

UK Property Analysis

Team 5

Table of Contents

Introduction.....	2
What Drives Housing Value in the UK?.....	2
Understanding UK Property Structure (Brief Context for This Analysis).....	3
The Questions.....	5
Question 1: What Is the Median % Price Change Between Consecutive Sales?.....	5
Question 2: How Long Do People Actually Stay?.....	7
Question 3: Quick Resales: Who Sells Fast and What Happens to Prices?.....	10
Question 4: What Are the Fastest Growing Postcode Areas (2013–2023)?.....	13
Question 5: Do New Builds Consistently Command a Premium?.....	16
Question 6: Is There a Price Ladder Effect by Property Type Within One Area?.....	19
Question 7: What Is the Price Difference Between Leaseholds and Freeholds?.....	22
Question 8: What Are the Biggest Winner and Loser Properties From First to Last Recorded Sale?....	25
Question 9: What Happens to Prices in the Wake of “Shock Year” Market Crises (2008 and 2020)?....	29
Conclusion.....	34
So What Did We Learn?.....	34

Introduction

What Drives Housing Value in the UK?

This project analyzes 30 years of UK residential property sales (1995–2025) to answer a simple question:

What actually drives price and who really wins or loses over time?

Using over 22,000 properties with multiple recorded sales, we explored:

- How location shapes price levels
- How property type creates a pricing ladder
- Whether new builds command a true premium
- How freehold compares to leasehold
- What happens during shock years (2008 and 2020)
- And which individual properties delivered the biggest gains — or the biggest losses

To keep the results realistic, we applied safeguards to avoid distortions from ultra-low sale prices and mathematically inflated annual returns.

The goal isn't just to compute price changes — it's to understand the structure of the market.

This written report summarizes the key findings. The interactive dashboard and complete SQL scripts are available here:

[Tableau Public Link: Interactive Dashboard](#)

[GitHub Link: Full SQL Code & Data Preparation Scripts](#)



Understanding UK Property Structure (Brief Context for This Analysis)

It is helpful to briefly clarify two structural features of the UK market: property type and tenure. These factors materially influence price behavior and resale dynamics.

Property Types



The UK housing market is typically segmented into four primary dwelling types:

- **Flat** (far right in image) – An apartment unit within a larger building. Often leasehold. Typically the most affordable entry point into the housing market.
- **Terraced** (2nd from right in image) – A row house attached to properties on both sides. Common in urban areas.
- **Semi-Detached** (far left in image) – A house attached to one neighboring property on one side only.
- **Detached** (2nd from left in image) – A standalone house with no shared walls. Typically commands the highest prices due to land ownership, space, and privacy.

Across most postcode areas, these property types form a predictable “price ladder,” with flats at the lower end and detached homes at the upper end.

Tenure: Freehold vs Leasehold

Unlike many markets (including the U.S.), UK property ownership can be structured in two distinct ways:

- **Freehold** – The buyer owns both the property and the land it sits on outright.



- **Leasehold** – The buyer owns the property for a fixed period (often 99–999 years), but not the land. Leaseholders typically pay:
 - Ground rent
 - Service charges
 - Maintenance contributions

Lease length can affect resale value. As the remaining lease term shortens, the property may become less attractive to buyers and lenders.

In practice:

Flats are often leasehold

Houses are often freehold

This structural difference plays an important role in interpreting resale performance, price growth, and volatility throughout the analysis.

Why This Matters

Several findings in this report — including differences in appreciation, resale timing, and loss concentration — are influenced not just by geography, but by the interaction between property type and tenure structure.

Understanding these distinctions provides essential context for interpreting the results that follow.



The Questions

Question 1: What Is the Median % Price Change Between Consecutive Sales?

Objective

To measure typical resale price growth between consecutive sales and examine how this varies by property type and postcode area.

Methodology

For each property with at least two recorded sales:

- Calculated the percent change between consecutive sales
- Excluded sale prices below £10,000 to remove distorted base values
- Used the median percent change to reduce the impact of extreme outliers
- Required a minimum of 10 resale events per postcode × property type in the heatmap to ensure statistical stability

This analysis reflects true resale behavior and excludes first-time sales.

Key Findings

1. Property Type Is a Primary Driver of Resale Growth

Across all areas:

- Detached homes show the highest median resale gain (~67%)
- Semi-detached (~60%) and terraced (~54%) follow closely
- Flats show materially lower resale gains (~35%)

Detached and semi-detached homes exhibit nearly double the median resale growth of flats.

This gap is not marginal — it suggests structural differences in long-term appreciation between houses and apartments.

2. Geography Amplifies or Suppresses Performance

While property type sets the baseline pattern, postcode variation remains significant.

The heatmap reveals:

- Some postcode × property combinations exceed 100% median resale growth
- Others remain materially below the national type-level average
- Blank cells indicate insufficient resale history (<10 events)

This demonstrates that location meaningfully modifies the resale experience within each property type.

Interpreting the Flat Underperformance

Flats consistently show lower median resale growth. Several structural factors may contribute:

- Leasehold ownership structure, introducing ongoing costs (ground rent, service charges)
- Post-pandemic demand shift toward larger homes with private outdoor space
- Higher flat supply in urban centres
- Building safety and cladding remediation concerns
- Reduced investor participation following tax and regulatory changes

While prime London flats can command high prices, nationally flats have underperformed houses in resale growth over the past decade.

Important Caveats

- Percent changes are not annualized. A 5-year hold and a 20-year hold are treated equally.
- Renovations and property condition changes are not controlled for.
- Results reflect resale transactions only.
- These findings describe market patterns, not controlled causal relationships.

Practical Interpretation

From a long-term resale perspective:

- Houses — especially detached — demonstrate stronger typical appreciation
- Flats show weaker median growth and greater sensitivity to structural market factors
- Location materially modifies outcomes across all property types

Property type alone does not determine performance, but it strongly influences baseline resale dynamics.

