
Original Article

Banking advice on fixed or adjustable mortgage rates

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ABSTRACT Since the mid-1990s, Sweden has experienced a period of rapidly rising property prices, and household indebtedness has kept an even pace. The choice between fixed and adjustable interest rates has become increasingly important. This article analyses mortgage rate advice issued by a bank adviser in monthly newsletters during the period 2001–2009, focusing on the content and searching for patterns that may be related to earlier findings. The banking advice is classified into two dimensions: the content and the strength of advice. We find that a large part of the advice suggests that borrowers divide their loans and choose both adjustable and fixed interest rates. Contrary to existing literature, there is no apparent association between the advice provided and interest rate trends (neither short- nor long-term trends). Nor do we find a significant association between the advice and the interest rate gap between fixed and variable rates. This finding implies that the advice in these newsletters was formulated on a rather unclear basis and was of limited use for borrowers.

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INTRODUCTION

This article analyses the content and patterns of newsletters about mortgage rate advice. The newsletters were issued by a leading Swedish bank adviser during the period 2001–2009. Mortgage lending has rapidly increased in many countries during the past few decades. In Sweden, mortgage debt increased by more than 140 per cent between 1998 and 2008 (Statistics Sweden, 2011). At the same time, there was a drastic change from fixed rate mortgages (FRMs)

to adjustable rate mortgages (ARMs) (Figure 1). (According to the most recent statistics, the share of ARMs was 58 per cent in September 2011.) A similar increase has occurred in other countries, as shown by Scanlon *et al* (2008).

For example, high levels of adjustable rate debt have been perceived as a source of economic and housing market instability in the United Kingdom (Vickery, 2006). In contrast to the United States, where long-term FRMs without substantial prepayment penalties predominate (Vickery, 2006), the United Kingdom has a mortgage market similar to that in Sweden, where mortgage contracts have either a 3-month

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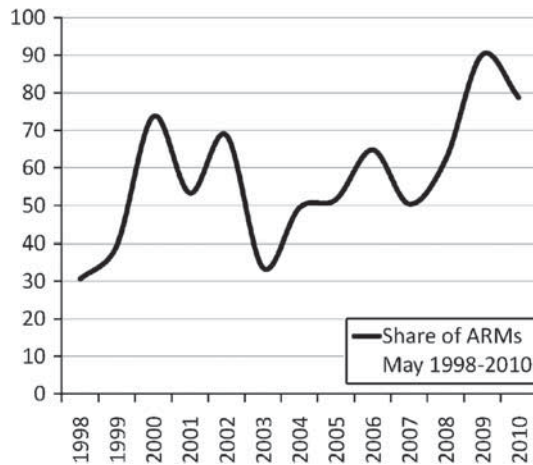


Figure 1: Share of ARMs, 1998–2010.
Source: Statistics Sweden (2011).

repricing period (referred to as *ARM* in Sweden) or a 1-, 2-, 3- or 5-year initial repricing period (referred to as *FRM* in Sweden) with substantial prepayment penalties. Hence, it is probable that high levels of ARMs could also be a source of the same instability in Sweden.

Even though the choice of a mortgage contract is one of the most important financial decisions a household can make (Campbell, 2006), borrowers must either rely on their own investment strategies and knowledge or seek advice from financial experts and/or advisers. There is currently no law or regulation in Sweden that monitors financial advice concerning mortgage products. However, advice concerning the choice of mortgage is still frequently given, as well as in the media by different bank experts.

In all important aspects, the media mostly rely on comments made by financial experts. Because both the media and bank advisers have been found to influence borrowers' mortgage choices (for example, Tufano, 2009; Hullgren, 2010), the objective of this study is to determine empirically how a leading Swedish bank framed the advice it provided on mortgage rates during the period 2001–2009, a period when mortgage

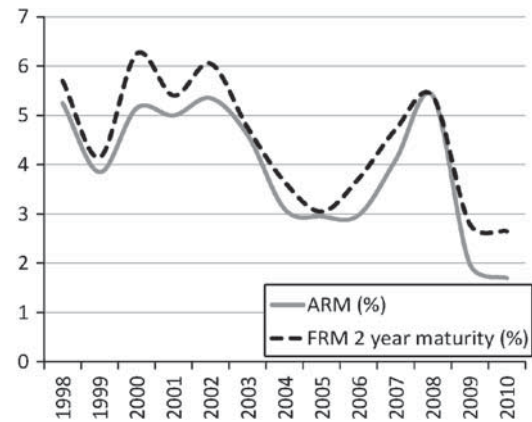


Figure 2: Interest rate levels, 1998–2010.
Source: Swedish Housing Finance Corporation (2011).

rates fluctuated substantially in Sweden (Figure 2).

Because households seem to rely on advice given by financial experts, there is value in examining the actual content of such advice. The involvement of two parties – in this case, the financial expert and the borrower – might cause potential conflicts of interest that result from information asymmetries and incentive conflicts (Tufano, 2009).

