

Housing Markets in Austria and CESEE at a Turning Point

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- 1. Despite recently cooling off, housing prices remain overvalued, and affordability is falling
- 2. A house price correction can have a material financial stability impact in some countries
- 3. Targeted policies can be effective in shielding households from financial distress

#1. Despite recently cooling off, housing prices remain overvalued, and affordability is falling

Real house price growth has remained strong until mid 2022...

Evolution of Real House Prices in Austria, CESEE, and the EA (2018Q1=100)



Sources: OECD; and authors' calculations.

Note: The latest date for house prices in EST is 2022Q3.

Real House Price Growth Before and After Covid-19

(lhs: percent, year-on-year, annualized; rhs: percent cumulative)



Sources: OECD, and authors' calculations.

Note: The dots show cumulative growth over the referenced period. The latest data for house prices in EST is 2022Q3.

...increasingly outpacing households' income and rents...



Price-to-Income in Austria, CESEE, and the EA

Sources: OECD, and authors' calculations.

Note: The long-term average is calculated starting at least in 2000 (AUT, EA) and 2008 (CESEE). The latest data for EST is 2022Q3.

Price-to-Rent Ratios in Austria, CESEE, and the EA

															• •					
	2018				2019			2020			2021			2022						
	Q1	Q2	Q 3	Q 4	Q1	Q 2	Q 3	Q 4	Q1	Q 2	Q 3	Q 4	Q1	Q 2	Q 3	Q 4	Q1	Q 2	Q 3	Q4
AUT																				
EA																				
SVK																				
CZE																				
HUN																				
LVA																				
HRV																				
BGR																				
SVN																				
rou																				
EST																				
POL																				
LTU																				

Sources: OECD, and authors' calculations.

Note: The heatmap shows Z-scores, computed by subtracting the mean from the observation at time t and dividing the difference by the standard deviation. The mean and the standard deviation are computed over the available sample from 2000Q1.

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...and exceeding equilibrium values

Deviation from Equilibrium Prices Austria and CESEE (Percent)

Deviation from Equilibrium Prices Other Europe (Percent)



Source: Haver, Eurostat, Hypostat, OECD, national statistical offices, and authors' calculations. Note: Countries in CESEE include Bulgaria, Croatia, Hungary, Poland, Romania, and Slovakia. Countries in "Other Europe" include France, Germany, Portugal, Spain, and Sweden.

Rising mortgage rates are hurting housing affordability...

- Affordability can be measured by the size of the downpayment relative to income and by the debt service to income ratio (DSTI)
- ✓ Sustained increases in price-to-income ratio (PTI) are denting both indicators
- ✓ Higher mortgage rates (i) are pushing debt servicing costs

$$\frac{Downpayment}{Income} = PTI \cdot (1 - LTV)$$



DSTI to Keep Buying Power at 2021 Levels



(Percent of Household Gross Income)

Sources: Statista, Hypostat, National Central Banks, and authors' calculations.

Note: The chart shows the estimated DSTI of a new buyer given the average mortgage loan, LTV ratio, and price in apartments in most important cities. The DSTI increase reflects rising mortgage rates in 2022 and under stylized shocks.

....and affecting households' ability to service their debt

Tenure Status, 2020

(Percent) share adjustable rates median DTI (rhs) Outright owner Mortgage owner Senter ◆ Free accommodation 120 2.0 45 100 1.8 90 40 100 1.6 80 35 1.4 70 80 30 1.2 60 25 1.0 60 50 20 0.8 40 40 15 0.6 30 10 0.4 20 20 0.2 5 10 0.0 0 0 OTHER ЪОГ LTU LVA SVK SVN HRV HUN NUF HRV ROU SRB EST AUT BGR AUT SVK SVN LVA Ľ EST ğ

The share of mortgage owners (for the purpose of buying the main dwelling) is low in CESEE but one third of mortgages are taken for other purposes (e.g., consumption loans)

Three out of four mortgages have adjustable rates in CESEE, and the amount of income spent on essential consumption (food and utilities) is almost double than in other European countries.

