The accessibility to the Dutch housing market for Flexhouseholds

The interplay between flexible labour agreements, financial services and the housing market.

Master thesis
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Colophon

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Abstract

The Netherlands is facing pressure on the housing market and the prices are increasing drastically. The accessibility to the housing market decreases and moving becomes harder. With the flexibilization of the labour market, more households face income uncertainty, which can affect their possibilities on the housing market. Flexworkers, labourers with a temporary contract and zzpers together are labelled ''flexhouseholds''. The accessibility of flexhouseholds to housing, are dependant of three markets which are connected to one another. These markets are: the housing market, the labour market and the financial market. To understand how the flexhouseholds are affected in their accessibility to the housing market, this thesis aims to answer the question *''What are the effects of the flexibilization of the labour market on the accessibility of flexhouseholds on the housing market?''.* The research methods which will be used in order to answer the main question, are divided into two categories. First, a qualitative study will be conducted, this will be done through the use of literature study, source study and the use of interviews. After this is done the quantitative study will be conducted with the DNB households survey. The statistical study will be focused on researching the differences between the permanent households and the flexhouseholds on the housing market. The goal of this research is to give valuable insights on the position of flexhouseholds on the housing, labour and financial market and in understanding how these markets influence one another. The outcomes of this research show that zzp households have the highest accessibility to the housing market of the three flexhousehold groups. Because of their labour agreement additional restrictions on obtaining a mortgage are imposed, such as getting a research forecast, and a lower percentage of the mortgage if the NHG is not used. However, their older age and high incomes makes the effects of their labour agreements minimal, making them equal or sometimes even in a better position than permanent households. For the temporary households, the theory points out that they have the least restrictions in obtaining a owner occupied or rental dwelling. However, in practice they are second in obtaining in a dwelling. This has to do with the young age and therefore lower savings than the zzp households and general lower incomes. The flexworker households have the lowest accessibility because of the restricting factos based on their labour agreements, their financial situation and also their future work perspectives. Financial institutions need to make use of more tailor made mortgages lending, in which the circumstances and characteristics of the flexhouseholds are taken into account.

Key words: flexworkers, housing market, labour agreements, financial market

Preface

Before you lies the graduation thesis **''The accessibility to the Dutch housing market for Flexhouseholds''**, written for the finalization of the Master ''Management in the Built Environment'' of the Technical University Delft. Obtaining a dwelling in the Netherlands is become harder every day that passes. With me being on the verge of starting my professional career in Real Estate, in which it is highly likely that I will get flexible labour agreement, it would be very interesting to research to which degree the housing market would be accessible for households with those flexible labour agreements. During the study we often talked with friends and family about how a basic good such as a dwelling is becoming a luxury good which is not obtainable for everyone. With the desire to become a developer in the field with a focus on housing, I thought about giving it a try. When I started with my graduation thesis I wanted to focus on the middle segment incomes, however I quickly saw how diverse the groups of flexible labour agreements were and that scoping the research to only the middle segment, would leave out valuable insights on these households in general. During the research I discovered that flexible labour agreements are already a present-day topic and that various political parties and employee organization are pleading to get something changed. With this in mind and with the desire to see how ''flexhouseholds'' are positioned in the current housing market because of their labour agreement, I aimed to create a research to investigate this. With the localization of the position of flexhouseholds on the labour, housing and financial market, and the recommendations which are created in accordance with these findings, I hope that I have been able to make a real contribution to the topic of flexible labour agreements and the relation to the housing market.

Although I like writing essays and reports and would say that I am quite decent in putting something on paper, writing a graduation thesis is a different story. The constant changes on your thesis, the new information which contradicts what you have already written and of course the uncertainty on ''is this enough'' makes it a very though process in which your mental strength will be tested to a large extent. Also the drive and the motivation needed to be consistently working on your thesis for a whole year straight, is something which is not meant for everyone. Nevertheless, this process has been of value for the development of myself as a professional. During my process I have received significant help of other people, all in their own way. First, I want to thank my mentors Peter Boelhouwer & Joris Hoekstra for their guidance during this graduation process. Thank you Peter for being always optimistic and keeping my motivation on level. Thank you Joris for being as thorough as always and guiding me even outside working hours. Without the mentor combination of you two together this process would have been much harder. A big thanks to the mortgage advisors which made time for me to interview them, and giving me informative input to use in my research. I want to thank my mom and dad for raising me into the man I am. I want to thank my siblings Sezer, Yildizseniz and Kaan for being always there for me. I want to thank my grandpa and grandma for always believing in me and for the given motivation during the coffee moments we had. I want to thank my uncle Sedat for being the only one not to take me serious, and therefore always laughing together about simple and easy subjects. I want to thank Jassin, for taking me out to get something to eat during the stressful moments. I want to thank Jake, for cheering me up during the lows. I want to thank Dennis, for being a sparring partner. I want to thank my twinbrother Ferdinand for always being supportive, caring and making me remember who I am and what I am capable of. I want to thank my uncle Cihan, for leading the way and being an example of everything is possible as long as you give it your all. Lastly, I want to give a very large thank you to the teachers and fellow students I have met during my study time, that did not believe in me, and made clear that I do not belong at the TU Delft. Everyone mentioned, you are all highly appreciated.

Please enjoy reading!

Anil Buz
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Table of contents

Executive summary

The Dutch labour market is becoming more flexible leading to the increase of flexible labour agreements. The use of flexible labour agreements can be divided into three different groups. The zzper which is a labourer which is the owner of his/her own company but does not have labourers which work for the company. The temporary labourer, which is a labourer which works for a company and has a definite ending term on their contract. And the flexworker, which is a labourer which works for an employment agency or does call-upon work. As can be seen by the description of the flexible labour agreement group, these labourers do not possess the same certainties as a labourer with a permanent contract. These labourers need to be housed in a dwelling, but since there are large shortages on the housing market and the housing prices are increasing drastically, there is a chance that these households will face issues on accessing or moving on the housing market. also with the stricter mortgage lending system it has become harder to obtain a decent mortgage. The housing market, labour market and financial markets are interrelated, and therefore the position on all three markets needs to be considered in order to see how accessible it is for flexhouseholds to obtain a dwelling.

Research aim and question

The group of flexhouseholds has been increasing very strong, which results in a larger share of the working population that makes use of the flexible labour agreements. The development on the housing market has shown that the accessibility in the present circumstances are already low. Since housing is a basic good, and should be accessible for everyone in the society, possible problem areas for the flexhouseholds needs to be identified, to understand if there is a need for further change and development. Therefore, the aim of this research is what type of problems flexhouseholds face on obtaining a dwelling and how these problems are affecting their accessibility to the housing market. Therefore the main research question of this topic is: *"what are the effects of the flexibilization of the labour market, on the accessibility of flexhouseholds to the housing market".* In order to answer the main question, six sub questions are created which will help to substantiate the answer for the main question.

1. What are the outcomes of the flexibilization of the labour market on the labourers?
2. What is the position of flexhouseholds on the rental market?
3. What is the position of flexhouseholds on the owner occupied market?
4. What are the differences in the housing characteristics of flexhousholds and permanent households?
5. Are flexhousehold spending more on housing than permanent households?
6. Which differences are there in the financial situations of the flexhouseholds and permanent households?

Research approach

As this research is focused on the understanding of the problems flexhouseholds face on the housing market, this research will be conducted in two phases by using an exploratory sequential mixed methods design. First a qualitative research will be conducted, in which literature and source studies will be conducted together with some interviews. The theoretical research will focus on the present circumstances of the labour and housing market, and will describe how these circumstances have come into being. The outcomes of the theoretical research will be used as a framework on which the second phase will built further. The second phase will consist of a statistical research, in which the data of the ''DNB household survey'' of 2020 will be used. The statistical research will be used to test the findings of the theoretical research, and will show how theory does or does not deviate from practice. In the statistical part of this research, the three types of flexhouseholds will be compared to the permanent households, by making use of cross tabulations and chi square tests. The use of diverse research methods, will help to strengthen the validation of the research's findings.

Findings of the theoretical study

On the labour market, there are large differences between the type of flexhouseholds. The flexworker households are the most affected by their labour agreement. The flexworker does not get the benefit of a permanent contract, in the form of: (1) Income security, (2) education from their employer and (3) job satisfaction. However, flexworker households have a higher drive and feeling to prove themselves more to the company than the ones with a permanent contract. By comparing them with zzpers a

major difference can be seen. The high education and skills which characterizes this group, creates work opportunities which are almost similar to the ones with permanent contracts. The already high level of education, and the average age of 45+ gives them a very strong position on the labour market. Zzpers are the most satisfied with their work and tend to be the happiest labourers. Although the temporary group is very diverse, in general they seem to be more happy and satisfied with their work than the permanent households.

On the social rental market, the low supply and high demand affects the accessibility to this market the most. Flexworker and temporary households possess the most suitable characteristics to obtain a dwelling on the social rental market. The low rents and rent limit on the market makes it possible for these households to keep a dwelling which is highly affordable in their circumstances. Although they possess the best characteristics, the waiting lists which are determined by the amount of time the households are registered could possess problems for these households, because of their younger age.

On the private rental market, private lessors have created a framework in which the eligibility of the flexhouseholds are tested. Based on this framework, a clear ranking can be seen, in which the temporary households have the least restrictions and the flexworker households the most. the zzp households are between both groups. Although these restrictions and conditions are created, private lessors have the possibility to deviate from the conditions in situations in which they think this is necessary. Also, if all three different households, consisting of similar characteristics apply for the dwelling, the private lessors tend to go for the temporary households first, zzp households second and flexworker households third. This shows how the uncertainties of the labour agreements are perceived by the private lessors.

On the owner occupied market, new tools have been created to enhance the accessibility of the flexhouseholds. For temporary labourers the Arbeidsmarktscan has been created which can help temporary households to a mortgage, for the zzp households a forecast research can be conducted and for the flexworker households, a perspective declaration can be given. Next to these three tools, the households can make use of the three years back rule, in which the average income of the pas t three years will be used in order to calculate the amount of mortgage. Based on this it can be stated that there are multiple options for the flexhouseholds to get a mortgage and they have a high accessibility. However, this is not the case. The three years back rule is unfavourable for these flexhouseholds because of their young age and incosisten income. Besides this the new tools only improves their accessibility to a mortgage, rather than improving the amount of the mortgage, for the accessibility to a dwelling in the present market conditions. These predicting tools, are part of the further digitalization and more data orientated shift which is starting in the financial market. Which is overruling the use of tailor made mortgages and further restricting the possibility of explain options for flexhouseholds. While these flexhouseholds should get this more, due to their deviating characteristics from the norm which is being used.

Findings of the statistical research
For the division on the owner occupied market versus the rental market, a clear division can be seen on how the flexhouseholds are positioned. Permanent households are the most present on the owner occupied market, then the zzp households, temporary households and then the flexworker households. The flexworker households are the only group which makes more use of the rental market than the owner occupied market, showing how bad the accessibility of this group is to the owner occupied market. Although flexworker and temporary households are more present on the rental market, inside this market, the permanent households have the largest occupancy of social rental dwellings, instead of the flexworker or temporary households. The zzp households tend to be more on the private rental market because of their need for flexibility and high incomes.

On the rental market, flexworker and temporary households have commonly lower household expenditures than the permanent households, whereas zzp households have higher expenditures. On the owner occupied market flexworker and temporary households live in cheaper dwellings than the permanent households, whereas zzp households live in more expensive dwellings than the permanent households. The flexworker households are the only households making more often use of the interest only mortgages. Zzp and flexworker households make significantly less use of the NHG than the other households, while these two households would benefit the most of the use, flexworkers due to the

risky interest only mortgages and zzp households because they can get a higher mortgage if they make use of the NHG.

The financial position of the flexworker households are the worst of all the households. They have the lowest amount of savings, hardest time managing their household and the worst financial situation. This is further restricting their accessibility to the owner occupied market, directing them to the rental market. The zzp households have a similar financial situation as the permanent households, whereas the temporary households are between the flexworker households and the zzp households. By looking to the future perspectives of the flexhouseholds, they all think that they have more positive perspectives than the permanent households. This has to do with the improvement possibilities of the labour agreements of the flexhouseholds and also their young age. The flexible labour agreements give room to, working extra hours, obtaining larger wages or getting a permanent contract, whereas the permanent labour agreements have more fixed characteristics.

Conclusion
The theoretical and statistical study combined together leads to an answer of the main question *''what are the effects of the flexibilization of the labour market, on the accessibility of flexhouseholds to the housing market''.* The increased use of flexible labour agreements affects the different households in their own way. The zzp households, face extra restrictions and measures in obtaining a dwelling on the rental and owner occupied market, however these restrictions and measures do not hamper their access to the housing market. They are the lowest affected because of their labour agreement. The temporary households have the lowest restrictions and measures of the three flexhouseholds. However, because of their lower wages and younger age, their accessibility to the owner occupied market is lower than that of the zzp households. For the rental market, they have very eligible labour agreements are therefore in good position to obtain a private rental dwelling and also a social rental dwelling if they have not too high incomes. The flexworker households face the biggest problems in accessing the housing market. They have the strictest measures and are commonly not eligible to obtain a decent mortgage. Making use of the risky interest only mortgages enhances their chances on obtaining a dwelling. On the private rental market they face the most harsh conditions and some private lessors do not even want them to rent their dwellings. Also they come in last if there are multiple applicant for the dwelling. Only on the social rental market they have the best characteristics based on their labour agreement, however due to the shortages and pressure on this segment, not all the flexworker households can obtain a social rental dwelling so easy.

Discussion and recommendations
This research is focused on broadening the view and understanding of the problems that flexhouseholds face on obtaining a dwelling. This research is therefore not focused on creating solutions, but rather showing where the problems are and what type of further research is needed to tackle the problems. Also the dataset used in this research contained a lot of not significant output which made it hard to answer the sub research questions thoroughly. Also the households had to be considered in a general way, because of the low amount of respondents which made it hard to further categorize the households based on age, income and household composition.
Three recommendations are created. One for the financial institutions, private lessors and flexhouseholds that face problems.

The further digitalization of the mortgage lending system will lead to bigger problems for flexhouseholds. Therefore, the tailor made mortgage needs to be used more often for these households. The new tools and the three years back rule should be used in a combined way to enhance the position of flexhouseholds.

Private lessors should allocate households based on the rules they have created for households per labour agreement. If different labour agreements apply, all the households which correspond with the rules should have an equal chance instead of permanent agreements being chosen over the other ones.

Policy makers need to look into creating certainties for the flexhouseholds, such as basic amenities, securities and a minimum amount of working hours so that these flexhouseholds get a better position on the housing market. The flexible labour agreements should not be prohibited since they are needed in different sectors. However by making the flexible labour agreements more expensive the temporary flex labour will be shortened and a permanent work relation can be achieved.

Part I: Introduction

1 Introduction to the topic

1.1 Problem statement

The use of flexible contracts in the Netherlands has increased significantly over the last years. Economists and international thinktanks made the case that there is a need for the flexibilization of the labour market, to make it easier for companies to cope with under used labourers (Boumeester & Dol, 2016). For companies this was very beneficial because firing employees who have a permanent contract is a very time and money consuming process. Especially if the employee is working multiple years for the company. For employees having a flexible labour agreement means that the income uncertainty and the chances of temporary unemployment are higher. These insecurities will have effect on the possibilities of obtaining a mortgage and a rental contract. Financial service providers and private lessors demand income security for giving out their products to the consumer. Housing associations, which are social entities, do not have the income security as a criteria. The use of flexible contracts can therefore be problematic for households to move on the housing market, or to enter it. Specifically for starters in the age between 15 till 29 years, since they are the ones who get often a flexible contract (Sanders & Smulders, 2014).

The possibilities for households with a flexible contract, are further decreased because of the changes on the housing and financial market over the years. After the economic crash in 2008, the developments of new housing projects stopped or delayed (Elsinga, De Jong-Tennekes & van der Heijden, 2011). The minimal required amount of new built dwellings were not reached in the years after the recession, whereas the demand for housing continued to increase. In the years after, the quality and therefore the building costs increased, and the demand versus supply mismatch increased too, leading to higher housing prices (Plantinga, Détang-Dessendre, Hunt & Piguet, 2013).

The government changed the policies for mortgage lending, leading to more strict requirements which made it harder to obtain a mortgage. This was done in order to prevent a financial crisis from happening again and to prevent households of borrowing too much money, which was one of the reason of the financial problems (Kragh-Sørensen, 2020). Getting a mortgage with a flexible contract was already difficult and with the change of the requirements this became even harder for these households, making the owner occupied market inaccessible. Households are because of this forced to make use of the rental market. The rental market is also under a lot of pressure, high rents are making it hard for households to find a house with decent rents. Also on the rental market, the insecure contracts can hamper access to a rented dwelling, giving ''flex'' households a hard time on finding a suitable dwelling.

Housing preferences start with the choice of a rental or owner occupied dwelling. Commonly, the research conducted on this topic, is seen from the perspectives of households with a permanent labour agreement. Households with a flexible contract are becoming more and more constrained in regard to their accessibility to the markets. This research will focus on the possibilities of households to access or move on the housing market with flexible labour agreements. The focus will be on the interplay of the labour, financial and housing market and how they increase or decrease the possibilities for households. The interaction and causalities will be investigated with the aim to get insights on the problem areas for these households.

1.2 Literature review

1.2.1 View on the labour market and trends

The flexibilization of the labour market is not a standard trend which is developing worldwide. A lot of differences can be seen, which can be categorized based on the continents the countries are located on. In Europe there is a strong shift which results in the flexibilization of the labour agreements, contrary to Japan in which there are labour agreements with a ''lifetime commitment to an organization (Oliveira & Holland, 2017). These lifetime commitments give stability to the labourer throughout his/her career, until he/she reaches the age of retirement (Jones & Seitani, 2019). With the lifetime employment the Japanese reversed the perception of the production process. This reverse is that the for the production process the labour costs are fixed whereas the capital costs are flexible, and the insider employee commitment is strengthened (Oliveira & Holland, 2017). The table below illustrates the differences of the production factors in the different production processes.

Flexible Production: Toyota Production System	Flexible Labour Market: Lindbeck-Snower
Labour Fixed Cost	Capital Fixed Cost
Capital Variable Cost	Labour Variable Cost
Insider Employee Commitment	Minimal Employee Commitment
Lifetime Employment	Shorter Term Contracts
Profit Sharing	No Profit Sharing
Process Innovation Focus	Cost Reduction Focus
Fault Free Production	Similar/ Higher Fault Rate
Self-Direction	Other Direction

Figure 1:Changes in production factor (Oliveira & Holland, 2017).

For the South-American labour market it is not clear what the production factors are and how these are processed. For example, in Peru, there is high informality, which results in low transparency in the labour market, the law agreements are fragmented and the core labour standards are not good (Orbie, Van den Putte & Martens, 2017). Because of the low transparency and the problems of the labour laws, the labour market in Peru and more South-American countries are not regulatable by the government. The labourers and companies are therefore the main drivers on how the labour market in these countries are regulated. The flexibilization which was wanted to be implemented in South-America should result in the decrease of economic inequality and increase of economic efficiency, but flexibilization within these circumstances would not have any effect (Posner, 2017).

So there are two examples given, one on how the high informality and low transparency makes it hard to have a certain focus on the labour market, and thus not possible to create more flexibility on the labour market, and one example about the opposite view on flexible labour agreements which are the lifetime employment agreements. For the European countries this flexibilization is stimulated and in highly developed countries such as the Netherlands a push in towards a more flexible labour market can be seen. The labour market has a lot of impact on the economical and societal environments in a country and therefore is very important to manage in a proper way (Orbie, Van den Putte & Martens, 2017). According to Smits (2020) the flexibilization in the Netherlands has to do with the shrinking welfare state in the Netherlands. The Netherlands is considered one of the biggest welfare states of the world. However in recent years there is a shrinkage of the welfare state and an increase of wealth inequality in the Netherlands (Van Bakel & Frankema, 2017). The Netherlands is slowly shifiting from the Social Market Economy model, more towards the direction of Anglo-Saxon model (Van Bakel & Frankema, 2017). However, this is a small shift, the Netherlands are still one of the bigger welfare state focused countries in the world. The Social Market Economy model is focused on the collective and balance and therefore treats the welfare state, government and the market as equal (Bakker, Evers, Hoven, Snelders & Weggeman, 2005). Whereas the Anglo-Saxon undervalues the welfare state and government and therefore ranks the free market higher than those which results in the higher amount of flexible labour agreements (Smits, 2020). The political ideologies which represent the majority in the parliament have been stirring in the direction of more flexible labour agreements.

In the Netherlands there is high formality of the labour market and good labour laws, which are created per different sector called the ''collectieve arbeidsovereenkomst''. This formality makes the Dutch labour market very transparent. This transparency and formality makes it possible to influence the

labour market, and also to see how the changes affect the Dutch labour market. Therefore, the Dutch labour market can be analysed and predictions can be made on how the labour market will change for years to come. De Beer (2016) foresees 10 trends which will change the labour market from the way it is at the moment. Three trends which are in line with the flexibilization of the labour market are elaborated. (1) the increase of more part time employment. The increase in more part time contracts is because of the desire of labourers to become more flexible in their week (de Beer, 2016). For the employees this is a good choice, however for the employers the flexibility which is reached for the employees are not in line with the flexibility for them. The part time contracts still holds a lot of obligations for the employers. This increase does not mean that the standard norm of working 40 hours a week will be vanished, however the share and probably the normalization of this labour agreement will be reduced.

The other trend which is (2) the increased amount of time people work and the increased amount of labour supply are related with the forecasted increase of part time work. First, the increased amount of labourers on the market and the longer working horizon results in an increase of labour supply which gives employers a better position to negotiated given the increased choices they have. Because of this employers can also make use of more part time employment contracts which diminishes the risks for employers, because the labour pool is more diverse and larger. Although, the employer does not have the same amount of advantages as the employee, the employer still benefits from it. This can also strengthen the change towards more flexible labour agreements.

The last trend which is (3) the increase of the flexible labour agreements are about the increase of the ''zelfstandige zonder personeel'' and ''flexwerkers''. These labour agreements do not guarantee any form of income and work security for these labourers and are interesting for organization which do not want to have the employee permanent under contract. These trends are all (partly) intertwined with one another and do have similar drivers which result in the upcoming of the trend. Although these trends are perceived separate from each other, there could be possible causal effects which increase the flexibilization of the labour market over time. Nothing is sure and these trends could change over time, but for now these trends can be observed by the present labour market and if these trends will be continued the factor which drives these trends will be the desires and demands of the labourers on the labour market (de Beer, 2016).

1.2.2 Flexible labour contracts

As mentioned in the previous section different forms of flexible labour agreements are now possible in the labour market. 4 out of 10 workers do not have a permanent contract, whereas 12 years earlier this was less than 3 out of 10 (Tijhuis & Goudswaard, 2019). The main similarity between the flexible labour agreements is that the amount of income can differ, or that the period of time in which the income is obtained can differ. The following types of employment will be considered as a ''flexible labour agreement''. Temporary contracts which have an end date. At the end of the contract agreement an extension is needed for the labourer. So these contracts have a fixed amount of time in which the labourer will work for the company but also a fixed amount of income which will be generated during this time. In the Dutch labour market, these temporary contract workers can obtain a permanent contract. The law regulates that temporary workers can get a maximum of three extensions in which the total amount of months worked is 36 months (Josten, Vlasblom & Putman, 2020). After the third extension the employer is obligated to either sign a permanent contract with the employee or to stop the employment. If the employer does not give out a permanent contract, the employee will have to search for another job. The employer can employ the employee after a break of 3 months into a temporary contract again. These labourers have income security for temporary period.

Flexworkers are labourers who work based on the amount of work which is available. In Dutch these are called ''oproepkrachten'' en ''uitzendkrachten''. These labourers work for a company or an employment agency which give them work based on the availability and therefore a certain amount of time. Because of this, these labourers have high uncertainty on income (Smits & Skriabikova, 2019). According to Dol, Boumeester & Mariën (2014) these are commonly the labourers whom earn the lowest amount of money. Besides the uncertainty of work, the work is low skilled which also results in low wages paid to these labourers.

The term used in Dutch ''zelfstandige zonder personeel'' sometimes results in confusion. Someone who labels himself as a zzper is someone who owns company but does not have employees under contract (CBS, 2020c). So one could state that this is a person who owns a company where he is the

only one working for it. The zzper could therefore be seen as similar to the flexworker. A difference is that the zzper is someone who does its own acquisition for work, whereas the flexworker is commonly called upon to work. However, just like the flexworker, the income depends on the availability of work. Another difference is that the zzp'er is commonly higher educated or operating in work which demands higher skill. Therefore, the zzp'er earns almost more than 70% of the average income of a flexworker (Dol et al., 2014).

Comparing all the labourers with flexible labour agreements together, one can observe that there are a lot of similarities in the contracts, but differences in the group composition. Therefore, all the labourers whom have these flexible labour agreements will be put together under the term ''flexhousehold''. In this thesis flexhousehold will be used to cover these labourers. The temporary, flexworker or zzp households will be considered separately if emphasis is needed. Households with someone working with a permanent contract will be considered ''permanent households'' in this thesis.

1.2.3 Identification of problems
From the information obtained from the previous sections some problems are identified which needs to be solved and some hypotheses will be formulated. From the information obtained, the drivers of flexibilization are based on economic and political views. The literature tells us that there are benefits through the use of flexible labour agreements and focusses this solely on the employers and employees in the labour market. Other topics like financial security, access to housing and productivity for example are left out. Housing is perceived as a basic good which should be accessible to society and can stimulate social inclusion (Anderson, Finnerty & McCall, 2020). The connection with housing and therefore the social connection of the labour market have to be considered, which gives room to do research to the health and position of flexhouseholds. Also, effects of the uncertainties of the labour agreement are not mapped and connected to housing and access to the financial market.

1.3 Societal and scientific relevance

1.3.1 Societal
The changes in labour agreements between employer and employee are related to a big part of the households in the Netherlands. The use of flexible labour agreements put labourers in a position where they have lower income security. Because of the lower security, these households can face financial difficulties and problems in accessing the housing market. Employees with a permanent contract are a step ahead of the ones without one. With the pressure on the housing prices the accessibility to decent housing is in danger. Especially for the flexhouseholds. Therefore the research conducted on this thesis will focus on how the accessibility of flexhouseholds are affected on the housing market and where the problems are. Together with the research on the housing market and financial market, this thesis can provide a basis on which new policies can be researched to increase the position of flex households on the housing market. The outcomes can also give insights on how the present situation can be changed. Overall, this thesis is of high societal relevance because it considers the most important need of mankind which is housing. Also, the possible exclusion of flexhouseholds can lead to segregation and gentrification on the housing market, decreasing the diversity in areas.

1.3.2 Scientific
A lot of research has been conducted on the housing market, where in the last years the middle segment was the most prominent one. Most of the research was commonly focused on the supply side of the housing market, and how housing associations and developers can be stimulated to construct more housing. However, the problems of flexhouseholds have not been researched in these papers, only a general overview has been given on the mentioned topics. This research will be scientifically relevant because of different aspects which are considered. This research will have, unlike the other researches, a strong focus on the demand side. The voices of households through the use of a quantitative research will give important information on how the current users of the housing market are experiencing the situation. Although the demand side will have a big focus, this research will also look into the supply side of the financial market and housing market. The combination of the different markets together will result in an ensemble where the markets are considered together and the causal effects will be brought to light. This will be different than the common way of researching where one variable is considered in different situations. As mentioned a lot of the research conducted in the last years is done by the use of middle segments. This research will focus on all the segments, low, middle and high. Besides the wide variety of groups based on income and household spending, this research

will also focus on the flexibilization of the labour market. There is research conducted on how the flexibilization of the labour market is processed in different countries including the Netherlands. The real effects on the accessibility of the flexhouseholds towards the housing market is not research at all. Besides the conclusions of ''decreased income security'', there is no research on these households and their housing options, on the rental as owner occupied market. This research will elaborated further upon the research conducted by Dol, Boumeester & Mariën (2014). Their research is based on the use of the WoOn dataset in which they focus on homeownership for households with a flexible labour agreement. This research will use their report and expand the subject with the financial market and labour market.

2. Research questions

The previous chapter discussed the problem statement and relevance of this research with the help of background information, which is crucial in understanding the research topic. In this chapter the research questions are going to be discussed. First, the main research question and sub questions derived from the problem statement are going to be elaborated. The following chapter will discuss the methodological approach in order to answer the questions.

2.1 Main research question

The main question of this thesis will be *''What are the effects of the flexibilization of the labour market on the accessibility of flexhouseholds to the housing market?''.* To give a clear and substantiated answer to this question, a set of sub research questions are developed.

2.2 Sub research questions

The main question will be answered according to the following sub questions.

1. *What are the outcomes of the flexibilization of the labour market on labourers?*

This sub question will show look into the development of the flexible labour market in the Netherlands. The different sectors and the effects of flexible labour agreements on the relation between the employer and employee will be assessed. Next to this, this question will further shape the characteristics of the different flexhousehold groups, which will make it easier to compare them with the permanent households, but also with each other.

2. *What is the position of flexhouseholds to access the rental market?*

To understand the position of the flexhouseholds on the rental market, the dynamics of both the private and social rental market will be described. After this is done, and the rules and measures on obtaining a rental market are mapped, the accessibility to the markets will be researched.

3. *What is the position of flexhouseholds on the owner occupied market?*

On the owner occupied market, the financial institutions have just like the lessors on the rental market, rules and conditions which households need to comply to, for obtaining their products. How the measures differ between the flexhouseholds will be researched, and also how this will restrict their options on the owner occupied market will be researched. Next to this, the limitations on the present services and new products will be researched.

4. *What are the differences in housing characteristics between flexhouseholds and permanent households ?*

To see how the flexhouseholds are affected in practice, this research question will look into the quantitative differences between the felxhouseholds and permanent households on the housing market. The occupancy on the rental and owner occupied market and the type of accommodation will give insights on the direction of flexhouseholds on the housing market.

5. *What are the differences in housing costs between the flexhouseholds and permanent households?*

This sub question has the focus to see how the housing costs between the households differ from one another. The outcomes can show how the labour agreement and the income of the households positions them on the housing market. Also the different mortgages and house prices between the households will be compared. This will give insights on how the money spent is spent on housing by the different households, and if there are significant differences between the flexhouseholds and permanent households.

6. *Which differences are there in the financial situations between the flexhouseholds and permanent households?*

This sub question is focused on the financial situation of the flexhouseholds and permanent households. This sub question will give insights on the financial and economic situations of the households in which they are now, but also on how they look to their future.

3 Methodology

For this research a methodology will be designed to look into the different markets which influence the households possibilities when looking for a house. The financial market, labour market and housing market will be researched together with household characteristics, to see how they influence and react to one another. This research will be divided into three different parts, which are interrelated to one another.

3.1 Study design

3.1.1 Part 1

The first part of this research will be done by conducting a theoretical study, which will further explore the knowledge on the present conditions on the labour market, financial market and housing market. The study will be done through the use of academic literature which will be further extended by the examination and findings of rules and policy notes. The study will be divided into three different domains which will give insights on how the markets work and what type of conditions and measures are in place. The different domains all have their own research questions which will be answered throughout the paragraphs. The domains will all be connected to the flexible labour agreements and show how the flexhouseholds are positioned or influenced within the markets.

The first domain will be focused on the flexibilization of the labour market. This study will try to get deeper knowledge about the effects of flexibilization of the labour market on the flexhouseholds and which trends can be seen or expected in the coming year(s). Also this domain will focus to explain what the situation is on the labour market and how this is established. This information will help to give an answer on *''what are the outcomes of the flexibilization of the labour market on labourers?''*.

The second domain is about the housing market in the Netherlands with the focus on the rental market. The information in this section will be divided into the social rental and private rental market. This domain will give insights on how the different segments of the rental market are established. Also the differences in requirements and conditions on obtain a dwelling in both of the market segments will be described, and how the flexhouseholds are able to access these. This domain will give an answer to the question *''what are the conditions to access the rental market for flex households?''*.

The third domain will focus on the owner occupied market. Here information on the financial services providers and how they operate in the present market will be researched. The ''general'' rules will be researched and the flexible labour agreements will be put against the demands of the financial service providers. Here the limitations of the present services and the developments of new products will be researched, to see *''what is the position of flex households on the owner occupied market?''*.

3.1.2 Part 2

The second part of this research will focus on a quantitative research conducted through the use of applied statistics. The dataset of the DNB household survey which consists of +/- 2500 respondents will be used. To operationalize this research, and also to see the differences between the flexhouseholds 4 target groups will be created, three which contain the different flexhousehold labour agreements and one which is the household with a permanent labour agreement. The statistical research will build further upon the findings of part 1, and will assess of the findings of theoretical part can be seen in practice. These groups will function as a basis on which the analysis of this part will be conducted, therefore the first question which will be answered is *''what are the differences in housing characteristics between flex households and permanent households?''*. The target groups will be divided in sub groups, the variables on which the subdivisions will be made are age and income. The outcomes of this research question will show how the households are located on the housing market and if major differences can be seen in the housing characteristics of the groups. On the foundation created by the target groups, different variables will be used to see if there is a major difference between the groups. The variables will be focused on the dwelling characteristics and the tenure status of the different households.

After this basis is solidified and it is clear how the households live, the focus will be on the household expenditures which will answer the next question of *''are flexhouseholds spending more on housing than permanent households''.* The housing costs will be examined to see if there are differences in spending between the flexhouseholds and permanent households on the rental market and the owner occupied market. Here the focus will be on the monthly expenditures and house values of owner-occupiers. After the present housing costs are mapped the last research question *''which differences*

are there in the financial situations between the flexhouseholds and permanent households?" will be answered. For the last research question the present financial and economic situation of the households will be examined. Next to the present situation, the perspective on their future financial situation will be examined. The quantitative outcomes of the dataset will be compared to the output of theoretical study to see if theory is in line with the practice. Therefore, part 2 will already be a small synthesis in which the qualitative and quantitative information will be combined together.

3.1.3 Part 3
Eventually a general synthesis of all the information together will be created. The outcomes of the theoretical part and the statistical part will be combined together. The information retrieved to answer the sub research questions together, will give an answer to the main question of *"What are the effects of the flexibilization of the labour market on the accessibility of flexhouseholds to the housing market?".* This will give insights on how the labour market, financial market and housing market together affect the flexhouseholds in their accessibility to the housing market and which problems they face in their pursuit of a dwelling. After this is mapped and all the effects and drivers are summed up, recommendations will be made for the field. In table 1 an overview is given on how this study will be operationalized.

