710	4.062	5.146	5.595	5.717
2001	5.366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.366	4.437	3.145	3.542	3.866	4.880	5.267	5.341
2002	7.584	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.584	5.397	6.093	6.650	8.429	9.071	9.188
2003	6.918	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.918	7.794	8.494	10.733	11.565	11.739
2004	5.941	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.941	6.455	8.134	8.762	8.879
2005	5.134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.134	6.458	6.943	7.027
2006	4.983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.983	5.373	5.459
2007	4.283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.283	4.310
	62.369																0															81.489
																	Tax free																
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.330	16.708	30.971	34.474	36.234	32.558	42.655	51.678	70.121	80.041	81.489

Government bonds		20%																															
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																					
1979						0	0	0	0	0	0	0	0	0	0																				
1980							0	0	0	0	0	0	0	0	0	0																			
1981								0	0	0	0	0	0	0	0	0	0																		
1982									0	0	0	0	0	0	0	0	0	0																
1983										0	0	0	0	0	0	0	0	0	0															
1984											0	0	0	0	0	0	0	0	0	0														
1985												0	0	0	0	0	0	0	0	0	0													
1986													0	0	0	0	0	0	0	0	0	0												
1987														0	0	0	0	0	0	0	0	0	0											
1988															0	0	0	0	0	0	0	0	0	0										
1989																0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0				
1995																						0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998	2.344		12	2.333																					2.374	2.407	2.434	2.468	2.502	2.540	2.590	2.632	2.672	2.715	
1999	1.761		9	1.752																						1.767	1.778	1.794	1.809	1.828	1.855	1.877	1.898	1.920	
2000	1.463		7	1.455																							1.472	1.494	1.515	1.538	1.569	1.595	1.621	1.648	
2001	1.348		7	1.341																								1.361	1.380	1.402	1.431	1.455	1.478	1.503	
2002	1.906		10	1.896																									1.924	1.954	1.995	2.029	2.062	2.097	
2003	1.738		9	1.730																										1.738	1.766	1.797	1.778	1.791	
2004	1.493		7	1.485																											1.500	1.510	1.519	1.530	
2005	1.290		6	1.283																												1.292	1.300	1.324	
2006	1.252		6	1.246																													1.253	1.262	
2007	1.076		5	1.071																														1.084	
				15.592	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.374	4.174	5.685	7.116	9.130	11.001	12.696	14.157	15.581	16.875	16.875

	1994-2005
	71.720
- period 1978 to 1994M01	0
- Invested amount	53.104
	18.617
- tax free amount	136.600
tax axable amount	(117.983)
tax class B - 43 %	0
net return	(117.983)
+ invested amount	53.104
+ tax free amount	136.600
total	71.720
	2006-2008
	9.769
- Invested amount	9.265
tax axable amount	503
tax class C - 28 %	141
	362
+ invested amount	9.265
total	9.628

Investment model 1998-2008M01		invested	2008M01
Investment amount		77.961	
Value from 1978-1994M01			0
Value from 1994-2005			71.720
Value from 2006-2008			9.628
Total stock value			81.348
Bond value			16.875
Total value			98.223

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	9.330	16.708	30.971	34.474	36.234	32.558	42.655	51.678	70.121	80.041	81.348
Gov. Bond	2.374	4.174	5.685	7.116	9.130	11.001	12.696	14.157	15.581	16.875	16.875
Total	11.704	20.882	36.656	41.590	45.364	43.560	55.351	65.836	85.702	96.916	98.223

	Stock	Gov bonds
	100%	0%
administration fee	0,5%	0,5%

stock	100%																														
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	11.663	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.663	12.123	18.129	17.028	14.196	10.009	11.266	12.291	15.438	16.727	17.120
1999	8.762	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.762	13.309	12.421	10.277	7.264	8.201	8.955	11.260	12.250	12.668
2000	7.276	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.276	6.936	5.794	4.099	4.638	5.103	6.433	6.994	7.146
2001	6.707	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.707	5.546	3.931	4.428	4.833	6.100	6.583	6.676
2002	9.480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.480	6.746	7.616	8.313	10.536	11.339	11.485
2003	8.648	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.648	9.743	10.617	13.416	14.457	14.673
2004	7.426	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.426	8.069	10.168	10.952	11.098
2005	6.417	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.417	8.073	8.679	8.783
2006	6.228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.228	6.716	6.824
2007	5.353	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.353	5.387
	77.961																0															101.861
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.663	20.885	38.714	43.092	45.292	40.698	53.319	64.598	87.652	100.051	101.861

