Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

# Review of Differential Pricing in the Private Car and Home Insurance Markets

## Annex: Technical Analysis

July 2021

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# 1. Introduction

This annex summarises the quantitative analysis work completed as part of the Review of Differential Pricing in the Private Car and Home Insurance Markets (the Review). The technical analysis was designed to quantify the impact of differential pricing practices in the Irish private car and home insurance markets, identify the segments of the market most affected and try to understand the drivers of consumer behaviours in the market. The extensive analysis undertaken provides a full market perspective and ensures that the Review's findings and proposals are evidence-based.

This document describes the data, methodology, and assumptions underlying the various analyses completed. It also summarises the key results from these analyses, setting out the main results from each type of analysis completed. A selection of these results also appear in the Final Report to support the findings on a particular pricing practice or recommendation.

The quantitative analysis work mainly focussed on two large datasets. The transactional dataset which consisted of detailed policy level information for all policies sold by firms in scope of the Review over the three year period (2017 to 2019), and the consumer survey dataset which contained the results from a comprehensive consumer survey conducted as part of the Review.[1] The contents of these datasets are discussed in more detail in Section 2 of this Annex.

The analytical work completed on these two datasets can be divided into four sections:

1. An initial analysis using the transactional dataset to investigate the market structure, the overall level of price differentiation in the market and how price differentiation can vary with certain policyholder characteristics. Some key results from this work were included in the Interim Report published in December 2020, and

[1] For the purpose of this Annex, 'firms' refers to the 11 insurance providers in scope of the Review.

these results together with insights from additional analyses completed since the publication of the Interim Report are summarised in Sections 3 and 5 of this Annex.

2. An economic analysis using regression models on the transactional dataset to estimate the contribution of specific policy-level factors (such as tenure, automatic renewal status, and sales channel) in explaining variation in outcomes across consumers. In this section of analysis, we take account of the influence of multiple background factors simultaneously to isolate the specific contribution of individual variables on market outcomes of interest. A summary of this analysis is outlined in Section 4.

3. A consumer insights survey was conducted to gain better perspective on consumer behaviour and the level of financial knowledge and literacy across consumers. The survey captured the views of 5,466 policyholders, consisting of 2,969 private car insurance policyholders and 2,497 home insurance policyholders. The policyholders surveyed are a representative sample of the transactional dataset gathered from the firms. Analysis of the consumer survey findings and the methodological approach that was adopted are summarised in Sections 6 and 7.

4. Further economic regression analysis using the consumer survey matched to pricing outcomes from the transactional dataset to provide evidence on the types of consumers that are affected by adverse pricing outcomes in terms of socio-economics, demographics, patterns of consumer engagement and proxies for potential vulnerability. The results are summarised in Section 4.

# 2. Approach

The general approach followed was to gather relevant market and consumer behaviour data, analyse this data using a range of techniques and models, and provide insights to inform the proposed policy measures.

## 2.1 Data Collected

The quantitative analysis work completed as part of the Review focussed on two main datasets;

- The transactional dataset collected from the firms; and
- The consumer survey dataset.

### 2.1.1 Transactional dataset

Policy level data was collected for all private car and home insurance policies written by the firms in 2017, 2018 and 2019. The policy level data included information on the policy and policyholder characteristics, and a breakdown of the premium charged to the policyholder between risk and non-risk based components.

A total of 9.5 million individual policy records (5.8 million private car policies, and 3.7 million home policies) were provided by the insurers in the Review across the three years.[2] In addition, the insurance intermediaries in the Review reported a total of 1.4 million individual policy records (0.9 million private car and 0.5 million home policies) in aggregate across the three years.

Based on a review of the 2019 data, we estimate that the collected policy records cover more than 90% of the policies issued in the private car and home insurance markets.[3]

Since policies sold by the insurance intermediaries are underwritten by an insurer, a high proportion of the policies reported by the insurance intermediaries are also included in the insurer dataset.

For policies sold through insurance intermediaries, the insurer provides a breakdown of the premium they receive from the insurance intermediary (as they do not have the Actual Premium paid by the policyholder) while the insurance intermediary provides a breakdown of the difference between the premium paid by the policyholder and the premium passed on to the

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2 For the purpose of this Annex, non-life insurance undertakings are referred to as 'insurers'.

3 Total market size estimate based on data from the 2019 Conduct of Business Returns submitted by insurers to the Central Bank.

insurer. Therefore, to understand the premium breakdown, from the price paid by the customer to the insurer's view of the underlying costs, we matched individual policies from the insurance intermediary dataset with the corresponding record in the insurer dataset using the relevant policy number.

The dataset does not include all insurers in the market and only includes a relatively small proportion of the insurance intermediaries in the market. Therefore we were not able to match all the policies sold by insurers through insurance intermediaries with a corresponding insurance intermediary record in our dataset and we were not able to match all the policy records reported by insurance intermediaries with a corresponding insurer record for that policy in our dataset. This is illustrated for the 2019 private car and home insurance datasets in Figures 1 and 2 below. Figures 1 and 2 show how policies can be classified into one of four groups, which are summarised in Table 1.

Figure 1: Illustration of the overlap between the insurer and insurance intermediary transactional datasets for private car insurance policies written in 2019.

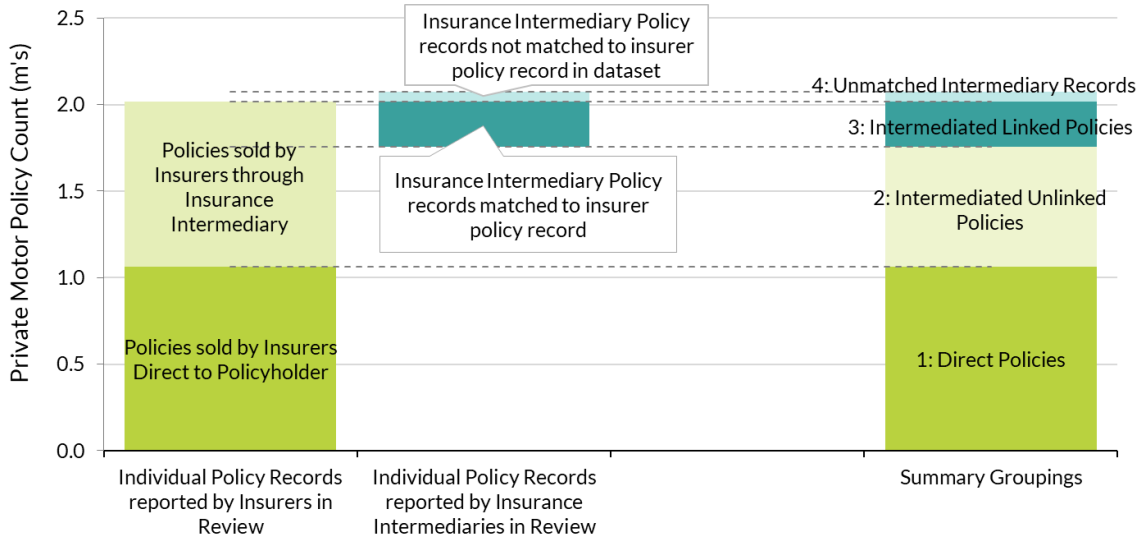
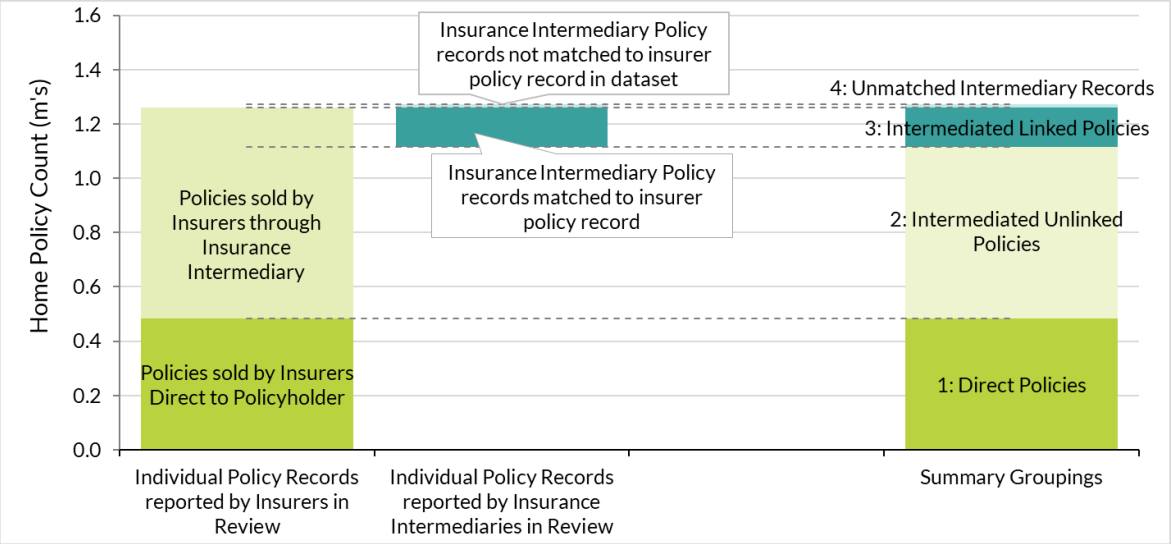


Figure 2: Illustration of the overlap between the insurer and insurance intermediary transactional datasets for home insurance policies written in 2019.




The premium information requested from insurers included a breakdown of the Technical Premium as well as the Actual Premium they received from the policyholder (for policies sold directly to the customer) or insurance intermediary (for policies sold through insurance intermediaries). The Technical Premium is the insurer's view of the expected costs associated with a policy including the expected cost of claims, expenses and any other costs. The Technical Premium used in this Annex does not include any allowance for profit. Insurers were requested to provide the Technical Premium for each policy at the point when the policy was sold. Some insurers were unable to provide a Technical Premium for certain policies due to issues with data availability, however, we received Technical Premium data for approximately 90% of the policy records reported by insurers.

Table 1: Table summarising the four policy groups in the transactional dataset. Information on the policy and policyholder characteristics was available for policies in all groups. The policy counts shown in the table include all policies in the group, however the policy record received for a proportion of these policies was not complete due to data availability issues.

| Dataset Group | Description | Availability of Insurer's technical pricing data for the policy | Availability of Actual Premium paid by the customer | Number of private car policies in the dataset (millions) | | Number of home policies in the dataset (millions) | |
|---|---|---|---|---|---|---|---|
| | | | | Total | 2019 | Total | 2019 |
| 1. Direct policies | Policies sold by insurers in our review directly to customers. | ✓ | ✓ | 3.1 | 1.1 | 1.4 | 0.5 |
| 2. Intermediated unlinked policies | Policies sold by insurers in our review through insurance intermediary, where we do not have a matching insurance intermediary policy record in our dataset. | ✓ | ✗ However premium received from the insurance intermediary is a suitable proxy. | 2.0 | 0.7 | 1.8 | 0.6 |
| 3. Intermediated linked policies | Policies sold by insurers in our review through insurance intermediary, where we do have a matching intermediated policy record in our dataset. | ✓ | ✓ | 0.7 | 0.3 | 0.4 | 0.1 |
| 4. Insurance intermediary only policy records | Policies sold by insurance intermediary in our review, where we do not have a matching insurer policy record in our dataset. | ✗ | ✓ | 0.2 | 0.06 | 0.04 | 0.01 |
| **TOTAL** | | | | **6.0** | **2.1** | **3.7** | **1.3** |

When analysing the level of differential pricing in the market we require the technical pricing data for the policy, therefore, we were unable to use policies in Group 4 above, and we used the combined policy records from Groups 1 to 3. When assessing the level of price differentiation in the market we generally focussed on a comparison of the Actual Premium with the Technical Premium. While we did not have the actual price paid by the policyholder for policies in Group 2 above, we did have the premium the insurer received from the insurance intermediary, which we used as a proxy for the Actual Premium paid by the policyholder.

In general when looking at characteristics of the market such as the number of policies in different segments or the policy renewal rates in different segments, we used the combined policy records from all four Groups listed above, as we have the policy and policyholder characteristics available for all these policies.

### 2.1.2 Consumer Survey dataset

The consumer survey was designed to collect insights on the drivers of consumer behaviours including how consumers engage with the insurance sector. The consumer survey included a broad range of questions relating to how consumers interacted with their insurance providers and the market in general including how they searched for insurance, their renewal and switching behaviour, attitudes to insurance pricing and behaviours experienced by consumers when receiving renewal quotes.[4] Descriptive analysis of the survey data was conducted for the full sample of consumers, as well as among particular sub-groups (e.g., renewing consumers, switchers, etc.).

## 2.2 Methodology

In order to analyse the level of price differentiation in the private car and home insurance markets, we need to define a metric to compare the Actual Premium paid by the customer with the expected costs related to an individual policy.

In terms of analysing the expected costs associated with a policy, we could have selected the expected cost of claims or the Technical Premium as a representative metric. The Technical Premium includes the expected cost of claims plus all other expected payments associated with the policy such as expenses, commissions, levies, reinsurance costs, etc. While the expected cost of claims is the component of the Technical Premium that varies the most between individual policies, the other components of the Technical Premium are not uniform across all customers.

This is evident in Figure 4, where the spread of the Technical Premium values is wider than the spread of the expected claim costs. Based on this we decided that comparing the Actual Premium paid to the Technical Premium rather than to just the expected cost of claims provides a more complete and equitable comparison with the expected costs associated with a given policy.

It is worth noting that the Technical Premium is the insurer's view of the expected costs associated with an individual policy. While we did not examine or validate the underlying models and assumptions used to calculate the Technical Premium, we did check that the Technical Premium

4 For the purpose of this Annex, 'insurance provider' includes non-life insurance undertakings and insurance intermediaries including Managing General Agents.

reported by insurers included all expected components and that the relative size of different components was reasonable.

Figure 3: Components of the Technical Premium [5] [6]

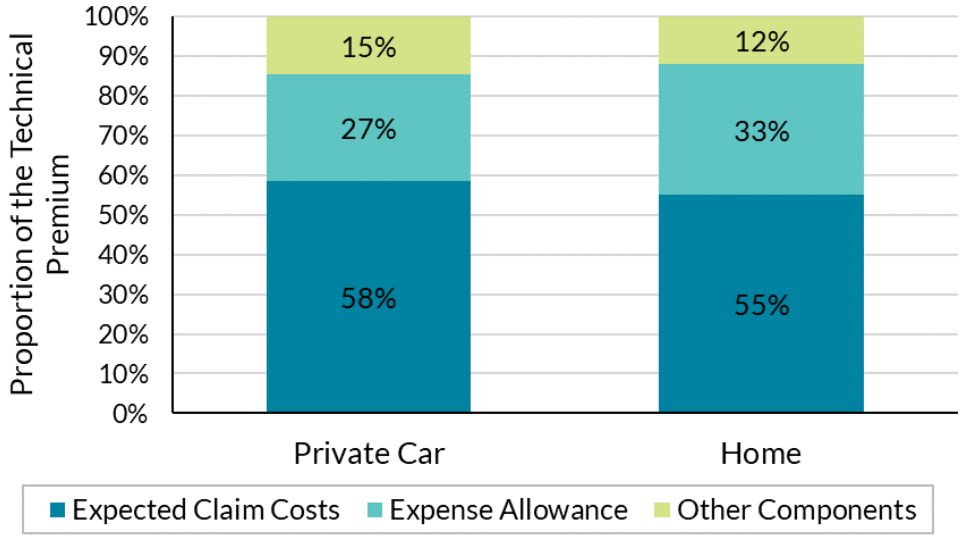
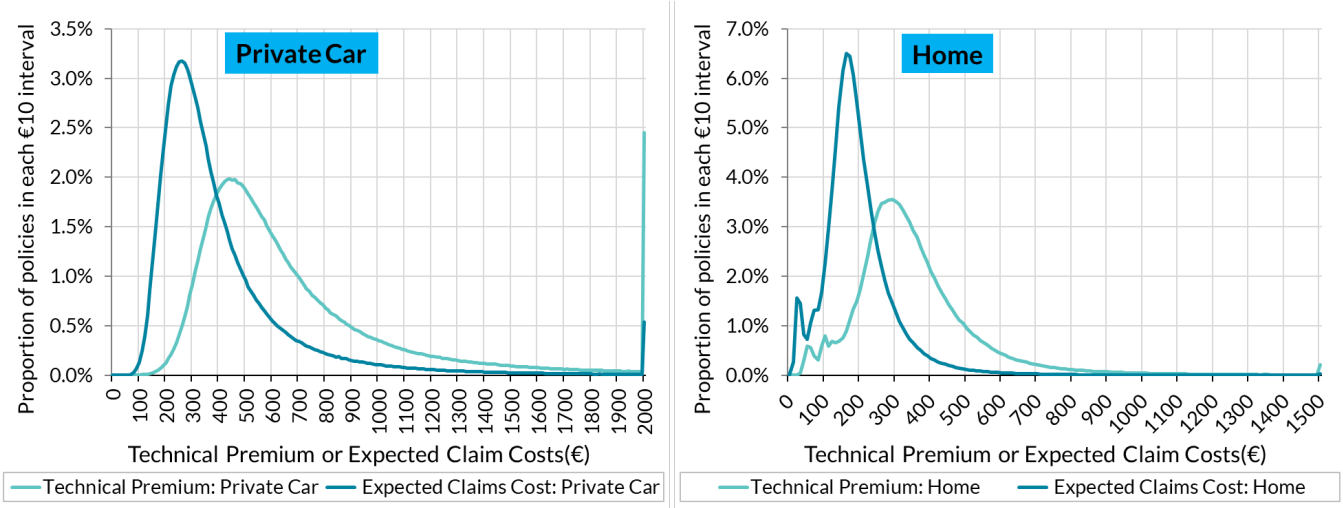



Figure 4: Distribution of the expected claim costs and Technical Premium for private car and home insurance policies. Includes policies from 2017-2019.




When comparing the Actual Premium with the Technical Premium we could look at the absolute difference between the two values or the ratio of the two values. We have focussed on the ratio of the two values, i.e., the Actual Premium divided by the Technical Premium or APTP ratio. We selected the APTP ratio rather than the absolute difference between Actual Premium and Technical Premium because insurers typically set their profit target as a percentage of the premium rather than an absolute profit

5 The expense allowance includes costs associated with administering a policy as well as commission payments made by insurers to insurance intermediaries.

6 Other components include items such as manual risk-based adjustments, allowances for levies, reinsurance costs, and costs of policy cover add-ons.

on each policy. Therefore, insurers commonly monitor the APTP ratio to assess the adequacy of their premiums.

An APTP ratio less than one means the Actual Premium received from the customer was less than the insurer's view of the expected costs associated with the policy, while an APTP ratio greater than one means the premium paid by the customer was greater than the insurer's view of the expected costs associated with the policy. The methodology followed for the multivariate regression analysis completed as part of the Review is discussed in Section 4.

The consumer insights phase involved a mixed methodological approach incorporating qualitative in-depth interviews, focus groups and a consumer survey of 5,466 respondents. This research methodology sought to build a comprehensive and detailed understanding of how consumers engage with the insurance markets and to measure the drivers of consumer behaviours. Full details of the consumer research methodology and fieldwork are outlined in Section 6.