The study's contribution is as follows: it concerns a type of decision that has not been previously investigated. This study investigates the content of the advice and tests a number of hypotheses about what determines whether specific advice is given. It also adds to the existing literature on mortgage choice and financial advice. The results should be relevant not only to the decision-making process of borrowers but also to the future advice given by financial experts, in that this information makes it possible to evaluate their own procedures. The study may also serve as a base for possible future regulations of advice connected to the Swedish mortgage market and the responsibility of banks, which is an ongoing discussion.

In the next section, there is a short summary of earlier studies on financial advice and mortgage choice, and based on that

information, a number of hypotheses are presented. The data and a description of how the data are categorised then follow. The results are presented in the ensuing section, and the article ends with a discussion of the findings.

LITERARY REVIEW AND HYPOTHESES

Financial advice

There is a large body of literature on financial advice targeted at households. To the best of our knowledge, however, there are no studies on banking advice relating to the choice between fixed and adjustable mortgage interest rates. Research in recent years has dealt with the effects of financial advice. For example, Marsden *et al* (2011) examined decisions in relation to retirement planning. Bluethgen *et al* (2008) and Kramer (2009) investigated portfolio decisions. Chatterjee *et al* (2011) focused on the effect of advice on the level of confidence exhibited by households in their decisions. The results of these studies are, for the most part, similar. Chatterjee *et al* (2011) found evidence that utilisation of professional financial advice is a positive predictor of retirement confidence, and Bluethgen *et al* showed that financial advice affects trading behaviour – that is, the use of advisory services increases portfolio turnover. However, Kramer did not find any evidence of any outperformance or underperformance of advised investors even though advised portfolios tend to be better diversified.

Schotter (2003) investigated whether households prefer to receive information or explicit advice. He stated that 'If given a choice between getting advice or the information upon which that advice was based, subjects tend to opt for the advice'. Earlier findings consequently indicate that advice provided by a bank adviser is of relevance and that such advice might be viewed by the borrower as a reliable summary of current financial trends.

Research on behavioural finance has revealed that elements of risk aversion exist in decision making (for example, when deciding which piece of advice to give). For example, one study showed that decision makers became more risk averse when they expected their decisions to be reviewed by other individuals and when pressure increased on them to take personal responsibility for their decisions (Tetlock and Boettger, 1994).

Kahneman and Lovallo (1993) also established that individuals' aversion to taking distinct responsibility for potential losses is strong. Furthermore, in a study on trust asymmetry, Slovic suggested that trust is built up slowly but can be destroyed quickly, sometimes by a single event (as cited in Schotter, 2003). This view was also supported by the findings of a study by Yaniv and Kleinberger (2000).

On the basis of this information, we propose the cautiousness hypothesis (Hypothesis 1).

The cautiousness hypothesis

According to this hypothesis, advisers want to avoid making their customers unhappy (unfilled forecasts = unhappy customers). They therefore suggest that customers divide their loans between ARMs and FRMs, regardless of the interest rate situation. That way, they minimise both their own risk of being blamed and the liquidity risk of their clients.

The mortgage choice

There are scarce findings available concerning mortgage decisions in a Swedish context. However, previous research, primarily based on US data, has indicated that there are two main branches in the literature: The first branch concerns borrower characteristics (for example, Alm and Follain, 1984, 1987; Brueckner, 1986; Campbell and Cocco, 2003; Finke *et al*, 2005; Paiella and Pozzolo, 2007; Coulibaly and Li, 2009).

The second branch – and the one of interest to this article because there are no data on the recipients of the advice being studied – focuses

on price and other contract factors (for example, Statman, 1982; Dhillon *et al*, 1987; Brueckner and Follain, 1988; Sa-Aadu and Sirmans, 1995; Leece, 2000; Campbell, 2006; Vickery, 2006). Previous research has revealed that the spread between the FRM and the ARM is a primary determinant of mortgage choice. That is, mortgage choice is price sensitive (Leece, 2000). More expensive FRMs generally lead to a fall in demand (Dhillon *et al*, 1987; Brueckner and Follain, 1988).

On the basis of this information, we propose the interest rate gap hypothesis (Hypothesis 2).

The interest rate gap hypothesis

Hypothesis 2 is based on the simple concept of minimising borrowers' mortgage costs: If the current spread between the ARM and the FRM is high (in absolute terms or in relation to the average difference over a specific period), and the FRM is higher than the ARM, it is 'expensive' for the borrower to fix the rate (not taking into consideration the individual's risk aversion). The recommendation to the customer would be most likely to choose an ARM. If the gap between the ARM and the FRM is low (in absolute or relative terms), then the most likely recommendation to the customer would be to choose an FRM.