	1994-2005
	89.650
- period 1978 to 1994M01	0
- Invested amount	66.379
	23.271
- tax free amount	136.600
tax axable amount	(113.329)
tax class B - 43 %	0
net return	(113.329)
+ invested amount	66.379
+ tax free amount	136.600
total	89.650
	2006-2008
	12.211
- Invested amount	11.582
tax axable amount	629
tax class C - 28 %	176
	453
+ invested amount	11.582
total	12.035

Investment model 1998-2008M01		invested	2008M01
Investment amount		77.961	
Value from 1978-1994M01			0
Value from 1994-2005			89.650
Value from 2006-2008			12.035
Total stock value			101.685
Bond value			0
Total value			101.685

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	11.663	20.885	38.714	43.092	45.292	40.698	53.319	64.598	87.652	100.051	101.685
Gov. Bond	0	0	0	0	0	0	0	0	0	0	0
Total	11.663	20.885	38.714	43.092	45.292	40.698	53.319	64.598	87.652	100.051	101.685

	Stock	Gov bonds
	50%	50%
administration fee	0,5%	0,5%

stock	50%																														
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	5.831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.831	6.062	9.064	8.514	7.098	5.004	5.633	6.145	7.719	8.364	8.560
1999	4.381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.381	6.654	6.211	5.138	3.632	4.101	4.478	5.630	6.125	6.334
2000	3.638	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.638	3.468	2.897	2.050	2.319	2.551	3.216	3.497	3.573
2001	3.353	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.353	2.773	1.966	2.214	2.416	3.050	3.292	3.338
2002	4.740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.740	3.373	3.808	4.156	5.268	5.670	5.742
2003	4.324	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.324	4.872	5.308	6.708	7.228	7.337
2004	3.713	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.713	4.035	5.084	5.476	5.549
2005	3.209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.209	4.036	4.340	4.392
2006	3.114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.114	3.358	3.412
2007	2.677	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.677	2.694
	38.981																0															50.931
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.831	10.443	19.357	21.546	22.646	20.349	26.659	32.299	43.826	50.026	50.931

Government bonds		50%																														
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																				
1979						0	0	0	0	0	0	0	0	0	0																			
1980							0	0	0	0	0	0	0	0	0	0																		
1981								0	0	0	0	0	0	0	0	0	0																	
1982									0	0	0	0	0	0	0	0	0	0																
1983										0	0	0	0	0	0	0	0	0	0															
1984											0	0	0	0	0	0	0	0	0	0														
1985												0	0	0	0	0	0	0	0	0	0													
1986													0	0	0	0	0	0	0	0	0	0												
1987														0	0	0	0	0	0	0	0	0	0											
1988															0	0	0	0	0	0	0	0	0	0										
1989																0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0				
1995																						0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998	5.861		29	5.831																					5.936	6.017	6.086	6.171	6.256	6.351	6.475	6.579	6.680	6.788	
1999	4.403		22	4.381																						4.418	4.445	4.484	4.523	4.570	4.639	4.693	4.744	4.801	
2000	3.656		18	3.638																							3.681	3.734	3.787	3.846	3.923	3.988	4.052	4.119	
2001	3.370		17	3.353																								3.402	3.451	3.506	3.577	3.637	3.695	3.757	
2002	4.764		24	4.740																									4.809	4.886	4.987	5.072	5.154	5.242	
2003	4.346		22	4.324																										4.346	4.389	4.418	4.445	4.477	
2004	3.732		19	3.713																											3.751	3.776	3.799	3.826	
2005	3.225		16	3.209																												3.230	3.250	3.311	
2006	3.130		16	3.114																													3.133	3.156	
2007	2.690		13	2.677																														2.711	
				38.981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.936	10.435	14.212	17.791	22.826	27.504	31.740	35.393	38.952	42.187	42.187

	1994-2005
	44.825
- period 1978 to 1994M01	0
- Invested amount	33.190
	11.635
- tax free amount	136.600
tax axable amount	(124.965)
tax class B - 43 %	0
net return	(124.965)
+ invested amount	33.190
+ tax free amount	136.600
total	44.825
	2006-2008
	6.105
- Invested amount	5.791
tax axable amount	315
tax class C - 28 %	88
	226
+ invested amount	5.791
total	6.017

