Tax Reform, Housing Affordability, and Inequality: Evidence from the UK

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EXTENDED ABSTRACT

Transaction taxes on assets, and specifically on property, are widely discussed by economists and are often considered distortionary (Poterba, 2002; Besley, Meads and Surico, 2014; Kopczuk and Munroe, 2015; Slemrod, Weber and Shan, 2017; Best and Kleven, 2018). Yet, despite their distortionary effects, property transaction taxes remain prevalent worldwide.[1] Moreover, these taxes generate substantial revenue and play a significant role in redistribution. In the United Kingdom, Stamp Duty Land Tax (SDLT) alone raised over £15 billion in the 2022/23 tax year, a figure comparable to capital gains tax receipts and nearly double the revenue from inheritance tax.[2]

While transaction taxes are planned as progressive, their impact on housing affordability and housing inequality remains underexplored. In the United Kingdom, the effective SDLT rate increases with house price, yet the tax burden falls disproportionately on income deciles 7–8. This is because lower-income homebuyers typically purchase properties below the SDLT threshold, while higher-income buyers face a lower tax burden relative to their income. This is crucial for understanding the outcomes of reforming or abolishing such taxes, as often

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[1]In 2010, according to Best and Kleven (2018), Austria, Australia, Belgium, Canada, Chile, Czechia, Denmark, Estonia, Finland, Germany, Greece, Hong Kong, Hungary, Ireland, Iceland, India, Israel, Italy, Japan, the Netherlands, Norway, Pakistan, Poland, Portugal, South Korea, Spain, Sweden, Turkey, the United Kingdom, and the majority of US states imposed transaction taxes on property.

[2]Stamp Duty Land Tax (SDLT) is the transaction tax on property in England and Northern Ireland. In Wales, it is called Land Transaction Tax (LTT), and in Scotland, Land and Buildings Transaction Tax (LBTT). While SDLT, LTT, and LBTT have distinct tax schedules, we analyze their differences but collectively refer to them as SDLT or stamp duty, following common UK usage.

suggested.[3]

This paper studies a large stamp duty relief implemented in the United Kingdom in late 2020, which lasted for a year. As shown in Figure 1, the SDLT relief triggered a surge in house transactions, which by the fourth quarter of 2020 exceeded their 2019 levels. However, despite the increase in transactions, tax revenue remained low and had not returned to pre-pandemic levels by the end of the relief period. This highlights a notable loss in tax revenue.[4]

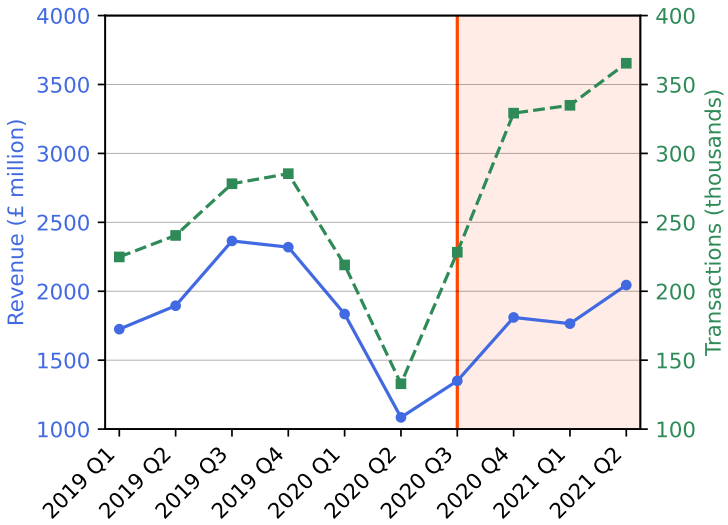


Figure 1: SDLT revenue and house transactions in England and Northern Ireland, 2019–2021.

Notes: The data are sourced from HM Revenue & Customs (2024). They cover England and Northern Ireland only, as Wales and Scotland administer property transaction taxes independently. The relief was in effect from July 2020 to June 2021.

We leverage the SDLT relief to analyze the effect of stamp duty on house prices, housing affordability, and housing inequality. This unexpected tax relief significantly reduced stamp duty for many homebuyers but left others unaffected, either because their property values were below the tax threshold or too high to benefit substantially from the relief. Furthermore, the effect varied between first-time and non-first-time buyers, as they are subject to different tax schedules. Together, this creates significant variation in exposure to the tax relief, as illustrated in Figure 2.

We use a difference-in-differences design on monthly UK Land Registry data (2012–2024) that record all residential transactions by local authority. We find a robust, statistically

[3]Proposals to abolish SDLT in the United Kingdom are very common. See, for example, Johnson (2024).

[4]The tax relief was introduced as part of the UK government's efforts to stimulate the housing market and construction sector, which were adversely affected by the COVID-19 pandemic.

