REFINANCING RISK IN A HIGHER INTEREST RATE ENVIRONMENT

Article

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Executive summary

This article analyzes the refinancing risk in an existing mortgage portfolio due to an increase in mortgage rates. In recent years, central banks have increased rates substantially in light of inflationary pressure. Swap rates and in turn mortgage rates have closely followed this trend. Although rates have stabilized and are even decreasing somewhat, they are still significantly higher than during the 2020 – 2022 period. The higher rates impose a refinancing risk for existing mortgage consumers who are approaching their interest reset date. To determine the impact we have performed an analysis on the refinancing risk and implied mortgage affordability for existing mortgage consumers in the Achmea Dutch Residential Mortgage Fund ('The Fund').

To do so, we have determined the current average DTI (debt to service income ratio) of the Fund which is the ratio of the monthly payments as a percentage of consumer's gross monthly income per 30 June 2024. Then we have looked at a scenario in which all consumers had to refinance at the current offered rates of the Syntrus Achmea Mortgage label for their current FIRP (fixed interest rate period) and LTV (loan-to-value) bucket and determined the DTI. Moreover, since the income information we have is based on the latest loan advancement we have calculated a scenario in which we have indexed the income of the consumers to proxy their income today (indexation based on either CPI or Pension Index depending on income type). The results show that the increase in income has a strong mitigating effect on the increase in DTI as a result of the higher interest rates. When we compare the DTI of the scenarios with the 'Woonquote' as provided by the Nibud, values lie within the lower range; implying that, on average, consumers are expected to be able to absorb an increase in rates resulting from refinancing.

Next, we have done specific deep dive analyses. First, we have done an analysis on the group of consumers that have their actual reset date in the upcoming years since for those consumers the refinancing risk is a real one (instead of in the general scenario in which everyone has to refinance today). We see that for this group the current DTI is higher, but increases relatively less when using the offered market rates to determine the DTI. This is mainly because the average coupon of the consumers with an upcoming reset date is higher than the average coupon in the Fund. All in all, although the average DTI is higher for this specific group, the DTI is still on the mid to lower end of the 'Woonquote'.

Lastly, we have looked at specific potential vulnerable consumers: those with a pension income and those with a large share interest only loan parts. In general, we see that the current DTI for these groups is lower. Although the increase in DTI is relatively larger when applying the current offered rates and index the income of those consumers, the DTI is still low in absolute terms under those scenarios.

In conclusion we see that the refinancing risk due to higher mortgage rates is limited, partly driven by an increase in income of consumers. This view is supported by the arrears we see in the Fund: these are still historically low at around 0.1 bps of the Fund's remaining debt.

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Introduction

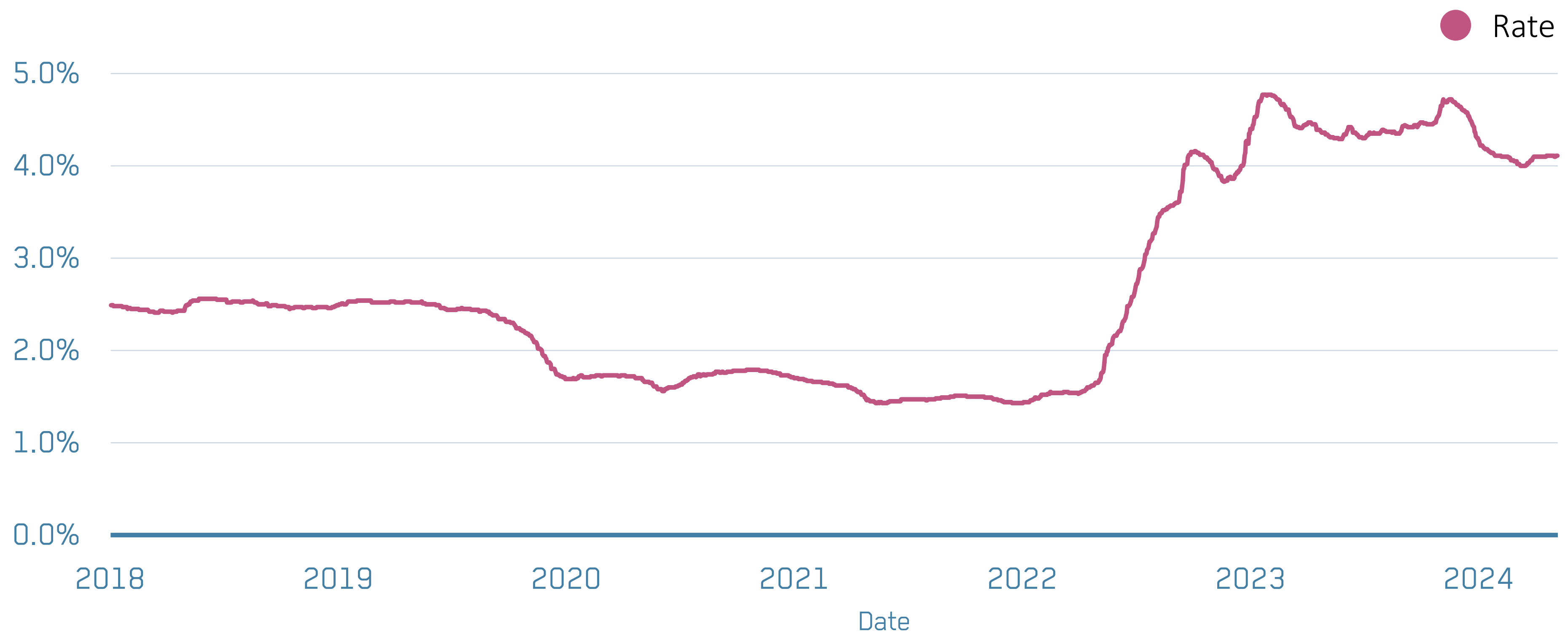
Mortgage interest rates are closely linked to developments on the swap rates which, in turn, are driven by the rates set by central banks. An increase in mortgage rates implies potential higher monthly mortgage payments for consumers who have to refinance against current rates at the end of their FIRP (fixed interest rate period). This in turn can put pressure on the consumer's mortgage affordability.

During 2022, in light of inflationary pressure, central banks have increased their rates substantially and in turn mortgage interest rates have risen significantly. During 2023 rates were volatile and by the end of 2023 and in the first half of 2024, rates have decreased in light of (anticipated) decreases in the rates as set by the central banks. The first two decreases have been implemented in Europe by the ECB. In te US, the FED has recently announced the first cut.

Although rates have decreased somewhat, they are still significantly higher than in the years up to 2022. As a reference, in graph 1 the average of the top 10 lowest Dutch mortgage interest rates for a 20 YR ≤ 60% LTV mortgage are shown as per 30 June 2024. As shown, the market mortgage rate currently sits around 4%, which although lower than the high during 2022 and 2023 with rates above 4.5%, is still significantly higher than during 2020 – 2022 where the rate was around 1.5%.