Investment model 1998-2008M01		invested	2008M01
Investment amount		77.961	
Value from 1978-1994M01			0
Value from 1994-2005			44.825
Value from 2006-2008			6.017
Total stock value			50.842
Bond value			42.187
Total value			93.029

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	5.831	10.443	19.357	21.546	22.646	20.349	26.659	32.299	43.826	50.026	50.842
Gov. Bond	5.936	10.435	14.212	17.791	22.826	27.504	31.740	35.393	38.952	42.187	42.187
Total	11.767	20.878	33.568	39.337	45.472	47.852	58.400	67.692	82.778	92.212	93.029

	Stock	Gov bonds
	20%	80%
administration fee	0,5%	0,5%

stock	20%																															
Year	investment	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	2.333	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.333	2.425	3.626	3.406	2.839	2.002	2.253	2.458	3.088	3.345	3.424
1999	1.752	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.752	2.662	2.484	2.055	1.453	1.640	1.791	2.252	2.450	2.534
2000	1.455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.455	1.387	1.159	820	928	1.021	1.267	1.399	1.429
2001	1.341	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.341	1.109	786	886	967	1.220	1.317	1.336
2002	1.896	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.896	1.349	1.523	1.663	2.107	2.268	2.297
2003	1.730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.730	1.949	2.123	2.683	2.891	2.935
2004	1.485	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.485	1.614	2.034	2.190	2.220
2005	1.283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.283	1.615	1.736	1.757
2006	1.246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.246	1.343	1.365
2007	1.071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.071	1.077
	15.592																0															20.372
																	Tax free															
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.333	4.177	7.743	8.618	9.058	8.140	10.664	12.920	17.530	20.010	20.372

Government bonds		80%																														
Year	Initial inv.	Inv + re inv	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																				
1979						0	0	0	0	0	0	0	0	0	0																			
1980							0	0	0	0	0	0	0	0	0	0																		
1981								0	0	0	0	0	0	0	0	0	0																	
1982									0	0	0	0	0	0	0	0	0	0																
1983										0	0	0	0	0	0	0	0	0	0															
1984											0	0	0	0	0	0	0	0	0	0														
1985												0	0	0	0	0	0	0	0	0	0													
1986													0	0	0	0	0	0	0	0	0	0												
1987														0	0	0	0	0	0	0	0	0	0											
1988															0	0	0	0	0	0	0	0	0	0										
1989																0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0				
1995																						0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998	9.377		47	9.330																					9.497	9.628	9.738	9.874	10.009	10.161	10.359	10.527	10.689	10.861	
1999	7.045		35	7.010																						7.069	7.112	7.175	7.237	7.312	7.422	7.506	7.591	7.681	
2000	5.850		29	5.821																							5.889	5.974	6.059	6.153	6.277	6.381	6.483	6.590	
2001	5.393		27	5.366																								5.444	5.522	5.609	5.723	5.819	5.912	6.012	
2002	7.622		38	7.584																									7.694	7.818	7.979	8.115	8.247	8.387	
2003	6.953		35	6.918																										6.953	7.023	7.089	7.112	7.162	
2004	5.971		30	5.941																											6.001	6.041	6.078	6.121	
2005	5.160		26	5.134																												5.168	5.200	5.298	
2006	5.008		25	4.983																													5.013	5.050	
2007	4.304		22	4.283																														4.338	
				62.369	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.497	16.696	22.739	28.466	36.522	44.006	50.785	56.629	62.324	67.499	67.499

	1994-2005
	17.930
- period 1978 to 1994M01	0
- Invested amount	13.276
	4.654
- tax free amount	136.600
tax axable amount	(131.946)
tax class B - 43 %	0
net return	(131.946)
+ invested amount	13.276
+ tax free amount	136.600
total	17.930
	2006-2008
	2.442
- Invested amount	2.316
tax axable amount	126
tax class C - 28 %	35
	91
+ invested amount	2.316
total	2.407

Investment model 1998-2008M01		invested	2008M01
Investment amount		77.961	
Value from 1978-1994M01			0
Value from 1994-2005			17.930
Value from 2006-2008			2.407
Total stock value			20.337
Bond value			67.499
Total value			87.836

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	2.333	4.177	7.743	8.618	9.058	8.140	10.664	12.920	17.530	20.010	20.337
Gov. Bond	9.497	16.696	22.739	28.466	36.522	44.006	50.785	56.629	62.324	67.499	67.499
Total	11.830	20.874	30.481	37.084	45.580	52.145	61.448	69.549	79.854	87.509	87.836

