Understanding Housing Speculation in the EU: A Conceptual and Empirical Framework

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Housing acquisition: ownership, use, motive and asset category

1 Categories of ownership

- **Households / natural persons**
  (owner-occupiers, second-home owners, private landlords)
- **Legal persons**
  (corporate landlords and property companies, institutional investors, public, municipal, cooperative and non-profit housing providers)

2 Categories of use

- **Primary or usual residence**
  (owner-occupied primary residence, long-term private rental, student accommodation)
- **Non-primary or other use**
  (second or holiday home, short-term tourist accommodation, temporary accommodation, prolonged vacancy, temporary vacancy during resale, renovation or redevelopment)

3 Motives for dwelling acquisition

- **Consumption-led**
  (own primary residence, second or holiday home)
- **Investment-led**
  (buy to let, capital appreciation or resale, short-term rental income, redevelopment or conversion)
- **Public-interest or service-led**
  (social, municipal, cooperative or non-profit housing, employer-provided accommodation)

4 Categories of real estate

- **Residential real estate**
  (property intended primarily for accommodation, income-producing residential real estate)
- **Non-residential commercial real estate**
  (offices, retail, logistics, hotels and other commercial property)

1. Definition and conceptualisation

- Housing speculation generally refers to the purchase of residential property primarily **in anticipation of future price appreciation** rather than for housing consumption or long-term income generation (i.e. investment).

- Speculation therefore refers primarily to **the motivation underlying investment** decisions rather than to a specific investor category, as speculative behaviour may involve households, professional investors, or institutional investors.

- Speculative activity may also involve both **leveraged investors**, whose activity is closely tied to credit conditions, and **cash buyers**, whose decisions may reflect portfolio diversification, wealth preservation or inflation-hedging motives

- A distinction can be drawn between **short-term speculation** (e.g. property “flipping” with brief holding periods) and **longer-horizon speculation** based on anticipated capital gains (DeFusco, Nathanson and Zwick, 2020; Ferreira and Gyourko, 2011)

2. Expectations, credit and speculative dynamics

- Empirical and theoretical research shows that housing market participants often exhibit **adaptive or extrapolative expectations**, whereby recent price increases lead to expectations of further appreciation (Case and Shiller, 2003; Piazzesi and Schneider, 2009)

- This mechanism can generate **self-reinforcing dynamics**, particularly when heterogeneous beliefs coexist across market participants (Scheinkman and Xiong, 2003; Burnside, Eichenbaum and Rebelo, 2016)

- **Housing cycles** are not driven solely by economic fundamentals or credit conditions, but also by investor demand based on expectations of future capital gains.

- **Credit expansion** amplifies these dynamics by raising the purchasing power of optimistic buyers, but it is not a necessary condition: cash buyers speculate too.

- **Speculation does not necessarily imply a bubble:** prices can stay consistent with fundamentals; a bubble requires expectations to become self-reinforcing.

3. Actors and conditions

- **Active and "defensive" speculation:** besides investors, flippers and developers, owner-occupiers who buy earlier or borrow more because they expect prices to keep rising also speculate (Tranøy et al., 2020).

- **Flipping** can be efficiency-enhancing (modernisation, redevelopment, market liquidity) or destabilising (when credit is abundant and supply constrained).

- In the U.S. housing boom, speculation was driven largely by **household investors** buying second homes and investment properties rather than by large institutional investors.

- In Europe, **supply constraints, low interest rates and growing investor participation** favour speculative dynamics, while more regulated mortgage markets, limited securitisation, LTV/DSTI limits and high transaction costs dampen them.

4. Empirical identification

- **Housing speculation cannot be observed directly** and must therefore be assessed using indirect evidence.
  - **I. Macroeconomic and institutional conditions** can make housing markets more conducive to speculation, but their presence does not establish that speculation is taking place.
  - **II. Indicators consistent with speculative activity** may provide signals, but can also reflect other motives.
  - **III. Empirical identification strategies** seek to distinguish speculative demand from fundamentals.
- **Speculation** (*why are participants buying?*), **overvaluation** (*how do prices compare with fundamentals?*) and **bubbles** (*are prices sustained by a self-reinforcing process?*) are related but distinct.