# 3. Level of Price Differentiation Observed

## 3.1 Overview

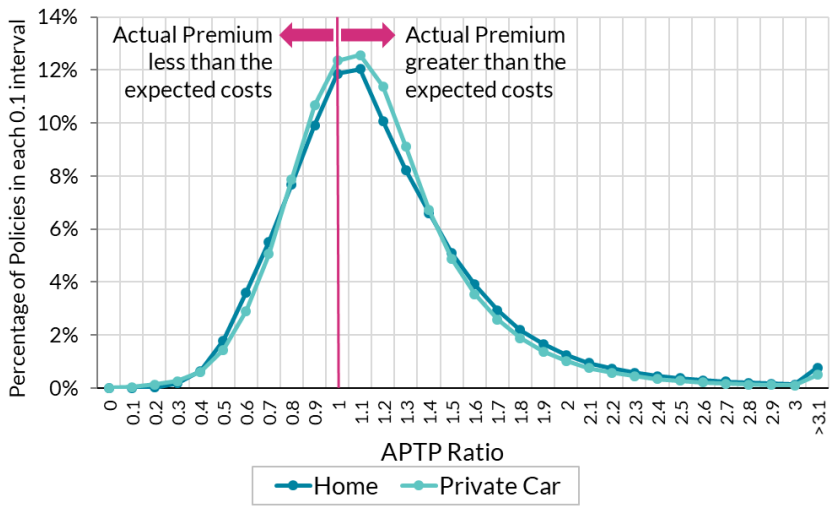
In this section, we first look at the overall level of price differentiation by examining the distribution of the APTP ratio values for private car and home insurance policies written between 2017 and 2019. The wider the distribution of the APTP ratio values, the greater the variation in the Actual Premium being charged relative to the expected costs associated with providing the cover, i.e., greater levels of price differentiation.

In the second part of this section we take an initial look at the characteristics of a policy or policyholder that impact the APTP ratio. In this initial exploration we look at univariate analyses, where we examine the variation in the average APTP ratio with a single factor, ignoring the possible impact of other correlated factors. The more complex multivariate modelling approach that attempts to isolate the impact of each factor when controlling for other relevant factors is discussed in detail in Section 4.

## 3.2 Distribution of APTP Ratios

The graph in Figure 5 compares the distribution of the APTP ratio for private car and home insurance based on all the policies written over the three year period. The distributions for private car and home insurance are similar, indicating similar levels of price differentiation occurs for both products. Most policies have an APTP ratio between 0.5 and 2, i.e., the Actual Premium is between half and twice the expected costs associated with the policy, but there are a small proportion of policies with APTP ratio values either above or below this range.

Figure 5: Distribution of APTP ratio for Private Car and Home insurance for all policies in the differential pricing analysis (2017-2019 combined).

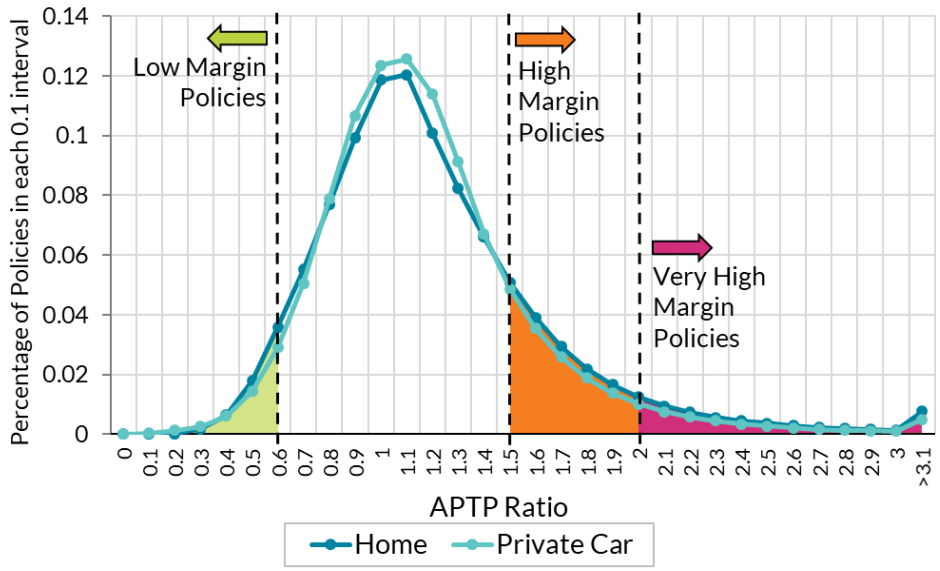


It can be helpful for illustrative purposes to define thresholds for what might be considered high, very high, and low margin policies. For our analysis we defined the following groups:

- Low margin policies: Policies where the APTP ratio was less than 0.6 (i.e., the Actual Premium paid was less than 60% of the expected costs associated with the policy);
- High margin policies: Policies where the APTP ratio was more than 1.5 (i.e., the Actual Premium paid was more than 150% of the expected costs associated with the policy); and
- Very high margin policies: Policies where the APTP ratio was more than 2.0 (i.e., the Actual Premium paid was more than twice the expected costs associated with the policy).

It is important to emphasise that the choice of these thresholds is subjective and other thresholds could have been selected. The graph below shows the different segments of the distribution based on the groups defined above.

Figure 6: Distribution of APTP ratio highlighting low, high, and very high margin segments of the distribution.



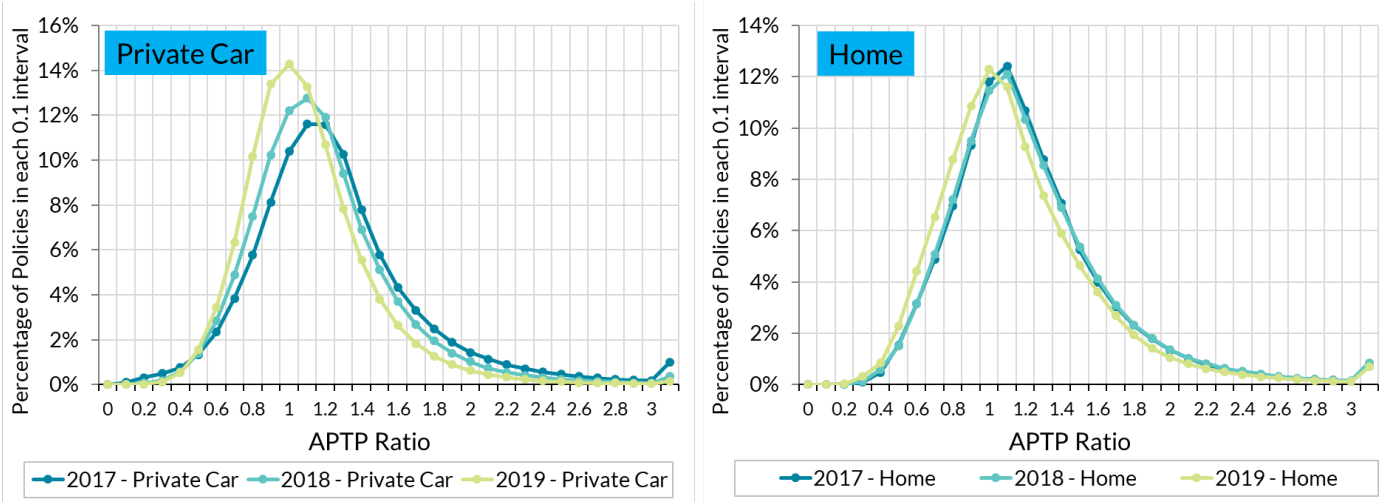

The graph in Figure 5 shows the aggregated data for all three years together. In Figure 7, the distributions of APTP ratios for policies written in each of the three years are compared.

It shows that in private car insurance, the centre of the APTP distribution has shifted to a lower value and narrowed slightly between 2017 and 2019. The overall shift of the APTP distribution to lower values is due to a combination of private car Actual Premiums reducing over this period, and the average Technical Premium increasing marginally. The slight narrowing

of the distribution suggests the level of price differentiation in the private car market has reduced marginally over this period.

The distribution of APTP ratios for home insurance was unchanged between 2017 and 2018, with the distribution shifting to slightly lower APTP ratio values in 2019.

Figure 7: Comparison of the APTP ratio distribution between 2017, 2018 and 2019.




## 3.3 One-way Analysis of APTP Ratio

In the previous section, the overall level of price differentiation in the market was presented and discussed. It showed how the premiums being paid by policyholders deviate significantly from the insurer's view of the expected costs associated with the policy. In this section, we look at the characteristics of a policy or policyholder that make it likely that the premium charged will be more or less than the expected costs.

In this initial exploration, we look at univariate analyses, where we examine the variation in the average APTP ratio with a single parameter. This univariate approach is a good starting point but it is important to acknowledge its limitations. The univariate approach does not allow for the variation in other factors that may be driving the variation seen. For example, we may see an increase in the average APTP ratio with a particular characteristic, but this may not be because the insurer is explicitly applying a higher APTP ratio for policies with that characteristic, but rather that the insurer is charging a higher APTP ratio for another characteristic that happens to be correlated with this characteristic. In order to try and isolate the impact of each factor when controlling for all other factors, a multivariate modelling approach has to be adopted as discussed in Section 4.

The transactional dataset we collected included details on a wide range of policy, policyholder, private car or home characteristics that insurers usually take account of when setting their premiums. We examined the variation in the average APTP ratio with all these factors. The average APTP ratio varies to differing degrees with most characteristics.

In the following section, we focus on the variation in the average APTP ratio with policy tenure and policyholder age. Tenure is the factor with which the average APTP ratio varies the most and the most consistently. The variation in the average APTP ratio with policyholder age is significantly less than with tenure, however, the variation with age provides an example as to how different groups of consumers are affected.

**Tenure**

Tenure is defined as the number of years the policyholder has been insured by the same insurer. Therefore, a tenure of zero equates to a new business policy. A tenure of one equates to a policy that has renewed for the first time.

We have included a number of different univariate graphs that present the variation in the APTP ratio with tenure in different ways in this sub-section. In Figure 8 and Figure 9 below, the average Actual Premium, average Technical Premium and the average APTP ratio are shown by tenure. Note the average APTP ratio is calculated as the average Actual Premium divided by the average Technical Premium for that segment, rather than the average of the individual APTP values for each policy in that segment. The graphs clearly show the average APTP ratio increases steadily with tenure for both private car and home insurance. The overall increase in average APTP ratio with tenure is greater on home than on private car insurance. While both private car and home insurance show an increasing average APTP ratio with tenure, the underlying trends in the average Actual Premium and average Technical Premium with tenure are very different.

On home insurance, the average Technical Premium is relatively constant for tenures between one year and eight years which means the expected costs associated with policy groups at different tenures in this range is relatively constant, however, the average Actual Premium policyholders are paying increases steadily with tenure in this range. At an aggregate level, this appears to be a clear example of insurers incrementally increasing the Actual Premium charged the longer a policy has been in force without any corresponding increase in the expected costs.

On private car insurance, the picture is more complicated. The average Technical Premium decreases consistently with tenure. This is likely due to a combination of factors. For example, the mix of policyholders at lower

tenures is generally more risky (e.g., there is a higher proportion of younger and learner permit drivers at lower tenures). In addition, some insurers have observed that a private car policy with all the same characteristics is less likely to have a claim the longer the tenure of the policy and therefore tenure is used as an input when calculating the Technical Premium. The average Actual Premium decreases from tenure zero to tenure four, but does not decrease as fast as the average Technical Premium. From tenure four to tenure nine the average Actual Premium is relatively constant, while the Technical Premium continues to decrease. Therefore, the increase in the average APTP with tenure is due to the average Actual Premium paid by consumers not reducing as fast as the expected costs associated with their policies.

Figure 8: Variation of the average Actual Premium, average Technical Premium, and the average APTP with tenure on private car insurance. (Includes policies from 2017-2019)

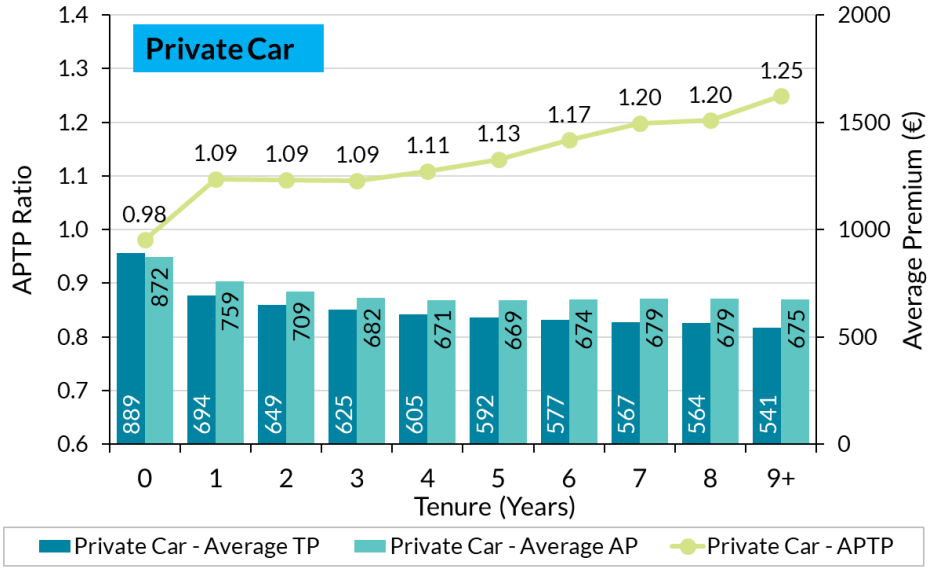
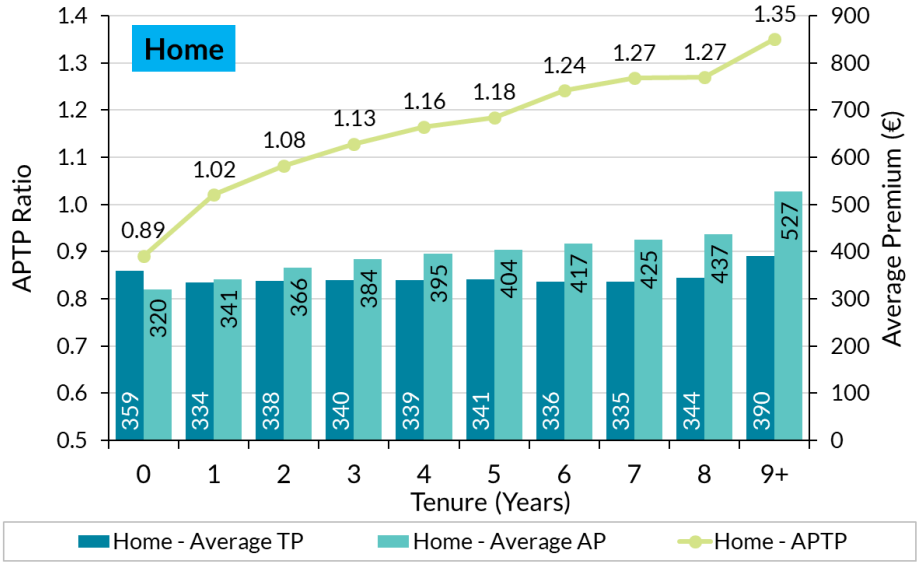



Figure 9: Variation of the average Actual Premium, average Technical Premium, and the average APTP with tenure on home insurance. (Includes policies from 2017-2019)



The previous graphs show how the average APTP ratio increases with tenure. The distribution of APTP ratios at different tenures for private car and home insurance is shown in Figure 10. The shape of the distribution is relatively stable with tenure, however, we do see a noticeable broadening of the distribution for home policies with nine or more years tenure, i.e., for long tenure home policies there is a wider spread of APTP ratios as well as the average APTP ratio being higher.

Figure 10: Distribution of APTP ratio by policy tenure for private car and home policies. (Includes policies from 2017-2019)

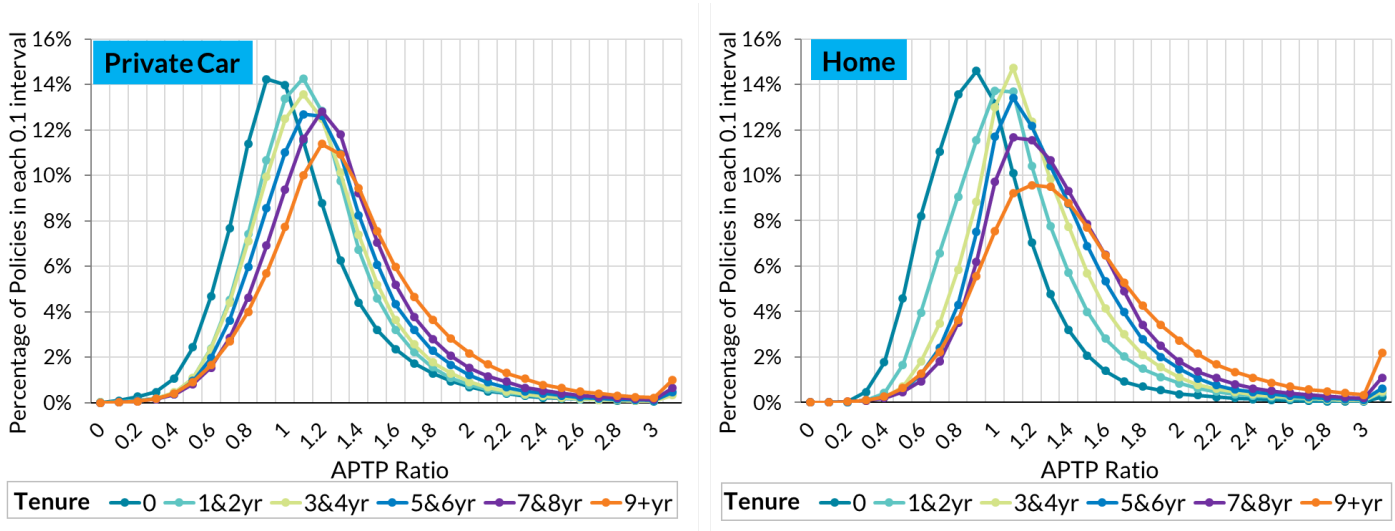
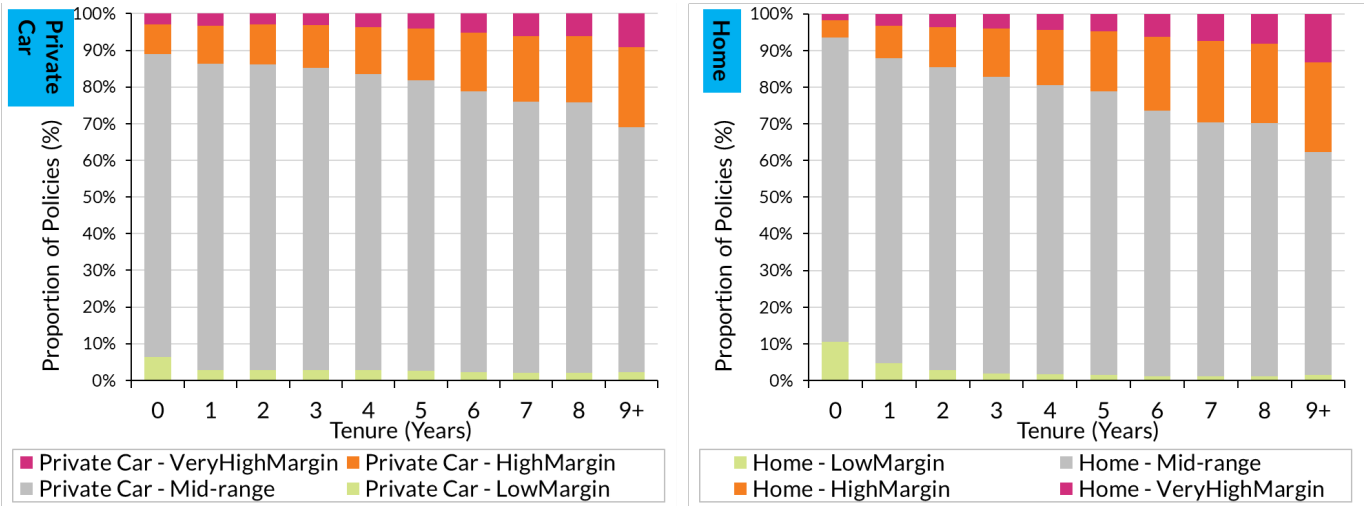



Figure 11 shows, the proportion of policies in the low, high and very high margin segments (as defined in Section 3.2) at different tenures. For new business home policies (tenure equal to zero), 10% of policies are in the low margin (APTP ratio <0.6) segment. As expected, the proportion of policies in the high and very high margin segments increases consistently with tenure on both private car and home.

