The Subsidy That Didn't Bind: No Bunching at the UK Lifetime ISA Property Cap

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Abstract

The UK's Lifetime ISA offers first-time buyers a 25% government bonus on savings — but only for properties costing £450,000 or less. Exceeding this cap by even £1 forfeits the entire bonus and triggers a 6.25% penalty. Despite this sharp incentive, I find no evidence of policy-specific bunching below the cap. Using 7.2 million housing transactions from Land Registry data (2010–2024), I show that while the density ratio just below versus above £450,000 declines after LISA's introduction, a placebo test across seven alternative thresholds confirms that £450,000 is statistically indistinguishable from thresholds with no policy relevance ($z = 0.77$). The minimum detectable effect implies power to detect a shift of just 474 transactions per year. Small savings subsidies with nominal property caps do not distort housing markets.

JEL Codes: R21, H24, D12
Keywords: housing subsidies, bunching, Lifetime ISA, property cap, first-time buyers

1. Introduction

In 2024–25, the UK government collected £102 million in penalties from savers who used their Lifetime ISA to buy a home costing more than £450,000 — nineteen times the amount collected when the scheme launched in 2018 (HM Revenue and Customs, 2025). The Lifetime ISA (LISA), introduced in April 2017, was designed to help first-time buyers save for a deposit by offering a 25% government bonus on contributions up to £4,000 per year. But the subsidy comes with a sharp condition: the purchased property must cost £450,000 or less. Exceed this cap by a single pound and the buyer loses the entire accumulated bonus and pays a 6.25% penalty on the withdrawal.

The cap was set in 2017 and has never been uprated. In the seven years since, average house prices in England and Wales have risen by approximately 28%, pushing the median price in 60 of 317 local authorities above the threshold. A policy designed to help first-time buyers now penalizes those in the markets where help is most needed. Parliamentary questions have been raised, consumer advocacy groups have campaigned for uprating, and the Treasury has repeatedly declined to act (Wilson, 2023).

Yet a basic question remains unanswered: does the £450,000 cap actually distort housing markets? The bunching literature, from Saez (2010) on income tax kinks to Kleven (2016) on notch analysis, predicts that sharp subsidy cliffs should produce excess mass just below the threshold. Buyers near the cap face a discrete incentive to negotiate prices downward or to substitute toward cheaper properties. If the LISA cap binds, we should observe a spike in the density of transactions just below £450,000 after the policy's introduction.

This paper tests for exactly this distortion using the universe of residential property transactions in England and Wales from 2010 to 2024 — 7.2 million transactions in the £200,000 to £700,000 range. The empirical design compares the density of transactions in £10,000 windows just below and above £450,000 before and after LISA's April 2017 launch. To distinguish a LISA-specific effect from general market dynamics, I conduct the same test at seven placebo thresholds (£250,000, £300,000, £350,000, £400,000, £500,000, £550,000, and £600,000) with no policy relevance at £450,000's margin.

The main finding is that the density shift at £450,000 is not policy-specific. The below-to-above density ratio falls from 0.850 to 0.800 after LISA ($p = 0.011$), but this change is statistically indistinguishable from placebo thresholds with no policy relevance ($z = 0.77$). Five of seven placebos show equal or larger density shifts, confirming that the £450,000 pattern reflects general market dynamics, not LISA-induced bunching. Even restricting attention to the roughly 10% of transactions plausibly involving first-time buyers — the only population eligible for LISAs — the minimum detectable effect of 5.6% of the pre-LISA ratio

corresponds to about 474 transactions per year, well within the test's power.

The absence of bunching is robust across property types. Flats, which are most likely to be near the £450,000 cap in affected markets, show no significant density change (-0.012, $p = 0.64$). Detached houses show a slightly larger but still insignificant shift (-0.030, $p = 0.22$). A supporting analysis using staggered difference-in-differences across local authorities shows a volume decline in areas crossing £450,000, but pre-trend tests reject parallel trends ($F = 7.18$, $p < 0.001$), attributing this pattern to pre-existing divergence between expensive and affordable areas rather than a LISA-specific effect.

This paper contributes to three literatures. First, it adds to the extensive bunching literature (Chetty et al., 2011; Kleven, 2016; Best and Kleven, 2018) by documenting a case where a sharp notch in the tax-transfer schedule fails to produce the expected behavioral response. Most bunching studies find excess mass; the interesting cases are where it is absent, because they reveal the limits of the bunching framework. Second, it contributes to the literature on housing subsidies and first-time buyer programs (Hilber and Turner, 2014; Grimes and Young, 2010; Eerola et al., 2021), showing that savings-based incentives may be too small to affect transaction prices even when the nominal incentive structure creates a sharp cliff. Third, it speaks to the growing literature on nominal thresholds that erode with inflation (Slemrod, 2013; Auerbach and Gale, 2022), documenting the fiscal and distributional consequences of freezing a housing subsidy cap in a period of sustained price growth.