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4.1. Conditions conducive to housing speculation

- **Capital-gain expectations:** buyers expect prices to continue rising and purchase housing partly for future appreciation, potentially reinforcing price momentum (*Case and Shiller, 2003; Glaeser et al., 2008*).
- **Credit availability and financing conditions:** low interest rates, readily available credit and high leverage support purchasing power and can amplify housing booms (*Mian and Sufi, 2009; Favara and Imbs, 2015*).
- **Constrained housing supply:** planning restrictions, limited land or geographical constraints can prevent supply from responding to demand, putting upward pressure on prices *(Glaeser et al., 2008; Saiz, 2010)*.
- **Active markets and investor participation:** frequent transactions and purchases by investors increase the scope for investment-motivated demand, although investor participation alone does not imply speculation (*Burnside et al., 2016; Chinco and Mayer, 2016*).
- **Limited policy constraints:** lending standards, macroprudential measures and housing taxation can curb speculative incentives; weaker constraints may allow them to build up (*Cerutti et al., 2017; OECD, 2021*).

4.1. Conditions across Member States

Indicative assessment | House-price data to Q2 2026

MEMBER STATE	HOUSE PRICES Since 2015 / latest year	CAPITAL-GAIN EXPECTATIONS	SUPPORTIVE CREDIT	CONSTRAINED SUPPLY	ACTIVE MARKET / INVESTORS	LIMITED POLICY CONSTRAINTS
Austria	+75% / +5.1%	YES	PARTLY	YES	YES	NO
Belgium	+46% / +2.1%	PARTLY	YES	YES	YES	NO
Bulgaria	+185% / +15.5%	YES	YES	PARTLY	PARTLY	PARTLY
Croatia	+153% / +12.7%	YES	PARTLY	YES	PARTLY	YES
Cyprus	+59% / +7.9%	PARTLY	PARTLY	YES	PARTLY	YES
Czechia	+164% / +8.6%	YES	PARTLY	YES	PARTLY	PARTLY
Denmark	+66% / +9.4%	YES	YES	YES	YES	PARTLY
Estonia	+137% / +5.8%	YES	PARTLY	PARTLY	PARTLY	PARTLY
Finland	−3% / −2.7%	NO	NO	PARTLY	NO	PARTLY
France	+26% / −0.8%	NO	PARTLY	YES	YES	PARTLY
Germany	+54% / +0.6%	PARTLY	PARTLY	YES	PARTLY	PARTLY
Greece*	+55%* / +5.5%	PARTLY	PARTLY	YES	PARTLY	YES
Hungary	+290% / +10.2%	YES	YES	YES	YES	PARTLY
Ireland	+106% / +6.0%	YES	PARTLY	YES	PARTLY	PARTLY
Italy	+21% / +4.0%	PARTLY	PARTLY	YES	PARTLY	PARTLY
Latvia	+134% / +11.4%	YES	PARTLY	PARTLY	PARTLY	PARTLY
Lithuania	+191% / +14.3%	YES	PARTLY	PARTLY	PARTLY	PARTLY
Luxembourg	+66% / −2.2%	PARTLY	YES	YES	PARTLY	PARTLY
Malta	+84% / +6.9%	YES	PARTLY	YES	PARTLY	YES
Netherlands	+123% / +4.3%	PARTLY	YES	YES	YES	PARTLY
Poland	+129% / +6.3%	YES	YES	PARTLY	YES	PARTLY
Portugal	+201% / +16.5%	YES	PARTLY	YES	YES	NO
Romania	+82% / +12.1%	YES	PARTLY	PARTLY	PARTLY	YES
Slovakia	+126% / +13.6%	YES	PARTLY	YES	PARTLY	PARTLY
Slovenia	+134% / +9.1%	YES	PARTLY	YES	PARTLY	YES
Spain	+101% / +12.1%	YES	YES	YES	YES	PARTLY
Sweden	+39% / +4.8%	PARTLY	PARTLY	YES	YES	NO