In addition, Campbell (2006) pointed out that homeowners are more likely to use ARMs when the FRM rate has been recently increased and that they are more likely to use FRMs when the FRM rate has been recently decreased. These findings indicate that borrowers are sensitive to recent changes in the mortgage rate.

On the basis of this information, we propose the trend hypothesis (Hypothesis 3).

Testing this hypothesis may help shed light on whether recent changes in mortgage rates are reflected in the banking advice being studied.

The trend hypothesis

Here we use a simpler version than that was put forward by Campbell (2006). Hypothesis 3

of the present study states that if the ARM has decreased in comparison with the situation on the previous occasion when advice was provided, the advice will be to choose an ARM. If the ARM has increased, the advice will be to choose an FRM. This hypothesis is based on the idea that if the ARM has increased, it will continue to increase, and, therefore, it is advantageous to choose an FRM.

On the basis of a belief in 'regression to the mean' – that is, events/results tend to get closer to the average value after a number of periods (Arnott, 1998) – we propose the level hypothesis (Hypothesis 4).

The level hypothesis

This hypothesis states that when FRMs are low compared with the average FRM over a number of years, the advice will be to fix interest rates because the mortgage rate can then be expected to reverse to the mean and increase soon.

Untestable hypothesis

A study by Tufano (2009) suggested that banks may give advice that maximises their own profits. On the basis of this idea, we propose the untestable hypothesis (Hypothesis 5). This hypothesis is untestable in the current context because the size of the margins that the bank has on different loans and the bank's level of risk aversion are unknown.

DATA

This study is based on newsletters published by a Swedish commercial bank, in which a bank economist has provided advice on mortgage interest rates to customers since 2001. The newsletter is roughly one A4-page long (or of equivalent size on the bank's Website) and is generally issued on a monthly basis. It is issued more frequently in connection with major events, such as general elections, referenda and the attack against the World Trade Center in New York. The newsletter is available on the bank's Website and at their branch offices.

The title of the newsletter creates expectations that it should contain advice specifically on mortgage interest rates. The text-only newsletter is a typical newsletter in that it starts with information on the current global situation, the state of the global market and the state of the market in Sweden; it sometimes includes a retrospective view; and it almost always ends with some form of advice. The newsletter contains the name and photo of the economist who issued it. The same economist was featured during the entire study period.

The newsletter does not specify to which type of customer the advice is addressed, nor does it indicate the risk propensity or profile that the intended readers might have. Accordingly, the classification made in the present study does not take customer characteristics or customer habits into consideration. It is purely based on the newsletter and its sender.

The present study is based on a review of the aforementioned newsletters, from the inception of the newsletter in February 2001 up to and including June 2009; a period of time that has witnessed both great reductions and increases in repo interest rates set by Sveriges Riksbank, Sweden's central bank. (The repo rate is the rate of interest at which banks can borrow or deposit funds at the Riksbank for a period of 7 days.)

Most of the material was provided by the bank in question, most notably those newsletters that were issued before this study began in 2007. Recently published newsletters (2007–2009) were obtained from the bank's Website, and in those cases where several versions were issued during the same month, we included only one newsletter per month in our review (that is, the latest version). A total of 92 newsletters were analysed in the present study.

CATEGORISATION OF ADVICE AND METHOD OF ANALYSIS

The content of the newsletters was classified based on how the advice was phrased.

This classification was first made in early 2008; the initial plan was to include only newsletters issued until the end of 2007. However, as the project was extended, the materials were expanded to include newsletters issued up to and including June 2009. In connection with the extension, we carried out an additional review of the newsletter classification to achieve a higher degree of stringency.

We classified the advice given in the newsletters in two dimensions: the strength of the advice and the content of the advice. Concerning the strength of the advice, we classified advice into the following categories:

- 0 = no advice;
- 1 = generic advice, which includes general formulations rather than specific conditions;
- 2 = specific advice, which is conditional upon the situation of the household ('if your margin is small', 'if you want to know your costs', 'if you are not a risk taker' – in other words, turning to the reader); and
- 3 = specific advice.

The process of classifying the advice was not without complications because the advice was provided in the body of the text and was not always obvious. The classification was discussed and performed within a research group to ensure agreement and to achieve a high level of reliability. Some examples of phrases and the way they were classified are shown in Table 1.

Of the 92 newsletters issued by the commercial bank, the distribution of the advice is as reported in Table 2. This table also includes the two newsletters that did not contain any direct advice, which were not included in the remaining analysis.

A rough overview shows that more than half of the advice was classified into Category 1 (generic advice), and just over a third into Category 2 (conditional specific advice).