PART	QUESTION	TYPE OF STUDY	METHOD	DATA COLLECTION
PART 1	Question 1	Qualitative	Document analysis	Literature review & source study
	Question 2	Qualitative	Document analysis	Literature review & source study
	Question 3	Qualitative	Document analysis	Literature review , source study and interviews
PART 2	Question 4	Quantitative	Statistics	DNB household survey
	Question 5	Quantitative	Statistics	DNB household survey
	Question 6	Quantitative	Statistics	DNB household survey
PART 3	Main question	Qualitative	Concluding	Outcomes Q1-6
	Recommendations	Qualitative	Concluding	Outcomes Q1-6

Table 1: Operationalization study design

3.2 Research methods and data collection
For this thesis different research methods will be utilized to create a report which is in line with the guidelines of writing an academic report. Also the different research methods will make the information input more diverse which makes the research more profoundly reasoned and also increases the validity of the outcomes of the research (Bowen, 2009). Because this report is divided into a qualitative and a quantitative study this report has a mixed methods research design. The design chosen for this research is an exploratory sequential mixed method design in which the qualitative study will be conducted by the use of a literature and a source study followed by a the statistical study which will be done through the use of a database. The statistical study will be further structured based on the findings from the qualitative study. The statistical study will be focused on observing differences between the flexhousehold group and the permanent household group. Both groups will be assessed on their characteristics and eventually will be compared to one another to see if there is a different outcome between them. During this research, the dependant variable will be the accessibility to the Dutch housing market, whereas the independent variable will be having flexible labour agreements (Bryman, 2016).

3.2.1 Literature study
First a literature study will be conducted to create a basis on which the empirical research will be conducted. This literature review will be used to give the reader knowledge about different terms and background information, so that international readers which are not familiar with the Dutch systems can understand the compositions and use of these systems. Next to this, the literature study will be the basis on which the first three research questions can be answered. The theory and reasons behind

the present circumstances of the labour, housing and financial market will be described by using this study.

3.2.2 Source study
After the literature study, a source study will be conducted. The source study will be analysing policy documents from institutions as from the government. First, further deepening knowledge on the flexibilization of the labour market will be researched. The context of this flexibilization will be written to understand where the changes and development of the labour market is coming from. After that for the housing chapter the accessibility norms and standards will be researched and reviewed to gain insights on the requirements asked from the private rental market and the social rented market. Policy notes of the banking sector will be used to review the conditions which are needed to obtain a mortgage on the housing market. Further research on the financial market will be done to extend the information on the owner occupied market.

To further elaborate on the literature research conducted for the financial market, there will be interviews conducted on if the financial market take the changes on the labour market into account, and use different conditions for these households to still obtain a ''normal mortgage''. Also information on the developments of new products will be implemented in the interview and the possibilities to deviate from the standard conditions. The information will be obtained through the use of a semi structured interview. For this research, the desire will be to have 3 semi structured interviews. These interviews will be conducted by financial institutions such as Rabobank, Hypotheekshop and the Hypotheker.

Because the interviews will be semi structured, some standard questions will be formulated to secure that all the interviewees will have the same basis on which the interview will start. On this foundation, open questions regarding the financial services and operating field of the interviewee will be asked, which will help to understand the point of view of the interviewee and to transition to the questions which are related to flexhouseholds on the financial market and in which way the the company the interviewee is working for helps these households. During the interview the interviewee will be free to elaborate on a lot of topics as long as it is in the interest of this research. To ensure optimal information obtained from the interviews, the interviewee will receive the first set of questions well ahead, together with an explanation about the research so that the necessary preparation can be made.

3.2.3 Statistical study
To make this a mixed method research, besides the use of document analysis, also a statistical research will be conducted. This research will be done through the use of the DNB household survey database. This database is created based on the use of a survey in which respondents answered various questions based on their personal characteristics, household composition and housing characteristics. This research will use various statistical examinations and observations. Chi-square tests will be conducted to see if there is a statistical significancy between the labour agreement and the tested variables. Next to this, cross tabulations will be used in which the variables will be quantified so the different household groups can be compared to one another. This quantitative study is based on groups of respondents which aims to have a precise as possible reflection of the Dutch population of 2020, and therefore can give valuable insights on how the different households manage themselves in the present circumstances.

3.2.4 Synthesis
The results obtained from the different methods used will be compared and analysed in the synthesis. The information obtained from the document analysis will contain a lot of theoretical information, whereas the information of the statistical research will be on how it works in practice. Therefore the practical information will be analysed together with the information obtained from theory. This synthesis will lead to insight information on how practice and theory are connected with one another or how the theory is declined in practice. The synthesis will eventually be used to formulate the conclusions and recommendations of this research and to answer the research questions.

PHASE I

FLEXIBILIZATION OF THE LABOUR MARKET

HOUSEHOLDS

ACCESSIBIITY TO THE HOUSING MARKET

PROBLEM STATEMENT

RESEARCH QUESTIONS

RESEARCH METHODS

PHASE II

LITERATURE STUDY

DOCUMENT ANALYSIS

SEMI STRUCTURED INTERVIEWS

PHASE III

APPLIED STATISTICS

PHASE IV

SYNTHESIS

DISCUSSION
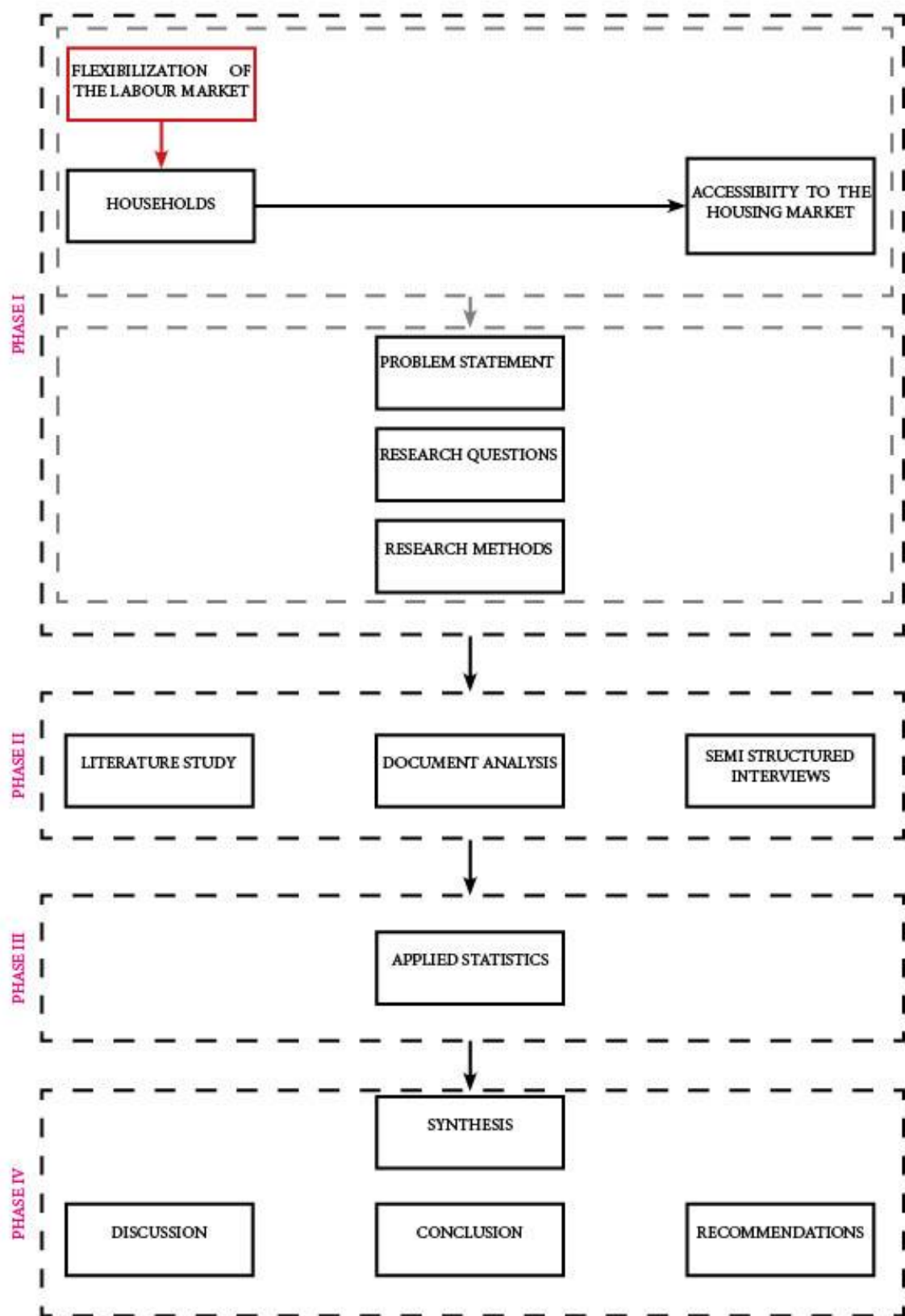
CONCLUSION

RECOMMENDATIONS

Figure 2: Thesis structure ''exploratory sequential mixed method design'' (own illustration)

3.3 Data plan

3.3.1 Data protection
The data in this research and the final research itself is processed and published in accordance with the FAIR Guiding Principles, based on Wilkinson et al. (2016). FAIR stands for: Findable, Accessible, Interoperable and Reusable. For this research, this means the following:

- The final research thesis will be published on the educational repository of the Technical University of Delft (TU Delft) by using the link: https://repository.tudelft.nl. Before publication, the draft research will not be publicly available, but can be viewed by sending a request to the author by email.
- All data obtained, either from literature, interviews and other sources, will be referenced to or cited in APA-style, of which the full references can be found in the references chapter at the end of the research. At the end of this graduation trajectory this report will go through a plagiarism scan to make sure that the written information is not copied.
- The interviews will be recorded to make transcriptions. Also the names of the interviewees will be used if permission is given. The permission can be given through mail, the start of the interview or through the informed consent letter.
- All data obtained in specific Dutch terms (e.g. housing terms, contracts, names of flexworkers) will be translated to English to the best of knowledge, and will include the Dutch term in brackets the first time it is stated.
- The interviewees will be asked to fill in and return the form; Informed Consent. This form has been set up regarding the guidelines Human Research Ethics Committee installed by Delft University of Technology (TU Delft). The form is shown in Appendix E.
- The final research document will not include the interview guide used for the interviews. Also the database which will be used for the statistical research will not be added in this document. But can be retrieved upon request by sending an email using the email address anilbuz1998@gmail.com, with the exception of the transcripts which do not have permission to be shared by the interviewee(s).

3.3.2 ethical consideration
Besides the FAIR guide principles mentioned in the previous section, there are some important ethical concerns that should be taken into account while carrying out a qualitative research. According to Sanjari, Bahramnezhad, Fomani, Shoghi & Cheraghi (2014) anonymity, confidentiality and informed consent are of high importance. Fouka & Mantzorou (2011) state that privacy and vulnerability should also be considered as important ethical concerns which need to be considered during the execution of a research paper.

In this thesis these five ethical considerations will be safeguarded as follows. The anonymity and the privacy can be taken together. For this research interviews will be conducted and a qualitative research with information derived from a survey already conducted. Sensitive information of the participants of the interviews and research will not be shared. For the interviews the identification of the participants will not be shared, the information about the field of expertise and company will be shared if the participant gives consent to this. For the statistical research, the used database and/or survey will be mentioned, however personal information of the participating households will not be shown in this thesis. Household characteristics such as composition or income will be shared, however this will not be traceable to the specific households. Although the DNB household survey has open access to the public, it will only be used for research purposes where the focus on obtaining information where the Dutch society can benefit from. As mentioned, the interviewees will receive a letter of consent in which they can give permission and show the voluntariness of the interview. The extra ethical considerations of the database will be based on the confidentiality of company that manages the dataset.

4 Research output

4.1 Goals
The goal of this research is to get insights on how the different markets which are connected to buying a house (Labour, financial and housing market) influence the possibilities for households which have a flexible work relation. The objective is to see how these markets are interrelated to one another, encourage or discourage households in their possibilities and how this is done.

4.2 Deliverables
Since this research will be divided into three different parts, all the parts will deliver a specific type if information in its own way.
1. A theoretical study which is focused on the explanation and mechanics of the labour market, financial market and the housing market of the Netherlands, which addresses the changes in the labour agreements and build a basis on which the household accessibility can be tested.
2. A statistical research which will examine the households characteristics from the DNB household survey dataset, which explains what the differences are between the households in the present market, and how changes in the future are inhibited for the flex households.
3. A conclusion and answers on what the effects are of the flexibilization of the labour market, financial markets and the housing market on the accessibility of flex households and recommendations on how the field can influence the accessibility of flexhouseholds in a positive way.

4.3 Dissemination and audiences
This research will be focused on four different audiences. The first audience will be the households which have a flexible work relation, which are thinking of moving or want to explore there opportunities on moving towards another house. They will get a clear overview on the rules, problems they may face and possibilities in the present market if they want to access or move on the housing market. The second audience consists of financial service providers, investors on the rental market and housing associations which are on the supply side of the housing market. This research will show how these households are not taken into account, by the conditions stated by these organizations and how they decrease the accessibility to housing market. This research will serve as a basis on which the present conditions and measures can be reflected, and to start the search to new products and changes which can enhance the possibilities for these households. The third audience for whom this research can be interesting are the academics which focus on housing systems and housing market, which want to broaden their view on how the labour, financial and housing market are interrelated to one another, and how the changes in one market can lead to issues or problems on the other. Also, this research can be a basis on which further research can be conducted on the topic of flexhouseholds and the housing market. Lastly, this research will be very useful for municipalities and the government because it addresses how the present policies, which are created and can be influenced by these organizations, do not work well or create issues for this larger becoming group.

4.4 Personal study targets
I have different targets, I want to accomplish by doing this research. First, I have a big interest in the housing market. By doing a research which is focused on the housing market, I can learn the ins and outs of this market, and I can prepare myself on how I can possibly purchase my first home. Especially given the high chances that I will start with a temporary contract before moving to a permanent contract. Secondly, I would like to add more information and knowledge to the existing literature. I like writing papers and the possibility to carry out a research which can really help households or policy makers would be my peak accomplishment in the educational environment. Thirdly, I would like to improve my knowledge and understanding of statistics. I only had two courses in which I learned something about statistics however this did not cover a lot of information which I can potentially use in the future. Lastly, during the bachelors and the masters we got different courses and assignments, however I have not really experienced ''scientifical or academical'' courses. Doing this thesis and using the different research methods and techniques will give me the feeling of really concluding my educational career, and making myself a real academically skilled person who can carry the ''engineer'' title with fulfilment and validity.

Part II: Theoretical part

Part II: Theoretical part

5 Labour market

5.1 International effects on the flexibilization

The two biggest effects which started the flexibilization of the labour market are globalization and the technological improvements made in the past decade. The globalization started when the economic barriers of labour were taken away (Van Vliet, 2019). By taking these barriers away two parameters were enabled which explains the effects of the globalization on the flexible labour market. First, because of the decreased economical barriers, the international trade increased. The countries which could produce goods against a low price were now able to export their products much easier over the world. Because of the low production costs, which could strengthened the competitive position, companies moved their factories to these countries to benefit from this. For countries with high average wage costs, the import to these goods increased. There still were some factories in the higher wage countries, however the demand for low skilled and educated labourers decreased. Because of this countries started to become more specialized in a certain sectors, which suited their overall economy. An example is that the knowledge economy in commonly the west European countries strengthened, which led to an increased demand of high educated workers (Gründemann, 2018). According to van Vliet (2019) the employment opportunities and wages of low educated labourers decreased, whereas the employment opportunities and wages of high educated labourers increased. Secondly, the decrease of the international barriers resulted in easier movement to other countries, which stimulated the labour migration in certain areas of the world. In the European union, a shift could be seen in which labour migrants, especially from the eastern side of Europe temporary started to work in the western countries. The minimum wages in the western countries were commonly higher than the wages of the eastern countries. Therefore these labour migrants travel to the western countries and work for the minimum wages there, pressuring the local labourers in those sectors whom commonly desire more than minimum wages for their work. 75% of these labourers return to their country of origin after they are done working (CBS, 2019). Because of their temporary labour and low wages, the sectors in which they are overrepresented, employers tend to go for these labourers instead of the native labourers, whom would eventually desire higher wages and permanent contracts.

The technological developments which strengthens the flexibilization is partly connected to the previous mentioned changes. The improvements made on the technology, affected certain sectors in which the need for labour decreased, such as the financial sector in which the automatization of transactions decreased the need for desk workers (Van Vliet, 2019). With the automatization and technological development the production becomes more capital based. This production decreases the permanent need for labourers, to a more temporary need. So both of these factors result into a more flexible labour market with more flexible labour agreements. How strong these effects are on the labour market depends on the social policies, labour institutions and the tax regulations (Wren, 2013).

5.2 Development of the flexible labour market in the Netherlands

After the world war, labour institutions started to develop, which were focused on the interests of the working classes in the Netherlands (De Beer & Keune, 2018). These institutions were the ''Sociaal-Economische Raad'' (SER), ''de stichting van Arbeid'' (STAR) and the ''decentraliseert cao-overleg''. Within these institutions, the interest organizations of the sectors could discuss and negotiate together with the government about the collective labour agreements for the working class and the employers. These collective labour agreements commonly cover 80% of the working class in the Netherlands, and is therefore partly regulated by the government (Keune, Been & Tros, 2020). since these collective agreements are meant for such a big group in the society, government policies are influenced by the decisions made. Throughout the years up until the 2000s a big shift on politics and production was seen which decreased the position of labourers and the collective labour agreements. According to Dekker, van der Veen & Peper (2012) the views on securities and community feelings shifted towards a more individual perception, and with this shift the views on a more right and liberal orientation was established within the society. The automatization and improved technologies, decreased the need for labourers which resulted that the labour based production became a more capital based production (De Beer & Keune, 2018). This shift to a capital based production results in a decrease of the amount of work and therefore labourers. However, van Vliet (2019) explains that the change of process creates new jobs which require labour in the process. This required labour results in flexible labour agreements. Van Vliet (2019) mentions that the effects of the change in production varies between different sectors.

Commonly, the political shift is reasoned by the failure of the welfare state, and how this failing welfare state is pushing towards a more individualistic attitude of society and governments towards social security. And in which the flexibilization is further developed within the labour market. According to De Gier (2011) this is a misconception. One of the main reasons this individualistic approach and therefore the push to a more flexible labour market is encouraged, is because the stimulation of the labourforce policy is favoured over the social governmental policies (De Gier, 2011). The empowerment of the free market and competition, the lagging increase of wages, the step-wise increase of the retirement age and the most important one, which is the reduced spending on public institutions and social securities are examples of this (Rayer, 2014). This approach shows characteristics of the American and British Anglo-Saxon model, however the large amount of remaining social securities and protections in the Dutch model makes it still funadementally different from the Anglo-Saxon model. Keune, Been & Tros (2020) strengthens the previous stated reasons, claiming that the neo liberal approach is the driver which pushed the social securities away and therefore resulted in the failure of the welfare state. Therefore, the welfare state is not the one which was failing, and resulted in shifts in the policies. Rather the neo liberal approach of the standing political parties, created lower securities which affected the quality of the welfare state. And with this decrease, a snowball effect was created in which the individualistic and therefore the neoliberal approach is further developed.

In the beginning of 2021, the Netherlands is still fighting the coronavirus and managing to decrease the effects of the coronavirus on the labour market. The government has issued a lot of recovery packages to reduce the economic effects of this pandemic and to make employers keep their employees, especially the one with a flexible labour contract (Ministerie van Algemen Zaken, 2021a). According to Cockx (2020) economies with a lot of flexible contracts will be hit the hardest during pandemics and economic recessions. However, these economies are commonly the ones which recover the quickest after a recession. Hamermesh (2020) argues that the economic recovery packages given by governments will result into a lagging effect, in which the real effects of the measures and restrictions will eventually be visible after the end of the pandemic. Hollanders & Verbon (2012) showed what the effects were of the global crisis on the Dutch taxpayers and how the shortages created by the crisis have to be payed by the increase of taxes. This was because the governmental expenses were strongly decreased, to cope with the budget deficits (De Prest, Eugéne & Meensel, 2010). The demand for more collectiveness and therefore more government interferences are the main subjects of the 2021 national government elections in the Netherlands. this strong shift is even visible by the current reigning right wing parties VVD and CDA. These parties put emphasis in their election programmes on how social securities need to become better and also that labourers on the labour market should have good securities independent of which labour agreement (VVD, 2020). Slowly, the views on the labour market are changing again in which major events ignites politicians to revise the choices which have been made by their predecessors.

5.3 Employer and employee relation
For employers the use of flexible labour agreement work in their favour. Dekker (2017) states that the main reason for employers to make use of these flexible contracts is to cope with the volatility of the need of labourers. Employers commonly have a basis of employees with a permanent contract, however these employees are not sufficient if the amount of work drastically increases which often happens. Another big reason for the employer, is to diminish or keep the amount of labourers with a permanent contract at the same level (Verbiest, Koopmans, Van der Torre, Van de Ven & Goudswaard, 2017). For the employer, flexible labourers pose lower risks. Flexible labourers are because of their temporary labour activity less likely to start conflicts and create problems on the work floor (Kraan & Verbiest, 2019). Because of the flexible agreement, the employer is not fully responsible for the labourers in terms of illnesses and retirement plans. A lot of obligation which imposes risks for the employer are therefore transferred to the labourer (Hummel, 2018). These expense and reducing factors would be less important if the permanent employee would be more flexible usable. If this was possible, together with the volatility of work the focus of the employers would also be to recruit new employees (Verbiest et al., 2017). Which would be beneficial for the employee, because they are willing to switch to a permanent contract, if they already worked for the company, excluding zzper's (Dekker, 2017). However this does not mean that there is a desire of the employer to completely switch to permanent workers if the risks are nullified. The proper way of utilizing flexible labourers in the development process of a company can result in higher profit and also in a stronger position for the company within the markets it operates (Lippényi, 2018).

The increased use of flexible labour agreements hampers the development of skills and knowledge of the flexible labourers. The flexibilization resulted in a switch of the linear-career-model, which is focused on labourers commonly working in the same function with possibilities of different organizations (Hummel, 2018). Within this model the career of the employer was commonly managed by the employer and development opportunities were facilitated by the employer. Employers still invest in employees and further educate them to increase their capabilities. However, employers only invest in their employers whom have a permanent contract (Versantvoort & Putters, 2020). Because of this a difference can be noticed between the qualities of someone with a permanent contract versus a flexible contract, therefore in the long term, the career prospects of flexible labourers are lower (De Vos, 2018). Especially because the ''informal way of learning'' which is done on the work floor increases the career prospects (Van Wijk & Verbiest, 2019). These insecurities can affect their mental health and satisfaction of the job. According to Hosseini, Koopmans & Verbiest (2020) the job insecurity results into a negative attitude of the labourers towards the organization they work for at the moment. This statement is strengthened by Kool (2017) which states that the insecurity of the job can lead to unethical behaviour. This behaviour varies a lot depending on the work circumstances. According to De Spiegelaere (2017) labourers with a flexible contract are commonly faced with rigid work patterns which create low possibilities for creativity and autonomy. Also the possibilities to make an impact or influence on the work is inaccessible. The lack of room for creativity discourages the commitment of the labourers and ambitions go to waste. To the company which has consequences for the quality of the work and therefore for the productivity (Hosseini et al., 2020).

To further examine the effects of the job insecurity, we will look at the perspectives of the labourers with different flexible labour agreements. In the previous section a general overview is given about the effects of job insecurity which comes with flexible labour agreements. According to Van Vuuren & Smulders (2018) some big differences between the type of labourers can be seen. Labourers with a permanent contract have the highest absence due to illnesses and are most vulnerable to burnouts. Interestingly to see, is that labourers with a permanent contract have the most negative perceptions on their capabilities on the job, wellness and fit to the job (Van Vuuren & Smulders, 2018). Labourers with a temporary contract score higher in all these different categories. It would be quite obvious that labourers with a permanent contract would have a lower satisfaction on the job than the ones with a temporary contract. Contrary to this, it seems to be that labourers with a permanent contract are more satisfied with their job and have also a lower urge to search for another job than flexible labour agreements, especially flexworkers and labourers with temporary contract have this. According to Dekker (2017) this has to do with the security of the job. A phenomenon can be seen in which the ones with a permanent contract, whom have less to prove and worry about, are the ones who whine a lot but are satisfied. Whereas, the ones who really have to prove themselves and face scrutiny are the ones who are the most competitive and perceive themselves as worthy labourers but are less satisfied with their work.

Zzpers are a class on their own. Zzpers are the most happy on their job, experience lower effects of their income insecurity and feel that they are more suited for the job, than other labourers (Van Vuuren & Smulders, 2018). Interesting to see is that specifically the health and well-being of zzpers are higher and that the satisfaction on their work-private balance is better than the other labourers (Vlasblom, 2017). Because zzpers, are commonly higher skilled and educated than flexworkers and labourers with a temporary contract, they hold a stronger position in the labour market. Therefore zzpers have more grip on influencing their career and earnings. More insights about this and the division of the labourers over the difference sectors will be further discussed in the next chapter.

5.4 The sectors
With the increased use of flexible labour agreements in the Netherlands, the structure of the labour market is changing. Different sectors demand different type of labourers and therefore also different type of labour agreements. According to Dol et al., (2014) in the period of 2006 till 2012, in percentages, the amount of zzp increased with 19% and that of flexworkers increased with 17%. From 2003 till 2019 the amount of labourers with a flexible labour agreement increased from 27% of the working population to 39% (Van Vliet, 2019). By looking at the different sectors, significant differences can be seen.
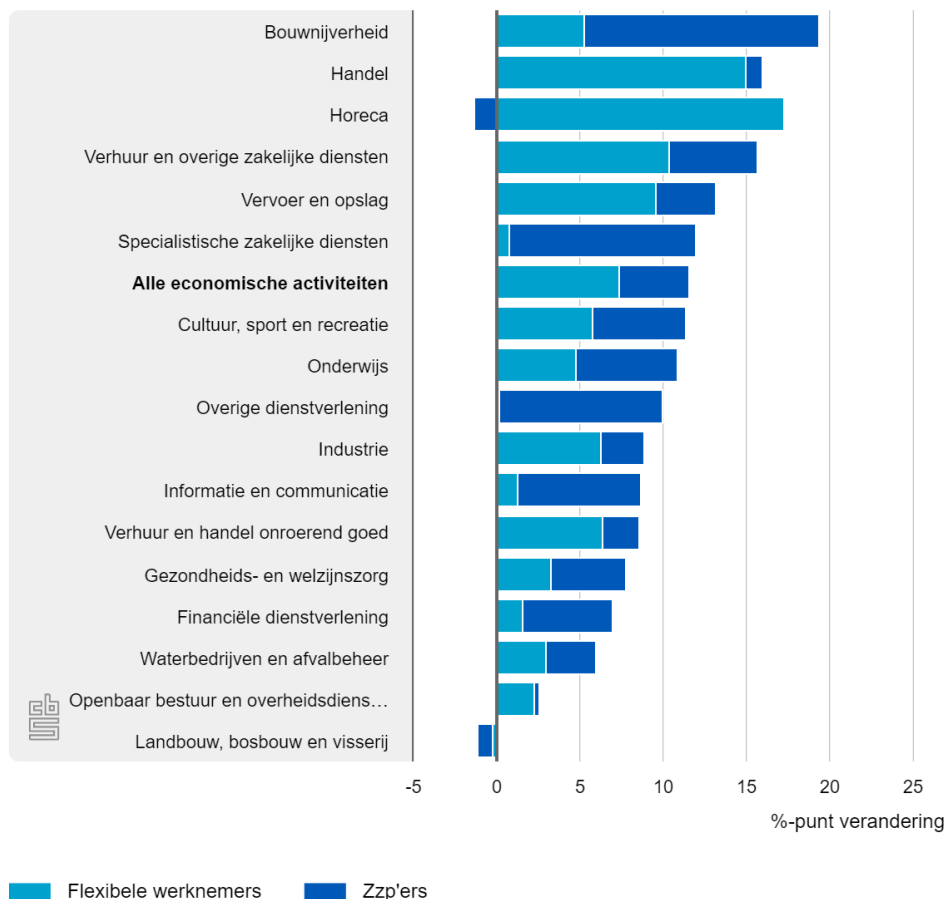
Bouwnijverheid
Handel
Horeca
Verhuur en overige zakelijke diensten
Vervoer en opslag
Specialistische zakelijke diensten
Alle economische activiteiten
Cultuur, sport en recreatie
Onderwijs
Overige dienstverlening
Industrie
Informatie en communicatie
Verhuur en handel onroerend goed
Gezondheids- en welzijnszorg
Financiële dienstverlening
Waterbedrijven en afvalbeheer
Openbaar bestuur en overheidsdiens…
Landbouw, bosbouw en visserij

-5   0   5   10   15   20   25

%-punt verandering

■ Flexibele werknemers   ■ Zzp'ers

Figure 3: Change in flexible labour per sector between 2003-2019 (Smits, De Vries & Gringhuis, 2021)

The figure above shows in which sectors the flexible labourers increased the most. The building, retail and catering sector increased the most in the period from 2003 till 2019. Contrary, financial service-, the water operating- and public sector have the lowest increase. The slight decrease in the agricultural sector, is because of the fact that this sector already uses a large amount of flexible labourers e.g. labour migrants (Smits, De Vries & Gringhuis, 2021). The flexibilization, which the other sectors are going through right now, has already occurred in this sector.

Why specifically these sectors have a significant high or low increase of flexible labourers working, can be explained by De Beer (2018) which states that sectors which are very sensitive to the economic climate. This explains why the building, retail and catering sectors have such a large amount of flexible labourers working. If the economy declines and spending's decreases these sectors could relieve themselves quickly from their employees. This makes sense, given the fact that the lowest increase, is for the sectors which will remain a constant demand for their services even if the economic climate changes. Between the sectors there is also a difference in the composition of the use of flexible labour agreements. The building sector has a big increase of zzpers. The other sectors whom have a large increase of zzpers, are specialist business services, other services and information & communication services. As stated in the previous paragraph, zzpers are commonly high educated. The sectors in which the amount of zzpers increased significantly are the sectors in which high education is demanded. Whereas the low educated and more labour intensive sectors such as the retail and catering sector have solely a major increase in flexworkers. The driver for this increase, is the lack of innovation in this work. Labour intensive work is commonly low paid work which is accessible for almost everyone. Because of the low expenses and also the need of working hands, innovation is not searched or is not possible within certain work fields (Van Vliet, 2019). Because of this the demand of labour for this work stays the same or even increases, making it possible to get more labourers to

work in these sectors, and therefore have a higher amount of flexworkers. For the other sectors, the zzp/flexworker ratio is balanced.

5.5 Profile of flex groups

The most important aspect in which the flexible group differs from the permanent group, is through the age category. A large part of labourers with a flexible contract is within the age of 15-35 (Smits et al. 2021). Of the flexworkers and temporary workers, 46% is in the age category of 15-25 and of these 46%, 80% is parallel to their work following an education (CBS, 2021b). Contrary to the flex- and temporary workers, zzpers are commonly in the age category of 45 years and older. Besides this, zzpers are commonly higher educated and higher skilled than the other workers (CBS, 2021b). A big part of the zzpers, 60,6% are male versus 39,4% female (CBS, 2021b). Although, the age of zzpers plays a big part in the level of education relative to those of flex- and temporary workers, it is uncommon that the flex- and temporary groups will achieve the same level of education as those of zzpers (Keune, Been & Tros, 2020). Therefore, the career perspectives and the income of the flex- and temporary workers are lower than the zzpers.

Temporary workers have the biggest variety of flexible agreement. This group can be divided into three categories: (1) Workers with temporary contracts with perspective of permanent, (2) long temporary contracts and (3) short temporary contracts. The first group consists of a large group from 20-35, and high educated labourers (Smits et al., 2021). This group does not have a specific sector in which they are located. The second and the third group are quite similar to one another, the level of education is low or moderate, and a large group follows an education next to their work. The difference between these two groups are between the ones whom also follow an education. labourers who follow an education and have a long contract commonly have this through a work/learn agreement (Alejandro Perez & Van der Moonen, 2020).

Laag   Middelbaar   Hoog   Onbekend
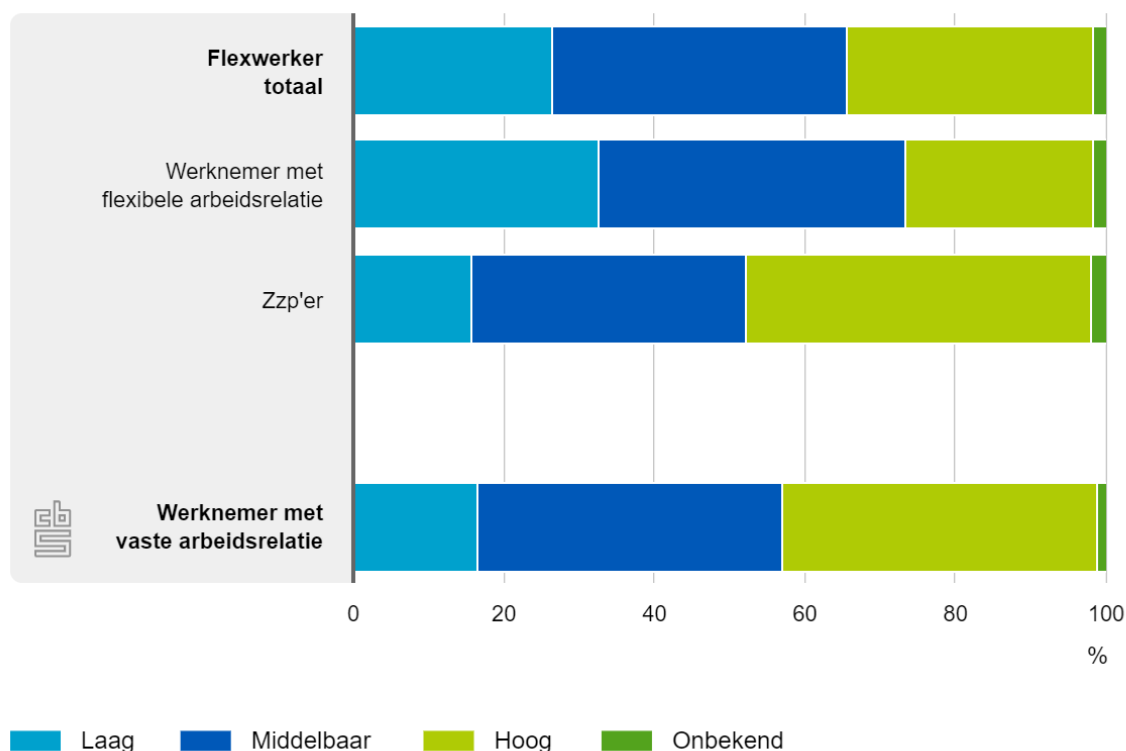
Figure 4: Connection between level of education and labour agreement in 2019 (CBS, 2021b)

The group of flexworkers consist of big amount of young labourers in the age category of 15-25. This group has a balanced ratio of male and female. More than half of this group is low educated, and the group also consist of migrants of a non-western background (Smits et al., 2021). A large amount of

this group is active in the catering and retail sector. Most of the flexworkers hope to obtain a temporary or permanent contract however this is commonly not the case (Gründemann, 2018). The average employment horizon, is the average time period in which the labourer can assume that he/she will obtain income. The average employment horizon of a permanent labourer is 11,7 years and that of a zzper is 10,5 years (CBS, 2021b). That of flexworkers and temporary workers is 2,2 year, although a temporary worker who receives a permanent contract will have an average of 11,7 years. The chances for flexworkers to achieve continuity seems to be very low considering this. This is strengthened by the findings of Gründemann (2018), labourers with a flexible labour agreement and especially the ones whom work as flexworkers are 300% more likely to become unemployed than labourers with a permanent contract. For temporary workers this will depend on their level of education and skill, in which the low educated may face higher chances of unemployment than the high educated ones, and for zzpers we can consider their chances the same as those with permanent contracts.

