

Danish 'expectations for the housing market

A survey of expectations
and their causes

September 2010 – September 2012

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1 Summary of the expectations surveys, 2010-2012

1.1 Introduction

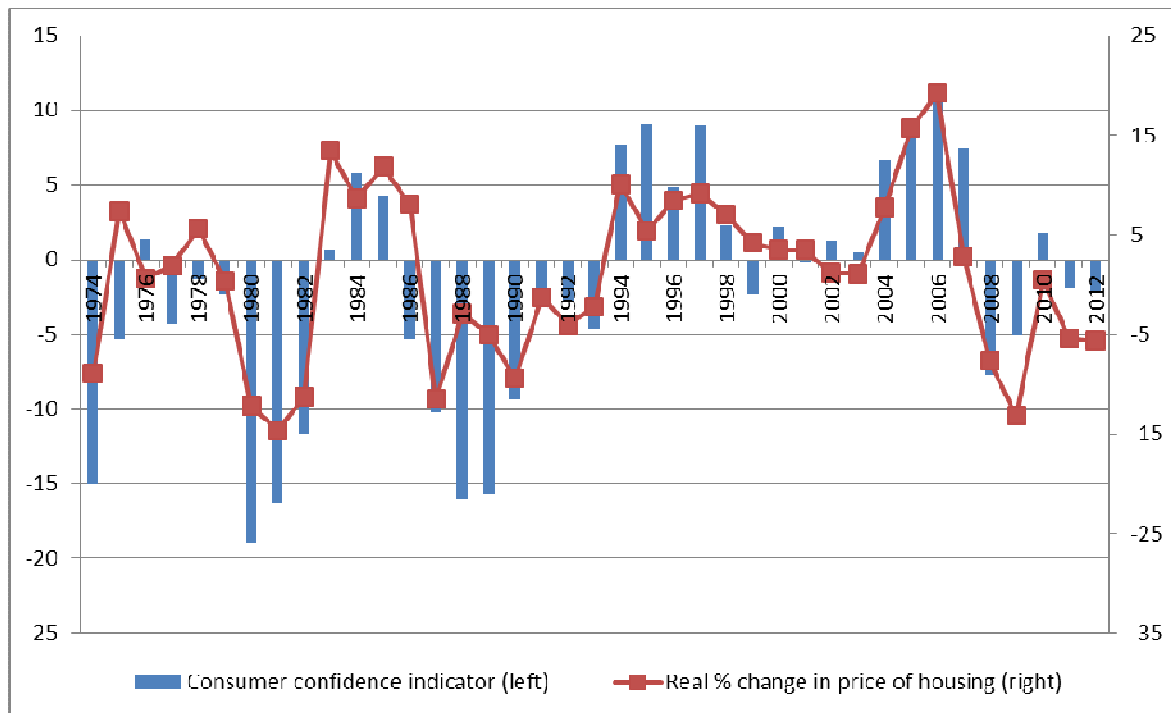
This report summarizes the expectations surveys of The Knowledge Centre for Housing Economics, a project under the philanthropic association Realdania. The surveys have been conducted by Statistics Denmark in the years 2010, 2011 and 2012. The latest survey included in this paper was conducted in September 2012. After the introductory section, the conclusions from this latest survey will be summarized in section 2. Section 3 deals with the characteristics of the respondents as well as the completion rate. Section 4 deals with the price expectations of the respondents as well as the development herein through the three years for which survey data has been collected. Section 5 will take a closer look at the causes of these expectations. Section 6 will describe the considerations that have been made by respondents over the purchasing or sale of housing as well as the development herein from 2010 through 2012. In section 7 the results of some additional questions regarding the Copenhagen Interbank Offered Rate (CIBOR), which were only asked for the September 2012 survey, will be treated. Finally, section 8 will discuss the conclusions of the study. The original note in Danish was prepared by cand.polit. Christian Deichmann Haagerup of the Knowledge Centre for Housing Economics in November 2012. Translation into English by stud.oecon. Michael Harboe Møller in December 2012.

1.2 Why expectations matter

Figure 1.1 depicts the average consumer confidence indicator of Statistics Denmark for the years 1974 through 2012 as well as the development in inflation adjusted house prices, measured by an index which has been constructed by Marc Lund Andersen of The Knowledge Centre for Housing Economics on the basis of data from Statistics Denmark and the Danish tax authorities. The chart exhibits a clear relation between changes in house prices and consumer confidence, which has persisted since consumer confidence was first measured by Statistics Denmark in 1974.

Though the two time series seem to follow the same pattern, it is not possible to see whether there is a time lag between the two. As such it does not seem practically possible to use expectations as a leading indicator for the forecasting of price changes in housing.

Figure 1.1 House prices (single family house) and the consumer confidence indicator



Source: Statistics Denmark, www.statistikbanken.dk, table FORV1; Marc Lund Andersen, Knowledge Centre for Housing Economics

In their book *Animal Spirits*, economists George A. Akerlof and Robert J. Shiller describe confidence as trust in the future and trust that future decisions will prove successful. Public expectations for the future and how these expectations are formed have great implications for the business cycle in the housing market, and in the economy as a whole. Through the so called speculative bubble of the 2000s, many have hinted at the importance of expectations, rational as well as irrational.

For the knowledge center, it has been of interest to observe how expectations of the public develop. Do changes in expectations occur simultaneously for the population as a whole or are there some groups who react earlier than others and maybe affect other groups of society? Do young and elderly react alike, and does education have a role to play in the development of expectations?

In early 2010, The Knowledge Centre for Housing Economics set out to investigate this further by initiating a survey through Statistics Denmark. This survey was meant to map public expectations for future house prices as well as the reasons for these expectations. Since then the survey has been repeated, making it possible to observe the expectations of the public approximately quarterly.

1.3 Conclusions from the expectation surveys 2010 – 2012 in brief

- The average completion rate through the surveys has been approximately 63%, with 64% as the highest and 59% the lowest. The youngest group, 20 to 29 year olds, has a markedly lower completion rate than other age groups in the surveys.
- Expectations of the respondents regarding future rises in house prices have been declining for the major part of the period through which surveys have been conducted, but have risen in the two latest surveys.
- As, so far, data for the expectations of the respondents, regarding house prices one year in the future, has only been collected through 2½ years, it is not yet possible to tell whether respondent are correct in their expectations.
- In a large share of the surveys, the young and the elderly have exhibited more positive expectations for future prices of housing.
- Respondent's expectations regarding the development in house prices have co-varied with the consumer confidence indicator of Statistics Denmark.
- The two most important reasons for the price expectations of the respondents have, throughout the different surveys, been "Development in prices through the past half year" and "The economic situation in Denmark".
- The share of respondents who have had their property assessed in the past three months has fallen from 20% in the first survey from February 2010, to just 9% in the survey from September 2011. In the survey from September 2012 this number has risen to 12%.

2 Conclusions from the expectations survey of September 2012

The survey has been executed in relation to the September 2012 omnibus survey of Statistics Denmark. In all 1,420 persons have been drawn. Of these 831 responded resulting in a completion rate of 59%. In this survey the completion rate has been a bit lower among 20-29 year olds. Conversely the group of 70-74 year olds have had a larger than average completion rate. This has not been observed in earlier surveys.

In comparison with the previous survey of May 2012, more respondents indicate that they expect a rise in prices in the short, as well as the long term, in this latest survey of September 2012. This has also resulted in a rise in the net number for the populations expectations regarding house prices one year in the future from negative 8.33 to positive 3.29. The reasons behind price expectations have not markedly changed between this survey and the previous one. However there are a bit fewer who list "Development in prices through the past half year" or "The economic situation in Denmark" as being among the motivations for their expectations, whereas a few extra list "The development in the interest rate".

48% of respondents have checked Danish housing prices within the past three months. This is 5 percentage points more than in the previous survey of May 2012. 12% of respondents have had their own owner-occupied housing assessed. 21% of respondents have considered buying or selling housing. This is an increase of 3 percentage points compared to the previous survey.

In this latest survey, questions regarding the alleged CIBOR case have been added. 52% of respondents have heard from the media that banks have allegedly manipulated the Copenhagen Interbank Offered Rate, thereby increasing the interest on some consumer loans. 48% of respondents answer in the affirmative on the question of whether they could consider switching banks if they realized that their current bank was involved in such behavior. 46% say that it could affect their future choice between different types of loans. 15% of owner-occupier respondents answer that they have a mortgage with an interest rate that is dependent on the CIBOR-rate, whereas 25% of respondents say they do not if that is the case.

3 The surveys and the respondents

In expectations survey no. IX of September 2012, 1,420 persons have been contacted. Of these, 831 have completed an interview. This corresponds to a completion rate of 59%, which is quite a bit fewer than in previous surveys.

Table 3.1 Completion rate September 2012

Completion rate and withdrawal	Number	Percentage
Interview	831	59%
Non response	589	41%
Total	1420	100%

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012

Completion rates of previous surveys can be seen from the table below.