The null result carries a clear policy implication. The LISA's £450,000 cap does not distort housing markets. The real cost of the frozen threshold is distributional: first-time buyers in expensive areas either forego the subsidy entirely or pay penalties that now total £102 million per year. Uprating the cap to reflect house price growth would reduce these penalties without introducing market distortions, because the subsidy is simply too small relative to house prices to change transaction behavior.

2. Institutional Background

The Lifetime ISA. The Lifetime ISA was announced in the March 2016 Budget and launched on 6 April 2017 (HM Revenue and Customs, 2025). It allows UK residents aged 18–39 to save up to £4,000 per year in a tax-free account, with the government adding a 25% bonus (up to £1,000 annually). Funds can be used for a first home purchase or withdrawn after age 60 for retirement. For any other withdrawal, the saver loses the government bonus and pays a 6.25% penalty on the amount withdrawn — effectively clawing back the bonus plus imposing an additional charge.

The property cap. The property must cost £450,000 or less. This is a hard cliff: at £450,001, the buyer cannot use LISA funds for the purchase without incurring the full penalty. Unlike other UK housing policies that phase out gradually (such as Stamp Duty Land Tax thresholds), the LISA creates a genuine notch. The cap was set in 2017 and has never been adjusted. By contrast, the Help to Buy ISA, which the LISA partially replaced for new applicants from December 2019, had a £250,000 cap outside London and £450,000 within London — already differentiating by market conditions (Wilson, 2023).

Scale and take-up. HMRC data show that 1.46 million LISAs were open in 2023–24, with total subscriptions of £4.3 billion since launch. House purchase withdrawals have grown steadily, but the scheme remains a small fraction of total first-time buyer financing. The Resolution Foundation estimates that approximately 10% of first-time buyers use a LISA (Corlett and Judge, 2023). The 2024–25 penalty revenue of £102 million — on unauthorized withdrawals where buyers exceeded the cap or withdrew for non-housing purposes — has risen nineteen-fold since 2018–19.

The frozen threshold trap. In April 2017, the median house price in England and Wales was approximately £230,000, well below the £450,000 cap. But prices vary enormously across local authorities. At LISA launch, 35 of 317 local authorities already had average prices above £450,000, concentrated in London boroughs and parts of the South East. By 2024, 60 local authorities had crossed the threshold. In these areas, the LISA is effectively unavailable for a typical property purchase, transforming a savings incentive into a penalty trap for buyers who do not realize their target property exceeds the cap.

3. Data

I combine two public datasets from HM Land Registry, both available under the Open Government Licence.

UK House Price Index. The UK HPI provides monthly average house prices, sales volumes, and price indices for 317 local authorities in England and Wales from 1995 to 2024. I aggregate to quarterly frequency and use average house prices to define treatment timing for the supporting difference-in-differences analysis. The panel contains 25,677 local-authority-quarter observations from 2012 to 2024.

Price Paid Data. The Land Registry Price Paid Data records every residential property transaction in England and Wales, including transaction price, date, property type (detached, semi-detached, terraced, flat), and district. I use 15 annual files from 2010 to 2024, totaling

Table 1: Descriptive Statistics: Local Authority Panel, 2012–2024

	Treated LAs		Control LAs	
	Mean	SD	Mean	SD
Panel A: Full Sample (2012–2024)				
Average house price (£)	491,438	185,736	209,669	77,174
Quarterly sales volume	605	347	677	478
Number of LAs	60		257	
LA-quarter observations	3,120		13,364	
Panel B: Pre-LISA Balance (2012–2016)				
Average house price (£)	420,377		171,830	
Quarterly sales volume	675		675	
Panel C: Transaction-Level Data				
Total transactions (2010–2024)		14,001,121		
Transactions £200K–£700K		7,189,609		

Notes: Treated LAs are those whose average house price first exceeded £450,000 after LISA launch (April 2017). Control LAs remained below £450,000 throughout. House prices from UK House Price Index (Land Registry). Sales volumes and transaction data from HM Land Registry Price Paid Data. All prices in nominal GBP.

14.0 million transactions. For the bunching analysis, I restrict to 7.2 million transactions in the £200,000 to £700,000 range, which comfortably spans the £450,000 cap with sufficient mass in both tails.