Korter dan 1 jaar
1 tot 2 jaar
2 tot 5 jaar
5 tot 10 jaar
10 tot 20 jaar
20 jaar of langer
Langer dan 1 jaar, exacte duur onbekend
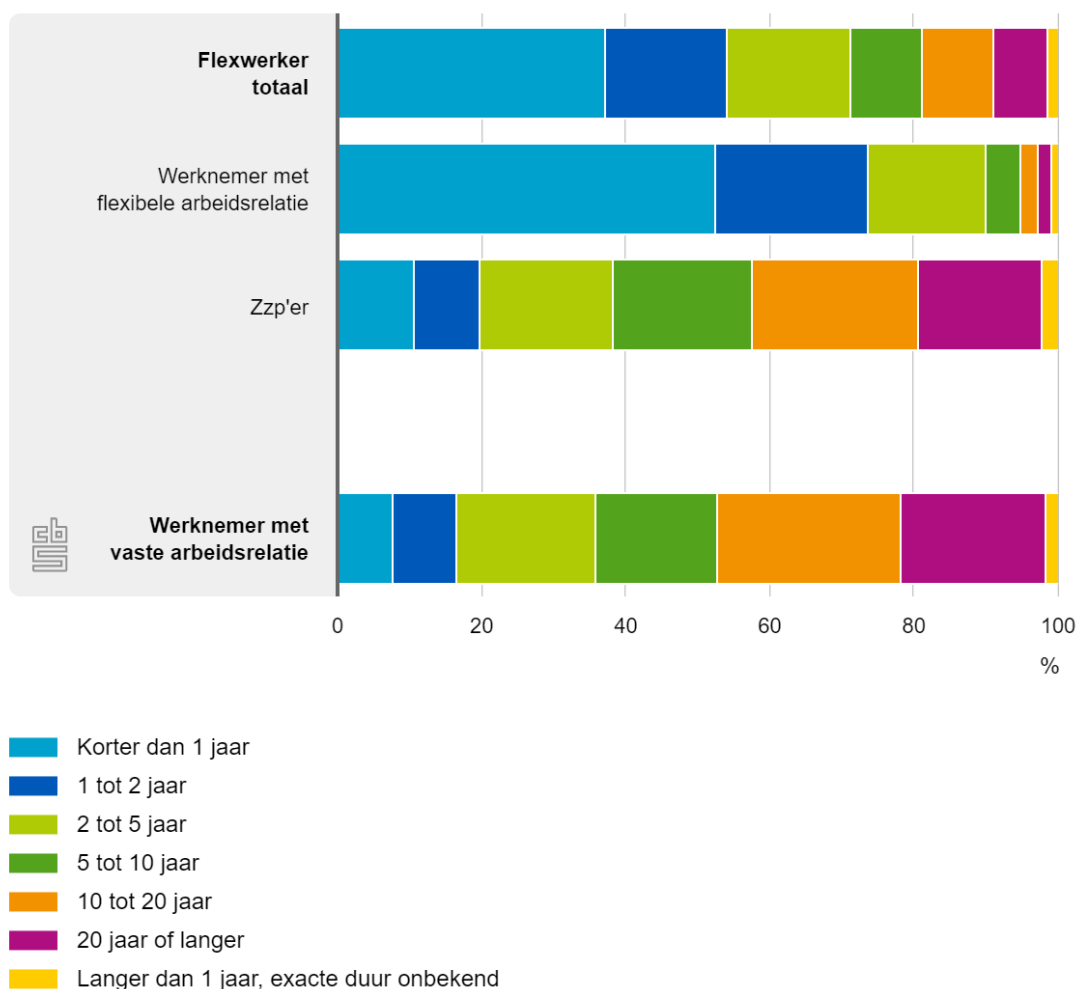
Figure 5: Employment horizon based on type of labour agreement (CBS, 2021b)

5.6 Demand for change

The Commission ap and the SER each have published an independent advise on how the future of flexible labour agreements and the labour market should be organised. The Commission Borstlap has created five building stones on which the flexible labour agreements and the labour market can be improved. The first is the enhancement of the internal agility of the labourer and the inhibition of the external flexibility. The enhancement of the internal agility should be achieved by: reducing the continuation to pay by illnesses to a maximum of one year and to give employers the opportunity to change the labourforce if circumstances demand it. To fire labourers with a flexible labour agreement, the commission advises to create a framework in which a severance pay can be established. Next to

this, the temporary labour agreements should be used for their temporary character, and therefore the extensions until a permanent contract needs to be restricted to a maximum of 2 years. Lastly, flexible labourers should get a minimum amount of working hours per quarter in their agreement to ensure that there is income, enhancing their certainty.

The second building stone is to make use of only three different labour agreements. Although Commission Borstlap (2020) wants to decrease the differences the different labour agreements possesses, it is important to a distinction in the different ways in which labour is conducted. Therefore the three labour agreements are: Self-employed, permanent labour agreement and call upon labour agreements. The call upon work will be flexwork which can only be done through an employment agency. Here, the call upon labourers will have labour agreements which legally fall under the employment agency enhancing their income certainty.

The third building stone is to enhance the knowledge of all the labourers by giving all the labourers, regardless of their labour agreement, a development budget in which the labourers can further develop their knowledge. By doing so the knowledge and quality of the labourers stay up to date creating equal opportunities on the labour market.

The fourth building stone focusses on creating equality in fiscality and taxes, to ensure that everyone get the basic amenities such as illnesses and ineligibility for work. To achieve this, every labourer needs to contribute. Also with the more equal tax contribution, working more will be rewarded accordingly, instead of paying more taxes as it is at the moment. In line with this, the fifth building stone builds further upon this.

The fifth and last building stone is to create a more activating and inclusive labour market, in which the system is more focused on preventing long time losses of labourers through illnesses and/or burnouts. The labourers need to have personal and individual guidance in their career for starting and switching from job. This all to enhance the participation and activation of labourers on the labour market.

The SER has created an advisory report which substantiated the needs and demands for the labour market, to be taken into account during the development of the coalition agreement. This advisory report uses the commission Borstlap as a basis, to further built and reason their advise and demands for the enhancement of the position of the flexible labourers on the labour market. Contrary to the commission of Borstlap which also focusses on making entrepreneurship more attractive, the SER solely focuses on the position of the labourers. In which the smoothening conditions for employers, such as firing employees more easy and lowering the continuation to pay for illness to one year, is opposed by the SER in which they state that this should not be changed. Further the SER wants to impose stricter rules for hiring zzpers. Zzpers earning low wages in high competition sectors will be used as a labourer instead of a self-employed addition, forcing employers to give them the same opportunities and benefits a permanent labourers would get. Next to this, there is a desire to increase the minimum income and the amenities to lower the income inequality which has been rising in the Netherlands. The SER (2021) also addresses the housing market in their advisory report stating that there needs to be a 5 year plan created in order to increase the amount of affordable houses in the Netherlands.

Although the focus is on enhancing the position of the flexible labourers and the labour market overall seen, adapting some of the measures result in unwanted negative effects. To start, by imposing extra rules for zzpers, they will become restricted in their choices and possibilities. Becoming a zzper is a conscious choice, and with this choice these labourers face higher risks than others, but with this, their possible gain and income are higher, balancing the risks. Thus imposing rules would not benefit the zzper as much as the SER would think. Also the SER is solely focused on the employees and minimal on the employers, putting significant obligations and responsibilities on them, such as the 2 year illness continuation payment and the hiring of zzpers, which could result in employers becoming more careful and slower in hiring new labourers (Doyle, 2017). In relation to this, the desire to increase the minimum wages would not only affect the employer negatively, but also all the employees working in the middle and lower income segment. By increasing the minimum wages, price inflation will be created by the employers which will calculate the increased wages in their products (Doyle, 2017). By doing so, sectors which provide basic needs, and have labourers around the minimum wage, will have the largest price increases. The construction sector being one of this. Due to the higher wages of construction workers, the housing prices will further increase. The income and price increase will be

balanced for the minimum wage earners, resulting in a neutral effect, however labourers which earn slightly above the minimum wage will be disadvantaged the most. The minimum wage increase will make it more possible for these labourers to get a higher mortgage which will again raise the housing prices, especially in the low and middle segment dwellings.

The use of securities and the stating a minimal amount of working hours per quarter in the flexible labour agreements are very suitable changes which enhances the position of the labourers making use of the flexible agreements. This will lead to a better employer employee relation which is beneficial for the employee. Also by prohibiting the zero hours labour contracts and therefore the ''call upon'' labourers, every labourer will have guarantees and certainties which will enhances their opportunities. In line with this better position and changes, the ''development budget'' which will be available for all the labourers independent of their contract can help them in developing their qualities and can therefore lead to better and higher paying jobs which further enhances their position on the housing market. By combining all these elements together, a strong labour market can be achieved, in which labourers overall seen possess higher qualities, flexible labour agreements keep existing which is needed in different sectors, but does not affect the position of the labourer drastically negative.

5.7 Conclusion
The Dutch labour market is characterized by the strong institutions which negotiated with the government and employers to create a beneficial position for the labourers. This lasted from the end of the war, until the 2000s. With the shift of political preferences and the ideology shifting from collective to more individualistic, changes occurred which created the uprise of more flexible labour agreements.

With this increase, the employer employee relation for labourers with a flexible contract changed. The employer further educates the permanent employee throughout their career. Investing in their education and/or skill. Because of the flexible and therefore temporary character of the contract, these labourers are left out of the investment scope of the employer. The labourers with a flexible labour agreement tend to have a stronger ''I need to prove myself'' than the ones with a permanent contract, and are less satisfied with their job.

The increased use of flexible labour agreements can be seen over all the different sectors. The group of labourers is very diverse and slightly different between the sectors. A significant increase can be seen in the sectors which are very sensitive to the economic climate. Therefore the flexworker has a shorter connection to an employer than a zzper. The flexible labour agreements in these sectors are focused on the low educated labourers. Sectors which have a high increase of zzpers are the ones in which high education and skill is demanded.

To conclude, flexworkers are the strongest affected by their agreement. The flexworker does not get the benefit of a permanent contract, in the form of: (1) Income security, (2) education from their employer and (3) job satisfaction. Together with this the commitment of flexworkers to the company are generally lower, and therefore a clear snowball effect can be seen in which the flexworker's career perspective and chances are further diminished. By comparing them with zzpers a major difference can be seen. The high education and skills which characterizes this group, creates work opportunities which are almost similar to the ones with permanent contracts. The already high level of education, and the average age of 45+ makes them invulnerable to the need of extra education from the employer, to improve their career perspectives. Zzpers are the most satisfied with their work and tend to be the happiest labourers. The variety of labourers with a temporary contract is so large, that for this group an average statement would not be sufficient. Therefore the groups will be divided based on their level of education. The low educated labourers will be compared with the flexworkers, whereas the middle and high educated labourers have characteristics which comply with a permanent contract and the zzpers, and therefore will be further compared to one another. For the comparison, these characteristics would be related based on age and individual ambition and/or preference.

6 Housing market

6.1 Rental market

The rental market in the Netherlands distinguishes itself into two parts. The social rental market, in housing associations build dwellings within restrictions imposed by the government. And the private rental market in which institutional investors, private investors and developers rent out their dwellings, with fewer rules and restrictions than the social rental market. The accessibility of flexhouseholds to the different parts of the rental market will be researched in the following paragraphs.

6.1.1 Social rental market

After the world war the housing associations played a big part in the reconstruction of the housing market in the Netherlands. Big urban area developments with the focus on quality were constructed for the wide public. Most of the developments were subsidized by the government, until the early 1990s when the government cut loose of the housing associations and stopped giving subsidy, but kept the associations accessible to state backed loans (Van Gent & Hochstenbach, 2020). With the increased independency, the increasing housing prices and the low interest rates on their loans, the position of the housing associations strengthened and they started to invest in more and larger social projects, public project buildings and even in some commercial real estate sectors (Hoekstra, 2017). The housing associations were of major importance to the addition of extra dwellings in the Netherlands and the strength of the housing associations were emphasized during the financial crisis. Before the financial crisis, 30% of the new dwellings were built by housing associations. This became 60% during the financial crisis, aiming to at least partially saving fall back in the housing production (Boelhouwer & Priemus, 2014). It looked like the housing associations would become even more powerful but the opposite happened. The housing associations got a negative image, the associations became arrogant, the salaries were far too high for a social institution and news of fraudulent practices were being brought to light. Early in the 2012, the lowest point was reached when the Vestia-affaire was brought to light, in which the housing association Vestia was 2 billion euros indebted due to investments of high risk. The whole social sector lost its image, since housing associations are connected with one another based on solidarity, ''verplichting waarborg en solidariteit''. Meaning that if Vestia would go down, the whole housing association sector would be affected by this, and more associations would go bankrupt. After this happened, Vestia and other housing associations were forced to sell of dwellings to contribute to the debt of Vestia (Bosma, Hochstenbach, Fernandez & Aalbers, 2018). The government also took measures, introducing the Landlord Levy ''verhuurdersheffing'' in 2013, which increased the amount of taxes housing associations have to pay, to narrow down their financial playing field (Boelhouwer & Priemus, 2014). This Levy was meant to decrease the risks of the extortionate behaviour of the housing associations, so history would not repeat itself. Together with reducing this risk, the position of housing associations weakened. Less money was available for the construction, renovation, and sustainability measures. Hoekstra (2017) claims this phenomenon to be the residualization of the social rental market in which the strong position of housing associations is weakened leading to a lower supply of social dwellings and a lower amount of new built social dwellings.

The Dutch social housing system, is a regulated system in which housing associations construct houses which correspond with the rules determined by the government for the social sector. Housing associations are a non-profit organization and therefore cannot make profit. The income these housing associations generate has to be used for the construction, renovation and/or maintaining the dwellings in their portfolio. The main aim of housing associations is to contribute to the total amount of affordable houses in the Netherlands, therefore these associations are perceived as social entities rather than independent organizations. The housing associations commonly have 90% of their portfolio in the social rental market, whereas free rental cannot exceed 10% of the total amount of dwellings which the housing associations possess (Lejour & Möhlmann, 2017). Given the large variety of housing associations in the Netherlands, the composition can differ between them. The social rented dwellings provided by the housing association have the following four characteristics, (1) the maximum rent for the dwelling cannot exceed the boundary of 752 euros in 2021, (2) the rent can only increase by a regulated percentage, (3) the income of the household cannot exceed the amount set by the government and (4) there is a possibility to apply for rent allowance (Ministerie van Algemene Zaken, 2020b). To apply for a social rented dwelling, one has to be signed in by housing associations and then will be put on a waiting list to obtain a social rented dwelling. The dwellings of the housing associations contribute to 30% of the total housing supply in the Netherlands (Lejour & Möhlmann,

2017). Housing associations have to give 80% of their social rented dwellings to households with an before tax income of max 40.024 euros per year, 10% to ones between 40.024-44.655 euros per year and 10% can be given to households whom earn more than 44.655 euros per year (Ministerie van Algemene Zaken, 2020a). For 2022 the government already has set new rules to enhance the upward movement and to appoint households more thoroughly to a social rental dwelling. In 2022 a minimum of 85% of the social rental dwellings can be rented by one person households with a maximum before tax income of 40.024 euro per year and a maximum of 44,196 euros per year for more person households (Ministerie van Algemene Zaken, 2020a). A maximum of 15% can be given to households whom earn more than 40.024 euros per year (Ministerie van Algemene Zaken, 2020a).

6.1.2 Flexhouseholds and the social rental market
By looking at different labour agreements, we see a lot of differences in the average income of the households. based on a full time agreement, the average income of labourers with a permanent agreement is 68.200 euros, that of zzpers is 45.000 euros and for flexworkers the average was 40.200 euros (CBS, 2020a). However, as mentioned in the previous chapter, the amount of income is based on the sectors in which they work and the level of education. So in the flexwork group, a distinction has to be made between the ones whom have temporary contracts and flexworkers whom are call up labourers. The difference between them is large, in which the temporary labourers can earn up to 48.000 euros, whereas the flexworkers can earn the amount of 20.000 euros (CBS, 2020a). By looking at the averages, we see that in practice, the average income per labourer is different, because not everyone works the full time 40 hours per week. In the figure below the differences are shown between the full time incomes, and the general amount of income which is obtained on average.

x 1 000 euro
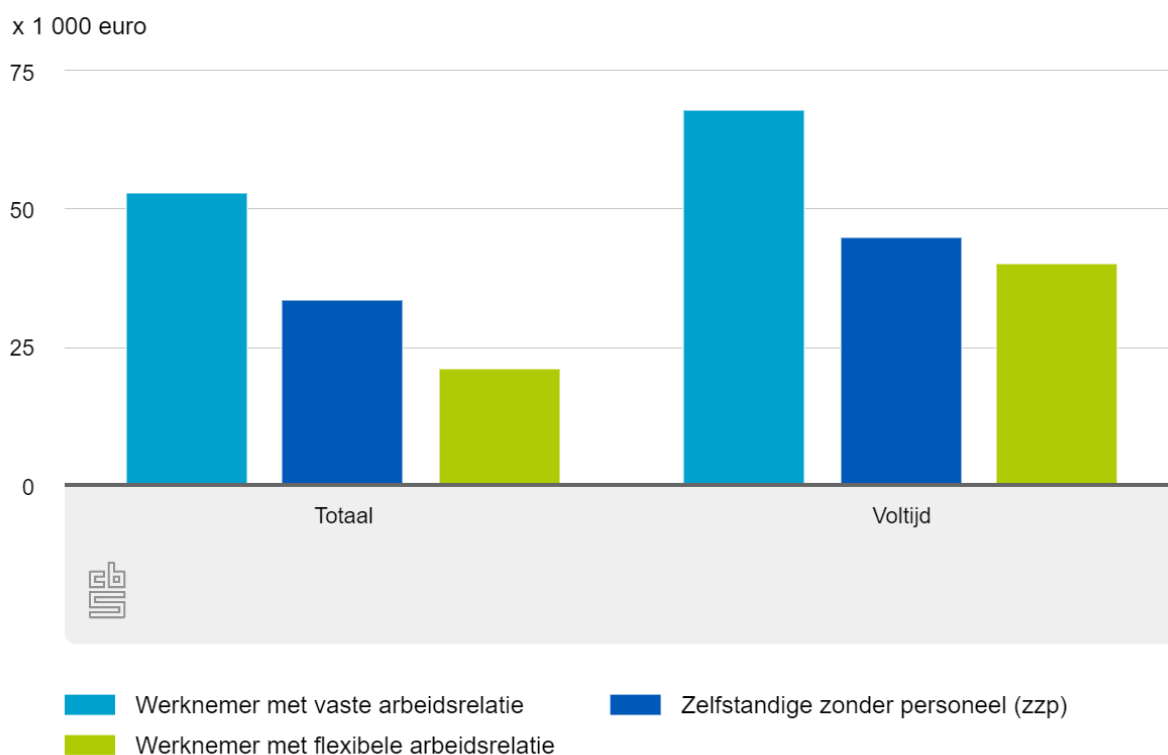
Figure 6: Average income based on real working hours versus the average amount of income of full time work (CBS, 2020a).

In this figure we see that especially the flexworkers workers and temporary workers have significantly lower wages than the ones with a permanent labour agreement. According to this figure, the accessibility to the social rented sector is very high for flex and temporary workers. For zzpers it depends more on their level of education and amount of work they have. For permanent contracts they can only access the social rental sector if they earn 12.000 euros below average. This would mean that flexworkers and temporary workers are very eligible towards obtaining a social rental dwelling given the rules mentioned in the previous paragraph.

To apply for a social rental dwelling, flexhouseholds will have to hand in an income statement of the previous year to the housing association. Based on the income and the household composition, the housing association will supply the households with different dwelling which suits the characteristics of the household (Woonnet Haaglanden, 2021). This means that a household with a low a income statement will not be eligible to apply for a dwelling with a rent close to the maximum regulated price (Woonnet Haaglanden, 2021). After the household has obtained the dwelling, the household will pay a fixed amount of monthly rent for the first year, after the first year the household will receive tenant protection which means that the housing association cannot dissolve the rental agreement freely (Ministerie van Algemene Zaken, 2020c). After the first year, the rent can be increase based on the amount set by the government. The household will be eligible for rent allowance given the low income to obtain the social rental dwelling. Because of the varying income of the household, the rent allowance can change every year. There is a method in which a flexhousehold could benefit from its varying income, in obtaining a suitable social dwelling however, this would be a devious way. With a low income, the household could apply for a cheap and small house. After the income has increased, they could apply for a bigger house, for which they would get priority over others. Housing associations give priority to households which shift from home to another one, over starters on the market. By doing so, the flexhousehold could already benefit from its low income, in obtaining a bigger house in the near future if its income increases.

If the income of the household decreases, the rent allowance will increase. Together with the drop in income, the household can be eligible for a temporary rent discount or an one-off rent decrease. Because of the coronavirus the ministry of internal affairs introduced a policy in which tenants can ask for a temporary rent discount (Aedes, 2021b). This rent discount, can result in a temporary stop of rent increase or a temporary reduced rent. This rent discount will apply for a minimum of 1 month and a maximum of three years. The exact period of time in which this rent discount will be in effect depends on the housing association which will assess the application. This policy is introduced for household which face a sudden fall back of income (Aedes, 2021b). This policy is especially useful for flexhouseholds which will feel the largest impact of the corona crisis. According to Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (2020) an one-off rent decrease can be given to households, this can be done in two ways. The first way is that the housing association will propose a rent decrease to the household based on the information that they have on the income earned in 2019 (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2020). The maximum income and rent decreases proposed by the housing associations are shown in the table below.

Household composition	Income statement not higher than	Rent decrease to
One person household, not reached retirement age	€ 23.725	€ 633,25
One person household, reached retirement age	€ 23.650	€ 633,25
Two person household not, reached retirement age	€ 32.200	€ 633,25
Two person household not, at least one person reached retirement age	€ 32.075	€ 633,25
Three or more person household, not reached retirement age	€ 32.200	€ 678,66
Three or more person household, at least one person reached retirement age	€ 32.075	€ 678,66

Table 2: One-off rent decrease (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2020)

The second way to get the rent decrease, is by applying for the rent decrease. If the income of the household has decreased after 2019 the tenant will have to contact the housing association and has to send personal information and document to obtain the rent decrease (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2020). To be eligible for this, the amount of rent cannot be lower than 633,25 or 678,66 euros based on the type of the household composition as mentioned in the table above. The household will have to show evidence that in the last 6 months the income has been not

higher than half of the amount shown in the table above. Which means that the income of the last 6 months cannot exceed 16.038 euros for a two or more person household. The first year of the rent decrease the rent will be fixed, after this year the housing association can increase the rents again (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2020).

Contrary to this, the income of a (flex)household can also increase, if this is the case the rent allowance will become lower, and the housing association will have the possibility to propose a rent increase for these households, which are higher than the general price increases of that year (Ministerie van Algemene Zaken, 2021c). This increase will also be done according to the income of 2019. Because of the unusual circumstances created by the coronavirus the government has chosen that will not be any rent increases in 2021, however the possible increases of the previous years are shown in the table below.

Year	Maximum income limit from 2 years ago (Year – 2 years)	Maximum rent increase by income lower than stated	Maximum rent increase by income higher than stated
2021	€ 44.655	0,0%	0,0%
2020	€ 43.574	5,1%	6,6%
2019	€ 42.436	4,1%	5,6%
2018	€ 41.056	3,9%	5,4%
2017	€ 40.349	2,8%	4,3%

Table 3: Rent increase limit according to year and income (Ministerie van Algeme Zaken, 2021c)

The percentage shown in the third column is not used for all the rents, but rather the maximum. The housing associations choose based on the income of 2 years ago what the percentage of the increase will be. As shown in the last column, if a household exceeds the income limit which is set, the housing association can use a higher percentage, which is commonly done (Aedes, 2021a). Housing associations can use a higher percentage for these households. The reason for this is to stimulate these households to move towards the private rental market, to cope with the issue of ''crooked living'' in the Netherlands (Ministerie van Algemene Zaken, 2021b). However, the rent cannot exceed the maximum of 752,33 euros per month, set by the government. If this amount is reached, the rent increase cannot be applied. According to Valstar (2018) this rent increase does have an effect, enhancing the upward movement for households.

However, there still are some problems with this method. The income of 2 years earlier is used in this calculation which makes this system not effective. Two examples are created, example 1: Mr. Vos lives in a social rental dwelling and pays a rent of 752, and works as a zzper. Mr. Vos generated an income of 55.000 euros in the year 2018. In 2020 this means that the housing association can impose a rent increase of 6,6%, however because the maximum rent limit is 752, the rent of Mr. Vos will stay the same, which means Mr. Vos will not be stimulated to move towards the private rental market. Example 2: Mr. van Zijl lives with his wife whom does not work. Mr. van Zijl works as a flexworker and generated an income of 45.000 euros in 2018 and also in 2019. This means that the housing association imposed a rent increase of 6,6% in 2020. However, in 2021 Mr. van Zijl could not find proper work, and generated an income of 32.000 euros. He could generate 1000 euros extra, however by doing that he would exceed the maximum of 32.200 euros which would make him not eligible for the one-off rent decrease. So although Mr. van Zijl had an income in 2019 which was higher than the maximum income limit, assuming the rent increase percentage is higher than 0,0, by not working extra he can get around the price increase, and benefit from lowering his rent. Although these are very specific examples, the circumstances in which rent increase or decrease will be used, can be manipulated by flexhouseholds in a way that they can benefit from it, avoid the rules which are set in a way that households with a permanent household cannot do.

6.1.3 Private rental market
In recent years, owning dwellings has become significantly more attractive to investors to invest in. With the rising house prices, decreasing interest rates and the Dutch tax system which makes it attractive to own a house and rent it out, more and more investors have entered the Dutch housing market from a business point of view (Agzanay, 2019). Dwellings sold by housing associations in the beginning of the 2012s have been bought by private investors against low prices (Bosma et al., 2018). The rent levels are increasing disproportionally, especially with the high shortages on the housing market and the absence of regulations. A trend can be seen in which the supply of middle segment

rental dwellings with rent levels between 752-1000 euros, is reducing very fast (Boelhouwer, Boumeester & Vlak, 2019). The prices of the rent are not in line with the characteristics of the dwellings, but because of the high demand, investors try to squeeze every possible euro they can obtain from the rent (Agzanay, 2019). The inequality of the rents between the low and the high segment is becoming larger, in which the middle segment is slowly fading away. The rental middle segment is of high importance to a city, and therefore the society. This segment gives opportunities for households to move to a suitable house and create higher accessibility on the housing market of a city (Van Gijzel, 2018). The middle segment is therefore a tool to create a varied composition of different type of households, especially at places where a large amount social rental dwellings are located. Because of the decreasing middle segment supply, households are stuck in their current dwelling, decreasing the movements on the housing market and specifically the ones of social rented dwellings. The upwards movement of social rental dwelling to free rental dwelling are of high importance to decrease the pressure on the social rental market and parallel to stop the phenomenon of ''crooked living'' in which households with higher incomes than the maximum income for a social rental dwelling, are living in these social dwellings (Boelhouwer, 2018). Ironically, due to the shortages, we see the opposite phenomenon of the ''crooked living'' known, which is households with lower incomes that are living in dwellings which belong in the middle segment, but are paying prices which belong in the high segment, which they can hardly afford (Crabbendam, 2018). Households which commonly make use of the private rental sector are starters, expats who work temporary in the Netherlands, households which want to have flexibility because of their work and household composition, households whom want to move from a social rental dwelling and households whom earn too much to apply for a social rental dwellings but are not suitable for a mortgage (Van Gijzel, 2018).

The private rental market is contrary to the social rental market not regulated by the government. Since 2020, a policy is introduced which will state the maximum rent increase for a private rental dwelling. This maximum increase will be used in the private rental market for the first time in 2021, and will be a maximum of 2,4% (Ministerie van Algemene Zaken, 2021c). This percentage is determined according to the following calculation: Max rent increase = Inflation percentage + 1% (Woonbond, 2021). If the rent increase in the contract is higher than this percentage, an objection letter can be written to the lessor, if the objection is rejected a trial can be started by the ''huurcommissie'' which will determine if the proposed rent increase is valid (Woonbond, 2021). The suppliers of housing on the private rental market are commonly private investors, institutional investors and developers. Housing associations have as mentioned a maximum of 10% of their dwellings which can be offered in the private rental market. Commonly investors create their own rules, in which they demand that a household have to comply to the rules which are in line with their household characteristics. To map these rules, 4 private institutions have been researched. A variety of brokers and institutional investors located in different areas are researched. The outcomes are shown in the tables below.

Type of contract	Minimum Gross income norm	Additional documents	Extra regulations due to contract
Permanent contract	3,5-4,5x rent or year income divided by 48	Three salary statements and an employer declaration	no
ZZP	3,5-4,5x rent or year income divided by 48	balance sheets and income statements of the past two years	3 month' worth of deposit
Flexworker	Not eligible to rent		
Temporary contract	3,5-4,5x rent or year income divided by 48	Three salary statements and an employer declaration	If a letter of intent is not given, the tenant will have to pay 3 months' worth of deposit

Table 4: Conditions for renting a dwelling at Van t'hof Rijnland (Van t 'hof Rijnland, 2021)

Type of contract	Minimum Gross income norm	Additional documents	Stricter regulations due to contract
Permanent contract	3,5-4x rent	Three salary statements and an employer declaration	no
ZZP	3,5-4x rent	balance sheets and income statements of the past two years	3 month' worth of deposit

Flexworker	Not eligible to rent		
Temporary contract	3,5-4x rent	Three salary statements and an employer declaration	If a letter of intent is not given, the tenant will have to pay 3 months' worth of deposit

Table 5: Conditions for renting a dwelling at BMV Makelaars (BMV Makelaars, 2021)

Type of contract	Minimum Gross income norm	Additional documents	Stricter regulations due to contract
Permanent contract	3-4x rent	Three salary statements and an employer declaration	no
ZZP	3-4x rent	balance sheets and income statements of the past two years	Additional regulations such as more months' worth of deposit
Flexworker	3-4x rent	Three salary statements and an employer declaration	Additional regulations such as more months' worth of deposit or a letter of intent
Temporary contract	3-4x rent	Three salary statements and an employer declaration	A letter of intent for contracts shorter than 1 year, the lessor will ask for extra deposit

Table 6: Conditions for renting a dwelling at Frisia Makelaars (Frisia Makelaars, 2021)

Type of contract	Minimum Gross income norm	Additional documents	Stricter regulations due to contract
Permanent contract	2-3,5x rent	Three salary statements and an employer declaration	no
ZZP	2-3,5x rent	balance sheets and income statements of the past two years	Additional regulations such as more months' worth of deposit
Flexworker	2-3,5x rent	Three salary statements, the monthly income can fluctuate but cannot exceed the minimum income norm	Additional regulations such as more months' worth of deposit or a letter of intent
Temporary contract	2-3,5x rent	Three salary statements and an employer declaration	A letter of intent for contracts shorter than 1 year, the lessor will ask for extra deposit

Table 7: Conditions for renting a dwelling at Hallie van Klooster Makelaardij (Hallie van Klooster Makelaardij, 2021)

Based on the work fields of the parties, there are no major differences to be seen. Van 't hof Rijnland focusses on the Netherlands as a whole, BMV makelaars solely on Arnhem, Frisia on the Randstad and Hallie van Klooser makelaardij is focused on Amsterdam and direct area. The income norm is for all the parties almost the same, with particularities of 2 times and 4,5 times the income norm in for certain dwellings. For zzp'ers the norm is the same, they have to show their balance sheets and income statements of the last two years, which is approved by an accountant, and will face the stricter regulation in which they have to pay at least three months' worth of rent as a deposit. The same goes for households with a temporary contract, if a letter of intent is not given by the employer. If the labourer has a contract for one year or longer, no additional regulations will be used by the lessor. These groups do not face big differences between the parties, for flexworkers this is different. Flexworkers do not have access at every party, Van 't hof Rijnland and BMV Makelaars simply do not accept flexworkers because of the high income uncertainty of this group (Van 't hof Rijnland, 2021). The other two parties do accept flexworkers, but they face more regulations than the other groups. In personal communication with Hallie van Klooster Makelaardij and Frisia Makelaars, the parties explained that they are extra careful with flexworkers and that if the additional regulation such as a letter of intent is not given, the application for the flexworker will be rejected. Also a strong fluctuating income will not be accepted in the application. Contrary to housing associations, these parties do not work with waiting lists in which the household which is signed in the longest will have the first choice (Frisia, 2021). The parties will make choices which are based on the household which applied the quickest on the dwelling and the household income, the household composition is irrelevant for the application (BMV Makelaars, 2021). From personal communication with the parties, it was mentioned that if households apply at the same time and have similar incomes but different labour agreements, parties choose permanent labour agreements over the others because of the income certainty. Flexworkers have the lowest possibilities if the applications needs to be assessed. However, some

remarks were made during the personal communication with the parties. To start, although these rules are commonly leading in the application for a dwelling, per project the rules and regulations can differ (Frisia Makelaars, 2021). Sometimes the personal circumstances will be taken into account which can lead to less strict regulations, especially if the applications for the dwelling are low and the lessors wants to get as soon as possible a new tenant although this does not happen often (Hallie van Klooster Makelaardij, 2021).