	Stock	Gov bonds
	0%	100%
administration fee	0,5%	0,5%

Government bonds		100%																																
Year	Initial inv.	Inv + re inv.	Adm fee		1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
1978					0	0	0	0	0	0	0	0	0	0																					
1979						0	0	0	0	0	0	0	0	0	0																				
1980							0	0	0	0	0	0	0	0	0	0																			
1981								0	0	0	0	0	0	0	0	0	0																		
1982									0	0	0	0	0	0	0	0	0	0																	
1983										0	0	0	0	0	0	0	0	0	0																
1984											0	0	0	0	0	0	0	0	0	0															
1985												0	0	0	0	0	0	0	0	0	0														
1986													0	0	0	0	0	0	0	0	0	0													
1987														0	0	0	0	0	0	0	0	0	0												
1988															0	0	0	0	0	0	0	0	0	0											
1989																0	0	0	0	0	0	0	0	0	0									
1990																	0	0	0	0	0	0	0	0	0	0								
1991																		0	0	0	0	0	0	0	0	0	0							
1992																			0	0	0	0	0	0	0	0	0	0						
1993																				0	0	0	0	0	0	0	0	0	0					
1994																					0	0	0	0	0	0	0	0	0	0				
1995																						0	0	0	0	0	0	0	0	0	0			
1996																							0	0	0	0	0	0	0	0	0	0		
1997																								0	0	0	0	0	0	0	0	0	0		
1998	11.721		59	11.663																					11.872	12.035	12.172	12.342	12.512	12.701	12.949	13.158	13.361	13.576	
1999	8.806		44	8.762																						8.836	8.890	8.968	9.047	9.140	9.277	9.385	9.488	9.601	
2000	7.313		37	7.276																							7.362	7.468	7.573	7.692	7.846	7.977	8.103	8.238	
2001	6.741		34	6.707																								6.805	6.902	7.011	7.154	7.274	7.391	7.514	
2002	9.528		48	9.480																									9.618	9.772	9.974	10.144	10.308	10.483	
2003	8.691		43	8.648																										8.692	8.779	8.837	8.890	8.953	
2004	7.464		37	7.428																											7.501	7.551	7.597	7.651	
2005	6.450		32	6.417																												6.460	6.500	6.622	
2006	6.259		31	6.228																													6.267	6.312	
2007	5.380		27	5.353																														5.422	
				77.961	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.872	20.871	28.423	35.582	45.652	55.007	63.481	70.787	77.904	84.373	84.373

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008M01
Stock	0	0	0	0	0	0	0	0	0	0	0
Gov. Bond	11.872	20.871	28.423	35.582	45.652	55.007	63.481	70.787	77.904	84.373	84.373
Total	11.872	20.871	28.423	35.582	45.652	55.007	63.481	70.787	77.904	84.373	84.373

14.1.23 Appendix 23 - Deduction decrease, 98-07

25 % deduction decrease						
	Expenses	Mortgage net payment	Bank loan net payment	Total	Rental expenses	Rental excess capital
1998	17.216	37.782	12.748	67.745	50.373	17.372
1999	15.720	37.881	12.158	65.759	51.525	14.234
2000	15.168	37.987	12.224	65.379	52.716	12.663
2001	15.844	38.101	12.297	66.242	54.234	12.008
2002	16.125	40.184	12.903	69.212	55.602	13.610
2003	17.079	40.286	12.404	69.769	57.178	12.592
2004	17.374	40.396	12.469	70.239	58.955	11.284
2005	17.826	40.514	12.065	70.404	60.317	10.087
2006	18.585	40.640	12.128	71.353	61.545	9.808
2007	18.670	40.775	12.196	71.641	62.807	8.833

		Adjusted	Normal	Effect
	year	Rental excess capital	Rental excess capital	difference
	1998	17.372	17.372	0
	1999	14.234	14.234	0
	2000	12.663	12.663	0
	2001	12.008	12.008	0
	2002	13.610	13.610	0
	2003	12.592	12.592	0
	2004	11.284	11.284	0
	2005	10.087	10.087	0
	2006	9.808	9.808	0
	2007	8.833	8.833	0

Mortgage and bank loan model, 98-07 (25 percent deduction decrease).