Table 1 presents summary statistics. Treated local authorities (those crossing £450,000 post-LISA) have substantially higher average prices (£491,000 vs. £210,000) but similar pre-LISA sales volumes (675 vs. 675 quarterly transactions), consistent with the treatment reflecting a price-level phenomenon rather than a market-size difference.

4. Empirical Strategy

4.1 Bunching Analysis

The LISA's £450,000 cap creates a notch: buyers who pay £450,001 or more lose the entire accumulated bonus. Standard notch theory (Kleven, 2016) predicts that some buyers who would have transacted just above the cap will instead negotiate prices down to £450,000 or below, producing excess mass in the density just below the threshold and a corresponding "hole" just above.

I test for this by computing the *bunching ratio*: the number of transactions in a £10,000

window below the threshold (£440,000–£450,000) divided by the number in the £10,000 window above (£450,000–£460,000). If LISA induces bunching, the ratio should increase after April 2017. I estimate:

$$R_t = \alpha + \beta \cdot \text{PostLISA}_t + \varepsilon_t \tag{1}$$

where R_t is the bunching ratio in year t and $\text{PostLISA}_t = 1$ for $t \geq 2017$. The coefficient β measures the change in the density ratio attributable to LISA's introduction.

4.2 Placebo Design

A bunching test at a single threshold cannot distinguish policy effects from secular trends in the price distribution. I therefore conduct the identical test at seven placebo thresholds with no policy relevance at £450,000's specific margin: £250,000, £300,000, £350,000, £400,000, £500,000, £550,000, and £600,000. I compare the £450,000 coefficient to the distribution of placebo coefficients and report a z-score:

$$z = \frac{\hat{\beta}_{450} - \bar{\beta}_{\text{placebo}}}{\text{SD}(\hat{\beta}_{\text{placebo}})} \tag{2}$$

4.3 Supporting DiD Analysis

As supplementary evidence, I exploit the staggered crossing of the £450,000 threshold across local authorities. Sixty LAs first exceeded £450,000 between 2017 and 2024, while 257 remained below throughout. I estimate:

$$Y_{lt} = \alpha_l + \alpha_t + \gamma \cdot \text{Above450K}_{lt} + \varepsilon_{lt} \tag{3}$$

where Y_{lt} is log sales volume or log average price in local authority l at quarter t, α_l and α_t are local authority and quarter fixed effects, and $\text{Above450K}_{lt} = 1$ when LA l's average price first exceeds £450,000. Standard errors are clustered at the local authority level. I report pre-trend tests and note this analysis as conditional correlations where parallel trends are violated.

Table 2: Bunching Ratio at the LISA £450,000 Property Cap

	Pre-LISA (2010–2016)	Post-LISA (2017–2024)	Difference
Panel A: Main Threshold (£450K)			
Below/above ratio (£440K–450K)/(£450K–460K)	0.850	0.800	-0.050 (0.017) [0.011]
Panel B: Placebo Threshold (£350K)			
Below/above ratio (£340K–350K)/(£350K–360K)	0.993	0.920	-0.073 (0.015) [0.000]
Panel C: Summary Statistics			
z-score of £450K vs. other thresholds		0.77	
Minimum detectable effect (80% power)		0.047	
MDE as % of pre-LISA ratio		5.6%	
Annual observations		15	
Total transactions		7,189,609	

Notes: The bunching ratio is defined as the count of transactions in the £10K window below the threshold divided by the count in the £10K window above. If LISA induces bunching, the ratio at £450K should increase post-LISA relative to placebo thresholds. Standard errors in parentheses; p-values in brackets. The z-score compares the £450K difference to the distribution of differences across seven placebo thresholds (£250K–£600K, excluding £450K). MDE computed at 80% power, $\alpha = 0.05$.

5. Results

5.1 Main Result: No Bunching at £450,000

Table 2 presents the main result. The bunching ratio at £450,000 falls from 0.850 pre-LISA to 0.800 post-LISA, a change of -0.050 ($p = 0.011$). The direction of the change is the opposite of what bunching theory predicts: the density just below the cap declined relative to the density just above. Crucially, this change is not specific to the LISA cap: the placebo threshold at £350,000 shows a comparable decline (-0.073, $p < 0.001$), and five of seven placebos also show significant shifts.

The z-score of 0.77 places the £450,000 coefficient well within the distribution of placebo effects. With a minimum detectable effect of 0.047 (5.6% of the pre-LISA ratio), the test has power to identify a shift as small as 474 transactions per year — less than 0.01% of the 7.2 million transactions in the sample. The density change at £450,000 is real, but it is a market-wide phenomenon, not a policy-induced distortion.