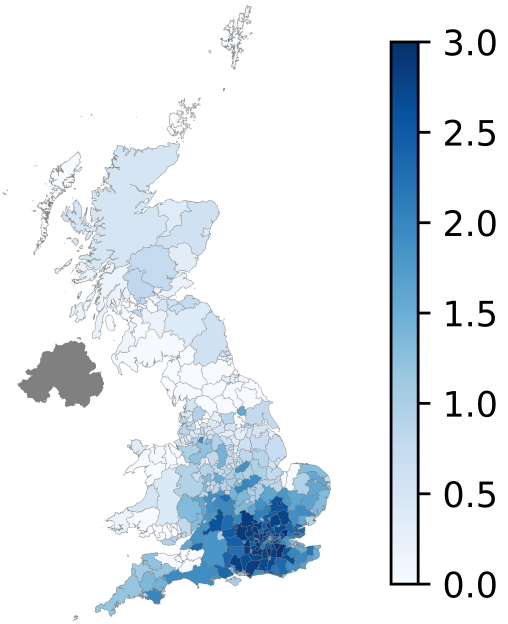


Figure 2: The July 2020 SDLT relief magnitude in the United Kingdom (% of average house price).

Notes: The relief is calculated as the ratio of the average stamp duty discount to the average house price within each local authority, measured just before the application of the relief.

significant impact: house prices increased for homebuyers who received a larger tax discount relative to those who benefited less. On average, the tax relief led to a price increase of approximately £1,000, or 0.5% of the average house price. This corresponds to an elasticity of 37% – for every £1 of tax relief, house prices rose by 37 pence on average.[5]

[5]These calculations are based on a pooled difference-in-differences specification with multiple fixed effects and controls:

$$y_{i,b,r,m,t} = \alpha_{i,b} + \theta_{r,m,t} + \delta \times \mathbf{1}_{t>\text{July 2020}}(t) \times Relief_{i,b} + \mathbf{x}_{i,b,r,m,t}\beta + \epsilon_{i,b,r,m,t} \,,$$

where $y_{i,b,r,m,t}$ denotes house price. $Relief_{i,b}$ quantifies the average exposure of buyer-type b (first-time or non-first-time) in local authority i to the tax relief, measured in £. The fixed effect $\alpha_{i,b}$ absorbs any time-invariant differences in the outcome variable across local authorities and buyer types. Region-month-period fixed effects $\theta_{r,m,t}$ capture time trends specific to each of the regions across the United Kingdom as well as seasonality by month. $\mathbf{x}_{i,b,r,m,t}$ are control variables. Standard errors are clustered at the local-authority level. The main coefficient of interest is δ, which captures changes in the outcome variable $y_{i,b,r,m,t}$ following the exposure to the relief. With the pooled difference-in-differences specification, the average effect can be estimated.

We also employ a dynamic difference-in-differences design that takes the following form:

$$y_{i,b,r,m,t} = \alpha_{i,b} + \theta_{r,m,t} + \sum_{t \neq \text{July 2020}} \delta_t \times Period_t \times Relief_{i,b} + \mathbf{x}_{i,b,r,m,t}\beta + \epsilon_{i,b,r,m,t} \,,$$

Using a dynamic specification, we find the relief had an immediate effect, evident shortly after its announcement, with no pre-trends. However, the impact on house prices proved to be short-lived. As shown in Figure 3, while the tax relief remained in place for a year, by March 2021, it no longer had a clear effect on prices.[6]