Potential Deeper Analysis

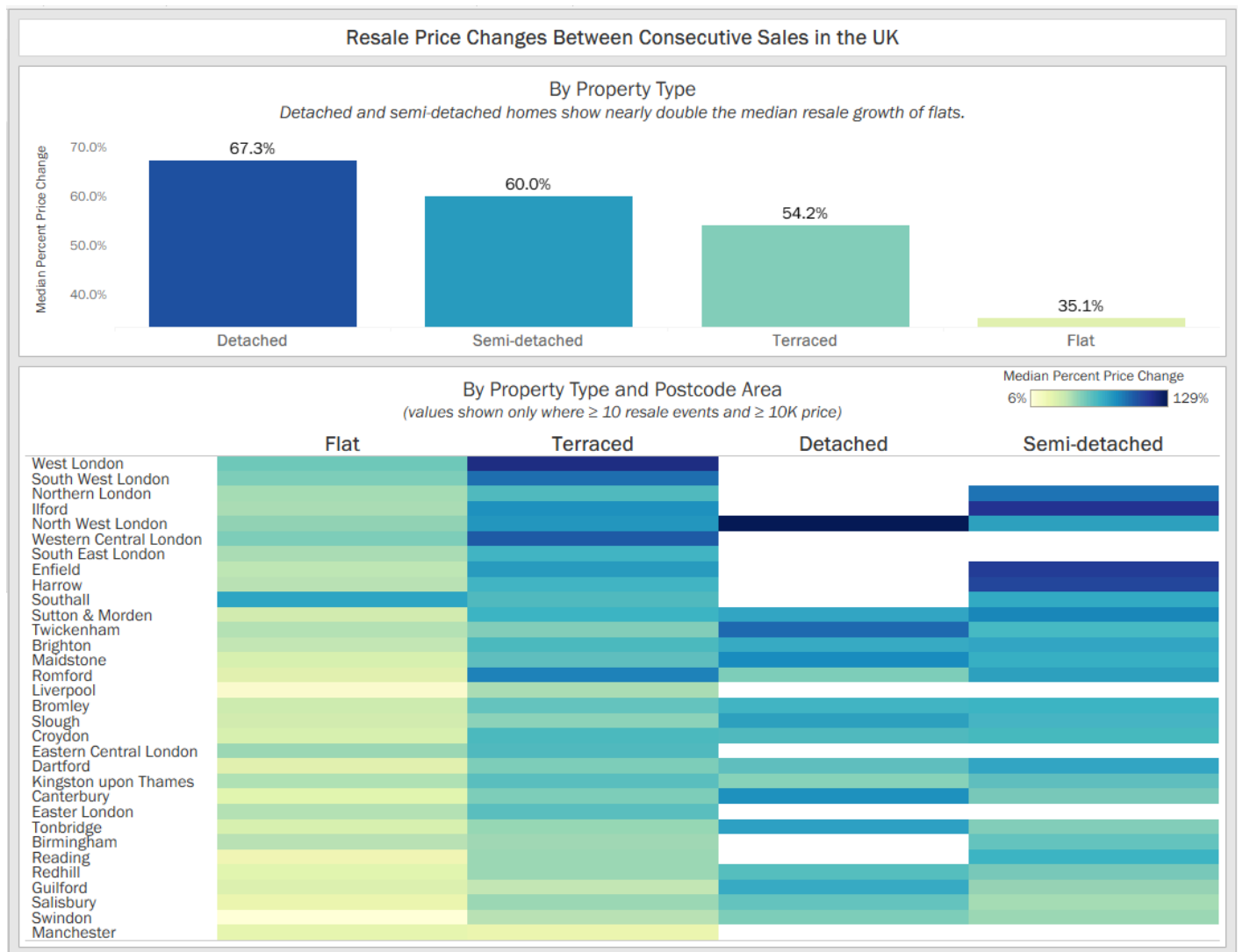
This analysis evaluates total percentage change between resale events but does not normalize for holding period. Because longer ownership durations naturally allow more time for price appreciation, some of the observed differences across property types may reflect variations in resale timing rather than purely structural performance differences.

A logical next step would be to annualize returns (e.g., calculate compound annual growth rates) to control for years held and isolate performance on a time-adjusted basis. Further analysis could incorporate



market-cycle controls or examine whether certain property types are more sensitive to macroeconomic shifts. These refinements would help distinguish structural demand differences from timing effects.

[Tableau Public Link](#)



Question 2: How Long Do People Actually Stay?

Objective

Understand how long properties are typically held before resale and how that timing differs by property type and postcode area.

Resale timing helps answer a deeper question:

Are certain homes transitional... or long-term anchors?

Methodology

For each property with at least two recorded transactions:

- Calculated years between consecutive sales
- Used the median years between sales to reduce distortion from extreme holding periods
- Analyzed results:
 - Nationally by property type
 - By postcode area within each property type
- Only true resale events were included.

Key Findings

Houses Are “Settle Down” Assets. Flats Turn Over Faster.

Median years between sales:

- **Detached:** ~9.6 years
- **Semi-detached:** ~9.0 years
- **Terraced:** ~7.6 years
- **Flats:** ~6.9 years

That ~3-year gap between detached homes and flats is meaningful.

Detached and semi-detached homes are held significantly longer.

Flats move faster.

This aligns with a structural market narrative:

- Houses are often purchased during family-forming years
- Flats are more likely entry-level, transitional, or investor-owned
- Larger homes involve higher transaction costs and more deliberate timing

Holding period becomes a behavioral signal — not just a time metric.

Geography Changes the Story

The postcode view adds nuance.

Detached and semi-detached homes show wide variation across areas:

- Some postcode medians exceed 20 years



- Others cluster closer to the national median

Flats, by contrast, show much tighter clustering.

This suggests:

- Larger homes are more sensitive to local stability (schools, employment centers, long-term community roots)
- Flats behave more like liquid market inventory — influenced more by broader housing cycles than by deep neighborhood attachment

In other words:

Location shapes houses. Market cycles shape flats.

What This Means

Resale timing is a proxy for:

- Liquidity
- Household stability
- Market confidence
- Asset positioning (investment vs residence)

Detached properties appear to function as long-term household anchors.

Flats appear more rotational — part of mobility cycles rather than permanence.

Important Context

- These figures are medians, not averages.
- Holding period does not imply intent.
- Renovations, inheritance, or financial distress are not observable.

This analysis describes behavior — not motivation.

From Holding Period to Return

These resale timing patterns raise an obvious follow-up question:

Do shorter holding periods translate into different return profiles?

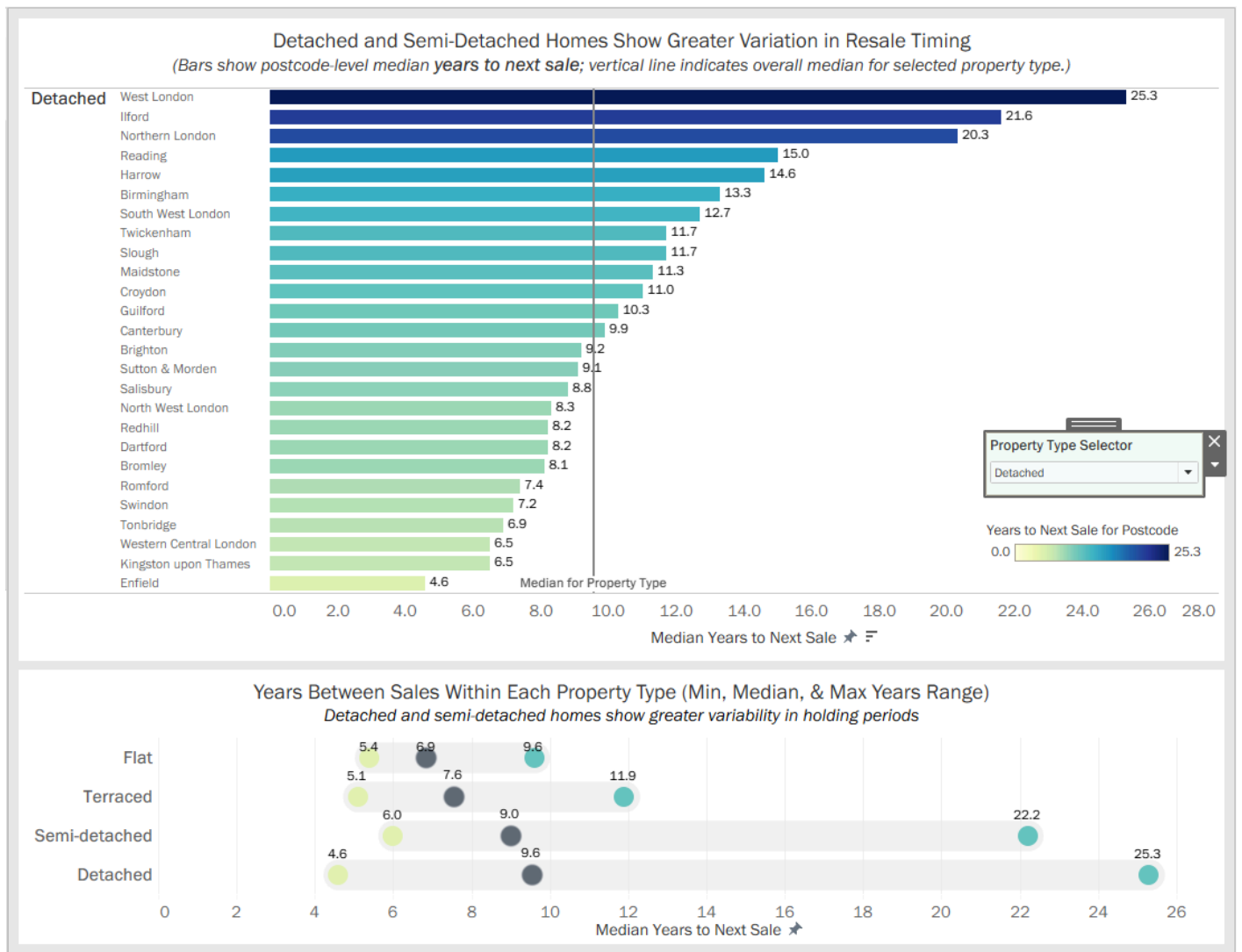
If flats transact more frequently, are they flipped for smaller gains?

