



EU housing market surveillance in the Commission

Recent trends in the real estate market
NBP and SGH, Warsaw, 30 November 2023

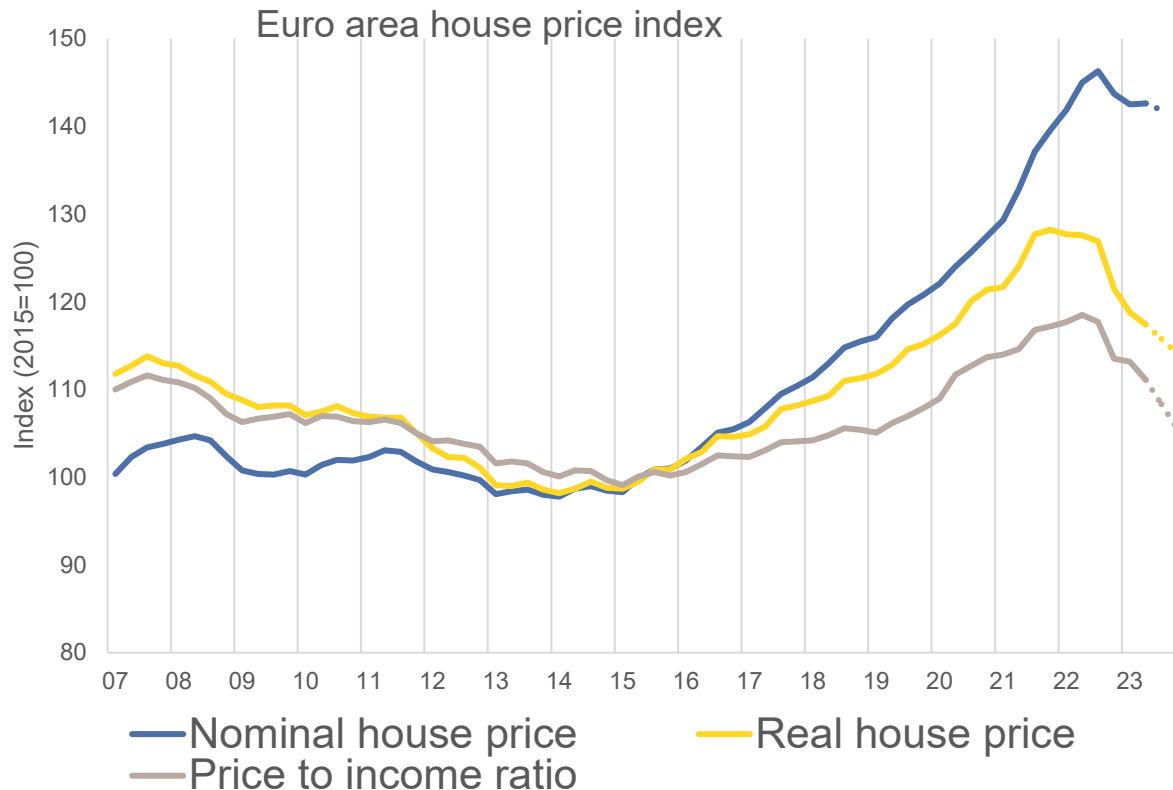
Bořek VAŠÍČEK
DG ECFIN, European Commission

Disclaimer: The views are of the author and not necessary of the European Commission.

Outline

- I. Recap of COMM macro surveillance
- II. Housing in COMM macro surveillance
- III. Illustration of surveillance tools with latest data
- IV. Policy levers
- V. Conclusions
- VI. Resources

Drop of house prices...after period of strong increase...especially in real terms

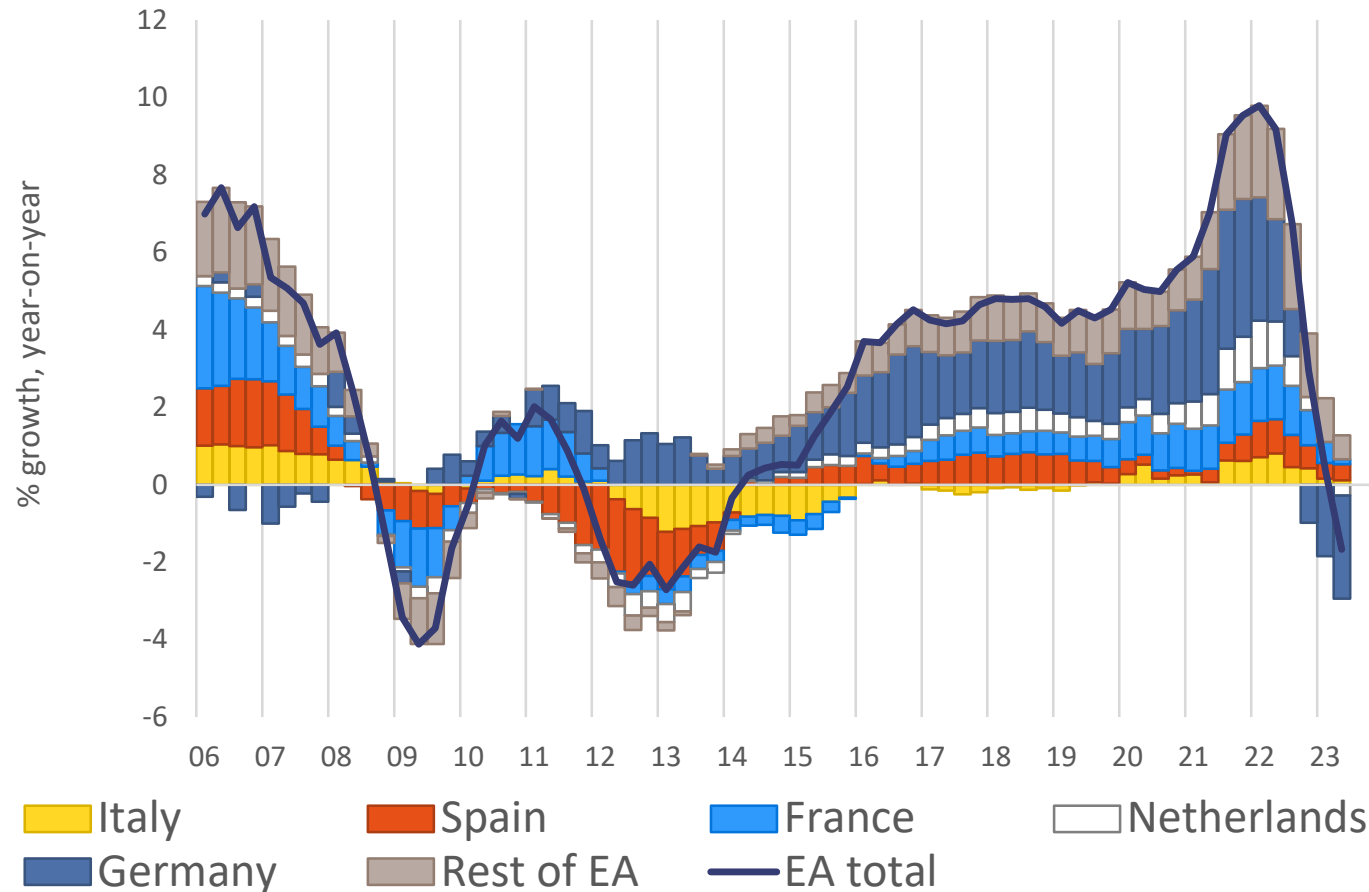


- *In real terms, euro area house prices declined by 8% over the last 12 months*
- *But the previous increase was massive*
- *Cross-country heterogeneity is still huge, but cycles seem much more synchronized now.*

Estat Q2 data suggests reversal



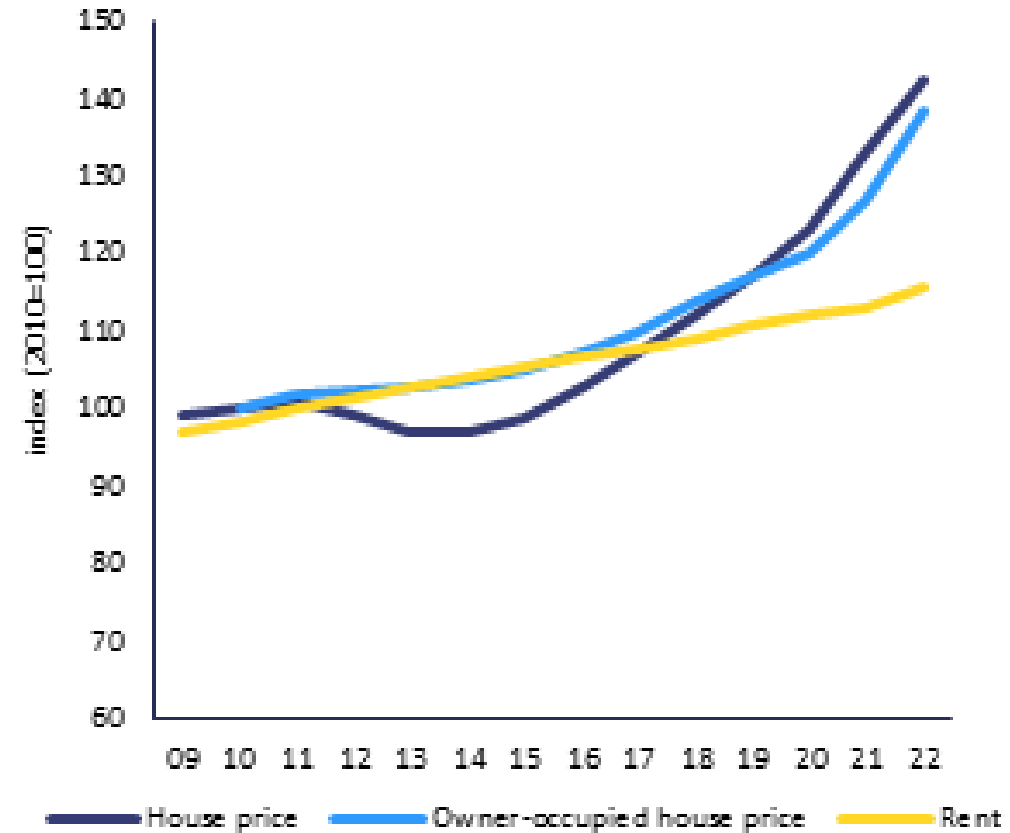
Euro area house price index



- 2007-2013: busts
- 2014-2019: recovering real estate
- 2020-2022: pandemic price push
- 2022-: remarkable reversal

DE, NL and small MS drive dynamics recently

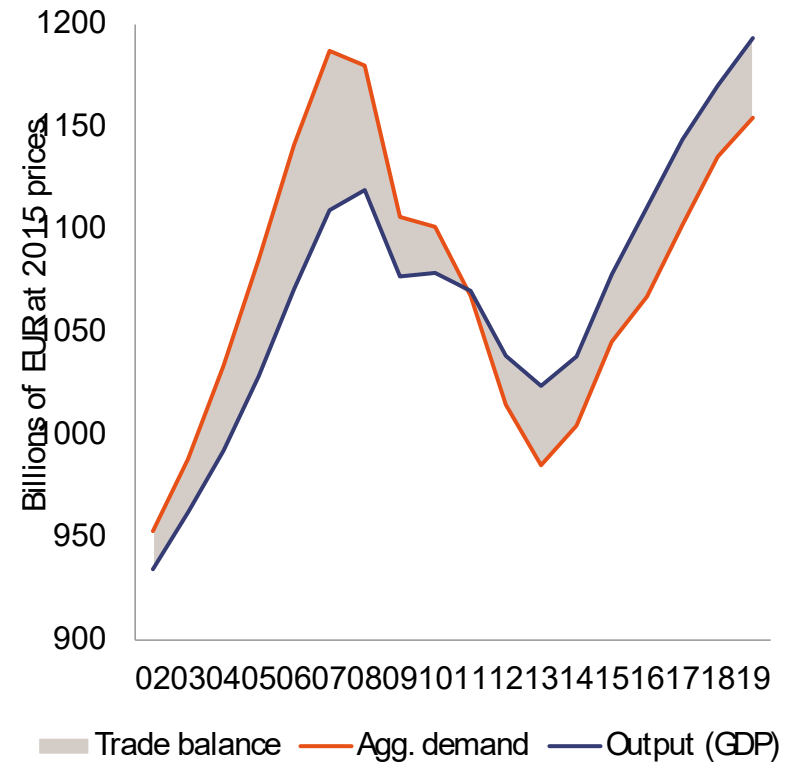
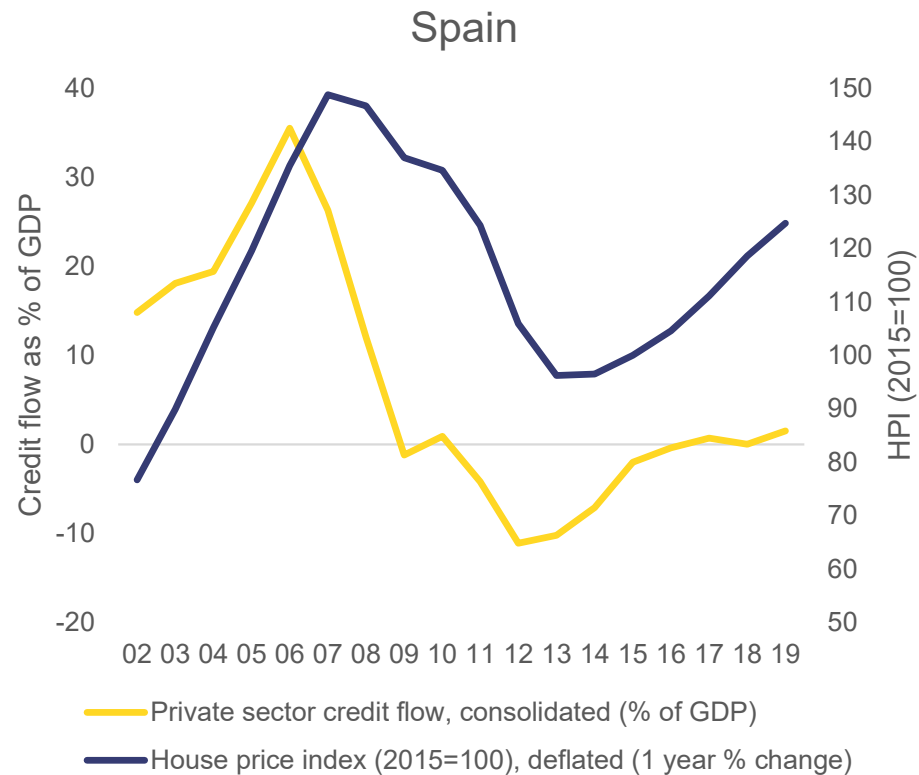
The gap between house price and rental index is wide