Many current mortgage consumers with lower mortgage rates (coupon) have chosen a longer FIRP. However, it is important to assess whether consumers would be able to afford their mortgage in case they had their interest reset date today and had to refinance at the current offered mortgage rates. Apart from this, there is still a group of consumers who have an interest reset date in the next few years who have to refinance at the then applicable rates.

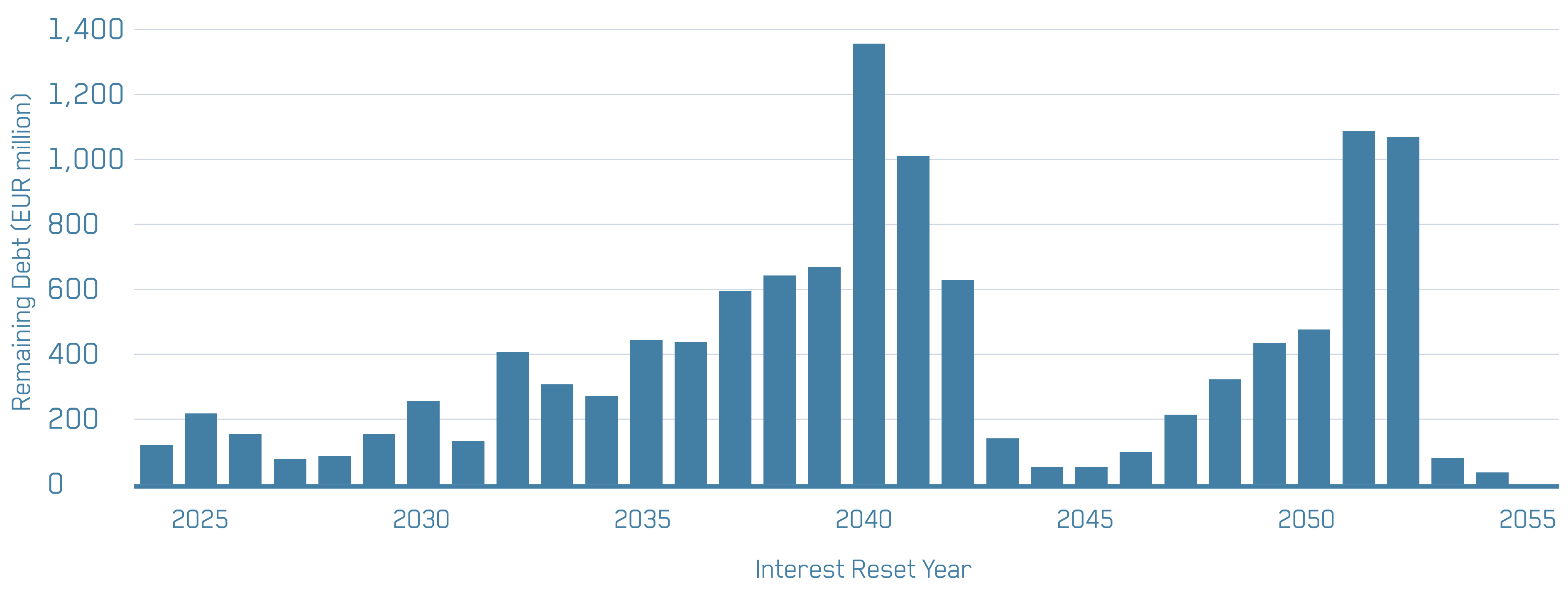
GRAPH 1: AVERAGE TOP 10 MORTGAGE RATES FOR A 20 YR ≤ 60% LTV MORTGAGE



See graph 2 for the Remaining Debt per Interest Reset year for the Mortgages within the Achmea Dutch Residential Mortgage Fund (hereinafter: the Fund).

As depicted in Graph 2, up until 2030 around EUR 1bn of mortgages have their interest reset. Those mortgages currently have an average coupon of 2.91%. To assess the impact on mortgage affordability we have performed an affordability analysis on the Fund in which we simulate the situation in which all consumers in the Fund would have their reset date today and have to refinance at the current rates. Apart from this general analysis, we perform three deep dive analyses; one focuses on consumers who have their interest reset in the upcoming years, one on vulnerable consumers and one on recent consumer behavior which might increase mortgage affordability at the interest reset date.

GRAPH 2: REMAINING DEBT PER INTEREST RESET YEAR

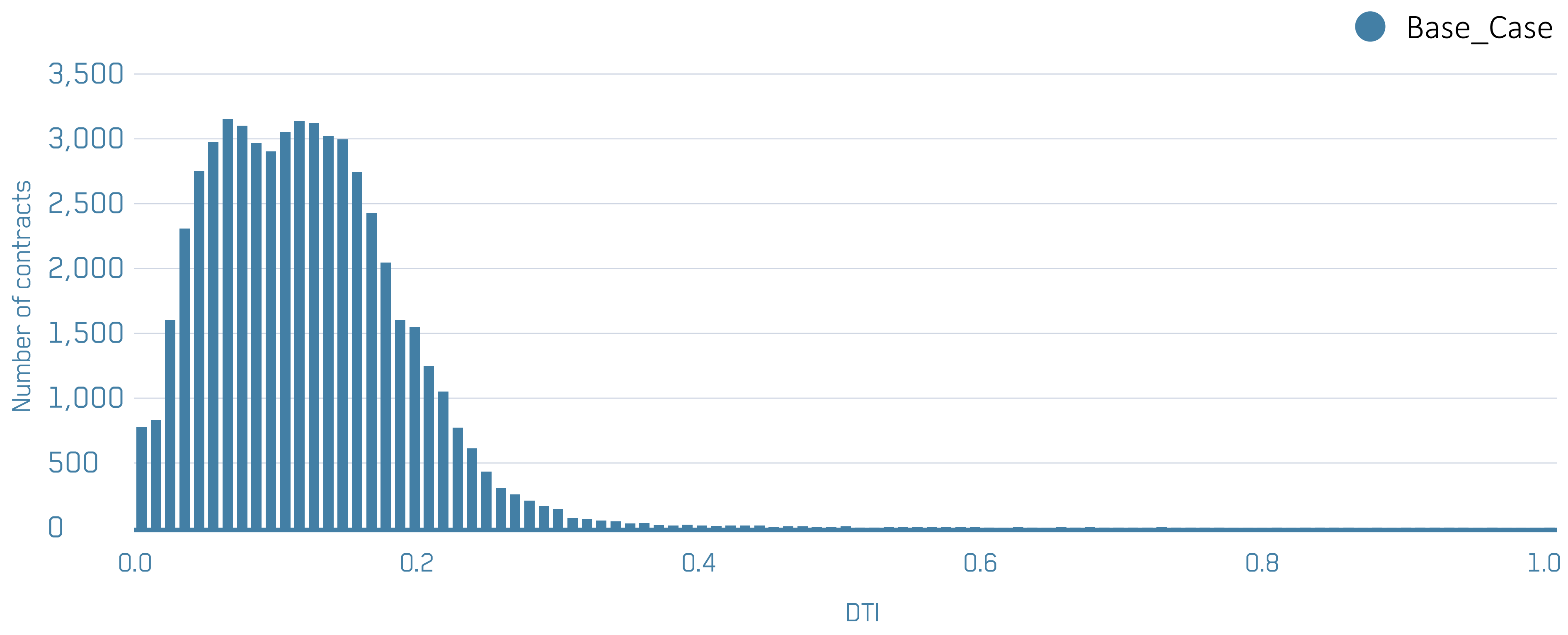


General analysis on affordability

The data used in the analysis is based on the portfolio of the Fund as per 30 June 2024. Mortgage market offer rates of Syntrus Achmea (the consumer mortgage label) are also based on the data per 30 June 2024.