If detached homes are held longer, do they generate stronger cumulative appreciation?

To explore the relationship between holding period and price growth, the next section examines quick resales (within 2 and 5 years) and the associated median returns.

[Tableau Public Link](#)





Question 3: Quick Resales: Who Sells Fast and What Happens to Prices?

What We Wanted to Understand

Not every property is held long-term. Some resell quickly.

So we asked:

- How often do properties resell within **2 years**?
- How often within **5 years**?
- And when they do, what does the **typical price gain** look like?



To make this meaningful, we calculated resale shares two ways:

- The main chart shows the share among properties with at least two recorded sales (i.e., properties capable of reselling).
- In addition, the tooltip shows the share relative to **all properties**, including those that only ever sold once.

That denominator choice matters — and it changes how large the share of resale properties is in each timeframe.

Key Findings

1. Quick resales are not the majority — but they're not rare either

Across property types:

- Roughly **10–17%** resell within 2 years
- Roughly **33–44%** resell within 5 years

So flipping within 2 years is relatively uncommon. But by 5 years, resale becomes much more typical.

This suggests that short-term ownership exists — but most properties are not immediately turned over.

2. Detached homes resell less often — but still gain strongly

Detached properties have:

- The **lowest 2-year resale share**
- The **lowest 5-year resale share**

That aligns with the previous Question 2, where we saw longer holding periods for detached homes.

But here's the interesting part:

Even within 5 years, detached homes still show strong median gains (around the high-30% range).

So when detached homes *do* resell quickly, they're not underperforming.

They appear to be:

- Held longer on average
- And still structurally strong in appreciation

3. Flats resell slightly more often — but gains are more mixed

Flats show:

- A somewhat higher share of quick resales
- Strong 2-year median gains (~mid-30% range)



But their longer-window gains are more modest compared to houses.

This could reflect:

- Higher mobility among flat owners
- Greater investor presence
- More sensitivity to short-term market swings

Combined with Question 1, this reinforces that flats behave differently in the resale market.

4. The Denominator Changes the Story

If we calculate quick resale share relative to **all properties**, the percentages drop noticeably.

That's because many properties only have one recorded sale — meaning they never had the opportunity to resell in our dataset.

This is why the dashboard shows:

- Resale share among eligible properties (main chart)
- Resale share among all properties (tooltip)

How This Connects to Questions 1 and 2

Putting everything together:

- Question 1 showed that houses outperform flats in resale appreciation.
- Question 2 showed that detached and semi-detached homes are held longer.
- Question 3 now shows that:
 - Detached homes resell less frequently in the short term,
 - But still produce strong gains when they do.

This paints a consistent picture:

Property type influences both **holding behavior** and **appreciation pattern**.

What This Suggests

Short holding periods do not automatically mean weaker performance.

Some property types (like terraced homes) show relatively high 5-year turnover and solid gains.

Others (like detached homes) show lower turnover but still strong price growth.

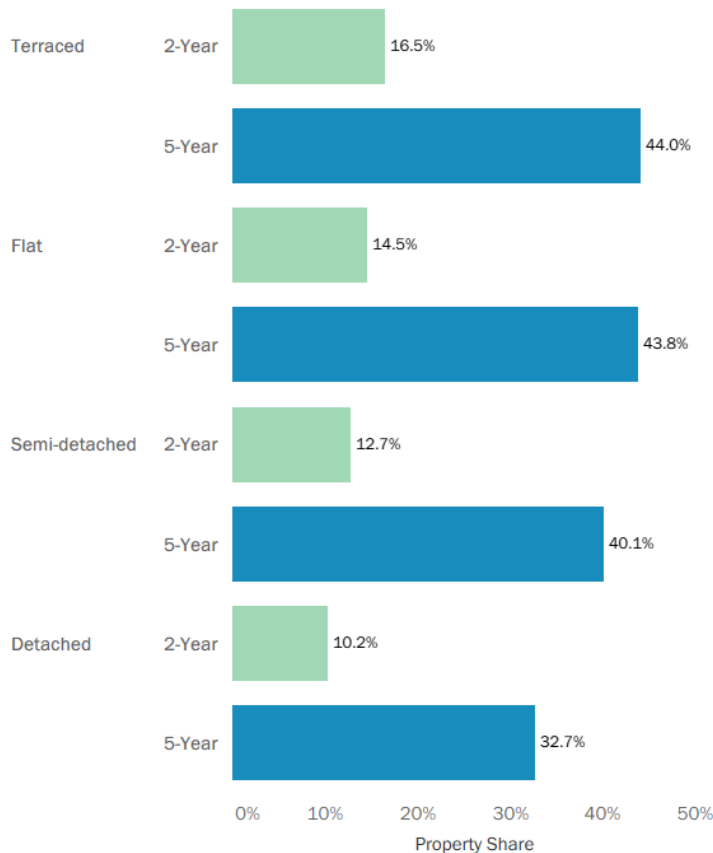
This highlights an important idea:

Resale frequency and appreciation are related — but they are not the same thing.

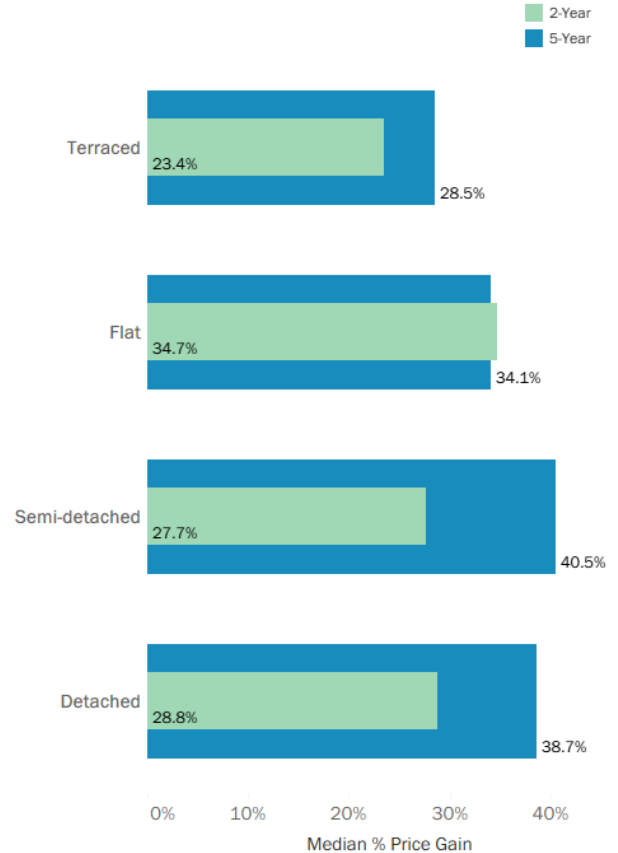
[Tableau Public Link](#)

Shorter holding periods are more common for smaller property types, while houses exhibit stronger gains over 5-year horizons.