Table 1: Examples of advice and their classification

Classification	Wording of advice
1	'A good alternative could be to fix a part of the loans for a period of 2 years' 'Adjustable is probably cheaper, but the risk is somewhat greater'
2	'For those comfortable with fixed rates, the autumn could be the right time to fix some' 'A smaller part fixed, the remainder adjustable. ... If your margins are small, fix a larger part, perhaps with a slightly longer life' 'In principle: Choose adjustable, but for those comfortable with fixed, now is the time to fix' 'If finances are tight – to have a part fixed for 5 years can be an attractive choice'
3	'Fix a smaller part for 2 years: 65% adjustable, 35% fixed for 2 years' 'One-third adjustable, one-third fixed for 2–3 years and one-third fixed for 5 years, feels like a reasonable distribution of the risk'

Table 2: Strength of advice (the values in parentheses are percentages)

No advice=0	Generic advice=1	Conditional specific advice=2	Specific advice without hedging=3
2 (2.1)	53 (56.4)	35 (37.2)	4 (4.3)

Table 3: Content of advice

Adjustable	Fixed	Mixed
32	11	49

The newsletters were also classified based on whether the advice (in Categories 1, 2 or 3) recommended adjustable, fixed or a mix of both forms of interest rates (see Table 3). One piece of advice was worded as 'no difference either way', and this item was allocated to the mixed category.

A piece of advice was classified as *mixed* if this word appeared in the text or if words such as *split* and *mix* were used. If a piece of advice could be interpreted as the primary type of advice, it was classified as 'adjustable' or 'fixed'. In this context, cases that were difficult to categorise were discussed with colleagues within a research group to ensure high reliability. For details on the classification in each case, see Appendix A.

With the exception of the cautiousness hypothesis (for which the data did not permit more elaborate calculations other than a simple sum of data), the hypotheses were tested using the χ^2 method. The hypotheses were tested against the null hypothesis (H_0) (for example, there is no observed significant difference in the provided interest rate

advice, regardless of the interest rate gap, current mortgage rate trends or mortgage rate levels).

Comparisons between the adjustable and fixed interest rates made during the hypothesis testing were based on the adjustable bank interest rate and the 2-year fixed interest rate. The interest rate levels in this study were taken from the Swedish Housing Finance Corporation (SBAB, 2011) Website, (www.sbab.se) and were assumed to be comparable to those of other banks. The actual interest rate data are presented in Appendix B, together with the advice given in different periods.

RESULTS

Hypothesis 1: The cautiousness hypothesis

To test the hypothesis concerning adviser cautiousness (risk aversion), a simple summary was made as previously mentioned (Table 4).

We found that half of the interest rate advice provided during the period from February 2001 through June 2009 recommended dividing the loans and having both adjustable and fixed interest rates. This finding could be viewed as being in line

Table 4: The cautiousness hypothesis

<i>Interest rate advice</i>	<i>Fixed</i>	<i>Adjustable</i>	<i>Mixed</i>
Number (%)	11 (12)	32 (35)	49 (53)

with earlier results showing that individuals (advisers) become more risk averse and take a safer approach if they can be held accountable for decisions (or, in this case, for their advice).

Hypothesis 2: The interest rate gap hypothesis

To test Hypothesis 2, the interest rate advice for each month was related to the calculated interest rate difference for the same month. The average difference between the adjustable interest rate and the 2-year fixed interest rate was 0.38 percentage points, and this result was used as a base rate (Table 5).

The basic idea of the interest rate gap hypothesis is that the interest rate recommendation should be adjustable in the months with a relatively large interest rate gap (that is, when the fixed interest rate was ≥ 0.38 percentage points above the adjustable rate) and fixed when the difference is small (for example, when the fixed interest rate was < 0.38 percentage points above the adjustable rate or when the adjustable interest rate was higher than the 2-year fixed interest rate). When the 'insurance premium' of a fixed loan is low, it would be relatively advantageous to fix the interest rate. According to the null hypothesis, no differences existed among the types of advice provided during periods with different interest rate gaps.

The observed χ^2 value of 4.59 did not exceed the critical value of 5.59 at the 5 per cent level ($df=2$). Accordingly, no significant association was detected between the advice provided and the interest rate levels; therefore, the H_0 could not be rejected. It should also be noted that the non-significant trend went in the opposite direction of the hypothesis.

Table 5: The interest rate gap hypothesis

<i>Interest rate difference between adjustable rates and 2-year fixed rates</i>	≥ 0.38 <i>percentage points</i>	< 0.38 <i>percentage points</i>
Advice: Fixed interest rate	6 items	4 items
Advice: Adjustable interest rate	13 items	19 items
Advice: Mixed interest rates	31 items	19 items

Table 6: The trend hypothesis

	<i>Higher interest rate level</i>	<i>Lower interest rate level</i>	<i>Same interest rate level</i>
Fixed	5	3	3
Adjustable	11	11	9
Mixed	14	11	25

Hypothesis 3: The trend hypothesis

The starting point for the hypothesis testing in this case was the null hypothesis stating that current interest rate trends would not affect the advice given. The advice was categorised based on whether it was phrased at a time when the interest rate on loans was higher, lower or at the same level as at the time of the previous advice/newsletter (see Table 6).