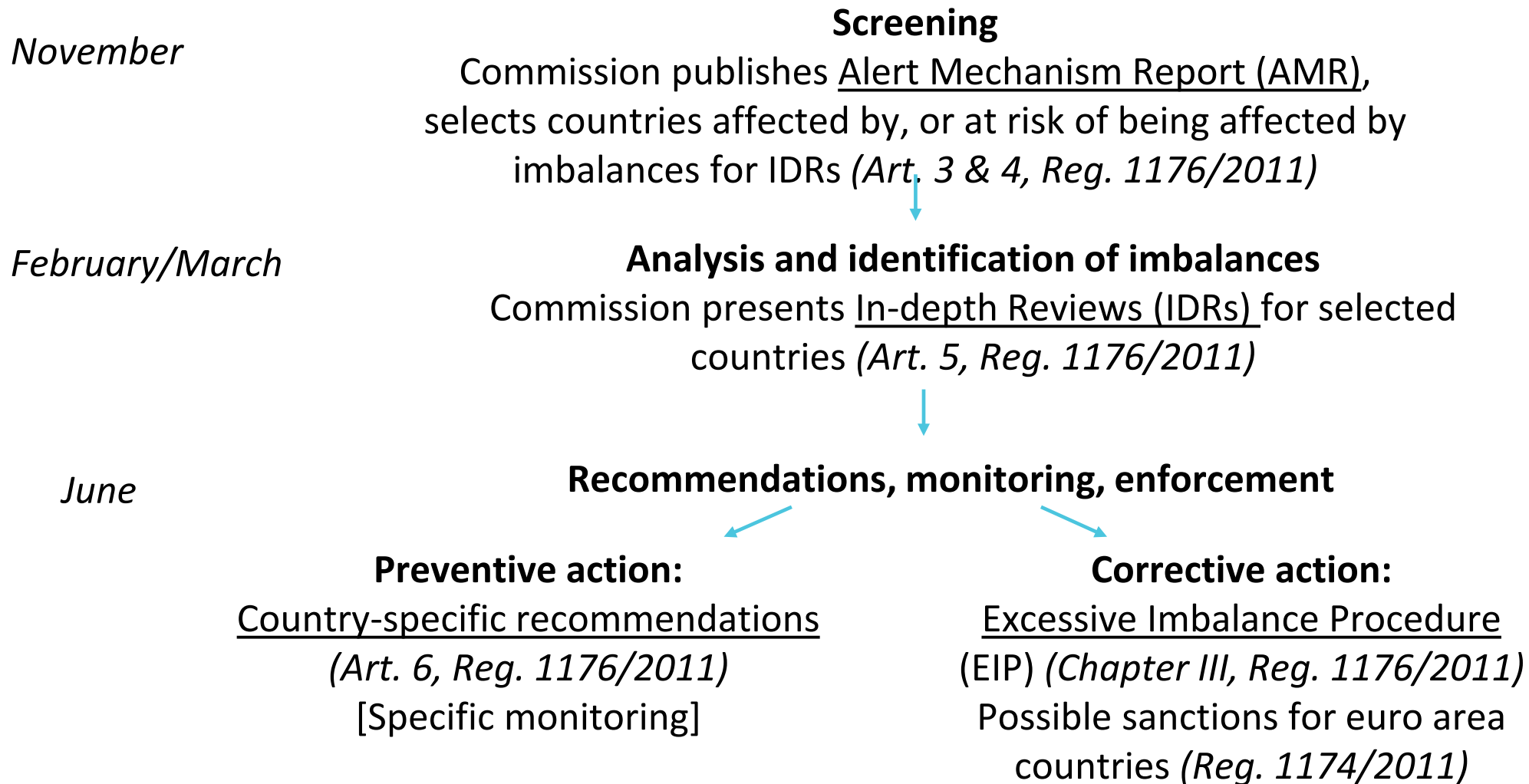
I. EU macroeconomic surveillance: MIP

- The Macroeconomic Imbalance Procedure (MIP) is a surveillance mechanism that aims to **identify** potential macroeconomic risks early on, **prevent** the emergence of harmful macroeconomic imbalances and **correct** the imbalances that are already in place.
- The Macroeconomic Imbalance Procedure (MIP) was introduced in the midst of the economic and financial crisis, to strengthen EU macroeconomic surveillance in areas not covered by SGP
- Some countries whose public finances seemed healthy (Ireland, Spain) ended up needing support.
- Depth of crisis affected by build-up of internal and external imbalances.
- Rationale for supra-national surveillance under MIP: macroeconomic imbalances in one country have relevance also for other Member States.

The Spanish bust as an example



I. EU macroeconomic surveillance: MIP



I. EU macroeconomic surveillance: MIP scoreboard



I. EU macroeconomic surveillance: countries with imbalances

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
BE	Imbalances	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
BG	Imbalances	Imbalances	Imbalances	Excessive imb.	Excessive imb.	Excessive imb.	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	
CZ	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
DK	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
DE	No IDR	No IDR	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Housing
EE	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
IE			Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	
EL								Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	imbalances or i	
ES	Imbalances	Excessive imb.	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	
FR	Imbalances	Imbalances	Imbalances	Excessive imb.	Excessive imb.	Excessive imb.	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	
HR			Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	
IT	Imbalances	Imbalances	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	
CY	Imbalances				Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	Excessive imb.	
LV	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
LT	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
LU	No IDR	No IDR	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
HU	Imbalances	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	Imbalances	Housing
MT	No IDR	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
NL	No IDR	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Housing
AT	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
PL	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
PT				Excessive imb.	Excessive imb.	Excessive imb.	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Housing
RO				Imbalances	IDR, no imb.	No IDR	No IDR	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	
SI	Imbalances	Excessive imb.	Excessive imb.	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	
SK	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	IDR, no imb.	Housing
FI	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	IDR, no imb.	No IDR	No IDR	No IDR	No IDR	No IDR	No IDR	
SE	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	Imbalances	

II. Housing in EU macroeconomic surveillance

Worrying about fiscal (and macro?): MIP

- Macroeconomic imbalance procedure: where housing “affects economic functioning”. (Reg(EU) 1176/2011)
- House prices and private-sector credit in MIP scoreboard
- Also cares beyond fiscal risks, but difficult

Worrying about banks: Macro-prudential surveillance

- Macroprudential surveillance is for MS (directive)
- European surveillance through European Systemic Risk Board (ESRB): ESRB similar to EBA, though the facto manned by ECB. ESRB cannot sanction, has to rely on Commission/MIP (Reg(EU) 1176/2011).
- Also cares about non-banks, but difficult

II. Housing in EU macroeconomic surveillance - reasons

- House prices are asset values, and thus the most important **collateral**
 - Macro-prudential concerns – risks of financial meltdown (euro crisis) or NPL deflation
 - Feedback loop
 - Can imply gross asset misallocation too (see Northern countries in GFC)
- House prices are endogeneous with housing supply
= **construction activity** → GDP (plus 24% of GDP CA deficit?)
- House prices can affect **housing affordability** → impact on households:
 - aggregate demand in the short term,
 - affecting mobility and productivity over a longer time horizon,
 - demographic pressures foremost among social impact

III. EC approach to house price assessment

- Main methodologies applied
 - I. Analysis of the house price time series (+credit, lending IR, credit conditions)
 - II. Indices based on structural ratios (PTI, PTR)
 - III. Fundamental analysis of price developments - a cointegration approach is followed for estimation of the house price empirical equation, using DOLS
 - IV. Houses price in level (+regional, affordability concerns)
 - V. Borrowing capacity of households
 - VI. Ad hoc models – PVAR with housing, financial and macro variables
- The analysis of housing is linked to household debt
 - Fundamental and prudential benchmarks

III. What is used across the ESCB

- Main valuation approaches used within ESCB:
 - **Price-to-income / Price-to-rent ratio** – almost all NCBs, but *not always considered a measure of overvaluation*
 - Deviation from sample mean, time-varying trend, periods prior to reversals,
 - Alternatives: price to construction cost, interest paid on new mortgages to disposable income, price deviation from HP/BP trend
 - **ECM / inverted demand** – half of NCBs, *not always considered a measure of overvaluation*
 - standard fundamentals: real income per cap, real mortgage rate, housing stock, population,
 - additional variables: real mortgage loans, building permits, construction cost, fiscal dummies.
 - coupled with 2nd equation for residential investment

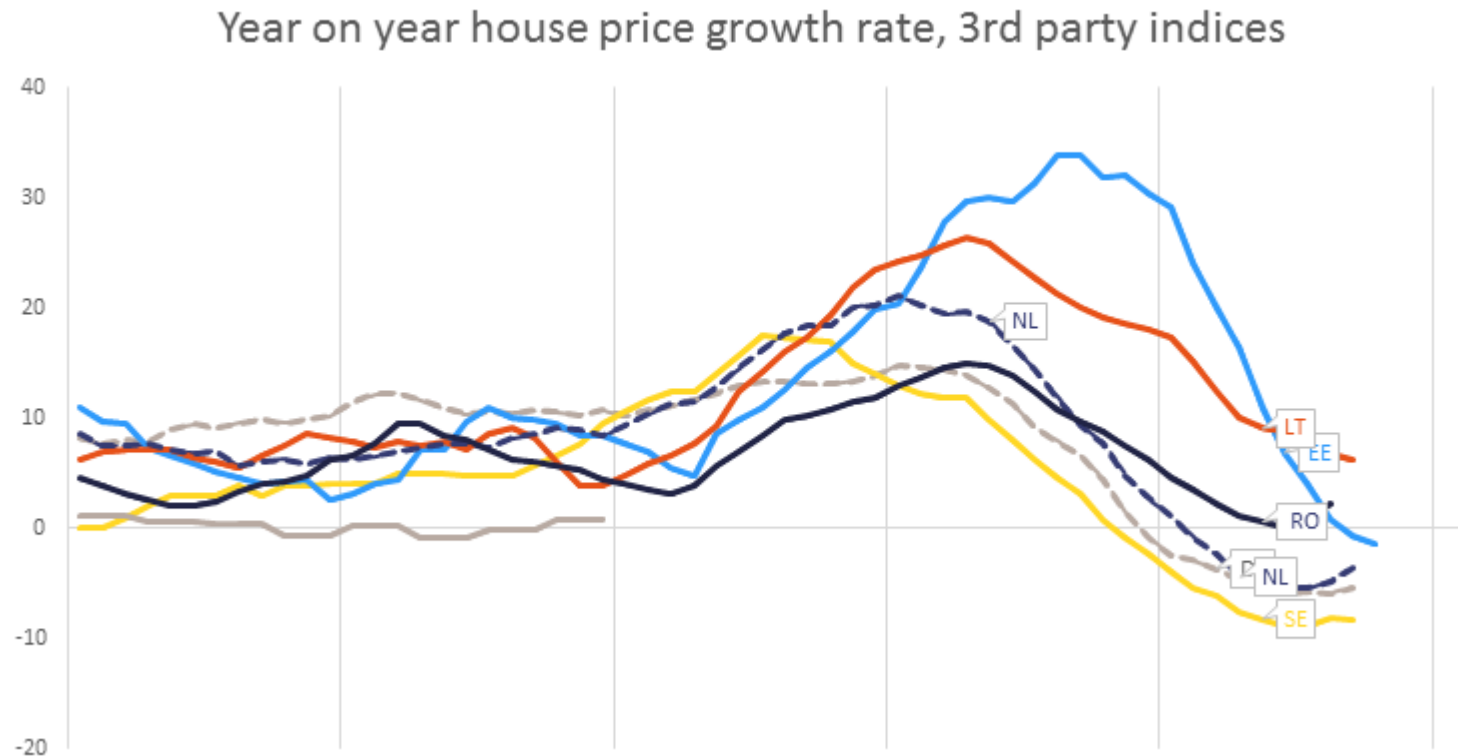
III. What is used across the ESCB

- Other valuation approaches used within ESCB:
 - **PCA / composite indicator** – PTI, PTR, house price to inflation, price to construction cost, resid. investment-to-GDP,
 - **Investment perspective** – rental yield - govt. bond yield, NPV of rental profits
 - **Borrowing / repayment capacity of HH** – attainable price as function of income, mortgage annuity payment, mortgage rate, tax regime
 - **Regional data** – house stock per cap., real income per. cap., pop. density, GDP growth prospect