Share of Properties with a Quick Resale Within 2 and 5 Years
(among properties with ≥ 2 sales)



Median % Price Gain for Quick Resales (2-Year vs 5-Year Window)



Question 4: What Are the Fastest Growing Postcode Areas (2013–2023)?

Objective

Identify which postcode areas experienced the strongest median price growth over the last decade, comparing:

- Median sale price in 2013
- Median sale price in 2023
- Percent change across the period
- Sales counts in each year (minimum 10 per year)



This isolates structural price growth while maintaining sample stability.

Key Findings

Over the past decade, price growth was substantial across the top-ranked areas — but the magnitude varied meaningfully by postcode.

Several areas, including Dartford and Enfield, more than doubled their median prices between 2013 and 2023. Others, such as Reading and Manchester, showed strong but comparatively more moderate growth.

The expansion was broad, but not uniform.

1. *Geographic Pattern*

A clear theme emerges: Many of the **fastest-growing areas** are either:

- Outer London boroughs
- Commuter-adjacent towns

This pattern suggests growth was not uniform across London. Prime central areas already operating at high price levels in 2013 experienced more moderate percentage growth, while relatively more affordable outer postcode areas saw faster expansion over the decade.

Two structural forces may explain this:

- High starting prices in central locations limit percentage growth from an already elevated base.
- Affordability pressures and changing lifestyle preferences can push demand toward outer areas, amplifying growth there.

In this context, location does not just influence price levels — it shapes the trajectory of growth over time.

2. *Percent Growth vs Starting Price*

Notably, some of the strongest percentage gains occurred in areas that began the decade at lower price levels.

This may reflect:

- Catch-up growth
- Regeneration or infrastructure investment
- Increased buyer demand in previously undervalued areas
- Relative affordability advantages

Percent change captures acceleration, not just price level.

Sales Volume Context

Sales counts in 2013 and 2023 provide important context for interpreting growth.

In some postcode areas, transaction volume expanded meaningfully by 2023, suggesting increased liquidity and market depth.

In others, strong percentage growth occurred with more modest sales counts. While smaller samples can introduce volatility, applying a minimum threshold (≥ 10 sales per year) ensures that medians are not driven by only a handful of transactions.

Including transaction counts strengthens the credibility and interpretability of the ranking.

Interpretation

The decade favored areas positioned at the intersection of:

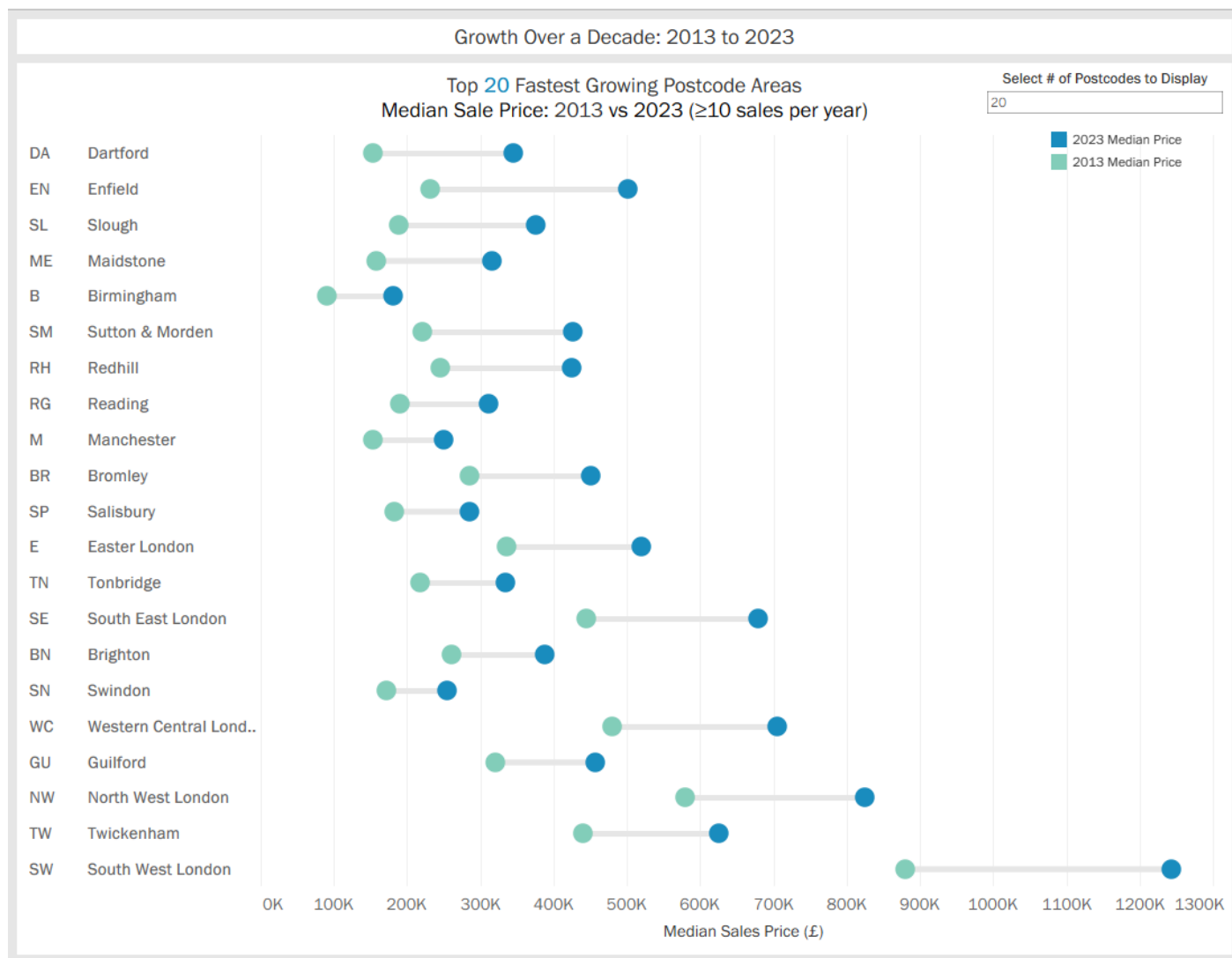
- Relative affordability
- Access to economic centers
- Structural demand shifts

While national trends matter, this analysis reinforces a recurring conclusion from earlier questions:

Postcode-level dynamics play a decisive role in price performance.

Property type influences appreciation. Holding behavior influences realized gains. But geography often amplifies or suppresses those effects.

[Tableau Public Link](#)



Question 5: Do New Builds Consistently Command a Premium?

Objective

Compare the median sale price of **new build** properties versus **existing (not new)** properties for each postcode area and selected year.

The goal is to determine whether new builds command a price premium, and if so, where that premium is strongest.

Methodology



For each postcode area and selected year:

- Calculated the **median sale price** separately for:
 1. New build properties
 2. Existing (not new) properties
- A **minimum sales threshold per group** (e.g., ≥ 15 sales for new and ≥ 15 for existing) can be controlled with a parameter to avoid unstable medians.
- Calculated the **new build premium** in two ways:
 1. **Absolute difference** (New median – Existing median)
 2. **Relative premium (%)**: $(\text{New Median} - \text{Existing Median}) / \text{Existing Median} \times 100$

This ensures a true *like-for-like* comparison within each postcode and year.

Key Findings (2024 Example)

1. The Premium Is Highly Concentrated

New build premiums are not evenly distributed across areas.

In 2024:

- **South East London** shows a substantial premium (~90% higher median price for new builds).
- **Eastern Central London** also shows a strong premium (~55–60%).
- **Liverpool** shows a moderate premium (~40%).
- **Croydon** shows a *negative* premium — new builds selling below existing median prices.

This tells us that the new build premium is **location-dependent**, not universal.