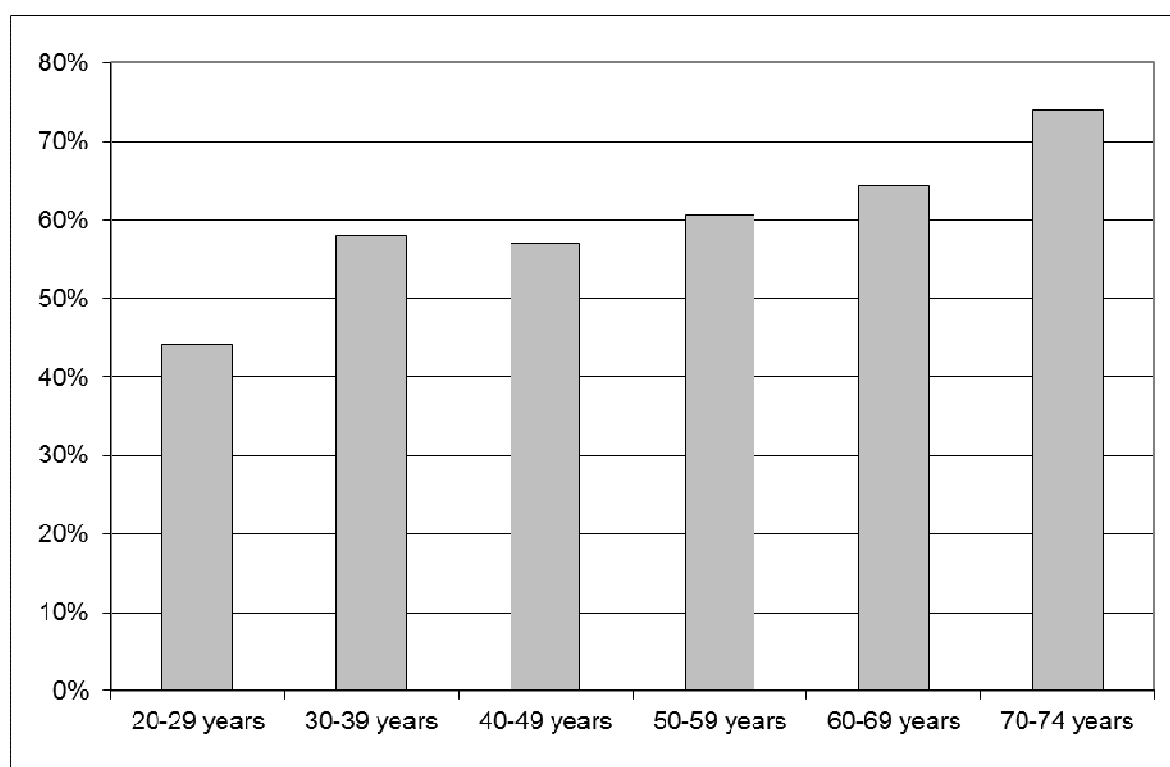
Table 3.2 Historic completion rate

Survey	Completion rate
Feb-10	64%
May-10	61%
Aug-10	64%
Dec-10	64%
May-11	64%
Sep-11	64%
Dec-11	61%
May-12	64%
Sep-12	59%

Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012

Completion rates in the September 2012 survey has been broken by age groups in the chart below.

Figure 3.1 Completion rate by age group



Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012

In the expectations survey of September 2012 there is a markedly lower completion rate among 20-29 year olds. This has however also been the case in some of the previous surveys. The highest rate of completion in this latest survey is found among the 70-74 year olds, which has not previously been the case.

Tabel 3.3 Historic completion rate by age group

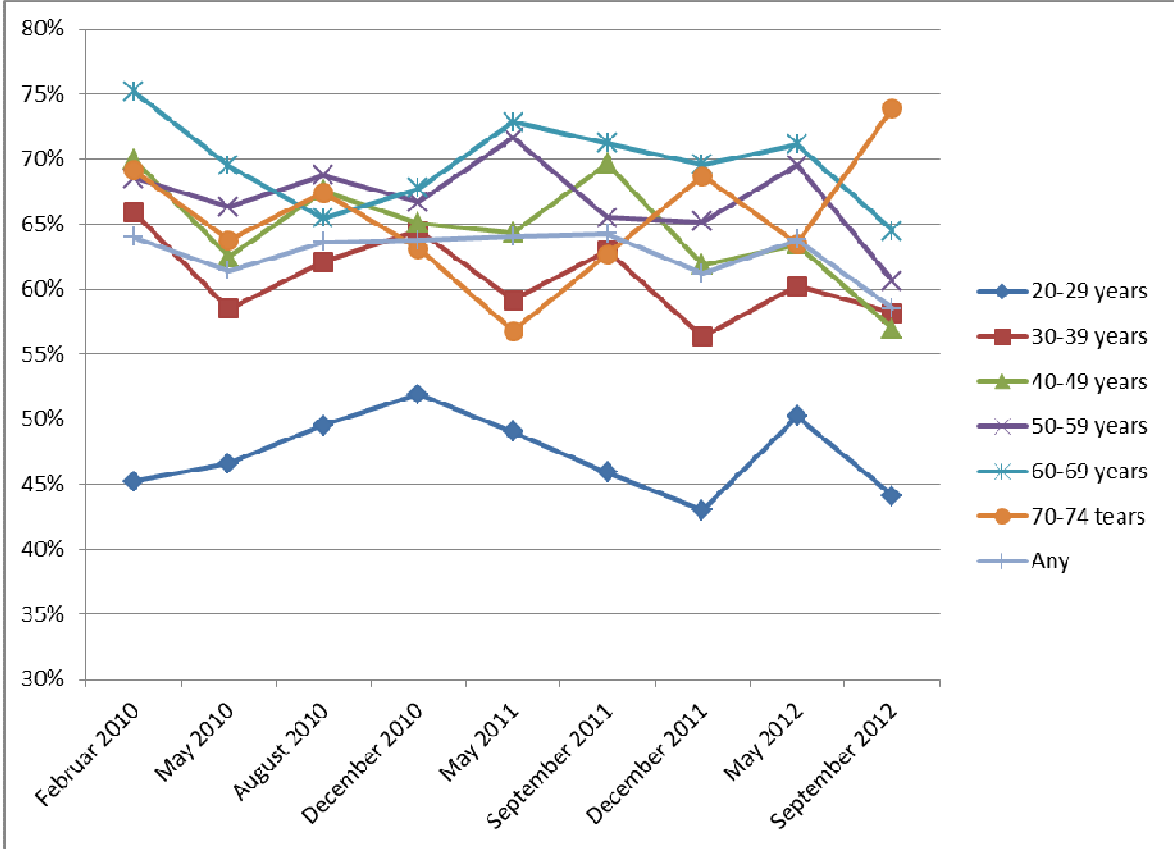
Survey	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-74 years
Feb-10	45%	66%	70%	69%	75%	69%
May-10	47%	58%	62%	66%	70%	64%
Aug-10	50%	62%	68%	69%	65%	67%
Dec-10	52%	64%	65%	67%	68%	63%
May-11	49%	59%	64%	72%	73%	57%
Sep-11	46%	63%	70%	65%	71%	63%
Dec-11	43%	56%	62%	65%	70%	69%
May-12	50%	60%	63%	70%	71%	63%
Sep-12	44%	58%	57%	61%	64%	74%

Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012

The group of 20-29 year olds has had the lowest completion rate throughout all of the surveys, whereas 60-69 year olds have had the highest completion rate in almost all surveys. This however was not the case in the latest survey of September 2012, in which the group of 70-74 year olds had

the highest completion rate. This age group has exhibited very fluctuating completion rates, as can be seen from the chart below.

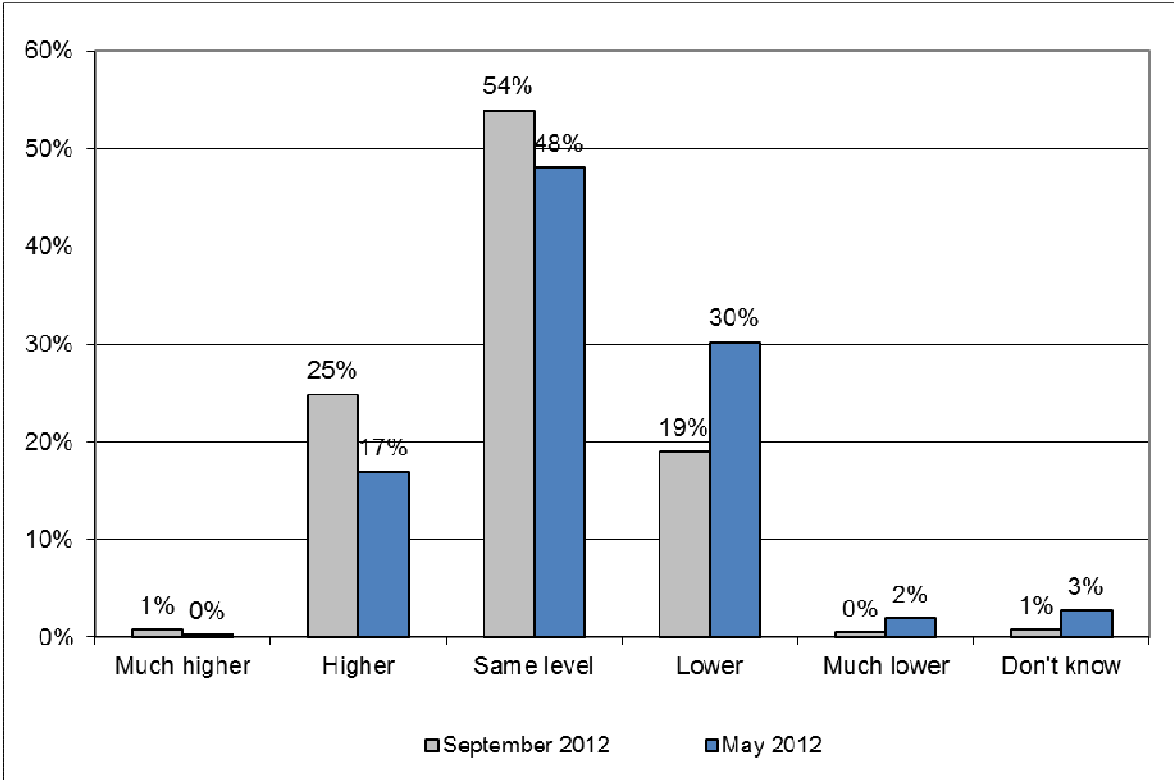
Figure 3.2 Historic completion rates by age group



Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012

4 Expectations for the development in house prices

Figure 4.1 How high do you think the price of a normal single-family detached house in Denmark will be one year in the future compared to today?



Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012 and Expectations Survey VIII of the Knowledge Centre for Housing Economics, May 2012, question A1

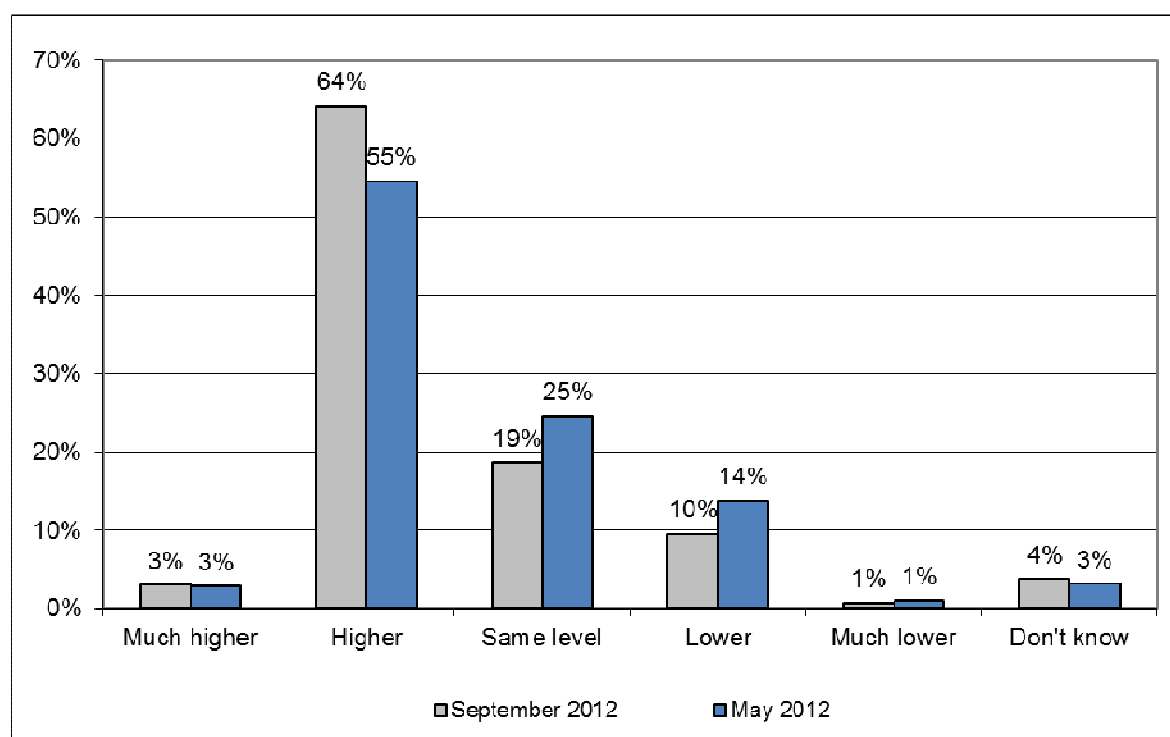
Overall Danes in September 2012 expected to see unchanged or a bit higher prices in the short term (1 year). This is a change for the better compared to the previous survey of May 2012, in which a majority of respondents expected prices to either stay the same or decrease. This is also seen from the net number for the populations' expectations regarding house prices one year in the future, which changed from negative 8.33 in the May 2012 survey to positive 3.29 in the September survey.

Table 4.1 Expectation regarding house prices one year in the future from previous surveys

Prices in one year	Feb-10	May-10	Aug-10	Dec-10	May-11	Sep-11	Dec-11	May-12	Sep-12
Much higher	1%	1%	0%	1%	1%	1%	0%	0%	1%
Higher	26%	44%	33%	27%	22%	11%	7%	17%	25%
Unchanged	48%	36%	41%	49%	47%	44%	41%	48%	54%
Lower	20%	14%	22%	20%	28%	39%	47%	30%	19%
Much lower	0%	2%	1%	1%	1%	3%	3%	2%	0%
Don't know	6%	4%	3%	2%	2%	2%	3%	3%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Net number	3.21	13.63	5.67	3.04	-2.85	-15.90	-22.17	-8.33	3.29

Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012, question A1

Figure 4.2 How high do you think the price of a normal single-family detached house in Denmark will be in five years compared to today?



Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012 and Expectations Survey VIII of the Knowledge Centre for Housing Economics, May 2012, question A10

On the longer term (5 years), a large part of the population (65%) expected prices to be higher than what was the case at the time of questioning. The distribution of answers can be seen from the above figure. In the expectations survey of September 2012 there is an even larger share of respondents who expect prices to rise over the coming five years, than was the case in the May 2012 survey. Conversely fewer respondents believe that prices will stay at the same level or fall.

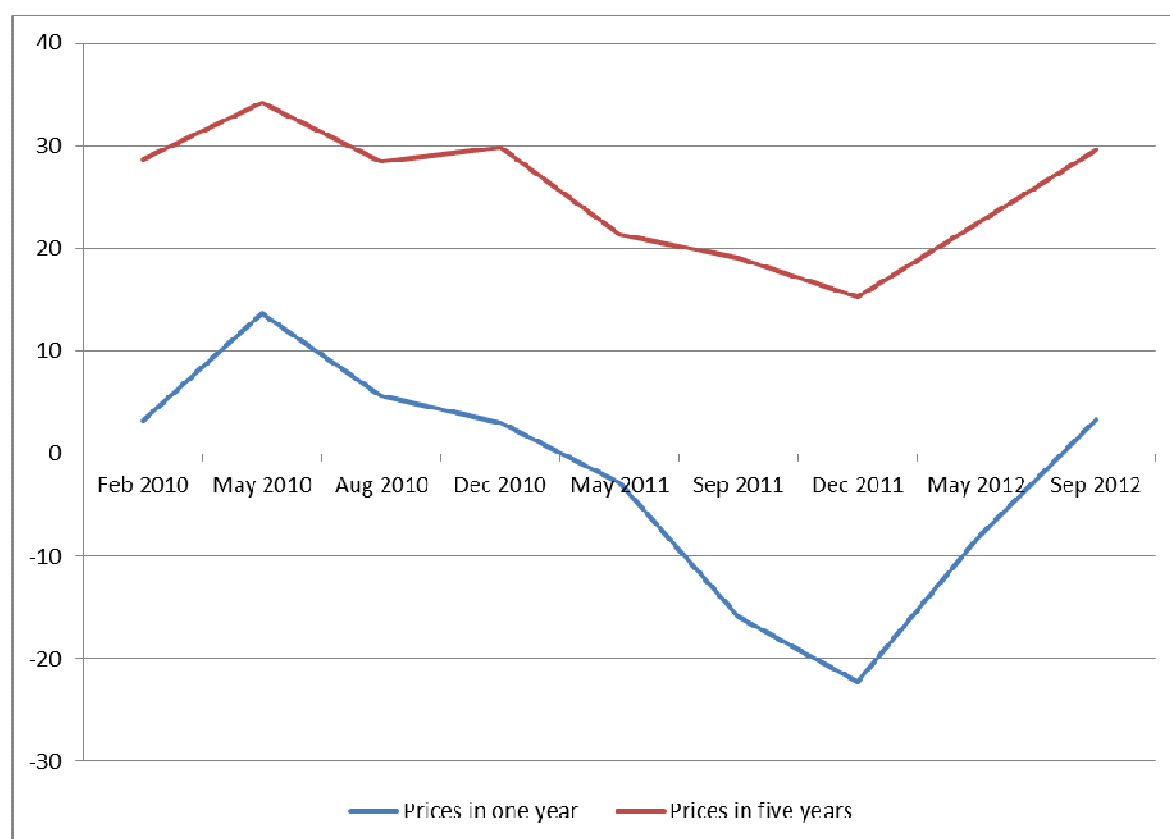
Table 4.2 Expectation regarding house prices five years in the future from previous surveys

Prices in five years	Feb-10	May-10	Aug-10	Dec-10	May-11	Sep-11	Dec-11	May-12	Sep-12
Much higher	6%	8%	4%	6%	4%	2%	2%	3%	3%
Higher	57%	62%	61%	60%	51%	51%	46%	55%	64%
Unchanged	17%	14%	19%	21%	25%	27%	27%	25%	19%
Lower	9%	8%	10%	9%	15%	14%	17%	14%	10%
Much lower	1%	1%	1%	1%	1%	1%	2%	1%	1%
Don't know	11%	6%	5%	4%	4%	3%	5%	3%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Net number	28,71	34,15	28,44	29,78	21,38	19,10	15,23	22,32	29,58

Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012, question A10

4.1 Review of historic expectations for the development in house prices

Figure 4.3 Net numbers for one year and five year price expectations



Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012, questions A1 and A10

Between the first expectations survey in February 2010 and the second survey in May 2010, respondents' expectations for prices one year in the future rose from a net number for price expectations of 3.21 to 13.63. After this the number fell to a low point of negative 22.17 in the survey of

December 2011. In the two following surveys the net number for the price expectations of the respondents rose again to negative 8.33 in May 2012 and on to positive 3.29 in September 2012.