The observed χ^2 value of 7.85 did not exceed the critical value of 9.49 at the 5 per cent level ($df=4$). Accordingly, the H_0 could not be rejected, and there did not seem to be any dependency between the advice and recent interest rate changes. The trend hypothesis was consequently rejected.

Hypothesis 4: The Level hypothesis

For the level hypothesis, the starting point was the average fixed interest rate during the study period for mortgages with a 2-year fixation period. The hypothesis was made more precise by specifying that if the interest rate for loans fixed for 2 years was below 75 per cent of the average interest rate during the period, it could be considered

Table 7: The level hypothesis

	2-year FRM ≥ 3.36 per cent	2-year FRM < 3.36 per cent
Fixed	10	0
Adjustable	24	9
Mixed	44	5

beneficial to fix the interest rate, and this option would therefore be recommended.

During the period from February 2001 through June 2009, the average interest rate on loans fixed for 2 years was 4.48 per cent. Accordingly, the level used to test the level hypothesis was 3.36 per cent: At interest rate levels below this threshold, the adviser should emphasise that a fixed interest rate is a beneficial alternative. According to the null hypothesis, no relationships existed between the level of the fixed interest rate and the advice provided (Table 7).

The observed χ^2 value of 6.63 exceeded the critical value of 5.59 at the 5 per cent level ($df=2$). Accordingly, there appears to be a connection between the advice provided and the interest rate levels; therefore, H_0 could be rejected.

Thus, there was a difference, but the result was the opposite of the hypothesis. In the hypothesis, it was assumed that when the fixed interest rate levels fell below 3.36 percentage points, the adviser would recommend fixed interest rates. However, the calculations showed that the opposite was true: At low fixed interest levels, there was never any advice given to choose an FRM.

Control of covariation between interest rate trends and interest rate gap

To verify that the result did not depend on a covariation between the different factors involved, χ^2 tests were conducted to determine the effects of small and large interest rate gaps separately for periods with upwards, downwards and constant trends in the interest rate. In Tables 8a–8c, the ‘mixed’ advice was excluded, whereas in

Table 8a: Advice during rising rates compared with the interest rate gap between adjustable and fixed interest rates

	Large gap	Small gap
Fixed	4	1
Adjustable	7	4

Table 8b: Interest rate advice during falling rates compared with the interest rate gap between adjustable and fixed interest rates

	Large gap	Small gap
Fixed	1	1
Adjustable	4	7

Table 8c: Advice during constant interest rate levels compared with the interest rate gap between adjustable and fixed interest rates

	Large gap	Small gap
Fixed	1	2
Adjustable	2	8

Table 8d: Advice during rising rates compared with the interest rate gap between adjustable and fixed+mixed interest rates

	Large gap	Small gap
Fixed+mixed	13	7
Adjustable	6	4

Table 8e: Advice during falling rates compared with the interest rate gap between adjustable and fixed+mixed interest rates

	Large gap	Small gap
Fixed+mixed	4	10
Adjustable	4	7

Tables 8d and 8e, the ‘mixed’ and ‘fixed’ types of advice were merged into one category because the number of observations in each cell would otherwise be too small. According to the H_0 , the interest rate gap did not have any impact on the choice between fixed and adjustable interest rates.

The test results showed that both in the case of rising and falling interest rates (Table 8a, 8b, 8d, 8e), very low χ^2 values were produced ($\chi^2 = 0.85, 0.13, 0.72, 0.17$), which should indicate that the interest rate gap had no impact on the bank's choice to give advice about fixed or adjustable rates (showing that the adviser provided the same recommendations whether the interest rate gap was large or small). Accordingly, the H_0 could not be rejected.

Another observation was that large gaps were more common when interest rates were rising than when they were falling. Thus, it is easy to come to the wrong conclusion when adding periods of rising and falling rates without checking the covariance between the interest rate gap and the interest rate trends – that is, what seems to be an effect of the interest rate gap could be an effect of the tendency of interest rates to rise when the gap is large. In our previous calculation of the trend hypothesis, the χ^2 value indicated that the gap did not have an impact on the result.

At constant interest rate levels (Table 8c and 8f), no differences were detected between large and small interest rate gaps with regard to the recommendation after elimination of the 'mixed' advice. However, there were very few observations in this case. When the 'mixed' advice and 'fixed' advice together were compared with the category 'adjustable' advice, the interest rate gap became significant ($\chi^2 = 8.85$).

This significant difference should reasonably be construed as follows: In the case of invariable adjustable interest rates and large interest rate gaps, the adviser increasingly recommended an interest rate

mix; however, when the interest rate gap was small, the adviser increasingly recommended adjustable interest rates. Thus, there is no support for the original interest rate gap hypothesis – that is, fixed interest rates were recommended in situations when it was cheap to fix the rate. Quite the contrary, when it was 'expensive' to fix the rate (even though there was no interest rate trend), there was a tendency for the adviser to recommend that loans be mixed and that a smaller portion of the loans be maintained at adjustable rates.

