



NATIONAL BANK OF POLAND

RECENT TRENDS IN THE REAL ESTATE MARKET

INTERNATIONAL CONFERENCE

THE HOUSING PRICES IN ROMANIA - recent developments -

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WARSAW

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INTRODUCTION

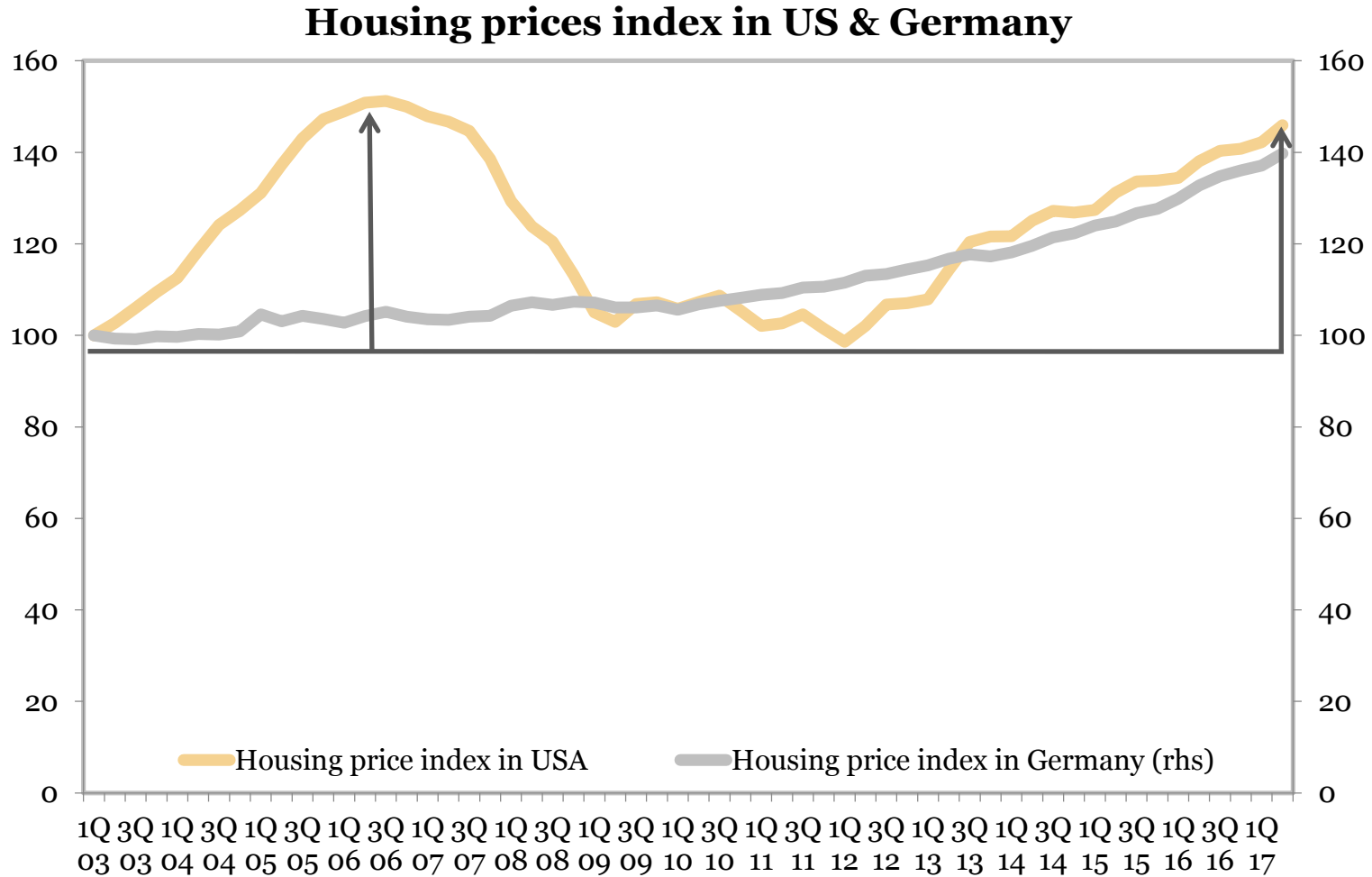


REAL ESTATE IN THE POST-CRISIS CYCLE

- ❑ The era of “***everything is bubble***”, supported by the expansionary monetary policy after the incidence of the Great Recession
- ❑ A cyclical component of the economy, known as “***the perfect imperfect market***”
- ❑ Incidence of pro-cyclical movements (boom-bust) – “***the wealth effect***”
- ❑ In Romania the housing market seems to be at the peak of the cycle
- ❑ High levels of fragmentation, asymmetry and polarization across the country, but convergence from the prices’ trend point of view
- ❑ Dependence on the First House Program and on the demand for investments’ purpose
- ❑ Strong integration with the EU real estate market