We define affordability as the ratio between the Monthly Mortgage Payment (redemption and interest) and the Monthly Gross Income (Gross Annual Income / 12). This provides the DTI (Debt to Service income ratio). A ratio of 30% implies that 30% of the Gross Income is needed to cover the Monthly Mortgage Payment. The Monthly Mortgage Payment is gross, so excludes any tax cuts resulting from the 'Hypotheekrente aftrek' (hereinafter: tax relief) which potentially lead to a lower Net Monthly Mortgage Payment, the same holds for the Gross Annual Income which is not net of taxes. The tax situation is different for each individual and not known to us, as such we cannot reliably correct for this.

GRAPH 3: DEBT TO SERVICE INCOME (DTI) AT THE CONTRACT LEVEL



The current distribution at contract level of the DTI is the "Base_Case". As can be seen the distribution is skewed to the right. Most contracts have a DTI which is between 10% to 20% with an average at 13.6%.

To compare, we have made two scenario's: under Scenario 1 (Scenario_1), we adjust the current interest rate at the loan part level to the rate that would be applicable if the consumer would have to refinance now. The offered rates by Syntrus Achmea at 30-6 are applicable and these are based on the current applicable FIRP and the current LTV bucket. Based on these new rates, the monthly payment is determined. In certain cases, the offered interest rate is lower than the rate that the consumer currently pays, in that case also the applicable rate per 30-6 for the specifics of the loan part are used. Based on these new monthly payments, the new DTI is determined.

Under Scenario 2 (Scenario_2), we make the adjustment on the monthly payment as in Scenario_1, but also adjust the Gross Annual Income to reflect the increase expected in income resulting from the passage of time. More specifically, it is assumable that the Gross Annual Income provided at the time of mortgage origination is now higher. To reflect this, under scenario 2 we have adjusted the Gross Annual Income for consumers who are 'Employed' based on the CPI (Consumer Price Index) as published by the Central Bureau of Statistics (CBS)[1]. More specifically, if the latest loan advancement was at 1-3-2022 we have indexed the Gross Annual Income with the CPI index between 1-6-2024 and 1-3-2022. We have made no adjustments in relation to factors not known to us, but which could influence the actual current income of the consumer, for instance job switches, change in working hours and unemployment.

[1] Not in all cases Collective Labor Agreements (CAOs) have increased at the same pace as the CPI. However, we deem the CPI as the best proxy for general CAO increases.

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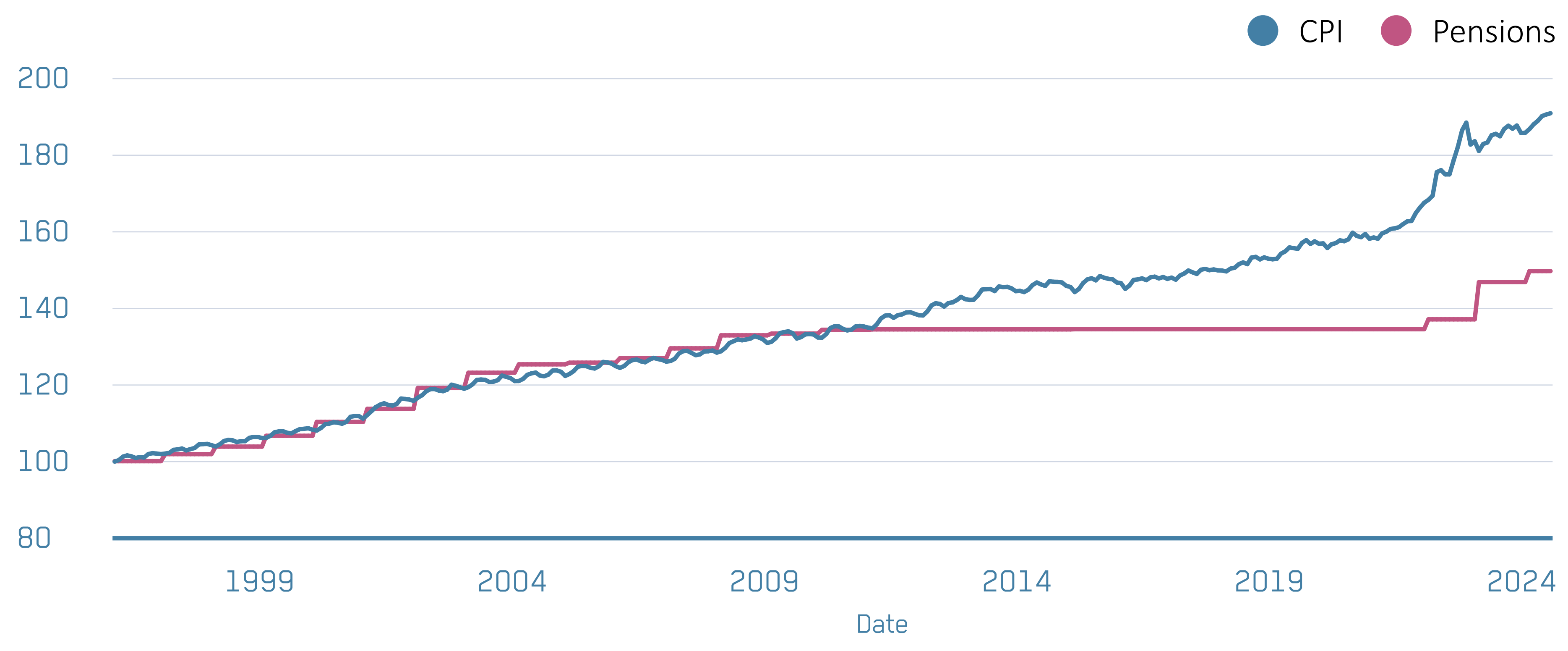
In case the income for the consumer is 'pension' we have indexed the Income with an index based on the average indexations per year from the five largest pension funds in the Netherlands. This indexation is considerably lower given that pension funds were not able to match their indexation to the CPI, especially in the period 2009-2019. See graph 4 on the right.