2. Absolute Price Gaps Can Be Large

- In higher-priced London markets, even moderate percentage premiums translate into very large pound differences.
- For example, a 20% premium on a £1M property is a £200k gap, while the same 20% premium on a £200k property is only £40k.

This suggests:

- In prime areas, buyers may pay materially more for new construction.
- But the size of the gap is also amplified by already elevated baseline prices.



3. Negative Premiums Are Informative

Croydon is especially interesting.

New build properties in the Croydon, UK, housing market may be priced lower than existing homes due to a significant increase in local supply, specifically aimed at first-time buyers. This surge in inventory, combined with shifting buyer preferences for more space and greener, non-urban areas, is creating downward pressure on new-build prices compared to established, more sought-after homes.

This challenges the assumption that “new automatically equals more expensive.”

Interpretation

The new build premium appears to be:

- Strong in certain London submarkets
- More moderate or even negative in others
- Sensitive to supply conditions and buyer demand dynamics

This suggests that developers and investors cannot assume a universal markup for new construction — pricing power depends heavily on postcode-level dynamics.

Caveats

- Results reflect median prices, not property quality or size.
- We do not control for square footage, amenities, or specific development type.
- In some areas, new build sales volume is relatively small, even after applying a minimum threshold.
- Premiums reflect transaction prices, not profitability or developer profit performance.

Practical Implications

- In some postcode areas, new builds command substantial pricing power.
- In others, buyers may discount new construction relative to existing homes.
- Location remains the dominant factor in determining whether a premium exists.

[Tableau Public Link](#)



Where Do New Builds Command a Premium? Median Price Gaps by Postcode Area: 2024

(Minimum 15 sales per group; premium shown as New vs Existing median price)

FILTERS:

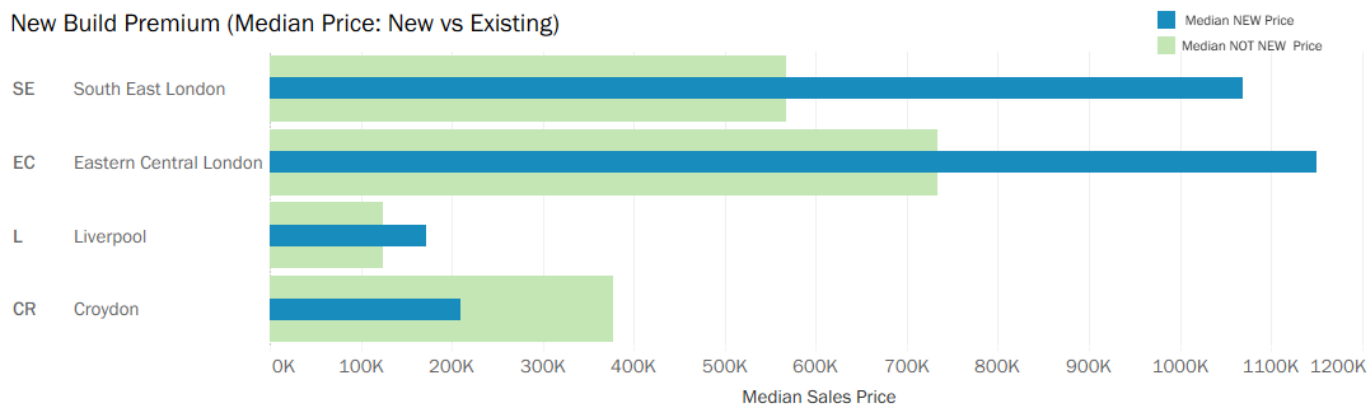
Sale Year Selected

2024

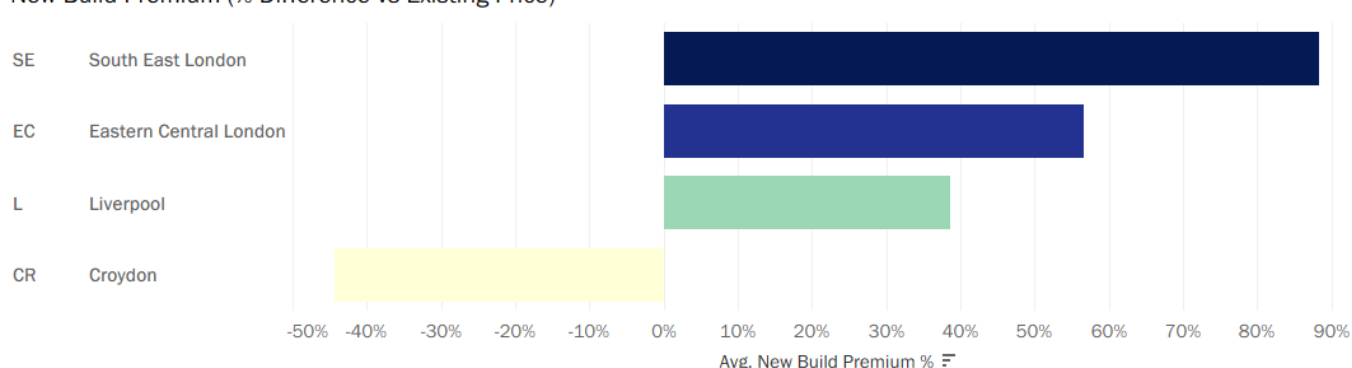
Minimum Sales Threshold

15

New Build Premium (Median Price: New vs Existing)



New Build Premium (% Difference vs Existing Price)



Question 6: Is There a Price Ladder Effect by Property Type Within One Area?

Objective

Select one postcode area and one year to examine how prices step up across property types when location is held constant.

Postcode selected: **CR (Croydon)**, Year selected: **2025**

Methodology

- Filtered to one postcode and one year
- Calculated median sale price by property type



- Displayed transaction counts for context
- Included overall postcode median as a benchmark
- The dashboard allows dynamic selection of postcode area and year to replicate the analysis across geographies and time.
- The dual-axis view separates price level (in £) from growth rate (YoY %), allowing long-term structural trend and short-term volatility to be examined together while keeping their units distinct.

Key Findings – The CR Postcode Area 2025 Price Ladder

Property Type	Median Price	Sales Count
Flat	~ £270K	29
Terraced	~ £415K	33
Semi-detached	~ £520K	19
Detached	~ £758K	4

A clear ladder emerges:

Flat → Terraced → Semi-detached → Detached

Each step reflects increasing space, land ownership, and scarcity.

The largest price jump occurs between Semi-detached and Detached homes, highlighting the premium placed on standalone housing in this area.

Flats and terraced homes fall below the CR-wide median benchmark, while semi-detached and detached homes sit above it, reinforcing the segmentation between entry-level and premium tiers.

Broader Interpretation

Within a single postcode, property type determines the local price hierarchy.

However, across postcode areas (as seen in earlier questions), location often outweighs property type in determining absolute price levels. A flat in a prime central postcode can exceed the price of a detached home in outer areas.

This analysis isolates the structural pricing ladder within one geography, separating local type effects from broader location effects.

Caveats

- Detached sales volume is low (4 transactions) for the year 2025, so that median should be interpreted cautiously.
- Snapshot analysis; does not capture multi-year trend shifts.

[Tableau Public Link](#)



Question 7: What Is the Price Difference Between Leaseholds and Freeholds?

Objective

Compare the median sale price across tenure types — **Freehold, Leasehold, and Unknown** (Aberdeen)— for each postcode area.

The goal is to determine whether freehold properties command a consistent premium over leasehold, and how that relationship varies by location and property type.

“Unknown” tenure is retained to preserve transparency and is related only to the postcode area of Aberdeen, Scotland.