1,75%	0,13%	120	01-03-1998	10.325,57	737,54	1.471,05	12.534,16	3.097,67	9.436,49	588.561,33	
1,75%	0,13%	119	01-06-1998	10.299,82	735,70	1.496,79	12.532,32	3.089,95	9.442,37	587.064,54	
1,75%	0,13%	118	01-09-1998	10.273,63	733,83	1.522,99	12.530,45	3.082,09	9.448,36	585.541,55	
1,75%	0,13%	117	01-12-1998	10.246,98	731,93	1.549,64	12.528,54	3.074,09	9.454,45	583.991,91	37.781,67
1,75%	0,13%	116	01-03-1999	10.219,86	729,99	1.576,76	12.526,61	3.065,96	9.460,65	582.415,15	
1,75%	0,13%	115	01-06-1999	10.192,27	728,02	1.604,35	12.524,64	3.057,68	9.466,96	580.810,80	
1,75%	0,13%	114	01-09-1999	10.164,19	726,01	1.632,43	12.522,63	3.049,26	9.473,37	579.178,37	
1,75%	0,13%	113	01-12-1999	10.135,62	723,97	1.660,99	12.520,59	3.040,69	9.479,90	577.517,38	37.880,88
1,75%	0,13%	112	01-03-2000	10.106,55	721,90	1.690,06	12.518,51	3.031,97	9.486,55	575.827,32	
1,75%	0,13%	111	01-06-2000	10.076,98	719,78	1.719,64	12.516,40	3.023,09	9.493,31	574.107,68	
1,75%	0,13%	110	01-09-2000	10.046,88	717,63	1.749,73	12.514,25	3.014,07	9.500,19	572.357,95	
1,75%	0,13%	109	01-12-2000	10.016,26	715,45	1.780,35	12.512,06	3.004,88	9.507,18	570.577,60	37.987,22
1,75%	0,13%	108	01-03-2001	9.985,11	713,22	1.811,51	12.509,84	2.995,53	9.514,31	568.766,09	
1,75%	0,13%	107	01-06-2001	9.953,41	710,96	1.843,21	12.507,57	2.986,02	9.521,55	566.922,88	
1,75%	0,13%	106	01-09-2001	9.921,15	708,65	1.875,47	12.505,27	2.976,35	9.528,92	565.047,41	
1,75%	0,13%	105	01-12-2001	9.888,33	706,31	1.908,29	12.502,93	2.966,50	9.536,43	563.139,13	38.101,21
1,75%	0,13%	104	01-03-2002	9.854,93	703,92	1.941,68	12.500,54	2.463,73	10.036,81	561.197,44	
1,75%	0,13%	103	01-06-2002	9.820,96	701,50	1.975,66	12.498,11	2.455,24	10.042,87	559.221,78	
1,75%	0,13%	102	01-09-2002	9.786,38	699,03	2.010,23	12.495,64	2.446,60	10.049,05	557.211,55	
1,75%	0,13%	101	01-12-2002	9.751,20	696,51	2.045,41	12.493,13	2.437,80	10.055,33	555.166,13	40.184,06
1,75%	0,13%	100	01-03-2003	9.715,41	693,96	2.081,21	12.490,57	2.428,85	10.061,72	553.084,93	
1,75%	0,13%	99	01-06-2003	9.678,99	691,36	2.117,63	12.487,97	2.419,75	10.068,23	550.967,30	
1,75%	0,13%	98	01-09-2003	9.641,93	688,71	2.154,69	12.485,33	2.410,48	10.074,84	548.812,61	
1,75%	0,13%	97	01-12-2003	9.604,22	686,02	2.192,40	12.482,63	2.401,06	10.081,58	546.620,21	40.286,37
1,75%	0,13%	96	01-03-2004	9.565,85	683,28	2.230,76	12.479,89	2.391,46	10.088,43	544.389,45	
1,75%	0,13%	95	01-06-2004	9.526,82	680,49	2.269,80	12.477,10	2.381,70	10.095,40	542.119,65	
1,75%	0,13%	94	01-09-2004	9.487,09	677,65	2.309,52	12.474,27	2.371,77	10.102,49	539.810,13	
1,75%	0,13%	93	01-12-2004	9.446,68	674,76	2.349,94	12.471,38	2.361,67	10.109,71	537.460,19	40.396,03
1,75%	0,13%	92	01-03-2005	9.405,55	671,83	2.391,06	12.468,44	2.351,39	10.117,05	535.069,12	