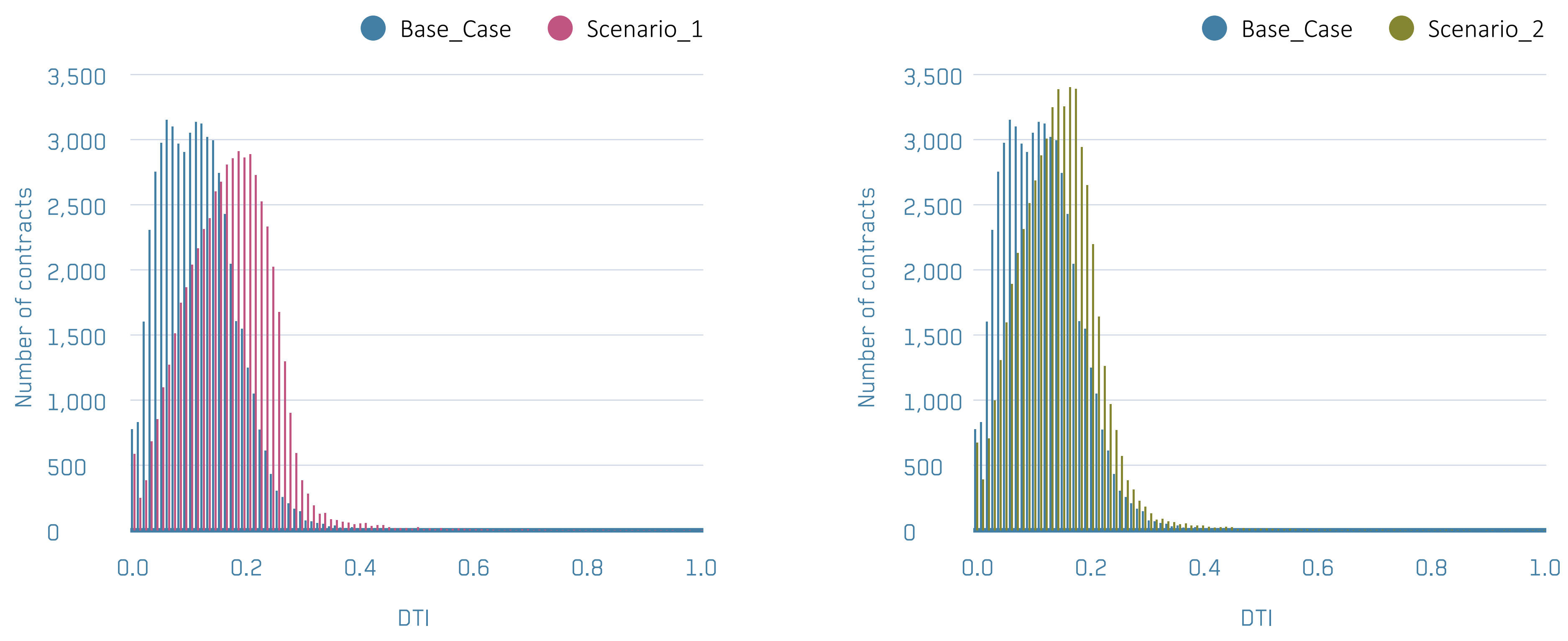
We have recalculated the Gross Annual Income based on the applicable Indexation and used the recalculated Monthly Payment from Scenario_1 to recalculate the DTI. The outcome of Scenario_1 and Scenario_2 is shown on the right in graph 5 as compared to the Base_Case.

As can be seen under scenario_1 the distribution shifted towards the right reflecting the increase in DTI for most of the contracts as a result of the simulated change in mortgage rates. In some cases, the DTI can change considerably. For instance an interest only mortgage which currently has a rate of 1.29%, would under current rates have a rate of 3.90%; an increase of more than 200% which is directly reflected in the Monthly Payment as this only consists of interest. Albeit substantial, in most cases, either the outstanding amount is relatively low; making a large relative yet moderate absolute increase or the interest reset date is far in the future leading to no imminent problem. Apart from this, the potential tax relief would mitigate the increase in the monthly payment[2]. Nonetheless, the simulated increase in rates increases the average DTI of The Fund from 13.6% to 18.6%, a relative increase of 37%. In general, the 'Woonquote' as provided by the Nibud[3] is, depending on the income(type), between 17.5% and 29%. The average DTI of the Fund would be at the lower end of the 'Woonquote'.

GRAPH 4: CPI AND PENSION INDEX (1996 = 100)