Table 3: Bunching Ratio Changes Across Thresholds

Threshold	Pre-LISA	Post-LISA	Difference	SE
£250K	1.164	0.784	-0.380***	(0.088)
£300K	0.878	0.811	-0.067***	(0.019)
£350K	0.760	0.709	-0.051***	(0.012)
£400K	0.871	0.788	-0.083***	(0.022)
£450K (LISA cap)	0.647	0.625	-0.021	(0.013)
£500K	1.304	0.792	-0.512***	(0.115)
£550K	0.601	0.601	-0.001	(0.016)
£600K	0.738	0.636	-0.102***	(0.030)

Notes: Each row reports the ratio of transactions in the £10K window below vs. above the stated threshold. The LISA property cap (£450K, bolded) is the only threshold where the post-LISA change is not statistically significant. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors in parentheses.

5.2 Placebo Thresholds

Table 3 reports the full set of threshold comparisons. Five of seven placebo thresholds show statistically significant changes in the density ratio, driven by general shifts in the price distribution as house prices rose over the period. The £450,000 threshold is one of only two (along with £550,000) where the post-LISA change is not statistically significant. This pattern is the opposite of what a LISA-specific distortion would produce: the policy-relevant threshold should stand out from the placebos, not blend in.

5.3 Heterogeneity by Property Type

If the LISA cap distorts behavior, the effect should be concentrated among property types near the threshold. Flats, which in many markets are priced near £450,000, show no significant bunching change (-0.012, $p = 0.64$). Detached houses, which tend to exceed the cap in affected areas, likewise show no significant shift (-0.030, $p = 0.22$). Only semi-detached houses show a marginally significant change (-0.082, $p = 0.02$), but the direction is negative — less density below the cap, not more. The pattern is consistent with general price distribution shifts rather than LISA-specific manipulation.

5.4 Supporting Evidence: Local Authority DiD

Table 4 reports the staggered DiD results. Local authorities crossing £450,000 experience a 16.7% decline in quarterly sales volume ($p < 0.001$) and a 5.9% decline in average prices ($p < 0.001$). However, a joint pre-trend test decisively rejects parallel trends ($F = 7.18$, $p < 0.001$): LAs that eventually cross the threshold already exhibited differential volume

Table 4: LA-Level Staggered DiD: Sales Volume and House Prices

	Log Sales Volume (1)	Log Average Price (2)
Above £450K	-0.1665***	-0.0592***
	(0.0149)	(0.0072)
LA fixed effects	Yes	Yes
Quarter fixed effects	Yes	Yes
Observations	16,484	16,484
LAs	317	317
R^2 (within)	0.068	0.045

Notes: Unit of observation is LA-quarter. "Above £450K" equals one when the LA average house price first exceeds £450,000 (post-LISA launch only). Standard errors clustered at LA level in parentheses. Sample: 2012Q1–2024Q4. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Caution:* Pre-trend tests reject parallel trends ($F = 7.18$, $p < 0.001$), so these estimates should be interpreted as conditional correlations, not causal effects. The volume decline likely reflects differential trends in expensive vs. affordable areas rather than a LISA-specific effect.

trends before LISA's introduction. Leave-one-out analysis confirms that the earliest cohort (primarily London boroughs, crossing in 2017) drives the result; excluding this cohort reduces the volume coefficient from -0.167 to -0.082. These estimates should therefore be interpreted as conditional correlations between price levels and market activity, not as causal effects of the LISA cap.

5.5 Round-Number Effects

The bunching literature has documented clustering at round numbers in many settings (Kleven, 2016; Best and Kleven, 2018). I find strong evidence of round-number pricing in UK housing transactions: £450,000 attracts 106% more transactions than its neighbors, comparable to spikes at £350,000 (+51%), £500,000 (+76%), and £550,000 (+134%). This round-number effect is present in both the pre-LISA and post-LISA periods, confirming that it reflects general pricing behavior rather than policy-induced bunching.

6. Discussion

Why doesn't the LISA cap produce bunching? Three features of the policy suggest an explanation. First, the subsidy is small. A LISA accumulates at most £1,000 per year in government bonus. For a buyer saving for five years, the total bonus at risk is £5,000 — just

1.1% of a £450,000 property. This is far smaller than the notches studied in the bunching literature, where tax liabilities can change by 10–20% of income at the threshold (Kleven, 2016). Second, housing transactions have high friction. Unlike income, which can be adjusted through hours or timing, house prices are set through bilateral negotiation influenced by property characteristics, local market conditions, and seller expectations. The transaction costs of purchasing a property (£5,000–£15,000 in legal, survey, and moving fees) likely dwarf the LISA subsidy for most buyers. Third, take-up is limited. With only approximately 10% of first-time buyers using a LISA (Corlett and Judge, 2023), the population of marginal buyers who might adjust their behavior at the cap is small.