Figure 11: Proportion of policies in the different margin groups at each tenure.



## Age

The variation in the average APTP ratio, average Actual Premium and average Technical Premium with policyholder age are shown for private car and home insurance in Figure 12 and Figure 13.

The variation in the average APTP ratio with age is relatively small compared to the variation with tenure. There is a general upward trend in the average APTP ratio for ages above 30 on private car and ages above 70 on home, with the increase being more significant on home insurance.

It should be noted (see Section 5.3) that there is a correlation between policyholder age and tenure, with older policyholders tending to remain with their current insurer for longer. Therefore, older policyholders will be impacted more by the higher APTP ratios on higher tenure policies. The multivariate regression modelling presented in Section 4 is designed to identify the impact of each variable when holding other factors constant, and therefore is able to assess the relative impacts of age and tenure on the APTP ratio.

Figure 12: The variation in average Actual Premium, average Technical Premium, and average APTP with policyholder age for private car insurance.

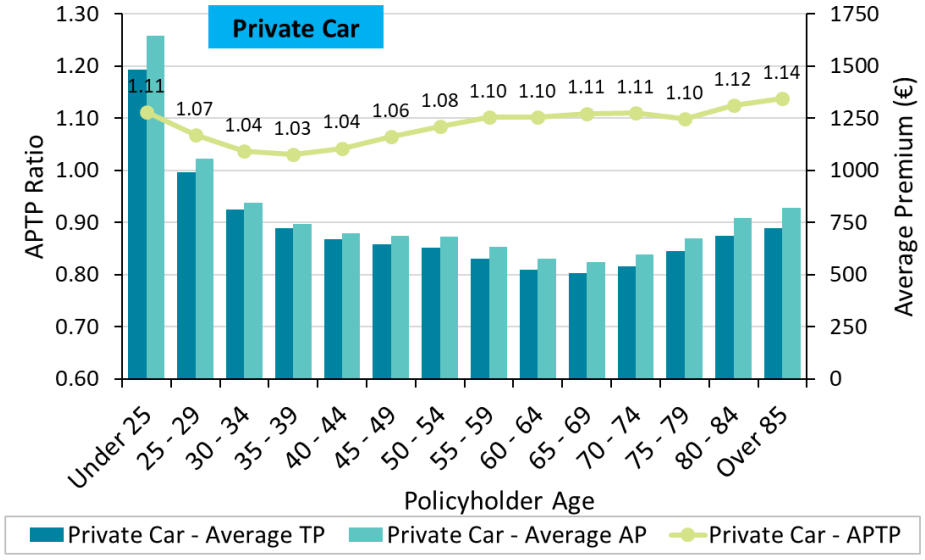


Figure 13: The variation in average Actual Premium, average Technical Premium, and average APTP with policyholder age for home insurance.

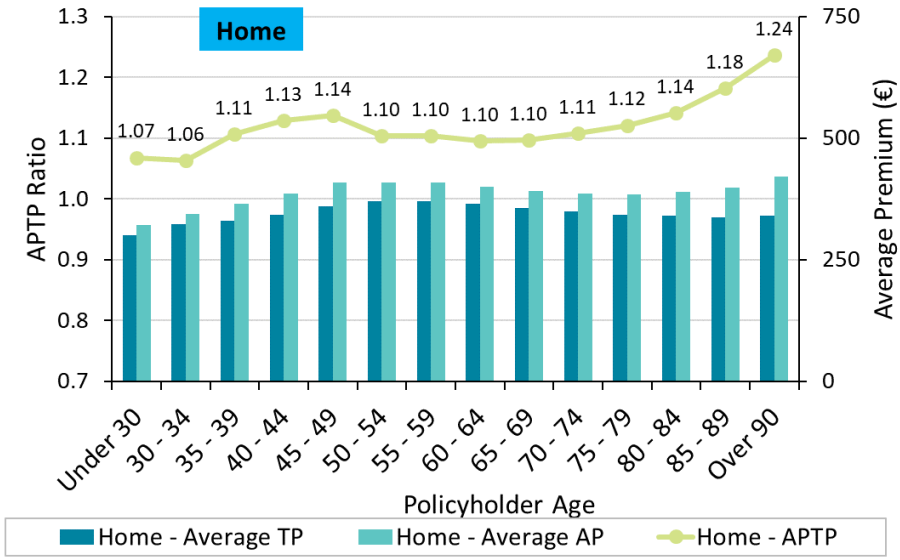
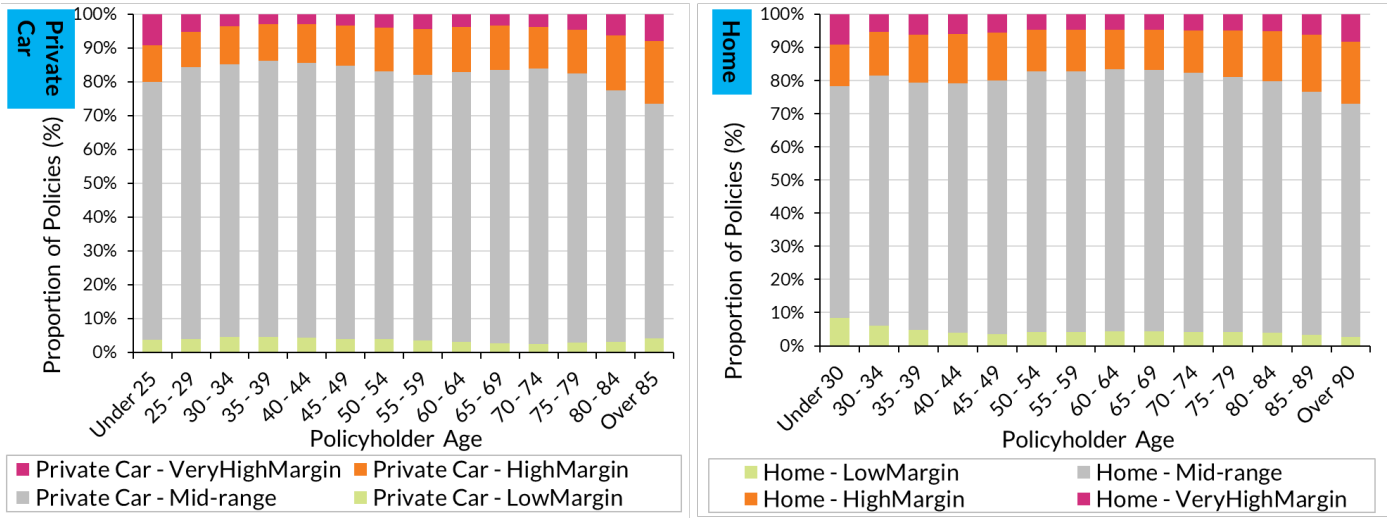



Figure 14 shows the proportion of policies in the low, high and very high margin segments at each age group. Home insurance policyholders under 30 have a higher proportion of policies (8%) with low margins than any other age group. There is an increase in the proportion of policyholders with high and very high margin policies for age groups over 75 on both private car and home, however, the increase is relatively small.

Figure 14: Proportion of policies in the different margin segments at each policyholder age group.



## 3.4 Summary

In this section, we have shown the broad distribution of APTP ratios in both the private car and home market reflecting the significant variation in the premium paid by policyholders relative to the expected costs associated with a policy. Similar levels of variation in the APTP ratio are seen in the private car and home markets.

The APTP ratio distribution has been relatively stable over the three year period, however, in the private car market we do see the distribution narrowing marginally and shifting slightly to lower APTP ratios in 2019. This reflects a marginal reduction in the level of price differentiation in the private car market and a slight reduction in the average APTP ratio.

The univariate analyses show the variation in the average APTP ratio with tenure is greater than with any other factor. The average APTP ratio increases consistently with tenure in both private car and home insurance, although the underlying variation in Actual Premium and Technical Premium with tenure is different on private car than on home. The average APTP ratio increases for older ages mainly as a result of older customers having longer tenure.

# 4. Multivariate Regression Analysis

## 4.1 Overview

This section outlines the economic analysis carried out as part of the Review.

This analysis has two components:

- **Part A**: regression analysis with a large policy-level transactional dataset (see Section 2.1 for an overview of the transactional dataset) to estimate the degree to which policy-level characteristics are associated with the APTP ratio (e.g., policyholder tenure, automatic renewal status, distribution channel).
- **Part B**: regression analysis with a richer, but smaller, dataset that links survey responses from a sample of customers to their policy-level transactional data (see Section 6 for an overview of the survey data and methodology), to examine how customer characteristics (e.g., income, education, financial experience) are associated with different APTP ratio outcomes.

Multivariate regression analysis provides a framework to assess how a range of relevant variables are associated simultaneously with a specific outcome variable of interest (e.g., APTP ratio outcomes). With this approach, we can estimate the role played by individual variables in explaining variation in APTP ratio outcomes.

This section first describes the transactional data regression analysis, with an overview of model choices, a summary of key results and the regression output. It then describes the linked survey regression analysis, again providing an overview of model choices, a summary of key results and regression output. Finally, the section includes a description of the variables used in the regression models, followed by a comparison of survey and transactional datasets in terms of key variables.

## 4.2 Transactional Data Regression Analysis (Part A)

**Model and data choices**

The transactional data regression analysis is designed to examine the relationship between the APTP ratio and policy- and policyholder-level variables. In the analysis that follows, we restrict our focus to 2019 data only as it ensures that the estimated effects present as up-to-date a picture

of differential pricing as possible without being clouded by relationships that may have held in previous years.[7]

Following a detailed validation process on this dataset, we begin our analysis with a sample of 1,842,067 private car and 1,157,064 home insurance policies. This follows the exclusion of policy records designated as invalid due to the firm's inability to report a Technical Premium value (a key component of the dependent variable), as noted in Section 2.1, or on the basis of extreme policy record values.[8]

For the purposes of the analysis, the data is segregated into four quadrants. We model differential pricing for private car and home policies separately, due to the distinct set of factors that influence pricing in these markets (see Table 2). We also distinguish our models on the basis of the distribution channel – direct or through an insurance intermediary. Since the availability of certain variables differs across the distribution channel through which a policy is written, we maximise the available insight by analysing direct and insurance intermediary policies separately, rather than fitting a 'one-size fits all' model.

Table 2: Sample breakdown – 2019 policies (4 quadrants of analysis)

| Category | Private Car | Home | Total |
|---|---|---|---|
| Direct | 1,030,820 | 397,600 | 1,428,420 |
| Intermediated | 811,247 | 759,464 | 1,570,711 |
| Total | 1,842,067 | 1,157,064 | 2,999,131 |

For each of the four quadrants of analysis (see Table 2), we estimate a series of ordinary least squares (OLS) models starting with only the variables that are more fully populated within the sample, ensuring that the model retains a large percentage of available policies.[9] In further specifications, we add in variables that are less fully populated across the sample, leading to a reduction in the sample size.

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7 We also assessed the relationship between APTP ratios and policy-level variables in the 2017 and 2018 datasets. The results are broadly similar to those reported here based on data from 2019.

8 We remove the top and bottom 1% of observations, when ordered according to their APTP ratio, to ensure that any outliers are not included in the analysis. 'Topping and tailing' a dataset in this fashion is a typical cleaning step in preparing a dataset for regression analysis. The results remain effectively unchanged with the inclusion or exclusion of these outlier observations.

9 Ordinary least squares (OLS) is a common statistical approach to the estimation of relationships between variables of interest. OLS estimates the strength of a relationship by fitting a line to the data such that the sum of the squared distances between the observed data points and those predicted by the fitted line is minimised.

We identify 'preferred' specifications (marked in pink in Tables 3 and 4 below), which include as many variables as possible without heavily compromising the size and representativeness of the sample on which the model is estimated. For key relationships of interest, the estimated effects are stable irrespective of the specification chosen. For all of the models, the outcome variable that is being analysed is the log-transformed APTP ratio.[10] In the interpretation of the results that follows, we only focus on those variables that are statistically significant in the models.

The explanatory variables that are included in the regression models are detailed in Tables 7 and 8.

**Results (Transactional Data Regression Analysis)**

While the transactional data regression output provides nuanced results across the four quadrants of analysis, it does indicate a high degree of consistency in relation to some key factors of interest. Most notably, we find that consumer tenure has the strongest association with APTP ratio outcomes in each setting. We identify other factors that are significantly associated with variation in the APTP ratio, but in all settings, the coefficient on consumer tenure is the largest across all independent variables considered in the models. We provide a detailed interpretation of the regression output below.

The sub-sections below summarise results from multivariate regression analysis that was conducted across direct and insurance intermediary business for the private car and home insurance datasets.

***Note**: The results quoted below for specific variables should be interpreted as the estimated effect on the outcome variable while all other factors in the model are held fixed. Numerical effects reported below are taken from regression Tables 3 and 4 (the specifications marked in pink), where coefficient estimates have been transformed in accordance with the formula in footnote 8 to facilitate a 'percentage change' interpretation.*

[10] Log transformation implies that we replace the variable 'APTP' with 'log(APTP)', where 'log' is a natural log transformation. The transformation has the advantage of reducing skewness in the distribution of the outcome variable, while facilitating easier (approximate) interpretation (i.e. in percentage terms) of estimated coefficient effects in the regression models. Formally, to express the model coefficients as percentage changes in the outcome variable – we must first apply the following adjustment: $e^{(coefficient)} - 1$. For small value coefficients (e.g. 0.05), these quantities are equivalent. However, for larger value coefficients (e.g. 0.5), the gap can be meaningful.

**A: Private Car Direct – Key Results from Preferred Specification (Column 2 Table 3).**

With each additional year of tenure, consumers pay a higher APTP ratio. Compared with those with just one year of tenure (i.e., renewing for the first time), the APTP ratio for those with zero years of tenure (i.e., new business) is, on average, approximately 10% lower. The APTP ratio for those with three years of tenure is 8% higher, on average, than first-time renewal customers, and for consumers with nine or more years of tenure, the APTP ratio is 19% higher than first-time renewal consumers.[11]

Compared with the youngest group, all consumers aged 25 and over pay an APTP ratio that is, on average, significantly lower (the difference ranges from -11% to -15% depending on the exact age category). We find that policies sold online or through a branch, on average, are associated with an APTP ratio that is approximately 6% higher than telesales.

**B: Private Car Intermediated – Key Results from Preferred Specification (Column 5 Table 3).**

With each additional year of tenure, consumers pay a higher APTP ratio. Compared with those with just one year of tenure (i.e., renewing for the first time), the APTP ratio for those with zero years of tenure (i.e., new business) is, on average, 7% lower. The APTP ratio for those with three years of tenure is 3% higher, on average, than first-time renewal customers, and for customers with nine or more years of tenure, the APTP ratio is 15% higher than first-time renewal customers.[12]

Compared with the youngest group, the APTP ratio for consumers aged between 30 and 49 years is, on average, slightly lower (the difference ranges from -1% and -3%, depending on the exact age category). The APTP ratio for those aged 55 years and over is slightly higher, on average, than for the youngest group (the difference ranges from approximately +1% to +2% depending on the age category).

**C: Home Direct – Key Results from Preferred Specification (Column 3 Table 4).**

With each additional year of tenure, consumers pay a higher APTP ratio. Compared with those with just one year of tenure, (i.e., renewing for the first time), the APTP ratio for those with zero years of tenure (i.e., new

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11 The coefficients for zero, three and nine years of tenure for Private Car-Direct are -0.11, 0.075, and 0.170 respectively, as shown in column 2 in Table 3. We compute the corresponding 'percentage change' interpretation in accordance with the method outlined in footnote 8.

12 The coefficients for zero, three and nine years of tenure for Private Car-Intermediated policies are -0.076, 0.032, and 0.139 respectively, as shown in column 5 in Table 3. We compute the corresponding 'percentage change' interpretation in accordance with the method outlined in footnote 8.

business) is, on average, approximately 15% lower.[13] The APTP ratio for those with three years of tenure is 9% higher, on average, than first-time renewal customers, and for customers with nine or more years of tenure, the APTP ratio is 19% higher than first-time renewal customers.

Compared with the youngest cohort, all consumers aged between 35 and 74 years tend to pay an APTP ratio that is, on average, slightly lower (the difference ranges from -2% to -6% depending on the exact age category). The APTP ratio for those aged 75 and over is, on average, slightly higher when compared with the youngest group (+2%).[14] [15]

We find that policies sold online or through a branch pay an APTP ratio that is 9% higher than telesales.

**D: Home Insurance Intermediary – Key Results from Preferred Specification (Column 8 Table 4).**

With each additional year of tenure, consumers pay a higher APTP ratio. Compared with those with just one year of tenure, (i.e., renewing for the first time), the APTP ratio for those with zero years of tenure (i.e., new business) is, on average, 16% lower. The APTP ratio for those with three years of tenure is 13 higher, on average, than first-time renewal customers, and for customers with nine or more years of tenure, the APTP ratio is 34% higher than first-time renewal customers.[16]

Compared with the youngest cohort, all consumers aged 35 years and over pay an APTP ratio that is, on average, slightly lower (the difference ranges from approximately -1% to -6% depending on the exact age category).

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13 The coefficient for zero, three and nine years of tenure is -0.163, 0.085, and 0.175 respectively, as shown in column 3 in Table 4. We compute the corresponding 'percentage change' interpretation in accordance with the method outlined in footnote 8.

14 Figure 15 and 16 graphically extract our transformed coefficient estimates from each of the four quadrants of analysis relating to age and tenure – to illustrate their comparative impact on APTP ratios in the multivariate regression setting. The transformation that is applied is noted in footnote 8.

15 In Section 2, we found that the variation in the average APTP ratio with age was relatively small compared to the variation with tenure. That finding is supported here in the multivariate regression setting, where, unlike in Section 2, we can disentangle the relative contributions of age and tenure in explaining variation in APTP ratios. Here, while we do observe age-based variation in APTP ratio outcomes, we do not find evidence of an upward sloping curve in the age effect on APTP ratios such as that observed for increasing years of tenure (see Figure 15 and 16).

16 The coefficients for zero, three and nine years of tenure for Home-Intermediated are -0.175, 0.118, and 0.290 respectively, as shown in column 8 in Table 4. We compute the corresponding 'percentage change' interpretation in accordance with the method outlined in footnote 8.