III. What is used across the ESCB

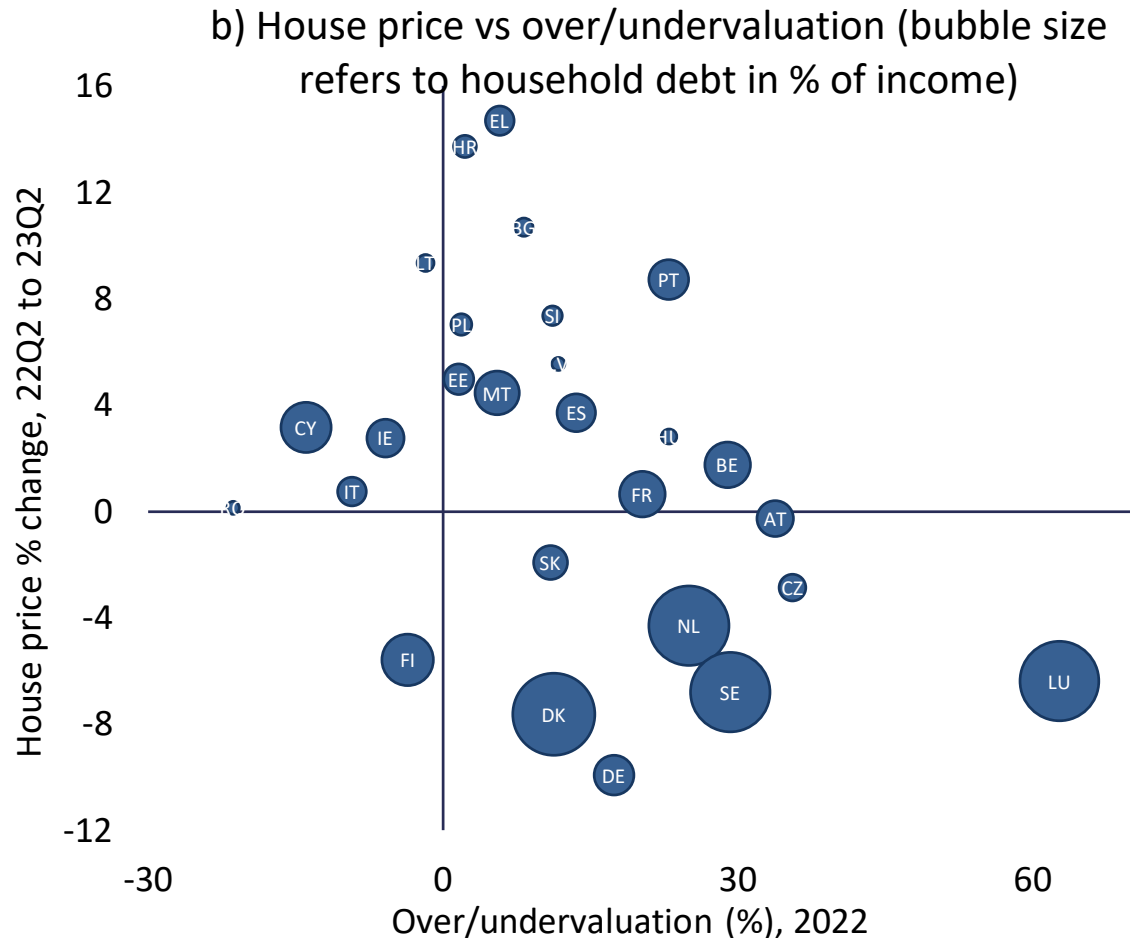
- Other approaches used within ESCB – no valuation assessment:
 - **SVAR / VECM** – real house prices, rents, real GDP / income, construction costs, mortgage rate, real mortgage loans
 - **Quantile regressions / Prices at risk** – future scenario of price developments
 - **Forecasting macro model** – house price modelled, e.g. EC from LT equilibrium, cointegration between prices and mort. credit

Tool: scraping high-frequency data



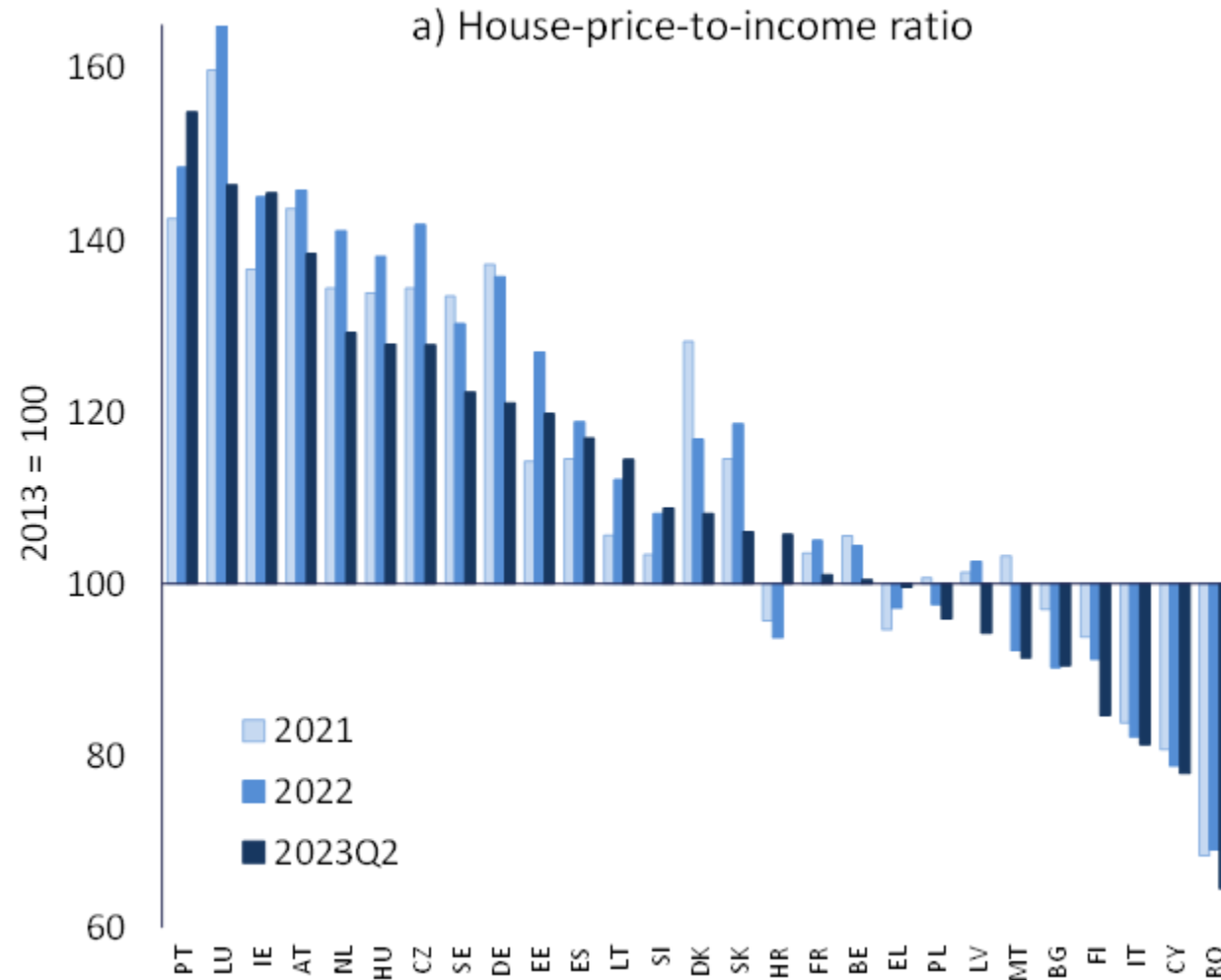
- Third-party data suggests next inflection point to come up
- Fundamentals suggest price growth to resume over next 8 quarters

Tool: house price valuation

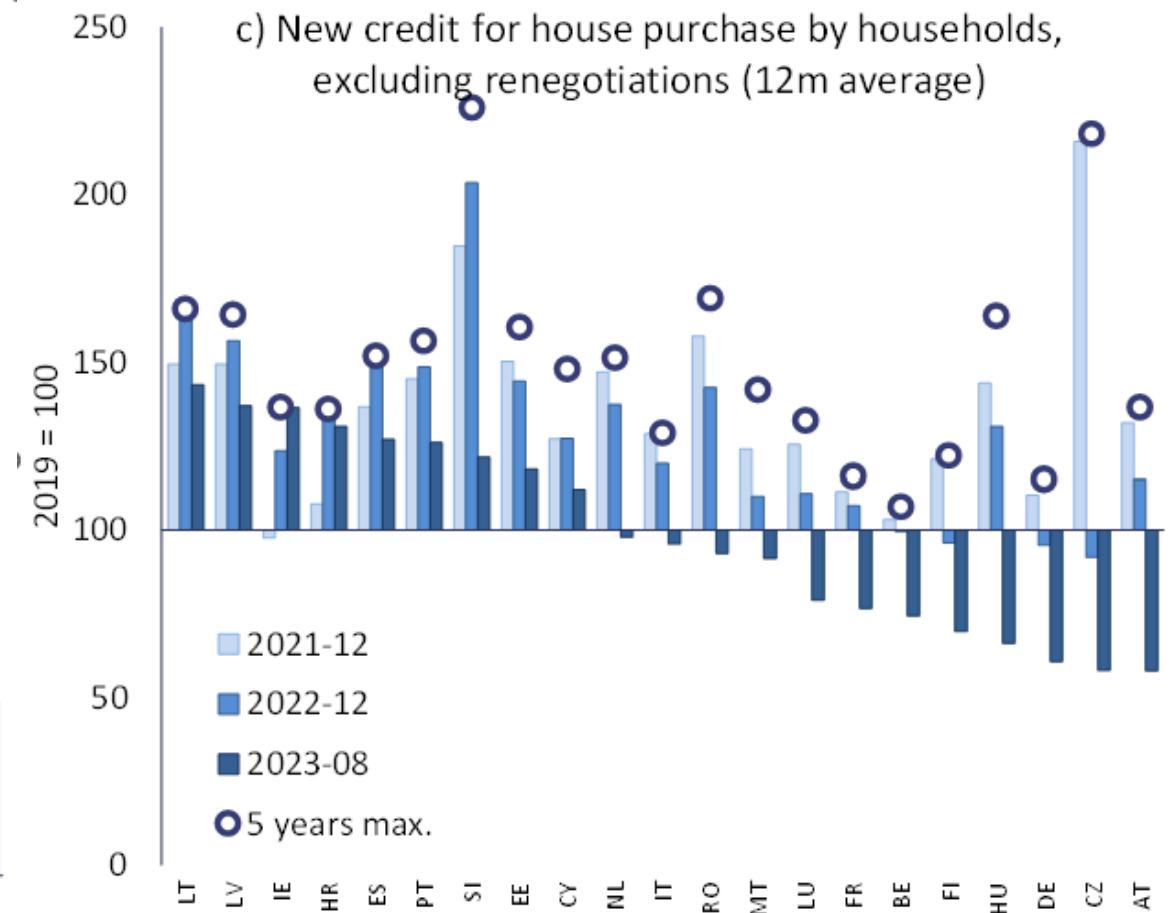
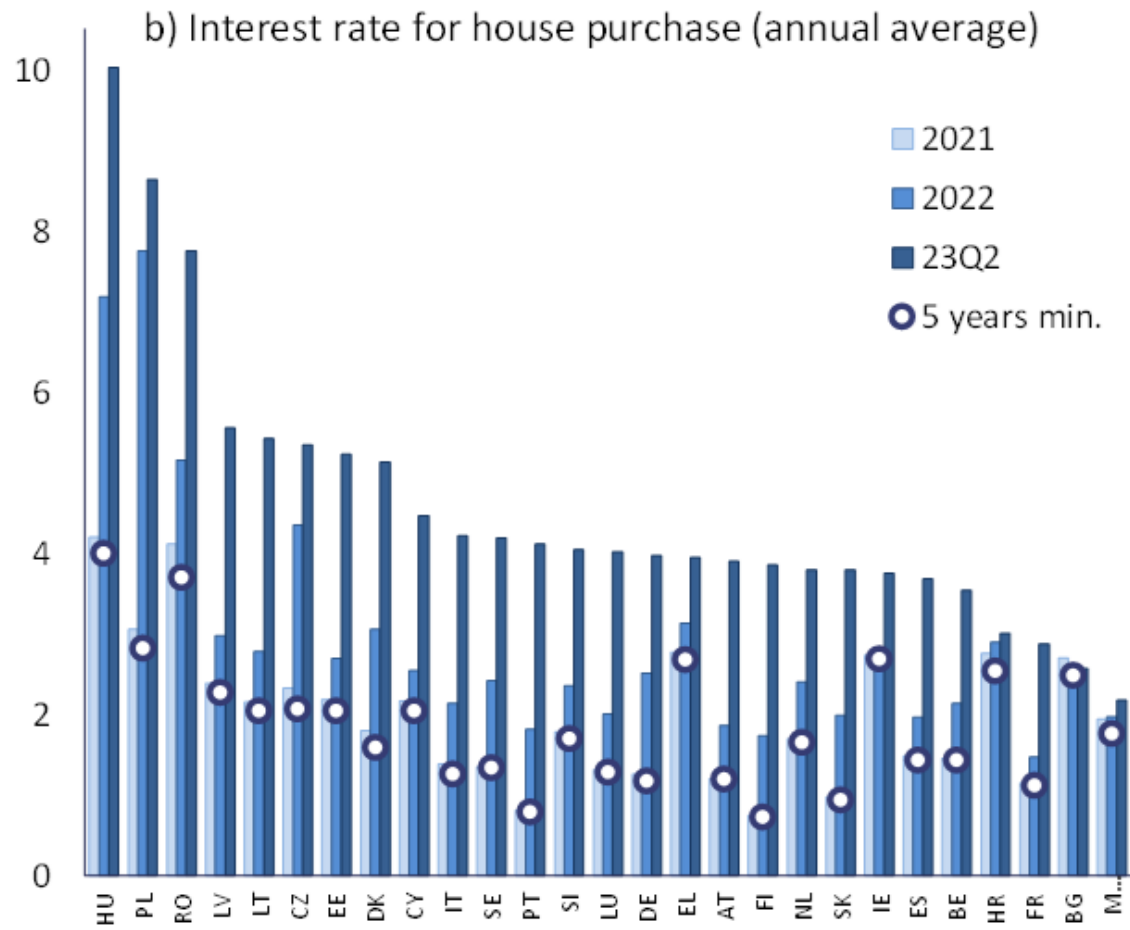


- House prices compared to the house price suggested by fundamentals
- Key for assessment
- By 2023, most MS were still overvalued