Adjustable Mortgage Rates, Essential Consumption, and Leverage

#2. A house price correction can have a material financial stability impact in some countries

Transmission of Shocks



Scenario analysis to assess household resilience

Cumulative Shocks over 2022-23

	Interest Rate	Household Income	Food Price	Energy Price	Core Inflation
	(percent)	(percent)	(percent)	(percent)	(percent)
Baseline (2022 October WEO)					
AE	2.4	13.7	7.6	84.7	10.5
EE	4.1	19.8	7.6	84.7	20.1
Tightening (200bps)					
AE	4.4	13.7	7.6	84.7	10.5
EE	6.1	19.8	7.6	84.7	20.1
Income (-10%)					
AE	2.4	2.3	7.6	84.7	10.5
EE	4.1	7.8	7.6	84.7	20.1
Food & energy (20%)					
AE	2.4	13.7	29.1	121.7	10.5
EE	4.1	19.8	29.1	121.7	20.1
WEO Downside					
AE	3.1	12.0	6.2	98.0	10.8
EE	4.8	18.0	6.2	98.0	20.4
Adverse (Tightening; Income)					
AE	4.4	2.3	7.6	84.7	10.5
EE	6.1	7.8	7.6	84.7	20.1
Cost of living (Tightening; Food & energy)					
AE	4.4	13.7	29.1	121.7	10.5
EE	6.1	19.8	29.1	121.7	20.1

Note: The table shows average cumulative shocks over the simulation horizon across advanced Europe (AE) and emerging Europe (EE). Baseline projections are based on October 2022 WEO forecast.

Scenario impact

In the Cost-of-living scenario, the share of vulnerable households reaches 60 percent in CESEE...

Households At Risk

(Percent)



● Initial ◆ Baseline ▲ 200bps ■ -10% income ■ 20% food & ener ■ WEO Downside ● Adverse ● Cost of living

... while more than 50 percent of mortgage debt is at risk

Mortgage Debt At Risk

(Percent)



Source: HFCS microdata, WEO, and authors' calculations.

Note: Countries in 'OTHER' include Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, and Portugal.

Low-income households are disproportionately affected

Low-Income Households At Risk (Percent)



● Initial ◆ Baseline ▲ 200bps ■ -10% income 🛚 20% food & ener 🔲 WEO Downside ● Adverse ● Cost of living

High-Income Households At Risk (Percent)

● Initial ◆ Baseline ▲ 200bps ■ -10% income ■ 20% food & ener ■ WEO Downside ● Adverse ● Cost of living

Source: HFCS microdata, WEO, and authors' calculations.

Note: Countries in 'OTHER' include Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, and Portugal.

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One out of three consumers could be forced to cut back on spending in CESEE under the baseline

In the Cost-of-living scenario, nearly half of consumers may need to adjust spending in CESEE...

Consumers At Risk

(Percent)



● Initial ◆ Baseline ▲ 200bps ■ -10% income № 20% food & ener ■ WEO Downside ● Adverse ● Cost of living

...by 7 percent on average; low-income households may need to cut consumption twice as much

Fragile Consumption in CESEE by Income Tercile (Percent)

● Initial ◆ Baseline ▲ 200bps ■ -10% income 🛛 20% food & ener 🔲 WEO Downside ● Adverse ● Cost of living

Source: HFCS microdata, WEO, and authors' calculations.

Note: Fragile consumption is consumption of goods and services in excess of gross income.

Outstanding Loans by Segment and Capital in the EU

(Billion euros)



Household mortgages and consumer loans account for half of total loans to the real economy (EUR 6.6 trillion or 40 percent of GDP in EU)

Banks' exposure to Residential Real Estate Sector, Dec 2022



Source: EBA Risk Dashboard, and authors' calculations.

Note: The chart shows Tier 1 capital as a share of total loans, rather than risk-weighted assets (y-axis) and mortgage loans as a share of total loans (x-axis). The cut-off points of the dashed lines represent the average. The data is based on a sample of banks representing the largest EBA reporting institutions in each country.

