I. Problem Statement

1. Identify the Problem:

- The number of households retiring with debt is increasing. One in eight people planning to retire this year have no pension savings (FTAdviser, 2018). Previous barriers to equity release products, which could help these retirees tap into their assets as a source of retirement income, have largely been shattered (FTAdviser, 2018). In the past, some customers were reluctant to use equity release because they wanted to leave an inheritance to their family, but these attitudes are changing (FTAdviser, 2018).

2. Current market:

- The Equity Release Council's Spring 2018 report indicates that the range of equity release products in the UK is growing by a quarter each year. In the UK, the equity release market has historically been highly concentrated, with Aviva and Just together accounting for more than 75% of annual sales. However, the entry of Legal & General into the market in 2015 has demonstrated that there is room for new players with differentiated offerings, particularly in distribution (Sharma, French, & McKillop, 2022).

- As of January 2018, the average interest rate for equity release products was 5.14% (FTAdviser, 2018). Despite high elderly homeownership rates and strong demand, the UK market remains small relative to the more mature US reverse mortgage market (Equity Release Council [ERC], 2018; Financial Conduct Authority [FCA], 2018, as cited in Sharma et al., 2022). Additionally, this market is highly concentrated in just a few regions, with London, the South East, and the South West accounting for 59% of overall lending, compared to just 14% in the North (Key Retirement, 2018). The market is more active where house prices are high (Sharma et al., 2022).

- The primary risk for providers of equity release products is the No Negative Equity Guarantee (NNEG), which ensures that borrowers will never have to repay more than the value of their house. This increased risk from the NNEG leads to higher premiums and potentially lower loan-to-value (LTV) ratios to protect against the possibility of the loan exceeding the house's value (Sharma et al., 2022).

- Following Equity Release Council, there are two main types of equity release: Lifetime Mortgage and Home Reversion Plans.

  + **Lifetime Mortgage**: This involves taking out a type of mortgage that does not require monthly repayments. However, with some plans, instead of rolling up the interest, you can opt to make monthly repayments if you wish.
  + **Home Reversion Plan**: This allows you to access all or part of the value of your property while retaining the right to remain in your home.

3. Limitations:

- The spatial concentration of the UK market in just a few regions is not due to demand but to the risks faced by suppliers (Sharma et al., 2022). The main risk for providers of equity release products is the No Negative Equity Guarantee (NNEG), which ensures that borrowers will never have to repay more than the value of their house. This increased risk from the NNEG leads to higher premiums and potentially lower LTV amounts to protect against the possibility of the loan exceeding the house's value (Sharma et al., 2022).

4. Risk Management:

- Applying No Negative Equity Guarantee (NNEG): This guarantee ensures that borrowers (or their estates) will never owe more than the value of their property, even if the loan amount exceeds the property value when sold (Sharma et al., 2022).

- Risk Management for Providers:

+ **Offering prudent loan-to-value (LTV) ratios:** Lenders provide a percentage of the property's value that is considered safe (Sharma et al., 2022)
+ **Charging a premium in the interest rate:** This additional charge helps cover the potential costs of the NNEG (Sharma et al., 2022).

- **Disadvantages of NNEG:** Although the exact premiums for NNEG in the UK are not publicly disclosed, estimates suggest that the cost of the NNEG as a percentage of the initial lump sum borrowed ranges from 0.1% to 6.5% for a 65-year-old female borrower. This variation depends on different assumptions used in the calculations (based on a study by Tunaru & Quaye, 2019, as cited in Sharma et al., 2022).

II. Product Description:

1. Concepts:

- A reverse mortgage is a loan that allows homeowners who are 62 or older and have considerable home equity to borrow against the value of their home. They can receive the funds as a lump sum, fixed monthly payment, or line of credit. Unlike a forward mortgage—the type used to buy a home—a reverse mortgage does not require the homeowner to make any loan payments (Business Research Insights, n.d.).

- Equity release allows individuals aged 55 and over to access money from the property they live in without having to make any monthly repayments (Equity Release Council, n.d.).

2. Lotus' Product:

- Homeowners can convert their home equity into a guaranteed monthly income, similar to an annuity or reverse mortgage.