YES = condition more conducive to speculation • PARTLY = mixed • NO = less conducive

Price change: 2015 average to Q2 2026 / Q2 2026 year-on-year, nominal. * Greece: 2015–2025; apartment prices for latest year.

Expectations are proxied by past prices. Other ratings largely retain original assessments and remain provisional; they do not establish speculation.

Sources: Authors based on Eurostat house-price and transaction statistics; OECD house-price data; European Commission 2026 country reports; ECB and ESRB financial stability and macroprudential publications; and national central-bank and statistical sources.

4.1. Reading the assessment

- **House-price developments may support expectations of capital gains in many EU countries**, although direct evidence on buyers' expectations remains limited. **Housing supply constraints** are also widespread, particularly in high-demand urban areas, and may amplify the price response to stronger demand.
- **Several countries show a stronger clustering of conditions associated with speculative housing dynamics.** On the basis of the indicative assessment, **Austria, Croatia, Denmark, Hungary, Malta, Poland, Portugal, Slovenia and Spain** register a YES for capital-gain expectations and in at least two other dimensions.
- Conversely, current conditions appear less conducive in **Finland**, where falling prices, subdued mortgage lending and weak market activity limit the scope for a self-reinforcing price–credit cycle. **France** also shows weak price momentum, although other potentially conducive conditions remain.

These classifications are provisional and do not, in themselves, establish the presence or absence of speculation.

4.1. Conditions and vulnerabilities: partial overlap

Conducive conditions set against a separate composite score of housing-market vulnerabilities

	Conducive conditions: fewer than 3 YES	**Conducive conditions:** 3 or more YES (of 5)
Composite vulnerability score 6 or more	**Vulnerabilities, fewer conducive conditions** Bulgaria, Czechia, Luxembourg, Sweden	**Both elevated** Austria, Denmark, Netherlands, Portugal
Composite vulnerability score below 6	**Neither** Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Romania, Slovakia	**Conducive conditions, moderate vulnerabilities** Belgium, Croatia, Hungary, Malta, Poland, Slovenia, Spain

Only four Member States combine both. Portugal has by far the highest vulnerability score (17), with three conducive conditions and concentrated ownership. Neither axis measures speculation.

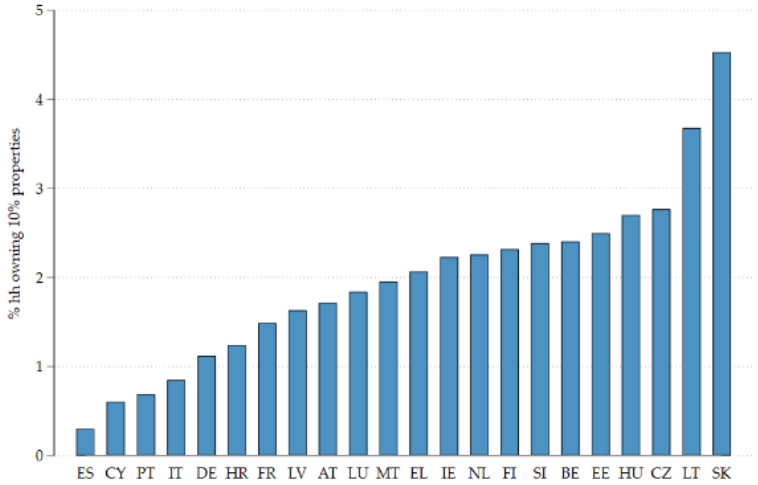
Conducive conditions: number of YES in the indicative assessment (previous slides). Composite score: recent house-price growth, price-to-income, valuation gap and household debt (higher = more vulnerable). Source: Authors.