In regards to expectations for the prices five years in the future from the time of questioning, the net numbers have consistently been higher than those for short term expectations. As such more respondents expect prices to rise over a five year period than expect them to rise over a period of one year.

Further, the net number for the five year ahead price expectations of respondents have been following the same trend as the net figure for five year expectations with the exception of December 2010, wherein the net number for five year ahead price expectations rose from 28.44 to 29.78 while the net number for one year ahead price expectation dropped from 5.67 to 3.04.

Table 4.3 Answers regarding expectations for the one year ahead price of housing by age group.

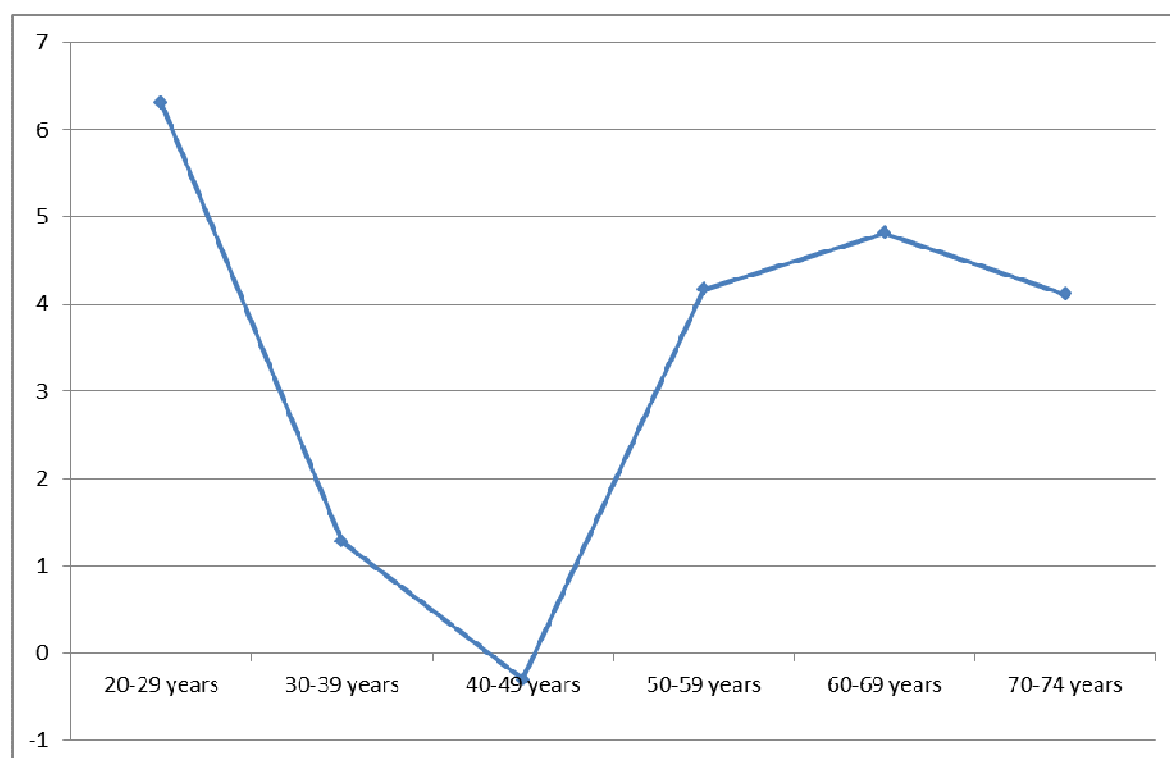
Thoughts on house prices one year ahead / Age	Much higher	Higher	Same lev- el	Lower	Much lower	Don't know	Total	Net num- ber
20-29 years	0%	39%	36%	23%	2%	1%	100%	6.31
30-39 years	0%	22%	57%	20%	0%	1%	100%	1.28
40-49 years	2%	21%	52%	23%	1%	1%	100%	-0.30
50-59 years	2%	21%	60%	17%	0%	0%	100%	4.17
60-69 years	1%	22%	63%	13%	0%	1%	100%	4.81
70-74 years	0%	32%	44%	24%	0%	1%	100%	4.12
Any age	1%	25%	54%	19%	0%	1%	100%	3.29

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A1

In the expectations survey of September 2012, as well as the previous surveys, expectations for the development in house prices have varied between the different age groups among the respondents. The group of 30-39 year olds and 40-49 year olds seem to be the least optimistic, whereas the 20-29 year olds are the most optimistic.

4.2 Expectations of different age groups regarding house prices

Figure 4.4 Net numbers for one year price expectations by age group



Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A1

Table 4.4 Change in net numbers for one year price expectations by age group

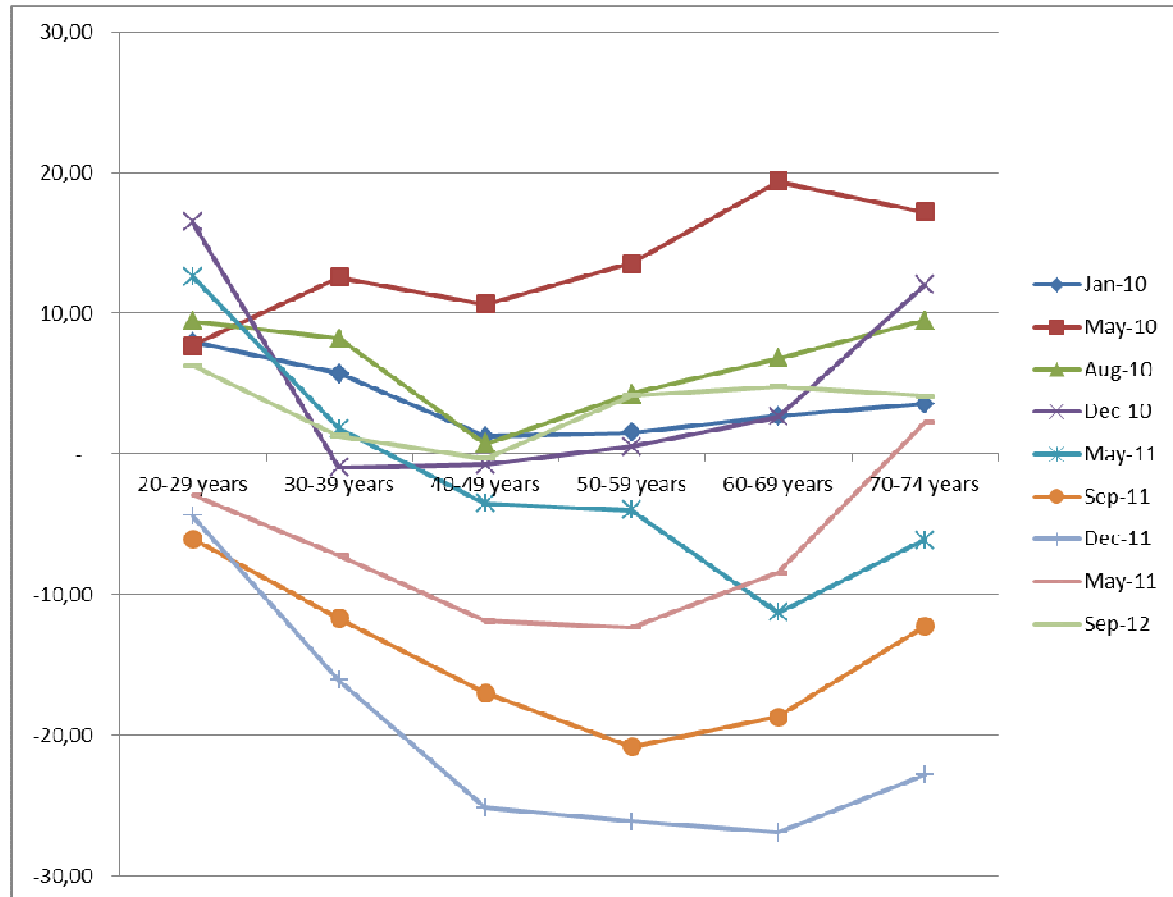
Thoughts on house prices one year ahead / Age	Net number September 2012	Net number May 2011	Change
20-29 years	6.31	-2.91	9.22
30-39 years	1.28	-7.25	8.53
40-49 years	-0.30	-11.89	11.59
50-59 years	4.17	-12.30	16.47
60-69 years	4.81	-8.41	13.23
70-74 years	4.12	2.24	1.88
Any age	3.29	-8.33	11.62

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012 and Expectations Survey VIII of the Knowledge Centre for Housing Economics, May 2012, question A1

All age groups among the respondents have become more optimistic between the expectations survey of May 2012 and the expectations survey of September 2012. The largest change has been

observed in the age group consisting of 50-59 year olds which has seen an increase in the net number from -12.30 to 4.17, as seen from above table.