PTI may suggest improving affordability

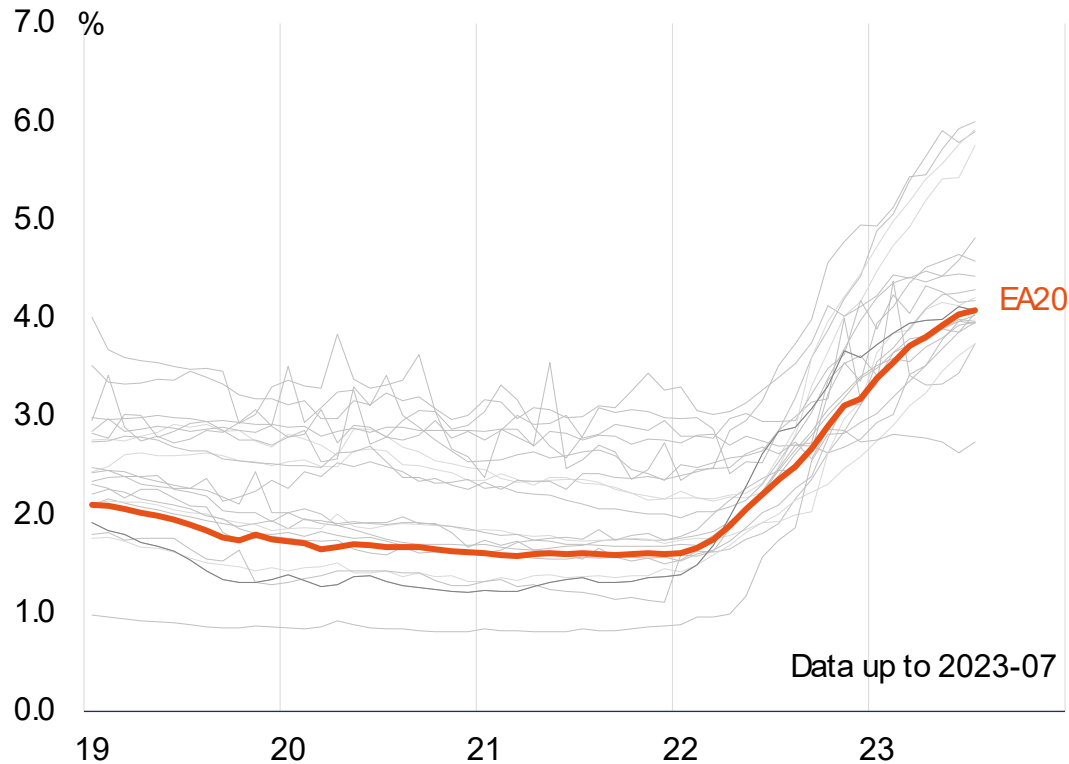


Additional factor recently: fast-changing mortgage market



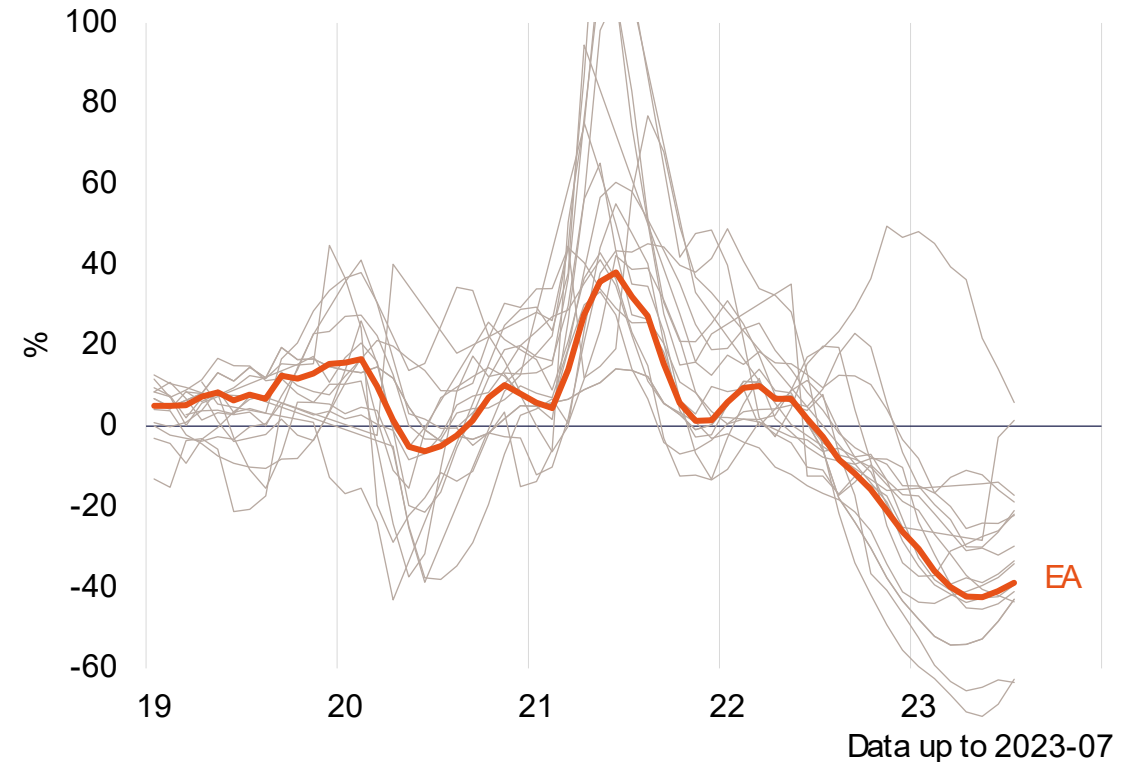
...even within the euro area

Mortgage interest rates climbing fast...



Annual percentage rate of charge for new hh. mortgage business:
20 EA MS and EA average. Data source: ECB MIR

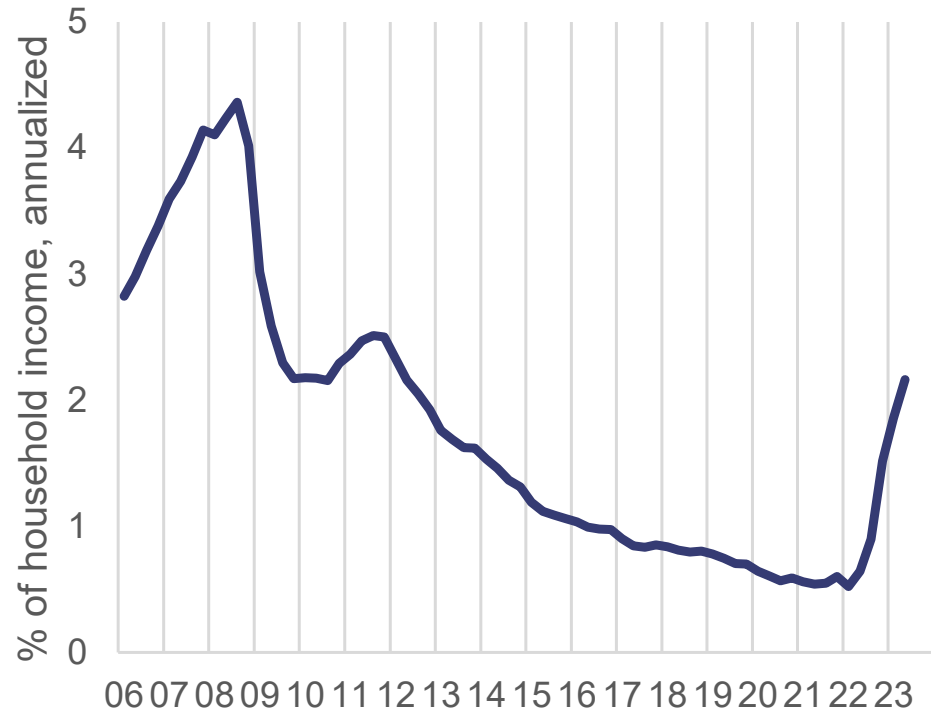
...and household credit flows decline after the 2021 surge



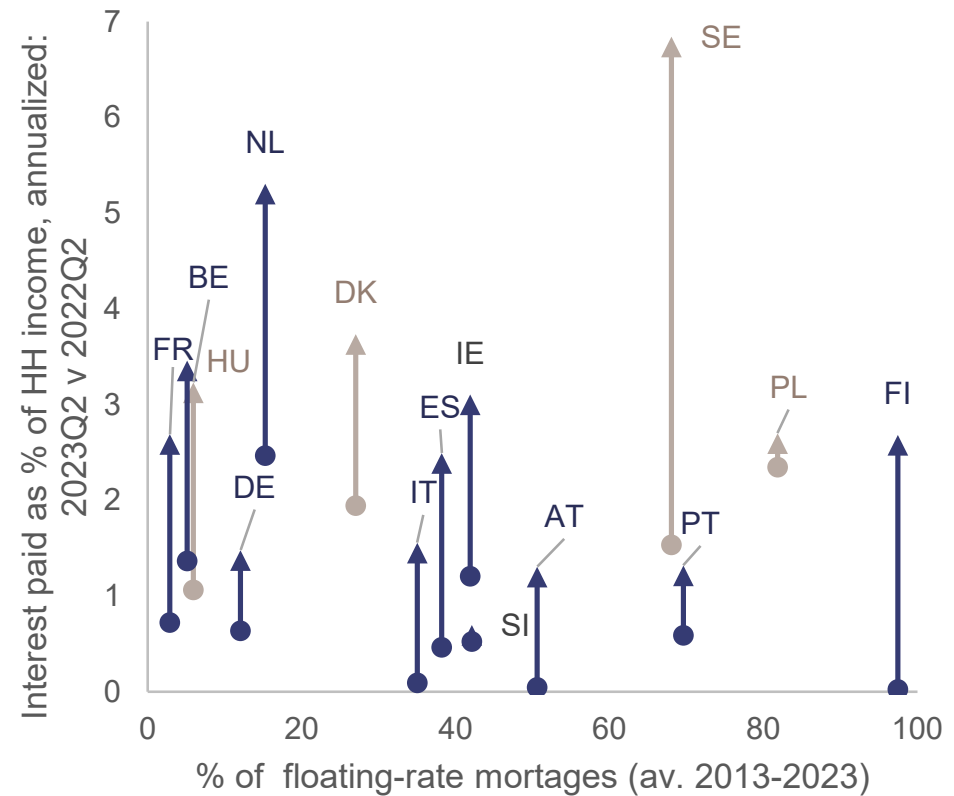
Pure new household mortgage business, yoy growth (3 month moving sum): 20 EA
MS and EA average. Data source: ECB MIR

HH interest payments are increasing fast

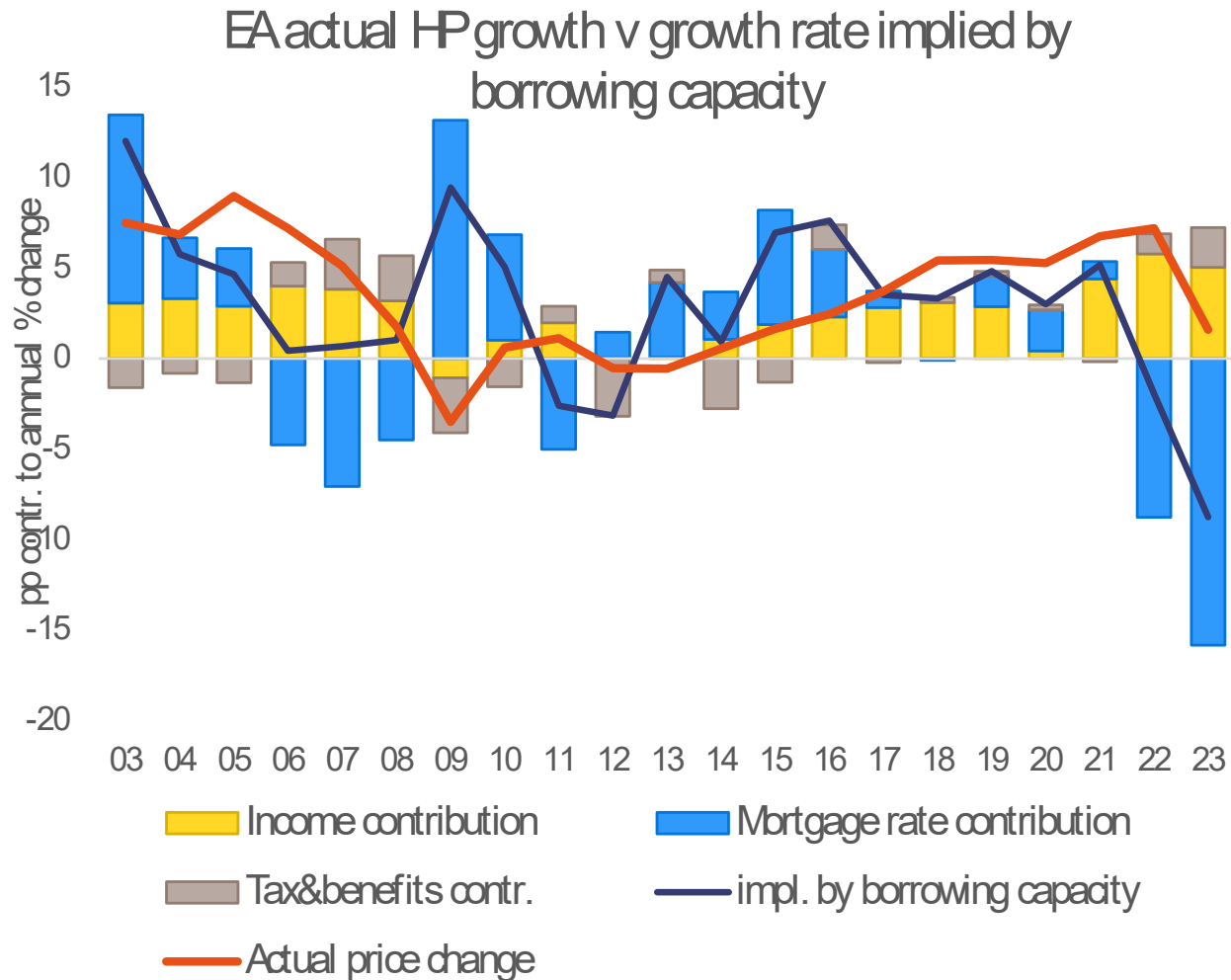
EA20: HH interest payments



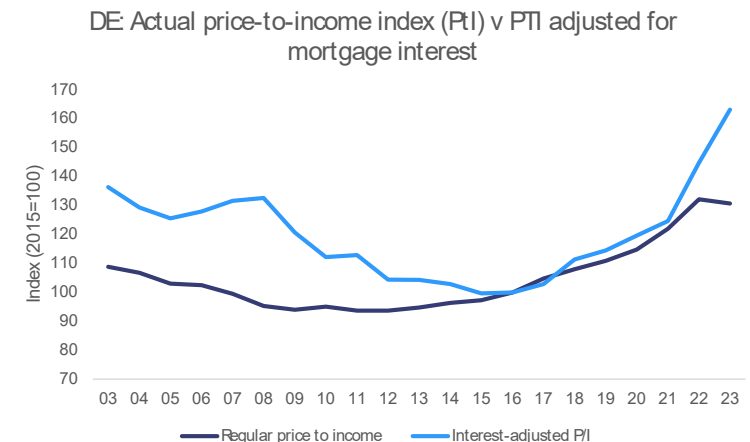
HH interest payment increase 2022-Q2 to 2023-Q2