- Elderly homeowners to secure financial stability while continuing to enjoy living in their homes.

III. Value Proposition:

- Lotus is not a loan, which mitigates risks for both providers and the elderly: interest rates and repayment burden

- One of the pioneers applying Fintech advancements in reverse mortgages sector.

- Blockchain-Driven Security and Transparency: By using blockchain technology, Lotus ensures that all agreements are secure and transparent, building trust and reducing the risk of fraud.

- AI-Powered Valuation and Payment Calculation: Use AI to accurately determine the value of the property and calculate personalized monthly payments, ensuring each homeowner gets a fair deal.

IV. Market Potential:

1. Market size

Following Business Research Insights Report:

- UK: GBP 1.2 billion in 2021

- Global: USD 364.1 billion in 2020, USD 1637.6 million in 2021

- Global: expected to reach USD 398.3 billion by 2027, CARG of 18.9% from 2020 to 2027, USD 3026.9 million by 2032, CAGR of 5.7% from 2021 to 2032

- Europe: expected to exceed USD 17.4 billion by 2027

2. Market trends:

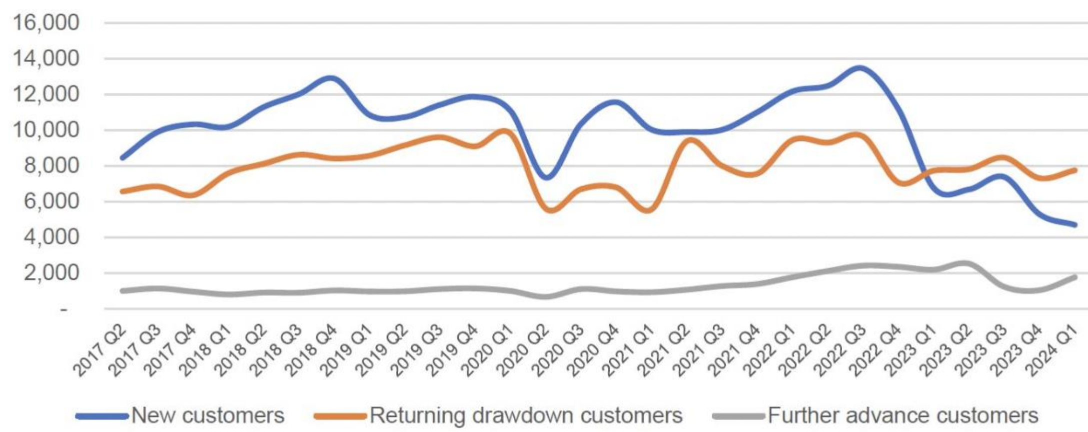
- Research conducted by Royal London has shown that younger generations are less focused on receiving an inheritance, with 89% of 45- to 64-year-olds expressing a desire for their parents to spend freely during their retirement. Conversely, only 45% of 65- to 85-year-olds anticipate that they will pass on an inheritance. This shift in attitudes has contributed to an increasing demand for alternative sources of income, such as equity release (Royal London, n.d.).

- Homeownership remains significantly prevalent among retirees in the UK. According to recent research by Just Group, even those retirees on the lowest income, averaging £7,619 per year, have homeownership levels as high as 89% (Just Group, n.d.).