Figure 4.5 Net figure for one year price expectations by age group 2010-2012



Source: Expectations Surveys I-IX of the Knowledge Centre for Housing Economics, 2010-2012, questions A1

In all the completed surveys between 2010 and 2012 a difference is seen in how the different age groups perceive future house prices. In the surveys from September 2011, December 2011 and May 2012 there is a clear tendency for age groups 40-49 years old, 50-59 years old and 60-69 years old to have the bleakest outlook with regards to house prices one year in the future, whereas younger age groups as well as 70-74 year olds tend to be more optimistic.

In the three latest expectations surveys question regarding respondents' specific expectations of house prices have been added. This has been done by asking respondents, who in question A1 said they expected either higher or much higher house prices one year in the future, by what percentage they expected prices to rise. Similarly, respondents who said they expected house prices to be lower or much lower one year in the future have been asked by what percentage they expect house prices to decrease. Respondents who thought house prices would remain at the same level one year in the future have not been asked to concretize their response.

Table 4.5 Specific expectations regarding increases in house prices

Do You think the price of a normal single-family detached house in Denmark will be ... one year in the future?	Number	Share
0-4 percent higher	128	60 %
4-8 percent higher	66	31 %
More than 8 percent higher	11	5 %
Don't know	10	5 %
Total	215	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question C1a

Among the 215 respondents who in question A1 indicated that they expected the price of a normal single-family detached house to increase over the following year there are 5% who expect prices to increase by more than 8%. 60% expect price gains to between 0% and 8%.

Table 4.6 Specific expectations regarding decreases in house prices

Do You think the price of a normal single-family detached house in Denmark will be ... one year in the future?	Number	Share
0-4 percent lower	93	57 %
4-8 percent lower	49	30 %
More than 8 percent lower	19	12 %
Don't know	2	1 %
Total	163	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question C1b

Among the 163 respondents who in question A1 indicated that they expected the price of a normal single-family detached house to decrease over the following year there are 12% who expect prices to decrease by more than 8%.

An alternative means of presenting these responses is to include expectations for price gains and expectations for decreased or unchanged prices in the same table.

Table 4.7 Specific expectations regarding increases or decreases in house prices

Do You think the price of a normal single-family detached house in Denmark will be ... one year in the future?	Number	Share
More than 8 percent higher	11	1 %
4-8 percent higher	66	8 %
0-4 percent higher	128	15 %
Same level	451	54 %
0-4 percent lower	93	11 %
4-8 percent lower	49	6 %
More than 8% lower	19	2 %
Don't know	12	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, questions C1a and C1b

In this larger group of respondents it is seen that 8 % of respondents expect the price of a normal single-family detached house to increase by 4 – 8 percent while 6 % of respondents expect the price of a normal single-family detached house to decrease by 4 – 8 percent. In the previous expectations survey from May 2012 6 % of all respondents expected the price of a normal single-family detached house to increase by 4 – 8 percent while 13 % of respondents expected the price to drop by 4 – 8 percent.

The question of specific expectations for the development in house prices has been included in all of the three latest expectations surveys. This gives us the ability to track changes in the expectations of the public more precisely. In December 2011 4 % of respondents expected the price of a normal single-family detached house to increase by 4 – 8 percent. In September 2012 8 % of respondents had such expectations. Conversely, in December 2011 21 % of respondents expected the price of of a normal single-family detached house to decrease by 4 – 8 percent over the following year.

Table 4.8 Respondents' specific expectations regarding house prices in the surveys of December 2011, May 2012 and September 2012

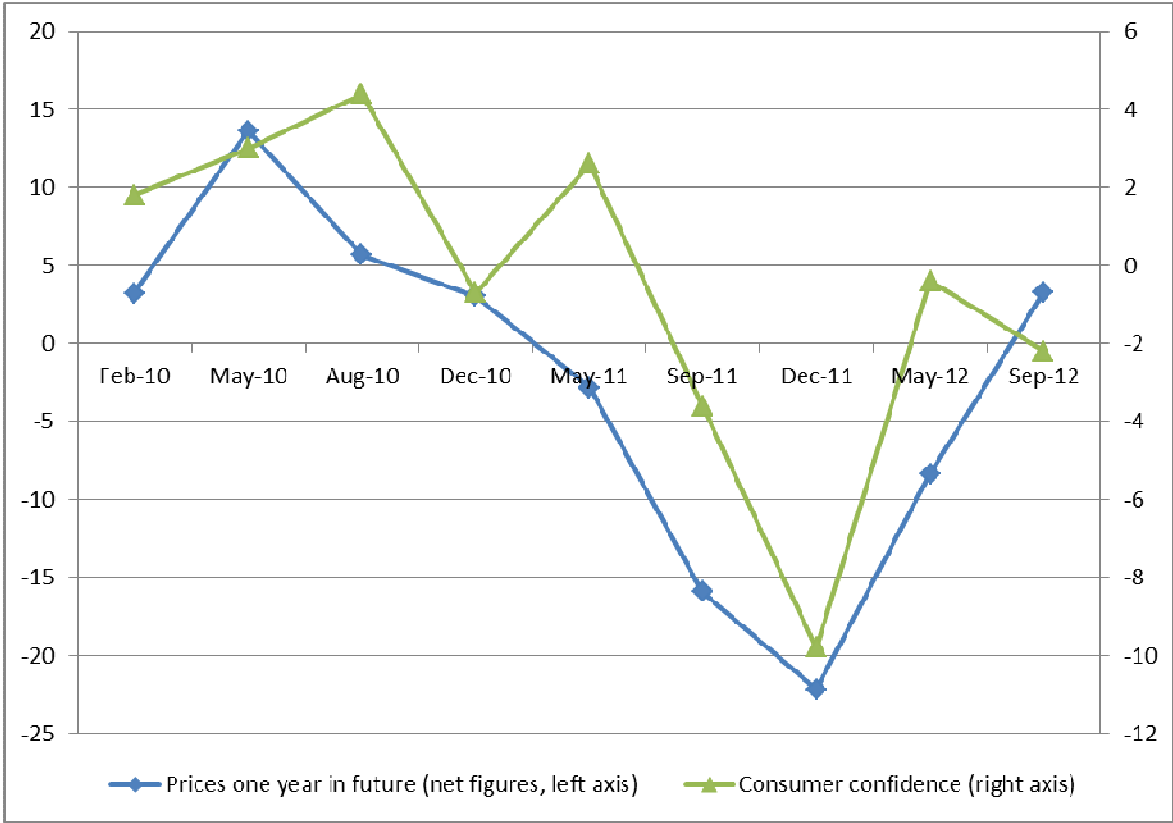
Do You think the price of a normal single-family detached house in Denmark will be ... one year in the future?	Sep-12	May-12	Dec-11
More than 8 percent higher	1 %	1 %	0 %
4-8 percent higher	8 %	6 %	4 %
0-4 percent higher	15 %	10 %	3 %
Same level	54 %	49 %	42 %
0-4 percent lower	11 %	15 %	22 %
4-8 percent lower	6 %	13 %	21 %
More than 8% lower	2 %	4 %	7 %
Don't know	1 %	2 %	2 %
Total	100 %	100 %	100%

Source: Expectations Survey VII - IX of the Knowledge Centre for Housing Economics, December 2011, May 2012 and September 2012, questions A1, C1a and C1b

4.3 Respondents price expectations and the consumer confidence indicator

Using data from the consumer confidence survey of Statistics Denmark it is possible to compare the net number for overall consumer confidence to the net number for expectations for the development in the price of a normal single-family detached house.

Figure 4.6 House price expectations and the consumer confidence indicator



Source: Expectations Survey I - IX of the Knowledge Centre for Housing Economics, 2010-2012, question A1; Statistics Denmark, www.statistikbanken.dk, FORV 1 table.

The consumer confidence indicator has been calculated by taking the average of the net figures from answers to five questions regarding the economic circumstances of the household as well as the country as a whole at the time of questioning as compared to one year earlier and expectations for one year later. Documentation of the exact calculation of the net figures of the consumer confidence indicator is available in English here:

<http://www.dst.dk/en/Statistik/dokumentation/Declarations/consumer-expectations-survey.aspx>

Data for the consumer expectations survey of Statistics Denmark is collected through their own monthly omnibus surveys which are also used for the expectations surveys of the Knowledge Centre for Housing Economics.