Tool: borrowing capacity suggests downturn

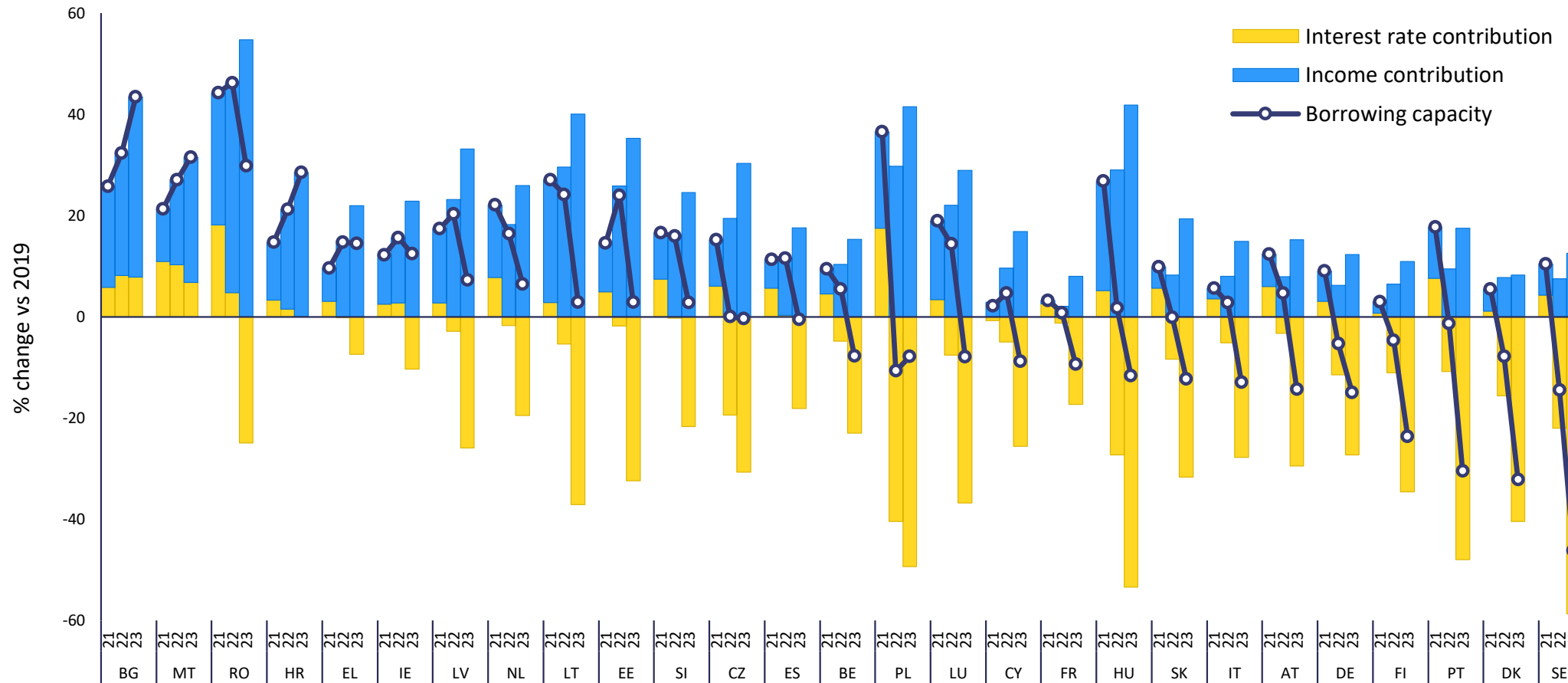


- Borrowing capacity based on house price levels (HouseLev/maapdomo) and JRC housing taxation database.

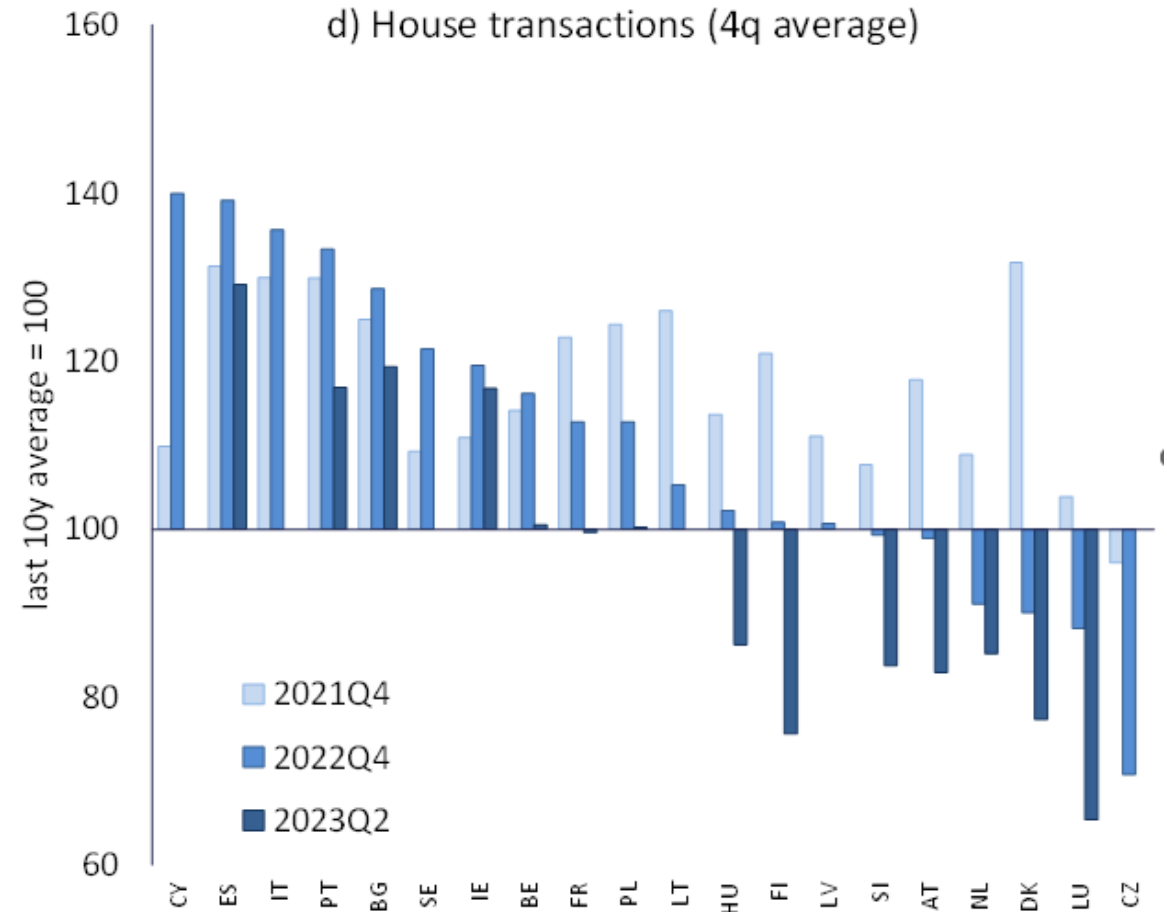
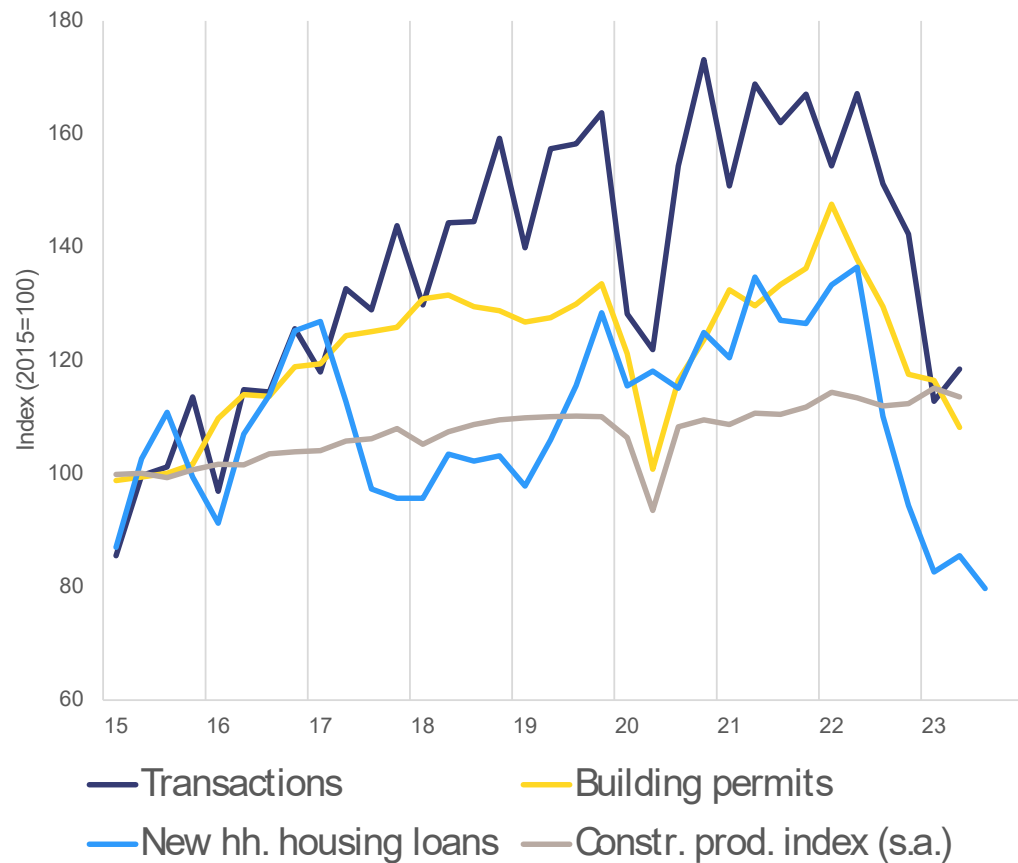


Tool: borrowing capacity suggests downturn

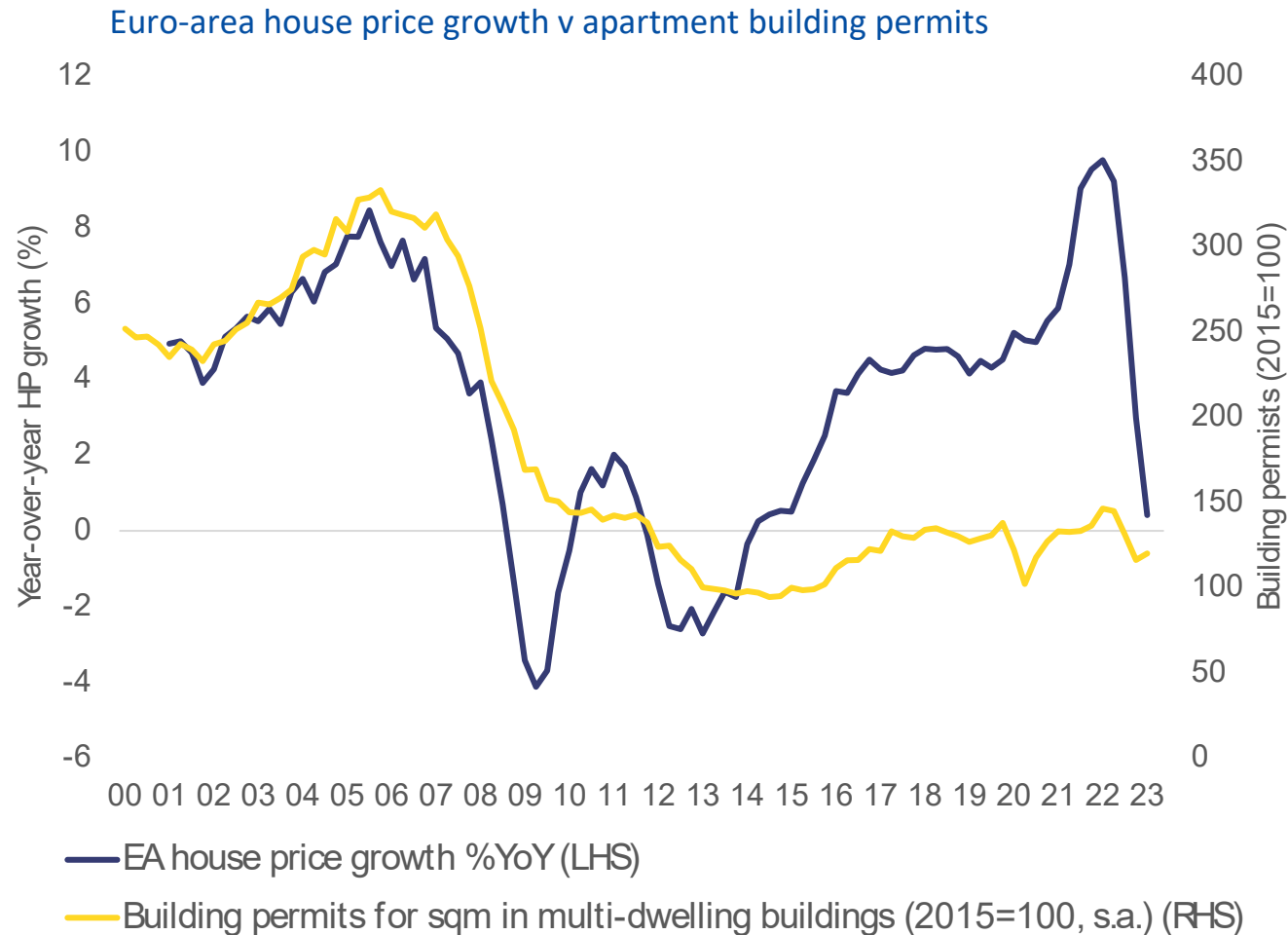
Borrowing capacity change (%), vis-a-vis 2019