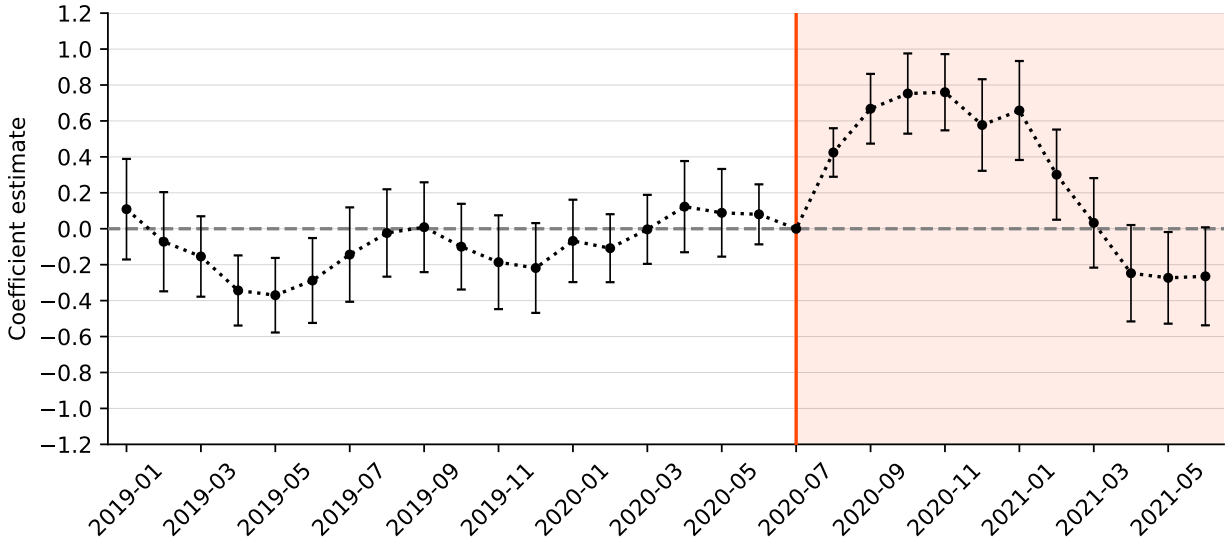


Figure 3: Difference-in-differences estimates of the effect of July 2020 SDLT relief on house prices.

Notes: The dependent variable is average house price in 2014 British Pounds. The graph plots point estimates of the interaction between the incidence of the SDLT relief and a set of fixed effects across local authorities in England, Scotland, Northern Ireland and Wales. The regression controls for local-authority average income, average age, in- and out-migration, population size, unemployment rate, and house sales volume. Standard errors are clustered at the local-authority level with 95 percent confidence intervals indicated.

We also address the impact of the tax relief on housing affordability and inequality. Housing affordability is defined, for each local authority and buyer type, as the average house price divided by the average annual income in 2019 (just prior to the relief). A higher value of this indicator reflects lower affordability. Our analysis shows that the tax relief benefited areas with lower affordability. However, the effect was highly non-monotonic and non-linear. As illustrated in Figure 4, the least affordable areas received a discount of approximately 1.5%–2% of the average house price. Interestingly, the largest discounts were granted to buyers

where the main coefficients of interest are the interaction terms (δ_t) between the exposure to the relief and a set of period dummies. This allows us to estimate the treatment effect dynamically, as well as testing for pre-trends. This empirical design and specifications follow from Fetzer (2019).

[6]Although the SDLT relief is notably larger in nominal and relative terms in London and South East England, as shown in Figure 2, our findings remain consistent even when the analysis is confined to this region. Therefore, the observed effect is not merely a result of diverging property prices in London and its surroundings between July 2020 and February 2021 compared to the rest of the country.

in mid- to low-affordability areas, whereas the most affordable areas received effectively no discount.

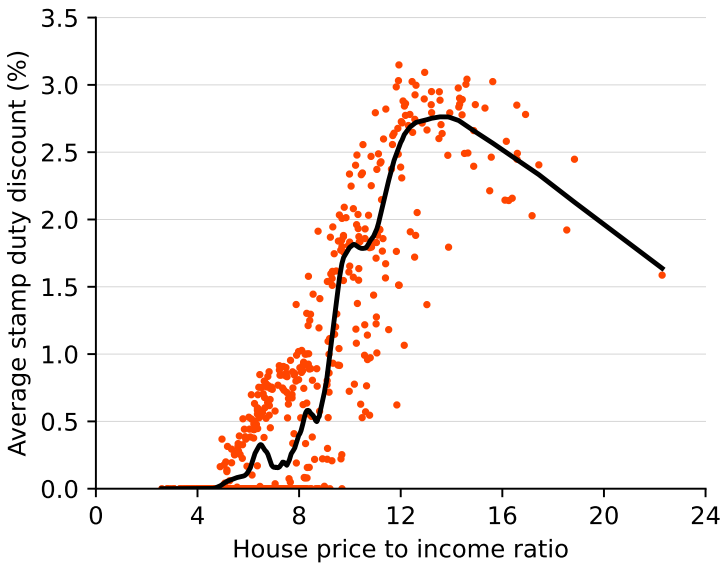


Figure 4: The SDLT relief magnitude by housing affordability.

Notes: Housing affordability is defined as the ratio of average house price to annual income for each local authority and buyer type (first-time or non-first-time). The stamp duty discount is measured as the ratio of the average decrease in SDLT liability to the average house price. The black curve represents a LOWESS smoothing of the scatterplot.

Building on the causal effect of the tax relief described earlier, we define its total effect as the relief discount minus the house price effect. Our analysis shows that the relief improved housing affordability for upper-middle-income households (*i.e.*, buyers typically in income deciles 7–8). These households received an effective net discount of £5,000–£10,000, equivalent to approximately 10% of their annual income. However, these effects ultimately translate into increased housing inequality. This is reflected in a slight rise in the housing wealth Gini coefficient from 0.72 to 0.73.[7]

Our findings suggest that the 2020 stamp duty relief caused a substantial, yet short-lived increase in house prices. From a policy perspective, this suggests that decreasing the SDLT burden is likely to result in increased housing affordability, but mainly for upper-middle-income households, and could therefore lead to higher housing inequality, while substantially decreasing overall tax revenue.

[7] As direct observations of housing wealth are unavailable in the Land Registry data, we estimate housing inequality using the Gini coefficient of house prices across local authorities, weighted by their populations.

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