4.2. Indicators consistent with speculative activity

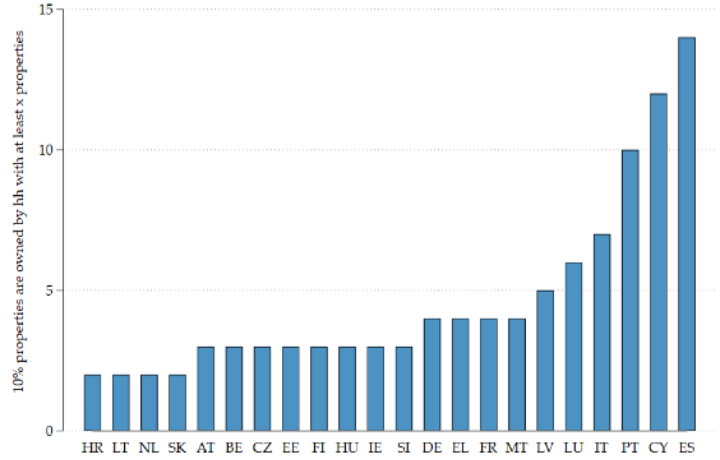
A. Behavioural and transaction indicators

- **Share of non-owner-occupied home purchases:** no harmonised EU indicator; national transaction registers, tax records and the HFCS give partial evidence.
- **Concentration of housing ownership (HFCS):** highest on both measures in **Spain, Cyprus, Portugal and Italy**, followed by Luxembourg and Latvia.

Concentration (1): % households owning 10% of HFCS-recorded properties (the lower, the more concentrated ownership is)



Concentration (2): The households at the top of property ownership, holding together 10% of properties, all have at least X properties. (the higher the more concentrated ownership is)



Households only: corporate and institutional owners are not captured. Source: ECB Household Finance and Consumption Survey; European Commission (DG ECFIN) calculations.

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4.2. Indicators consistent with speculative activity

A. What a national register can show: Portugal

88%
of dwelling purchases in 2025 were made by households, most of them resident

12.5%
by companies and other legal entities, down from 15.0% in 2019

4.9%
by non-resident households, after a peak of 7.6% at the end of 2023

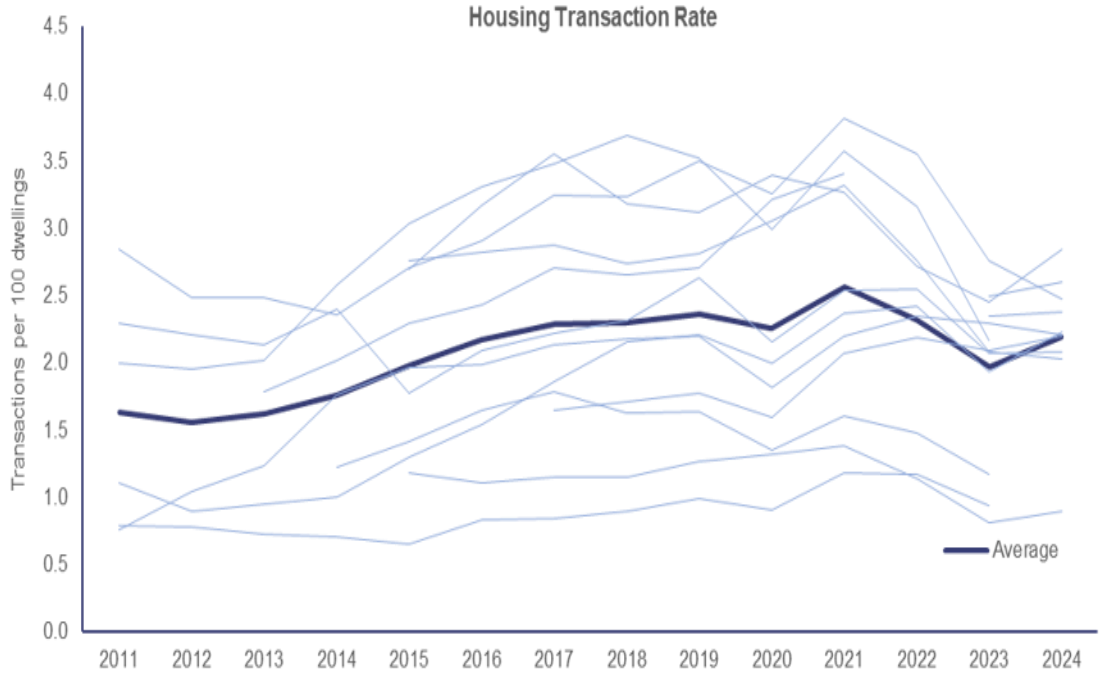
- **A usable policy discontinuity:** non-residents' price premium per m² fell from 27% in 2020 to 13% since mid-2024, most sharply after the Golden Visa real-estate route closed in October 2023.
- **Buyer type is observable, motive is not:** the company share fell while prices kept rising, so investor shares alone are a weak proxy for speculation.
- **At EU level even buyer type is missing:** the gap between Eurostat's HPI and OOHPI for new dwellings could signal non-household buyers, but 18 of 26 Member States report identical series.