Methodology

For each postcode area:

- Calculated the **median sale price** separately for:
 - Freehold
 - Leasehold
 - Unknown tenure
- Kept all tenure categories in the comparison
- Calculated **Freehold Premium (as % of Leasehold)**: $(\text{Freehold Median} - \text{Leasehold Median}) / \text{Leasehold Median} \times 100$
 - This allows consistent comparison across areas with different absolute price levels.

Key Findings

1. Freehold Premium Is Common — But Not Uniform

Across most postcode areas, freehold properties sell at a premium relative to leasehold.

Examples:

- Several London areas show premiums above 70–130%
- Some outer or regional areas show more moderate premiums (~30–50%)

However, the premium magnitude varies dramatically by postcode.

This confirms that tenure structure interacts strongly with location.

2. Negative Premiums Do Exist

In some area–property combinations, the freehold premium is negative.

This suggests:

- Leasehold flats in prime locations may outperform comparable freehold stock
- Property type mix matters (e.g., leasehold flats vs freehold houses)
- Micro-market demand dynamics influence pricing more than tenure alone

This challenges the simplistic assumption that “freehold always equals more expensive.”

3. Location Still Dominates Absolute Price

In prime central London areas:

- Both leasehold and freehold medians are elevated
- The price ladder shifts upward across both tenure categories

This reinforces a broader theme seen throughout the analysis: **Location exerts stronger influence on absolute pricing than structural classification alone.**

Tenure affects relative pricing — but postcode determines overall market level.

Interpretation

The freehold premium appears to be:

- Present in most areas
- Highly variable in magnitude
- Sensitive to property mix and regional dynamics

In central markets, leasehold flats can still command extremely high prices, narrowing the tenure gap in some cases.

In outer areas, tenure distinctions may align more closely with traditional house vs flat segmentation.

Overall, tenure matters — but it does not override location or property type.

Caveats

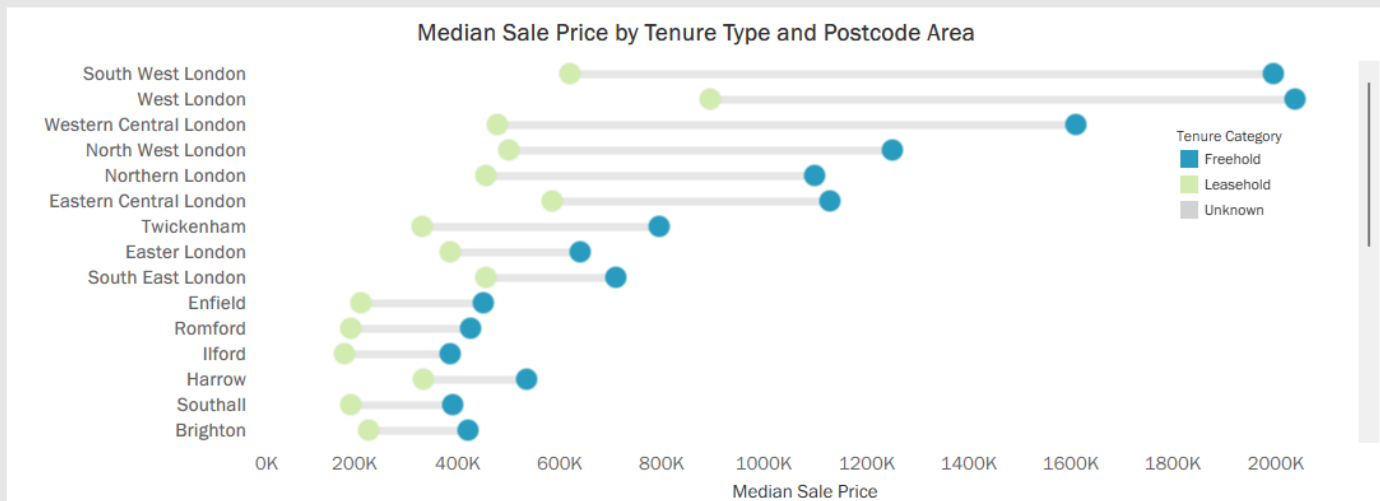
- Results reflect median sale prices, not property size or condition.
- Leasehold terms (remaining years, service charges) are not observed.
- Sales volume varies by tenure category.

Practical Implications

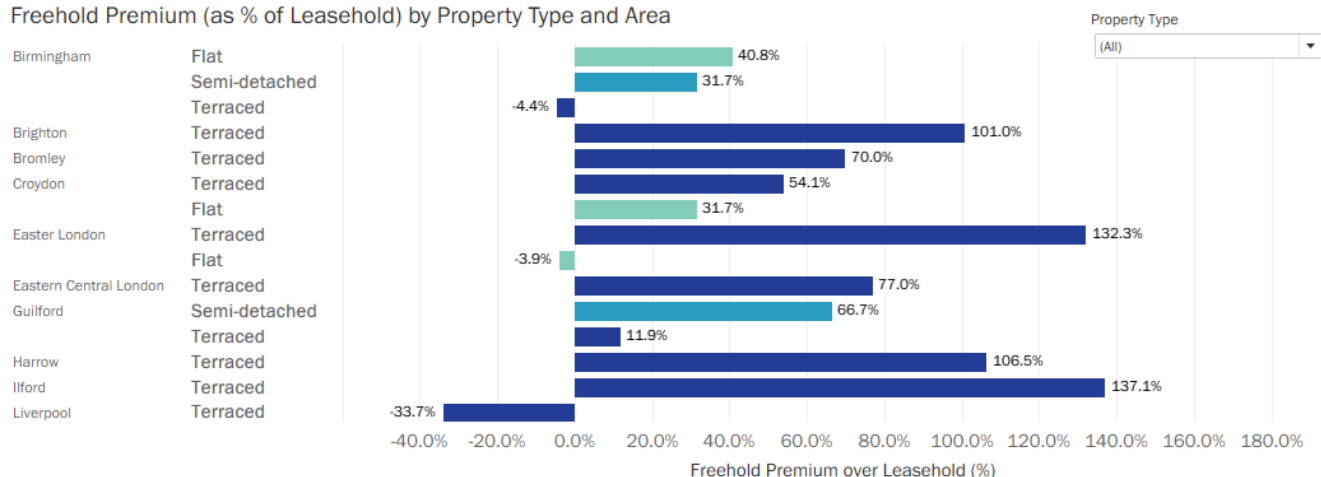
- Freehold generally commands a premium, but not universally.
- Investors should evaluate tenure within the context of postcode and property type.
- Developers and buyers in central markets should not assume tenure alone drives value — location remains dominant.

[Tableau Public Link](#)

Freehold vs Leasehold: How Tenure Impacts Median Sale Price by Postcode Area



Freehold Premium (as % of Leasehold) by Property Type and Area



Question 8: What Are the Biggest Winner and Loser Properties From First to Last Recorded Sale?

Objective

Identify properties with at least two recorded sales and determine:

- The 10 largest total percent gains
- The 10 largest total percent losses
- The 10 highest and lowest annualized returns

Each property is evaluated from its first recorded sale to its last recorded sale.



The goal is to distinguish between:

- **Total** appreciation over time
- **Speed** of appreciation or loss

Methodology

1. Data Scope

- Only properties with ≥ 2 recorded sales
- First recorded sale price $\geq \text{£}10,000$

Low-price transactions below $\text{£}10,000$ were excluded to prevent artificially inflated gains resulting from distressed or anomalous sales.

2. Metrics Used

We evaluate performance using two complementary measures.

A. Percentage Gain / Loss

$$\text{Percent Gain} = (\text{Last Price} / \text{First Price} - 1) \times 100$$

This measures **total growth over the holding period**, regardless of time.

If a property doubles in value $\rightarrow 100\%$ gain. If it triples $\rightarrow 200\%$ gain.

This metric highlights long-term wealth creation.