1,75%	0,13%	91	01-06-2005	9.363,71	668,84	2.432,91	12.465,45	2.340,93	10.124,53	532.636,22	
1,75%	0,13%	90	01-09-2005	9.321,13	665,80	2.475,48	12.462,41	2.330,28	10.132,13	530.160,74	
1,75%	0,13%	89	01-12-2005	9.277,81	662,70	2.518,80	12.459,32	2.319,45	10.139,86	527.641,93	40.513,57
1,75%	0,13%	88	01-03-2006	9.233,73	659,55	2.562,88	12.456,17	2.308,43	10.147,74	525.079,05	
1,75%	0,13%	87	01-06-2006	9.188,88	656,35	2.607,73	12.452,96	2.297,22	10.155,74	522.471,32	
1,75%	0,13%	86	01-09-2006	9.143,25	653,09	2.653,37	12.449,71	2.285,81	10.163,89	519.817,95	
1,75%	0,13%	85	01-12-2006	9.096,81	649,77	2.699,80	12.446,39	2.274,20	10.172,19	517.118,15	40.639,56
1,75%	0,13%	84	01-03-2007	9.049,57	646,40	2.747,05	12.443,01	2.262,39	10.180,62	514.371,10	
1,75%	0,13%	83	01-06-2007	9.001,49	642,96	2.795,12	12.439,58	2.250,37	10.189,21	511.575,98	
1,75%	0,13%	82	01-09-2007	8.952,58	639,47	2.844,04	12.436,09	2.238,14	10.197,94	508.731,94	
1,75%	0,13%	81	01-12-2007	8.902,81	635,91	2.893,81	12.432,53	2.225,70	10.206,83	**505.838,13**	40.774,60
									394.545,16		
2,25%	0,13%	80	01-03-1998	3.319,40	184,41	673,29	4.177,10	995,82	3.181,28	146.855,60	
2,25%	0,13%	79	01-06-1998	3.304,25	183,57	688,44	4.176,26	991,28	3.184,98	146.167,17	
2,25%	0,13%	78	01-09-1998	3.288,76	182,71	703,93	4.175,40	986,63	3.188,77	145.463,24	
2,25%	0,13%	77	01-12-1998	3.272,92	181,83	719,76	4.174,52	981,88	3.192,64	144.743,48	12.747,66
2,00%	0,13%	76	01-03-1999	2.894,87	180,93	826,13	3.901,92	868,46	3.033,46	143.917,35	
2,00%	0,13%	75	01-06-1999	2.878,35	179,90	842,65	3.900,89	863,50	3.037,39	143.074,71	
2,00%	0,13%	74	01-09-1999	2.861,49	178,84	859,50	3.899,84	858,45	3.041,39	142.215,20	
2,00%	0,13%	73	01-12-1999	2.844,30	177,77	876,69	3.898,76	853,29	3.045,47	141.338,51	12.157,71
2,00%	0,13%	72	01-03-2000	2.826,77	176,67	894,22	3.897,67	848,03	3.049,64	140.444,29	
2,00%	0,13%	71	01-06-2000	2.808,89	175,56	912,11	3.896,55	842,67	3.053,88	139.532,18	
2,00%	0,13%	70	01-09-2000	2.790,64	174,42	930,35	3.895,41	837,19	3.058,22	138.601,83	
2,00%	0,13%	69	01-12-2000	2.772,04	173,25	948,96	3.894,25	831,61	3.062,64	137.652,87	12.224,38
2,00%	0,13%	68	01-03-2001	2.753,06	172,07	967,94	3.893,06	825,92	3.067,14	136.684,93	
2,00%	0,13%	67	01-06-2001	2.733,70	170,86	987,30	3.891,85	820,11	3.071,74	135.697,64	
2,00%	0,13%	66	01-09-2001	2.713,95	169,62	1.007,04	3.890,62	814,19	3.076,43	134.690,59	
2,00%	0,13%	65	01-12-2001	2.693,81	168,36	1.027,18	3.889,36	808,14	3.081,21	133.663,41	12.296,53
2,00%	0,13%	64	01-03-2002	2.673,27	167,08	1.047,73	3.888,07	668,32	3.219,76	132.615,68	
2,00%	0,13%	63	01-06-2002	2.652,31	165,77	1.068,68	3.886,76	663,08	3.223,69	131.547,00	
2,00%	0,13%	62	01-09-2002	2.630,94	164,43	1.090,06	3.885,43	657,74	3.227,69	130.456,95	
2,00%	0,13%	61	01-12-2002	2.609,14	163,07	1.111,86	3.884,07	652,28	3.231,78	129.345,09	12.902,92