The same tendencies as in the one year ahead house price expectations can be observed for the consumer confidence indicator for the corresponding months. There is however divergent tendencies for the two time series from between May and August 2010, between December 2010 and May 2011 and between May and September 2012.

As data on respondents' expectations for house prices one year ahead is only available for the period 2010 – 2012, it is difficult to assert how closely respondents' expectations matches the actual development in house prices, as only the observed expectations of February 2010, May 2010, August 2010, December 2010 and May 2011 can be compared to actual outcomes. This has been done in the table below.

Table 4.9 Respondents' price expectations and actual price changes

Quarter	Net figure 1 year	Actual % change
2010Q1-2011Q1	3,2	0,7
2010Q2-2011Q2	13,6	-0,9
2010Q3-2011Q3	5,7	-4,2
2010Q4-2011Q4	3,0	-6,7
2011Q1-2012Q1	n/a	-5,5
2011Q2-2012Q2	-2,9	-5,8

Source: Expectations Survey I - IX of the Knowledge Centre for Housing Economics, 2010-2012, question A1; Statistics Denmark, www.statistikbanken.dk, EJEN5 table, one-family houses, non inflation adjusted.

5 Causes of the price expectations

On what grounds does the public develop their expectations for future house prices? In the expectations survey of September 2012 most respondents motivate their expectations through “The economic situation of Denmark”, while a bit fewer note “Development in prices through the past half year” as one of the reasons for their expectations. This way of thinking is known in economics under the term ‘adaptive expectations’. Such a tendency can also be found in the three previous surveys of May 2012, December 2011 and September 2011. Few develop their expectations on the grounds of statements made by banks, realtors or mortgage lenders.

Table 5.1 When commenting on the development in house prices, were you thinking of the development in house prices through the past half year?

Development in house prices through the past half year	Number	Percent
Yes	577	70 %
No	240	29 %
Don't know	12	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A2

Table 5.2 When commenting on the development in house prices, were you thinking of the development in interest rates?

Development in interest rates	Number	Percent
Yes	406	49%
No	416	50%
Don't know	7	1%
Total	829	100%

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A3

Table 5.3 When commenting on the development in house prices, were you thinking of the economic situation of Denmark?

The economic situation of Denmark	Number	Percent
Yes	600	72 %
No	223	27 %
Don't know	6	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A4

Table 5.4 When commenting on the development in house prices, were you thinking of statements made by experts in economics?

Statements by experts	Number	Percent
Yes	275	33 %
No	540	65 %
Don't know	14	2 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A5

Table 5.5 When commenting on the development in house prices, were you thinking of statements made by family/friends/acquaintances in regards to house prices?

Statements by family/friends/acquaintances	Number	Percent
Yes	213	26 %
No	609	73 %
Don't know	7	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A6

Table 5.6 When commenting on the development in house prices, were you thinking of statements made by your bank/financial advisor, verbally or written?

Statements by bank/banker	Number	Percent
Yes	136	16 %
No	686	83 %
Don't know	7	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A7

Table 5.7 When commenting on the development in house prices, were you thinking of commercials and statements made by a real estate agent?

Statements/ads by real estate agent	Number	Percent
Yes	183	22 %
No	639	77 %
Don't know	7	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A8

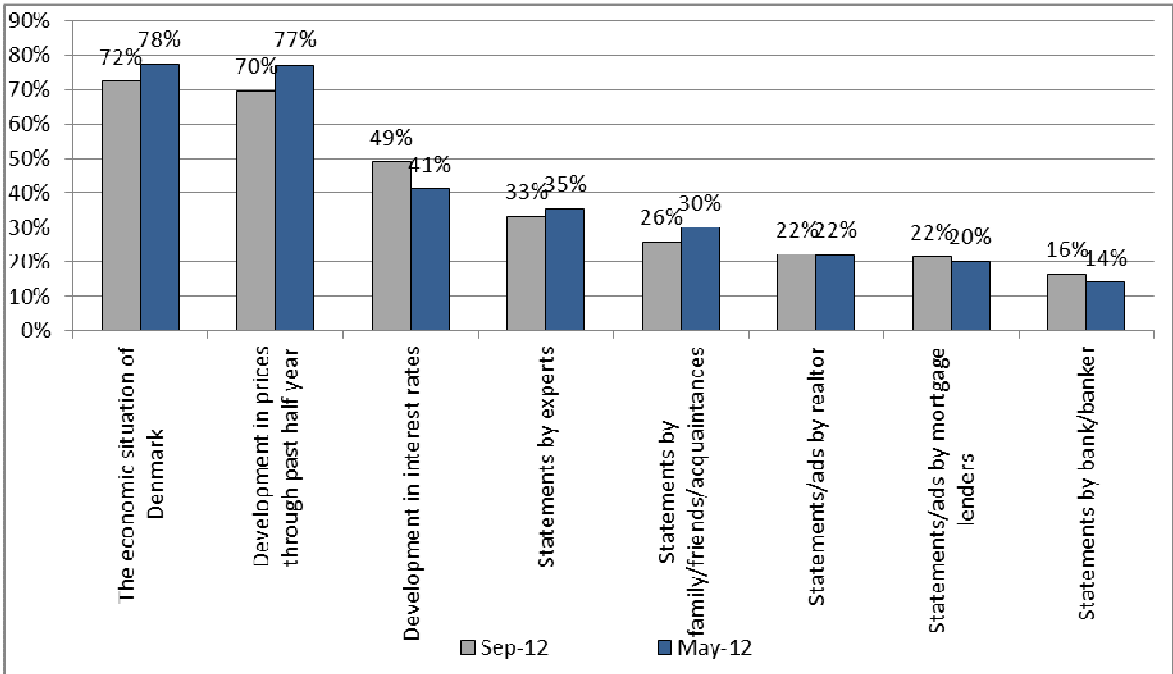
Table 5.8 When commenting on the development in house prices, were you thinking of commercials and statements by mortgage lenders?

Statements/ads by mortgage lenders	Number	Percent
Yes	179	22 %
No	640	77 %
Don't know	10	1 %
Total	829	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question A9

It has been possible for respondents to specify more than one source for their expectations. In the survey of May 2012 a few more respondents than in the September 2012 survey specified “The economic situation of Denmark” as one of the reasons for their expectations (78 % in the survey of May 2012 as compared to 72 % in the survey of September 2012). On the other hand, May 2012 saw more respondents indicating “the development in interest rates” as a reason for their expectations. The distribution of revealed causes for the expectations from the surveys of September and May 2012 can be seen from the chart below.

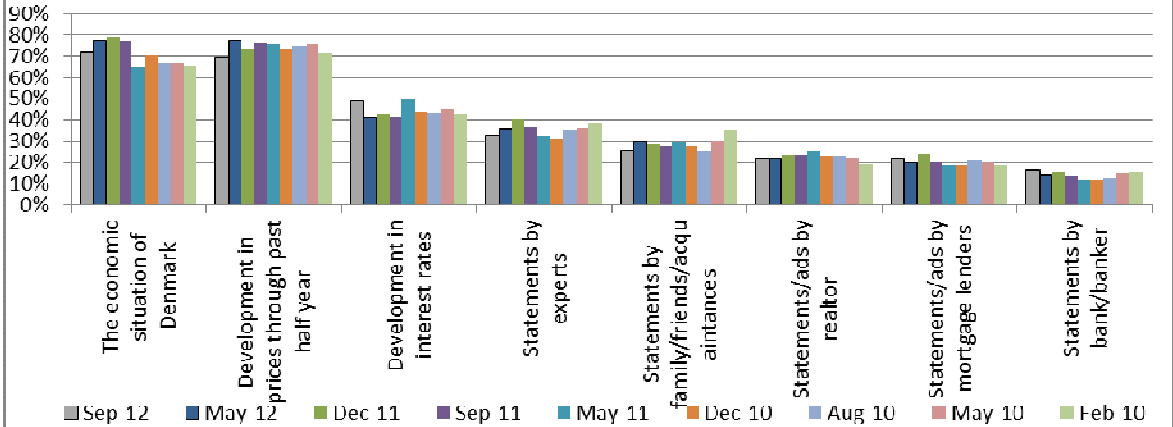
Figure 5.1 What do Danes consider when commenting on their expectations for house prices one year in the future, September 2012 and May 2012



Source: Expectations Surveys VIII and IX of the Knowledge Centre for Housing Economics, May 2012 and September 2012, questions A2 - A9

The chart below displays the distribution of revealed causes from all of the past expectations surveys. Over all the causes of expectations are fairly stable. There seems however to be a change at the expectations survey of September 2011, at which point “the economic situation of Denmark” replaces “development in house prices through the past half year” as the most cited cause of expectations. Developing expectations on the basis of past occurrences is known in economics as adaptive expectations.

Figure 5.2 What do Danes consider when commenting on their expectations for house prices one year in the future, 2010-2012



Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010 - 2012, questions A2 - A9

A possible hypothesis is that there could be a difference in the causes for expectations for respondents with diverging views of house prices one year in the future. This is sought illustrated in the table below.