### Automatic Renewal

We estimate the impact of automatic renewal on the APTP ratio incurred on a policy (columns 3 and 4 in Tables 3 and 4 respectively), where automatic renewal refers to policies renewed without challenge or negotiation from the policyholder.[17] The sample is restricted to renewal policies only (i.e., excludes new business policies). Additionally, due to data availability, the impact can only be estimated for policies purchased directly (i.e., excluding policies purchased through an insurance intermediary).

Owing to these limitations, the estimated impact cannot be interpreted as representative of the effect of automatic renewal on the market overall, but rather within the limited setting noted above. In this setting, we find that automatic renewal is associated with a small negative effect on APTP ratios for private car policies purchased directly (-2%), and an even smaller negative effect for home policies purchased directly (-1%), i.e., automatically renewing consumers paid a marginally lower premium relative to expected cost than non-automatically renewing consumers.

Table 3: Private Car 2019 Results (Direct and Intermediated)

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| VARIABLES | ln(AP/TP) | ln(AP/TP) | ln(AP/TP) | ln(AP/TP) | ln(AP/TP) |
| | Direct | Direct | Direct | Inter. | Inter. |
| Tenure (0 Year) | -0.119*** | -0.110*** | | -0.067*** | -0.076*** |
| | (0.001) | (0.001) | | (0.001) | (0.001) |
| Tenure (2 Years) | 0.057*** | 0.065*** | 0.060*** | 0.023*** | 0.025*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Tenure (3 Years) | 0.068*** | 0.075*** | 0.072*** | 0.031*** | 0.032*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Tenure (4 Years) | 0.081*** | 0.088*** | 0.082*** | 0.042*** | 0.042*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Tenure (5 Years) | 0.091*** | 0.101*** | 0.096*** | 0.035*** | 0.037*** |
| | (0.001) | (0.001) | (0.001) | (0.002) | (0.002) |
| Tenure (6 Years) | 0.099*** | 0.107*** | 0.106*** | 0.053*** | 0.053*** |
| | (0.001) | (0.002) | (0.001) | (0.002) | (0.002) |
| Tenure (7 Years) | 0.095*** | 0.101*** | 0.104*** | 0.086*** | 0.084*** |
| | (0.002) | (0.002) | (0.002) | (0.003) | (0.003) |
| Tenure (8 Years) | 0.087*** | 0.091*** | 0.103*** | 0.096*** | 0.095*** |
| | (0.002) | (0.002) | (0.002) | (0.003) | (0.003) |
| Tenure (9+ Years) | 0.168*** | 0.170*** | 0.154*** | 0.142*** | 0.139*** |
| | (0.001) | (0.001) | (0.001) | (0.002) | (0.002) |
| Age Category (Years): 25-29 | -0.068*** | -0.125*** | -0.125*** | 0.017*** | 0.015*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 30-34 | -0.077*** | -0.150*** | -0.134*** | -0.006*** | -0.025*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 35-39 | -0.092*** | -0.168*** | -0.153*** | -0.011*** | -0.032*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 40-44 | -0.089*** | -0.164*** | -0.150*** | -0.006*** | -0.025*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 45:49 | -0.075*** | -0.148*** | -0.134*** | 0.010*** | -0.007*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 50-54 | -0.060*** | -0.133*** | -0.118*** | 0.019*** | 0.003 |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 55-59 | -0.049*** | -0.122*** | -0.104*** | 0.027*** | 0.012*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 60-64 | -0.057*** | -0.133*** | -0.116*** | 0.027*** | 0.012*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 65-69 | -0.059*** | -0.134*** | -0.117*** | 0.029*** | 0.014*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 70-74 | -0.068*** | -0.141*** | -0.127*** | 0.029*** | 0.011*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |
| Age Category (Years): 75+ | -0.084*** | -0.154*** | -0.144*** | 0.032*** | 0.019*** |
| | (0.002) | (0.002) | (0.003) | (0.002) | (0.002) |

17 Includes automatically renewing direct debits and policies that were renewed by the policyholder without negotiation with the insurance provider.

| | | | | | |
|---|---|---|---|---|---|
| **Gender: Male** | -0.027*** | -0.023*** | -0.024*** | -0.022*** | -0.020*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Vehicle Age** | 0.005*** | 0.006*** | 0.007*** | 0.011*** | 0.012*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| **Log Vehicle Value** | 0.025*** | 0.029*** | 0.029*** | 0.050*** | 0.054*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Sales Channel: Online/Branch** | 0.034*** | 0.056*** | 0.049*** | | |
| | (0.001) | (0.001) | (0.001) | | |
| **Automatic Renewal (1=Yes)** | | | -0.020*** | | |
| | | | (0.001) | | |
| **Constant** | -0.053*** | -0.054*** | -0.146*** | -0.671*** | -0.709*** |
| | (0.008) | (0.009) | (0.011) | (0.009) | (0.010) |
| | | | | | |
| **Observations** | 1,000,751 | 870,871 | 679,807 | 789,111 | 692,542 |
| **R-squared** | 0.188 | 0.185 | 0.128 | 0.153 | 0.155 |
| **Third Party Claims** | Yes | Yes | Yes | No | Yes |
| **Own Damage Claims** | No | Yes | Yes | No | Yes |
| **Type of License** | Yes | Yes | Yes | Yes | Yes |
| **Total Named Drivers** | Yes | Yes | Yes | Yes | Yes |
| **NCB Years** | Yes | Yes | Yes | Yes | Yes |
| **Engine Size** | Yes | Yes | Yes | Yes | Yes |
| **Class of Use** | Yes | Yes | Yes | Yes | Yes |
| **Motor Cover Applicable** | Yes | Yes | Yes | Yes | Yes |
| **Driver Cover** | Yes | Yes | Yes | Yes | Yes |
| **NCB Protection** | Yes | Yes | Yes | Yes | Yes |
| **Insurer Controls** | Yes | Yes | Yes | Yes | Yes |
| **Provincial Controls** | Yes | Yes | Yes | Yes | Yes |

*Notes*: Table reports Ordinary Least Squares regression results for the private car insurance book. Columns 1-3 relate to direct policies only, while. Columns 4-5 relate to intermediated policies only. Column 3 reports results from a model which additionally estimates the impact of automatic renewal, as such, the estimation sample is limited to renewal policies (i.e. excludes new business). The base (comparison) category for tenure is 1 year of tenure – i.e. all tenure effects are measured relative to 1 year of tenure. The base (comparison) category for age is under 25 – i.e. all age effects are measured relative to the under 25 age category. The base (comparison) category for sales channel is telesales – i.e. the sales channel effect is measured relative to telesales. The coefficients for the control variables *Third Party Claims to Provincial Controls* are suppressed to save space in the table and facilitate better exposition of results, but their inclusion or exclusion from the model is indicated by "yes / no ", respectively.

*** *p<0.01*, ** *p<0.05*, * *p<0.1*

Preferred specifications (direct and intermediated) are marked in pink.

## Table 4: Home 2019 Results (Direct and Intermediated)

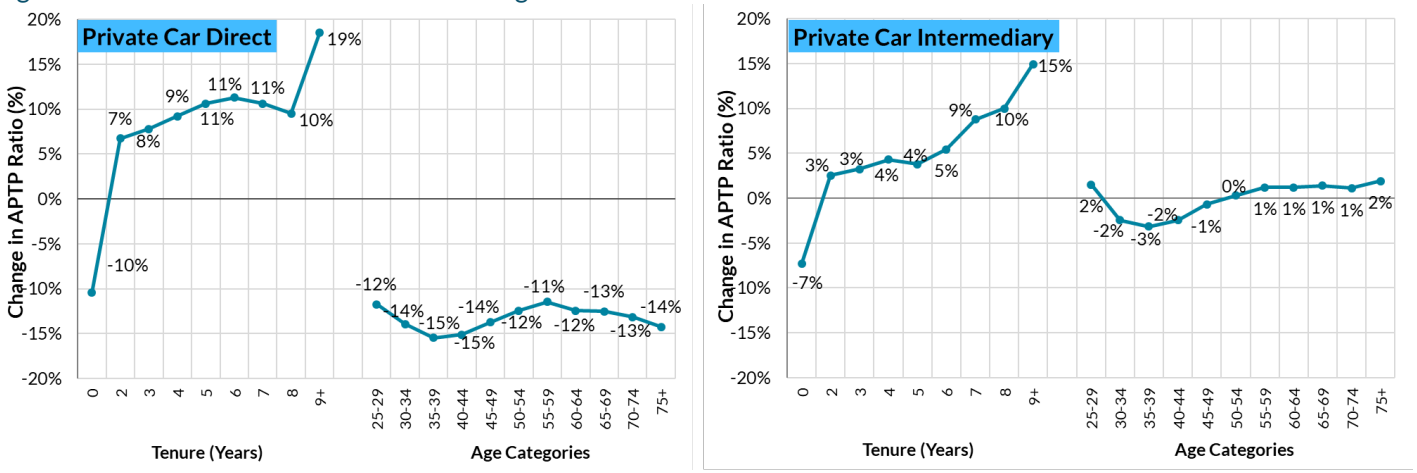
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| **VARIABLES** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** | **ln(AP/TP)** |
| | **Direct** | **Direct** | **Direct** | **Direct** | **Inter.** | **Inter.** | **Inter.** | **Inter.** |
| **Tenure (0 Year)** | -0.156*** | -0.171*** | -0.163*** | | -0.106*** | -0.113*** | -0.158*** | -0.175*** |
| | (0.002) | (0.002) | (0.002) | | (0.001) | (0.001) | (0.001) | (0.001) |
| **Tenure (2 Years)** | 0.031*** | 0.033*** | 0.032*** | 0.033*** | 0.062*** | 0.062*** | 0.066*** | 0.062*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Tenure (3 Years)** | 0.090*** | 0.085*** | 0.085*** | 0.093*** | 0.118*** | 0.114*** | 0.123*** | 0.118*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Tenure (4 Years)** | 0.106*** | 0.102*** | 0.101*** | 0.114*** | 0.162*** | 0.157*** | 0.163*** | 0.158*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.002) |
| **Tenure (5 Years)** | 0.101*** | 0.098*** | 0.095*** | 0.109*** | 0.174*** | 0.169*** | 0.177*** | 0.172*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| **Tenure (6 Years)** | 0.126*** | 0.123*** | 0.119*** | 0.140*** | 0.203*** | 0.197*** | 0.205*** | 0.202*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| **Tenure (7 Years)** | 0.146*** | 0.142*** | 0.138*** | 0.161*** | 0.224*** | 0.218*** | 0.228*** | 0.224*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| **Tenure (8 Years)** | 0.138*** | 0.132*** | 0.126*** | 0.153*** | 0.238*** | 0.230*** | 0.244*** | 0.240*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| **Tenure (9+ Years)** | 0.190*** | 0.182*** | 0.175*** | 0.186*** | 0.310*** | 0.301*** | 0.295*** | 0.290*** |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Age Category (Years): 30-34** | 0.014** | 0.020*** | 0.011 | -0.015* | -0.004 | -0.005 | -0.005 | -0.007 |
| | (0.006) | (0.006) | (0.007) | (0.009) | (0.004) | (0.004) | (0.004) | (0.004) |
| **Age Category (Years): 35-39** | -0.013** | -0.003 | -0.019*** | -0.045*** | -0.013*** | -0.011*** | -0.009** | -0.012*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 40-44** | -0.033*** | -0.020*** | -0.040*** | -0.060*** | -0.022*** | -0.019*** | -0.012*** | -0.015*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 45:49** | -0.042*** | -0.026*** | -0.045*** | -0.067*** | -0.033*** | -0.029*** | -0.020*** | -0.022*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 50-54** | -0.054*** | -0.037*** | -0.057*** | -0.077*** | -0.060*** | -0.057*** | -0.046*** | -0.049*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 55-59** | -0.046*** | -0.027*** | -0.049*** | -0.074*** | -0.067*** | -0.063*** | -0.053*** | -0.056*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 60-64** | -0.039*** | -0.019*** | -0.041*** | -0.065*** | -0.076*** | -0.073*** | -0.062*** | -0.066*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 65-69** | -0.037*** | -0.015** | -0.037*** | -0.063*** | -0.076*** | -0.073*** | -0.061*** | -0.065*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Age Category (Years): 70-74** | -0.020*** | 0.003 | -0.018*** | -0.045*** | -0.068*** | -0.064*** | -0.052*** | -0.056*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.004) | (0.004) | (0.004) |
| **Age Category (Years): 75+** | 0.015*** | 0.039*** | 0.019*** | -0.009 | -0.041*** | -0.036*** | -0.022*** | -0.025*** |
| | (0.005) | (0.006) | (0.007) | (0.008) | (0.003) | (0.003) | (0.004) | (0.004) |
| **Log Total Value Insured** | 0.030*** | 0.055*** | 0.065*** | 0.062*** | 0.044*** | 0.036*** | 0.050*** | 0.057*** |
| | (0.001) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| **Sales Channel: Online/Branch** | 0.052*** | 0.056*** | 0.082*** | 0.078*** | | | | |
| | (0.001) | (0.001) | (0.001) | (0.002) | | | | |
| **Automatic Renewal (1=Yes)** | | | | -0.006*** | | | | |
| | | | | (0.001) | | | | |
| **Gender: Male** | | | | | | 0.019*** | 0.012*** | 0.011*** |
| | | | | | | (0.001) | (0.001) | (0.001) |
| **Constant** | -0.142*** | -0.507*** | -0.641*** | -0.605*** | -0.502*** | -0.396*** | -0.615*** | -0.704*** |
| | (0.019) | (0.020) | (0.023) | (0.025) | (0.014) | (0.014) | (0.017) | (0.018) |
| | | | | | | | | |
| **Observations** | 376,083 | 354,881 | 321,496 | 262,569 | 689,352 | 663,546 | 570,416 | 536,931 |
| **R-squared** | 0.288 | 0.318 | 0.308 | 0.222 | 0.369 | 0.368 | 0.400 | 0.399 |
| **Type of Property** | No | Yes | Yes | Yes | No | No | Yes | Yes |
| **Third Party Claims** | No | Yes | Yes | Yes | No | No | Yes | Yes |
| **Own Damage Claims** | No | No | Yes | Yes | No | No | No | Yes |
| **Type of Cover** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Type of Alarm** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Property Function** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Year Built** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Provincial Controls** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Insurer Controls** | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

*Notes:* Table reports Ordinary Least Squares regression results for the home insurance book. Columns 1-4 relate to direct policies only, while Columns 5-8 relate to intermediated policies only. Column 4 reports results from a model which additionally estimates the impact of automatic renewal, as such, the estimation sample is limited to renewal policies (i.e. excludes new business). The base (comparison) category for tenure is 1 year of tenure – i.e. all tenure effects are measured relative to 1 year of tenure. The base (comparison) category for age is under 30 – i.e. all age effects are measured relative to the under 30 category. The base (comparison) category for sales channel is telesales – i.e. the sales channel effect is measured relative to telesales. The coefficients for the control variables *Type of Property* to *Insurer Controls* are suppressed to save space in the table and facilitate better exposition of results, but their inclusion or exclusion from the model is indicated by "yes / no ", respectively.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

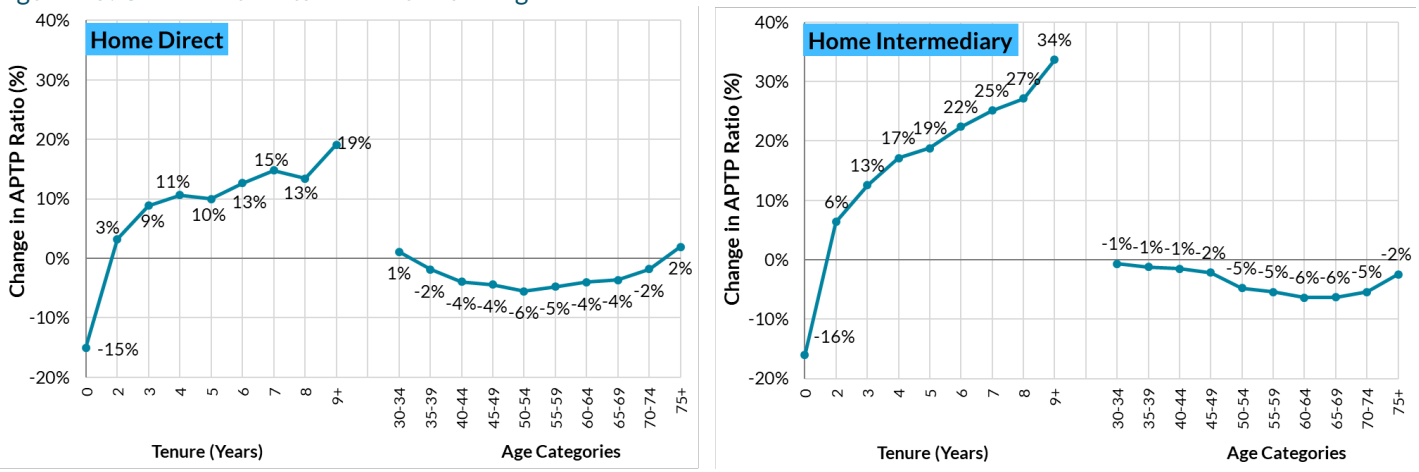
Preferred specifications (direct and intermediated) are marked in pink.

Figure 15: Coefficient Plots for Tenure and Age- Private Car




The figures graphically illustrate the coefficient estimates for tenure and age found in Specification 2 and 5 in Table 3 respectively, adjusted in accordance with the formula in footnote 8 to facilitate a 'percentage change' interpretation. The results should be interpreted relative to the base categories, which are 1 year of tenure and <25 years of age.

Figure 16: Coefficient Plots for Tenure and Age- Home




The figures graphically illustrate the coefficient estimates for tenure and age found in Specification 3 and 8 in Table 4 respectively, adjusted in accordance with the formula in footnote 8 to facilitate a 'percentage change' interpretation. The results should be interpreted relative to the base categories, which are 1 year of tenure and <30 years of age.

## 4.3 Linked Survey Regression Analysis (Part B)

### Model and data choices

With the linked survey regression analysis, we match consumer characteristics obtained via the consumer insights survey to the 2019 APTP ratio data (and other relevant variables) in the transactional dataset on the basis of the unique policy number. Our linked sample for analysis consists of 2,831 private car and 2,456 home policy records.

In this setting, we run a series of probabilistic (probit) regression models that show descriptive evidence for the types of consumers that experience

particular APTP ratio outcomes and other categorical outcomes of relevance to the Review.[18]

These models estimate:

- High APTP ratios: the probability that a consumer pays a 'high APTP ratio' – that is, they fall within the top 25% of the distribution of APTP ratios, as opposed to the bottom 75% of the distribution;[19]
- Opposing ends of the APTP ratio distribution: the probability that a consumer pays a 'high APTP ratio' as opposed to a 'low APTP ratio' – that is, they fall within the top 25% of the distribution of APTP ratios rather than the bottom 25%;
- Renewal: the probability that a consumer is a renewal policyholder (i.e., having at least one year of tenure with their existing insurance provider) as opposed to being a new consumer in 2019; and
- Automatic Renewal: the probability that a consumer has an automatically renewing policy.

As before, we separately model private car and home policies. We do not separate by distribution channel (direct versus insurance intermediary) as we do not encounter differing availability of key variables across distribution channels within the survey dataset.