GRAPH 5: DEBT TO SERVICE INCOME RATIO SCENARIO_1 AND SCENARIO_2

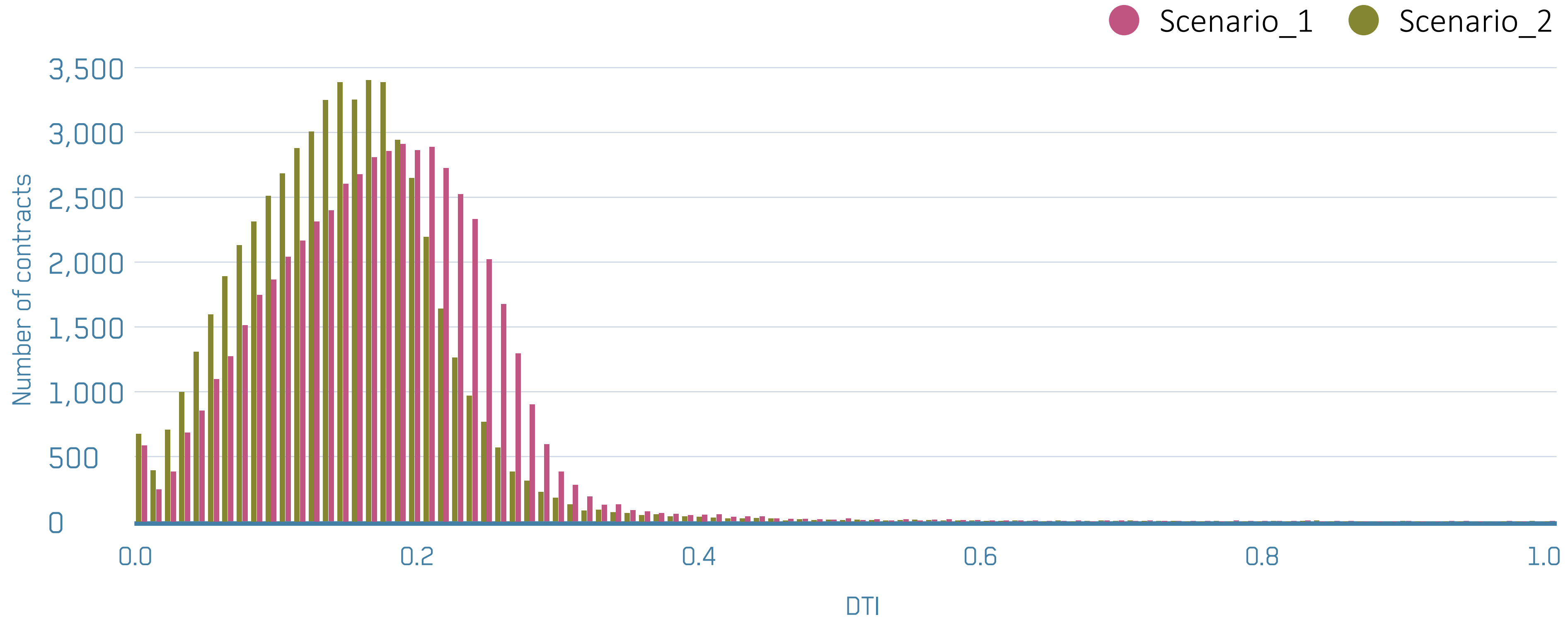


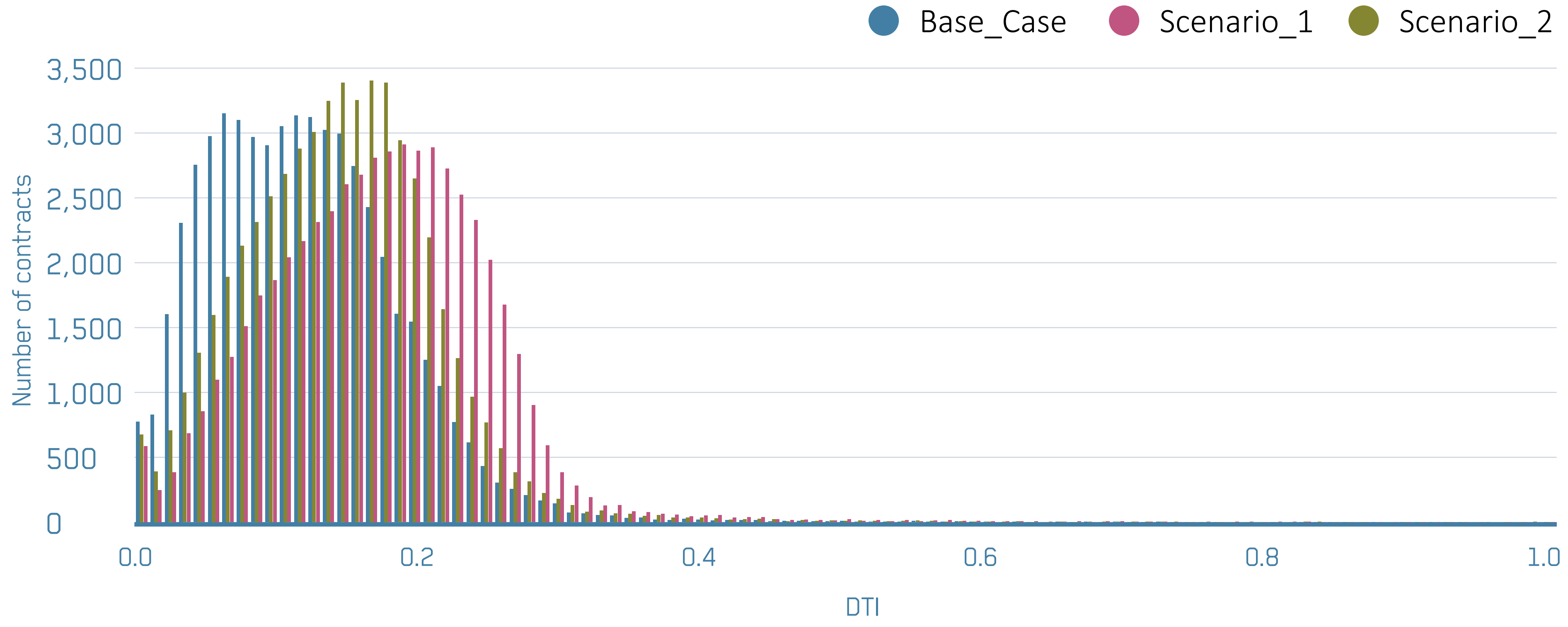
2 Albeit the tax relief has decreased in recent years and the eligibility of interest only mortgages for the tax relief have been made stricter the tax relief still has a substantial effect on lowering the net monthly payment.

3 The 'Woonquote' is annually calculated by the Nibud and provides advise for the Dutch Government on mortgage affordability. The woonquote is in terms of definition roughly in line with the Debt to service income ratio in this article.

Under scenario_2 the distribution also shifts towards the right, yet this shift is far less than under Scenario_1, reflecting the mitigating impact the increase in income and pensions has on the DTI. The average DTI of the Fund under this scenario is 16.1%, a relative increase of 18%, but 14% lower than under Scenario_1. The distribution of the DTI is also more narrow. Graph 6 compares the DTI between Scenario_1 and Scenario_2. Moreover, a comparision is shown between the Base_Case and both scenario's; reflecting the mitigating effect that the increase in income and pension has on the increase in DTI resulting from increasing mortgage rates.