B. Annualized Return (% per year)

$$\text{Annualized Return} = ((\text{Last Price} / \text{First Price})^{(1/\text{Years Held})} - 1) \times 100$$

This measures the **pace** of growth or loss.

A property that doubles in 2 years performs very differently from one that doubles in 20 years — annualized return captures that difference.

To prevent division by zero for near-same-day transactions, the holding period denominator is floored at **0.001 years** in SQL.

3. Additional Filtering for Annualized Analysis

Short holding periods can produce mathematically explosive annualized returns.

To maintain realism while preserving exceptional performers:

- Maximum annualized gain capped at 25%
- This threshold is approximately twice the UK's historical peak (~14% in 2022, dating back to 1952)

This filter removes extreme statistical artifacts while retaining genuine high-growth properties.



Importantly:

- **No cap is applied to losses**
- Rapid losses are common in distressed sales or short resales

After filtering:

- 99.5% of properties remain in the annualized analysis

Key Findings

1. Top 10 by Percentage Gain

- All top 10 winners are located in **Greater London** region
- 6 are in **West London** postcode area
- Other areas include Northwest London, Southwest London, and Eastern Central London postcode areas

The largest total gain:

914936 | YORK HOUSE, 39 | FLAT 4 (West London) Gain: 12,733% over 28 years

This reflects long-term appreciation in high-demand London submarkets.

Notable Case

A freehold terraced property in Southwest London rose from **£523,000 to £25,515,000 in under one year**, producing a 4,778% gain.

This highlights why percent gain alone can be misleading without time context.

2. Top 10 by Percentage Loss

Losses are more geographically dispersed:

- South West London
- Manchester
- Liverpool
- Aberdeen
- Guildford
- North West London

Common characteristics:

- Predominantly **leasehold**
- Mostly **flats**
- Several held more than 10 years yet still declined



Largest total loss:

838511 | 80 | FLAT K (South West London), Loss: -83.95%

Lease structure and flat-specific market pressures may contribute to such declines.

3. Top 10 by Annualized Return

Winners (After 25% Cap)

- Cluster tightly between **22.8% and 24.4% per year**
- Concentrated in Greater London

Highest performer:

4631546 | WIVERTON TOWER | Eastern London, Annualized return: 24.37%, Holding period: ~5.5 years

These represent sustained, rapid growth rather than statistical anomalies.

4. Bottom 10 by Annualized Return

All worst annualized performers:

- Held less than 5 years
- Several show annual losses exceeding -50% per year
- Majority are leasehold flats

Worst annualized performer:

1636366 | 15 FLAT C | Aberdeen Annualized return: -100% per year, held < 1 month

Unlike gains, extreme short-term losses were not capped, as distressed or rapid resales can produce steep declines.

Using both metrics together reveals different stories:

Percent Gain - reveals long-term wealth creation

Annualized Return - reveals speed of growth or destruction

Annualized return:

- Flags suspicious short-hold “explosions” in value
- Shows how quick resale can dramatically magnify losses

Overall Market Pattern

1. Winners are heavily concentrated in Greater London.
2. Losers are more geographically dispersed.
3. Leasehold flats dominate the loss categories.
4. Short holding periods significantly amplify annualized losses.



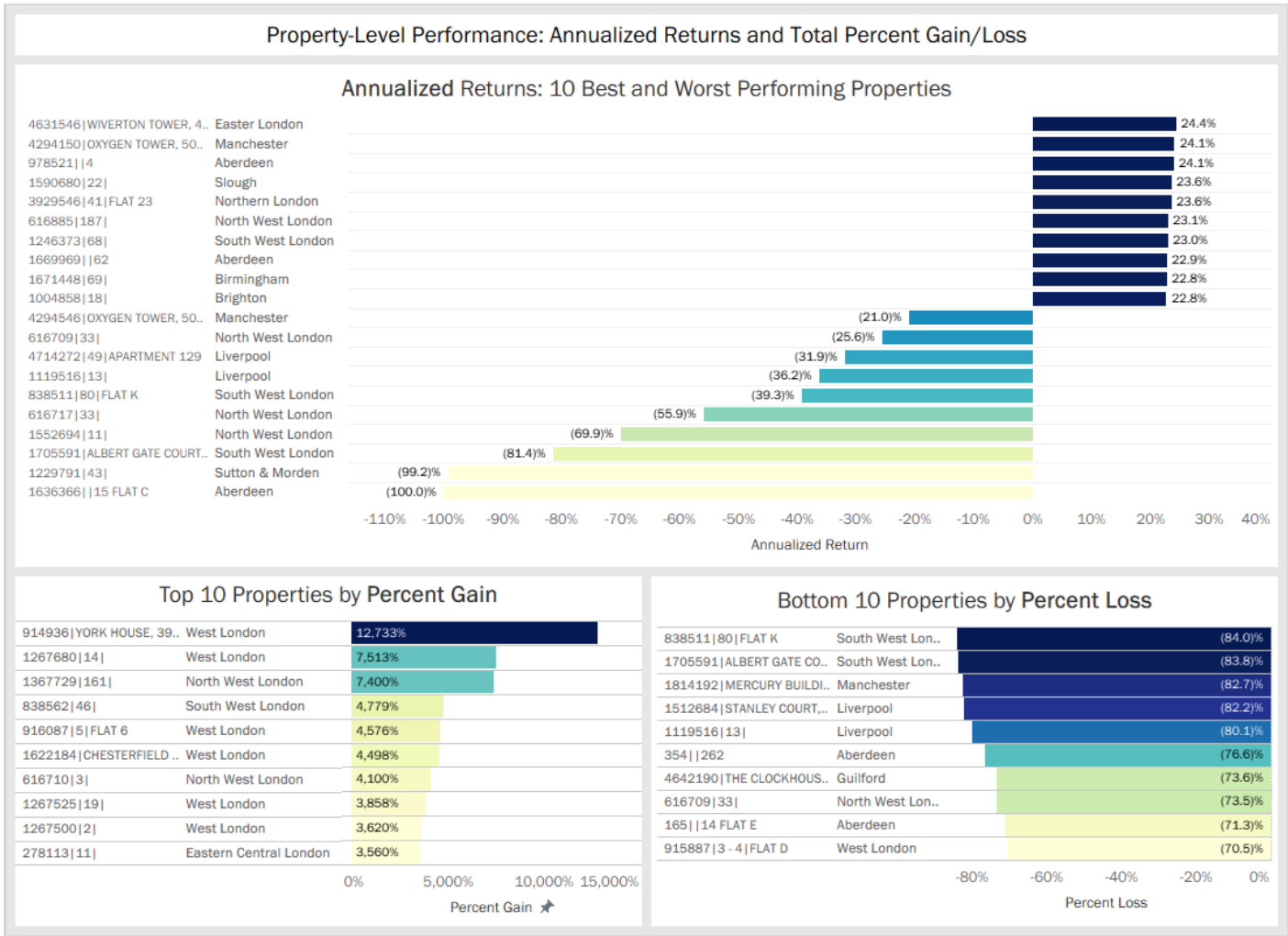
Caveats

- No adjustment for renovations, redevelopment, or property condition.
- No control for square footage or structural changes.
- The 25% cap applies only to annualized gains, not losses.

Practical Implications

- Long-term holding in high-demand London areas has historically produced strong total gains.
- Leasehold flats exhibit greater downside risk.
- Short-term property speculation can dramatically amplify losses.
- Time horizon is as important as price change when evaluating performance.

[Tableau Public Link](#)



Question 9: What Happens to Prices in the Wake of “Shock Year” Market Crises (2008 and 2020)?