We focus on a set of socio-economic, demographic and market engagement variables, which shed light on the characteristics of consumers who experience particular outcomes of interest to the Review. These variables are described in detail in Table 9.

In Tables 10 and 11, we compare the survey sample to the transactional dataset from which the survey sample was randomly drawn, to provide insight on the representativeness of the survey sample. We see from the tables that the mean values for variables across both datasets are similar, indicating that the survey sample is broadly representative of the transactional data.

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18 Probit regression is an econometric method that estimates the probability of occurrence of a particular binary outcome of interest, where binary implies that the variable can take only one of two possible values (e.g. yes or no). We adopt this probabilistic approach here as it is well targeted to answer the question at hand in this component of our analysis – namely, what consumer characteristics are associated with particular categorical outcomes of interest (i.e. 'high' APTP ratios, renewal customers and automatic renewal policies)?

19 Note – the threshold for a 'high' APTP ratio differs here to that used in Section 3. Here the model is built to predict when a consumer falls within the upper quartile of the distribution, whereas in Section 3, the focus is on quantifying the number of policies where the APTP ratio is greater than 1.5.

**Results (Linked Survey Regression Analysis)**[20]

In relation to the incidence of high APTP ratios, we find evidence that household income is positively associated with the probability that a consumer falls into the high APTP ratio tier (in the home insurance market).

Within the sample, we do not find a relationship between the incidence of high APTP ratios and certain socio-economic characteristics of interest such as education or financial sophistication, where the latter incorporates insights on financial literacy and experience. We additionally report evidence on the factors associated with positive tenure (i.e., renewal customers), and automatic renewal status. We provide a detailed interpretation of the regression output below.

**High APTP Ratios**[21]

Within the sample, we do not observe a statistically significant relationship between the incidence of high APTP ratios and certain socio-economic characteristics of interest such as education, financial resilience or financial sophistication, where the latter incorporates insights on financial literacy and experience.

In keeping with the transactional data regression analysis, we observe a positive relationship between consumer tenure and the high APTP ratios tier (in both the private car and home context), indicating that higher levels of tenure tend to be associated with a higher probability of falling into the high APTP ratio tier. Specifically, the results show that new consumers (identified as having zero years of tenure in the model) have a lower probability of falling into the high APTP ratio tier in the private car insurance sample, relative to consumers with one year of tenure.

In the home insurance market, all consumers with more than one year of tenure tend to have a greater probability of falling into the high APTP ratio tier, relative to consumers with one year of tenure. In the private car market, consumers with five or more years of tenure have a higher probability of falling into the higher APTP ratio tier than consumers with one year of tenure. We also observe that policies sold through an insurance intermediary are less likely to be in the high APTP ratios tier in both the private car and home insurance markets. It is important to note that the lower APTP ratio for policies sold through an insurance intermediary may result from a higher Technical Price (e.g., arising from additional commission costs) as well as a lower Actual Premium.

20 See Table 9 for a description of variables and variable categories used.
21 Tables 5 (Column 1) and 6 (Column 1).

We find that those at the upper end of the income distribution (captured here as those reporting their gross household income to be €110,000 or higher) in the home insurance sample are more likely to be in the high APTP ratio tier compared to those in lower income categories (those reporting a household income of less than €40,000).[22]

We find that the probability of being in the high APTP ratio tier reduces with the age of the policyholder, albeit this effect diminishes slightly as age increases.[23] [24]

In the home insurance sample, we find that consumers that report 'time poverty' (i.e., they report not having enough time or energy to search insurance offers) are more likely to be found in the high APTP ratios tier.

**Opposing ends of the APTP Ratios Distribution**[25]

***Note**: In this model, we include only those in the top and bottom quartiles of the distribution of APTP ratios – the sample size is therefore reduced, and the results are not directly comparable to those from the "High APTP Ratio" model just discussed. The outcome variable we are measuring here takes the value 1 if a policyholder is in the top quartile, and 0 if a policyholder is in the bottom quartile (policyholders in the middle 50% of the distribution are excluded from the analysis). The coefficient estimates for this model should be read as the estimated impact that a variable has on the probability that a policyholder is in the top quartile as against the bottom quartile of the APTP distribution.*

In this model, we are comparing only those policyholders at the extremes of the APTP ratio distribution. We observe many similar statistical associations in this model as in the high APTP ratios model. However, as the outcome groups under comparison are more starkly contrasting, the effects observed are more pronounced.

We find, in both the private car and home books, that the probability of falling into the upper, rather than the lower, tier of the APTP ratio

22 While this effect is not present in the private car book in the high APTP model, when we instead compare people at opposing ends of the margins distribution (i.e. when we only focus on 50% of the sample) (see next paragraph), we also observe a significant role for income in the private car book. This implies that high income is correlated with presence in the high APTP ratio tier, particularly when predicting who is in the high APTP ratio tier relative to the low APTP ratio tier.

23 The rate at which the reduction in the overall size of the age effect takes place is very small, as indicated by the near zero marginal effect of the squared term of the policyholder age.

24 It should be noted that, while older consumers may experience higher APTP ratios by virtue of the fact that they tend to have a longer policy tenure (see discussion in Section 3), regression analysis separates out the specific statistical contribution attributable to age itself as a factor (as distinct from other factors such as tenure). Under this framework, we find that when we hold other factors fixed (including tenure), the probability of being in the high APTP ratio tier actually reduces with the age of the policyholder.

25 Tables 5 (Column 2) and 6 (Column 2).

distribution tends to increase with tenure length. We also find that those consumers purchasing policies through an insurance intermediary are less likely to be in the upper than the lower tier, and; consumers at the upper end of the income distribution (with reported household income of over €110,000) are more likely to be found in the upper than the lower tier.[26]

Additionally, we observe that in the private car insurance book only, those reporting greater financial resilience, and those with awareness of price comparison websites for financial products, are less likely to be found in the upper tier than the lower tier, while in the home book only, those reporting time poverty are more likely to be found in the upper than the lower tier. [27]

**Renewal**[28]

When we look at the types of consumers who are more likely to renew with their current insurance provider, we do not find an exactly consistent pattern for private car and home books, but we do find some commonality. In both settings, we find that older customers are more likely to be renewal customers. Additionally, in both books, we find that those who obtain multiple quotations and who use an insurance intermediary, are less likely to be renewal customers.

Specifically to the private car book, we find that those reporting time poverty are more likely to be renewal customers. Specifically to the home book, we find that households with children present are more likely to be renewal customers, and those demonstrating awareness of price comparison websites are less likely to be renewal customers.

**Automatic Renewal**[29]

As with the models predicting renewal, when we look at the type of consumers who are more likely to permit their policy to renew automatically, we do not find a fully consistent pattern across private car and home books, but we do find some commonality.

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26 As noted previously, the lower APTP ratio for policies sold through an insurance intermediary may result from a higher Technical Price (e.g., arising from additional commission costs) as well as a lower Actual Premium.

27 Those that report being able to withstand 6 months or more of a hypothetical loss of their main source of income are classified as financially resilient. It is notable that income and financial resilience variables point in opposite directions in the private car setting. This implies that, while households at the upper end of the income distribution are less likely to be found in the lower tier of margins, for a given level of income (i.e. holding income levels constant), those respondents who report greater financial resilience (i.e. financial buffers), are more likely to be found in the lower tier.

28 Tables 5 (Column 3) and 6 (Column 3).

29 Tables 5 (Column 4) and 6 (Column 4). As noted above in '*Part A: Transactional data regression analysis*', automatic renewal is a backward looking indicator that denotes that the policy was renewed without challenge or negotiation from the policyholder, and as such, the impact is estimated for renewal policies only. Additionally, due to data availability, the impact can only be estimated for policies purchased directly (i.e. excluding intermediated policies).

In both settings, we observe that those who report greater levels of engagement are less likely to renew automatically.

Specifically to the private car book, the probability of automatic renewal reduces with age of the policyholder.

Specifically to the home book, we find that those reporting greater financial resilience are less likely to have automatically renewed their policy.

Table 5: Main regression table: Private Car

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | High APTP ratio | Quartile 1 v 4 | Renewal | Automatic Renewal |
| Tenure (0 Year) | -0.051* | -0.165*** | | |
| | (0.026) | (0.044) | | |
| Tenure (2 Years) | 0.017 | 0.050 | | |
| | (0.034) | (0.059) | | |
| Tenure (3 Years) | 0.034 | 0.074 | | |
| | (0.038) | (0.065) | | |
| Tenure (4 Years) | 0.034 | 0.106 | | |
| | (0.042) | (0.075) | | |
| Tenure (5 Years) | 0.214*** | 0.308*** | | |
| | (0.056) | (0.071) | | |
| Tenure (6 Years) | 0.111* | 0.201** | | |
| | (0.062) | (0.093) | | |
| Tenure (7 Years) | 0.200** | 0.361*** | | |
| | (0.087) | (0.116) | | |
| Tenure (8 Years) | 0.253*** | 0.323*** | | |
| | (0.085) | (0.101) | | |
| Tenure (9+ Years) | 0.231*** | 0.381*** | | |
| | (0.047) | (0.061) | | |
| Insurance Intermediary | -0.169*** | -0.342*** | -0.249*** | |
| | (0.020) | (0.033) | (0.022) | |
| Age of the Policyholder | -0.011*** | -0.013* | 0.018*** | -0.010* |
| | (0.004) | (0.007) | (0.005) | (0.006) |
| Age of the Policyholder Squared | 0.000*** | 0.000* | -0.000*** | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Has children | 0.002 | 0.024 | 0.020 | -0.030 |
| | (0.022) | (0.036) | (0.024) | (0.030) |
| Paid employment | 0.058** | 0.040 | 0.003 | -0.028 |
| | (0.027) | (0.045) | (0.030) | (0.038) |
| 3rd level education | -0.009 | -0.051 | 0.035 | -0.031 |
| | (0.021) | (0.035) | (0.023) | (0.029) |
| Income=2 (>=40,000 & <70,000) | -0.031 | -0.037 | 0.017 | -0.024 |
| | (0.025) | (0.041) | (0.029) | (0.037) |
| Income=3 (>=70,000 & <110,000) | -0.014 | 0.062 | 0.030 | -0.037 |
| | (0.029) | (0.048) | (0.032) | (0.041) |
| Income=4 (110,000+) | 0.032 | 0.148*** | 0.017 | -0.062 |
| | (0.035) | (0.055) | (0.037) | (0.045) |
| Financial resilience | -0.032 | -0.097*** | 0.030 | -0.028 |
| | (0.020) | (0.034) | (0.023) | (0.029) |
| Financial sophistication | 0.001 | 0.027 | -0.024 | -0.028 |
| | (0.026) | (0.045) | (0.029) | (0.037) |
| Quotation category = 2/3 | 0.034 | 0.010 | -0.098*** | -0.024 |
| | (0.025) | (0.043) | (0.026) | (0.035) |
| Quotation category = 4+ | -0.019 | -0.035 | -0.153*** | -0.046 |
| | (0.027) | (0.048) | (0.031) | (0.039) |
| Aware of PCWs | -0.013 | -0.068* | -0.038 | 0.025 |
| | (0.023) | (0.040) | (0.026) | (0.033) |
| Time poverty | 0.009 | 0.013 | 0.022** | 0.001 |
| | (0.008) | (0.014) | (0.009) | (0.012) |
| Engagement | -0.020 | -0.013 | 0.003 | -0.088** |
| | (0.027) | (0.046) | (0.032) | (0.036) |
| Observations | 2,075 | 1,173 | 2,134 | 1,066 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Note: Table reports marginal effects from probit regressions. Each column reports results from our preferred regression specification for a different outcome variable of interest, as follows - Column 1: Predicting the probability of being in the high APTP ratio tier; Column 2: Predicting being in the top 25% of the APTP ratio distribution as opposed to the bottom 25%;
Column 3: Predicting the probability of positive tenure; Column 4: Predicting the probability of automatic renewal (among the renewing sample). Base categories for categorical variables are as follows –Tenure: 1 Year of Tenure; Income: <€40,000; Quotation category: 1 quote. The marginal effect coefficients can be interpreted as representing the percentage change in the probability of the outcome variable associated with the relevant independent variable to which the coefficient is attached. E.g. in Column 1, a coefficient of -0.051 on tenure 0 implies that the probability that a consumer falls into the high APTP tier is 5.1% lower for new consumers (tenure 0) relative to consumers with 1 year of tenure (the base category for tenure).

## Table 6: Main regression table: Home

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| VARIABLES | High APTP ratio | Quartile 1 v 4 | Renewal | Automatic Renewal |
| | | | | |
| Tenure (0 Year) | -0.033 | -0.107*** | | |
| | (0.020) | (0.038) | | |
| Tenure (2 Years) | 0.154*** | 0.364*** | | |
| | (0.036) | (0.059) | | |
| Tenure (3 Years) | 0.148*** | 0.480*** | | |
| | (0.040) | (0.072) | | |
| Tenure (4 Years) | 0.200*** | 0.514*** | | |
| | (0.049) | (0.074) | | |
| Tenure (5 Years) | 0.195*** | 0.447*** | | |
| | (0.050) | (0.081) | | |
| Tenure (6 Years) | 0.249*** | 0.556*** | | |
| | (0.055) | (0.070) | | |
| Tenure (7 Years) | 0.288*** | 0.531*** | | |
| | (0.056) | (0.067) | | |
| Tenure (8 Years) | 0.262*** | 0.503*** | | |
| | (0.070) | (0.087) | | |
| Tenure (9+ Years) | 0.341*** | 0.566*** | | |
| | (0.039) | (0.050) | | |
| Insurance Intermediary | -0.101*** | -0.261*** | -0.116*** | |
| | (0.019) | (0.037) | (0.020) | |
| Age of the Policyholder | -0.012** | -0.013 | 0.027*** | 0.008 |
| | (0.005) | (0.010) | (0.006) | (0.009) |
| Age of the Policyholder Squared | 0.000** | 0.000 | -0.000*** | -0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Has children | -0.021 | -0.045 | 0.058** | 0.042 |
| | (0.023) | (0.044) | (0.025) | (0.034) |
| Paid employment | -0.022 | -0.033 | 0.029 | 0.018 |
| | (0.027) | (0.049) | (0.031) | (0.041) |
| 3rd level education | 0.006 | 0.005 | -0.023 | -0.029 |
| | (0.021) | (0.040) | (0.023) | (0.032) |
| Income=2 (>=40,000 & <70,000) | 0.028 | 0.065 | -0.019 | -0.015 |
| | (0.026) | (0.048) | (0.030) | (0.040) |
| Income=3 (>=70,000 & <110,000) | 0.007 | 0.037 | 0.009 | 0.068 |
| | (0.029) | (0.055) | (0.034) | (0.047) |
| Income=4 (110,000+) | 0.091*** | 0.233*** | 0.005 | 0.024 |
| | (0.033) | (0.059) | (0.036) | (0.050) |
| Financial resilience | 0.004 | 0.041 | 0.021 | -0.121*** |
| | (0.020) | (0.040) | (0.022) | (0.030) |
| Financial sophistication | 0.022 | -0.025 | -0.039 | -0.058 |
| | (0.023) | (0.044) | (0.025) | (0.037) |
| Quotation category = 2/3 | -0.008 | -0.032 | -0.074*** | -0.010 |
| | (0.023) | (0.044) | (0.024) | (0.034) |
| Quotation category = 4+ | -0.031 | -0.076 | -0.209*** | -0.028 |
| | (0.031) | (0.059) | (0.035) | (0.048) |
| Aware of PCWs | 0.035 | 0.008 | -0.049* | 0.021 |
| | (0.025) | (0.048) | (0.029) | (0.038) |
| Time poverty | 0.021** | 0.058*** | 0.010 | -0.005 |
| | (0.008) | (0.017) | (0.010) | (0.013) |
| Engagement | -0.006 | -0.005 | -0.037 | -0.177*** |
| | (0.025) | (0.051) | (0.030) | (0.036) |
| Observations | 2,089 | 1,091 | 2,131 | 879 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Note: Table reports marginal effects from probit regressions. Each column reports results from our preferred regression specification for a different outcome variable of interest, as follows - Column 1: Predicting the probability of a high APTP ratio; Column 2: Predicting being in the top 25% of the APTP ratio distribution as opposed to the bottom 25%; Column 3: Predicting the probability of positive tenure; Column 4: Predicting the probability of automatic renewal (among the renewing sample). Base categories for categorical variables are as follows –Tenure: 1 Year of Tenure; Income: <€40,000; Quotation category: 1 quote. The marginal effect coefficients can be interpreted as representing the percentage change in the probability of the outcome variable associated with the relevant independent variable to which the coefficient is attached. E.g. in Column 1, a coefficient of 0.154 on tenure 2 implies that the probability that a consumer falls into the high APTP tier is 15.4% higher for consumers with 2 years of tenure relative to consumers with 1 year of tenure (the base category for tenure).

## 4.4 Multivariate Regression Analysis – Section Summary

The economic analysis carried out as part of the Review has the main objective of using multivariate regression techniques to examine factors that help to explain observable variation in APTP ratios among consumers in the private car and home insurance markets. To do this, we firstly use a large scale transactional dataset to estimate the role played by a wide variety of policy-level characteristics in predicting APTP ratio outcomes, and secondly by harnessing a linked representative survey dataset to analyse how a set of richer consumer socio-economic, demographic and market engagement factors correlate with certain APTP ratio outcomes or other variables of interest to the Review.

A wide range of variables are correlated with differential pricing outcomes. However, certain relationships stand out more prominently than others by virtue of their size or importance for consumer protection policy. Most notably, we find that the strongest individual factor in predicting the APTP ratio outcome of a policyholder is policyholder tenure. Holding other factors constant, each additional year of tenure is associated with a significant penalty in terms of the APTP ratio experienced by a policyholder. In the linked survey dataset analysis, we find that household income is positively associated with the probability of falling into a high APTP ratio tier in the home insurance market. However, we did not find evidence within our sample that the incidence of high APTP ratios is correlated with certain socio-economic characteristics of interest such as education or financial sophistication.