Impact on transactions visible – construction impact still to come



Despite price growth in the last decade, supply was lagging



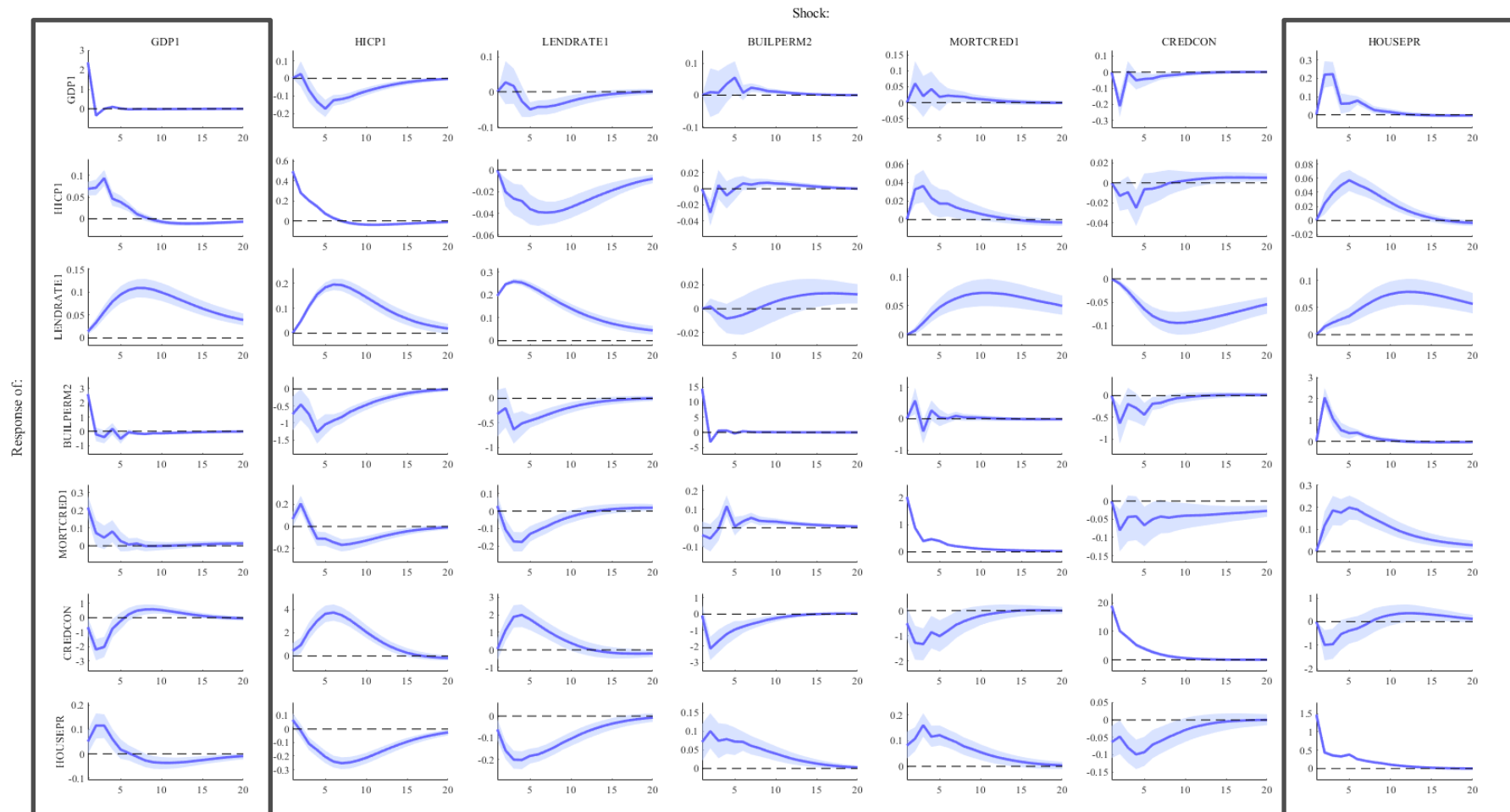
Since 2008, residential construction remains muted ...

...notably in dense areas where price pressures are high.

From 2008 onwards, government incentives for supply have been reduced. Targeted measures to support housing demand more prominent

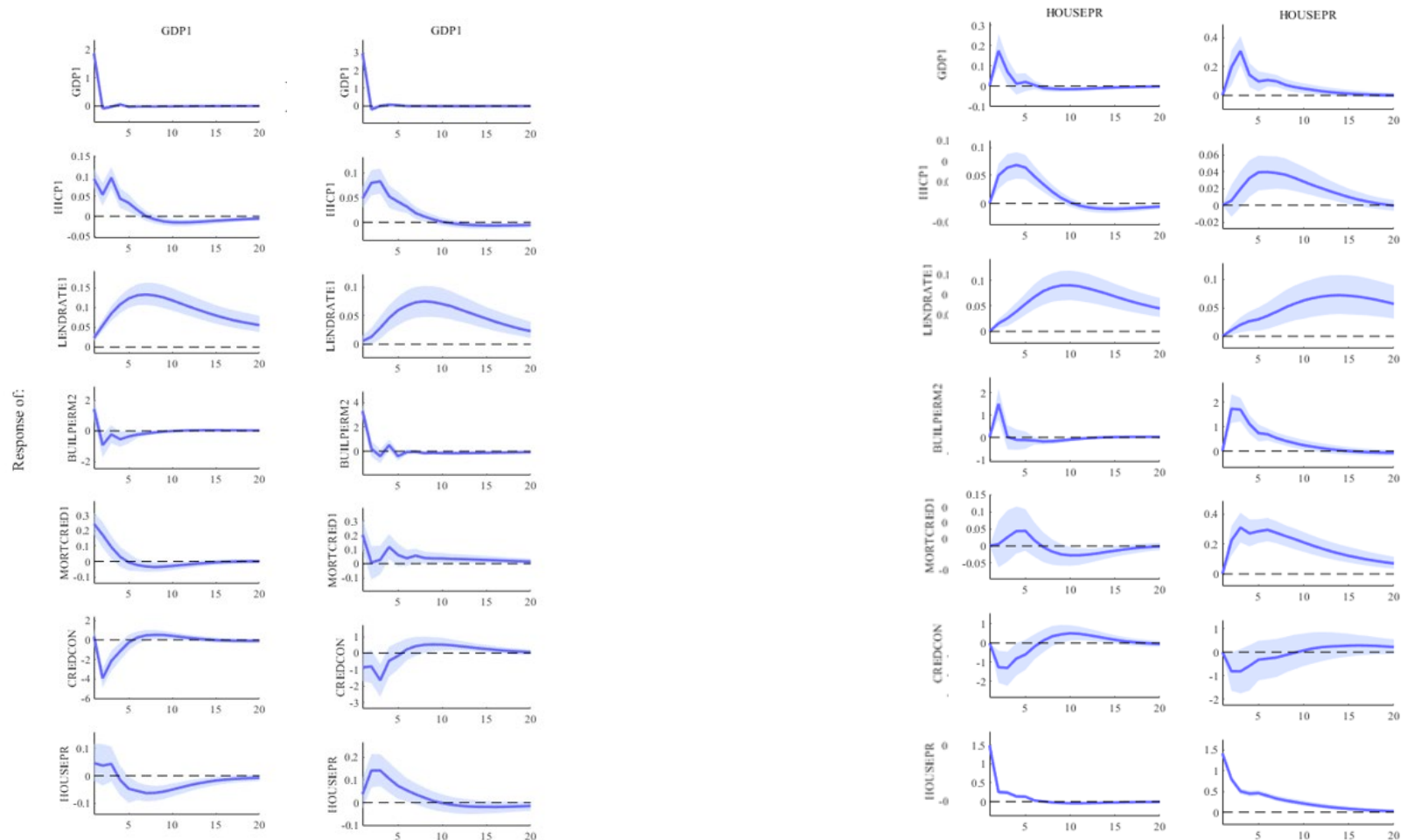
Strong links between macro and housing development ...current developments consistent with historical patterns

Impulse response function from baseline panel BVAR, 12 EA countries, 2003 Q1 – 2023 Q1



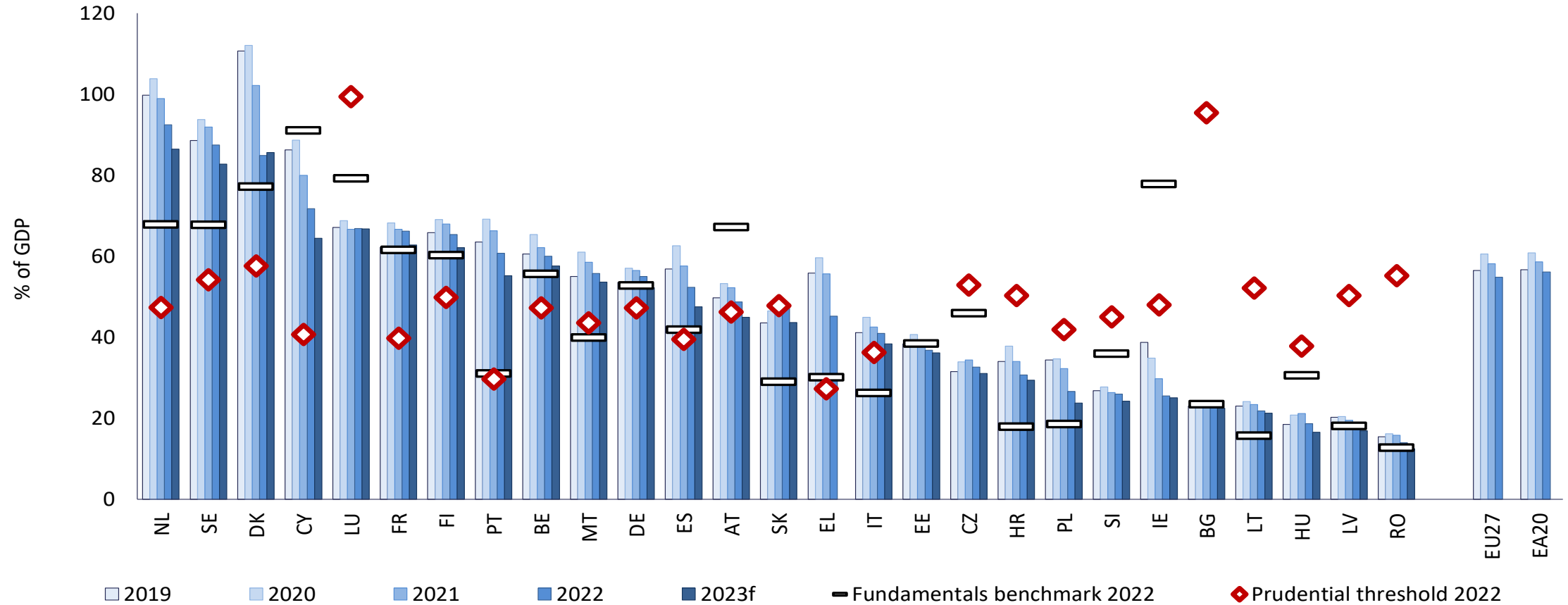
Differences in transmission within the EA seem to depend on differences in supply elasticity

Impulse response function from panel BVAR, 2 subpanels of EA countries (DE, NL, AT, LU, FI, BE – left columns) and (EL, ES, IE, FR, IT, PT – right columns), 2003 Q1 – 2023 Q1



Tool: Household debt vs estimated benchmarks

Household debt-to-GDP ratios



IV. Housing market related policies

- Macroprudential policy and mortgage-related regulation
 - BBM measures introduced in the last decade, not all MSs binding LTV / DSTI limits
 - ESRB report on RRE vulnerabilities, Feb 2022: warning (HU, SK), recommendation (DE), Sept 2019: warning (CZ, HU), recommendation (LU, NL, SE)
- Structural regulation and housing supply
 - Zoning and building regulation (not easy to measure and compare)
 - Rental market regulation (low – CZ, SK, EE, LT, LV, some – DE, LU, strong – NL, SE)
 - Social housing (low supply in general, except for NL)

IV. Housing market related policies

- Taxes and benefits systems
 - Transfer taxes (low in CZ, EE, LT, SK)
 - Recurrent property taxes (mostly around 0.1%)
 - Rental income taxes
 - Capital gain taxes
- Taxes and benefits systems
 - Some form of grants / subsidies to homebuyers, subsidies (almost all MSs)
 - Mortgage interest rate relief, different modalities (some MSs)
- Insolvency and foreclosure regulation
 - Differences in effectiveness / speed of loan enforcement framework
 - Out of court settlements (LU, NL, SE) impact incentives to launch foreclosure proceedings

Conclusions

DG ECFIN uses diverse tools

- The focus is on house prices, mortgages
- Despite work, tools lacking on building stock and rentals
- Social housing: part of building stock, but we know country cases
- Regulatory settings: lots of past work on insolvency, repossession, land registry
- Taxation still is key. Land value tax?