Objective

Examine how selected high-volume postcode areas responded to major market shocks — specifically:

- The Global Financial Crisis (2008)
- The COVID shock (2020)

For each selected postcode area, compare:

- Median sale price in the **year before the shock**
- Median sale price in the **shock year**
- Median sale price in the **year after**
- Percent change from **year before** → **year after**

The goal is to understand short-term market resilience and recovery patterns.

Methodology

For selected high-volume postcode areas:

1. Filtered to the top 5 postcode areas as measured by sales count to ensure stable medians.
2. Calculated:
 - Median sale price in:
 - 2007, 2008, 2009
 - 2019, 2020, 2021

Computed: $\% \text{ change} = (\text{Price in Year After} - \text{Price in Year Before}) / \text{Price in Year Before}$

3. Used Dynamic Zone Visibility (DZV) to allow interactive postcode selection from the map. Then a shock year (2008 or 2020) selection can be made, enabling comparison of localized shock responses.

This isolates short-term shock impact without conflating it with long-run appreciation.

Key Findings

1. 2008 Shock: Clear Downward Pressure

Example (Tonbridge Wells):

- 2007: £215,000
- 2008: £210,000
- 2009: £177,500
- % change (2007 → 2009): **-17.4%**

Across selected areas:

- 2008 often showed stagnation or mild decline.
- 2009 reflected a more pronounced price correction.
- Recovery was not immediate.

This aligns with historical context: the financial crisis constrained credit availability and suppressed transaction activity.

The decline pattern often looked like:

Stable → slight dip → sharper correction

2. 2020 Shock: Different Pattern

The 2020 COVID shock behaved differently from 2008.

In many areas:

- 2020 did **not** show dramatic price declines.
- 2021 frequently showed strong rebound or acceleration.

Unlike 2008, where prices structurally corrected, 2020 resembled:

Temporary disruption → rapid policy support → accelerated recovery

Low interest rates and stamp duty incentives likely contributed to post-shock price strength.

3. Location Matters

Not all postcode areas behaved the same way:

- Some showed deeper drawdowns.
- Others showed minimal impact.
- Recovery speed varied.

This reinforces a broader theme seen throughout the analysis:

Local market structure and demand composition strongly influence resilience during shocks.

Interpretation



The comparison between 2008 and 2020 highlights two very different shock dynamics:

2008 Financial Crisis: Credit contraction → Broader structural correction → Multi-year recovery

2020 COVID Shock: Policy stimulus → Short disruption → Rapid rebound

The same metric (median price change before → after) reveals how different macroeconomic conditions transmit differently into housing markets.

This demonstrates why long-term averages alone can obscure important short-term volatility.

Caveats

- Median prices do not control for property mix shifts.
- Transaction volume may change significantly during shock years.
- Results reflect nominal prices (not inflation-adjusted).
- Only selected high-volume postcode areas are shown.

Practical Insight

Housing markets are not uniformly sensitive to macro shocks.

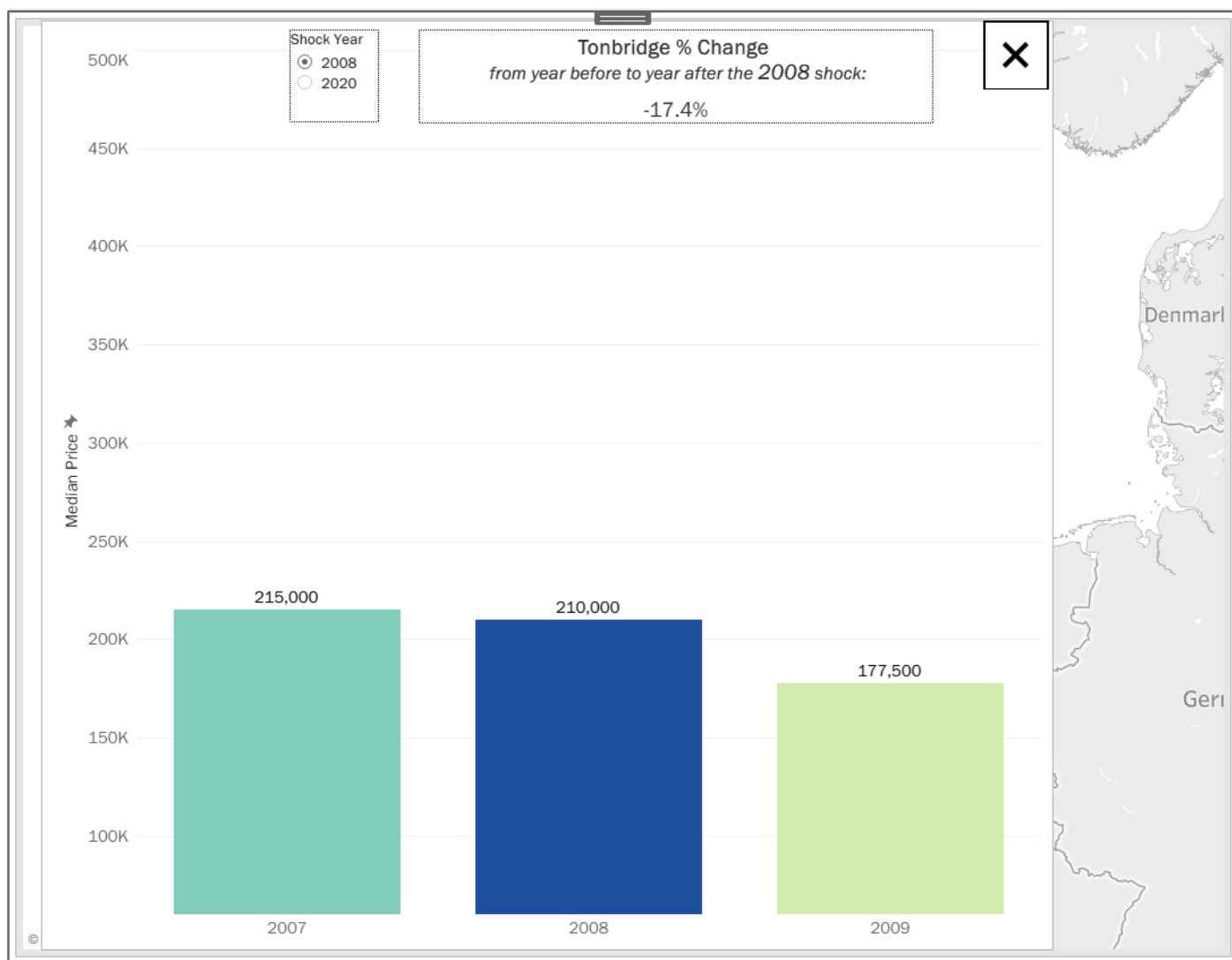
- 2008 produced genuine structural correction.
- 2020 produced volatility but rapid recovery.
- Location-specific demand patterns influence shock absorption.

This reinforces a key takeaway across the project:

Housing markets are both cyclical and local. Shock exposure and recovery speed depend heavily on postcode-level dynamics.

[Tableau Public Link](#)





Conclusion

So What Did We Learn?

Across three decades of data, the patterns are surprisingly consistent.

1. **Location is king.** Postcode area explains more about price than anything else.
2. **Every area has a clear price ladder.** Flats at the bottom. Detached at the top. The hierarchy holds.
3. **Leasehold flats carry more downside risk.** They show up disproportionately among the biggest losers.
4. **New build premiums aren't automatic.** In some areas they're strong. In others, they disappear — or reverse.
5. **Time changes everything.** A property that doubles over 20 years tells a very different story than one that doubles in two. That's why percentage gain and annualized return both matter.
6. **Shock years hurt — but don't break the system.** Both 2008 and 2020 show disruption, followed by recovery in high-demand regions.

In short:

The UK housing market isn't random. It's structured. It's segmented. And over the long run, it rewards location, patience, and the right property profile.