## 4.5 Definition of Variables Used in Regression Models

Table 7: Variables used in the private car insurance models

| Variable | Description |
|---|---|
| Years of tenure | Number of years the policyholder has been insured by the insurance provider, zero signifies new business. Tenure effects are measured relative to the base category, which is one year of tenure. |
| Age | Age of the policyholder on Inception Date (classified in groupings of five years). Age effects are measured relative to the base category which is <25 years. |
| Sales channel | The sales channel through which the policy was sold i.e. online, telesales, branch. The base category for sales channel is telesales – i.e. the sales channel effect is measured relative to telesales. |
| Automatic renewal | Policy renewed automatically without challenge or negotiation from the policyholder (includes automatically renewing direct debits; renewal notices that were renewed by the policyholder without negotiation with the insurance provider). |
| Gender | Gender of the policyholder. |
| Provincial controls | The province of main use of the vehicle. |
| Motor cover applicable | The level of cover associated with the policy. Comprehensive, Third Party Fire and Theft, Third Party Only. |
| Driver cover | Individuals Covered under the policy e.g. insured only, insured and named driver. |
| Insurer controls | Insurer with which the policy is held. |
| Vehicle age | Years since the insured vehicle was manufactured. |
| No. of own damage claims | The number of own damage claims declared by the policyholder in the last 5 years. |
| No. of third party claims | The number of third party liability (injury or damage) claims declared by the policyholder in the last five years. |
| Vehicle value | Value of the insured vehicle when policy was written. |
| Total named drivers | Number of named drivers covered under the policy not including the policyholder. |
| NCB years | Number of full years No Claims Bonus/No Claims Discount applied to policy. |
| NCB protection | Category of No Claims Bonus protection in place on the policy, if any. |

| | |
|---|---|
| Type of licence | Category of licence held by the policyholder. |
| Engine size | Engine size of the insured vehicle (cc). |
| Class of use | Class of use of the vehicle (Social Domestic & Pleasure, Class 1, Class 2). |

Table 8: Variables used in the home insurance models

| Variable | Description |
|---|---|
| Years of tenure | Number of years the policyholder has been insured by the insurance provider, zero signifies new business. Tenure effects are measured relative to the base category, which is one year of tenure. |
| Age category | Age of the policyholder on Inception Date (classified in groupings of 5 years). Age effects are measured relative to the base category which is <30 years. |
| Sales channel | The sales channel through which the policy was sold i.e. online, telesales, branch. The base category for sales channel is telesales – i.e. the sales channel effect is measured relative to telesales. |
| Automatic renewal | Policy renewed automatically without challenge or negotiation from the policyholder (includes automatically renewing direct debits; renewal notices that were renewed by the policyholder without negotiation with the insurance provider). |
| Gender | Gender of the policyholder. |
| Provincial controls | Province in which the property is located. |
| Type of property | Category of property (apartment, detached, semi-detached, bungalow, terraced house). |
| Type of cover | The level of cover associated with the policy: Buildings and Contents, Buildings Only, Contents Only. |
| Type of alarm | Type of alarm (none, standard, monitored). |
| Property function | The main function of the property i.e. main residence, rented, holiday home, secondary residence. |
| Insurer controls | Insurer with which the policy is held. |
| Year property built | The year in which the property was built (categorised in groupings of 10 years). |
| No. of own damage claims | The number of own damage claims declared by the policyholder in the last five years (for Household, this refers to all non-liability claims). |
| No. of third party claims | The number of third party liability (injury or damage) claims declared by the policyholder in the last five years (for Household, this refers to Household liability claims). |

Table 9: Definition of variables from linked survey regression analysis

| Variable | Description |
|---|---|
| Years of tenure | Number of years the policyholder has been insured by the insurance provider; zero signifies new business. Tenure effects are measured relative to the base category, which is one year of tenure. |
| Insurance intermediary | Binary variable that distinguishes policies on the basis of whether they are direct or intermediated. Takes the value 1 for intermediated policies and 0 for direct policies. |
| Age of the policyholder | Age of the policyholder on policy inception date (where "age" data are from the transactional dataset). |
| Age of the policyholder squared | The squared term of the age of the policyholder. |
| Has children | Binary variable that identifies those policies with at least one member of the household under the age of 18. |
| Paid employment | Binary variable that distinguishes respondents that are on the one hand employed or self-employed, and on the other hand retired, homemakers, students, or unemployed. Variable takes the value of 1 for the employed/self-employed, and 0 for all other categories. |
| 3rd level education | Binary variable that identifies those policyholders with third level education as distinct from those with less than third level education. |
| Income | Categorical variable that splits individuals into four income categories: 1 (<€40,000), 2 (€40,000-70,000), 3 (€70,000-110,000), and 4 (€110,000+). Income effects are measured relative to the base category, which is category 1. |
| Financial resilience | Binary variable that identifies those policyholders who report being able to withstand 6 months or more of a hypothetical loss of their main source of income. |
| Financial sophistication | Binary variable that takes the value of 1 for those respondents that report **all** of the following: a high degree of confidence with money, digital capability (comfort buying insurance online), information processing ability (i.e. disagree that there is too much information to process in order to make the best financial decisions), and financial literacy (a binary variable that takes the value of 1 if the respondent correctly answered both of two questions designed to proxy for financial literacy). |
| Quotation category | Categorical variable that splits individuals into low (receiving just 1 quote prior to signing up to insurance |

| | |
|---|---|
| | policy), medium (receiving 2-3 quotes prior to sign-up), and high (receiving 4+ quotes prior to sign-up) quotation categories. Quotation effects are measured relative to the base category, which is low. |
| Engagement | Binary variable that takes the value of 1 for policyholders that report taking active steps of engagement at the time of renewal, switching, or policy origination. |
| Aware of PCWs | Binary variable that takes the value of 1 for policyholders that report being familiar with the use of price comparison websites when comparing or buying financial/non-financial products over the internet. [It is important to note that in the Irish insurance market, online price comparison tools are not the equivalent of more sophisticated tools available, for example, in the UK market.] This variable could act as a proxy for broader consumer engagement or information in financial product markets. |
| Time poverty | Binary variable that takes the value of 1 for policyholders that report not having the time or energy to shop around for the best deal when purchasing their insurance policy. |

## 4.6 Balance between Transactional Data and Survey Sample

Table 10 describes the balance between the 2019 transactional data private car policy sample, the linked survey sample, and the complete estimation sample on which the main survey regression is based in terms of key covariates of descriptive interest. Table 11 outlines the same comparison for the home policy sample.

Table 10: Summary statistics – private car policy sample

| Variable | Transactional data | Survey sample | Survey estimation sample |
|---|---|---|---|
| **AP/TP ratio** | 1.09 | 1.05 | 1.05 |
| **Age of the policyholder** | 49 | 46 | 47 |
| **Male (%)** | 50 | 51 | 51 |
| **Intermediated (%)** | 44 | 42 | 41 |
| **Automatic renewal status (%)** | 23 | 23 | 23 |
| **Years of tenure** | 2.8 | 2.3 | 2.4 |
| **Vehicle value (€)** | 12,328 | 12,214 | 12,328 |
| **Dublin (%)** | 24 | 27 | 27 |
| **Leinster (ex. Dublin) (%)** | 28 | 30 | 30 |
| **Munster (%)** | 30 | 25 | 25 |
| **Connaught (%)** | 12 | 13 | 13 |
| **Ulster (%)** | 6 | 5 | 5 |
| **Comprehensive (%)** | 84 | 87 | 87 |
| **Third party fire and theft (%)** | 16 | 13 | 13 |
| **Third party only (%)** | 1 | 0 | 0 |
| **Observations** | 1,831,025 | 2,831 | 2,075 |

Table 11: Summary statistics – home policy sample

| Variable | Transactional data | Survey sample | Survey estimation sample |
|---|---|---|---|
| AP/TP ratio | 1.15 | 1.13 | 1.12 |
| Age of the policyholder | 56 | 54 | 53 |
| Male (%) | 43 | 44 | 45 |
| Intermediated (%) | 66 | 52 | 50 |
| Automatic renewal status (%) | 31 | 15 | 16 |
| Years of tenure | 3.6 | 2.9 | 2.8 |
| Rebuild cost of property (€) | 223,747 | 224,228 | 222,385 |
| Dublin (%) | 28 | 32 | 32 |
| Leinster (ex. Dublin) (%) | 27 | 28 | 28 |
| Munster (%) | 28 | 23 | 23 |
| Connaught (%) | 11 | 11 | 11 |
| Ulster (%) | 6 | 6 | 6 |
| Building only (%) | 4 | 3 | 3 |
| Contents only (%) | .7 | 8 | 8 |
| Building and contents (%) | 89 | 90 | 90 |
| Observations | 1,150,422 | 2,456 | 2,089 |

# 5. Characteristics of Long-tenure Customers

## 5.1 Overview

The analyses of the variation in price differentiation (as measured by the APTP ratio) with different policy characteristics show that policy tenure has the greatest impact on the APTP ratio of a given policy. The longer a policyholder stays with an insurer the higher the premium they are likely to pay relative to the expected costs associated with their policy.

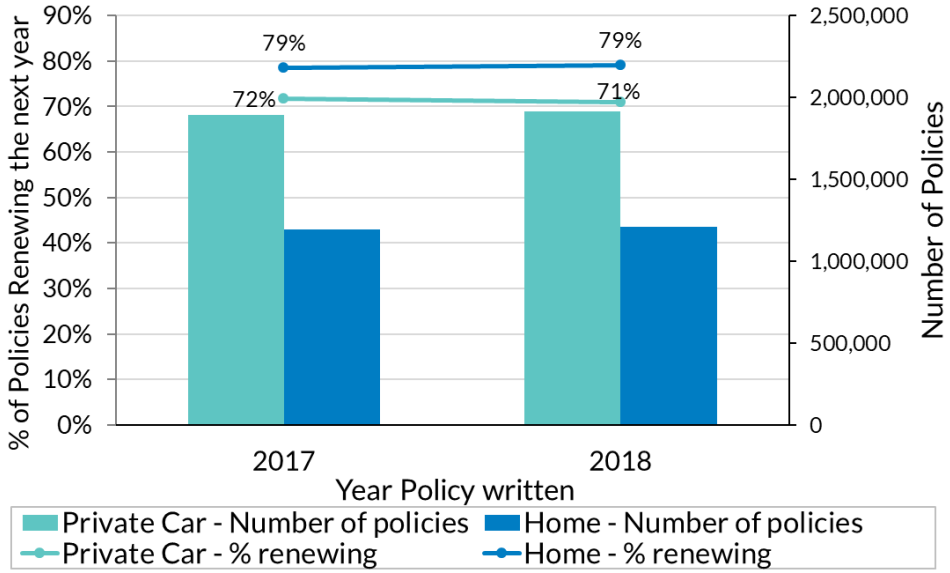
In this section, we look at the types of policyholders that are more likely to remain with their insurer and hence have higher APTP ratios. We do this in two ways: firstly, we look at the variation in the proportion of policies that renew with a range of different characteristics, and secondly, we look at how the distribution of different policy characteristics varies with tenure.

## 5.2 Renewal Rate Analysis

In this section, we look at how the proportion of policyholders that renew their policy varies with a number of key characteristics. Each policy has a unique policy number so by matching individual policy numbers between sequential years we can identify which policies written in 2017 renewed in 2018, and likewise which policies written in 2018 renewed in 2019. If the policy number is not present in the following year, the policy was either cancelled during the year or the policyholder decided not to renew the policy at the renewal date.

Figure 17 shows the overall number of policies and the proportion of these policies that renewed the following year for private car and home policies written in 2017 and 2018. The results for 2017 and 2018 are very similar. The overall (2017 and 2018 combined) percentage of polices renewing is 79% for home insurance and 71% for private car.

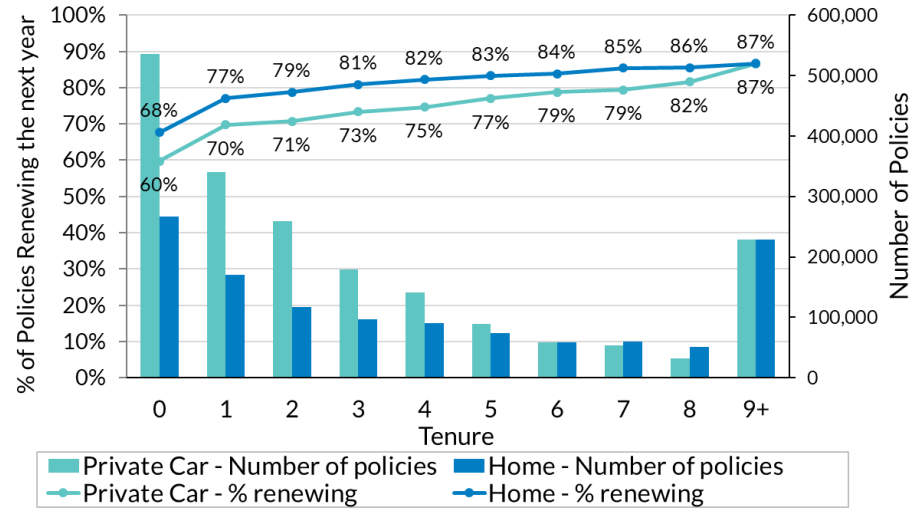
Figure 17: Proportion of policies renewing the next year and the total number of policies, for policies written in 2017 and 2018.




The percentage of policies that renew increases with increasing tenure, i.e., the longer a policyholder has been with an insurer the more likely they are to renew the next year. The proportion of customers that renew increases from 60% and 68% for private car and home new business customers respectively to 87% for both private car and home policyholders who have been with the same insurer for nine or more years.

This shows that despite insurers charging a higher average APTP to policyholders at longer tenures, policyholders at these higher tenures are still more likely to renew with the same insurer.

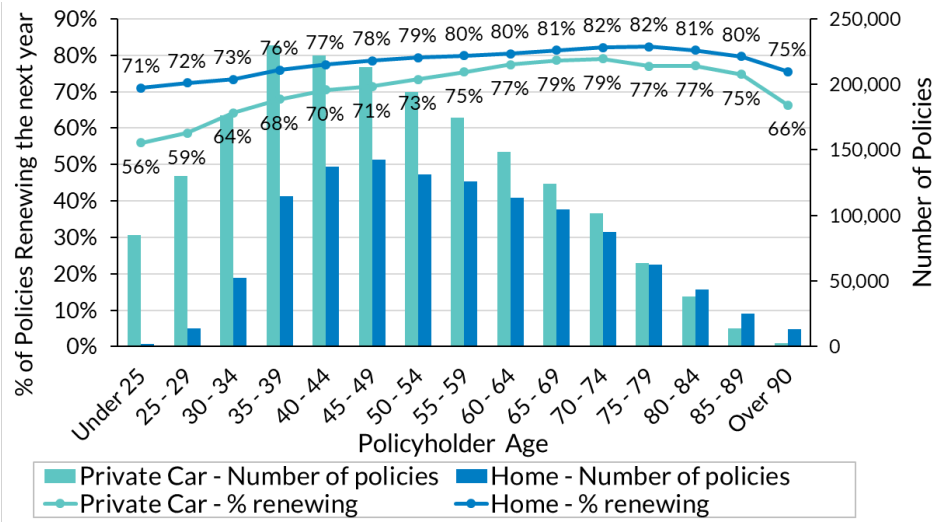
Figure 18: Proportion of policies renewing the next year and the total number of policies by tenure for private car and home insurance policies. (Using data for all policies written in 2018.)




The graph in Figure 19 shows the variation in the proportion of policies that renew with policyholder age. The probability that a policyholder will renew

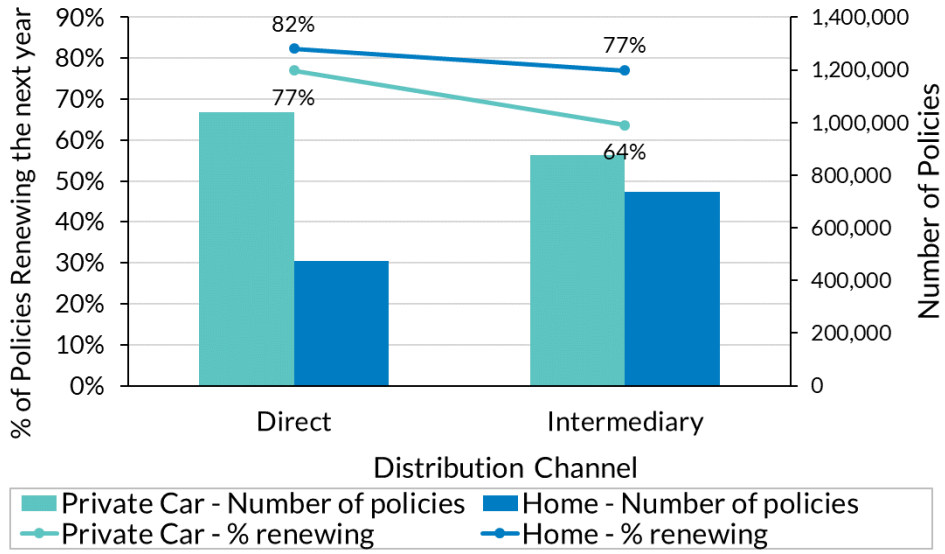
their policy increases consistently with age up until approximately 75 years of age. The proportion of policyholders renewing their policy decreases at ages above 75, but this is likely to be impacted by policyholders no longer requiring insurance rather than switching to another provider, for example policyholders who no longer drive or no longer live in their own home.

Figure 19: Proportion of policies renewing the next year and the total number of policies by policyholder age for private car and home insurance policies. (Using data for all policies written in 2018.)




A higher proportion of policies that insurers sell directly to the customer renew the following year compared to the policies that are sold through insurance intermediaries. It should be noted that in this section we are looking at the proportion of policies that renew with the same insurer, not the proportion of policyholders that renew through the same insurance intermediary. Therefore, there will be policyholders who renewed through the same insurance intermediary but with a different insurer that are not included in the renewal percentage for intermediary policies shown in Figure 20. The difference in renewal rate between direct and intermediated business is greater on private car insurance than on home insurance.

Figure 20: Proportion of policies renewing with the same insurer the next year and the total number of policies by distribution channel for private car and home insurance policies. (Using data for all policies written in 2018.)

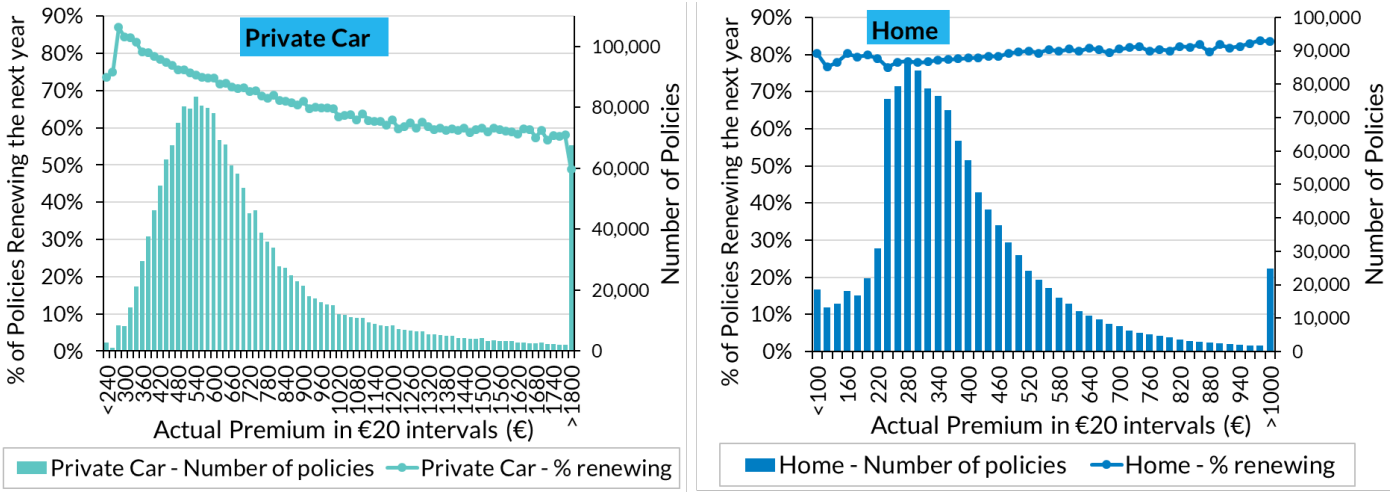



The variation in the proportion of policies renewing the next year with their current premium value is shown in Figure 21.

For private car insurance, there is a significant reduction in the proportion of policies that renew with increasing premium, i.e., the higher the current premium the less likely the policy is to renew. This is unsurprising as the more a policyholder paid for their policy we would expect them to be more likely to shop around at renewal. Also, many of the high premium policies relate to younger drivers for whom the insurance premium is likely to represent a significant expenditure relative to their income and therefore they may be more likely to shop around for a lower premium at renewal.