GRAPH 6: DEBT TO SERVICE INCOME RATIO BASE_CASE, SCENARIO_1 AND SCENARIO_2 COMPARED





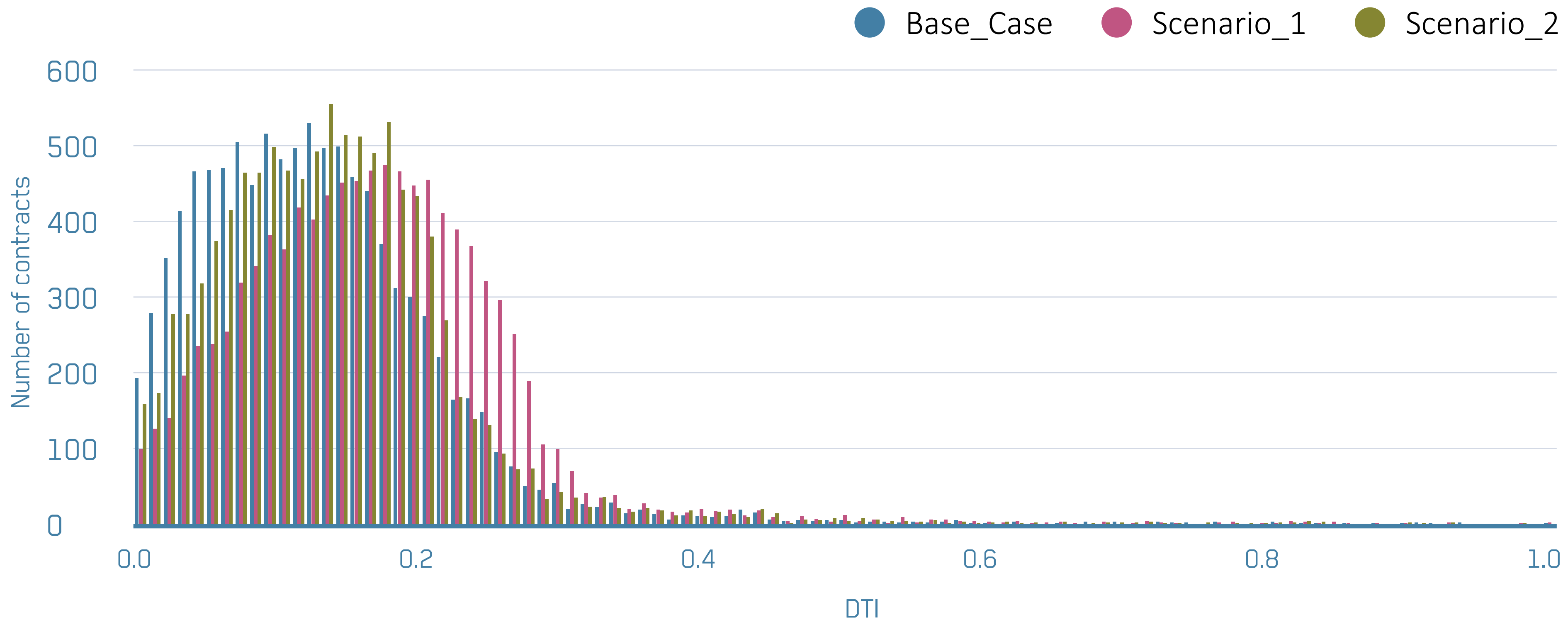
Deep dive 1

ANALYSIS ON CONSUMERS WHO HAVE THEIR ACTUAL INTEREST RESET DATE IN THE UPCOMING YEARS

On the previous pages, we have looked at the impact of an interest reset for all mortgage consumers in the Fund. As mentioned at Graph 2, only around EUR 1bn (of the total EUR 12bn) of the Remaining Debt has an Interest Reset Date up to 2030. We have looked at the current DTI for those consumers and applied both Scenario_1 and Scenario_2.

The average DTI for those consumers is currently 19.3%. Under Scenario_1 the DTI increases to 23.0%. The mitigating effect of the simulated increase in income under Scenario_2 leads to a DTI of 20.4%. Compared to all consumers, the current DTI is higher for the group of consumers whom have one or more loan parts with an interest reset in the upcoming years. The increase under Scenario_1 is relatively smaller than in the analysis before. This is mainly because the average coupon of the consumers with an upcoming reset date is higher than the average coupon in the Fund. All in all, although the average DTI is higher for this specific group, the DTI is still on the lower end of the 'Woonquote'.

GRAPH 7: DEBT TO SERVICE INCOME RATIO BASE_CASE, SCENARIO_1 AND SCENARIO_2
COMPARED FOR CONSUMERS WITH ONE OR MORE LOAN PARTS WHICH HAVE AN INTEREST RESET DATE BEFORE 31 DECEMBER 2030



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Deep dive 2

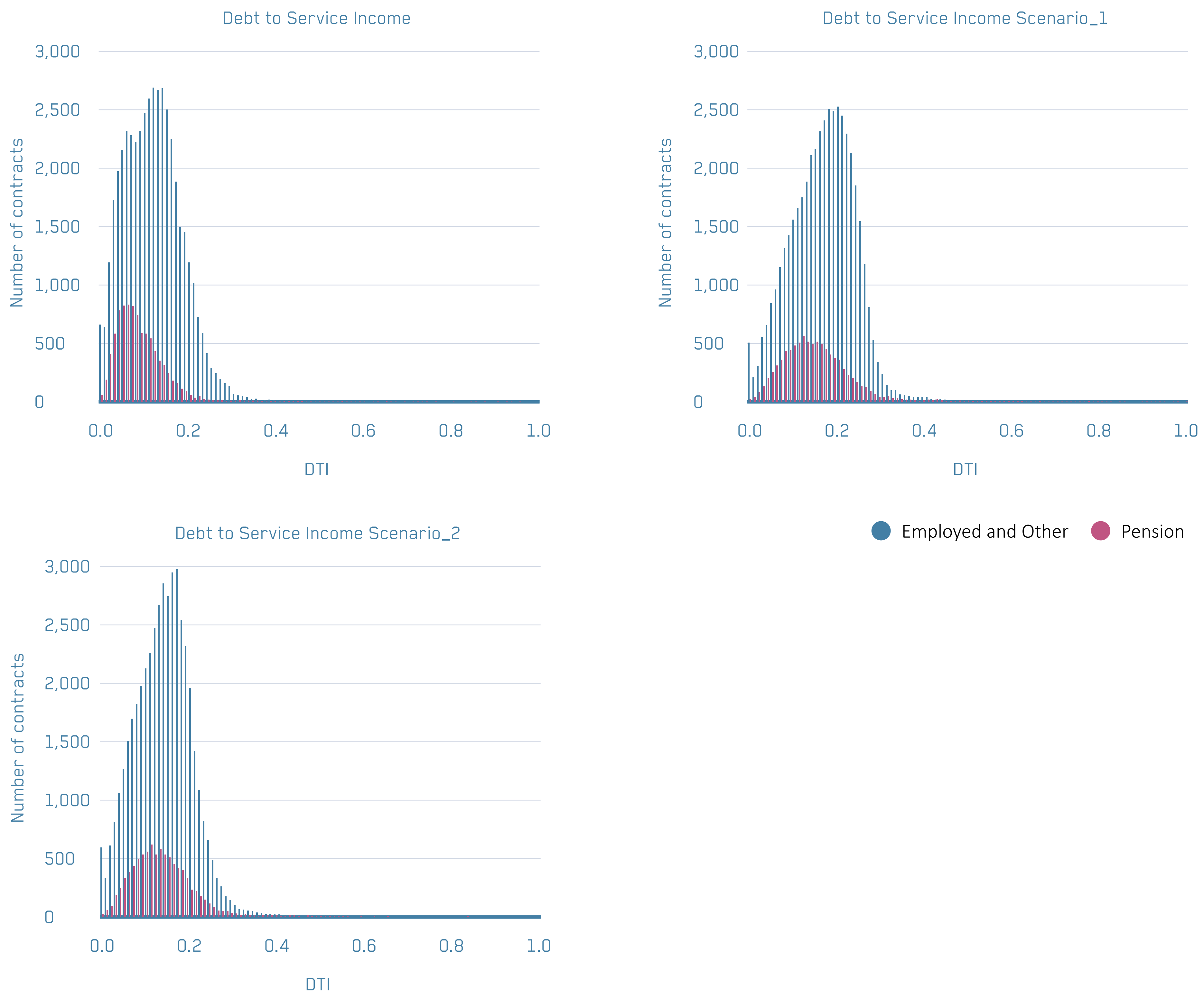
ANALYSIS ON DIFFERENT CONSUMER GROUPS AND VULNERABLE CUSTOMERS

On the previous pages, we have analyzed the impact the higher interest rate environment could potentially have on the affordability of mortgages. In general, we see that in case of refinancing, there is a substantial increase in the Monthly Payments, yet the effect is mitigated by the increase in income and also tax reliefs mitigate those effects. However, we delve a bit deeper and look if there are specific consumer groups on which the impact might be relatively more profound. We look at consumers with their income source defined as ‘Pension’ and look at consumers which have a relatively large share (or their whole mortgage) as an Interest Only.