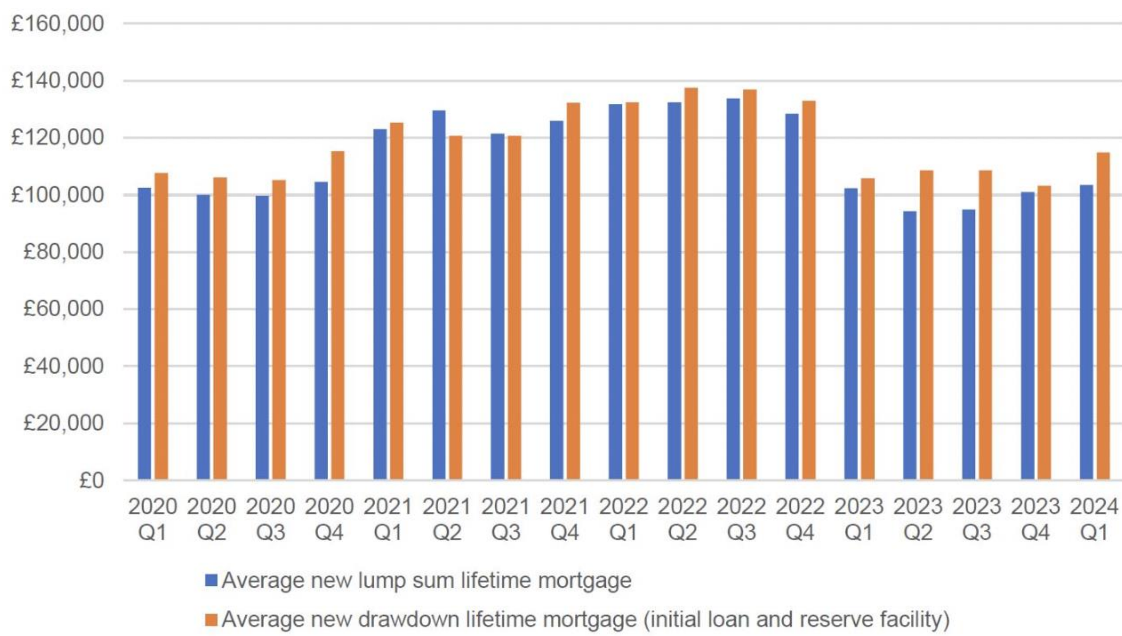
- As we look toward the rest of 2024, there is confidence that the early signs of recovery in the market will lead to sustained growth. The structural drivers of the later life lending sector are expected to intensify in the coming years, and Council members are prepared to support clients in making sustainable, long-term financial decisions (Burrowes, 2023).

- Following the Report of Q1 2024 Equity Release Mortgage – UK Market from Equity Release Council:

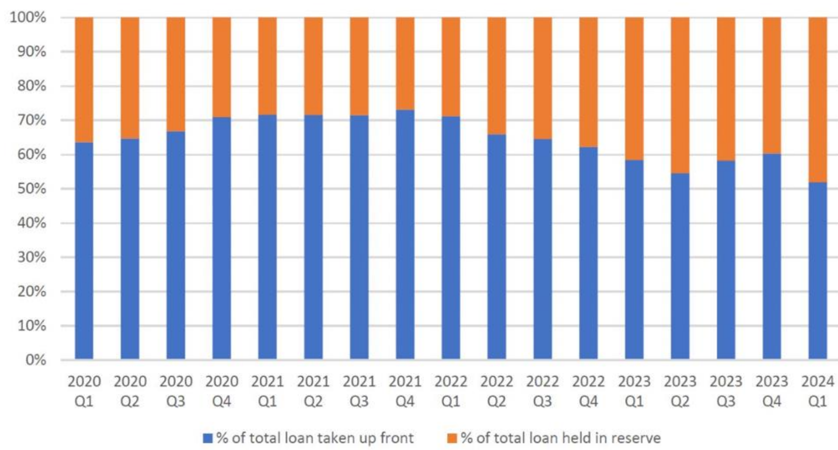
Graph 1: Equity release customer numbers per quarter by customer type



Graph 2: Average new loan sizes among equity release customers



Graph 3: Breakdown of new drawdown lifetime mortgages between initial loan and reserves



- In 2023, the market saw a significant downturn compared to 2022 due to interest rate fluctuations. However, Q1 2024 showed a slight recovery as interest rates stabilized, boosting consumer confidence.
- It's evident that many retirees prefer to access their equity gradually over time rather than taking out large lump sums. This trend suggests that our product aligns well with customer needs and current market trends.
- In fact, drawdown lifetime mortgages have seen a rise in popularity, with 56% of new customers choosing this option in Q1 2024, up from 45% in Q2 2022
- the outlook is optimistic for our fintech, as there's significant potential for us to tap into this growing market. We believe that despite the recent decline, the market is set to recover due to increasing customer needs.
- Additionally, the marked rise in the popularity of drawdown lifetime mortgages reflects a strategic approach by customers who are looking to manage their retirement finances more effectively in the face of economic uncertainty, which aligns well with the solutions we offer

V. References:

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