Conclusions

Price developments are driven by different cyclical and structural factors

- **Downward pressure on house prices**
 - High mortgage rates + weak lending
 - High recession risk
 - Price overvaluation
 - Low rental yields
 - High household debt
- **Upward pressure on house prices**
 - Constrained house supply
 - High construction cost
 - Population increase
 - Housing preferences shift + energy efficiency

Internal resources for real estate surveillance

All available under <https://s-ecfin-web.net1.cec.eu.int/directorates/db/u1/data/>

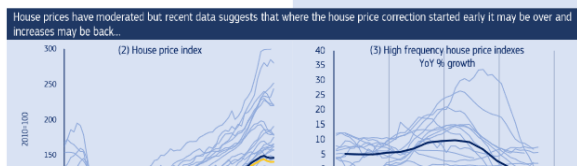
Housing market monitor

Quarterly report for official use

Housing Monitor – Is the period of moderation already ending or is just a pause?
ECFIN B1, 10 October 2023

Overview and General Assessment

- House prices are declining by 2023Q2, on a quarterly basis. EA20 aggregate prices are already below 2022Q2 levels, but remain above them in most countries (Graphs 1-3).
- Housing transactions (graph 6) decreased in line with the slump of credit in almost all countries (graph 5).
- The increase in mortgage rates (graph 4) weakens borrowing capacity (graph 10). Income growth has not offset the impact from interest rate on monthly mortgage payments (graph 10), reducing demand and so house prices.
- Affordability (for cash buyers) as measured by the price-to-income ratio has started improving (graph 7) as incomes rise while prices fall.
- The slowdown in granting of new building permit suggests that construction sector is about to slow (graph 8).
- For 2023 and 2024 ECFIN B1 forecasts a significant moderation of house prices (table 1), while for 2025 we expect house prices to resume growth supported by higher income, low supply and the end of the adaptation to higher interest rates.



Housing market database

Website with daily updates
Plus daily chartbook
Also includes models etc

ECFIN B1
House Price Database

Country	Indicator	Transformation Time	Freq
BE	B1 House price index nominal (2015=100)	134.2	169.9
BG	B1 Deflated house price index (2015=100)	111.6	124.5
CZ	B1 price to rent ratio (2015=100)	188.8	143.4
DK	B1 price to income ratio (2015=100)	105	91.8
DE	B1 total overvaluation gap (actual HP % diff from fund. HP)	28.9	8.2
EE	ECB/ESCB residential property price index (2015=100)	137.8	162.9
EL	OECD nominal house prices (2015=100)	134.2	169.9
ES	OECD real house prices (2015=100)	111.7	124.7
FR	Eurostat official MIP nominal house price index (2015=100)	134.2	169.9
HR	Eurostat official MIP deflated house price index (2015=100)	110.5	124.9
IT	Deflator, Ameco/Estat (OECD when Estat n/a) (2015=100)	120.2	136.5
LU	Eurostat housing cost overburden rate, owner (with mortgage or loan)	0.7	4.6
NL	Eurostat housing cost overburden rate, tenant (rent at market price)	32.1	38.5
PL	B1 price-to-rent overvaluation gap (actual HP % diff from fund. HP)	41.6	28.4
PT	B1 price-to-income overvaluation gap (actual HP % diff from fund. HP)	32	28.5
RO	B1 model overvaluation gap (actual HP % diff from fund. HP)	13.2	26.7
SI	ECB av. overvaluation gap (actual HP % diff from fund. HP)	17.8	4.4
SK	B1 price of 100m ² / income per capita (forecast)	10.7	0.4

mapadomo

HP in levels, regional

mapadomo
Mapping Regional Housing Affordability

Home Data Download CSV Explore Map About
B1 Data Main Page

Mapadomo: Indicator: Price per m2 (EUR) | Year: 2018
 Dwelling type: All types | Regional level: NUTS-3 regions | Overview

Price per m2 (EUR), 2018

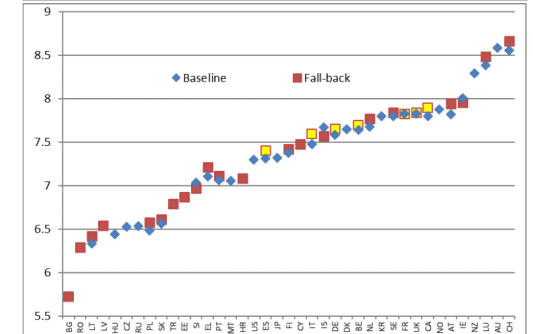
- <606
- 606 to 967
- 967 to 2042
- 2042 to 2711
- >2711
- Insuff. data

Source: ECFIN.B1

Selected outlets

- Philipponet, N. and A. Turrini: “Assessing House Price Developments in the EU”, ECFIN DP No. 48, 2017.
- Bricongne, J.-Ch., A. Turrini and P. Pontuch: “Assessing House Prices: Insights from Houselev, a Dataset of Price Level Estimates”, ECFIN DP No 101, 2019.
- Bricongne, J.-Ch., L. Coutinho, A. Turrini and S. Zeugner: “Is debt excessive?” Open Economies Review, vol. 31(2), 2020.
- Frayne, Ch., A. Szczypińska, B. Vašíček and S. Zeugner: “Housing market developments in the euro area: focus on housing affordability”, ECFIN DP No. 171.
- Vašíček, B. and V. Ždárek: “Links between housing and real economy in the euro area.” In Quarterly Report on the Euro Area, Vol. 21, No. 3, 2022.
- “Housing Market Developments: Thematic Note to Support In-Depth Reviews”. April 2023, Institutional Paper No. 197, 2023.

Graph 3.1: Prices level estimates in euro per sqm; baseline and unadjusted fall-back method, log scale, 2016

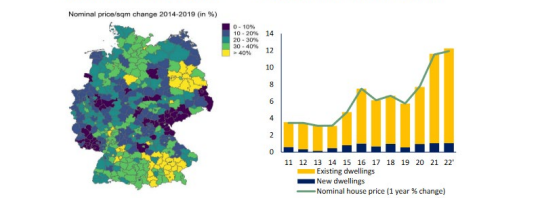


[1] Prices are in euro and in logarithm. A difference of 0.1 point between two sources means a difference by

Graph 20: Households' mortgage costs as a share of disposable income



3) Nominal price/eqm 2014-2019 (change in %) 4) Contribution to change in nominal house price (in %)



благодаря

gracias

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thank you

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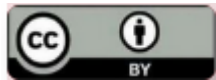
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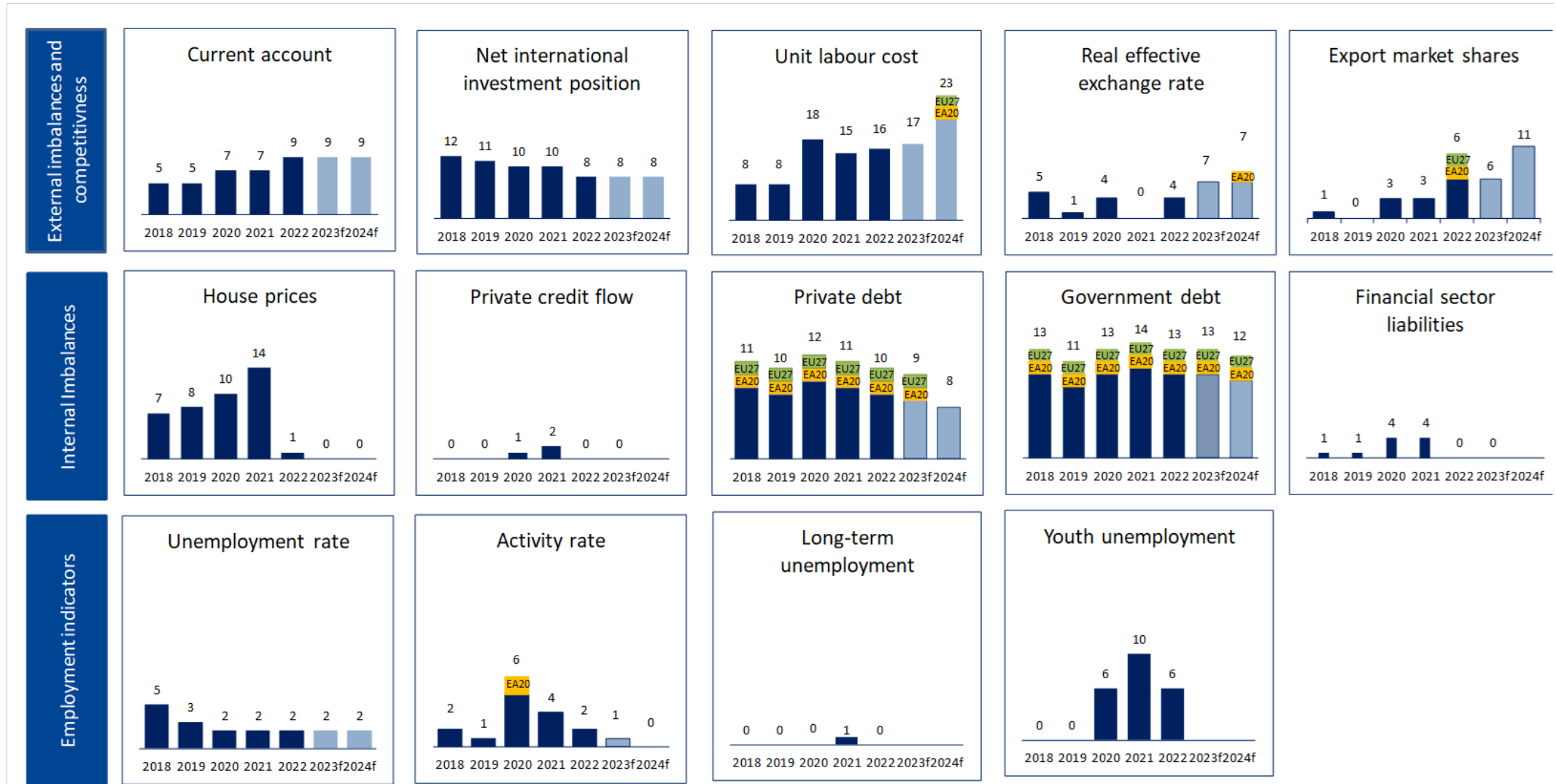
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Appendix