In Graph 8 we see that generally speaking, income from employment has increased more than those receiving their income from pension. Thus, the mitigating effect of an increase in income on the increase in interest rates and monthly payments is potentially smaller. We compare the DTI of consumers with Pension income with those who are employed / have an other source of income. The results are shown on the right, and indicate that those with a pension have a relatively low DTI averaging 9.7% whereas those employed or with an other source of income have a DTI of 14.4%.

We see however, that relatively speaking, the increase in DTI under Scenario_1 is larger for consumers with pension as their income than those who are employed or have an other source of income. The DTI in this case is 16.1% compared to 19.1% for those employed. This can be partially explained as those with a pension income generally speaking have a more seasoned mortgage and those mortgages are more often an Interest Only Mortgage. Those are more sensitive to a rate increase.

GRAPH 8: DEBT TO SERVICE INCOME RATIO SCENARIO’S DIFFERENTIATED BETWEEN SOURCES OF INCOME



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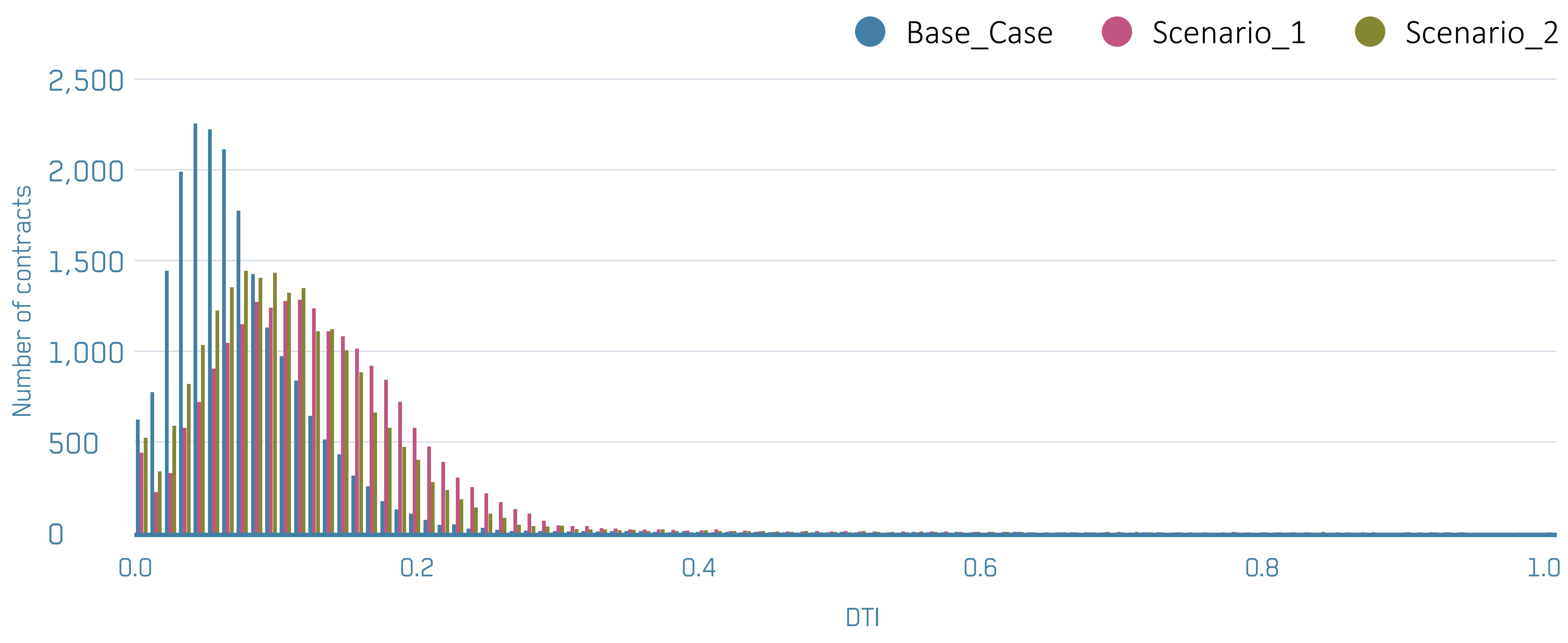
Specifically zooming on those consumers who have a relatively large share (more than 50%) as Interest Only we have shown the results in graph 9.

For those customers with a relative large share of Interest Only, we see that the current DTI is relatively low (11.1%). We see that under Scenario_1, the DTI increases to an average of 16.2%. Albeit still lower than the average for all consumers under Scenario_1; the increase is relatively larger (46%) than the average for all consumers (37% - see page 7). Under Scenario_2, the DTI is at 14.5%, showing the mitigating effects of the increase in income. Although consumers with a larger share of Interest Only Mortgage are more vulnerable to increases in mortgage rates, the results show that, in general, the effect is relatively minor especially in light of the increased income.

What does Syntrus Achmea do for its Mortgage Customers?

Every five years, or on a relevant event (like when approaching pension or interest reset date), we send customers a 'Mortgage Check'. This is a tool the consumer can use to check if they are able to afford their mortgage in the future. The tool uses the applicable reference rate (of 5%). In case the consumer fills in the check and the outcome is negative, there are pro-actively called by the Customer Contact center to discuss the outcome of the check and see if the consumer understands this. Moreover, in case a consumer expects to have trouble paying their mortgage they always can contact our special management department to see if any tailor made solution is possible to sustain the mortgage payment affordability.

GRAPH 9: DEBT TO SERVICE INCOME RATIO SCENARIO'S FOR CONSUMERS WITH A RELATIVE LARGE SHARE OF INTEREST ONLY MORTGAGES



Deep dive 3

ANALYSIS ON CONSUMERS CHOOSING A SHORTER FIRP TO IMPROVE AFFORDABILITY

In light of recent consumer behavior whereby we see a shift towards shorter FIRPs, we have also looked at the effectiveness of this in lowering the Monthly Mortgage Payment. In general, a shorter FIRP leads to a lower mortgage interest rate[4]. We have simulated this by instead of using the current applicable rate for the consumer's current FIRP we use the 10 year FIRP (while still looking at the relevant LTV bucket) and one where we use the 5 year period and use the respective rates to recalculate the Monthly Payment and use the assumptions of Scenario_1 and Scenario_2 and compare the DTIs. This provides an indication to what extent a consumer can lower their Monthly Payment by choosing a shorter FIRP. We have shown the summarized results below.