Shares of the number of dwelling transactions. Source: Statistics Portugal (INE); Eurostat (prc_hpi_q, prc_ooq_q, 2025Q4); authors' calculations.

4.2. Indicators consistent with speculative activity

A. Behavioural and transaction indicators

- **Short holding periods ("flipping"):** evidence is limited to a few country studies (e.g. Poland, Greece, Finland), as harmonised transaction-level data are lacking.
- **Housing turnover** (annual transactions relative to the housing stock): rises with house-price growth, but also reflects transaction taxes and market institutions.



Transactions per 100 dwellings; thin lines: Member States with data. Source: Eurostat, ECB, European Commission.

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4.2. Indicators consistent with speculative activity

B. Financing indicators

- **High-LTV and highly leveraged lending:** rising leverage accompanied the pre-GFC booms (Ireland, Spain, Netherlands). It has fallen since borrower-based measures spread, but remains relevant in the Netherlands, Luxembourg, Sweden, Denmark and Estonia.
- **Interest-only and investor-type mortgages:** their expansion in Denmark, the Netherlands and Sweden went with stronger house-price booms.
- **Non-bank mortgage lending:** still small in the EU, but active in buy-to-let, development and bridge finance.

C. Market outcome indicators

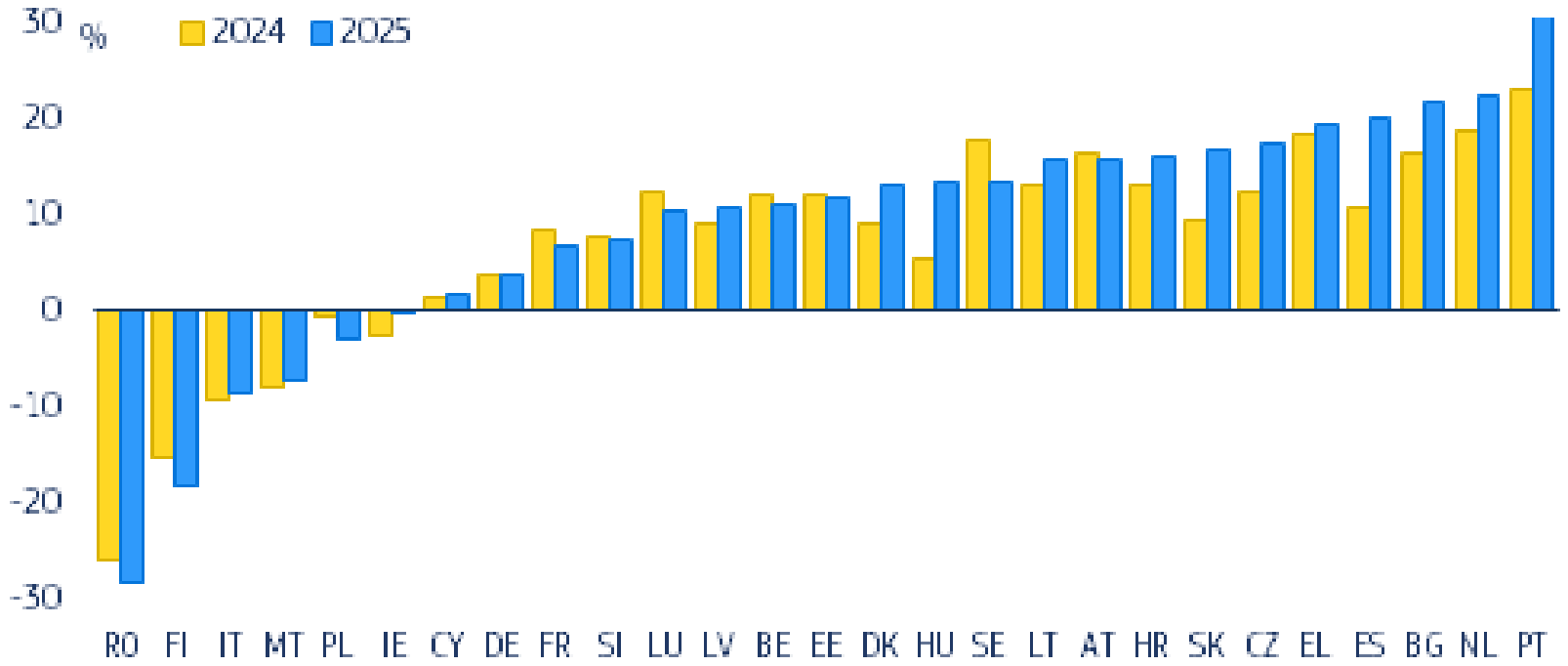