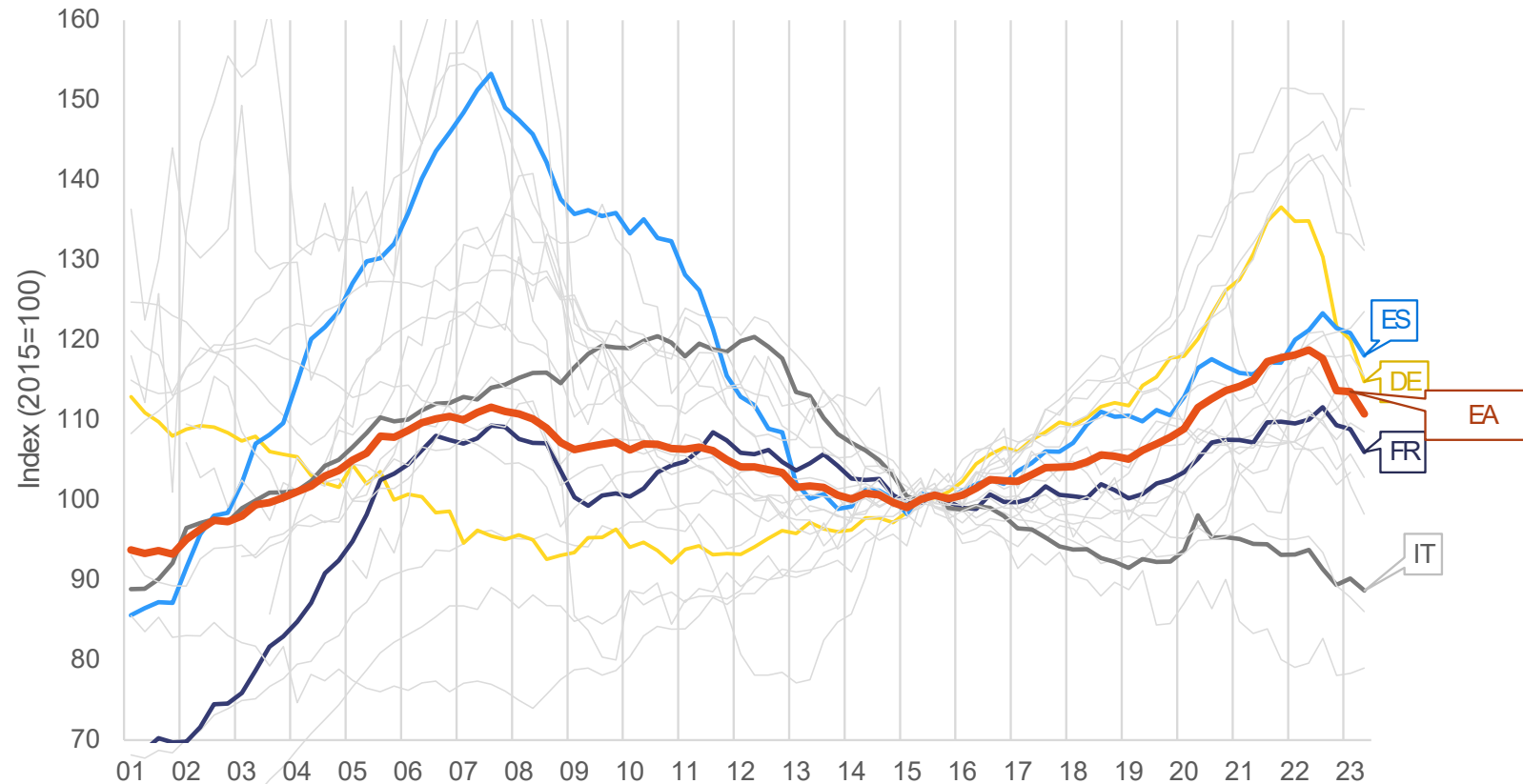
I. EU macroeconomic surveillance: MIP



Number of Member States recording scoreboard variables beyond threshold

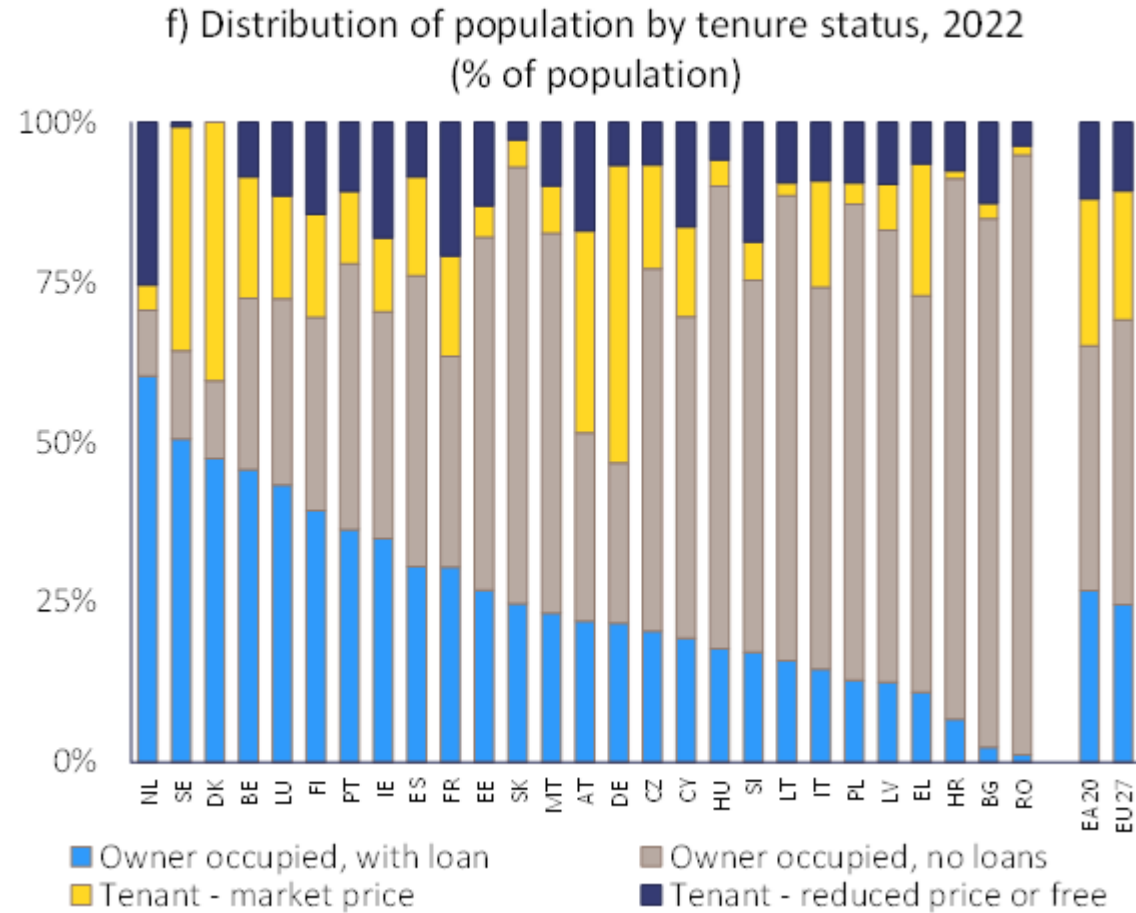
Price growth v income growth: heterogeneity

Price to income index

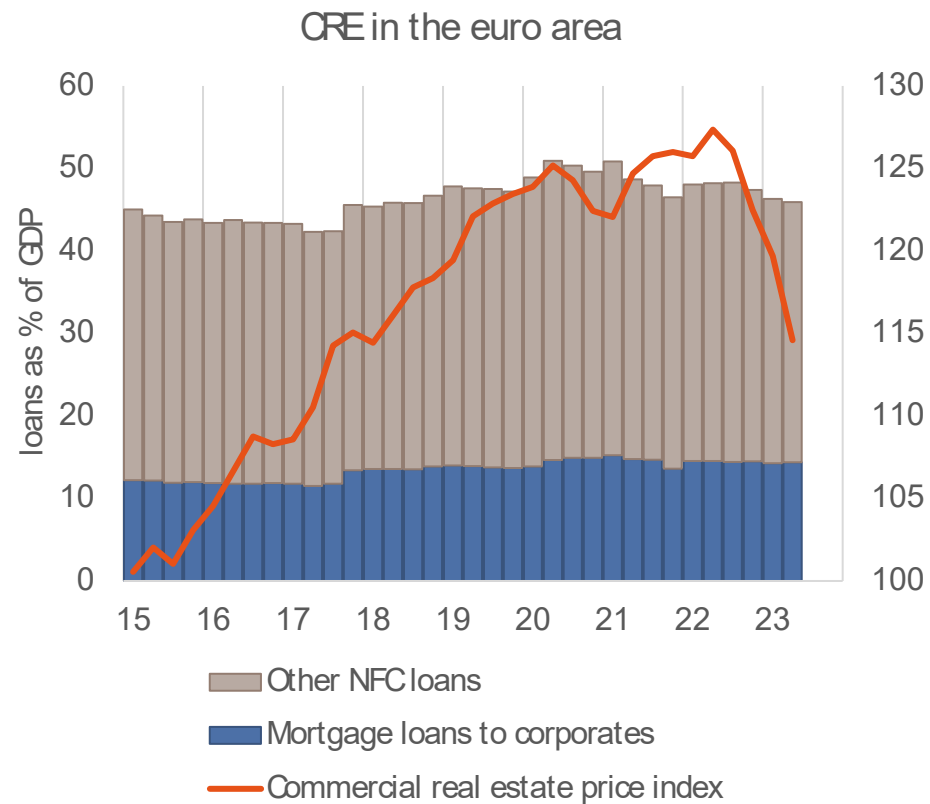


Price to income, with income denoting gross disposable household income per capita. Index based at 2015 levels. Data source: Commission calculations based on Eurostat prc_hpi_q

Annex



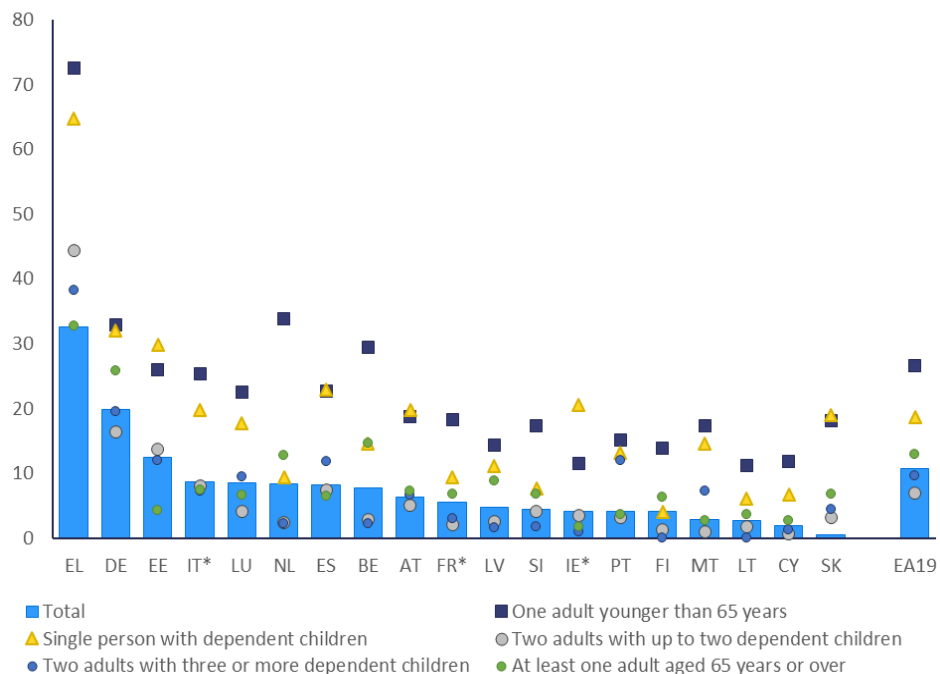
Annex



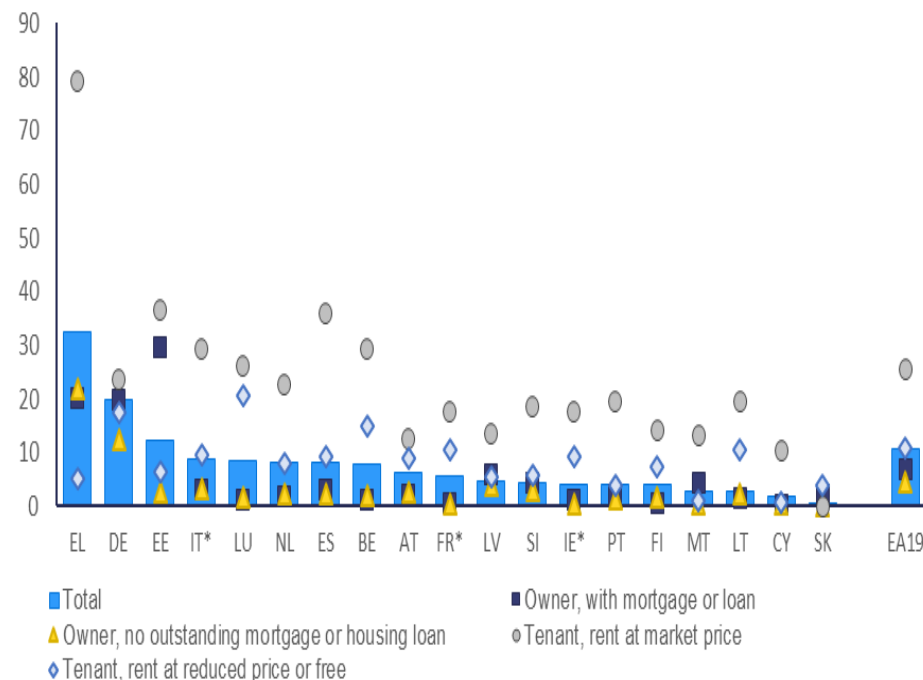
- Commercial real estate is an issue
- CRE loans matter

Annex

Overburden rate – by household composition, EA countries, 2020



Overburden rate – by tenure status, EA countries, 2020

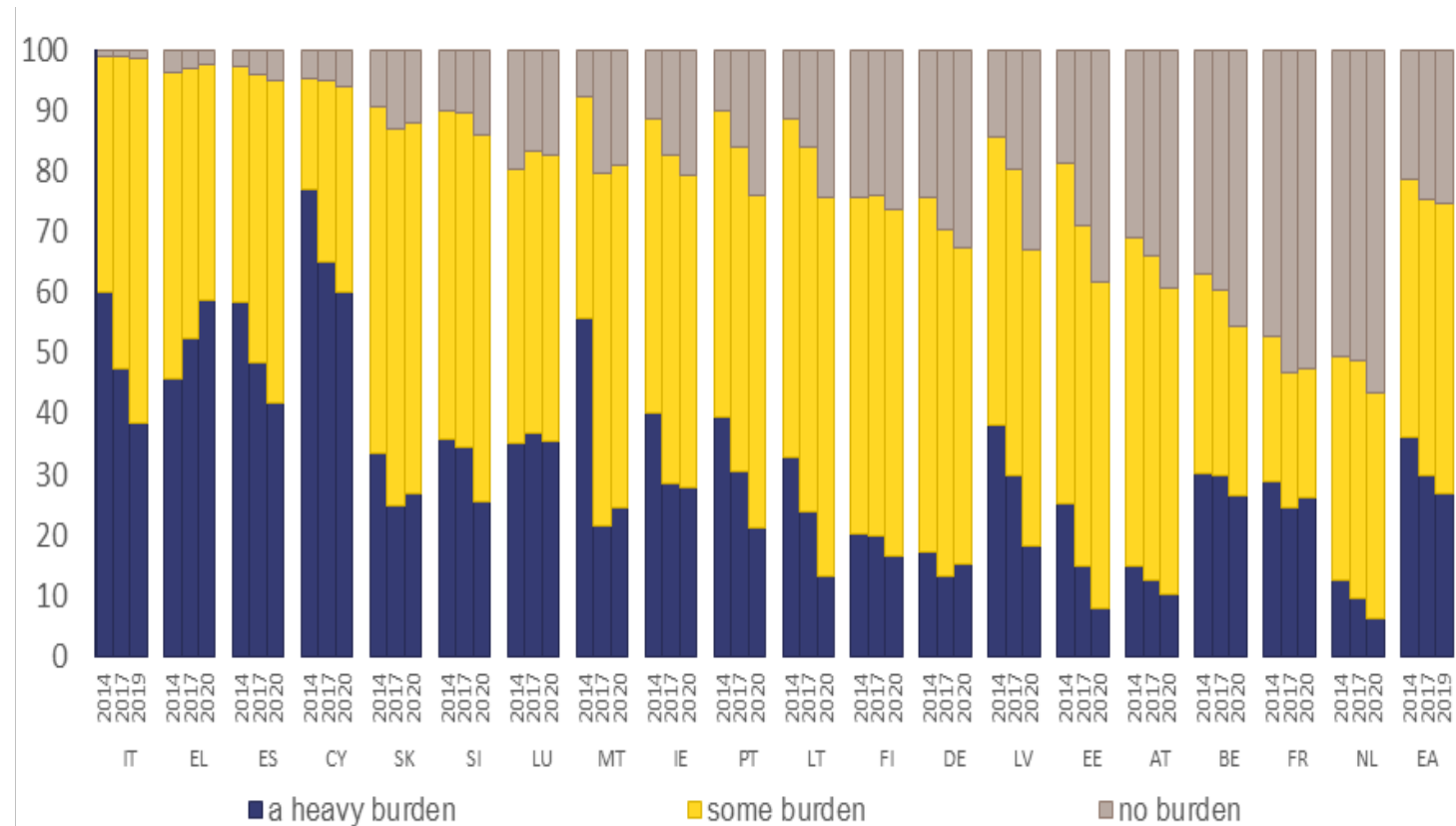


Note: The “overburden rate” represents the share of the population living in a household where housing costs (net of housing allowances) represent more than 40% of the total disposable household income. Housing costs include structural insurance, mandatory services and charges as well as the cost of utilities but also mortgage interest payments (net of any tax relief) for owners and rent payments. Critically, **the housing overburden measure does not include capital repayments on mortgages.**

Source: Eurostat (EU-SILC)

Annex

Percentage of households, perceiving monthly housing costs to be a heavy burden, some burden or no burden (households' self-assessment)



Source: Eurostat (EU-SILC)