Table 5.9 Causes for price expectations and expectations for house prices one year in the future

Causes for price expectations	Expectations for prices one year in the future		
	Higher or much higher	Unchanged	Lower or much lower
Development in house prices through the past half year	74 %	68 %	67 %
Development in interest rates	61 %	47 %	39 %
The economic situation of Denmark	66 %	75 %	75 %
Statements by experts in economics	36 %	32 %	33 %
Statements by friends/family/acquaintances	27 %	25 %	27 %
Statements by bank/banker	20 %	17 %	11 %
Statements/ads by a real estate agent	27 %	20 %	21 %
Statements/ads by a mortgage lender	23 %	22 %	19 %

Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010 - 2012, questions A1 - A9

From this table it can be seen that 74 % of the 215 respondents who expected house prices to increase specified “the development in house prices through the past half year” as one of the causes for their expectations, whereas only 67% of the 451 respondents who expected house prices to decrease indicated that adaptive expectations was a factor. Of the respondents who expect prices to increase only 67 % specify “the economic situation of Denmark” as a reason for their price expectations. The corresponding figure for respondents who expect to see a fall in house prices is 75%.

6 Considerations over the sale or purchase of housing

In the expectations survey of September 2012 as well as previous survey, respondents are asked whether they consider the sale or purchase of housing.

Table 6.1 Within the past three months, have you examined the prices of housing in Denmark?

Within the past three months, have you examined the prices of housing in Denmark?	Number	Share
Yes	401	48 %
No	434	52 %
Total	835	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B1

In the survey of September 2012, 48 percent of respondents had examined the prices of housing in Denmark within the past three months. This marks an increase of 5 percentage points compared to the survey of May 2012.

Table 6.2 Within the past three months, did you do any of the following: Had your share in cooperative housing assessed?

Had assessment of share in coop made?	Number	Share
Yes	10	17 %
No	49	83 %
Total	59	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B2

17 percent of owners of cooperative housing shares had an assessment of their home value made within the three months prior to the time of questioning. This is a bit fewer than in the previous survey. Among direct owners of housing, the corresponding figure is 12%, marking an increase of a single percentage point over the previous survey of May 2012. It may be worth noting that having an assessment made does not necessarily entail an interest in selling, as a recent assessment is a precondition for accessing free mortgageable value, which may be used to finance things other than housing.

Table 6.3 Within the past three months, did you do any of the following: Had your freehold property assessed?

Had directly owned housing assessed?	Number	Share
Yes	67	12 %
No	495	88 %
Total	562	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B2a

Within the three years leading up to the time of questioning 21 percent of respondents considered the sale or purchase of housing. This marks an increase of 3 percentage points over the survey of May 2012.

Table 6.4 Within the past three months, have you considered the sale or purchase of housing?

Considered sale or purchase of housing?	Number	Share
Yes	176	21 %
No	658	79 %
Total	834	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B3a

6.1 Actions in regard to sale or purchase

Among those respondents who considered the sale or purchase of housing within the three months leading up to the time of questioning, 49 percent contacted a real estate agent, a mortgage lender or a bank to this regard, whereas 29 percent had been looking for housing in newspapers or online. In the survey of May 2012, 51 percent contacted one of the groups listed, whereas 26 percent looked for housing.

Table 6.5 Within the past three months, have you contacted a real estate agent, a mortgage lender or a bank in regards to the sale or purchase of housing?

Contacted realtor/mortgage lender/bank?	Number	Share
Yes	86	49 %
No	90	51 %
Total	176	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B3

Table 6.6 Within the past three months, have you looked for housing in newspapers or online?

Looked for housing in newspaper/online?	Number	Share
Yes	246	29 %
No	589	71 %
Total	835	100 %

Source: Expectations Surveys IX of the Knowledge Centre for Housing Economics, September 2012, question B4

Table 6.7 Considerations over sale or purchase from previous surveys

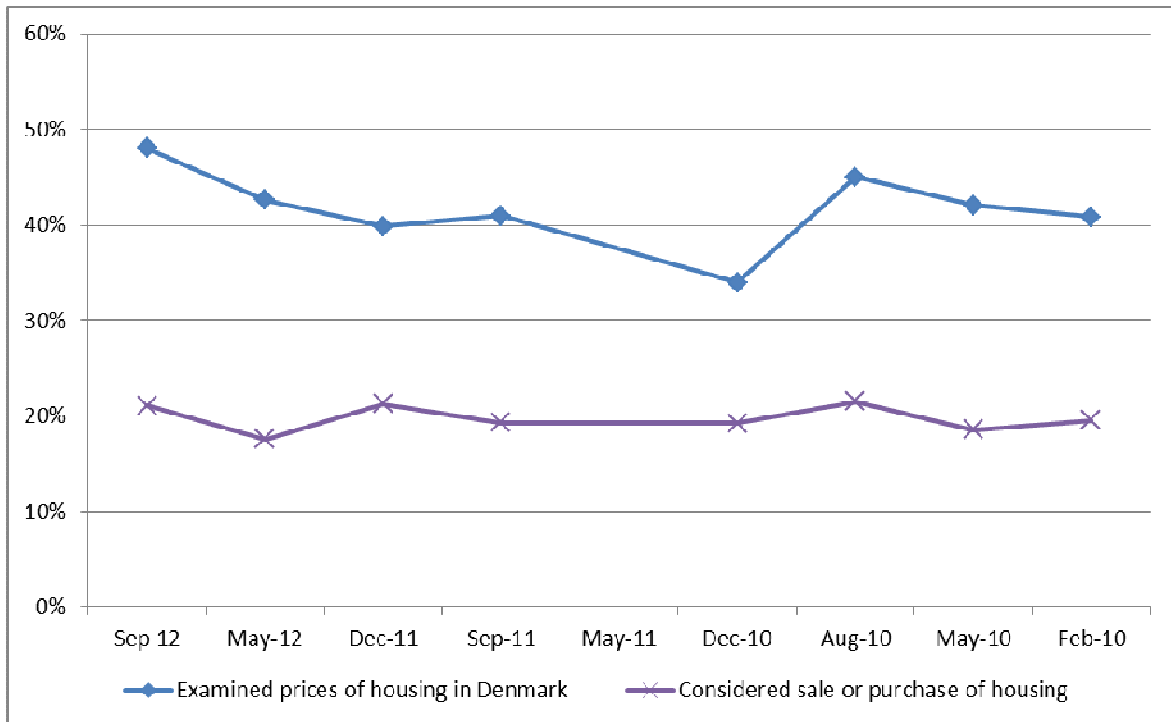
Within the past 3 months, have you...:	Sep-12	May-12	Dec-11	Sep-11	Dec-10	Aug-10	May-10	Feb-10
...examined the prices of housing in Denmark?	48 %	43 %	40 %	41 %	34 %	45 %	42 %	41 %
...had your share in cooperative housing assessed?	17 %	19 %	11 %	7 %	11 %	17 %	16 %	9 %
...had your freehold property assessed?	12 %	11 %	10 %	9 %	10 %	14 %	15 %	20 %
...considered the sale or purchase of housing?	21 %	18 %	21 %	19 %	19 %	22 %	19 %	20 %
...contacted a real estate agent, a mortgage lender or a bank?	49 %	51 %	49 %	55 %	48 %	n/a	n/a	n/a
...looked for housing in newspapers or online?	29 %	26 %	23 %	29 %	26 %	n/a	n/a	n/a

Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010 - 2012, questions B1 – B4a

In the three first expectations survey between February 2010 and August 2010 the share of respondents who indicated that they at examined the prices of housing in Denmark rose from 41 percent to 45 percent, after which it dropped to a low of 34 percent in the survey of December 2010. Over the three latest expectations surveys the share of respondents who indicated that they at examined the prices of housing in Denmark rose again from 40 percent to 48 percent, which is the highest share of the period for which surveys have been conducted.

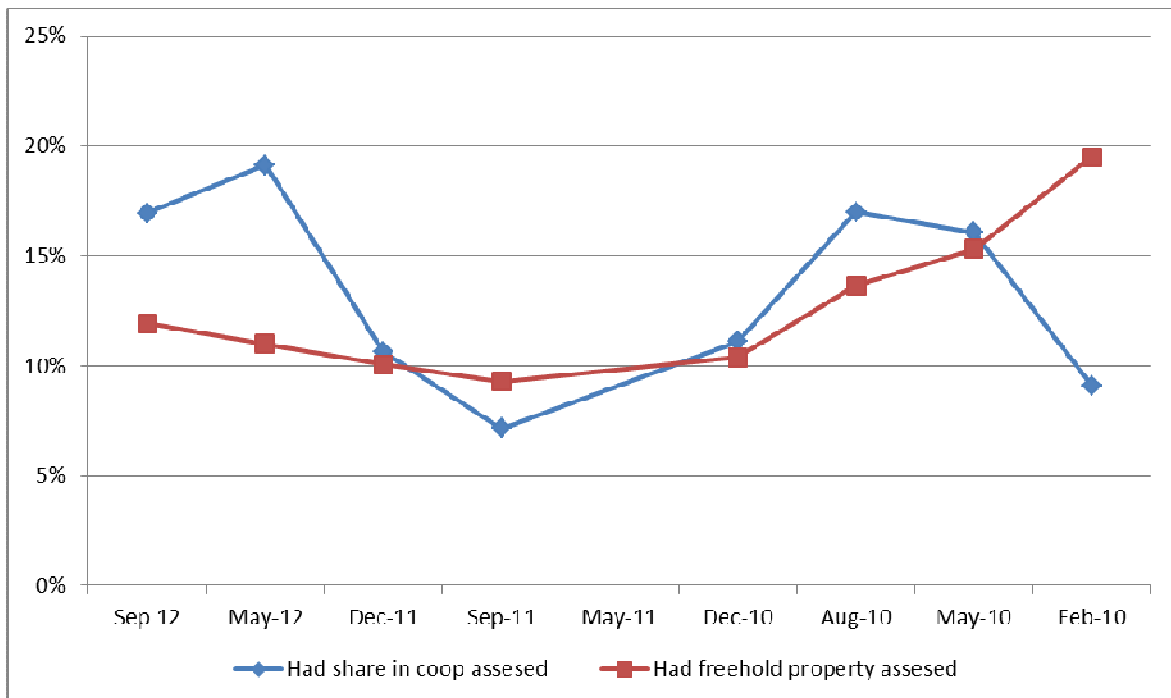
An approximately constant share of respondents of around 20 percent had considered the sale or purchase of housing over the three month period leading up to the time of questioning. This is illustrated in the chart below.