- **Price-to-income and price-to-rent ratios persistently above historical averages:** may signal reliance on expected capital gains. But lower real interest rates raise the fundamental price-to-rent ratio without any speculation, so ratios should be read against a user-cost benchmark.

4.3. Empirical identification strategies

- **Expectation-based tests** measure the behavioural mechanism directly, i.e. whether investor purchases chase past price appreciation, but require transaction-level or survey data that separate investors from owner-occupiers, which few EU countries have.
- **Tax and other policy discontinuities** (e.g. Cyprus's abolition of the annual property tax in 2017, Greece's suspension of capital gains tax on property sales until 2024, Portugal's transfer-tax exemption for buyers up to 35 from August 2024 and the closure of its Golden Visa real-estate route in October 2023) show whether investors respond to changes in net returns.
- **Macroprudential policy variations** use the introduction of LTV/DSTI limits (e.g. Austria in 2022) to test whether tighter constraints on leveraged buyers dampen speculative dynamics.

4.3. Empirical identification strategies

- **Valuation gap approaches** use the gap between market prices and fundamental benchmarks (income, rents, demographics, interest rates) as a proxy for speculative pressure, but conflate several sources of deviation.
- **In 2025** estimated gaps are largest in Portugal, the Netherlands, Bulgaria, Spain and Greece. Overvaluation can also reflect supply shortages or omitted fundamentals.