6.2 Owner occupied market

6.2.1 Housing price development
The housing prices in the Netherlands are rapidly increasing. The increase is of such a high proportion, that the increases of the wages cannot keep up with it. Before the financial crisis in 2008, the housing prices in the Netherlands were already increasing rapidly from 1995 till 2008 due to the shortage of land and the increased possibility to lend more money per household (Dijkhuis, 2017). By taking the second parttime job of the household into account and with the decreasing mortgage interests, the amount of money to borrow from the bank increased for the households (Dijkhuis, 2017). Because households gained easier access to bigger amounts of money, the house prices increased accordingly. Also the amount of new built dwellings are far lower than the amount of new households on the market (Lennartz, 2018) After the crash in 2008, the housing prices in the Netherlands started to decrease and the investments on new residential projects declined as well (Lennartz, 2018). The decline of investments into new dwellings resulted in a lower amount of new built dwellings in the years after. As shown in the figure below, the amount of new built dwellings stagnated in the years after the recession, reaching the same amount of dwellings built in 2011, 6 years later in 2017 (CBS, 2021a).

Gereedgekomen nieuwbouwwoningen
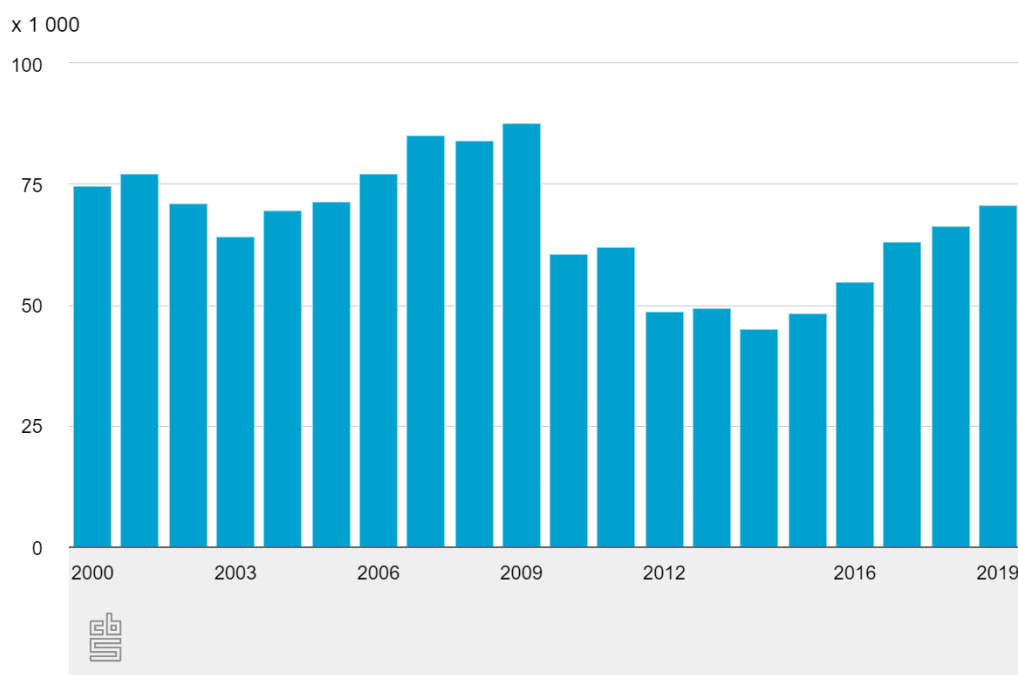
Figure 7: Addition of new dwellings in the Netherlands (CBS, 2021a)

If we compare the Netherlands to the other countries in the southern part of Europe, we see that together with the Netherlands only Ireland had steep decrease in housing prices (Boelhouwer, 2016). Countries such as Sweden, Germany and Belgium saw stagnating housing prices. Considering the different housing systems and policies during the crisis, not only the burst of the bubble and start of the economic recession resulted in the decline of the housing prices in the Netherlands. According to

Boelhouwer (2016) the stricter mortgage conditions imposed in the Netherlands in 2011 is one of the main drivers for this strong decline in prices on the Dutch housing market. The regulations, such as lower Loan to value, Loan to income and the obligation to pay amortization to make use of the mortgage interest deduction were a logical response to the financial crisis, however the timing of these regulations had immense consequences for the housing prices (Van der Heijden & Boelhouwer, 2018). Because of these regulations households had lower access to a mortgage, strengthening the decrease of the housing prices. Homeowners who just bought their house, had a mortgage which was higher than the value of the house resulting in homes which were ''under water'' (Van der Heijden & Boelhouwer, 2018). Boelhouwer (2016) states that financial institutions and policy makers used these changes to create more safety for the financial institutions by reducing the risks. By focussing on the financial institutions and changing policies during the crisis, the housing crisis was strengthened and made worse, which had a large effect on the building sector, homeowners and also the total economy of the Netherlands.

	Prijsindex verkoopprijzen Prijsindex bestaande koopwoningen	Ontwikkeling t.o.v. voorgaande periode	Ontwikkeling t.o.v. een jaar eerder	Aantal verkochte woningen Aantal verkochte woningen	Ontwikkeling t.o.v. voorgaande periode	Ontwikkeling t.o.v. een jaar eerder	Gemiddelde verkoopprijs	Totale waarde verkoopprijzen
	2015=100	%		aantal	%		euro	mln euro
2000	80,3	18,2	18,2	189 358	-7,4	-7,4	172 050	32 579
2001	89,2	11,1	11,1	195 737	3,4	3,4	188 397	36 876
2002	95,0	6,4	6,4	198 386	1,4	1,4	199 752	39 628
2003	98,4	3,6	3,6	193 406	-2,5	-2,5	204 829	39 615
2004	102,6	4,3	4,3	191 941	-0,8	-0,8	212 723	40 830
2005	106,6	3,9	3,9	206 629	7,7	7,7	222 706	46 017
2006	111,5	4,6	4,6	209 767	1,5	1,5	235 843	49 472
2007	116,2	4,2	4,2	202 401	-3,5	-3,5	248 325	50 261
2008	119,7	3,0	3,0	182 392	-9,9	-9,9	254 918	46 495
2009	115,6	-3,4	-3,4	127 532	-30,1	-30,1	238 259	30 386
2010	113,0	-2,2	-2,2	126 127	-1,1	-1,1	239 530	30 211
2011	110,3	-2,4	-2,4	120 739	-4,3	-4,3	240 059	28 984
2012	103,1	-6,5	-6,5	117 261	-2,9	-2,9	226 661	26 578
2013	96,4	-6,6	-6,6	110 094	-6,1	-6,1	213 353	23 489
2014	97,2	0,9	0,9	153 511	39,4	39,4	222 218	34 113
2015	100,0	2,8	2,8	178 293	16,1	16,1	230 194	41 042
2016	105,0	5,0	5,0	214 793	20,5	20,5	243 837	52 374
2017	113,0	7,6	7,6	241 860	12,6	12,6	263 295	63 680
2018	123,2	9,0	9,0	218 491	-9,7	-9,7	287 267	62 765
2019	131,7	6,9	6,9	218 595	0,0	0,0	307 978	67 322
2020	141,9	7,8	7,8	235 511	7,7	7,7	334 488	78 776
2021 februari	151,4	1,2	10,4	16 871	-31,2	9,4	369 070	6 227

Table 8: Housing price development 2015 = 100 (CBS, 2021c).

As shown in table 2, the prices started to slowly increase after 2012. As already stated, the amount of dwellings cannot keep up with the amount of new households on the housing market. So the amount of new produced dwellings in the years before the crash was already too low, strengthening the shortage on the market. With the decline of new built dwellings between 2012-2016, this gap between the amount of households and dwellings is further increased strengthening the shortage, resulting in increased prices due to the mismatch of supply and demand (Lennartz, 2018). Together with the shortage, the European central bank kept the interest rates on purpose low which made ''mortgages'' cheaper and therefore increased the prices (Van der Heijden & Boelhouwer, 2018). In the years after the recovery, the desire was to increase the supply of dwellings to 75.000 per year to decrease the gap between supply and demand (Manshanden, 2019). This amount has not been met since the year 2009 in which the amount of 83.000 new dwellings were built. Resulting in an average house price of 369.000 euros for houses in 2021 which is a price increase of 51%, in comparison to 2015 when the average price of a listed house was 230.000 euros (CBS, 2021c).

In the present time, new problems arise which makes it harder to meet the desired supply. One of the reasons is previously mentioned which is the scarcity of construction ground in the Netherlands. With the vanishing of the ministry of housing in the Netherlands, the municipalities were more in charge of how the ground will be used, and the appointment of construction ground. One of the reasons that this happened is because of the sanitation of the building sector during the crisis, which happened in the public sector as they did in the commercial sector. The building sector has a long way to recover from

the crisis (Boelhouwer, 2016). With the regulations from the municipalities, differences in construction and housing can be seen in the Netherlands (Manshanden, 2019). Together with the scarcity, a trend can be seen in which the total amount of permits given out for new constructions are declining (Lennartz, 2018). Also, the higher sustainability measures decreases the amount of permits given, because developers face stricter regulations, which amplifies the decrease in permits (Buitelaar, 2019). Although the government tries to stimulate the permit release by financial stimulation, the the sustainability demands make it hard to get the construction projects to progress quicker (Manshanden, 2019). The slow progression of the construction of new built dwellings will eventually have to be made up in a further stadium, making it even harder to reach the desired amount of new built dwellings per year, especially since there is already an effort being made in catching up with the dwelling shortages created during the financial crisis.

6.2.2 Standard mortgage conditions

According to Scanlon, Lunde & Whitehead (2011) the possibilities on obtaining a mortgage has become harder and stricter based on different conditions. High LTV's and high loan to income mortgages are made stricter to obtain in such a way that getting a decent mortgage is made impossible with a low income. In the Netherlands it was common for households to borrow 107% of the house price. This was done to pay for the transaction costs and/or renovations. Now this has changed that households can only borrow a maximum of 100% of the total market value of the house. If the market value exceeds the taxation value, then households have to insert own capital to purchase their home (De Hypotheker, 2021). Mortgage lenders have can only lend out the lowest value between the taxation and market value. With the increasing pressure on the housing market, and overbidding of consumers on the market, a lower taxation value than the market value has become normal and occurs more often (NHP adviseurs, 2020). Normally the norm of 6/6,5 times the annual income is used to calculate the maximum amount of the mortgage. The regulations based on income and interest have been sharpened, and are now more related to these factors (Nibud, 2020). By calculating with the interest rate of 1,75% which is a common used interest for a fixed amount of 10 years, the norm varies from 3,4 to 5,8, in which the norm is used for before tax incomes from 21.500 euros per year to 110.000 euros per year, in which the norm gradually increases by higher incomes (Nibud, 2020). With the sharpened regulations, the price segments in which households can buy houses, are shifted. High income earners till 60.000 euros a year, can only get mortgages to a maximum of 300.000 euros if they have low interest rates on the mortgage, otherwise this amount will be lower. With the average house price of 369.000 in 2021 it means that they would have to insert at least 70.000 euros of own capital to pay for the house excluding transaction, notary and renovation costs (CBS, 2021c). For flexible labour agreements a different norm is used to calculate the eligibility for a mortgage and also the amount of the mortgage.

6.2.2.1 Mortgage conditions labourers with a temporary contracts

Mortgage lenders desire a letter of intent, in which the employer states that by equal functioning and unchanged work circumstances the labourers temporary contract will be transformed into a permanent contract (Vereniging Eigen Huis, 2021a). For labourers who get this letter of intent the income it is earning at the moment will be used to calculate the amount of mortgage (Rabobank, 2021). If this letter of intent is not given than the labourer can still get a mortgage. Two options are presented; The first one is a deviating rule in which the average annual income will be calculated based on the annual incomes of the last three years, in which the last year is the maximum income which can be used for the mortgage calculation (Rabobank, 2021). So if the labourer has earned 40.000 euros in year one and two, and 30.000 euros in year three, the income which will be used in the income calculation will be 30.000 euros. If the labourer has earned 30.000 in his first year, and his last two 40.000 than the income which will be used for the calculation is (30+40+40)/3 = 36.666 euros. According to Vereniging Eigen Huis (2021b) some mortgage lenders take extra measures, such as ABN AMRO who restrict the calculation of the mortgage to 90% of the average income or Hypotrust Comfort, who restricts it to 85%, and if the labourers has only worked for two years, to a lower percentage of 75%. One could argue that based on this information, a starter without any previous worked years cannot obtain a mortgage, however here the second option comes into place which is the ''Arbeidsmarktscan''.

The Arbeidsmarktscan is a tool which calculates the work opportunities of a labourer based on its characteristics (Arbeidsmarktkansen.nl, 2021). This tool is created by an independent organization which uses data of the labour market to analyse how the sector in which the labourer works is affected by externalities, such as automatization, robotization, politics and supply and demand of vacancies. To

be eligible to use the Arbeidsmarktscan, the following steps needs to be taken; First, a diploma needs to be uploaded to show the educational level of the applicant, if the applicant does not have a diploma he/she cannot make use of the tool (Arbeidsmarktkansen.nl, 2021). After this is done, personal information such as income, work experience, living region, profession and function will be written down. After the personal file is completed, the file will be used to determine the earning capacity and labour score of the applicant (Arbeidsmarktkansen.nl, 2021). If the labour score is higher than the 70 points, the applicant can make use of the Arbeidsmarktscan, and this scan can be used to apply for a mortgage by the mortgage lenders whom accept this scan. However, if the future income generated by the Arbeidsmarktscan is lower than the amount of income which earned, the lower amount will be used. Next to this an additional rule is created for users of the Arbeidsmarktscan, which is that the applicant has worked at least 12 months in the last 14 months (Arbeidsmarktkansen.nl, 2021).

6.2.2.2 Mortgage conditions zzpers

The basis on which the mortgage is calculated for zzpers is the same as option one for the labourers with a temporary contract. The average income of the last three years is calculated with the last year as the maximum income which will be used as the average income, to be used for the mortgage calculation. If the '''Nationale Hypotheek Garantie'' is not used by the mortgage, different mortgage lenders will use 90% of the income for calculating the maximum amount of mortgage or will only give 90% of the mortgage. A few will not give a mortgage at all if the NHG is not being used by the mortgage (Vereniging Eigen Huis, 2020). If the applicant is less than 3 years a zzper, than 90% will be used regardless of NHG being used or not, or even 75% of the income if the zzper works less than 2 years (Ikbenfrits, 2020). Together with this lower amount, the zzper will have to get a forecast research from an independent expert about how much income will be generated in the coming year(s) (Vereniging Eigen Huis, 2020). If the forecasted income is lower than the 90% or 75%, than the forecasted income will be used in the calculations for a mortgage (Vereniging Eigen Huis, 2020). If the applicant is lower than 1 year a zzper, than the chances of obtaining a mortgage are zero to none, with the exception of the following circumstances.

As mentioned in section 5.5, a significant amount of the zzpers are 45 years or older. These zzpers are commonly experienced and some of them have worked as an employee before becoming a zzper. Therefore, if an applicant is lower than one year zzper, but has worked the previous years for a company than the option from looking back three years can be used. However, the average income of the last three years will only be used for 80% to calculate the mortgage (O.Verschoor, personal communication, March 26, 2021).

6.2.2.3 Mortgage conditions flexworkers

For a long time there was no possibility for flexworkers to obtain a mortgage, due to their low and uncertain income (M. Hagedoorn, personal communication, March 24, 2021). However, since the beginning of 2013, a new method called ''perspective declaration'' was introduced, which was accepted by mortgage lender to make it easier for flexworkers to obtain a mortgages (Hypotheker, 2020). The perspective declaration has characteristics such as the Arbeidsmarktscan which calculates the work horizon of the applicant (V&W Adviseurs, 2021). Contrary to the Arbeidsmarktscan, the perspective declaration does not generate an income which is used to calculate the mortgage, but rather looks if the income which is being earned is sustainable within the field of the flexworker (Stichting Perspectiefverklaring, 2021). The income of the last three months will be taken into account to calculate the mortgage, however the applicant needs to work at least one year at the employment agency to get a perspective declaration (Stichting Perspectiefverklaring, 2021). If the flexworker does not get a perspective declaration, the ''three years back'' rule will be used, in which the same rules apply like the temporary contract and zzp mortgage conditions (V&W Adviseurs, 2021).

6.2.2.4 Experiment of a new product

Besides the Arbeidsmarktscan, perspective declaration and forecast research, another method was researched in which the accessibility of households paying high rents, to the owner occupied market was examined.

An experiment was created in which a sample group of households who pay high rents in the private rental market, were asked to participate in a pilot to see if there were possibilities to deviate on mortgages due to their capabilities of paying higher rents (Ministerie van Binnenlandse Zaken en

Koninkrijkrelaties, 2021). The outcomes of the pilot showed that 39% of the participating households could obtain a mortgage with their income, in which 64% of the households could get a mortgage within the standard mortgage regulations and 36% could it with a tailor made solution (BLG Wonen, 2021). Because the total amount of applicants were very diverse, the focus was put on households which did not suit the standard mortgage regulations (BLG Wonen, 2021). The use of a standard ''rent declaration'' which was researched in this pilot, was not sufficient and therefore household specific examinations needs to be made (Ministerie van Binnenlandse Zaken en Koninkrijkrelaties, 2021). This product could be used in a suitable way, for flexhouseholds who are in the private rental sector paying high rents, which could enhance their movement from rental market to owner occupied market. Which would be very beneficial, given the fact that the difference in monthly expenses for a mortgage is several hundred euros lower than renting in the private rental market (M. Hagedoorn, personal communication, March 24, 2021).

6.2.3 Limitations on the present services

The mortgage conditions presented in the previous section show that there are possibilities for all the flexhouseholds on obtaining a mortgage in theory. By looking at the present circumstances on the market and insights on how it goes in practice, limitations on the present services are seen. To start, all the flexhouseholds who start their career are completely excluded from the owner occupied market. this is because all the, side measures ask for at least 1 year of working experience. For starter who just finished their education, their side jobs would count in the ''three years back'' rule, but that would be far too low for obtaining a decent mortgage (P. Zwarteveld, personal communication, March 26, 2021). Another example is that if a labourer was ill, went a year on vacation or for whatever reason has in the past year a lower annual income than normal, the average income calculated in ''three years back'' rule will be significant lower limiting the possibilities on the housing market (O. Verschoor, personal communication, March 26, 2021). Another limitation is that, with looking back and additional measures, mortgage lenders aim to use the lowest income possible for flexhouseholds even if last year's income was proportionally higher than the previous two, whereas households with a permanent contract can immediately benefit from their increased income (P. Zwarteveld, personal communication, March 26, 2021). The low mortgages affect the affordability of housing for these flexhouseholds, results in the exclusion on the owner occupied market, because of the high prices on the housing market and the lack of large amounts of capital to insert (Whitehead & Williams, 2017). According to M. Hagedoorn (personal communication, March 24, 2021) this is an issue, because although flexible labour agreements are being used more often, the rules and the way mortgage lending is done, is still focused on a grit in which the norm is a ''couple with two permanent contracts''. There are ways in which the applicant can give insights in their financial information and on that basis the mortgage can be further calculated (M. Hagedoorn, personal communication, March 24, 2021). However the ''tailor made'' mortgage lending is slowly vanishing away. Together with the general regulations, the larger banks, such as ING, ABN Amro and Rabobank are slowly shifting towards a more databased mortgage lending system, in which characteristics will be used as parameters to calculate the mortgages possibilities (P. Zwarteveld, personal communication, March 26, 2021).

these tailor made options, also consist of ''explain'' options, which gives the mortgage lender according to the ''Gedragcode Hypothecaire Financieringen'' (GHF) and ''Tijdelijke Regeling Hypothecaire Krediet'' (TRHK) the option to deviate from the normal rules in individual cases, on the condition that the explanation is done according to objective information resulting in a higher borrowing capacity (Hoogwerf Financieel Advies, 2021). However, from 2013 this method is further restricted because more than one third of the mortgages were explain-based given to households (Nu.nl, 2020). The Arbeidsmarktscan, perspective declaration and the forecast research, could be considered new forms of the explain which can be used however, instead of increasing the borrowing capacity it only gives access to a mortgage. Because of the restricted use and more data based mortgage lending, mortgage advisors are becoming more limited and less influential in the mortgage application for flexhouseholds which, perceived from the bank point of view, could lead to lower errors and therefore lower risks (P. Zwarteveld, personal communication, March 26, 2021).

Next to these limitations, zzpers face extra limitations in case they do not use a NHG in comparison to the other contracts. The NHG can only be applied if the house and home improvement costs do not

exceed the maximum mortgage amount of 325.000 euros (NHG, 2021). Since they can borrow less without the NHG and with the average house price being 369.000 euros in 2021, this means that zzpers need to use own capital in the purchasing price of a house, not calculating the transaction costs, notary costs etc. Therefore, the total amount of own capital is higher which lowers the affordability for zzpers and possibly forcing these households to a smaller cheaper house.

When asked for experience of applicants, O. Verschoor (personal communication, March 26, 2021) states that a significant amount of the mortgage applicants are couples with decent jobs who have an indication on what they can borrow from the bank. Additionally he mentions that households where one person has a permanent contract and the other a flexible labour agreement, face proportionally better options than with two flexible labour agreements. According to M. Hagedoorn (personal communication, March 24, 2021) households do a mortgage application after they signed to buy a house, because they commonly have an indication on what their possibilities are, which could explain why the interviewees did not have specific cases of flexhouseholds struggling with obtaining a mortgage.

6.3 Conclusion
The social rental sector in the Netherlands has a well-founded structure which creates possibilities for households with low to mid-level incomes to obtain a house with a relatively low rent price. The rules for obtaining a social dwelling are very suitable for flexhouseholds which should result in a good accessible market. However, the social rental market faces problems which makes the previous mentioned access fairly lower. Till 40.000 euro before tax income per year, a household can obtain a dwelling, which makes the group which can apply for these houses very large. Also, the long waiting lists and the slow construction of housing decreases the access further. However, the mechanics on the social rental market have issues, which makes the upwards movement insufficient. First, the rent increase and decrease options do not contribute to the movements on the market. In contrast, it rather creates a more fruitful position for flexhouseholds with fluctuating incomes. The rule which focusses on the income of two years ago, and the rule to use the present income if this is lower works rather favourable for flexhouseholds whom already possess a social rental dwelling, but equal to that, lowers the accessibility for flexhouseholds which are on the waiting lists. In conclusion, the social rental market has mechanics, which in normal market conditions, would be very well aligned with the characteristics of flexhouseholds. Without normal market conditions, the social rental market shows a clear segregation, in which households on the social rental market have a luxury position with the maximum rent limit, increase and movement to another dwelling, especially for the flexhouseholds. Whereas the flexhouseholds waiting for a social rental dwelling have to cope with and wait for the ''one in too much time'' to get a decent social rental dwelling. Although there is an option to start in a small dwelling and switch upwards, this takes a certain amount of time and with a sudden increase of income this method could be useless.

The private rental market, has significant suppliers whom all have a different set of rules which households have to comply to. Although the flexhouseholds face additional rules compared to households with a permanent contract, in theory the accessibility to the rental market are not decreased for flexhouseholds. Although, specifically flexworkers could face issues by different suppliers due to their ineligibility for their dwellings, the temporary contract and zzp household come close to the permanent contract households. The rent prices on the market are disproportionally high which could pose issues for households with lower incomes. By assessing households with similar characteristics, but different labour agreements, the choice made by suppliers would be in the following order 1) Permanent contract, 2) Temporary contract 3) Zzp 4) Flexworker. Although the preference and the rules are like this, in particular circumstances, the supplier could deviate and look towards more household specific solutions. Although this is a possibility, the conditions and frequency in which this is applied is negligible.

An immense price development has occurred in the Netherlands, starting from 2013. In 2021 the average house price 369.000 euros which is an all-time high on the owner occupied market. With the stricter mortgage regulations, lowering the amount of mortgage a household can borrow, the accessibility towards the owner occupied market has decreased in general. Flexhouseholds face different kind of mortgage conditions which is based on their labour agreement, income and the amount of working years in the close past. The three years back rules is unfavourable for these flexhouseholds, and the tool used for predicting their future only improves their accessibility to a

mortgage, rather than improving the amount of the mortgage, for the accessibility to a dwelling in the present market conditions. These predicting tools, are part of the further digitalization and more data orientated shift which is starting in the financial market. Which is overruling the use of tailor made mortgages and further restricting the possibility of explain options for flexhouseholds. While these flexhouseholds should get this more, due to their deviating characteristics from the norm which is being used.

By looking at the options, flexhouseholds are not in a pleasant position for obtaining a house. The mechanics on the social rental market are posing problems for flexhouseholds which results in no almost no access to the market. These flexhouseholds commonly do not meet the stricter rules set by the financial markets. Which forces them to the private rental market. On the private rental market the flexhouseholds have the biggest chance on obtaining a private rental dwelling, however the rents are disproportionally high. A higher mortgage than the amount set by the rules, and lower than the monthly expenses for a private rental market dwelling, would result in better housing for a lower price.

6.4 Hypothesis

Based on the information obtained through the use of source studies, literature studies and the conducted interviews, some findings are written down about the accessibility of flexhouseholds to the housing market. Based on these findings, some hypothesis are stated which will be further researched with the use of the dataset ''DNB Household Survey''. The hypothesis are written below, with the reasoning on why this hypothesis is made.

1. *Flexhouseholds are more present on the rental market than permanent households.*

Because of the stricter mortgage conditions and regulations, the financial institutions are in a rigid pattern, which makes it hard for them to deviate from these conditions and regulations. In comparison, the rental market, which is less strict governed by policies and restrictions, is probably better accessible for the flexhouseholds, making them more positioned in this market.

2. *Temporary and flexworker households are more present on the social rental market than permanent households .*

Because of the low wages of these households in comparison to the permanent households, these households do not possess the requirements for the private rental market, restricting their accessibility to this market, which directs them more to the social rental market.

3. *Zzpers buy houses which do not exceed the NHG norm.*

Zzp households which do not make use of the NHG, do not get the full 100% of the mortgage, but rather get only 90% of the money which is needed to buy the dwelling. Since the NHG can only be used on dwellings with a maximum price of 325.000, the hypothesis is made that zzp households buy dwellings under this limit, so they can obtain the full mortgage for the dwelling.

4. *Flexhouseholds have lower monthly expenditures than the permanent households.*

Because of the uncertain labour agreements and generally lower incomes, excluding zzp households, flexhouseholds are only eligible for small, low priced dwellings. And therefore are located in dwellings which have lower monthly expenditures than the dwellings occupied by the permanent households.

5. *Flexhouseholds live in lower priced owner occupied houses than households with a permanent contract.*

It was stated that flexhouseholds face stricter conditions in obtaining a mortgage. When some of these conditions are not met, households tend to get less than 100% of the mortgage that they need. Therefore the flexhouseholds live in lower priced owner occupied dwelling, because they do not have enough mortgage to afford it. Permanent households do not face these stricter conditions, making the permanent households more accessible to a higher mortgage.

6. *Flexworker households on the owner occupied market make more often use of the interest only mortgages than other households.*

Since flexworker households obtain the lowest amount of income, and the monthly expenditures is leading for the amount of mortgage which can be obtained. Flexworker households tend to make more often use of the interest only mortgages, because this lowers their monthly expenditures on housing drastically, making them more eligible for a decent mortgage to buy a dwelling.

7. *Flexworker households have the worst financial position, which further restricts their options on the owner occupied market.*

Flexworker households have the highest uncertainty on income and work, and have therefore low average incomes and a hard time saving money. Because of this, the hypothesis is made that they have the worst financial position, which makes it harder for them to get an owner occupied dwelling.

8. *Zzp households have the same economic situation as permanent households.*

Since zzp households are commonly older of age, possess significant experience and earn the same if not more income than permanent households, the hypothesis is made that these households have similar economic situations as the permanent households.

9. *The future perspectives of flexhouseholds are worse than those of permanent households.*

Because the flexhouseholds are based on their labour agreement one step behind the permanent households, on the long run they will not be able to surpass the position of the permanent households, making their futures worse than those of the permanent households.

Part III: Statistical part

7 Methods

In part three, the statistical research of this thesis will be conducted and described. The variables from the DNB household survey will be used to test the hypothesis created in section 6.4. Next to the hypothesis, the last three subquestions will be answered in order to answer the main research question. The sub research questions answered in this part are 4. *What are the differences in housing characteristics between flex households and normal households ?* 5. *Are flex households spending more on housing than normal?* and 6. *Which differences are there in the financial situations of the flexhouseholds and permanent households?*

7.1 Population and group composition
For this research the DNB Household Survey dataset will be used to further investigate the accessibility of households to housing market. The participants of the survey, have to have a minimum age of at least 16 years old. Therefore multiple respondents can be from the same household. The survey is undertaken by CentERdata at the Tilburg university and provides data of around 2000 respondents. The data is accessible through the CentER panel platform upon registration with a valid account. The data is updated annually and therefore has dataset with information starting from 1993 upon 2020. Next year's dataset, is a combination of new respondents and the ones who have partaken in this survey earlier. The survey is designed to reflect an accurate representation of the Dutch speaking population (DNB, 2018). Although there is an accurate reflection in most of the response, there are exceptions of the following response categories: On education, there is an overrepresentation of the higher level and underrepresentation of the middle level, on household composition there is an underrepresentation of single households, on the location of the respondents there is an underrepresentation of people living in a highly urbanized settings and the population of non-western foreigners is low, including strong underrepresentation on account of language problems and of strong concentration in urban areas (DNB, 2018).

For this research, the dataset of 2020 will be used. The dataset has a wide variety of themes which gives an overview on the living conditions, work circumstances, health circumstances and financial circumstances of the respondents. The DNB household set consists of 6 sub dataset which are created by the answers the respondents have given on the surveys. The sub datasets are the following ones: 1. Household information, 2. Work & Pension data, 3. Accommodation data, 4. Income data, 5. Wealth data and 6. Psychological concept data. Next to these sub sets, two additional sets are created with information derived from the subsets together. These sets are the aggregated income data and the aggregated wealth data. The subsets can be connected to one another through the use of the household number and member number variable in the subsets. Because of the segmentation of the subsets, some respondents do not have information on all the themes.