TABLE 1: DTI FOR CONSUMERS UNDER DIFFERENT FIRP ASSUMPTIONS TO DETERMINE APPLICABLE MORTGAGE RATE

	SCENARIO_1	SCENARIO_2
Current FIRP	18.6%	16.1%
10 year FIRP	18.5%	16.0%
5 year FIRP	18.1%	15.6%

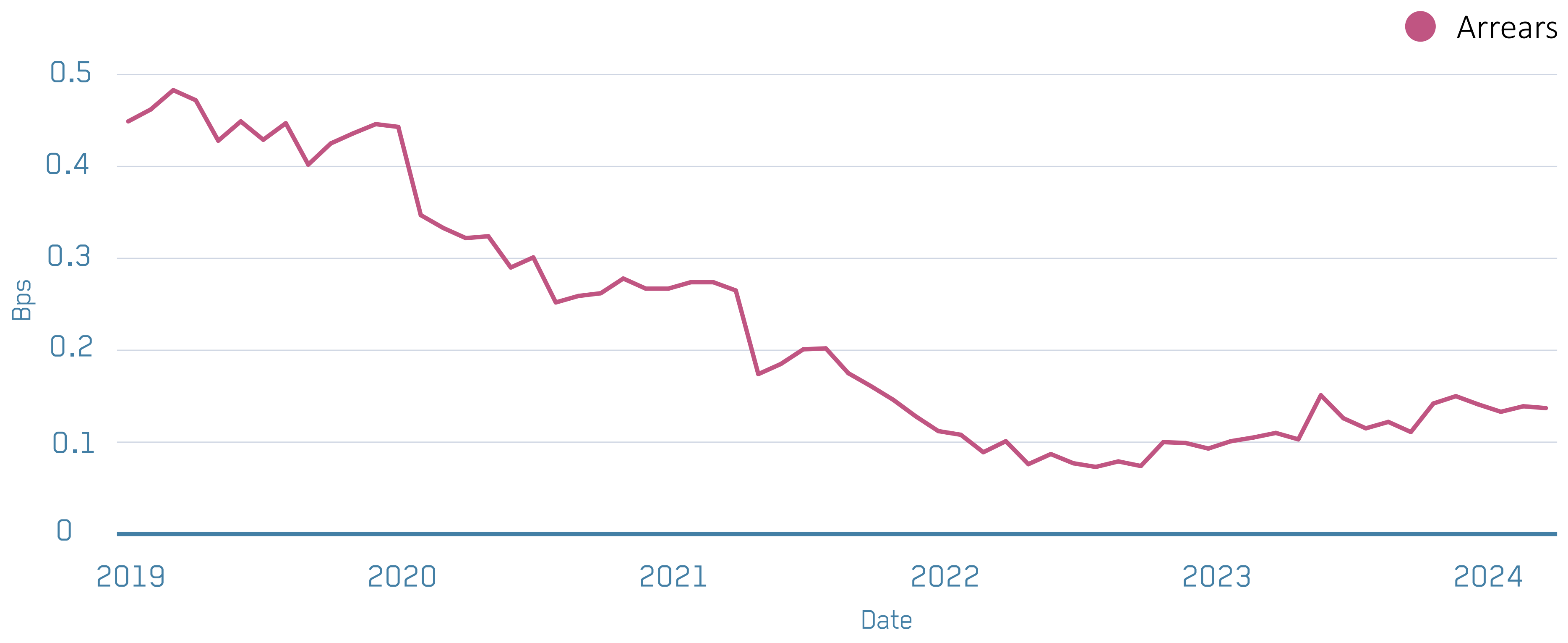
As can be seen, choosing a shorter FIRP can, to a limited extent, further lower the monthly mortgage payment and thereby the DTI.

[4] However we have recently seen that this does not necessarily holds since the swap curve is inverse (meaning shorter maturities have a higher rate than longer maturities) and this is reflected in mortgage rate setting.

Affordability and Arrears

As mentioned in the introduction, Dutch mortgage interest rates are higher since mid-end 2022. Since then, consumers have to refinance against higher rates. Albeit a relative low share of consumers in the Fund had their reset in 2023 and the first half of 2024, we see no increase in mortgage arrears. Further supporting the view that although the mortgage affordability has decreased somewhat, consumers can manage the potential increase in the mortgage payments at interest reset date. The arrears of the fund are still historically low at around 0.1 bps of the remaining debt.

GRAPH 10: ARREARS AMOUNT AS % OF TOTAL REMAINING DEBT



Conclusion

We have analyzed the implication of the increase in mortgage rates on refinancing risk and the affordability of the mortgage. Using current mortgage rates, CPI and Pension data we analyzed the implications of the increase in Rates on the Monthly Payment and DTI on the consumers in the Fund. We conclude that, in general, the DTI is currently (Base_Case) relatively low and will increase quite substantially from a relative point of view under the scenario of increasing rates (Scenario_1). In absolute terms however, the average DTI is still low compared to the 'Woonquote'. We see that, when we index the income component of the DTI calculation (Scenario_2) to reflect expected current income, the increase in DTI resulting from an increase in rates is substantially mitigated by the increase in income. We also have seen that consumer behavior could further mitigate the increase in rates by choosing a shorter FIRP. However, this mitigating effect is limited under the current offered rates.

In general, we observe that most consumers in the Fund can absorb an increase in rates. Yet, since we speak in general terms we also have looked at specific groups who might be more vulnerable to the increase. Specifically, we have looked at consumers with a pension income and those with a relative large share of interest only mortgages. We see from the analysis that although the increase in DTI is relatively higher for these groups, and the mitigating effect from an increase in income is smaller, the DTI in absolute terms in the scenario's is lower than the average in the Fund since the current DTI of those consumers is already lower. So in general terms, those groups are expected to be able to absorb the increase in rates.

Aforementioned observations are supported by the low level of arrears in the Fund. Even though rates are higher since mid-end 2022 there has been no notable increase in arrears.

As a result this article concludes that the refinancing risk within the existing portfolio is relatively low. It is expected that no significant increase in arrears or credit losses arises in the foreseeable future that directly result from refinancing.

Apart from these general conclusions, there are always individual cases in which the consumer might find difficulties in affording their mortgage after refinancing against the higher rates. In these cases the consumer can always contact our special management department to see if any tailor made solution is possible to support the mortgage payment affordability. In those cases, home preservation is the primary approach.

It is important to note that the shown results hold for the specific portfolio of the Fund. Different portfolio compositions can yield different results.

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