DISCUSSION

The objective of this article is to study the content and patterns in newsletters in which a leading Swedish bank economist formulated advice on mortgage rates for borrowers during the period from February 2001 through June 2009.

To find the underlying explanations for the expert advice and potential changes in such advice, we propose the following four hypotheses:

- The cautiousness hypothesis (Hypothesis 1): If advisers' forecast/advice does not come true, their customers become unhappy. Hence, advisers are naturally cautious. They suggest that borrowers divide their loans and choose both FRMs and ARMs, regardless of the interest rate situation in the market.
- The interest rate gap hypothesis (Hypothesis 2): Advisers recommend an adjustable interest rate if the gap between the current ARM and FRM is large, given that the FRM is higher than the ARM (that is, they recommend adjustable interest rates when it is 'expensive' to fix rates).
- The trend hypothesis (Hypothesis 3): Advisers adjust their advice to the interest rate trend since the previous provision of advice. Thus, advisers recommend choosing an ARM if the adjustable interest rate has decreased or an FRM if the adjustable mortgage rate has increased.

Table 8f: Interest rate advice during constant rates compared with the interest rate gap between adjustable and fixed+mixed interest rates

	<i>Large gap</i>	<i>Small gap</i>
Fixed + mixed	20	7
Adjustable	2	8

- The level hypothesis (Hypothesis 4): Advisers examine historical interest rate levels and adjust their advice accordingly. When fixed interest rates are low in absolute terms compared with the average FRM over the past 8 years, advisers recommend choosing the FRM.

With regard to the cautiousness hypothesis, the data did not permit more elaborate calculations other than a simple sum of data. However, the data showed that over half (53 per cent) of the advice belonged to the 'mixed' category (that is, to divide the loans and choose both adjustable and fixed interest rates). This finding is in line with earlier research (Kahneman and Lovallo, 1993) showing that decision makers have a strong aversion to taking distinct responsibility for potential losses.

Of the other three hypotheses, it was only in the case of the level hypothesis that we could reject the null hypothesis that there were no significant differences between the situations described in the hypotheses. However, the results showed that the significant difference we found was quite the opposite to the one hypothesised: At low fixed interest rate levels, there was an increase in recommendations favouring adjustable and mixed rates but no recommendations to fix interest rates. This finding is quite interesting because locking in the mortgage rate at a historically low level could be of interest, for example, to financially constrained or risk-averse borrowers.

The lack of support in our calculations for the interest rate gap hypothesis contradicts much of past research findings. As previously mentioned, a number of studies (for example, Dhillon *et al*, 1987; Brueckner and Follain, 1988) have established that the difference between the FRM and the ARM has an impact on borrowers' choice of interest rates. However, according to the present study, interest rate differences did not have any impact on the adviser's recommendations.

In general, there seems to be an overrepresentation in advising ARMs compared with the theoretically based hypothesis. One rather cynical interpretation is that banks might make more money on loans with adjustable interest rates; however, it is beyond the scope of this article to investigate this interpretation. Another interpretation is that it is considered safer for the adviser to recommend the interest rate that currently is the lowest.

All in all, the results indicate that advice in these newsletters was formulated on grounds other than the tested hypotheses. As a source of support for borrowers' mortgage rate decisions, the advice might be of limited use because it did not seem to be affected by interest levels or trends (that is, there seemed to be no 'theoretical base' for the advice). The results may be of use for advisers in that it can serve as an evaluation of their procedures thus far and a base for future work.

Finally, the results of the study presented here might be of useful input to the current discussion about regulations concerning bank responsibility. Should society demand that, this study can serve as a foundation.

This article provides a first step towards the study of the content of mortgage interest rate advice and may be built on by including advice provided by other banks and/or mortgage institutions. The present study does not touch on customers' perception of the advice they receive or how customers' personality traits affect their choice of mortgage. Investigating these issues would also be a natural extension in future research.

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APPENDIX A

Schema for the categorisation of bank advice

The following is a 'guide' to the categorisation of interest rate advice. How the texts should be categorised is rarely obvious, as a newsletter can contain many more or less obvious suggestions, depending on future economic developments and/or the reader's own situation and disposition towards risk. To enable us to move forward, the categorisation was made as follows:

When the advice includes expressions such as 'reason for either or', 'Split', 'in combination', 'Mix', 'Spread the risk' or 'Mix adjustable and fixed', the advice was categorised as 'mixed'. This also applied to the instances where the same newsletter contains several recommendations.

To the extent that expressions like 'Advantage', 'Predominance', 'Primarily', 'Attractive', 'Pays off' and so on have been used, the recommendations have been categorised to the category

recommended by the issuer, as in the following examples:

Example: ‘Obvious advantage’/ ‘Advantage’

- If you can withstand a higher interest rate in the short term, adjustable rates have the advantage.
- Adjustable is advantageous.
- Adjustable will be advantageous when the economic situation evens out later on.