Since the labour agreement has to be used for this research, the respondents whom do not have stated their labour agreement are filtered out of the dataset. The total amount of respondents whom stated their labour agreement is N = 2756. All these respondents have answered which type of labour agreement they have at the moment, had before retirement, or before searching for another job. To make sure that there is no overlapping data from the households, the cases will be filtered according to the following input. The number one household members will be used to make sure that there is no repetition of households, everyone older dan 65 years old will be excluded because they already retired and all the respondents who do not work at the moment are excluded from the research. The total population which is left is N = 1125. Before starting the research some further adjustments have been made in the dataset. To start, the respondents who have a labour agreement in the form of stand-by work or temping are clustered together in the group of flexworkers. Standby workers called upon labourers in case of sudden need and temping labourers are labourers working for an employment agency who can be hired by companies on a temporary basis. The division of the respondents based on their labour agreement can be seen in figure 6. Next to this, for the general overview of the set of respondents used in this research, three ages categories are which; young households till 35 years, mid-life households between 35-50 and old households going towards retirement between 50-65. This can be seen in Figure 7. For the general overview of the population, the gross household income is used. In the dataset respondents have answered their personal gross incomes and/or a member of the household have stated what their net household income is. Since its common to use the gross household income for obtaining a dwelling, the gross personal incomes have been put together to create a new variable which states the gross household income. This gross household income only uses the income of the head(s) of the household, and therefore the income of

children in the household is not used in the calculation. This variable is used to further examine the division of the population group within incomes. This can be seen in figure 8.
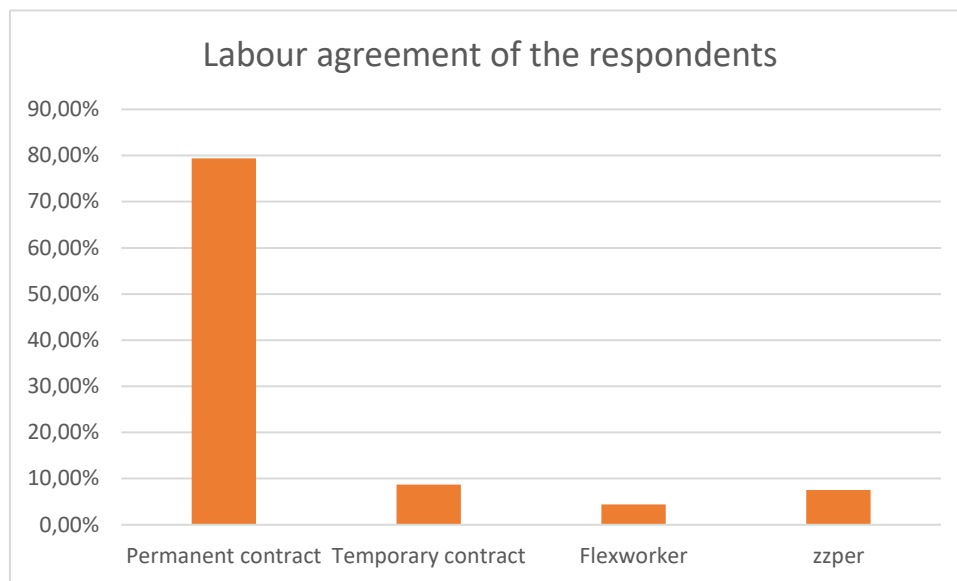
Figure 6: Labour agreement of the respondents N= 1125 frequency: A=893 B=98 C=50 D= 84 (Own illustration)
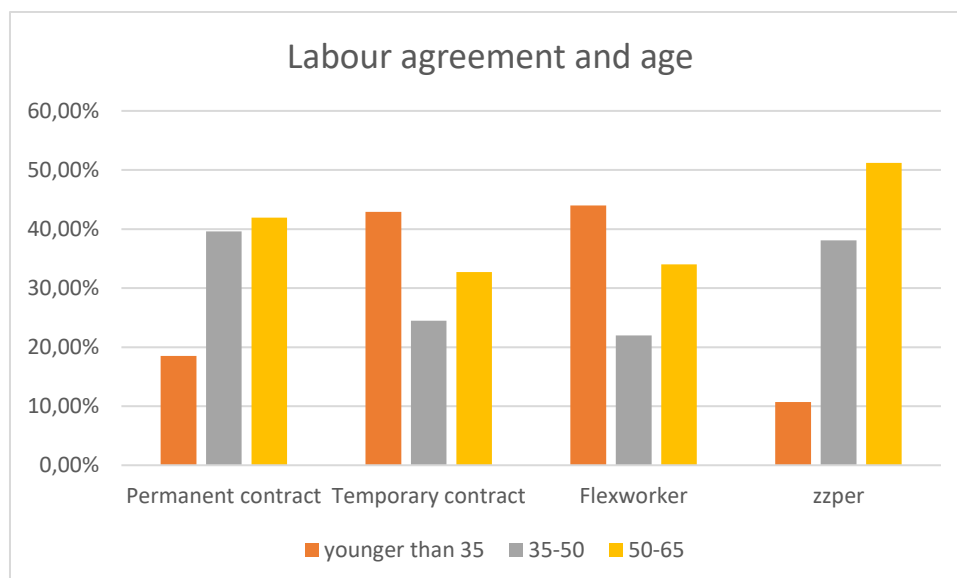
Figure 7: Labour agreement and age N = 1125 frequency: A=893 B=98 C=50 D= 84 (Own illustration)

Within the labour groups some differences can be seen based on age. Households with a flexworker or temporary contract are younger of age whereas households with zzpers and permanent contracts are older of age. Zzpers are the oldest group of labourers with the largest share in the 50-65 age category. Based on the chi-square outcome in table 9, these differences between groups are statistically significant. This outcome is in line with the findings of the literature research conducted in section 5.5 which states that flexworker and temporary households have a fairly higher share in the 15-35 age category because these contracts are more often obtained by starters on the labour market, whereas zzpers are commonly 45 years and older because these labourers commonly possess a lot of experience and have worked for companies on a permanent basis before. The division of the permanent contracts is therefore also explainable by the literature findings, after a maximum of 3 extensions, labourers with a temporary contract will have to obtain a permanent contract. This extended period explains why the 20-35 group of permanent labourers has the lowest share, whereas the other two age categories are a minimum of 2 times larger.
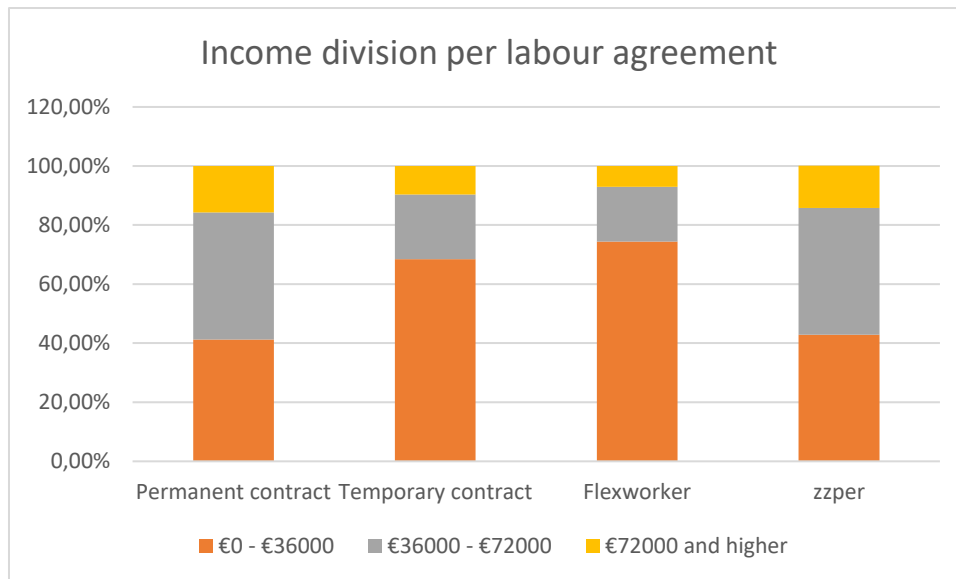
Figure 8: Labour agreement and gross household income N = 916 frequency: A=772 B=73 C=43 D=28   (Own illustration)

The division based on income further divides the labour groups. The flexworker and temporary households are largely present in the lower income groups, with flexworker households being the ones having the lowest gross household incomes. The permanent and zzp households have significant larger shares in the middle and higher incomes than the flexworker and temporary households as can be seen in figure 8. The permanent and zzp households have almost identical shares within the income groups. This can be explained by the following. First, as already stated in the previous paragraph, temporary and flexworker households are commonly younger of age, which means that they have less experience and have therefore lower wages than the older labourers like the permanent and zzp household which are older. This is strengthened by the average wages found in section 6.1.2, which states that permanent and zzp households earn higher wages than flexworker and temporary household. Second, as shown in section 5.5, flexworkers are commonly low educated and work in labour-intensive sectors which do not have high wages. Temporary workers have a larger variety in education level, in which the higher educated temporary workers are quicker to obtain higher wages and shift towards a permanent contract. For permanent and zzp households to be so alike, can be explained by their characteristics. As mentioned in section 5.5, zzpers have almost identical labour horizons as the permanent households, and zzpers are based on their labour forms, in essence nothing different from permanent households whom have chosen to become self-employed and supply their work without being bound to one employer. However, the zzp households are commonly older than permanent households and are higher educated. Therefore the zzp households will have similar outcomes in certain aspects, as the permanent households.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square **Age**	54,716[a]	6	,000
Pearson Chi-Square **Income**	36,521	6	,000

Table 9: Chi square tests (Own illustration)

7.2 Methodology

In this research variables of the different subsets will be tested against the labour agreements of the households. because the labour agreement will be the leading variable, cross tabulations will be made of the variables which will be researched. Next to the cross tabulations, chi-square tests will be conducted to see if the variables are significant with one another. The level of significance which will be used is $p < 0.05$. If the outcomes are not statistically significant, the outcomes will not be interpreted. If the outcomes are not statistically significant it means that the outcomes are based on coincidence. The p value shows the chance of the sample being based on coincidence or done incorrect. Next to the p value, another condition is that the amount of respondents per answers has to be a minimum of 5. Commonly when this amount is lower than 5, the p value will be higher than 0.05. However, based on the division of all the respondents the outcomes will be interpreted or not. The population as described in section 7.1 will be used to test the variables. The population will be compromised by using the labour agreement of the main earner of the household, excluding the households which do not have work at the moment and also whom have reached the retirement age of 65 years old. Because of this the total amount of respondents will be fairly lower than the +/- 2000 respondents stated in the previous section. Some of the variables will be recoded, to make more suitable answer groups for this research. In Appendix A, an overview of the used variables per research question can be seen and the new code of the variable which will be used in the research of the cross tabulations. The statistical significant cross tabulations will be shown in the body of this text, whereas the insignificant ones will be shown in the appendices corresponding with the sub research question which will be answered.

8 Household characteristics

8.1 Housing characteristics
In this section, the sub research question *''What are the differences in housing characteristics between flex households and permanent households ?''* will be answered. To answer this research question three hypothesis are created which further helps to answer this research question. The hypothesis which tested in this chapter are: (1) flexhouseholds are more present on the rental market than permanent households, (2) temporary and flexworker households are more present in the social rental market than permanent households and (3) zzpers buy houses which do not exceed the NHG norm.

To accept or reject the hypothesis, the variables shown in the table below will be used in relation to the labour agreements. Some variables will be used in three-dimensional cross tabs, in which the gross household income or age is applied as the third variable. The outcomes of the variables and the hypothesis will help to answer the research question.

Label of the variable	Output
What type of accommodation?	The type of accommodation in which the respondent lives is answered.
In which year is the house built?	The year in which the house in which the respondent lives at the moment is answered.
How long do you live in the house?	The amount of years the respondent live in their current dwelling is answered.
Are you a tenant or did you buy the house?	The market in which the respondent occupies a dwelling is answered (rental vs owner occupied).
Who is the owner of the house?	For the respondents that live in a rental dwelling, type of rental market is answered (social rental or private rental).
Would you have chosen to buy a more expensive house if you had been able to receive a larger mortgage loan on the basis of your income at that time?	The respondents answer if they would have taken out a larger mortgage in the same situation, if there was a possibility for this.
National Mortgage Guarantee (NMG) mortgage-1: yes/no?	The respondents living on the owner occupied market answer if they make use of the NHG on their mortgage.

Some of the variables are not statistically significant with the labour agreement. The variables which are not statistically significant with the labour agreement will not be interpreted and will not be shown in the main body of this research. The spss output tables of the variables mentioned above can be seen in appendix B.

8.1.1 Dwelling characteristics
To get a better understanding of the dwelling characteristics, the following three variables will be analysed: type of accommodation, year when the dwelling is built and the amount of time living in the same dwelling. The year when the dwelling is built and the amount of time living in the same accommodation are not statistically significant with the labour agreement ($p > 0.05$), which makes that the outcomes of these cross tabulations will not be interpreted.
If we look to the total division shown in figure 9, permanent households live more often in row housing than in apartments. For flexworker households this is the opposite they live more often in apartments than in row housing. Zzp households are evenly divided between row housing and apartments and temporary households live more often in row housing than in apartments. The labour agreement is connected to the type of accommodation the household chooses. Flexworkers are drawn more towards apartments, which can be explained by the fact that these households are commonly starters of young age, who would like to live in the inner cities and value dwelling characteristics such as a spare bedroom or garden as less important than the ones of higher age such as the other groups.

Type of accommodation per labour agreement
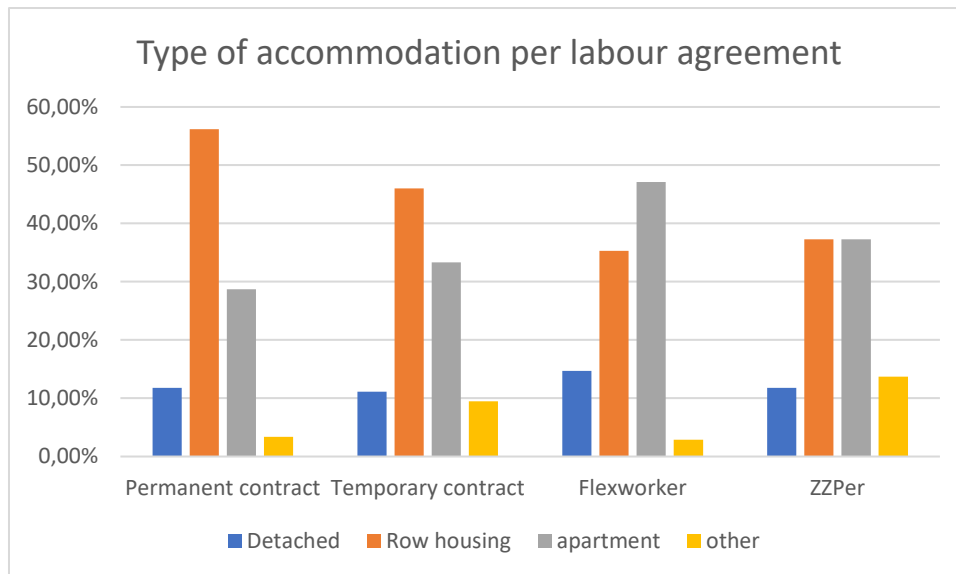
Figure 9: Type of accommodation per labour agreement N = 769 frequency: A=621 B=63 C=34 D=51 (Own illustration)

The explanation based on age is strengthened because in the younger than 35 age category the share of flexworker households living in apartments is 76,9% which is largest of them all. This can be seen in figure 10. Also the literature review in section 6.1.3 showed that flexworkers face the hardest measures because of their labour agreement, which narrows down there possibilities on the market. Apartments are commonly smaller dwellings and therefore cheaper which explains why these households are stronger drawn to these dwellings. With a permanent labour agreement, only the income is the restricting factor in the choice of a dwelling. Since this group has an average income which is higher than those of the other groups, this explains the large part of permanent households living in row housing. The temporary and zzp households have higher percentages than the permanent and flexworker households in the category ''other''. The ''other'' variable consists of dwellings with connection to business and rent a room. An explanation could be that the temporary households in this group are students, whereas for the zzp households these are households with a work-living dwelling.

Type of accommodation per labour agreement age category younger than 35

Figure 10: Type of accommodation per labour agreement age category younger than 35. N =126 frequency: A=87 B=21 C=13 D=5 (Own illustration)

By looking at the outcomes of the older age group shown in figure 11, we see that a low percentage of the temporary households live in the ''other'' accommodation type. This strengthens the statement that

especially the younger groups make use of renting a room. For the detached dwellings larger percentages in general can be seen between the younger and older groups. This can be explained by the fact that although the labour agreements differ, on older ages households have developed more wealth and are commonly earning larger wages, the other characteristics than labour agreement of the different households converge more to one another creating similar possibilities on accommodation accessibility. For the outcomes of figure 10 and 11, it needs to be mentioned that the younger than 35 and the 50-65 age category which are used, have more than 25% of cells with an expected count lower than 5. This is also the reason why the flexworker group in the older age category has such a large percentage of the group living in detached dwellings, simply because the sample size is low. The middle age category of 35-50 is not significant, and therefore this output is not interpreted.

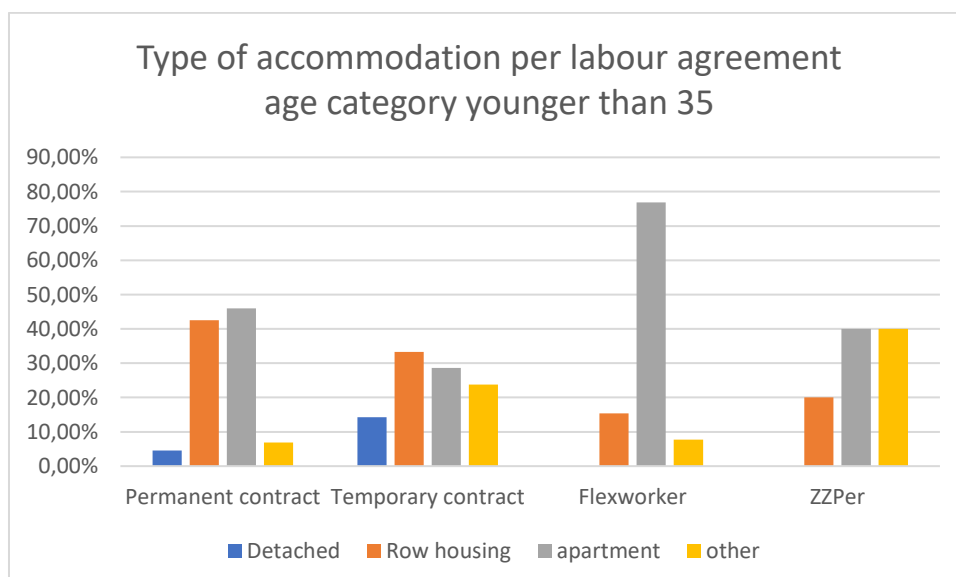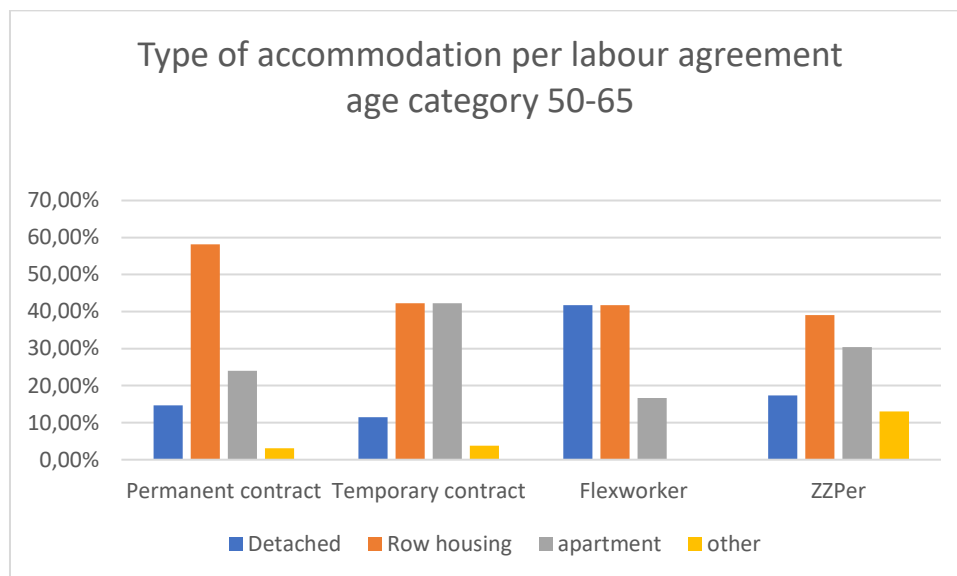*Figure 11: Type of accommodation per labour agreement age category 50-65. N = 353 frequency: A=292 B=26 C=12 D=23 (Own illustration)*

The cross tabulation on how long a household lives in their current dwelling, shows that although the population has more older households, a large amount of the sample is living less than 10 years in their new dwelling. Which means that a large part of the respondents has been able to move recently. Also households are living more often in dwellings built between 1960-1990 than the other categories. Although this is not statistically significant and therefore will not be clarified or reasoned, it shows how the respondent group is built up and may be usable in a later stadium of this research.

Pearson Chi-Square **Type of accommodation**	Value	df	Asymptotic Significance (2-sided)
Younger than 35	19,282b	9	,023
35-50 years old	9,218	9	,417
50-65 years old	18,373	9	,031
Accommodation to labour agreement	26,011	9	,002

Table 10: Chi-square test variables (Own illustration)

8.1.2 Tenure status of the households
To get a better understanding of the tenure status of the households, the following four variables will be used: Type of occupancy, which rental market are you on, would you take a large mortgage if that was possible, do you make use of the NHG. The ''would you take a larger mortgage'' variable is not significant (p > 0.05) and therefore the outcomes of the cross table will not be interpreted.
The chi square tests of table 11 shows that there is no significancy between the income group 36000-72000 and type of occupancy on the housing market. The total division of the respondents without

their income can be seen in figure 12. The division of households on the owner occupied and rental market differ a lot from one another. Only 25,9% of the households with a permanent labour contract are on the rental market, whereas for the flexworker households this is 60,7%. The temporary and zzp households are between these two groups, with the temporary households being partly more present on the owner occupied market whereas the zzp households shows a much larger density on the owner occupied market. Flexworker households are in comparison to the other groups the only group which is more present on the rental market than on the owner occupied market. By using Figure 13 and 14, the differences between the groups can be described by their income and labour agreement.
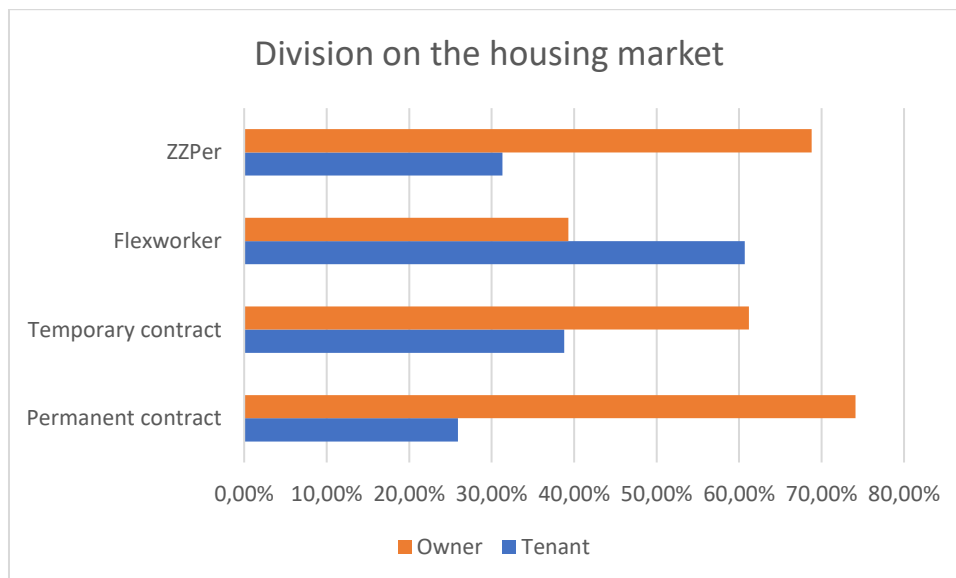
Figure 12: Division on the housing market between the labour groups. N = 642 frequency: A=549 B=49 C=28 D=16 (Own illustration)

By looking at the low income segment all of the labour groups have their largest share on the rental market. As their income increases, their share on the rental market decreases, with in the highest income segment almost all of the respondents being on the owner occupied market, with the exception of the zzp households. Contrary to the other groups, the zzp households have the largest share of households on the rental market, on the highest income segment. An explanation for this is that the zzp households have a high need for flexibility because of their work, and choose therefore for a rental dwelling in which they are less bound to the dwelling making them more mobile to move than by buying a dwelling. So with the exception of zzp households, the labour agreement on the higher income segment makes the possibilities in choosing which market to access for the all the households the same. The outcomes show that the owner occupied market is more preferred. However on the lower income segment this is not the case. Although all the labour agreements face more difficulties due to the lower incomes, still a ranking can be seen in which zzp and permanent households have the highest accessibility to the owner occupied market, and the temporary and flexworker households the lowest and are therefore more directed to the rental market. The hypothesis (1) that flexhouseholds are more present on the rental market than permanent households is accepted.

Division on the housing market for the income groups lower than 36000€

Figure 13: Division on the housing market between the labour groups earning less than 36000 euros per year. N = 263 frequency: A=204 B=32 C=22 D=5 (Own illustration)

As researched in section 6.1.2 and 6.1.3 the temporary and zzp households have an advantage over the flexworker households in obtaining a dwelling on both of the markets. The uncertainty of the flexworker contract results on the rental market in additional restrictions and rules to obtain a private rental dwelling whereas on the owner occupied market the uncertainty of their income and their younger age makes them not qualified for a decent mortgage. For the zzp and temporary households, these additional measures are less strict which puts them in a better position than the flexworker households on the application list for a private rental market. On the social rental market waiting lists are being used, in which the position on the list is determined by the total years a household is registered. The fact that the flexworker households are still more present on the rental market than the temporary and zzp households is explained by the preference of buying a dwelling and develop capital instead of renting a dwelling and losing money. The mortgage conditions in combination with the older age of zzpers makes them more eligible for the owner occupied market than temporary and flexworker households. Because of the older age of the zzp households, the three years back rules do not give any problems and also higher surpluses of former dwelling(s) can be used as capital to insert into a dwelling which further enhances their opportunities on the owner occupied market. Although temporary households face less strict regulations and could obtain a mortgage easier through the use of a letter of intent or an Arbeidsmarktscan, the hourly wages of these households are commonly lower than those of the zzp households, makes the owner occupied market relative to the zzp households, less accessible for them. The flexworker households which are commonly starters have a disadvantage because of the three years back mortgage condition, have low savings and face the strictest mortgage conditions which almost forces these households to make use of the rental market since it is the only market in which their characteristics could result in obtain a dwelling. However, there is the exception of flexworker households which have large amount of savings or could get financial help. For these households the possibilities are larger.
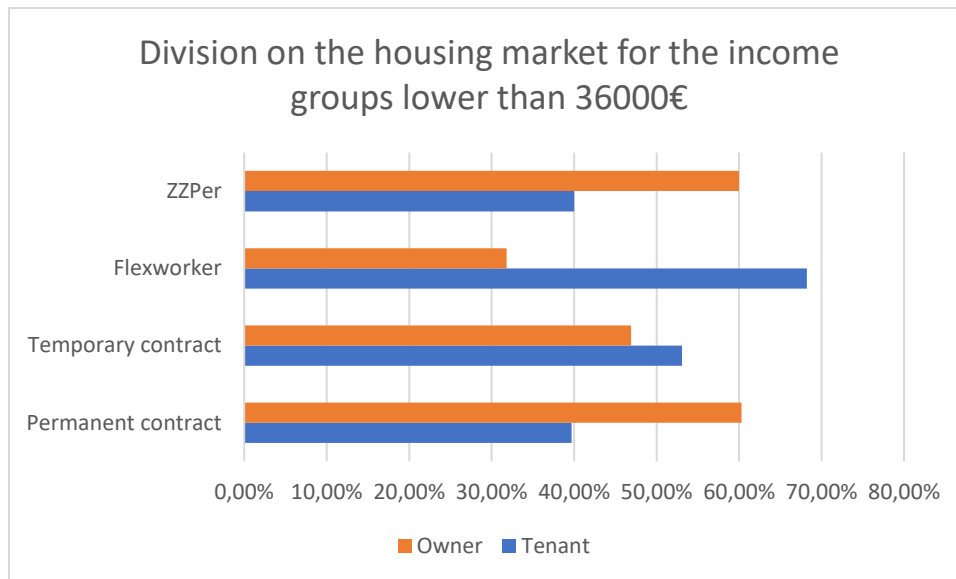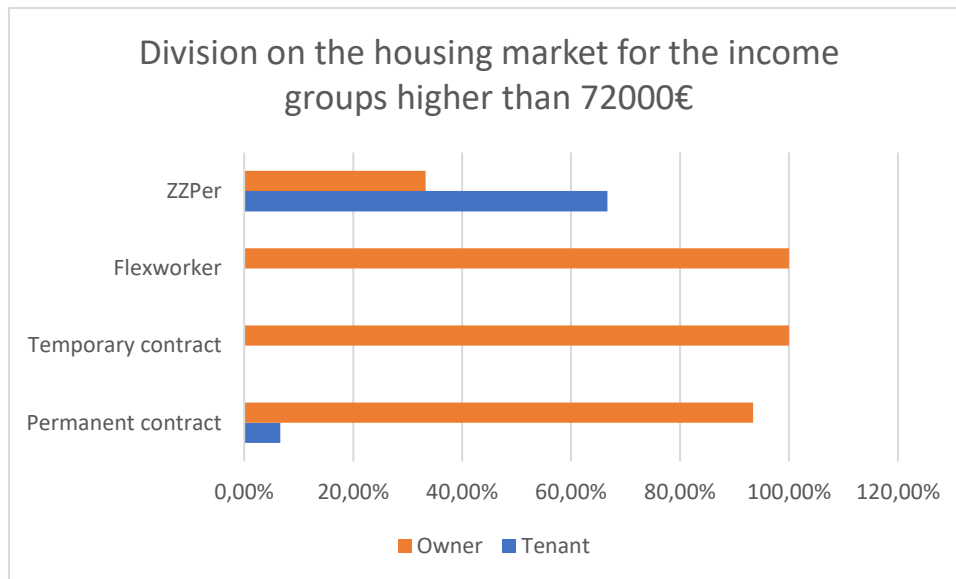
Figure 14: Division on the housing market between the labour groups earning more than 72000 euros per year. N = 98 frequency: A=91 B=4 C=1 D=3 (Own illustration)

The chi square tests of table 11, shows that there is no significance between the young age category and the division on the rental market. Therefore the outcomes of this segment will not be interpreted. In table 16 the total division within the rental market is shown, 67,5% of the respondents are on the social rental market versus 32,5% on the private rental market. This can be explained based on the differences in supply on the Dutch housing market. 7,5% of the housing stock are private rental dwellings, 34,4% are social rental dwellings and the other 58,1% consists of owner-occupied dwellings (CBS, 2020b). The fact that 76,3% of the households with a permanent labour agreement on the rental market, live in social rental dwellings whereas flexworkers, who have the best characteristics for a social rental dwelling, come in second with only 60% and temporary households third with 53,3% which is notable. Therefore the hypothesis (2) that temporary and flexworker households are more present on the social rental market is rejected. The zzp households have the lowest share of 31,3% which can be explained by the fact that their wages are too high for obtaining a social rental dwelling. The permanent households groups have better characteristics to move to the other market, however they are sticking to their social rental dwelling. An explanation could be that that they take advantage of low rents which makes their living expenses low. Since the permanent household group is much larger than the flexhousehold groups, the large quantities staying on the social rental market could be hampering the access of the flexhouseholds to the social rental market. Because of this, the flexhouseholds are being directed to the private rental market which has higher rents. As shown in section 6.1.2 by CBS (2020a), permanent households have an average income which is higher than that of the flexhouseholds. The phenomenon of crooked living as stated by Boelhouwer (2018) in section 6.1.3 could be happening on the rental market for the flexhouseholds because they are directed to the private rental market. The opposite phenomenon of crooked living, which is living in a dwelling that is much cheaper than one can afford, could be happening to the permanent households that stay on the social rental market as stated by Crabbendam (2018). However, due to the lack of statistical evidence, this assumption cannot be accepted nor rejected.
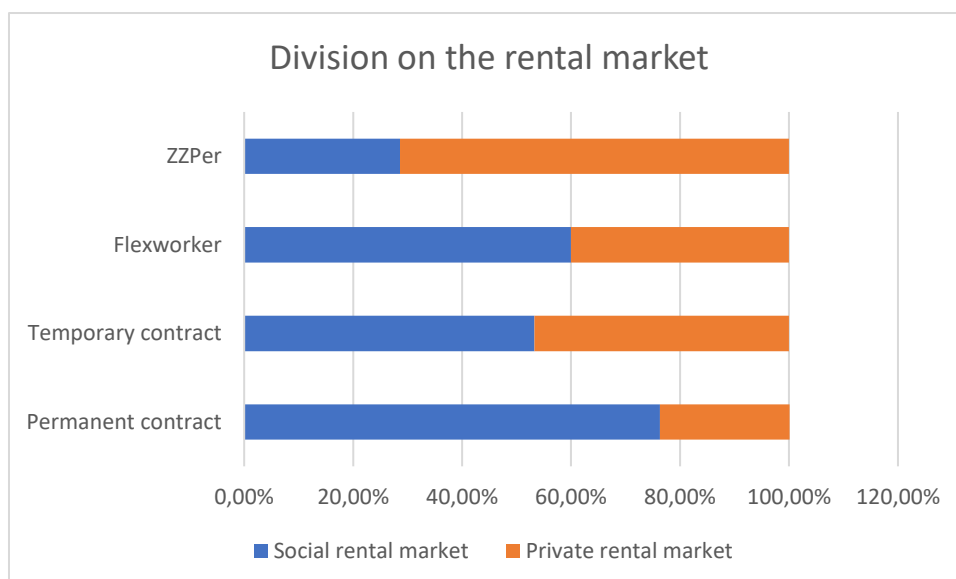
Figure 15: Division on the rental market N = 231 frequency: A=160 B=30 C=20 D=21 (Own illustration)

By looking at the differences based on age, we see that in the middle and old age category all the households except the zzp households, have a high share on the social rental market. This can be explained by the mechanics of the social rental market. Since the social rental market makes use of waiting lists, in which the position of the household is determined by the amount of time the household is registered, the households which are older and thus longer registered have a higher position on the waiting lists and therefore a higher accessibility to a social rental dwelling. The reason why the private rental market has such a low amount of older households, can be reasoned by their income. If a household earns enough money to be able to get a decent mortgage, than they will move to the owner occupied market. Since older households earn more than the younger households they have more often this possibility. Therefore the private rental market at older ages are only used if there is a need for flexibility, as shown by the zzp households or if the households does not have any other options.
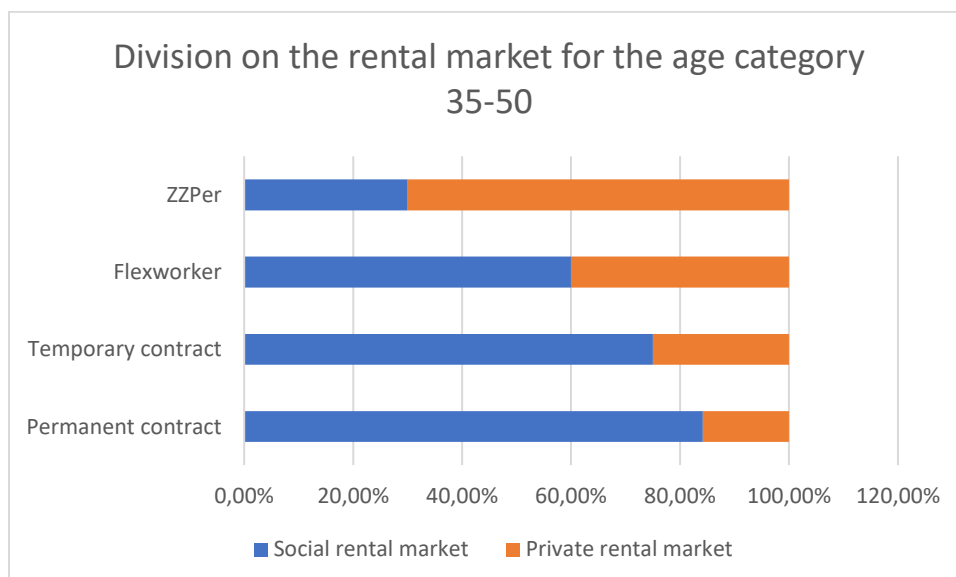
Figure 16: Division on the rental market for the age category of 35-50. N = 76 frequency: A=57 B=4 C=5 D=10 (Own illustration)

Important to mention is that on the income segment groups, there is more than 25% of the cells with an expected count which is lower than 5. This also explains why the outcome of the flexworker group in the older age category is 100%.
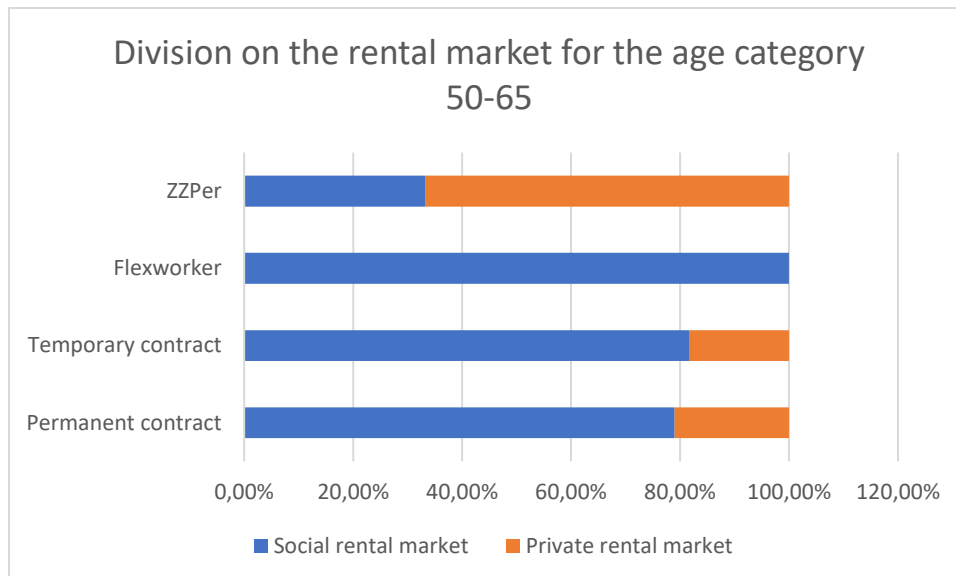
Figure 17: Division on the rental market for the age category of 50-65. N = 82 frequency: A=62 B=11 C=3 D=6 (Own illustration)