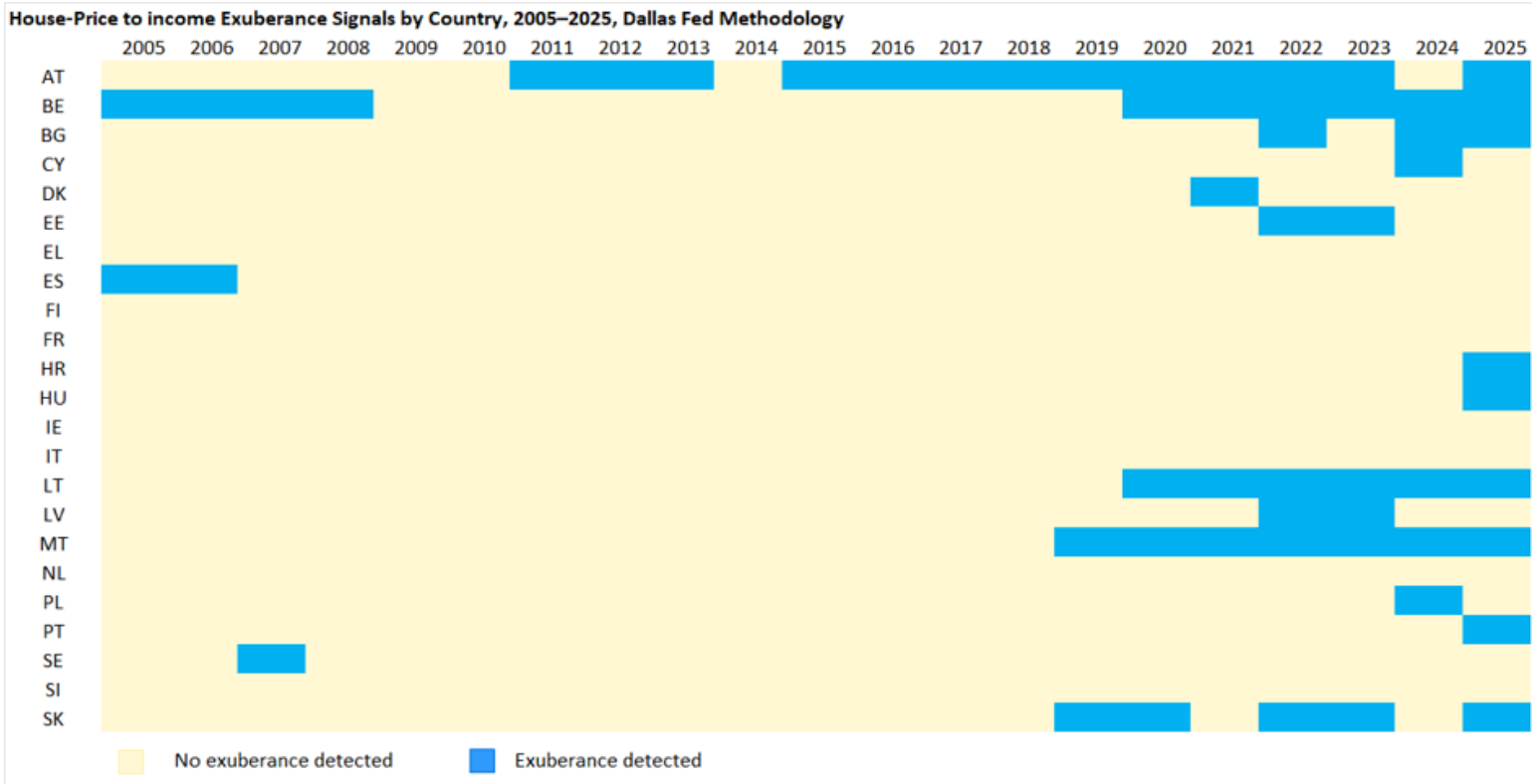


House-price valuation gap, %, 2024 and 2025. Source: European Commission (DG ECFIN).

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4.3. Empirical identification strategies

- **Explosiveness (bubble) tests** look at price dynamics rather than the level gap: they test whether house prices, or the price-to-income ratio, grow in a self-reinforcing, explosive way.
- **An exuberance flag** is the closest statistical footprint of extrapolative capital-gain expectations, but it does not establish motives; on the price-to-income ratio it signals affordability stress, not necessarily a price boom.