Example: ‘Weighing towards’

- A predominance of adjustable does not seem too risky.
- Continued reasons for predominantly adjustable rates.
- Many others count on the Riksbank to change its mind and start to decrease in the autumn. A few people believe that the Riksbank will need to raise them once more. This speaks for a predominantly variable rate.

Example: ‘Primarily’

- Otherwise, there are continued reasons to primarily choose variable.
- Choose primarily adjustable. Cheaper than fixed.

Example: ‘The larger part’

- As we cannot expect a lower adjustable interest rate, it will pay off to choose fixed for the larger part.
- There are still reasons to choose fixed for the larger part, with shorter fixation periods.
- Instead, the weaker economic situation strengthens the reasons to choose adjustable rates for a larger part.

Example: ‘Attractive’

- Adjustable has become more attractive after the latest decrease.
- Fixed for 1 or 2 years is attractive, following the fall on the stock market.
- Over time, adjustable interest rates tend to pay off, and it still remains at an attractive level.

Examples: ‘Pays off’/‘Good deal’/ ‘Cheapest’

- Fixed for 1 or 2 years can be a good deal.
- Adjustable is often cheaper but entails greater risk. Accordingly, it is a good deal to choose adjustable for those comfortable with the risk
- Adjustable or ‘almost adjustable’ is still the cheapest option.

APPENDIX B

Classified advice on interest rate choice, february 2001–june 2009

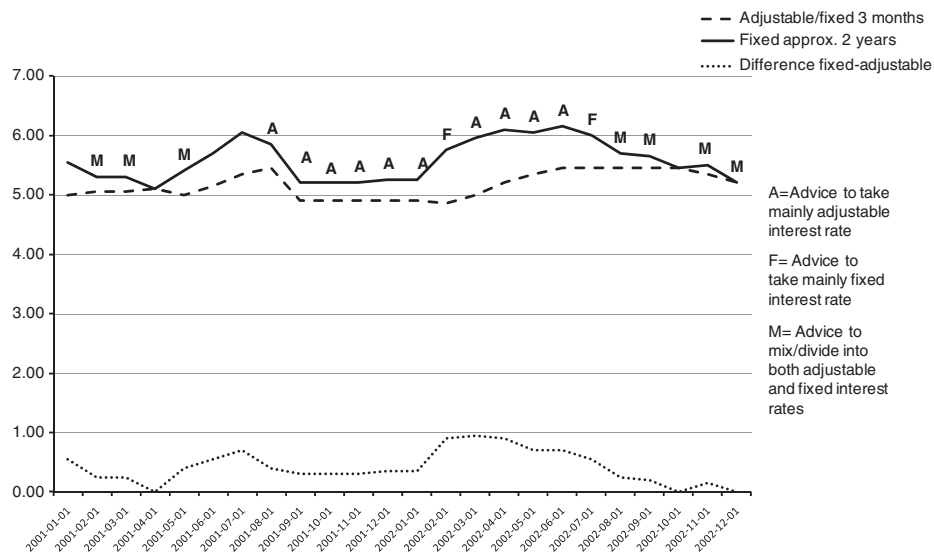


Figure B1: Advice on interest rate 2001–2002.

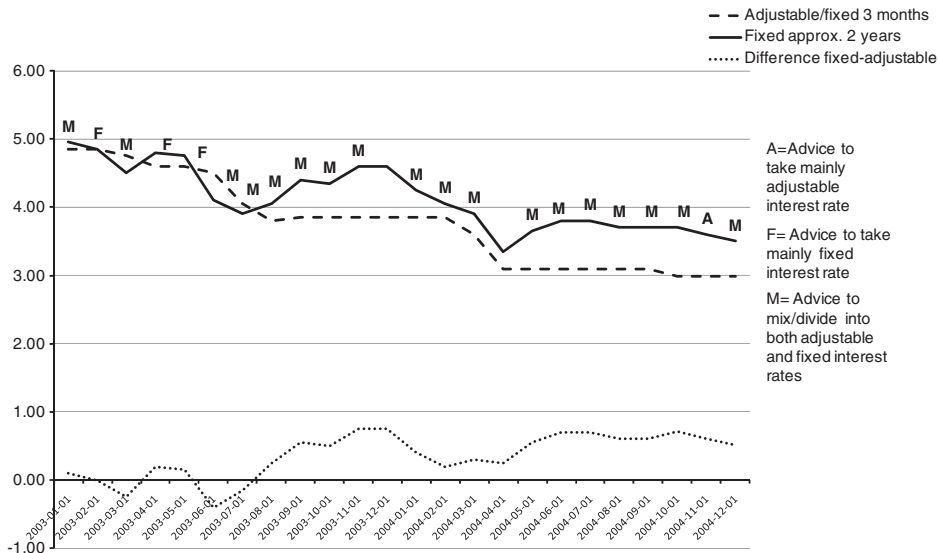


Figure B2: Advice on interest rate 2003–2004.