Permanent and temporary contract guarantee a certain amount of income over a certain time period, whereas the income of the flexworkers and zzpers could fluctuate per month. Which means that the flexworker and zzp households face bigger risks in paying their mortgages. Although this is the case, figure 18 shows that flexworker and zzp households tend to make less often use of the NHG. The literature study showed that mortgage lenders apply stricter rules for zzpers who buy a dwelling without NHG. Based on this the assumption was made that zzp households buy dwellings which do not exceed the maximum housing price of 325.000 euros, since a mortgage larger than 325.000 euros cannot obtain a NHG.
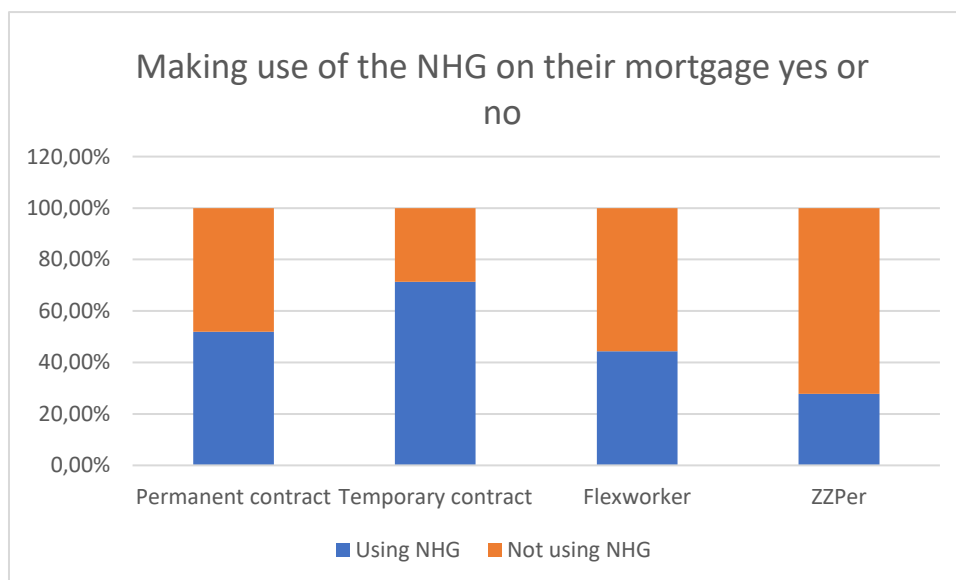
Figure 18: The use of the NHG per labour agreement. N = 399 frequency: A=344 B=28 C=9 D=18   (Own illustration)

However, figure 19 shows that 81,6% of the zzp households have bought a dwelling which is under the NHG limit. The hypothesis (3) that zzp households buy dwellings which do not exceed the 325.000 limit is accepted, however the reasoning differs from the basis on which the hypothesis is made. The hypothesis was made based on the fact that zzp households would buy dwellings under the 325.000 euro limit, so they could make use of the NHG and benefit from the better mortgage conditions. The outcomes of figure 18 and 19 show that this is not the case. Using a NHG results in lower interest

rates. The lower interest rate results in lower monthly expenditures which makes it easier for households to obtain a mortgage. For flexworkers the NHG is a very useful thing since it lowers the interest rates and therefore enhances their possibilities for a mortgage. Besides this decreases the risk of the mortgage, since the NHG takes on the mortgage debts in case they cannot pay it off. An explanation for the zzp households could be, that because of their older age and higher incomes, they have more capital to insert into buying a dwelling and therefore are not affected by the restricting mortgage conditions which comes with not taking the NHG. Besides this, zzp households have to manage and arrange everything themselves, such as money for unforeseen circumstances and pension. This self-managing character of their labour agreement could explain why they do not make use of an external certainty. They do not need it and are confident in their own capabilities.
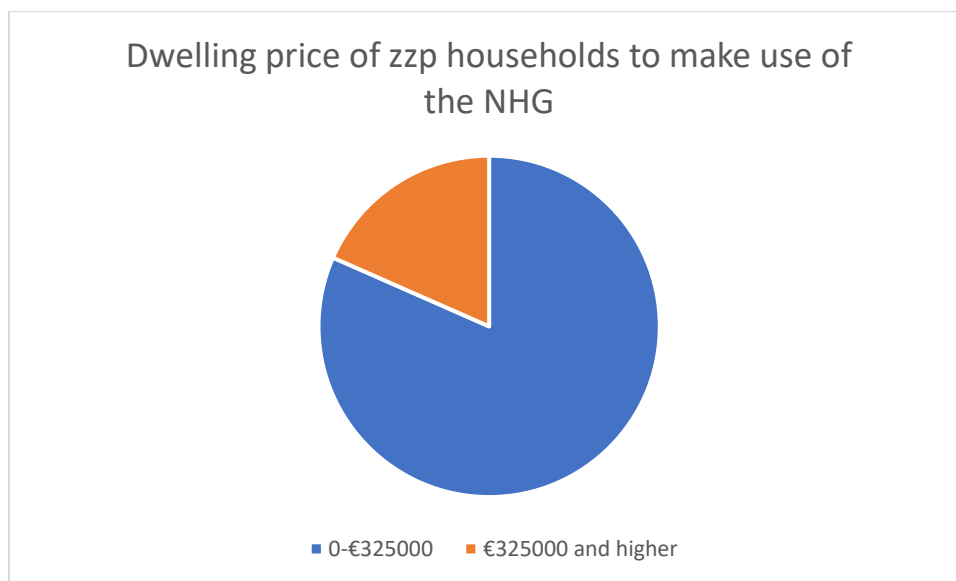
Figure 19: Dwelling price higher or lower than the NHG border. N = 49 frequency: A=40 B=9 (Own illustration)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square **Tenant or owner to income**	18,726	3	,000
0-36000	7,864	3	,049
36000-72000	1,693	3	,639
72000 and higher	14,573	3	,002
Pearson Chi-Square **Division on the rental market to age**	23,360	3	,000
Younger than 35	7,030	3	,071
35-50	13,979	3	,003
50-65	7,604	3	,049
Pearson Chi-Square **Having a NHG**	8,671	3	,034

Table 11: Chi-square tests of the variables (Own illustration)

8.2 Household expenditures

In this section, the sub research question *''Are flex households spending more on housing than permanent households?''* will be answered. To answer this research question three hypothesis are created which will help to answer the research question. The hypothesis which will be answered in this chapter are: (4) flexhouseholds have lower monthly expenditures than the permanent households (5) flexhouseholds live in lower priced owner occupied houses than households with a permanent contract and (6) flexworker households on the owner occupied market make more often use of the interest only mortgages than other households.

To accept or reject the hypothesis, the variables shown in the table below will be used in relation to the labour agreements. The outcomes of the variables and the hypothesis will help to answer the research question.

Label of the variable	Output
How much is the rent?	The respondents living in a rental dwelling, answered how much rent they pay every month
Total mortgage expenses mortgage-1 per month?	The respondents living in an owner occupied market have answered how much their monthly mortgage expenditures are.
What type of mortgage?	The respondents have answered what type of mortgage they have.
Purchase price/value current house?	The respondents have answered what the purchase price has been for their dwelling.

Table 12: Overview used variables (Own illustration)

Some of the variables are not statistically significant with the labour agreement. The variables which are statistically significant with the labour agreement will not be interpreted and will not be shown in the main body of the research. The spss output tables of the variables mentioned above can be seen in appendix C.

8.2.1 Cost of housing

The variable which shows the monthly mortgage expenditures of the households is not significant ($p > 0.05$) and will therefore not be interpreted in this paragraph. The other variables are significant and will be used in this paragraph.

In Figure 20 the monthly rent expenditures for the households are shown. Within the rental market the biggest differences can be seen between the flexworkers and the zzpers. The segments explained here refer to the price segment. Flexworkers can be seen in the low and middle price segment, whereas zzpers are present in the middle and high price segment. The explanation of this division can be made based on the income. Flexworker households have lower wages which directs them more to the lower priced private rental market and social rental market. In figure 15 of the previous paragraph, the outcomes already showed that zzp households are commonly on the private rental market, which explains why they have higher rents. Permanent and temporary households are positioned on the middle price segment, with a somewhat large group of temporary households on the high segment market. Figure 15 showed that permanent households have the largest share on the social rental market, by combining this with the outcome of figure 20 we reason why permanent households are largely orientated in the middle rent segment. The social rental market has a limit of 737€ euros per month which falls into this category. The hypothesis (4) that flexhouseholds have lower monthly expenditures is partly accepted. The flexworkers have lower monthly expenditures whereas the zzp households have in general larger rent prices than the permanent households. The temporary households seem to struggle more on obtaining decent priced dwellings, having a far larger share on the high priced segment than the permanent households.
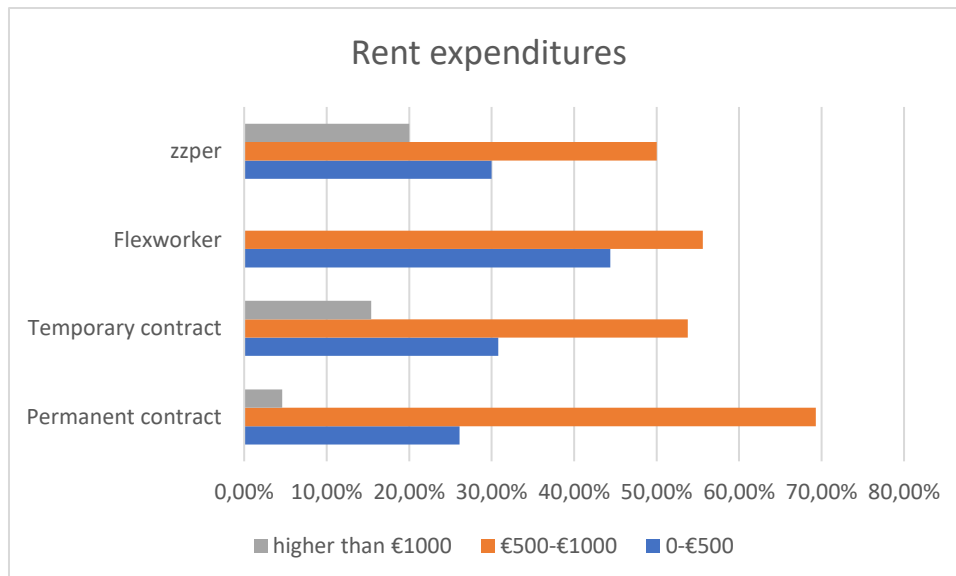
Figure 20: Rent expenditures per labour agreement. N = 217 frequency: A=153 B=26 C=18 D=20 (Own illustration)

Since there is no statistical significance on the owner occupied market these outcomes will not be interpreted. However the type of mortgage on the owner occupied market shows a statistical significancy and will be interpreted. According to figure 21 the flexworker households seem to have a large share of interest only mortgages, whereas the other groups have commonly more amortization mortgages. Interest only mortgages are commonly seen as mortgages which bear high risks. Because there is no monthly amortization done, the total price of the dwelling needs to be payed at the end of the loan term, forcing households to save money over the years or to sell their dwelling before the loan term ends. From the perspective of financial institutions these mortgages generate a lot of money, since there is no amortization and the institutions gets the same amount of money over a period of 30 years. As mentioned by P. Zwarteveld (personal communication, March 26, 2021) the interest only mortgages have higher interest rates since the financial institutions calculate the possible risks of the applicant not being able to fulfil the loan at the end of the term. Although the interest rates are higher, the monthly expenditures for the mortgage are lower than the other mortgages, making it possible for households with low wages to obtain a mortgage. Since flexworkers have the lowest wages and most strict conditions to comply to for obtaining a mortgage, it explains why flexworker households have more interest only mortgages in comparison to the other groups, accepting the hypothesis (6).
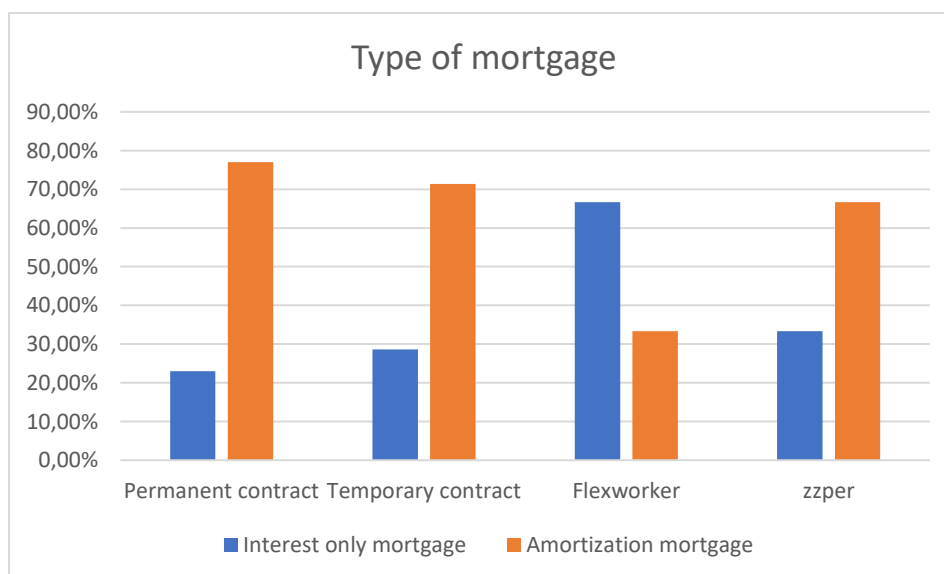
Figure 21: Type of mortgage. N = 399 frequency: A=344 B=28 C=9 D=18 (Own illustration)

The high risks of this mortgage, are partly mitigated by the mortgage price which the flexworker household obtains. As can be seen in figure 22, all of the flexworker households tend to have dwellings which are cheaper than 250.000 euros. So the low wages of the flexworker households, which makes only eligible for risky interest only mortgages, directly covers the households because they cannot lend large amounts of money, which could give them financial difficulties at the end of the loan term. The temporary households have also a large share on the low housing price segment and a small share on middle segment. The zzp and permanent households are present in all three segments. The hypothesis (5) that flexhouseholds live in lower priced owner occupied houses than permanent households is therefore partly accepted. The temporary and flexworker households indeed live in cheaper owner occupied houses than the permanent households. However, the zzp households live in more expensive houses than the permanent households resulting in the partially rejection of the hypothesis. As mentioned in the previous sections and in the literature findings, there is a strong connection between labour agreement and income. The labour agreements which have the highest wages, such as the zzp and permanent households, have the most possibilities and therefore more diverse outcomes on the markets. The temporary households with lower certainty and income have less diverse outcomes. Whereas for the flexworker household, there are no large deviations.
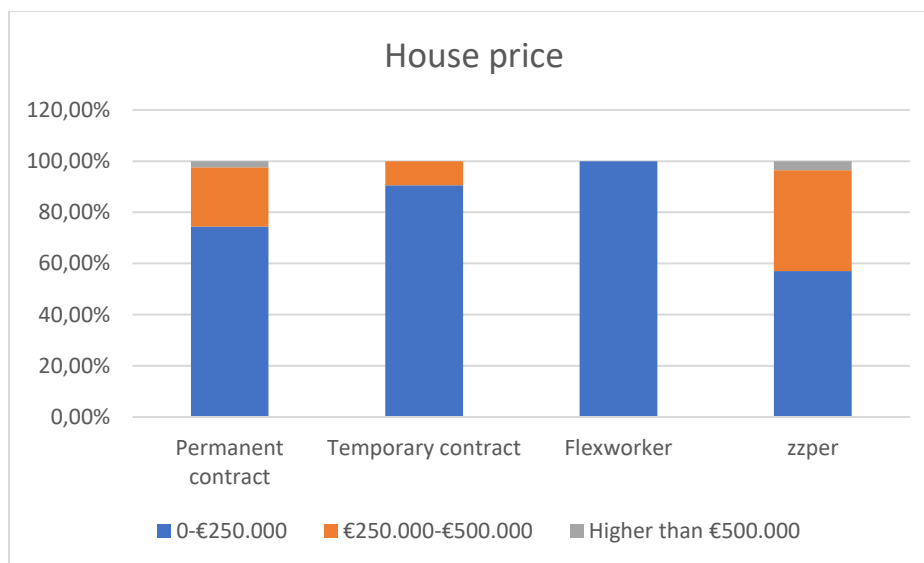
Figure 22: House prices of the dwellings occupied by the different labour agreements. N = 529 frequency: A=457 B=32 C=12 D=28 (Own illustration)

The households face different situations on the housing market. Permanent and zzp households tend to have similar housing costs and opportunities, which is explainable by the similarities in their wages and labour characteristics which give them more opportunities on the housing market. The temporary households are on the rental market more divers positioned, with a larger share on the high segment, whereas on the owner occupied market, they live in cheaper dwellings. In comparison to the permanent and zzp households their position on the owner occupied market is different. For the flexworker households, there is one clear conclusion. It does not matter on which market they are, they do not have a lot of variety within their labour group and are therefore scalable in the lower segments of the rental and owner occupied market. They are commonly on the social rental market, have dwellings with smaller rents and on the owner occupied market they cannot buy dwellings which are more expensive than 250.000.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square **Rent expenses**	13,945[a]	6	,030
Pearson Chi-Square **Type of mortgage**	9,993[a]	3	,019
Pearson Chi-Square **House price**	13,174[a]	6	,040

Table 13: Chi square tests variables (Own illustration)

8.3 Household finances

In this section, the sub research question *''Which differences are there in the financial situations between the flexhouseholds and permanent households?''* will be answered. To answer this research question three hypothesis are created which will help to answer the research question. The hypothesis which will be answered in this chapter are: (7) flexworker households have the worst financial position, which further restricts their options on the owner occupied market, (8) zzp households have the same economic situation as permanent households and (9) the future perspectives of flexhouseholds are worse than those of permanent households.

To accept or reject the hypothesis, the variables shown in the table below will be used in relation to the labour agreements. The outcomes of the variables and the hypothesis will help to answer the research question.

Label of the variable	Output
Amount of savings?	The respondents have answered how much money they have on their bank account(s).
How well can you manage on the total income of your household?	The respondents have answered how well they can manage their household in general.
How is the financial situation of your household at the moment?	The respondents have answered how well their financial situation is at the moment and if they need more money.
About how much money has your household put aside in the last 12 months?	The respondents have answered how much money they have been able to put aside in the previous 12 months.
How do you think the economic situation of your household will be in five years' time in comparison to the current situation?	The respondents have answered based on their own perception how their economic situation will be in five years from now, in relation to the situation they are in at the moment.
Do you think you have to put money aside in your situation?	The respondents have been asked based on the personal circumstances if it is needed to save money.
Do you think the expenditures of your household, in the next 12 months, will be higher, about the same, or lower than the income of your household?	The respondents have been asked to state how they think their expenditures will be in the coming 12 years.
Days ill from work	The respondents have been asked how many days they have been ill from their work.
General health condition	The respondents have been asked how well their general health condition is at the moment.

Figure 23: Overview used variables (Own illustration)

Some of the variables are not statistically significant with the labour agreement. The variables which are statistically significant with the labour agreement will not be interpreted and will not be shown in the main body of the research. The spss output tables of the variables mentioned above can be seen in appendix D.

8.3.1 Financial situation of the households

In this paragraph the following variable will be used: The amount of money in the bank, how well the household can manage the income, how the financial situation is at the moment and how much money the household has put aside in the last 12 months. The variable how much money has the household put aside in the last 12 months is not significant ($p > 0.05$) therefore this variable will not be interpreted.

Figure 24 shows the amount of money in the bank for the different households. The zzp households have the highest amount of savings, the permanent households coming on second not far behind them. The temporary households have less savings than the zzp and permanent households, but not as low as the flexworker households. The flexworker households have very few savings which is logical. The wages and the amount of work are the lowest for flexworkers. Together with their young age which gives them less time to save money, this makes sense. This also goes for temporary households. The difference between the permanent and zzp households can be explained by the characteristics of the zzp households. The zzp households have to manage their own retirement plan and have less securities in case of unemployment or illness. Their higher wages makes it possible to save more than the other groups, which is explainable since they need to cover their own retirement plan. Also because of their older age they have a larger saving horizon which explains why they have the largest savings of all the other groups.
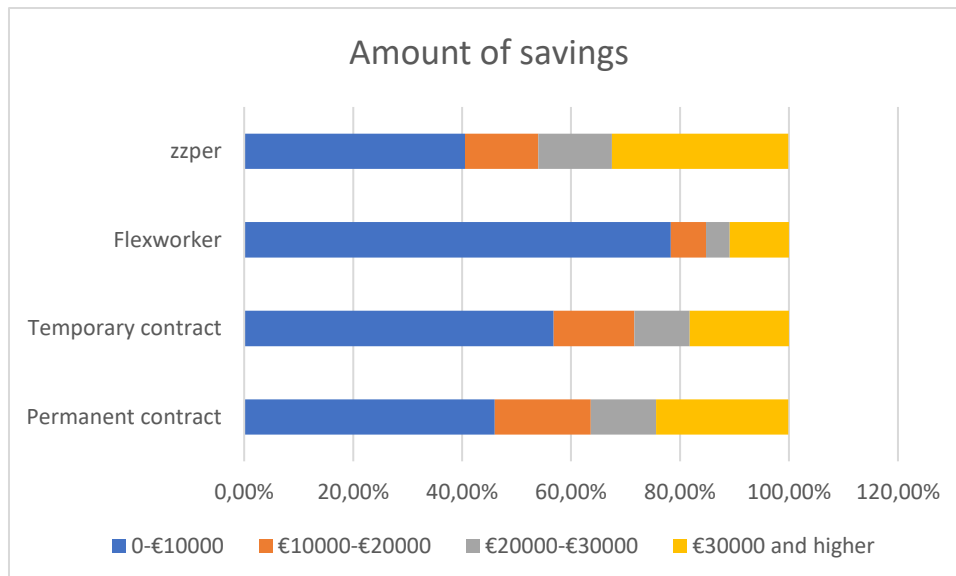
Figure 24: Amount of savings. N = 1030 frequency: A=822 B=88 C=46 D=74 (Own illustration)

The outcomes in figure 25, further strengthens the financial position of the zzp and permanent households versus the flexworker and temporary households. Only 5-6% of the zzp and permanent households seem to struggle with the management of their household, versus 13-14% of the flexworker and temporary households. Although the amount of temporary households whom state that it is easy to manage is almost equal as the zzp households, the easy nor hard group is lower than those of zzp households. The flexworker households seems to be the worst again in comparison to the other groups. They have the highest amount whom find it hard and the lowest whom find it easy to manage the household.
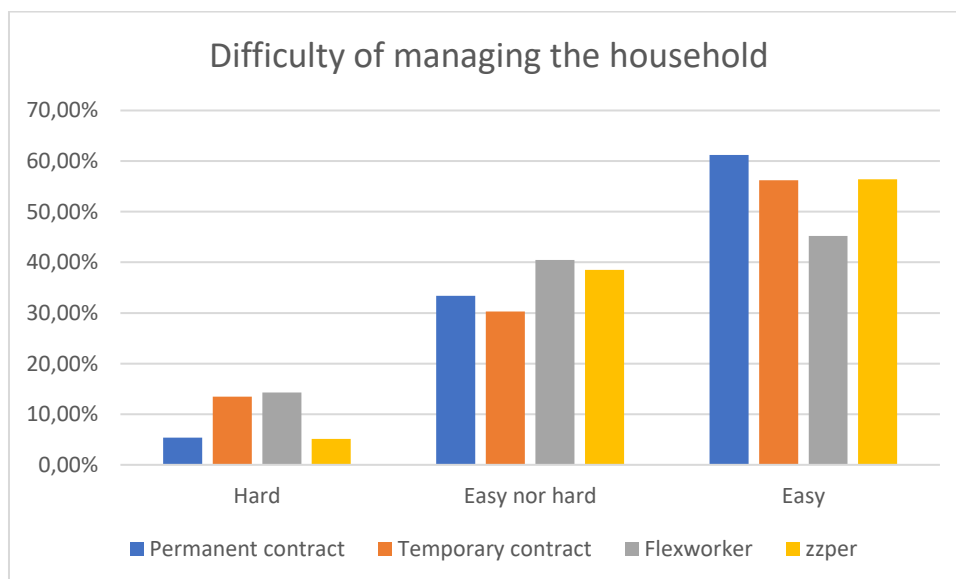
Figure 25: Difficulty of managing the household N = 1041 frequency: A=832 B=89 C=42 D=78 (Own illustration)

By examining their financial situation in figure 26, permanent households, still have the best position, with 67,4% stating that they could manage with less money, and only 10,8% which needs extra money. Flexworkers are again, the worst ones in which 23,7% states that they need money, whereas 50% could manage with less. The low savings, difficulties in managing the households and the bad financial situations further restricts the accessibility of flexworker households to owner occupied market, accepting the hypothesis (7). Surprisingly, the zzp and temporary households show a

difference from the previous outcomes. The responses of the zzp households are almost identical to the ones of the flexworker households, whereas that of the temporary households resemble more with the permanent households. The only explanation could be because of the labour agreement. Zzp and flexhouseholds do not have the certainty of amount of work and could therefore have fluctuating incomes every month. For the permanent and temporary households this is not the case. The fluctuating incomes makes it harder to manage every month, since there is no continuity and grip which makes it harder manage the finances for flexworker and zzp households. Based on the yearly incomes the temporary and permanent households can make plans and create income and expense budgets, whereas the zzp and flexworkers cannot plan their budgets in advance. The zzp households The amount of money saved in the past 12 months are in line with the outcomes of the savings in figure 24, however since this is not significant this does not mean that these variables are correlated with one another. The hypothesis (8) of the zzp households having similar economical situations as the permanent households is accepted. Although the zzp households face more often financial difficulties than the permanent households, the ease of managing the households and the large amount of savings puts them in same position as permanent households.
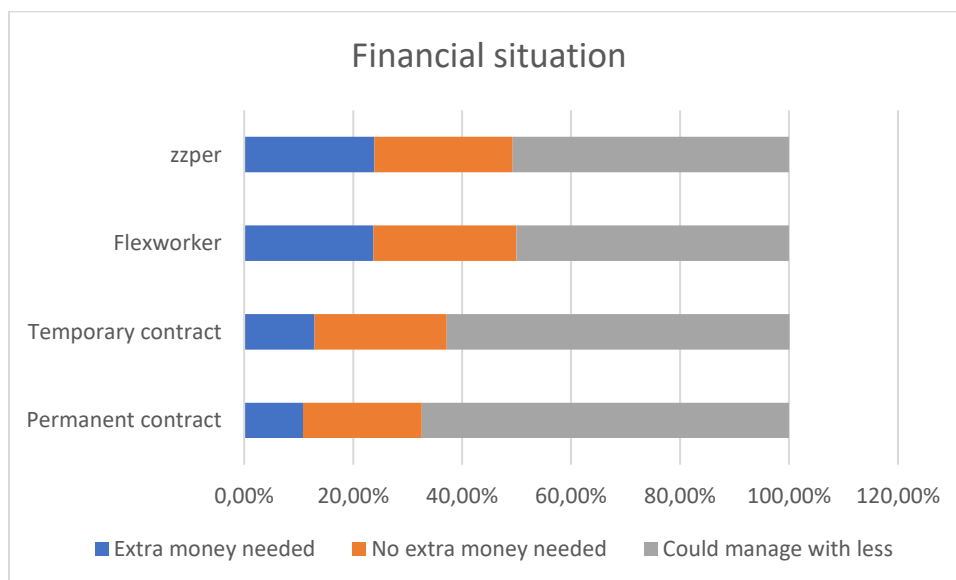
Figure 26: Financial situation. N = 853 frequency: A=678 B=70 C=38 D=67 (Own illustration)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square **Amount of savings**	25,120[a]	9	,003
Pearson Chi-Square **Difficulty managing household**	15,967[a]	6	,014
Pearson Chi-Square **Financial situation**	17,127[a]	6	,009

Table 14: Chi square tests variables (Own illustration)

8.3.2 Health and economic perspective
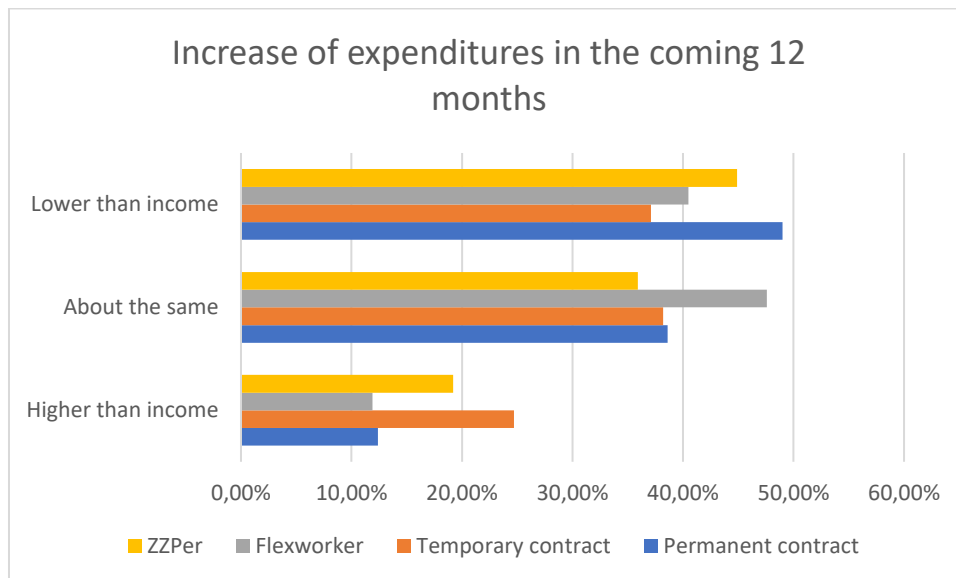
Figure 27: Increase of the expenditures in the coming 12 months. N = 904 frequency: A=730 B=76 C=39 D=59 (Own illustration)

According to figure 27 the temporary and zzp households expect the most to have an increase of expenditures in the coming 12 months. While flexworker households have the smallest share which thinks their expenditures will be higher than their income. However, their share on ''about the same'' is the highest of the group. This is an interesting outcome, since the flexworker labour agreement possess the largest uncertainty. As stated by De Beer (2018) in section 5.4, flexworkers commonly work in sectors which are sensitive to economic changes and face therefore the highest chances of sudden unemployment. The permanent households are in the most advantageous position of all the households and show a positive perception for the coming 12 months. The temporary households have a negative perception which is not in line with the future possibilities that their labour agreement possess. The temporary households have the largest chance of all the three flex households to obtain a permanent contract. The reason for this negative perception could be that the contract of the respondents will not be extended or major changes in the personal lifes of the respondents with a temporary labour agreement. However, there is no information available to answer these assumptions. The zzp households show in comparison to the permanent and flexworker group a large share which thinks that the expenditures will increase in the coming 12 months. Whereas on the lower expenditures, they have the second largest share of all the households. The zzp households, which are older of age and therefore more experienced, are in comparison to the flexworker households, which have similar uncertainties but are more optimistic, more realistic about sudden changes in their situation making them less optimistic about their future expenditures.

For the economic situation in five years shown in figure 28, flexworkers are positive that their economic situation will improve, the same goes for temporary households. Zzp households have the lowest share which think that their situation will be worse. As shown in section 8.3.1, zzp households have large amounts of savings, which together with their age protects them from economically bad situations. Permanent households have the largest share on having a worse situation in 5 years, and the lowest on improvement. The outcomes of these figures can be explained by the psychological aspects of the different households. As stated by Van Vuuren & Smulders (2018). In section 5.3, permanent households have the most negative perception on their own capabilities. This explains why their forecast on a better outcome is lower than the other groups. Temporary households are more optimistic about their situation and flexworkers even more. Something which needs to be mentioned next to these outcomes are the fundamentals of the labour contract. Households with flexible labour agreements have more room to increase and improve their position. Temporary households can obtain a permanent contract with higher wages and zzp and flexworker households can work more hours. Permanent households have more consistency, which decreases the chances of major

differences in their situation as can be seen in figure 28. Therefore, the hypothesis (9) stating that flexhouseholds have a worse future perspective than the permanent households is rejected.
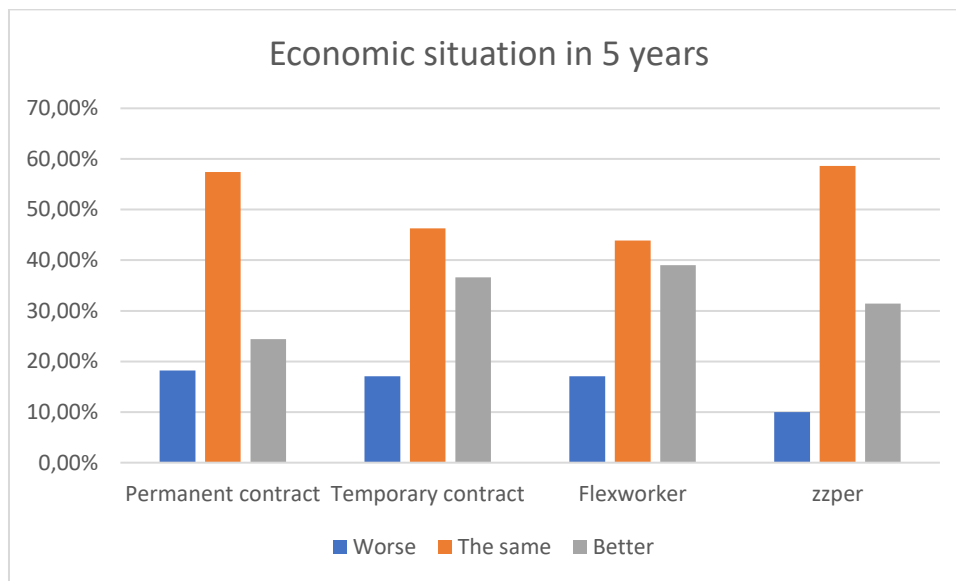
Figure 28: Perception on the economic situation in 5 years. N = 973 frequency: A=780 B=82 C=41 D=70 (Own illustration)

Figure 29 shows the amount of days the households are ill from their work. Zzp households are most often ill from their work. This can be explained by the older age of the zzp households, which makes them more vulnerable to illnesses and being sick. According to the literature study conducted in section 5.3, permanent households were the most susceptible for illnesses and burnouts than the other groups, whereas the temporary households would be the least susceptible for this. The outcomes of the temporary households seem to be in line with the literature review since they are, as shown in figure 29, the least days ill of all the groups. Another reason is that this has to do with their chances on obtaining a permanent contract. If they deliver qualitive work and are less ill, this will result in a higher chance of them obtaining a permanent contract. This being said, the outcome of the flexworker households being more often ill than the temporary and permanent households are contradicting with the literature review. The non-guaranteed income and will to prove of the flexworker households would be the main driver to show up to work, even more than the temporary households. According to RTL (2018) the amount of time someone is absent due to illness is strongly related to their attachment to the company. The literature study showed that flexworkers feel a low attachment to the company they are working for, and Kool (2017) mentioned that this could lead to unethical behaviour of the flexworkers. The outcomes of figure 29, shows that the more often absence of flexworkers can be explained by the low attachment of the flexworker to the company. Which makes the flexworker quicker to call in sick than the temporary and permanent households, even if this means that they do not obtain money. However, the unethical behaviour as stated by Kool (2017) is not coming to expression by flexworkers, since figure 29 shows that flexworker households do not call in sick in a disproportional way.
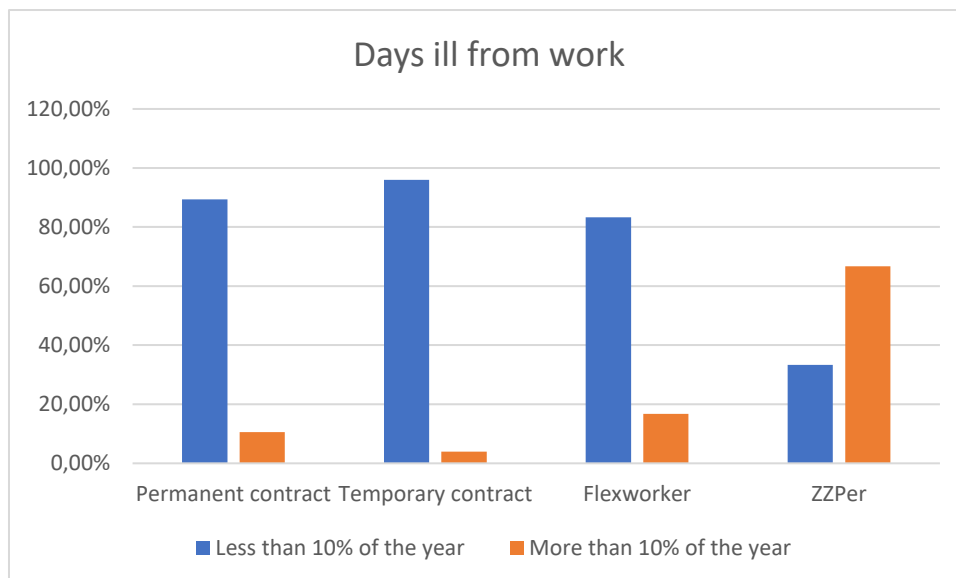
Figure 29: Amount of time ill from work. N = 345 frequency: A=311 B=25 C=6 D=3 (Own illustration)

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square **Expenditures in the coming 12 months**	14,604[a]	6	,024
Pearson Chi-Square **Economic situation in 5 years**	12,855[a]	6	,045
Pearson Chi-Square **Days ill**	11,212[a]	3	,011

Table 15: Chi square tests (Own illustration)

8.4 Conclusion

For the division on the owner occupied market versus the rental market, a clear pick order can be seen. Permanent households are the most present on the owner occupied market, then the zzp households, temporary households and then the flexworker households, whom is the only group which makes more use of the rental market than the owner occupied market, showing how bad the accessibility of this group is to the owner occupied market. (1) Accepting the hypothesis that flexhouseholds are more present on the rental market than the owner occupied market than permanent households. Although flexworker and temporary households are more present in general on the rental market, we see that the permanent households have the largest occupancy of social rental dwellings. (2) Rejecting the hypothesis that flexhouseholds are more present on the rental market than permanent households. On the owner occupied market we see that zzp households do not make very often use of the NHG, while they could make use of it since they buy dwellings which do not exceed the NHG limit of 325.000, (3) accepting the hypothesis of them not buying dwellings more expensive than the NHG limit.