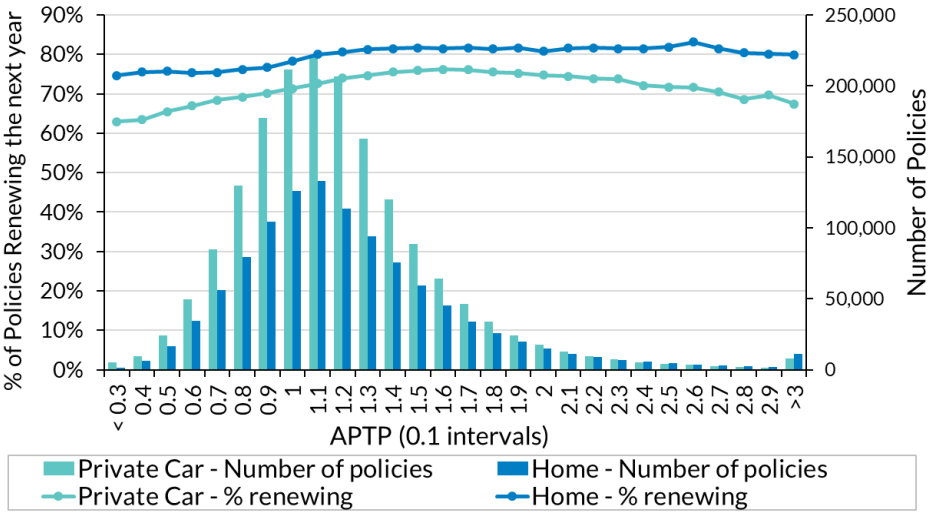
On home insurance, the opposite relationship is observed although the effect is weaker. The proportion of home policyholders that renew the following year increases marginally with the value of their current premium.

Figure 21: Proportion of policies renewing the next year and the total number of policies by current premium for private car and home insurance policies. (Using data for all policies written in 2018.)




The graph in Figure 22 shows the variation in the proportion of policies that renew the following year with the current APTP ratio of the policy. The proportion of policies that renew increases as the APTP ratio increases up to APTP ratios of approximately 1.5. This means that policies with higher current APTP ratios are more likely to renew. One possible explanation for this is the correlation of both the APTP ratio and the proportion renewing with tenure, with polices with low tenures generally having lower APTP ratios and also lower probabilities of renewing.

Figure 22: Proportion of policies renewing the next year and the total number of policies by current APTP ratio for private car and home insurance policies. (Using data for all policies written in 2018.)

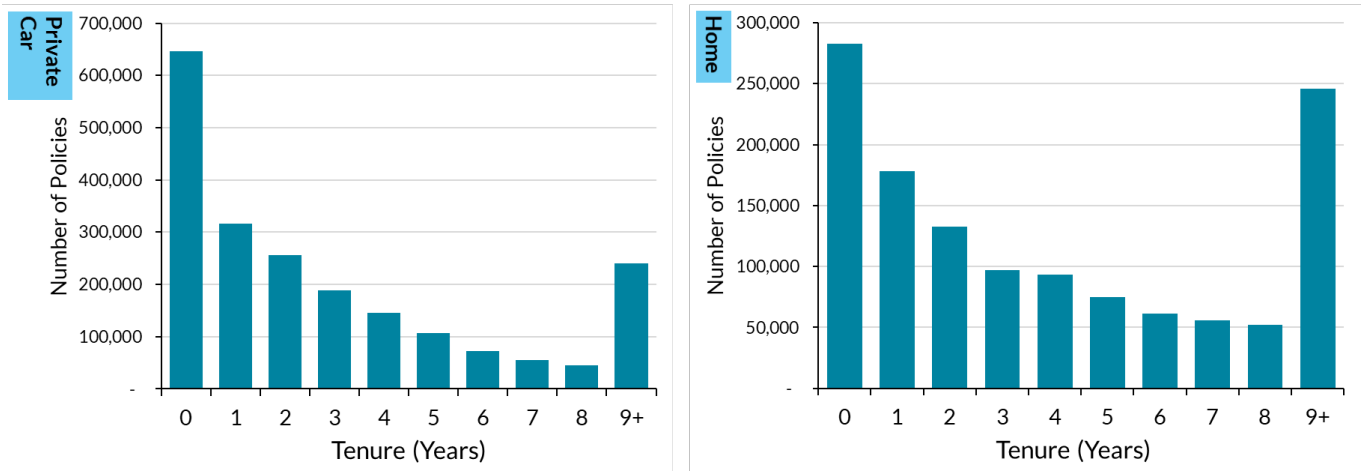


## 5.3 Correlations with Tenure

In this section we look at how other policy or policyholder characteristics vary with tenure, as this may highlight the types of customers who will be most affected by the higher APTP ratios on longer duration policies.

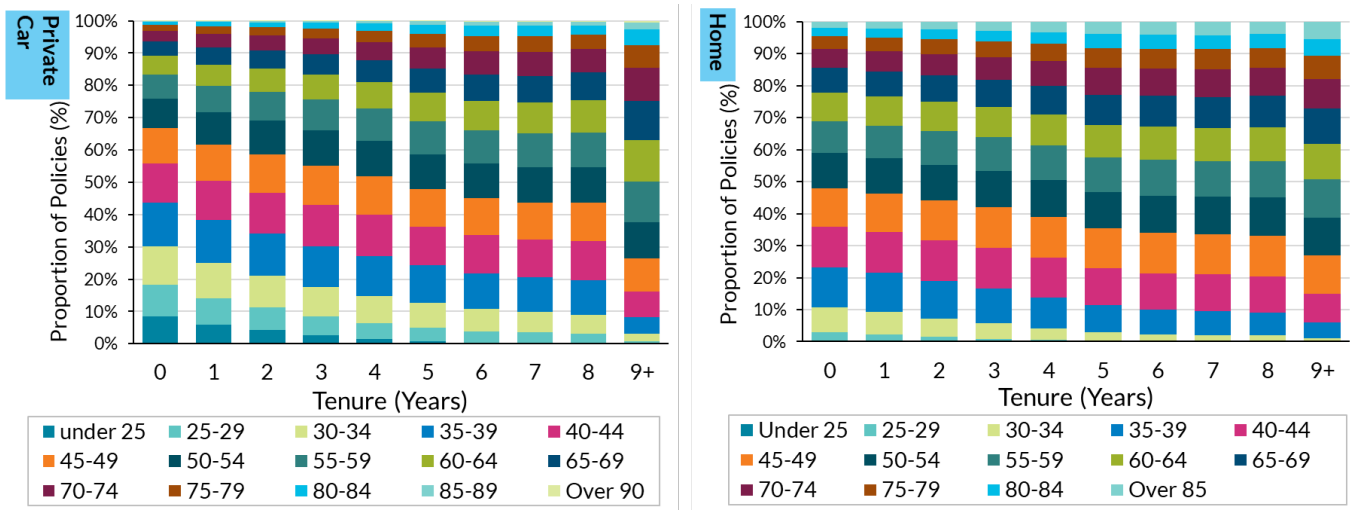
The graph in Figure 23 shows the number of policies at each tenure in 2019, highlighting the higher proportion of policies at long tenures in the home insurance market compared to the private car insurance market. The subsequent graphs in this section focus on the distribution of policies at each tenure by other policy characteristics.

Figure 23: Number of private car and home insurance policies written in 2019 by the firms in our review at each policy tenure.



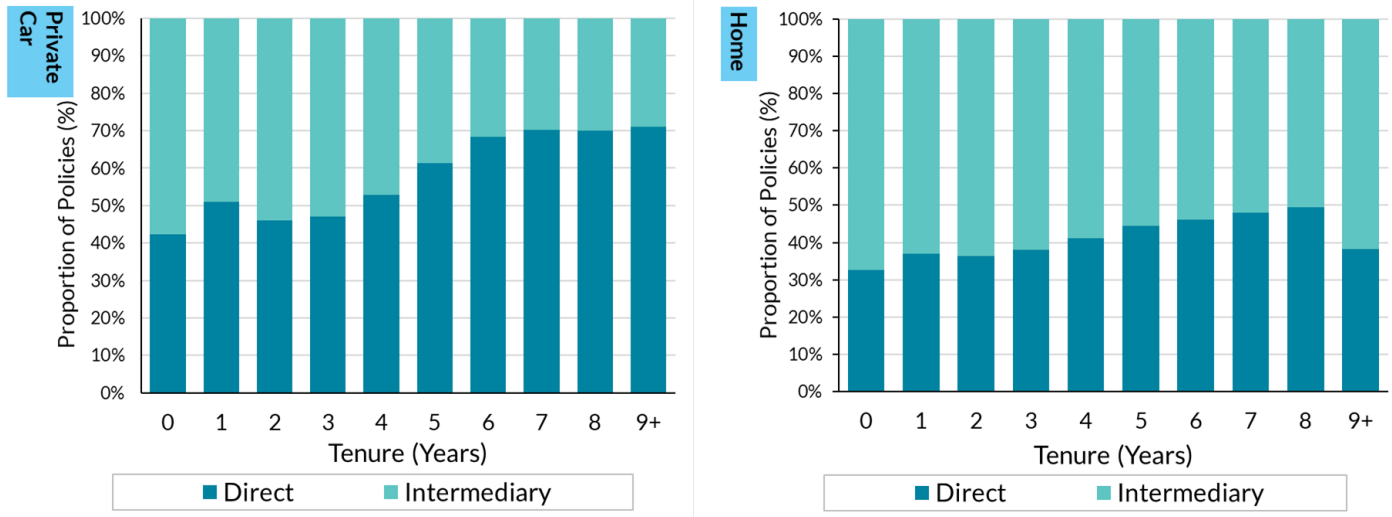

The graphs in Figure 24 show the distribution of policyholder ages at each tenure. Both private car and home show a clear and consistent trend with the proportion of policyholders in older age brackets increasing at longer tenures. For example on private car insurance the proportion of policyholders aged 50 or more increases from 33% at tenure zero to 74% at tenure nine or more, while on home insurance the proportion of policyholders aged 50 or more increases from 52% at tenure zero to 73% at tenure nine or more.

Figure 24: Distribution of policyholder ages at each policy tenure. (Based on combined data from policies written in 2017-2019).



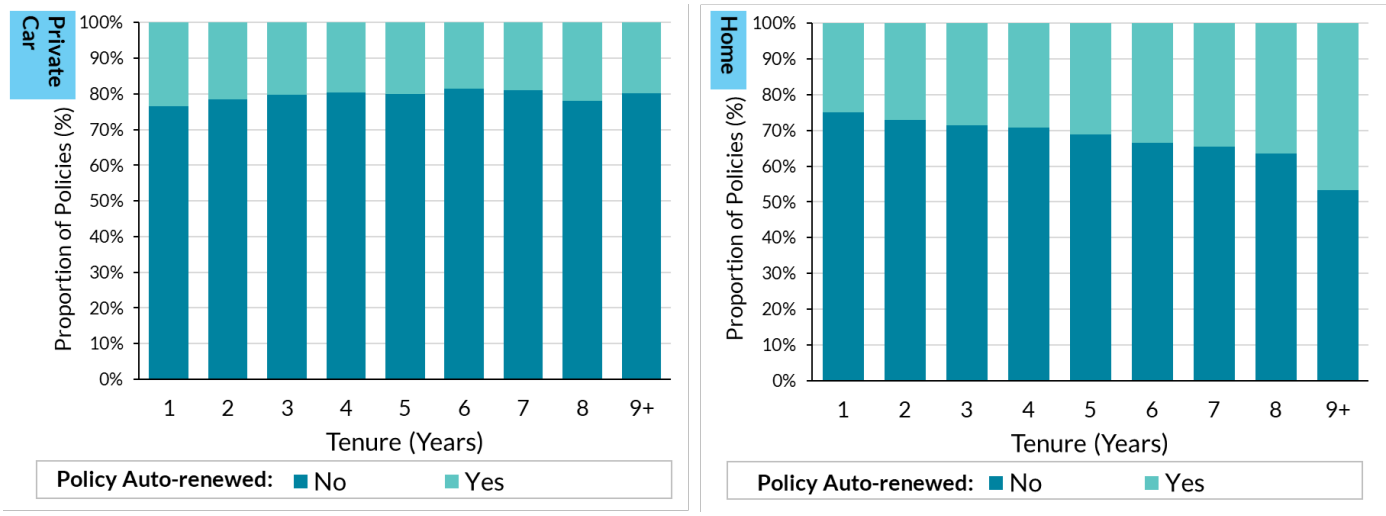

The proportion of policies sold by insurers directly to customers generally increases at longer tenures, although there is a decrease on home at tenure nine or more. This increasing proportion of policies sold direct at longer tenures is consistent with the results in the previous section that showed the renewal rate is higher for policies sold direct to customers.

Figure 25: Proportion of policies sold directly to customer or through an insurance intermediary at each policy tenure. (Based on combined data from policies written in 2017-2019).



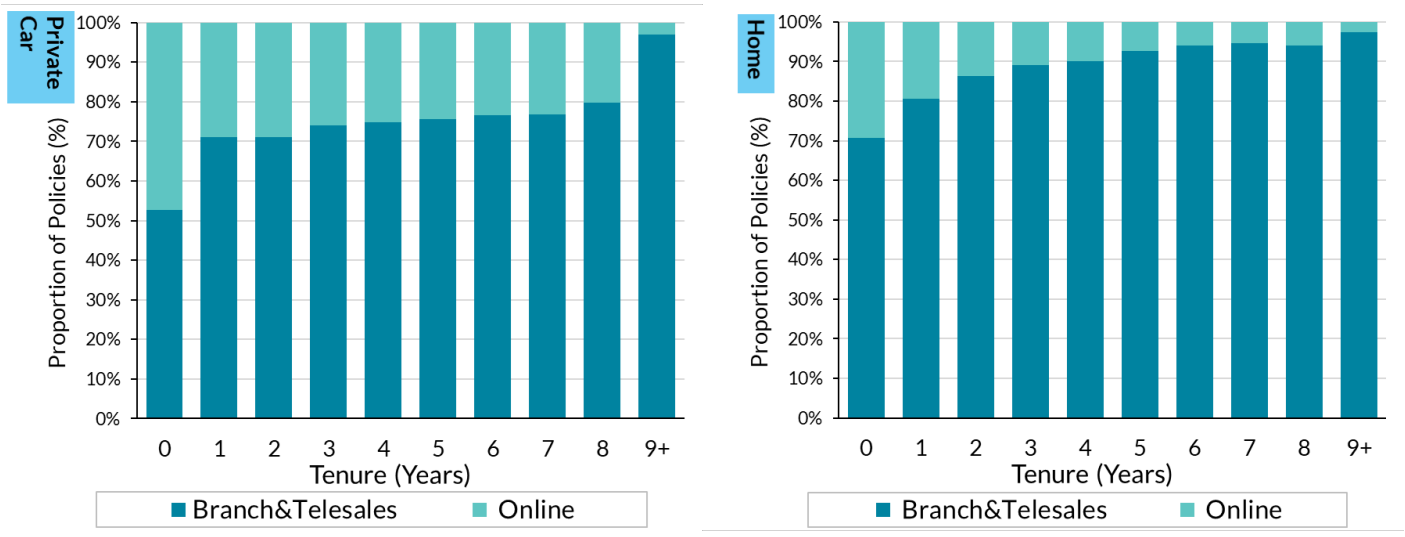
The proportion of policies that renewed automatically increases with tenure on home insurance, while the proportion of policies that renewed automatically does not vary significantly with tenure on private car insurance.

Figure 26: Proportion of policies that renewed automatically at each policy tenure. (Based on combined data from policies written in 2017-2019, limited to renewed policies (i.e. tenure greater than 0), and limited to policies where insurers were able to provide the automatic renewal status.)




The proportion of policies sold online decreases with tenure. This may be due to the fact that younger policyholders who are more prevalent at shorter tenures are more likely to buy online.

Figure 27: Proportion of policies sold online compared to the proportion sold through telesales or through sales branches at each policy tenure. (Based on combined data from policies written in 2017-2019, and limited to policies where insurers were able to provide the sales channel.)



The variation in a range of other policy characteristics with tenure was examined, including vehicle age and vehicle value on private car insurance, and rebuild value, contents cover, and year built on home insurance. However, the mix of business did not vary significantly with tenure for these characteristics.

## 5.4 Summary

The analysis presented in the first part of this section showed that the proportion of policyholders renewing their policy is generally higher on home insurance than on private car insurance. The following general trends were observed on the rate of policyholder renewal:

- Renewal rates increase with tenure;
- Renewal rates increase with policyholder age (up to approx. age 80);
- Renewal rates are higher on policies sold directly by insurers to customers;
- Renewal rates reduce with increasing current Actual Premium (only on private car); and
- Renewal rates increase with the current APTP ratio, for APTP ratios below 1.5.

The variation in the distribution of other factors with tenure is broadly consistent with the observations on renewal rates, i.e. higher renewal rates correlate with a higher proportion of policies at longer tenures. The proportion of policyholders at longer tenures is higher on home than on private car insurance. In general, the proportion of policies with the following characteristics increases at longer tenures:

- Older policyholders;
- Policies sold directly by insurers to customers;
- Policies that automatically renewed (only on home insurance policies); and
- Policies that were purchased on the phone or in branches (i.e. not online).

# 6. Consumer Survey Methodology and Approach

## 6.1 Overview

The consumer survey focussed on private car and home insurance treating the two markets as distinct. The survey sought to identify insights into the drivers of consumer behaviours including how consumers engage with both markets. Consumers were asked a broad range of questions relating to how they interact with their insurance providers and the market in general. The survey collected information about the socio-economic, demographic, behavioural, and attitudinal characteristics of respondents, along with information relating to respondents' experiences and patterns of engagement. The survey explored if particular consumer types are more exposed to differential pricing than others; and how differential pricing affects consumers with different characteristics across subgroups of the home and private car insurance consumer population.

This section describes the methodology and approach used for the consumer survey. In this section, we describe the data collection approach; provide an overview of the questionnaire development and sampling design; set out the key fieldwork metrics; and provide a breakdown of the representativeness achieved in the final sample.

**Research Methodology**

The Consumer Insights phase of the Review incorporated a mixed methodological approach involving both qualitative and quantitative research:

1. Qualitative research, including focus groups and in-depth interviews conducted, provided a deeper exploration of consumer attitudes to, and their engagement with, the insurance markets.
2. Quantitative research involving a survey conducted among 5,466 insurance customers.

Our qualitative research highlighted the following:

- Consumers are aware of the legal requirements associated with insurance. However, as consumers do not see it as a discretionary purchase, it is frequently considered in largely negative terms. This results in both a lack of trust and lack of interest in insurance providers and the market in general;
- Most consumers were found to have limited knowledge of how the specifics of insurance operates. This can discourage more active involvement and there is a tendency to feel it is better and easier to stay with the current insurance provider rather than switch;

- Consumers tend to involve themselves more in private car insurance than home insurance. With home insurance, there is a much higher level of inertia. Many consumers do not review their home insurance on an annual basis; and
- Across the research, there is a clear preference for staying with an existing insurance provider. In fact, many consumers report that they compare prices with other insurance providers largely because it helps to negotiate a better price with their current provider, rather than switch provider.