Banking sectors with lower capital and higher share of mortgage loans are disproportionally exposed to shocks in the residential real estate sector

The impact on bank capital could reach 200+ bps in a significant house price correction



Source: HFCS microdata, EU-SILC microdata, WEO, and authors' calculations. Note: The right panel assumes a house price correction of 20 percent.

#3. Targeted policies can be effective in shielding households from financial distress

Governments have announced significant fiscal packages to support struggling households and firms

- > Around 2 percent of GDP has been earmarked in Austria and CESEE (Bruegel, Feb 2023)
- Most of the support to households has been untargeted (e.g., price caps)



Policy Support to Households and Firms in Austria and CESEE (Percent of GDP) A 0



Sources: Bruegel; and authors' calculations

Policies can ease the impact of higher living costs and rising debt repayments and targeting enhances their cost effectiveness



Households at Risk Saved under Various Policies

Source: HFCS microdata, Haver Analytics, Eurostat, IMF WEO, and authors' calculations.

Note: The chart shows the impact of four policy interventions denoted by subscript: (1) a broad policy (all households are shielded from rising food and energy prices); (2) a partially targeted policy (the bottom two thirds of households are shielded from rising food and energy prices); (3) a narrowly targeted policy (the bottom tercile of households are shielded from rising food and energy prices); and (4) selective policy measures implemented in Croatia. Each country is represented by a curve. The benefit of the policy is measured by the share of households shielded from financial distress. The cost of the policy is measured by the estimated annual fiscal expenditure as a share of GDP.

Protecting the lowest two thirds of households could be more cost effective to decrease the share of mortgage debt at risk

Reduction in Mortgage Debt at Risk under Various Policies

(Percent of outstanding debt; percent of GDP; Baseline scenario)

Reduction in Mortgage Debt at Risk under Various Policies (Percent of outstanding debt; percent of GDP; Cost-of-living scenario)



Source: HFCS microdata, Haver Analytics, Eurostat, IMF WEO, and authors' calculations.

Note: The chart shows the impact of four policy interventions denoted by subscript: (1) a *broad* policy (all households are shielded from rising food and energy prices); (2) a *partially targeted* policy (the bottom two thirds of households are shielded from rising food and energy prices); (3) a *narrowly targeted* policy (the bottom tercile of households are shielded from rising food and energy prices); and (4) selective policy measures implemented in Croatia. Each country is represented by a curve. The benefit of the policy is measured by the decrease in mortgage debt at risk. The cost of the policy is measured by the estimated annual fiscal expenditure as a share of GDP.

Impact of Actual Borrower Relief Measures (Portugal)

Decree-Law 80-A/2022

Renegotiation of loans: Assume that eligible borrowers reduce interest payments by half by end 2023

Key eligibility criteria:

- Loan size (<EUR 300,000 at origination)
- DSTI (≥50%; or ≥ 36% & ΔDSTI > 5pp)

Results:

- Restructuring applied to 7-18% mortgages
- Reduction in mortgage-debt-at-risk: 0.5-3.2 pp
- Cost of the policy (CET1): 10-15 bps (lower NII) 5bps (lower provisions)

Decree-Law 20-B/2023

Interest rate subsidy: Half of the increase in current benchmark rates relative to origination plus 300 bps

Key eligibility criteria:

- Loan size (<EUR 250,000 at origination)
- Annual income (<6th income bracket); Financial assets (<30,000)
- DSTI (≥ 35%)

Results (lower bound estimate):

- Reduction in mortgage-debt-at-risk: around 1 pp
- Cost of the policy: EUR 60m
- Benefit for the banks: 1bps CET1 (lower provisions)

Conclusions

- Signs of house price overvaluation of about 15-20 percent in Austria and CESEE despite the recent cool off
- Significant impact on households from the increase in lending rates and rising living costs without policy support
- Manageable impact on the banking system on average, but a house price correction (20 percent) could deplete up to 200 basis points of bank capital in some countries
- Greater cost effectiveness of support policies targeting only the bottom income tercile (Austria) / the bottom two income terciles (CESEE) from a consumption perspective
- Shielding the low- and middle-income households could be more cost efficient than broader support policies from a financial stability perspective
- Support policies should be well designed to avoid weakening monetary policy transmission