On the rental market, flexworker and temporary households have commonly lower household expenditures than the permanent households, whereas zzp households have higher expenditures. (4) the hypothesis that flexhouseholds have lower monthly expenditures than the permanent households is partly accepted, since the zzp households are the only one which have higher expenditures than the permanent households due to their focus on the private rental market. On the owner occupied market, a similar outcome can be seen, in which the flexworker and temporary households live in cheaper priced dwellings than the permanent households, whereas the zzp households more often in higher priced dwellings than the permanent households. Therefore, partly accepting the hypothesis (5) that flexhouseholds live in lower priced owner occupied dwellings than permanent households. On the owner occupied market, flexworker households are the only households which make significantly more often use of interest only mortgage in comparison to the other three households groups. Accepting the hypothesis (6) stating flexworker households make the most use of interest only mortgages. The flexworker households make the lowest use of the NHG Which is odd since the flexworker households would benefit the most using the NHG, since this result in lower monthly expenditures and gives takes away significant risks that the interest only mortgages provide.

Hypothesis 7 is accepted since the financial position of the flexworker households are the worst of all the households. They have the lowest amount of savings, hardest time managing their household and the worst financial situation. This is further restricting their accessibility to the owner occupied market, directing them to the rental market. The zzp households have a similar financial situation as the permanent households accepting the hypothesis (8). By looking to the future perspectives of the flexhouseholds, they all think that they have more positive perspectives than the permanent households. This has to do with the improvement possibilities of the labour agreements of the flexhouseholds. The flexible labour agreements give room to, working extra hours, obtaining larger wages or getting a permanent contract, whereas the permanent labour agreements have more fixed characteristics. Therefore the hypothesis (9) stating that the future perspectives of the flexhouseholds are negative is rejected. However, based on the position all the households are in now, the permanent households do not need to do much to improve their position, whereas the temporary and flexworker households need to prove themselves and put in effort to enhance their current position in the coming years.

Part IV: Conclusion

9 Synthesis

The outcomes of the source and interview studies conducted in the theoretical part shows deviating outcomes based on obtaining a mortgage. Because of the uncertainties of their labour agreements, the flexhouseholds got each their own extra measures on obtaining a mortgage. Restricting factors such as the a minimum of three years worked, only getting 70-90% of the mortgage or the obligation of making use of the NHG are imposable. According to the source study, these issues can be mitigated by the flexhouseholds. The temporary households could improve their chances with a letter of intent or an Arbeidsmarktscan, the zzper could do a research forecast and even the flexworker can get a perspective declaration from their employment agency which allows them to take out mortgages. Although in theory this sounds like there are a lot of possibilities for the flexhouseholds and they can obtain a mortgage in a blink of an eye, in practice the opposite is seen. In conversation with the mortgage professionals, showed that they do face significant issues on the housing market. The mortgage they can obtain is low and the scarcity is driving the housing prices in a way that there needs to be overbidding. Also, most of the households coming to apply for a mortgage are couples which have both a permanent contract. Flexhouseholds which apply for a mortgage are scarce. The statistical study with the DNB households further strengthens this difference between the permanent households and the flexhouseholds. More than 70% of the households with a permanent contract have bought a dwelling, whereas for the flexhouseholds this percentage is lower, in which flexworkers are the lowest present on the owner occupied market with only 40%. Of the ones which are present on the owner occupied market, only the zzp households correspond with the permanent households and show a form of similarity on housing prices. Flexworker and temporary households on the owner occupied, are in majority positioned on the low segment housing, in which a large share the flexworker households possess risky interest only mortgages, which make it hard for them to build up capital. These findings strengthens the statement that although in theory it seems that they have opportunities, in practice they are restricted in their possibilities and show a deviating outcome in comparison to the permanent households, but also to the temporary and zzp households. The zzp households have similar outcomes on the owner occupied market based on division on the markets and accessibility to the market. Temporary households are restricted, but still manage to have better opportunities and a higher accessibility to the owner occupied market, than flexworker households.

By shifting to the rental market flexhouseholds seem to be having better opportunities since the rules are less strict in comparison to the ones on the owner occupied market. For the social rental market only the amount of time the households in signed up is important and a maximum income, whereas for the private rental market there are other rules. The theory shows that the flexhouseholds have stricter rules to correspond to, on the private rental market than the permanent households. Here, the rules for the temporary households are the least strict, whereas for the flexworker households they are the most strict. Some organization do not even accept flexworker households because of their labour agreement. The outcomes of the statistical study is in line with the source study conducted on the accessibility of the flexhouseholds to the rental market. Flexworker households are very little present on the private rental market and are commonly located on the social rental market. The zzp households are the opposite of this, with the largest presence on the private rental market, whereas the temporary households show a equally divided outcome in which they are equally present on both the social rental as the private rental market. The division shows that although the labour agreement of the zzp household is not as strong as the temporary labour agreement, their wages put them in an advantageous position to obtain a private rental dwelling over the temporary households. Although the flexworker household have the worst characteristics to obtain a private rental dwelling, they are still present on the private rental market. There is a large chance that these households are given this possibility lives in small dwellings which are overpriced in relation to their incomes. However since there age makes it hard for them to access the social rental market in combination with the scarcity, some do not have another choice than trying for the private rental market.

The literature findings show different future perspectives for the flexhouseholds. Because of the temporary character of the flexworker labour agreement, they do not get the same internal education given by a company they work for. The permanent and temporary households do get this putting them in a better position on the labour market than the flexworker households. The zzp households being older of age and higher educated, already are ahead of the households and are less in need of further

education. the literature states that the future possibilities of the flexworker households are further diminished because of this. Since the flexworker households also got lower wages than the other three households their future accessibility will not be enhanced. The statistical research strengthens the statement that the future accessibility of flexworkers will not be enhanced, by showing how they have the worst financial situation of all the households. Some zzp households are even in a more advantageous position than permanent households. By looking at the future perspective of the households an interesting outcome can be seen. The permanent households are the least positive on their future, whereas the flexhouseholds are all very positive on their futures. For the zzp and temporary households this is understandable and this is also in line with the literature findings. For the flexworker households, this is very contrasting with what the literature findings stated on their future career perspectives. However, the literature findings showed that the flexworker households are the most optimistic on their capabilities and think that they are most suitable for the work they are doing, explaining why the output of the statistical research showed that flexworker households think they will have a more promising economic situation than the temporary and permanent households.

10 Conclusion

This chapter will provide conclusions derived from the literature review, interviews and statistical research conducted. Firstly, the sub questions will be answered. Thereafter, the answer on the main research question will be stated

10.1 Answering the sub research questions

1. *What are the outcomes of the flexibilization of the labour market on labourers?*

Answer: Due to the rise of flexible labour agreements, the position of interest companies for the welfare of the labourer, is decreasing. Because of this the interest organization are in a bad position in the negotiations with companies, making it harder to agree on good collective labour agreements for the working classes. Next to this the normal employer-employee relationship, in which the employer further educates and helps the development of the employee, is not being manifested between the employer and the employee with a flexible labour agreement. This affects the labourers with a flexible agreement in their long term career prospects, enhancing their work uncertainty due to lower education and mismatch on job requirements. For flexworkers, this is a snowball effect, especially since they are commonly lower educated than the other labourers. The sectors with labour intensive work and which are very sensitive to the economic climate have higher percentages of flexworkers and temporary labourers. These labourers are the ones which will suffer the most if the economy is getting worse. There labour horizon, the amount of years they are bound to work, is six times lower than the ones with a permanent household. For the zzpers, there are no big differences from the permanent households, showing that the flexibilization of the labour market is affecting the zzpers negatively. For the flexworkers and temporary labourers, the outcomes of the flexibilization of the labour market, increases their uncertainties on work and income. Their labour agreement affects them negatively, resulting in worse labour agreement conditions and a decrease in their career perspectives. The labourers which work as a flexworkers are affected in the worse way, the labourers with a temporary contract are affected, but due to the possibility on obtaining a permanent contract they still have a better position than the flexworkers, especially the temporary labourers of young age. Whereas for the zzper, they are affected in a minimal way because of the flexibilization of the labour market. These labourers are commonly older of age and have chosen to be a zzper instead of being bound to work for a company on a permanent basis, resulting in zzpers having the best position in the flexible labour market of all the flexhouseholds.

2. *What is the position of flexhouseholds to access the rental market?*

Answer: The conditions and rules for obtaining a social rental dwelling are very well in line with the characteristics of the labour agreement of flexworkers and labourers with a temporary contract. The average income of the flexworkers and labourers with a temporary contract are within the income limit to obtain a social rental dwelling. However, for zzpers this is not the case. Their incomes are too high which makes them not eligible to obtain a social rental dwelling. Although based on the rules and conditions the flexhouseholds seem to have a good position on the social rental market, in practice this does not seem to be the case. The waiting lists, in which the households are positioned based on the amount of time they are registered, pose significant problems especially for younger households. Since temporary and flexworker households are young of age, they are not registered for long period of times, positioning these households low ranking on the waiting lists. Next to this, the high scarcity of dwellings, and especially the mismatch of supply and demand of social rental dwellings, makes the waiting times even larger. One of the issues is because of the lack of upward movement, which means that households move from their social rental dwelling, to a owner-occupied or private rental dwelling. The rules of the social rental market makes it not possible for housing associations to move households out of the dwellings that earn too much money. This forces households to make use of the private rental market, which is much more expensive.

On the private rental market the different suppliers all have their own rules to accept households. The private rental market does not work with waiting lists such as on the social rental market, but works on a first come first serve basis, which they combine with the income of the flexhouseholds. For flexhouseholds, organization deviate from the normal conditions which is used for permanent households, and create additional rules which are based on the type of labour agreement the household has. For zzp households an additional rule is that they have to pay more months of deposit, for the temporary households a letter of intent, and for the flexworker households it is a letter of intent and extra months of deposit. The flexworkers have the most additional rules, some organization do not even accept households if they have a flexworker labour agreement. Together with the low incomes of the flexworker households, it is very hard for these households to obtain a private rental dwelling. For the zzp households, there are also additional rules in which they look at the income of the past two years shown on their balance sheet. The temporary households have the best conditions, which do not deviate much from the permanent households, giving them the best position on the private rental market based on their labour agreement.

The position of the flexhouseholds on the rental market is not good. The mechanics on the social rental market makes it hard for temporary and flexworker households to obtain a dwelling due to the lack of sufficient years registered and excluding zzp households because of their high incomes. On the private rental market, flexworker households correspond minimally with the conditions of the private institutions and are being chosen the least of the groups. Temporary households have a good chance but could face high rents due to the scarcity, whereas for zzp households, the starters are excluded on obtaining a private rental dwelling.

3. *What is the position of flexhouseholds on the owner occupied market?*

Answer: Shortly after the crash in 2008, the Dutch government sharpened the conditions on obtaining a mortgage which resulted in the further plummeting of the house prices nationwide. After the recovery of the economy, the house prices started to increase disproportionally year on year, strengthened by the lagging construction which stayed far behind the demand. In 2021, the average house price is 369.000 euros and is not showing any signs of stagnation or decrease. For the flexhouseholds this results in significant problems on the owner occupied market. Over the years, new tools and measurement indicators were created to help flexhouseholds to obtain a mortgage. For the temporary households, the use of an Arbeidsmarktscan was created, zzpers could use the opportunity using an income forecast and even flexworker households got the possibility of obtaining a mortgage based on the perspective declaration which could be obtained by the employment agency. In case there was no opportunity of making use of one of these tools, the mortgage lender could look at the previous three years in which the flexhouseholds worked, to come up with a determining income to calculate the amount of mortgage. Enough opportunities for flexhouseholds to obtain a mortgage. Which is technically true, however practically it does not even come close to flexhouseholds being able to buy a dwelling. The mortgage lenders aim to minimize the risks and are therefore aiming to give out the lowest amount of mortgage which is possible. The tools which should make it easier for the flexhouseholds to obtain a mortgage, are used in a way that the lowest output generated is being used for the calculation of a mortgage. This is also done with the use of the three years back rules, in which if the last years is the lowest income of the three, this yearly income will be used to generate the mortgage. For zzp households on which the three years back rule is applied, they only get 80% of the mortgage they could obtain. Flexworkers who already earn far less income than the other two groups are completely left behind and restricted in their possibilities on the owner occupied market. Next to this, other restrictions and conditions are being used if the flexhouseholds want a mortgage, such as the obligation of making use of the NHG for zzpers, giving risky interest only mortgages to flexworkers and giving lower amount of mortgage if the labourer has worked less than 3 years back to back. For starter of young age, which do not yet have high incomes or large amount of savings, the possibilities on the owner occupied market are further diminished. The zzp households which are commonly higher of age and have higher incomes have a larger chance on obtaining a decent mortgage. Temporary households of young age could benefit more from waiting till they obtain a permanent contract, and to buy a dwelling after. For the households which are already on the owner occupied market and have

created savings or surpluses, the opportunities and possibilities are much larger. This is in accordance with all the labour agreements, unless they have an interest only mortgage, since this does not builds up capital for the household. Flexworker households are therefore, also when living in an owner occupied dwelling already, more restricted than the other labour groups.

The position of flexhouseholds on the owner occupied market is significantly lower than the permanent households. Next to the differences in income, the additional rules which are imposed for flexhouseholds disadvantages them over the permanent households. Starting flexhouseholds do not make a chance on obtaining a decent mortgage and even if they do, the scarcity on the housing market results in overbidding which makes it impossible for the households with low savings to buy a dwelling. The flexworker households have the worst position, the temporary households have a slightly better position and the zzp households have the best position of the three. However, in comparison to the permanent households, all three of the groups have a bad position on the owner occupied market.

4. *What are the differences in housing characteristics between flex households and normal households* ?

Answer: The type of dwellings in which the different households live do not differ in a large way from one another. The division between the accommodation types does not show major deviations. The only accommodation types which are different and stand out, are the rent a room accommodations which are largely occupied by temporary households of young age and the work-living accommodation in which zzp households have the largest share. Also flexworker households seem to live far more often in apartments, whereas the permanent households live more often in row housing at a young age. There is a big difference between the markets the flexhouseholds and permanent households occupy. Permanent households have the most favourable position on the housing market, and this shows, since they have a far larger share on the owner occupied market than the flexhouseholds, and especially in comparison to the flexworker households. The zzp households come in second on the owner occupied market, which confirms the strong position of the zzp households on getting a mortgage and accessing the owner occupied market. Zzp and flexworker households make the less use of the NHG than the permanent and temporary households, while the NHG would be very helpful for them because of their uncertainties. Especially for the flexworker households, which make a lot of use of the risky interest only mortgages. On the rental market, permanent households are the largest group to occupy a social rental dwelling, more than the flexworker households which have the best characteristics for this market. The amount of time registered on the social rental market is so important that the younger households are having a hard time on accessing the social rental market. Especially the temporary households. For the zzp households this is not a problem since they make the largest use of the private rental market, due to their need of flexibility and their high incomes.

5. *Are flex households spending more on housing than permanent households?*

Answer: This research question had the focus to look if there was a difference in the amount of spending on the housing, and if there were households which were living crooked. The database did show a statistical significance for the rent expenditures per month, but not for the mortgage expenditures per month. Therefore, the comparison on the expenditures between both of the markets could not be done. However, the overview on the rent costs and house prices of the different households gives insights on the financial possibilities of the different households. On the rental market, flexworker households have the lowest rent expenditures. On the rental market the price segments which are occupied by the households are varied. All households with the exception of the flexworker households live in all three segments. Permanent households occupy the middle segment the most with and have a small share on the high segment, whereas zzp and temporary households are more present on the higher segment than the permanent households. On the rental market, the favourable position of the permanent households show that they live in dwelling which are less expensive than the zzp and temporary households, resulting in these households having higher housing costs on the rental market. On the owner occupied market, this is different. Flexworker and

temporary households live in larger shares on the low segment, whereas the zzp households are more present on the middle and high segment in comparison to the permanent households. On the rental market, the less strict conditions makes it possible for the flexhouseholds to obtain more expensive dwellings than they could on the owner occupied market. The owner occupied market is so strict that the households can only act according their wages and certainties showing no large varieties within the price categories, whereas on the rental market there are possibilities for benefit of the doubts and deviations of the rules. Because of this, the flexhouseholds can obtain higher priced dwellings on the rental market, while on the owner occupied market their monthly expenditures are lower limited, making the flexhousehold spendings on the rental market higher than on the owner occupied market. Therefore, the households expenditures of the zzp and temporary households are higher on the rental market than the permanent households. Whereas on the owner occupied market the flexworker and temporary households have lower housing costs.

6. _Which differences are there in the financial situations of the flexhouseholds and permanent households?_

Answer: On the financial situations significant differences can be seen between the households. The zzp households have the best financial situation, with the largest amount of savings and lowest difficulties on managing the households. The permanent households are quite similar to the zzp households. Permanent households have lower amount of savings than the zzp households, but their financial position is strong enough that they can easily manage better with less money than the zzp households. Both households have the most favourable financial position. The temporary households have lower savings and have it more difficult than the permanent and zzp households. With the flexworker household having the worst financial situation of all the households. By combining the financial situation with the future perspective of the financial position of the households, the zzp households do not forecast major changes and are quite positive on their future outlooks. The same goes for flexworker households, which are very optimistic about their futures. However, the optimism of the flexworker households is unfounded. The flexworker households already possess the worst financial situation and also have the lowest education level, skill level and do not benefit from the internal education by working for a company giving them the worst future perspectives. For the temporary households the opposite can be seen. Temporary households are in comparison to the flexworker households more negative on their future financial situation. Whereas, the temporary households have the biggest opportunities to enhance their future financial situation by obtaining a permanent contract and further educating themselves. Permanent households have the most negative perception on their future financial perspective, which is because they are commonly more pessimistic about their situation and also have less room to improve their working conditions in comparison to the flexworker and temporary households.

10.2 Answering the main research question
In this section the main research question of this report will be answered. The main research question of this report is:

''What are the effects of the flexibilization of the labour market on the accessibility of flexhouseholds to the housing market?''

Answer: The flexibilization of the labour market increased the amount of labourers working with a flexible labour agreement. This has affected the collective labour agreement negotiations and disadvantaged the negotiations with the companies. The flexhouseholds with a temporary and flexworker labour agreement commonly earn less than the ones with a permanent labour agreement. For zzpers, this varies based on the type of work and sector they are in. Because of this the temporary and flexworker households have based on their income a disadvantageous position in compared to the permanent households. For the zzp households there is no disadvantage, some zzp households are even in a more advantageous position than the permanent households, based on income and education level. Because of the variety of labour agreements and the increase of the flexible labour agreements in the Netherlands, financial institutions and private lessors have created conditions to

cope with the flexible labour agreements and to make it possible to allocate them to a rental dwelling or a mortgage. On the social rental market, the accessibility of the flexhouseholds are not affected by their labour agreement. For the temporary and flexworker households their labour agreement puts them even in a better position to access a social rental dwelling, however due to the long waiting lists and scarcity, they cannot immediately benefit from this. For the zzp households their labour agreements makes it also possible, however their high incomes excludes them from the social rental market. The private rental market is easy accessible for the zzp and temporary households. The extra conditions posed by the private lessors are for the temporary households minimal, whereas for the zzp households there only is a need to show their balances sheets of the last two years of labour. The flexworker households have a very low accessibility to the private rental market. There are strict additional measures such as several more months extra deposit, stricter income norms due to their fluctuating income and some organization do not even accept households with a flexworker agreement to rent one of their dwellings.

On the owner occupied, several developments have been made over the years, to make a mortgage accessible for the flexhouseholds. Different tools have been created to make it possible for the flexhouseholds to obtain a mortgage, even with the uncertainty their labour agreements possess. For all the households there is a possibility to obtain a mortgage based on the average income of the past three years. Next to this, every labour agreement has its own condition which makes it possible for them to obtain a mortgage. The temporary households could obtain a letter of intent or make use of the Arbeidsmarktscan. The letter of intent would result in the treatment of their labour agreement as one of a permanent household, enhancing their opportunities. The Arbeidsmarktscan, is a scan which is done based on the sector and function of the applicant, in which the job chances of the applicant is determined. A positive outcome of this scan would put the applicant in the possibility to obtain a mortgage as long as they have a minimum of 12 months' work experience. For the zzp households, a similar tool is created in which an income forecast is conducted, which shows the amount of income which will be generated in the coming years. For the flexworker households, a perspective declaration can be given by the employment agency. This perspective declaration does not give a certain income, but rather shows if the income which is being generated is sustainable. If the declaration is given, the past three months of income will be used to calculate the yearly income and with that the maximum amount of the mortgage. These tools and conditions makes it possible for flexhouseholds to obtain a mortgage, however in the present circumstances, the chances of buying a decent dwelling is limited. The scarcity on the housing market is driving the house prices up. Together with the low incomes and financial situation of temporary and flexworker households, there accessibility to the housing market is strongly diminished. For zzp households, this is different due to the fact that their incomes are larger and that they have more savings. Zzp households have almost the same opportunities as permanent households on accessing the owner occupied market, whereas the flexworker and temporary households come in third and fourth on the owner occupied market. With the flexworker having the such a bad position that they are only eligible to buy the cheapest dwelling available on the owner occupied market or being convicted to the rental market.
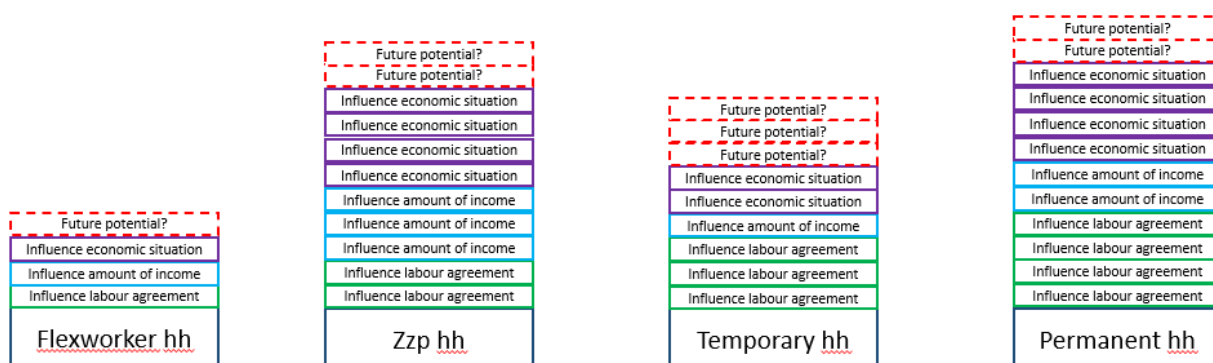
Figure 30: Position of the households based on the researched characterstics (Own illustration)

11 Discussion

In this chapter the contrasting findings on the theoretical and statistical part will be discussed and tried to explain. Some findings from literature and practice deviate from one another, which is important to consider and therefore will be emphasized in this chapter. Next to this, the limitations of this research will be stated to better comprehend the outcomes of this report and to create a basis on which the recommendations in the next chapter can be built on.

11.1 Literature and practice

During the theoretical part of this research, a lot of literature was found on the flexibilization of the labour market. However, information on the effects of the flexibilization of the labour market on the accessibility of households to the housing market, was to a lesser extent available. Therefore, the used methodology was focused on creating mixed method design in which the theoretical framework on the flexibilization of the labour market, was combined with the accessibility to the housing market. This was eventually used as a basis on which the statistical research developed outcomes. Chapter 5 was dedicated to describe the structure of the labour market and how the flexibilization on the market was come into place. The literature findings showed that flexible labour agreements was a desire of different companies and policy makes, to more efficiently use labourers but also to decrease the obligation of these companies to a labourer. Although the possibilities were widened by policy makes, political parties are implementing measures which need to decrease the created risks for the labourers with flexible agreements. The outcomes of the theoretical research showed that the rental market and owner occupied market, had developed measures and rules on which the accessibility of the flexhouseholds could be tested.

The literature output showed that the owner occupied and the rental market, in line with the development of the flexible labour market, created a framework of conditions and measures to house the increased amount of flexhouseholds. This framework created on both of the markets, makes it possible for flexhouseholds to obtain a dwelling. On the owner occupied, the restrictions increase based on the higher uncertainties, and therefore the temporary households face the lowest restrictions, whereas the flexworker households face the biggest ones, and the zzp households are in the middle. But all households are eligible to obtain a dwelling according to the literature findings. The statistical research shows a different output and rejects the outcomes. The statistical findings show that not the temporary, but the zzp households have the highest accessibility to the owner occupied market, and shows how largely the flexworker households are excluded from the owner occupied market. This difference can be explained by the one-dimensional view of the policy notes, in which possibilities of obtaining a mortgage are created, however these conditions are not in line with the characteristics such as income, age and savings of the flexhouseholds. In line with the mentioned characteristics, qualitative there is a mismatch in which the mortgage rules are not in line with developments on the housing market, such as the scarcity and the disproportional increase of the housing prices. Because this is not considered, the flexhouseholds with low incomes and savings are being restricted in the present conditions. The literature and the interviews helped in understanding the route that flexhouseholds had to take to obtain a mortgage, in which the literature showed that even without 3 years of work experience obtaining a mortgage was still possible. The interviews and the statistical research showed how in practice this was a complete different story. Although the theory presents it as something easy to obtain, in practice there are far more obstacles which needs to be tackled by households, to really buy a dwelling.

The private rental market has the same step by step restrictions as the owner occupied market in which the temporary households have the least restrictions and the flexworker households the most. Some lessors exclude flexworker households from obtaining their dwellings, simply because of their labour agreement. These restrictions for the flexworker households are in line with the practice. One finding of the literature study stated that flexhouseholds could be living crooked because of the pressure on the housing market. For the flexworker and zzp households this is not the case, but for the temporary households it is, which is also in line with the findings of the statistical research. The strict regulations for the flexworker households simply excludes them in practice largely from the private rental market. For the zzp households and the temporary households it is, like the owner occupied market, different. The zzp households make the most use of the private rental market, and

also have a higher accessibility to this market than the permanent households. This has to do with the higher incomes of the zzp households. On the social rental market, the literature and the statistical research show that the theory and practice are in line with each other for the flexhouseholds. Fo the permanent households this is not the case. As found, the characteristics of the permanent households are more in line with the owner occupied market and the private rental market. The statistical research showed that on the rental market, they are largely present on the social rental market. A clear explanation why this group is so present on the social rental market is not found, however the permanent households group is very diverse which could lead to the lower income households of this group to make use of the social rental market.

Also, it needs to be considered, that the descriptions of the present circumstances of the housing and financial market are in the context of the Covid-19 pandemic, in which the artificial preservation of the economy of the Netherlands, further increases the housing prices, and restricting the free market operations, creating an utopic environment in which the negative effects of the pandemic are not being brought to outcome. This is also a point of discussion for the DNB households survey which is used. The dataset is from respondents of the year 2020, in which the survey was conducted from March 2020 till December 2020. With the ongoing pandemic in that timeframe, the generalizability of the outcomes with another timeframe, such as pre-covid or post covid is a point of discussion. The dataset consisted of a lot of respondents which did not had a job at the moment the survey was taken. When these respondents were filtered out, the share of flexhouseholds decrease whereas that of permanent households increased. However, the shift in shares were negligible since it did not change the population drastically.

11.2 Limitations

The aim of this research was to obtain knowledge on the accessibility of the housing market for flexhouseholds. Due to the special circumstances in which this research has been conducted, this research contains some limitations.

One of the limitations of this research is that the household groups which are used in this research are researched on a ''general'' view on the households. There are multiple types in all the household groups which can be researched. Researching all the different types within the household groups would take far more time than the amount of time which was used for this research. This would also be a something which could be further researched in the future. Another limitation is the amount of interviewees which are used in this research. More interviewees would strengthen the output and claims which have been made in the qualitative part of this research. Also this research is created in a very broad sense, looking at the interplay of the markets together, to see how this affects the accessibility of the flexhouseholds. Because of this broad scope and wide research, it is not possible to create very in depth recommendations on how things need to change, but rather gives a lot of recommendations for further research.

The flexhouseholds and permanent households would be compared based on their income and their age. To see if the outcomes would be different if these two factors would be fixed in the analysis. Unfortunately, the DNB households survey consisted of a lot of respondents which were already retired, and therefore had to be filtered out which reduced the total amount of respondents to use in the research. Also, because of the dataset consisted of 6 different databases, not all the respondents had answered all the questions of the survey, which further decreased the respondents in the examination of specific variables and questions. However, for the outcomes of the statistical research, only statistically significant ($p > 0.05$) outcomes has been used, which decreases the ''randomizations'' of the output described in this research. Rather, the DNB database had a large amount of respondents which did not had a job at the moment of the survey, which therefore made the total sample size of the statistical research lower. Some of the output of the tables therefore possess less than the minimum expected count of 5.

For this research, the moving desires between the flexhouseholds and the permanent households was one of the more important sub research questions, to see if the households had different views on housing. The DNB households survey consisted of information to answer this sub research question,

however due to the low amount of respondents on this topic and the lack of a statistical significance between labour agreements and the moving desires, no statement has been made. Next to this, research question 5, which was focused on the differences of housing expenditures of the flexhouseholds and permanent households could also not be answered accordingly, because of the fact that the monthly mortgage expenditures did not show a form of significancy, which made it not possible to make a comparison for the households, on the rental and owner occupied market. The households with a couple working, could not be classified in this research and therefore the difference between a one working or two working household could not be stated in this research.

12 Recommendations

12.1 Recommendations for the field

Besides the general recommendation that more dwellings need to be built and that the yearly supply needs to be larger than the yearly demand, the following recommendations are created based on the findings of this research;

Recommendation for the AFM: Although all the flexhouseholds have access to a mortgage according to the rules, the practice shows that flexworker households and especially temporary households of younger age have difficulties in accessing the owner occupied market. The further development of digitalization of the mortgage lending system needs to be stopped, since it further decreases the use of tailor made mortgage lending. The tailor made mortgage lending is already drastically being under used due to the imposed rules of the AFM after the financial crash and will eventually vanish if the digitalization keeps developing. Therefore it is recommended that the mortgage lenders will be given more freedom in the use of tailor made mortgages when the applicant is a flexhousehold. By doing so it will enhance their opportunities on the owner occupied market. The digitalization and tailor made mortgages can coexist together, as long as it does is used properly for the households. The use of the three years back rule makes not much sense since it is looking back to what has been earned. Instead it has to be in a way that they look into the future, as is done with the Arbeidmarktscan, research forecast and perspective declaration. However, the use of the new tools, should be combined with the three years back rule, to ensure that there is optimal access to a mortgage. An example is, that the Arbeidsmarktscan and perspective declaration combined with the three years back rule, needs to be transformed into something which calculates the minimal useable income of the mortgage, on which further can be built based on future perspective and opportunities. In which a higher/better mortgage can be obtained now for the flexhouseholds.

Recommendations for policies on the labour market: It is recommended to transform the flexible labour agreements according to a few points advise by the SER and Commission Borstlap. To start, it is recommended to prohibit the call upon and zero hours working labour agreements, and to impose a minimal amount of hours per quarter in every contract. By doing so, the flexible labourers will have income certainty which would give them a better position to obtain a dwelling. Next to this, by obligating employers to pay for the securities of the flexible labourers, they become more expensive. This can lead to employers becoming demotivated to hire flexible labourers and instead offer them quicker a permanent employment, lowering the temporary work relation of labourers with a flexible labour agreement. By doing so the certainty of these labourers increase. Contrary to increasing the minimum wages, by implementing these rules, the flex labourers obtain a better position without disadvantaging the other groups. Next to this, it would be recommended to give the employer the possibility to partially lower the labour agreements of labourers with a permanent contract. By doing so, the negative side of permanent labourers, which is the rigidity in their income and working hours can be lowered. This could lead to permanent contracts being more often received by labourer with a flexible labour agreement. Lastly, it is important that every labourer has the opportunity to further develop their qualities. Therefore by imposing development budgets, labourers can further specialize themselves in their work, or re-educate themselves into sectors in which there is a high demand for work. It is recommended to make use of the mentioned policies, but also to keep flexible work possible, since in various sectors this is needed to keep up with the fluctuating amount of work. Therefore the focus has to be in improving their position and opportunities in their career, instead of giving equal contracts and labour agreements to all the labourers.