Figure 6.1 Examined prices and considered sale or purchase 2010-2012



Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010 - 2012, questions B1 and B3a

Figure 6.2 Had assessment of freehold property or share in cooperative housing made



Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010 - 2012, questions B2 and B2a

The share of respondents with a freehold property who had it assessed in the three months leading up to the time of questioning has fallen from 20 percent in the first survey of 2010 to a low of 9 percent in September 2011. After this, the share rose a little again. As such, in the latest survey of September 2012 the share of free hold property owning respondents who had their property assessed was 12 %.

The share of respondents living in coop housing who had their share assessed within the three months leading up to the time of questioning is somewhat more volatile than the corresponding share for freehold property owners. To an extent, this can be explained by a significantly larger sample size for free hold properties (~600 respondents) than is the case for owners of shares in cooperative housing (~60 respondents). The share of respondents who, in the three month period leading up to the time of questioning, considered the sale or purchase of housing has been in the interval 18 – 22 percent in all of the surveys.

In order to examine whether renters are more likely to consider buying or selling housing than owners the question has been cross tabulated in the table below. From this, it can be seen that the share of direct owner respondents who consider the sale or purchase of housing is only 19 percent as compared to 23 percent of renter respondents and 29% of respondents living in cooperative housing.

Table 6.8 Considerations over the sale or purchase of housing by type of ownership, September 2012

Considered sale or purchase of housing? \ Current type of ownership	Cooperative	Freehold	Rental	Any
Yes	29 %	19 %	23 %	21 %
No	71 %	81 %	77 %	79 %
Total	100 %	100 %	100 %	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question B3a

In the expectations survey of May 2012 a total of 18 percent had considered the sale or purchase of housing within the three months leading up to the time of questioning. The distribution of respondents by type of ownership is seen from the table below.

Table 6.9 Considerations over the sale or purchase of housing by type of ownership, May 2012

Considered sale or purchase of housing? \ Current type of ownership	Cooperative	Freehold	Rental	Any
Yes	24 %	16 %	20 %	18 %
No	76 %	84 %	80 %	82 %
Total	100 %	100 %	100 %	100 %

Source: Expectations Survey VIII of the Knowledge Centre for Housing Economics, May 2012, question B3a

It is seen that respondents who live in freehold properties were also the least likely to consider the sale or purchase of housing in the survey of May 2012. In this survey as well, more renters than owners consider the sale or purchase of housing, while the largest share of respondents considering sale or purchase of housing is found among those living in cooperative housing.

7 Opinions on the CIBOR rate

In the expectations survey of September 2012 questions have been added regarding respondents' opinions on the alleged case of banks manipulating the Copenhagen Interbank Offered Rate, thereby inflating the interest rate on certain consumer loans. This has been done by presenting respondent with the Danish language equivalent of the following introductory text: "You will now be presented with some questions relating to the CIBOR-rate, upon which certain types of Danish loans are based. Newspapers have reported that Danish banks have been manipulating the CIBOR interest rates by artificially inflating the interest rate".

Table 7.1 Have you heard from the media about banks allegedly having manipulated the CIBOR rate, thereby inflating interest rates?

Have you heard from the media about banks allegedly having manipulated the CIBOR rate, thereby inflating interest rates?	Number	Share
Yes	430	52 %
No	336	40 %
Don't know	66	8 %
Total	832	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question D1

52 percent of respondents noticed the story about banks allegedly manipulating the CIBOR rate in the media.

Table 7.2 Could you consider switching banks were you to find out that you current bank were involved in such activity?

Could you consider switching banks were you to find out that you current bank were involved in such activity	Number	Share
Yes	402	48 %
Maybe	152	18 %
No	201	24 %
Don't know	77	9 %
Total	832	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question D2

48 percent of respondents could consider switching banks, were they to find out that their current bank were involved in such activity. 18 percent could maybe consider switching banks.

Table 7.3 Could cases like these affect you future choice of loan types?

Could cases like these affect you future choice of loan types?	Number	Share
Yes	386	46 %
Maybe	132	16 %
No	206	25 %
Don't know	108	13 %
Total	832	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question D3

46 percent of respondents say that cases like the alleged CIBOR-rate manipulation could affect their future choice of loan types. However a rather large share of respondents (13 percent) say they don't know.

Table 7.4 Do you have a mortgage with an interest rate that depends on the CIBOR rate?

Do you have a mortgage with an interest rate that depends on the CIBOR-rate?	Number	Share
Yes	84	15 %
No	337	60 %
Don't know	140	25 %
Total	561	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question D4

NB: Only respondents living in freehold properties were asked question D4

Among respondents living in freehold properties 15 percent say they have a mortgage that is dependent on the CIBOR-rate. One problem with this question is the large share of respondents who do not know whether their mortgage is dependent on the CIBOR-rate or not.

Table 7.5 Do you have an overdraft facility, or any other type of loan (a car loan for example) on which the interest rate is dependent on the CIBOR rate?

Do you have an overdraft facility, or any other type of loan (a car loan for example) on which the interest rate is dependent on the CIBOR-rate?	Number	Share
Yes	119	14 %
No	535	64 %
Refuse to answer	1	0 %
Don't know	177	21 %
Total	832	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question D4

14 percent of respondents have an overdraft facility or other type of loan on which the interest rate is dependent on the CIBOR rate. As well as is the case in the previous question a large share of respondents are unaware of whether that is the case.

The 561 respondents in the survey of September 2012 who live in freehold properties were also asked whether they are interested in an insurance which handles the payments on their mortgage in case they become unemployed. To this question 5 percent say they would be very interested while 32 percent say they would not be interested at all cf. the table below.

Table 7.6 Would you be interested in an insurance which handles the payments on your mortgage in case you become unemployed?

Interested in insurance which handles mortgage payments at unemployment?	Number	Share
Very interested	27	5 %
Interested	97	17 %
Neither interested or not	63	11 %
Not interested	139	25 %
Not at all interested	182	32 %
Don't know	53	9 %
Total	561	100 %

Source: Expectations Survey IX of the Knowledge Centre for Housing Economics, September 2012, question E1

8 Discussion

It is yet too early to firmly conclude how the expectations of the public are formed, as a mayor landslide of expectations has not occurred within the nine surveys which have been carried out so far. It is to be assumed that this material gains in value once a major shift in expectations occurs. For example if the public starts believing in significant gains in the price of housing. So long as the fluctuations in prices and expectations remain relatively modest, data should not be interpreted to rigidly because of the risk of over interpreting fluctuations, which may rely on chance occurrences.

With this significant reservation, there is however certain characteristics of the surveys which worth noting, and which already at this point are thought to be valid:

- Public expectations for the development in the housing market are closely related with their overall optimism about the future.
- The factors that the public stresses in evaluating the future of the housing market are highly stable across surveys.
- Different age group exhibit different expectations. As such the young and the elderly are more optimistic in regards to the housing market. The public is not a homogenous group as far as expectations are concerned.

9 Annex

Table 9.1 Causes for price expectations 2010 - 2012

Cause for price expectation \ Survey	Sep- 2012	May- 2012	Dec- 2011	Sep- 2011	May- 2011	Dec- 2010	Aug- 2010	May- 2010	Feb- 2010
The economic situation of Denmark	72%	78%	78%	77%	65%	70%	67%	67%	65%
Development in house prices through the past half year	70%	77%	73%	76%	76%	73%	75%	76%	72%
Development in interest rates	49%	41%	43%	42%	50%	44%	44%	45%	43%
Statements by experts in economics	33%	35%	40%	36%	32%	31%	35%	36%	39%
Statements by friends/family/acquaintances	26%	30%	29%	28%	30%	27%	25%	30%	35%
Statements/ads by a real estate agent	22%	22%	24%	23%	25%	23%	23%	22%	20%
Statements/ads by a mortgage lender	22%	20%	24%	21%	18%	18%	21%	21%	18%
Statements by or letters from bank/banker	16%	14%	16%	13%	12%	12%	13%	15%	16%

Source: Expectations Surveys I - IX of the Knowledge Centre for Housing Economics, 2010-2012