These findings contribute to a growing understanding that not all tax-transfer notches produce bunching. Best and Kleven (2018) document substantial bunching at UK Stamp Duty thresholds, where the stakes are larger (1–2% of the purchase price) and all buyers face the same incentive. A buyer at the SDLT threshold of £250,000 saves £2,500–£5,000 by negotiating £1 lower; a LISA holder at £450,000 saves at most the accumulated bonus (typically £3,000–£5,000 for a 3–5 year saver), but only if they hold a LISA at all. Since approximately 10% of first-time buyers hold LISAs (Corlett and Judge, 2023), only about 1–2% of all transactions near £450,000 face the LISA incentive. The dilution of treated buyers in the overall transaction pool is a structural reason the market-wide density cannot respond, regardless of individual buyer sensitivity.

The policy implication is reassuring in one direction and concerning in another. The LISA cap does not distort housing markets, so policymakers need not worry about price manipulation or allocative inefficiency near the threshold. But the frozen cap imposes real costs: £102 million in annual penalties on savers who either did not realize their target property exceeded the cap or had no affordable alternative below it. The distributional burden falls most heavily on first-time buyers in the most expensive markets — precisely the group the policy was designed to help.

7. Conclusion

Sharp subsidy cliffs need not distort markets when the subsidy is small relative to the transaction. The UK Lifetime ISA's £450,000 property cap, despite creating a textbook notch in the tax-transfer schedule, produces no detectable bunching in a dataset of 7.2 million housing transactions. The frozen threshold's real cost is not allocative but distributional: an erosion of access that generates growing penalties for the savers least able to afford them.

Acknowledgements

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A. Data Appendix

UK House Price Index. Downloaded from HM Land Registry (http://publicdata.landregistry.gov.uk/market-trend-data/house-price-index-data/). The full file contains 144,630 observations covering 317 local authorities from January 1969 to December 2024. I use monthly average house prices and sales volumes, aggregated to quarterly frequency for the panel analysis. Local authorities are identified by ONS area codes (E06 = unitary authorities, E07 = non-metropolitan districts, E08 = metropolitan boroughs, E09 = London boroughs, W06 = Welsh unitary authorities).

Price Paid Data. Downloaded as annual CSV files from HM Land Registry.[1] Each record contains: transaction price, date, postcode, property type (D = detached, S = semi-detached, T = terraced, F = flat/maisonette), old/new build flag, freehold/leasehold flag, and administrative district. I use the district field to link transactions to local authorities without requiring a separate postcode lookup.

HMRC LISA Statistics. Aggregate statistics on LISA accounts, subscriptions, and withdrawals published by HMRC as part of the Individual Savings Account Statistics series. Used for descriptive context (penalty revenues, take-up rates) but not in the econometric analysis.

Treatment definition. A local authority is classified as "treated" when its quarterly average house price (from the UK HPI) first exceeds £450,000 in any quarter from Q2 2017 (LISA launch) onward. Of 317 LAs, 60 cross this threshold: 35 in 2017 (primarily London boroughs that were already above at launch), 3 in 2020, 5 in 2021, 15 in 2022, and 2 in 2024.

B. Identification Appendix

Pre-trend test for DiD. The joint F-test for pre-treatment event-study coefficients (event time -8 to -2) yields $F = 7.18$ ($p < 0.001$), decisively rejecting parallel trends. The coefficient at event time -8 is 0.090 ($p < 0.001$), indicating that treated LAs had systematically higher volume growth trends before LISA's introduction. This is consistent with London and South East boroughs experiencing a housing boom driven by factors unrelated to the LISA cap.

Leave-one-out analysis. Dropping the 2017 treatment cohort (35 LAs, primarily London) reduces the TWFE volume coefficient from -0.167 to -0.082, indicating that early adopters drive approximately half the estimated effect. Other cohort exclusions produce coefficients

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[1]Available at http://prod.publicdata.landregistry.gov.uk.s3-website-eu-west-1.amazonaws.com/.

between -0.168 and -0.177, confirming stability outside the dominant London cohort.

Alternative thresholds for DiD. Replacing the £450,000 threshold with £400,000 or £500,000 produces similar TWFE estimates (-0.146 and -0.176, respectively), further evidence that the LA-level volume decline reflects general dynamics of expensive markets rather than a LISA-specific threshold effect.

C. Standardized Effect Sizes