Source: European Commission (DG ECFIN) calculations, Dallas Fed methodology.

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Conclusions

- **Speculation is difficult to identify:** It relates primarily to buyers' expectations and motivations, which are rarely observable. No single indicator can reliably measure it.
- **Conditions vary across the EU:** Speculation is more likely when capital-gain expectations interact with favourable credit, constrained supply and active investors. Conducive conditions and measured vulnerabilities overlap only partly.
- **The evidence base remains fragmented:** National data provide insights into investor purchases, flipping and leverage, but harmonised EU-wide transaction and ownership data remain limited, and household surveys miss corporate owners.
- **Assessment and policy require a combined approach:** Monitoring should bring together structural conditions, market indicators and empirical evidence. Prudent lending policies, neutral taxation, responsive supply and better data can address different drivers of speculative pressures.

Thank you

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Annex: Factors of housing demand (households)

- Household demand for housing
  - Income and demographic developments constitute the most fundamental drivers of housing demand
  - Financing conditions
  - Relative attractiveness of housing compared to other assets
  - Expectations about future price developments
  - Taxation (via impact on user cost and expected returns)
  - Tourism-related factors (in specific regions)

Annex: Factors of housing demand (investors)

- Corporate and institutional demand for housing
  - Expected risk-adjusted returns
  - Rental income and expected capital gains
  - Financing conditions (often amplifying role)
  - Expectations about future price developments
  - Global financing conditions (via capital flows)
  - Taxation (after-tax return)

Annex: Land speculation and land banking

- Land speculation typically refers to **the acquisition and holding of land in anticipation of future price appreciation**, while land banking refers more broadly to the accumulation of land inventories for future development or resale.
- When land is strategically withheld from development or development is delayed in response to expectations of future price increases, this may reduce the effective supply of buildable land and contribute to rising land and housing prices.
- Landbanking activity may also reflect operational requirements related to development pipelines, planning uncertainty, infrastructure provision and the long-time horizons associated with large-scale housing projects
- Case studies, e.g. from Luxembourg, highlight how concentrated land ownership and strategic landholding can contribute to housing affordability pressures (Paccoud et al., 2022).

Annex: Determinants and policy drivers

- A broad range of factors can influence speculative dynamics in housing markets by shaping expected returns, financing conditions, housing supply responsiveness, and investment incentives.
  - **Macroprudential and credit policies:** LTV and DSTI limits, amortisation requirements
  - **Housing finance and financialisation:** mortgage market liberalisation, financial innovation, securitisation and easier access to credit can expand the pool of potential buyers and increase leverage
  - **Supply-side and land-use policies:** restrictive land-use regulations, lengthy and uncertain permitting procedures and infrastructure constraints can limit supply elasticity
  - **Taxation:** general (transaction, recurrent, capital gains and land-value taxes) and specific (taxes on second homes, investment properties and vacant dwellings; anti-flipping rules)
  - **Market transparency and financial regulation:** regulation of real-estate investment vehicles; data on prices, rents and ownership

Annex: Indicators of land speculation

- **Indicators consistent with land speculative activity**
  - **Time-to-development (planning-to-completion lag).** The time elapsed between the granting of building permission and the completion of construction is a widely used proxy for potential land banking or strategic delay.
  - **Land use change and undeveloped buildable land.** The degree to which land designated for construction remains undeveloped provides information on the intensity of land mobilisation.
  - **Parcel size and transaction characteristics.** Transactions involving unusually large plots may be associated with professional developers or institutional investors acquiring land strategically for phased development or resale.
  - **Ownership concentration in land markets.** High concentration of land ownership can be indicative of market power and strategic land withholding.
  - **Cross-border and institutional investment flows.** The participation of international institutional investors in land and residential land markets can signal the increasing financialisation of housing and land.