The methodological approach used for the qualitative research is summarised in the Interim Report.[30] The following section sets out the methodological approach for the quantitative research.

**Quantitative Consumer Survey**

As part of the data collection exercise, we conducted a large-scale quantitative standardised survey questionnaire among private car and home insurance customers in Ireland. In total, 5,466 quantitative survey interviews were achieved. This included 2,969 private car and 2,497 home insurance policyholders across Ireland.

The sample used for the consumer survey was drawn from insurance policy transaction data, provided by insurance providers, containing private car and home insurance policyholder information (refer to Section 2 for more information on the transactional dataset used for this analysis).
RED C Research were appointed as the market research company to conduct the consumer survey on behalf of the Central Bank following a procurement process. The survey methodology involved interviewing Call Assisted Telephone Interviewing (CATI) through which our identified sample were contacted by telephone to participate in the survey.

## 6.2 Design of Survey Questionnaire

**Qualitative Research**

Insights from the qualitative research, which included focus groups and in-depth interviews with consumers, informed the design of the survey questionnaire and wording of specific questions and terminology used.

**Questionnaire - Key areas explored**

In addition to socio-demographic indicators e.g., age, region, gender, income etc., some of the key areas explored in the questionnaire and included as part of our analysis, were as follows:

30 The qualitative research incorporated a series of 12 group discussions and 12 individual one-to-one in-depth interviews. The results and analysis of the qualitative research were included in the Interim Report.

1. Consumer Journey:
    - Consumers' actions when taking out their insurance policy;
    - Why consumers shop around;
    - Why consumers decide to renew;
    - Method consumers use when searching for information about home or private car insurance policies;
    - Consumer experiences trying to negotiate with providers / Insurance intermediary;
    - How active are consumers online; and
    - Consumer automatic renewal tendencies.
2. Consumer Attitude to Market:
    - Consumer attitudes to market fairness;
    - Consumer attitudes to searching / shopping around; and
    - Time poverty and shopping around financially desirable
3. Consumer Understanding of Market:
    - Attitudinal statements on insurance behaviours and market engagement.

## 6.3 Summary of Fieldwork

**Key fieldwork Information**

The survey was piloted among 16 home insurance respondents on 15 and 16 October 2020. Following a satisfactory review of the pilot survey, fieldwork fully launched on 21 October and finished on 5 December 2020.

The following table summarises the key fieldwork information and response rates achieved:

Table 12: Key fieldwork information and response rate

| Fieldwork Information | |
|---|---|
| Average interview length | 29 minutes |
| Number of customer contacts received | Home insurance: 155,317<br>Private car insurance: 187,859 |
| Number of customer contacts remaining after data cleaning | Home insurance: 136,294<br>Private car insurance: 158,795 |
| Number of telephone calls made | 147,023 calls made<br>80,107 home insurance,<br>66,916 private car insurance |
| Number of potential respondents spoken to | 45,087 calls answered<br>23,905 home insurance,<br>21,182 private car insurance |
| Response Rate | 31% calls made<br>30% home insurance<br>32% private car insurance |
| Number of surveys completed | 5,466<br>2,497 home insurance,<br>2,969 private car insurance |

**Representativeness of the achieved sample**

RED C Research had responsibility for management of the survey sample, ensuring that quotas criteria set for age, gender, region and channel (direct or indirect) were achieved.

For both markets, quotas were set on region, age within gender and insurance provider type i.e., whether they were a customer of an insurance intermediary or an insurer. These quotas were set to reflect the broader demographic profile of home insurance and private car insurance

customers in Ireland and also the proportions of leads received from the insurance industry which fell into each demographic as a whole.

Survey respondents were split relatively evenly between male and female and approximately 42% of respondents were 55 years and over. Private car insurance holders in the sample were, on average, younger: 44% (private car) were aged between 18 and 44 compared to 28% (home) across the same age bracket. This age distribution is as expected since private car insurance holders in the population are typically younger than home insurance holders.

Details of initial targets and interviews achieved per quota are in Table 13 below:

Table 13: Target vs Achieved Quotas (Home Insurance)

| Quota | Target | Achieved |
|---|---|---|
| ***Region*** | | |
| **Dublin** | 30% | 33% |
| **Rest of Leinster** | 28% | 28% |
| **Munster** | 22% | 23% |
| **Connaught** | 14% | 11% |
| **Ulster** | 6% | 6% |
| ***Age and Gender*** | | |
| **Female 18-34** | 3% | 3% |
| **Female 35-44** | 11% | 11% |
| **Female 45-54** | 12% | 12% |
| **Female 55-64** | 10% | 10% |
| **Female 65-74** | 8% | 7% |
| **Female 75+** | 7% | 5% |
| **Male 18-34** | 3% | 3% |
| **Male 35-44** | 10% | 11% |
| **Male 45-54** | 11% | 11% |
| **Male 55-64** | 11% | 10% |
| **Male 65-74** | 9% | 9% |
| **Male 75+** | 6% | 7% |
| **Refused** | n/a | 1% |
| ***Provider Type*** | | |
| **Insurance Intermediary** | 51% | 52% |
| **Insurer** | 49% | 48% |

Table 14: Target vs Achieved Quotas (Private Car Insurance)

| Quota | Target | Achieved |
|---|---|---|
| ***Region*** | | |
| Dublin | 26% | 27% |
| Rest of Leinster | 30% | 30% |
| Munster | 23% | 24% |
| Connaught | 15% | 14% |
| Ulster | 6% | 6% |
| ***Age and Gender*** | | |
| Female 18-24 | 2% | 2% |
| Female 25-34 | 8% | 8% |
| Female 35-44 | 12% | 13% |
| Female 45-54 | 11% | 11% |
| Female 55-64 | 8% | 9% |
| Female 65-74 | 5% | 6% |
| Female 75+ | 3% | 3% |
| Male 18-24 | 2% | 2% |
| Male 25-34 | 8% | 8% |
| Male 35-44 | 11% | 11% |
| Male 45-54 | 10% | 10% |
| Male 55-64 | 8% | 8% |
| Male 65-74 | 6% | 6% |
| Male 75+ | 4% | 4% |
| ***Provider Type*** | | |
| Insurance Intermediary | 42% | 44% |
| Insurer | 58% | 56% |

# 7. Consumer Survey Key Findings

## 7.1 Overview

Our consumer survey identified key behaviours of private car and home insurance customers. In this section, we describe these key findings from our consumer survey. The analysis describes switching and renewal levels reported by customers and provides an examination of the reasons for these behaviours. This section also provides an analysis of the reported reasons why consumers automatically renewed.

## 7.2 Switch and stay behaviour by policy type

The consumer survey found that when taking out their current insurance policy, 26% (private car) and 23% (home) customers reported that they had switched insurance providers. The majority of home and private car insurance customers renewed with their existing insurance providers, with 72% (private car) and 72% (home) reporting they renewed with their existing insurance provider. A small proportion of private car (2.1%) and home (4.8%) insurance customers reported they took out a new policy for the first time.

Table 15: Switch and stay behaviour by policy type

| Policy Type | Private Car | Home |
|---|---|---|
| Switched policy to new provider | 25.6% | 22.5% |
| New policy | 2.1% | 4.8% |
| Renewed policy | 71.5% | 72.1% |
| Don't know | 0.8% | 0.5% |
| Number of observations | 2969 | 2497 |

## 7.3 Renewal Activity

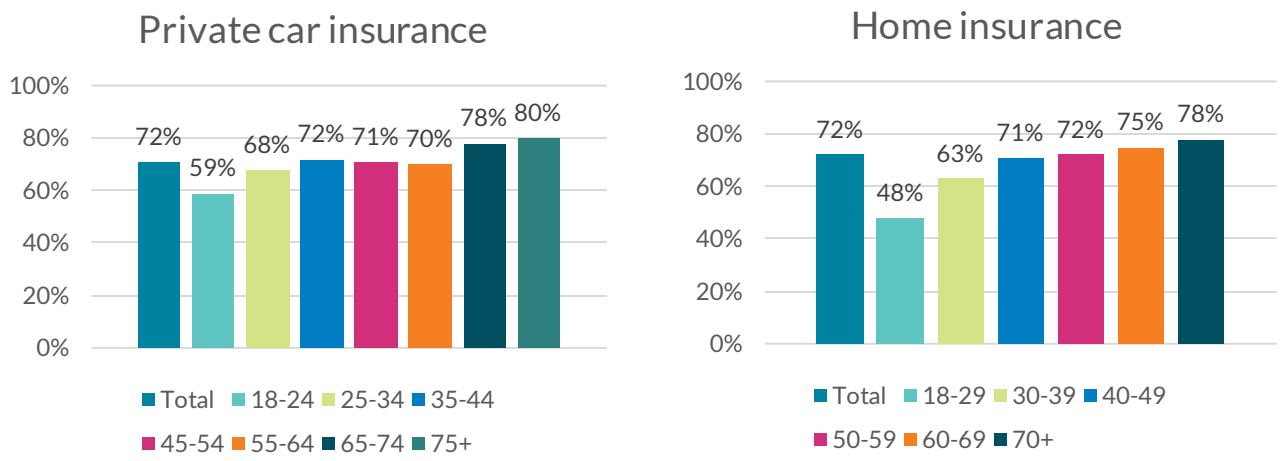
Among those who renewed their policy with their existing insurance provider, across both markets we observe that renewals increases with age (See Figure 28):

- In the private car insurance market, those renewing with their existing insurance provider are more likely to increase with age: younger drivers (18-24) are less likely to renew (59%) when

compared with 65-74 and 75+ age groups (78% and 80% respectively).

- In the home insurance market, experience of renewing with ones existing insurance provider is less likely among younger age groups compared to those in older age groups: 63% of 30-39 year olds renewed with their existing insurance provider compared to 78% of 70+ year olds.

Figure 28: Customers who renew with their existing insurance provider, by Age




Base: number of respondents who renewed (private car: 2122); (home: 1800)

As shown in Table 16 below, the key reasons reported for not switching and choosing to renew with existing insurance providers were, as follows:

- 37% (private car) and 51% (home) customers reported that they renewed because they thought their current deal was competitive
- 27% (private car) and 20% (home) customers reported that they chose to renew because they like their insurance provider
- 13% (private car) and 10% (home) customers who renewed reported that there were better deals elsewhere, but the gains were too small to worry about.

Table 16: Reasons for renewing with existing insurance provider / not shopping around

| Response chosen | Private Car | Home |
|---|---|---|
| I thought my current deal is competitive | 37% | 51% |
| I like the provider company | 27% | 20% |
| When I searched previously I was unable to get a lower premium elsewhere | 12% | 16% |

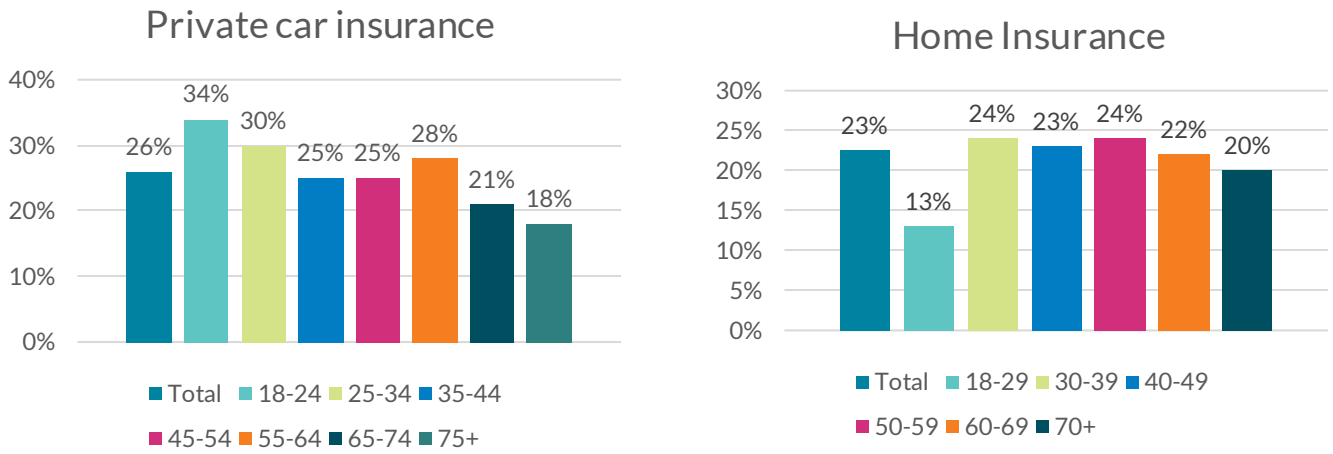
| | | |
|---|---|---|
| I was able to get a lower premium elsewhere, but current provider offered better value for money | 12% | 16% |
| There were better deals elsewhere, but the gains were too small to worry about | 13% | 10% |
| Followed the advice of broker that this was the best deal | 13% | 10% |
| I was offered a similar premium as last year | 12% | 8% |
| I had a positive claims experience in the past with my existing provider | 3% | 3% |
| I was concerned about switching to a provider I did not know | 4% | 2% |

All other mentions less than 2%
Base: number of respondents who renewed (private car: 2,122); (home: 1,800)

## 7.4 Switching Activity

The survey results showed that 26% (private car) and 23% (home) of customers reported to have switched to their existing insurance provider (See Figure 29). Experience of switching among older age groups is proportionately lower among private car insurance customers: 34% of those aged between18 and 24 years switched to their current insurance provider, while only 21% of those aged between 65 and 74 years switched.

Figure 29: Proportion of respondents who switched insurance providers, by age




Base: number of respondents who switched (private car: 761); (home: 563).
Respondents over 75 years (private car: 33) Respondents over 75 years (home: 54)

As shown in Table 17 below, the main reasons respondents reported to have shopped around, researched or contacted their insurance provider were, as follows:

- 38% (private car) and 57% (home) claim that they wanted to see if they could get a better premium;
- 33% (private car) and 13% (home) claim to shop around every year; and
- 42% (private car) and 15% (home) said that they did so because their insurance provider increased their premium.

Table 17: Reasons respondents shop around, researched or contacted their insurance provider

| | Private Car | | Home | |
|---|---|---|---|---|
| **Response chosen** | **Total** | **Switched** | **Total** | **Switched** |
| I wanted to see if I could get a cheaper premium | 38% | 37% | 57% | 63% |
| Insurance provider increased the premium | 42% | 62% | 15% | 32% |
| I shop around every year | 33% | 37% | 13% | 14% |
| I was made aware that better deals may be available elsewhere | 11% | 12% | 6% | 10% |
| I had not checked for some time | 7% | 4% | 3% | 2% |
| Insurance needs changed e.g., new house, new car | 5% | 4% | 2% | 4% |
| I was recommended by someone | 4% | 6% | 1% | 2% |

All other mentions less than 2%

Base: number of respondents (private car: 2,969); (home: 2,497). Number of respondents who switched (private car: 761); (home: 563)

As shown in Tables 18 and 19, the main reasons reported for not switching/shopping around, are as follows:

- *I thought my current deal is competitive* was reported by 37% of private car insurance customers and 51% of home insurance customers.
- Among both private car and home insurance customers with a longer tenure (3+ years), *I like the insurance provider* is more likely to be reported as a reason for not switching compared to those with less than with a shorter tenure (<3 year).
- While 13% (private car) and 10% (home) insurance customers reported *there were better deals elsewhere, but the gains were too small to worry about.*

Table 18: Reasons for not switching/shopping around (Private Car Insurance)

| Response chosen | Total | <3 year | 3+ years |
|---|---|---|---|
| I thought my current deal is competitive | 37% | 41% | 35% |
| I like the provider company | 27% | 25% | 32% |
| There were better deals elsewhere, but the gains were too small to worry about | 13% | 13% | 14% |
| When I searched previously I was unable to get a lower premium elsewhere | 12% | 12% | 13% |
| I was concerned about switching to a provider I did not know | 4% | 3% | 5% |
| I did not pay much attention to this issue | 2% | 2% | 2% |
| I intended to shop around but I never got around to it | 2% | 2% | 2% |

Base: number of respondents who renewed their policy (private car: 2,016). Number of respondents with tenure of <3 year (private car: 1,119). Number of respondents with tenure 3+ years (private car: 817)

Table 19: Reasons for not switching/ shopping around (Home Insurance)

| Response chosen | Total | <3 year | 3+ years |
|---|---|---|---|
| I thought my current deal is competitive | 51% | 53% | 49% |
| I like the provider company | 20% | 17% | 25% |
| There were better deals elsewhere, but the gains were too small to worry about | 10% | 12% | 8% |
| When I searched previously I was unable to get a lower premium elsewhere | 16% | 18% | 14% |
| I was concerned about switching to a provider I did not know | 2% | 1% | 2% |
| I did not pay much attention to this issue | 1% | 1% | 1% |

Base: number of respondents who renewed their policy (home: 1,766). Number of respondents with tenure of <3 year (home: 964). Number of respondents with tenure 3+ years (home: 802).

## 7.5 Automatic renewal behaviour – reasons why consumers automatically renewed[31]

Our survey asked respondents to report whether they automatically renewed their insurance policy with their existing insurance provider. The results found that 8% (private car) and 7% (home) reported to have allowed their policies to renew automatically.

As shown in Table 20 below, our survey found that private car insurance customers who reported automatic renewing, *'I did not pay much attention to this issue'* (14%) had a higher response rate when compared to the total number of customers (2%). While home insurance customers, in explaining their reasons for automatic renewing are more likely to claim '*I like the provider company' (28%)*, compared to the total number of home insurance customers (20%). In explaining their reasons for automatic renewing, private car insurance customers are more likely to claim *'I did not pay much attention to this issue'* (15%) compared to the total number of customers (2%). Among home insurance customers, '*I like the provider company' (28%)*, had a higher response rate when compared to the total number of customers (20%).

31 Our analysis of the consumer survey uses a variable of automatic renewal based on respondent's self-declared answers when asked if their policy renewed automatically. Respondents were considered to have automatically renewed their policy, if they answered *"I just automatically renewed"* in reply to the following question *"You said that you renewed your insurance policy with the same provider, which of the following things I read out you did before renewing your current policy?"* Respondents who answered "I just automatically renewed" were then asked a follow-up question *"Were you aware of other options available in the market, or did the policy automatically renew without your attention?"* and could choose from two pre-coded answers *"Yes I was aware of other options" or "No I was not aware of other options"*

Table 20: Reasons for not switching/shopping around among customers who automatically renewed

| | Private car | | Home | |
|---|---|---|---|---|
| **Response chosen** | **Total** | **Automatic -renew** | **Total** | **Automatic -renew** |
| I thought my current deal is competitive | 37% | 35% | 51% | 40% |
| I like the provider company | 27% | 33% | 20% | 28% |
| There were better deals elsewhere, but the gains were too small to worry about | 13% | 14% | 10% | 17% |
| I did not pay much attention to this issue | 2% | 14% | 1% | 12% |
| When I searched previously I was unable to get a lower premium elsewhere | 12% | 7% | 16% | 11% |
| I intended to shop around but I never got around to it | 2% | 13% | 1% | 4% |
| I was concerned about switching to a provider I did not know | 4% | 1% | 2% | 1% |
| The switching process is difficult to understand and frustrating | 1% | 0% | 0.2% | 1% |

Base: number of respondents who renewed: (private car: 2122); (home: 1800). Number of respondents who allowed their policy to renew automatically (private car: 263); (home: 143)

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