1,75%	0,13%	60	01-03-2003	2.263,54	161,68	1.235,68	3.660,90	565,88	3.095,02	128.109,41	
1,75%	0,13%	59	01-06-2003	2.241,91	160,14	1.257,30	3.659,36	560,48	3.098,88	126.852,11	
1,75%	0,13%	58	01-09-2003	2.219,91	158,57	1.279,31	3.657,78	554,98	3.102,81	125.572,80	
1,75%	0,13%	57	01-12-2003	2.197,52	156,97	1.301,70	3.656,19	549,38	3.106,80	124.271,10	12.403,50
1,75%	0,13%	56	01-03-2004	2.174,74	155,34	1.324,47	3.654,56	543,69	3.110,87	122.946,63	
1,75%	0,13%	55	01-06-2004	2.151,57	153,68	1.347,65	3.652,90	537,89	3.115,01	121.598,97	
1,75%	0,13%	54	01-09-2004	2.127,98	152,00	1.371,24	3.651,22	532,00	3.119,22	120.227,74	
1,75%	0,13%	53	01-12-2004	2.103,99	150,28	1.395,23	3.649,50	526,00	3.123,51	118.832,50	12.468,61
1,50%	0,13%	52	01-03-2005	1.782,49	148,54	1.524,96	3.455,99	445,62	3.010,37	117.307,54	
1,50%	0,13%	51	01-06-2005	1.759,61	146,63	1.547,84	3.454,08	439,90	3.014,18	115.759,70	
1,50%	0,13%	50	01-09-2005	1.736,40	144,70	1.571,05	3.452,15	434,10	3.018,05	114.188,65	
1,50%	0,13%	49	01-12-2005	1.712,83	142,74	1.594,62	3.450,19	428,21	3.021,98	112.594,03	12.064,58
1,50%	0,13%	48	01-03-2006	1.688,91	140,74	1.618,54	3.448,19	422,23	3.025,96	110.975,49	
1,50%	0,13%	47	01-06-2006	1.664,63	138,72	1.642,82	3.446,17	416,16	3.030,01	109.332,67	
1,50%	0,13%	46	01-09-2006	1.639,99	136,67	1.667,46	3.444,12	410,00	3.034,12	107.665,21	
1,50%	0,13%	45	01-12-2006	1.614,98	134,58	1.692,47	3.442,03	403,74	3.038,29	105.972,74	12.128,38
1,50%	0,13%	44	01-03-2007	1.589,59	132,47	1.717,86	3.439,92	397,40	3.042,52	104.254,88	
1,50%	0,13%	43	01-06-2007	1.563,82	130,32	1.743,63	3.437,77	390,96	3.046,81	102.511,26	
1,50%	0,13%	42	01-09-2007	1.537,67	128,14	1.769,78	3.435,59	384,42	3.051,17	100.741,48	
1,50%	0,13%	41	01-12-2007	1.511,12	125,93	1.796,33	3.433,38	377,78	3.055,60	**98.945,15**	12.196,10

14.1.24 Appendix 24 - Risk and return

	state	probability	return	Exp return	variance	standard d	covarians	correlation			
A	good	25%	80%	20,00%	0,105625						
	normal	50%	10%	5,00%	0,00125						
	bad	25%	-40%	-10,00%	0,075625						
				15,00%	**0,1825**	**0,4272**					
B	good	25%	-30%	-7,50%	0,035156			0,0246			
	normal	50%	-20%	-10,00%	0,037813						
	bad	25%	100%	25,00%	0,213906						
				7,50%	**0,286875**	**0,535607**					
		inv %									
A		60%	15,00%								
B		40%	7,50%	**12,00%**							
	good	25%		36,00%	0,0144						
	normal	50%		-2,00%	0,0098						
	bad	25%		16,00%	0,0004						
					0,0246	**0,156844**	**-0,18125**	**-0,79214**			

A	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
B	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Expected return	0,1500	0,1425	0,1350	0,1275	0,1200	0,1125	0,1050	0,0975	0,0900	0,0825	0,0750
Std deviation	0,4272	0,3436	0,2651	0,1978	0,1568	0,1635	0,2132	0,2844	0,3646	0,4490	0,5356