Recommendation for the lessors on the private rental market: Instead of looking at the first come first basis combined with the type of labour agreement. Only the first come first serve basis should be considered, to give the flexhouseholds which are convicted to the private rental market an equal opportunity next to the permanent households. The additional rules such as the extra deposits or the letter of intents give enough certainty that these households will be able to live in the dwelling. To exclude them based on their labour agreement drastically decreases their chances on obtain a dwelling further.

Recommendation for the flexhouseholds facing problems: Within the present circumstances, the chances for the temporary and especially the flexworker households will be very low. It is

recommended for these households to buy a dwelling if this is possible, even with an interest only mortgage. Because of the high scarcity on the market, there is a large chance that the housing prices will keep rising for a long time. Because of this, accessing the market in a later stadium, could do more harm than good, even if money can be saved during this period. Also by buying the dwelling know, the flex and temporary households can benefit from the house price increase which leads to surplus value which can be used for a new dwelling in a later stadium.

On the rental market, it is recommended for flexworker households to share dwellings with other flexworker. For the temporary households, the private rental market gives a good solution because of their high accessibility. Here the households can save money until a permanent contract is obtained, especially if the Arbeidsmarktscan or three years back rule makes it hard to obtain a mortgage.

12.2 Recommendations for further research

Research the accessibility of flexhouseholds with a larger database: The limitations presented in this research, made it not possible to examine the moving desires between the households, the differences in monthly expenditures between the households on both markets and also the division when the income and age is fixed for all the variables. Also with the use of the larger database it will be possible to go further in depth on the differences within the flexhouseholds, such has the households composition, sectors in which they work, age, education level and so on. The use of more variables could give more and further deepening insights on the characteristics of the flexhouseholds.

Research on the further development of the Arbeidsmarktscan, research forecast and perspective declaration: The new tools for the flexhouseholds could be further researched to see how largely these options are being used and how effective they are for the flexhouseholds. This research should lead to further improvements of these tools or even the development of new tools which could enhance the possibilities of the flexhouseholds on the owner occupied market.

Research on if the restrictions of the flexhouseholds are in line with the uncertainties of their contract: As stated in this research, flexhouseholds face extra restrictions and measures because of the uncertainties which their contract possesses. An interesting research would be, to see if the restrictions and measures created on the owner occupied and private rental market are in line with these uncertainties. This research could be focus on how often in practice flexhouseholds face difficulties in being able to pay off their dwellings and are struck by the uncertainties of their contract. This research could potentially lead to the approvement of the restrictions and measures which are now in place, or maybe soften this for the flexhouseholds.

13 Reflection

13.1 Process

After the P2 I was motivated and ready to take on the P's which were yet to come. However, that did not go as planned. After I did my P2 and got the pass, I had to do a resit which took a lot of time to prepare. After the resit was done, my focus on my graduation thesis was significantly lower than just after the P2. It became harder and harder to work on the thesis because of private circumstances, but also because I did not sense the urgency to do something about my thesis. After I had my first meeting with the mentors, which was 2 weeks later than I had planned in my research timetable, I again was motivated to work hard on the thesis. The main driver for this is that the mentors stated that I had to do something otherwise I would not make it. This triggered and motivated me to take on my thesis and to bring it to a good end. Looking back at this, it would have been better to be more consequent in writing the thesis, however knowing that I work very abruptly and inconsistent if I do not feel any form of urgency was one of the reasons why this research process was doable. With the present circumstances, there are too few possibilities to be distracted and to reload for writing the thesis. Writing this reflection at this specific moment, does not go as smooth, simply because I did nothing else the past 5 days than working on this thesis. However during the process, the inconsistent workflows made it possible for me to step back and put my mind somewhere else than on the graduation thesis, making it easier for me to work efficiently when I did sit behind my laptop. Because of the big effort which is needed in completing this process, this inconsistent workflow slowly shifted to a very consistent hard working workflow in the last 2 to 3 weeks. Looking back at this process, I can state that everything that I did, from the topic choice, to the workflow, to the development of the research, I could have done better. However, in the circumstances I am in now, I can say with full determination, that I am very happy and proud with how everything is done and that I would not change anything of this process. Because I learned so much about myself, about working and about doing research which is more valuable than doing it 100% correct. The only thing which I could not do any better, and is already 100% is of course the choice of the mentor group. Peter & Joris have been very supportive of me during this research project and their feedback was useful, structured and to the point. Before choosing the mentors I had a conversation with Joris in which I asked if he was straight forward and would say what is needed, regardless of how negative it is. I remember Joris saying, ''I am critical not strict''. I already knew Peter from a previous course and was intrigued by his optimism and broad knowledge about everything. The combination of Peter's optimism and Joris's critical mindset, worked for me exquisitely. With most of my teachers/mentors I had a relation in which it was me against him/her, whereas with Joris and Peter I had a feeling that we were on the same team and that they treated me as equal which made me excel in my work drive.

13.2 Product

By reflecting on the process, some things could have been researched better and quicker in advance. Personally, I thought that my p2 was very decent, specifically in scoping down the research and in having a clear perspective in what will be done in the coming months. The qualitative study went well, and the content of the researched topics were in line with what was stated in the p2. For the quantitative study, this was different. During the end of the p2, there was a last minute change from the WoOn database to the DNB database, because of the accessibility of the WoOn database. This last minute change resulted in slight adjustments in the research questions to make it more suitable to the DNB database. However, because of the last minute change of the database I could not do the same preparations for the DNB dataset as I did for the WoOn dataset. The variables were clear and the possibilities were clear, but the filtering of the DNB database in which the not needed respondents were filtered had to be done earlier in the process because than the possibilities of the dnb database would have been more elaborated, which could make the research more specific to the DNB dataset, which would result in better questions to be researched with the dnb database. One of the main things which could not be done because of the DNB database was the distinction of the households between age, household composition and income. Because of this the reasoning of the output was harder. However, because of this the qualitative and the quantitative research had to be more synthesized with each other. The findings of the theoretical research could be tested against the output of the statistical research which resulted in to the confirmation of the output, such as the bad position of the

flexworker households on the housing market. But also in the rejection of the theory, such as that the temporary households have a better position of zzp households, which is not true, the zzp households have a much better position than the temporary households. The use of the exploratory sequential mixed method design was therefore a big success. It showed through the use of multiple research methods how some findings were aligned and some were not. Most importantly, it shows that theory should not be interpreted without proper field research. By believing in the rules which were set by the flexhouseholds, we would think that all the flexhouseholds can buy a dwelling because they have ''possibilities'' on obtaining a mortgage. But a deepening insight is needed in such statements to really research and understand what the opportunities are. The most important lesson is to exhibit information from more than one side, to get a thoroughly examined outcome.

13.3 Personal view

This process learned me that doing research does not mean that you need to have the perfect outcome which fully answers your research question. I could have done this by manipulating the dataset in a way which would suit my answers, however the validity of the whole research would then be gone. This process showed me that there is not always an answer for all the questions, and that even if you want something, for me being able to be spot on in my research, it not always goes as planned. This knowledge makes me look different to live and to the future. Our life is like a research project, in which we research what our opportunities are in this life and to see how we can become happy. Did the past year make me happy? Absolutely not. However, it showed what the value is of hard work, and it also showed me that there are more facets in live. Just like how information needs to be exhibited from multiple points of view, life also have to be seen as a multifaceted research project, in which doing solely one thing may lead to a desired outcome, but not to a grounded outcome. The past year has learned me how important it is to be consistently working on a project and not to back down if things do not go as planned, or if hardship are faced. I already face hardship during my education, and there is a big chance that I will face more in my professional career as a project developer. However, just like the feedback I got and made changes and adjustments in my thesis, in my working life I will do the same, to eventually become a respectable project developer which can be of value to the real estate sector in the Netherlands.

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Appendix A

		Variable	
B1	**Wo2**	What type of accommodation?	Wo2new
B2	**Wo4**	In which year is the house built	Wo4new
B3	**Wo1**	Are you a tenant or did you buy the house?	Wo1new
B4	**Wo5**	How long do you live in the house?	Wo5new
B5	**WoD204(a)**	Who is the owner of the house?	Wod204new
B6	**WO32**	Would you have chosen to buy a more expensive house if you had been able to receive a larger mortgage loan on the basis of your income at that time?	WO32
B7	**Hyp11**	National Mortgage Guarantee (NMG) mortgage-1: yes/no?	Hyp11

		Variable	
C1	**Wo16**	How much is the rent?	Wo16new
C2	**HY61**	Total mortgage expenses mortgage-1 per month?	Hy61new
C3	**HY41**	What type of mortgage?	HY41new
C4	**WO34**	Purchase price/value current house?	Wo34new

		Variable	
D1	**B1B & B3B**	Amount of savings?	B4B
D2	**INKROND**	How well can you manage on the total income of your household?	Inkrondnew
D3	**FINSITU**	How is the financial situation of your household at the moment?	Finsitunew
D4	**HOEVSPA**	About how much money has your household put aside in the last 12 months?	Hoevspanew
D5	**ECSIT**	How do you think the economic situation of your household will be in five years' time in comparison to the current situation?	ECSITNEW
D6	**New1**	Do you think you have to put money aside in your situation?	New1new
D7	**INK25**	Do you think the expenditures of your household, in the next 12 months, will be higher, about the same, or lower than the income of your household?	Ink25anew
D8	**Hziek**	Days ill from work	Hziekkk
D9	**GEZ3**	General health condition	GEZ3

Appendix B

I : Labour agreement to type of accommodation

Crosstab

% within Labour agreement

Age			Type of accommodation Detached	Row housing	apartment	other	Total
younger than 35	Labour agreement	Permanent contract	4,6%	42,5%	46,0%	6,9%	100,0%
		Temporary contract	14,3%	33,3%	28,6%	23,8%	100,0%
		Flexworker		15,4%	76,9%	7,7%	100,0%
		ZZPer		20,0%	40,0%	40,0%	100,0%
	Total		5,6%	37,3%	46,0%	11,1%	100,0%
35-50	Labour agreement	Permanent contract	10,7%	58,7%	28,1%	2,5%	100,0%
		Temporary contract	6,3%	68,8%	25,0%		100,0%
		Flexworker		55,6%	44,4%		100,0%
		ZZPer	8,7%	39,1%	43,5%	8,7%	100,0%
	Total		10,0%	57,6%	29,7%	2,8%	100,0%
50-65	Labour agreement	Permanent contract	14,7%	58,2%	24,0%	3,1%	100,0%
		Temporary contract	11,5%	42,3%	42,3%	3,8%	100,0%
		Flexworker	41,7%	41,7%	16,7%		100,0%
		ZZPer	17,4%	39,1%	30,4%	13,0%	100,0%
	Total		15,6%	55,2%	25,5%	3,7%	100,0%
Total	Labour agreement	Permanent contract	11,8%	56,2%	28,7%	3,4%	100,0%
		Temporary contract	11,1%	46,0%	33,3%	9,5%	100,0%
		Flexworker	14,7%	35,3%	47,1%	2,9%	100,0%
		ZZPer	11,8%	37,3%	37,3%	13,7%	100,0%
	Total		11,8%	53,2%	30,4%	4,6%	100,0%

Chi-Square Tests

Age		Value	df	Asymptotic Significance (2-sided)
younger than 35	Pearson Chi-Square	19,282[b]	9	,023
	Likelihood Ratio	17,670	9	,039
	Linear-by-Linear Association	5,199	1	,023
	N of Valid Cases	126		
35-50	Pearson Chi-Square	9,218[c]	9	,417
	Likelihood Ratio	9,653	9	,379
	Linear-by-Linear Association	4,486	1	,034

		Value	df	Asymptotic Significance (2-sided)
	N of Valid Cases	290		
50-65	Pearson Chi-Square	18,373[d]	9	,031
	Likelihood Ratio	14,789	9	,097
	Linear-by-Linear Association	,854	1	,356
	N of Valid Cases	353		
Total	Pearson Chi-Square	26,011[a]	9	,002
	Likelihood Ratio	22,128	9	,008
	Linear-by-Linear Association	10,097	1	,001
	N of Valid Cases	769		

a. 4 cells (25,0%) have expected count less than 5. The minimum expected count is 1,55.

b. 10 cells (62,5%) have expected count less than 5. The minimum expected count is ,28.

c. 8 cells (50,0%) have expected count less than 5. The minimum expected count is ,25.

d. 7 cells (43,8%) have expected count less than 5. The minimum expected count is ,44.

II: Labour agreement to the year in which the dwelling is built

Labour agreement * Year when the house is built Crosstabulation

% within Labour agreement

N= 769

		Year when the house is built			
		Before 1960	1960 till 1990	Later than 1990	Total
Labour agreement	Permanent contract	21,9%	46,7%	31,4%	100,0%
	Temporary contract	22,2%	44,4%	33,3%	100,0%
	Flexworker	41,2%	32,4%	26,5%	100,0%
	ZZPer	27,5%	35,3%	37,3%	100,0%
Total		23,1%	45,1%	31,7%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9,151[a]	6	,165
Likelihood Ratio	8,441	6	,208
Linear-by-Linear Association	,511	1	,475
N of Valid Cases	769		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 7,87.

III: Labour agreement to how long the house has been occupied

Labour agreement * How long living Crosstabulation

% within Labour agreement

		How long living			
		longer than 20 years	20-10 years	shorter than 10 years	Total
Labour agreement	Permanent contract	30,8%	29,3%	39,9%	100,0%
	Temporary contract	27,0%	28,6%	44,4%	100,0%
	Flexworker	20,6%	23,5%	55,9%	100,0%
	ZZPer	23,5%	29,4%	47,1%	100,0%
Total		29,5%	29,0%	41,5%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4,949[a]	6	,550
Likelihood Ratio	4,947	6	,551
Linear-by-Linear Association	3,558	1	,059
N of Valid Cases	769		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 9,86.

IV: Labour agreement to tenant or homeowner

Crosstab

% within Labour agreement

Income of the household			Tenant or owner		
			Tenant	Owner	Total
€0 - €36000	Labour agreement	Permanent contract	39,7%	60,3%	100,0%
		Temporary contract	53,1%	46,9%	100,0%
		Flexworker	68,2%	31,8%	100,0%
		ZZPer	40,0%	60,0%	100,0%
	Total		43,7%	56,3%	100,0%
€36000 - €72000	Labour agreement	Permanent contract	21,7%	78,3%	100,0%
		Temporary contract	15,4%	84,6%	100,0%
		Flexworker	40,0%	60,0%	100,0%
		ZZPer	12,5%	87,5%	100,0%
	Total		21,4%	78,6%	100,0%
€72000 and higher	Labour agreement	Permanent contract	6,6%	93,4%	100,0%
		Temporary contract		100,0%	100,0%
		Flexworker		100,0%	100,0%

		ZZPer	66,7%	33,3%	100,0%
	Total		8,1%	91,9%	100,0%
Total	Labour agreement	Permanent contract	25,9%	74,1%	100,0%
		Temporary contract	38,8%	61,2%	100,0%
		Flexworker	60,7%	39,3%	100,0%
		ZZPer	31,3%	68,8%	100,0%
	Total		28,5%	71,5%	100,0%

Chi-Square Tests

Income of the household		Value	df	Asymptotic Significance (2-sided)
€0 - €36000	Pearson Chi-Square	7,864[b]	3	,049
	Likelihood Ratio	7,861	3	,049
	Linear-by-Linear Association	5,291	1	,021
	N of Valid Cases	263		
€36000 - €72000	Pearson Chi-Square	1,693[c]	3	,639
	Likelihood Ratio	1,620	3	,655
	Linear-by-Linear Association	,070	1	,791
	N of Valid Cases	280		
€72000 and higher	Pearson Chi-Square	14,573[d]	3	,002
	Likelihood Ratio	7,543	3	,056
	Linear-by-Linear Association	9,335	1	,002
	N of Valid Cases	99		
Total	Pearson Chi-Square	18,726[a]	3	,000
	Likelihood Ratio	16,895	3	,001
	Linear-by-Linear Association	10,851	1	,001
	N of Valid Cases	642		

a. 1 cells (12,5%) have expected count less than 5. The minimum expected count is 4,56.

b. 2 cells (25,0%) have expected count less than 5. The minimum expected count is 2,19.

c. 4 cells (50,0%) have expected count less than 5. The minimum expected count is 1,07.

d. 6 cells (75,0%) have expected count less than 5. The minimum expected count is ,08.

V: Labour agreement to type of rental dwelling

Crosstab

% within Labour agreement

Age		Type of organization		Total

			Social rental market	Private rental market	
younger than 35	Labour agreement	Permanent contract	61,0%	39,0%	100,0%
		Temporary contract	26,7%	73,3%	100,0%
		Flexworker	50,0%	50,0%	100,0%
		ZZPer	20,0%	80,0%	100,0%
	Total		49,3%	50,7%	100,0%
35-50	Labour agreement	Permanent contract	84,2%	15,8%	100,0%
		Temporary contract	75,0%	25,0%	100,0%
		Flexworker	60,0%	40,0%	100,0%
		ZZPer	30,0%	70,0%	100,0%
	Total		75,0%	25,0%	100,0%
50-65	Labour agreement	Permanent contract	79,0%	21,0%	100,0%
		Temporary contract	81,8%	18,2%	100,0%
		Flexworker	100,0%		100,0%
		ZZPer	33,3%	66,7%	100,0%
	Total		76,8%	23,2%	100,0%
Total	Labour agreement	Permanent contract	76,3%	23,8%	100,0%
		Temporary contract	53,3%	46,7%	100,0%
		Flexworker	60,0%	40,0%	100,0%
		ZZPer	28,6%	71,4%	100,0%
	Total		67,5%	32,5%	100,0%

Chi-Square Tests

Age		Value	df	Asymptotic Significance (2-sided)
younger than 35	Pearson Chi-Square	7,030[b]	3	,071
	Likelihood Ratio	7,302	3	,063
	Linear-by-Linear Association	3,376	1	,066
	N of Valid Cases	73		
35-50	Pearson Chi-Square	13,979[c]	3	,003
	Likelihood Ratio	12,306	3	,006
	Linear-by-Linear Association	13,377	1	,000
	N of Valid Cases	76		
50-65	Pearson Chi-Square	7,604[d]	3	,049
	Likelihood Ratio	7,031	3	,071
	Linear-by-Linear Association	3,102	1	,078
	N of Valid Cases	82		

Total		Value	df	Asymptotic Significance
Total	Pearson Chi-Square	23,360[a]	3	,000
	Likelihood Ratio	22,298	3	,000
	Linear-by-Linear Association	20,669	1	,000
	N of Valid Cases	231		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 6,49.

b. 2 cells (25,0%) have expected count less than 5. The minimum expected count is 2,47.

c. 5 cells (62,5%) have expected count less than 5. The minimum expected count is 1,00.

d. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,70.

VI: Labour agreement to higher mortgage if possible

Labour agreement * more expensive house if larger mortgage yes/no Crosstabulation

% within Labour agreement

N = 531

		more expensive house if larger mortgage yes/no		
		Yes	No	Total
Labour agreement	Permanent contract	10,9%	89,1%	100,0%
	Temporary contract	9,4%	90,6%	100,0%
	Flexworker		100,0%	100,0%
	ZZPer	3,6%	96,4%	100,0%
Total		10,2%	89,8%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3,239[a]	3	,356
Likelihood Ratio	5,051	3	,168
Linear-by-Linear Association	2,713	1	,100
N of Valid Cases	531		

a. 3 cells (37,5%) have expected count less than 5. The minimum expected count is 1,42.

VII: Labour agreement to having a NHG

Labour agreement * National Mortgage Guarantee (NHG) mortgage-1: yes/no Crosstabulation

% within Labour agreement

N = 399

	National Mortgage Guarantee (NMG) mortgage-1: yes/no	Total

		Yes	No	
Labour agreement	Permanent contract	52,0%	48,0%	100,0%
	Temporary contract	71,4%	28,6%	100,0%
	Flexworker	44,4%	55,6%	100,0%
	ZZPer	27,8%	72,2%	100,0%
Total		52,1%	47,9%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8,671[a]	3	,034
Likelihood Ratio	8,953	3	,030
Linear-by-Linear Association	1,658	1	,198
N of Valid Cases	399		

a. 2 cells (25,0%) have expected count less than 5. The minimum

expected count is 4,31.

VIII: Zzpers to NHG house prices

Labour agreement * House price zzp Crosstabulation

% within Labour agreement

		House price zzp		Total
N = 49		0-€325000	€325000 and higher	
Labour agreement	ZZPer	81,6%	18,4%	100,0%
Total		81,6%	18,4%	100,0%

Appendix C

I: Labour agreement to monthly expenses rent

Labour agreement * Amount of rent Crosstabulation

% within Labour agreement

		Amount of rent			Total
		€0-€500	€500-€1000	Higher than €1000	
Labour agreement	Permanent contract	26,1%	69,3%	4,6%	100,0%
	Temporary contract	30,8%	53,8%	15,4%	100,0%
	Flexworker	44,4%	55,6%		100,0%
	ZZPer	30,0%	50,0%	20,0%	100,0%
Total		28,6%	64,5%	6,9%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13,945[a]	6	,030
Likelihood Ratio	12,815	6	,046
Linear-by-Linear Association	,003	1	,958
N of Valid Cases	217		

a. 3 cells (25,0%) have expected count less than 5. The minimum expected count is 1,24.

II: Labour agreement to monthly expenses mortgage

Labour agreement * Amount of mortgage Crosstabulation

% within Labour agreement

		Amount of mortgage			
		€0-€500	€500-€1000	Higher than €1000	Total
Labour agreement	Permanent contract	46,4%	37,2%	16,4%	100,0%
	Temporary contract	46,2%	46,2%	7,7%	100,0%
	Flexworker	27,3%	72,7%		100,0%
	ZZPer	37,5%	50,0%	12,5%	100,0%
Total		45,5%	39,4%	15,2%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8,401[a]	6	,210
Likelihood Ratio	9,754	6	,135
Linear-by-Linear Association	,013	1	,911
N of Valid Cases	376		

a. 4 cells (33,3%) have expected count less than 5. The minimum expected count is 1,67.

III: Labour agreement to type of mortgage

Labour agreement * type of mortgage Crosstabulation

% within Labour agreement

| | | type of mortgage | | |
		Interest only mortgage	Ammortization mortgage	Total
Labour agreement	Permanent contract	23,0%	77,0%	100,0%
	Temporary contract	28,6%	71,4%	100,0%
	Flexworker	66,7%	33,3%	100,0%
	ZZPer	33,3%	66,7%	100,0%
Total		24,8%	75,2%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9,993[a]	3	,019
Likelihood Ratio	8,481	3	,037
Linear-by-Linear Association	4,628	1	,031
N of Valid Cases	399		

a. 2 cells (25,0%) have expected count less than 5. The minimum

expected count is 2,23.

IV: Labour agreement to house price

Labour agreement * House price Crosstabulation

% within Labour agreement

| | | House price | | | |
		0-€250.000	€250.000-€500.000	Higher than €500.000	Total
Labour agreement	Permanent contract	74,4%	23,2%	2,4%	100,0%
	Temporary contract	90,6%	9,4%		100,0%
	Flexworker	100,0%			100,0%
	ZZPer	57,1%	39,3%	3,6%	100,0%
Total		75,0%	22,7%	2,3%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13,174[a]	6	,040
Likelihood Ratio	16,911	6	,010

	Value	df	Asymptotic Significance (2-sided)
Linear-by-Linear Association	,210	1	,646
N of Valid Cases	529		

a. 4 cells (33,3%) have expected count less than 5. The minimum
expected count is ,27.

Appendix D

I: Labour agreement to amount of savings in the bank

Labour agreement * savings Crosstabulation

% within Labour agreement

		Amount of money in the bank				Total
		0-€10000	€10000-€20000	€20000-€30000	€30000 and higher	
Labour agreement	Permanent contract	46,0%	17,6%	12,0%	24,3%	100,0%
	Temporary contract	56,8%	14,8%	10,2%	18,2%	100,0%
	Flexworker	78,3%	6,5%	4,3%	10,9%	100,0%
	ZZPer	40,5%	13,5%	13,5%	32,4%	100,0%
Total		48,0%	16,6%	11,7%	23,8%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25,120[a]	9	,003
Likelihood Ratio	25,900	9	,002
Linear-by-Linear Association	,278	1	,598
N of Valid Cases	1030		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected
count is 5,36.

II: Labour agreement to management of the household

Labour agreement * Managing household Crosstabulation

% within Labour agreement

		Managing household			Total
		Hard	Easy nor hard	Easy	
Labour agreement	Permanent contract	5,4%	33,4%	61,2%	100,0%
	Temporary contract	13,5%	30,3%	56,2%	100,0%

Flexworker	14,3%	40,5%	45,2%	100,0%
ZZPer	5,1%	38,5%	56,4%	100,0%
Total	6,4%	33,8%	59,8%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15,967[a]	6	,014
Likelihood Ratio	13,451	6	,036
Linear-by-Linear Association	3,599	1	,058
N of Valid Cases	1041		

a. 1 cells (8,3%) have expected count less than 5. The minimum
expected count is 2,70.

III: Labour agreement to financial situation

Labour agreement * How is your financial situation Crosstabulation

% within Labour agreement

		How is your financial situation			
		Extra money needed	No extra money needed	Could manage with less	Total
Labour agreement	Permanent contract	10,8%	21,8%	67,4%	100,0%
	Temporary contract	12,9%	24,3%	62,9%	100,0%
	Flexworker	23,7%	26,3%	50,0%	100,0%
	ZZPer	23,9%	25,4%	50,7%	100,0%
Total		12,5%	22,5%	64,9%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17,127[a]	6	,009
Likelihood Ratio	15,229	6	,019
Linear-by-Linear Association	15,489	1	,000
N of Valid Cases	853		

a. 1 cells (8,3%) have expected count less than 5. The minimum
expected count is 4,77.

IV: Labour agreement to money saved in the past 12 months

Labour agreement * Money saved past 12 months Crosstabulation

% within Labour agreement

		Money saved past 12 months			
		0-€5000	€5000-€12500	More than €12500	Total
Labour agreement	Permanent contract	55,8%	30,4%	13,8%	100,0%
	Temporary contract	65,8%	22,4%	11,8%	100,0%
	Flexworker	69,2%	20,5%	10,3%	100,0%
	ZZPer	54,2%	20,3%	25,4%	100,0%
Total		57,1%	28,7%	14,3%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12,482[a]	6	,052
Likelihood Ratio	11,795	6	,067
Linear-by-Linear Association	,040	1	,841
N of Valid Cases	904		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,57.

V : Economic situation in five years

Labour agreement * Economic situation in 5 years Crosstabulation

% within Labour agreement

		How do you think the economic situation of your household will be in five years' time in comparison to the current situation?			
		Worse	The same	Better	Total
Labour agreement	Permanent contract	18,2%	57,4%	24,4%	100,0%
	Temporary contract	17,1%	46,3%	36,6%	100,0%
	Flexworker	17,1%	43,9%	39,0%	100,0%
	ZZPer	10,0%	58,6%	31,4%	100,0%
Total		17,5%	56,0%	26,5%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12,855[a]	6	,045
Likelihood Ratio	12,791	6	,046
Linear-by-Linear Association	6,449	1	,011
N of Valid Cases	973		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 7,16.

VI: have to put money inside

Labour agreement * Have to put money aside in current situation Crosstabulation

% within Labour agreement

		Do you think you have to put money aside in your situation?			Total
		Unimportant	Neutral	Important	
Labour agreement	Permanent contract	3,4%	9,5%	87,1%	100,0%
	Temporary contract	4,5%	11,2%	84,3%	100,0%
	Flexworker	2,4%	11,9%	85,7%	100,0%
	ZZPer	3,8%	17,9%	78,2%	100,0%
Total		3,5%	10,4%	86,2%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6,267[a]	6	,394
Likelihood Ratio	5,510	6	,480
Linear-by-Linear Association	2,753	1	,097
N of Valid Cases	1041		

a. 4 cells (33,3%) have expected count less than 5. The minimum expected count is 1,45.

VII: Change of expenditures coming 12 months

Labour agreement * Change of expenditures coming 12 months Crosstabulation

% within Labour agreement

		Do you think the expenditures of your household, in the next 12 months, will be higher, about the same, or lower than the income of your household?			
		Higher than income	About the same	Lower than income	Total
Labour agreement	Permanent contract	12,4%	38,6%	49,0%	100,0%
	Temporary contract	24,7%	38,2%	37,1%	100,0%
	Flexworker	11,9%	47,6%	40,5%	100,0%
	ZZPer	19,2%	35,9%	44,9%	100,0%
Total		13,9%	38,7%	47,4%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14,604[a]	6	,024
Likelihood Ratio	13,216	6	,040
Linear-by-Linear Association	4,202	1	,040
N of Valid Cases	1041		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,85.

VIII: Days ill from work

Labour agreement * Days ill from work Crosstabulation

% within Labour agreement

		Days ill from work		
		Less than 10% of the year	More than 10% of the year	Total
Labour agreement	Permanent contract	89,4%	10,6%	100,0%
	Temporary contract	96,0%	4,0%	100,0%
	Flexworker	83,3%	16,7%	100,0%
	ZZPer	33,3%	66,7%	100,0%
Total		89,3%	10,7%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11,212[a]	3	,011
Likelihood Ratio	7,049	3	,070
Linear-by-Linear Association	2,465	1	,116
N of Valid Cases	345		

a. 4 cells (50,0%) have expected count less than 5. The minimum

expected count is ,32.

IX: General health conditions

Crosstab

% within Labour agreement

		general health condition				
		Excellent	Good	Fair	Not so good	Total
Labour agreement	Permanent contract	14,5%	65,5%	17,8%	2,2%	100,0%
	Temporary contract	14,1%	60,9%	20,7%	4,3%	100,0%
	Flexworker	12,8%	63,8%	21,3%	2,1%	100,0%
	ZZPer	16,5%	68,4%	12,7%	2,5%	100,0%
Total		14,6%	65,2%	17,8%	2,4%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4,313[a]	9	,890
Likelihood Ratio	4,117	9	,904
Linear-by-Linear Association	,069	1	,793
N of Valid Cases	1050		

a. 3 cells (18,8%) have expected count less than 5. The minimum

expected count is 1,12.

Appendix E

Geïnformeerde toestemming

Delft, 22 maart 2021.

Geachte heer/mevrouw,

In de afgelopen jaren is er sprake geweest van een verder flexibiliserende arbeidsmarkt. Contracten van tijdelijke aard en inkomen onzekerheid zijn steeds vaker van toepassing. Voor het kopen van een woning kan dit dergelijken effecten hebben. Om hier meer inzicht in te krijgen, zal ik een semi gestructureerd interview houden met verscheidene hypotheekadviseurs om het perspectief op de woningmarkt voor deze werknemers in kaart te brengen.

U wordt uitgenodigd om deel te nemen aan het onderzoek met de titel: The accessibility to the Dutch housing market for Flex households. Dit onderzoek wordt uitgevoerd door .... in het kader van het afstudeertraject voor de master Management in the Built Environment aan de Technische Universiteit Delft. .... wordt begeleid door Dhr. Peter Boelhouwer, Universitair Hoogleraar, en Joris Hoekstra Senior onderzoeker aan de faculteit Bouwkunde.

Het interview wordt gedaan door de student .... Het interview duurt ca. 30 tot 60 minuten en de geïnterviewde is vrij om zoveel en breed mogelijke informatie te schaffen naar eigen inzicht. Toestemming wordt gevraagd om het interview op te nemen om het achteraf uit te kunnen werken en toe te passen in het onderzoek.

Vanuit de universiteit zijn we gewend om nog eens apart te vragen of u mee wilt doen aan het onderzoek en of u het goed vindt om dit interview op te nemen. U mag iedere vraag die gesteld wordt weigeren te beantwoorden.

Als u mee doet, dan vragen we u om uw handtekening onderaan deze brief te zetten en de pdf te retourneren. Wij zetten dan ook onze handtekening. Dat doen we zodat u zeker weet dat we vertrouwelijk omgaan met uw gegevens en antwoorden. Ook krijgt uw organisatie het interviewverslag niet te zien of te horen. Wij maken een algemeen en anoniem verslag over de ervaringen van meerdere werknemers. Als we uw woorden aanhalen voorbeeld naam Peter Boelhouwer, dan zal er verwezen worden in de volgende vorm: (P. Boelhouwer, personal communication, 22 march, 2021), indien u dit niet wilt anoniem wilt blijven, beloven we om uw naam niet gebruiken en zorgen we dat het niet duidelijk is wie dit gezegd kan hebben. Indien u anoniem wilt blijven, kunt u retour met dit ondertekende pdf, in de mail aangeven dat u anoniem wilt blijven. Uw naam- en contactgegevens zullen meteen na afloop van het onderzoek vernietigd worden.

Als u vragen heeft over dit onderzoek, kunt u contact met ons opnemen: _____
_____].

Als u mee wilt doen aan dit interview, wilt u dan de onderstaande verklaring invullen en ondertekenen?

Met vriendelijke groet,

Ik verklaar op een voor mij duidelijke wijze te zijn ingelicht over de aard, methode, doel en belasting van het onderzoek.

Mijn vragen zijn naar tevredenheid beantwoord.

Ik begrijp dat het geluids- en/of beeldmateriaal (of de bewerking daarvan) en de overige verzamelde gegevens uitsluitend voor analyse en wetenschappelijke presentatie en publicaties zal worden gebruikt.

Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen.

Ik heb dit formulier gelezen of het formulier is mij voorgelezen en ik stem in met deelname aan het onderzoek.

⬜ **Graag ontvang ik aan het eind van het onderzoek het volledige afstudeerrapport. Om deze reden verleen ik toestemming om mijn naam- en adresgegevens tot het eind van het onderzoek te bewaren.**

Plaats:

Datum:

_ _
(NAAM DEELNEMER IN BLOKLETTERS)

_ _
Handtekening deelnemer

'Wij hebben toelichting gegeven op het onderzoek. Wij verklaren ons bereid nog opkomende vragen over het onderzoek naar vermogen te beantwoorden.'

█████

_ _
Handtekening student