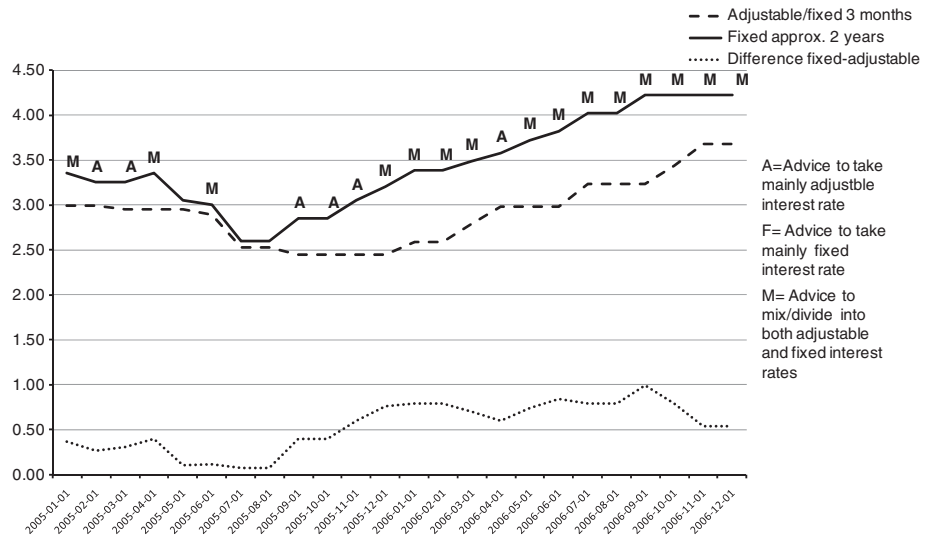


Figure B3: Advice on interest rate 2005–2006.

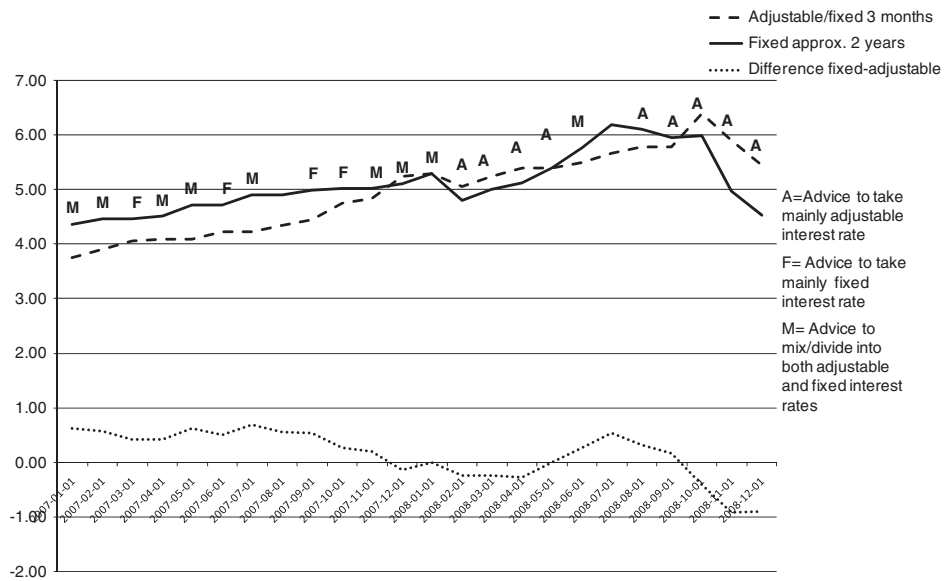


Figure B4: Advice on interest rate 2007–2008.

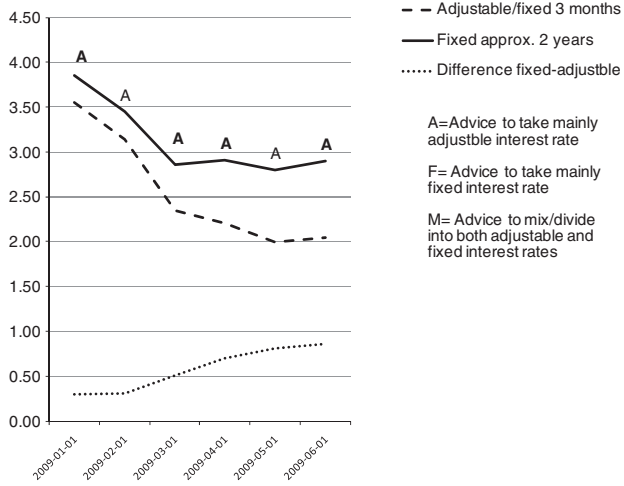


Figure B5: Advice on interest rate 2009.