A BUBBLE IN THE MAKING IN USA & GERMANY



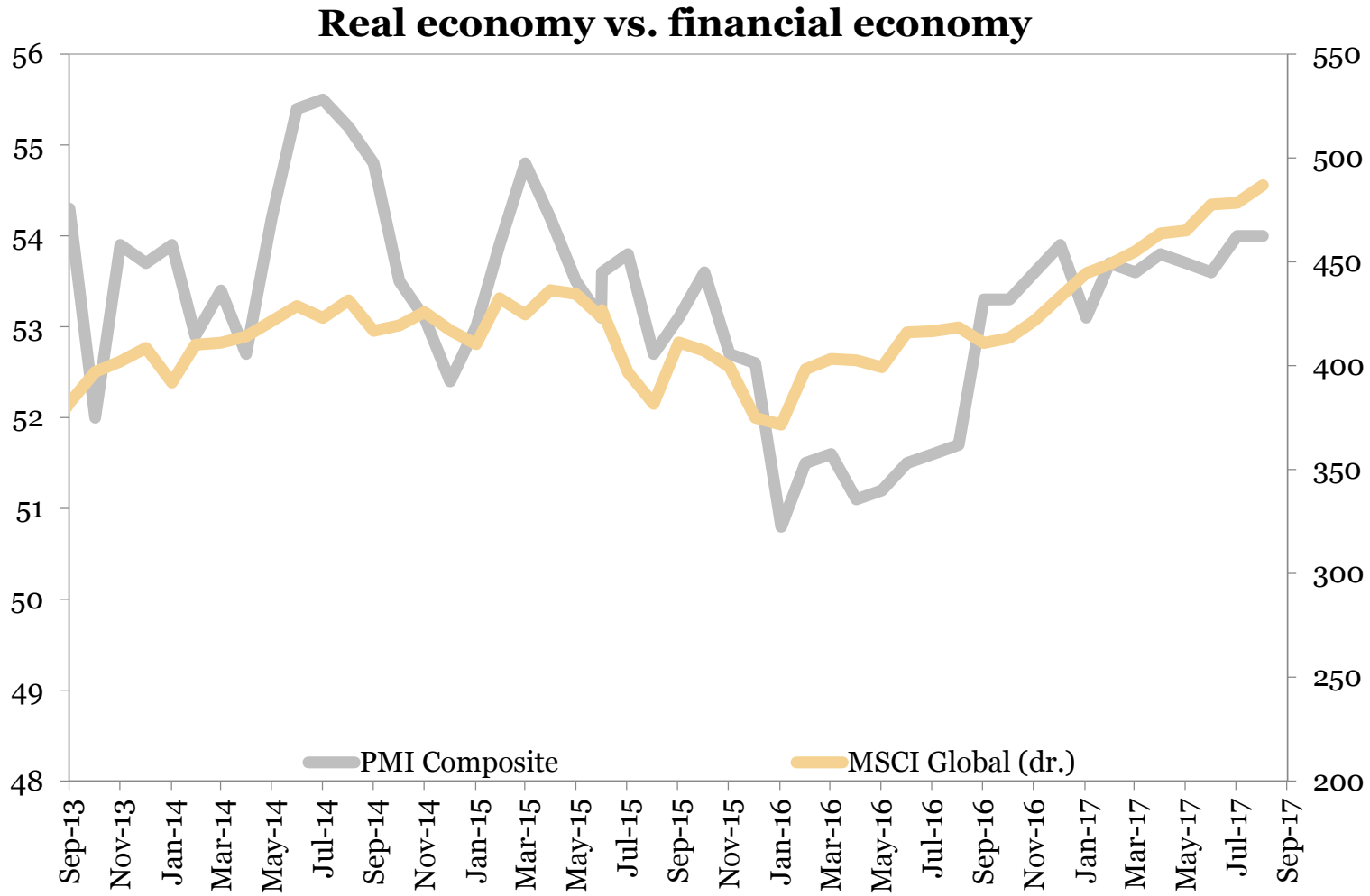
Source: Federal Reserve database



MACROECONOMIC CLIMATE



STRONG GLOBAL MACRO-FINANCIAL CLIMATE

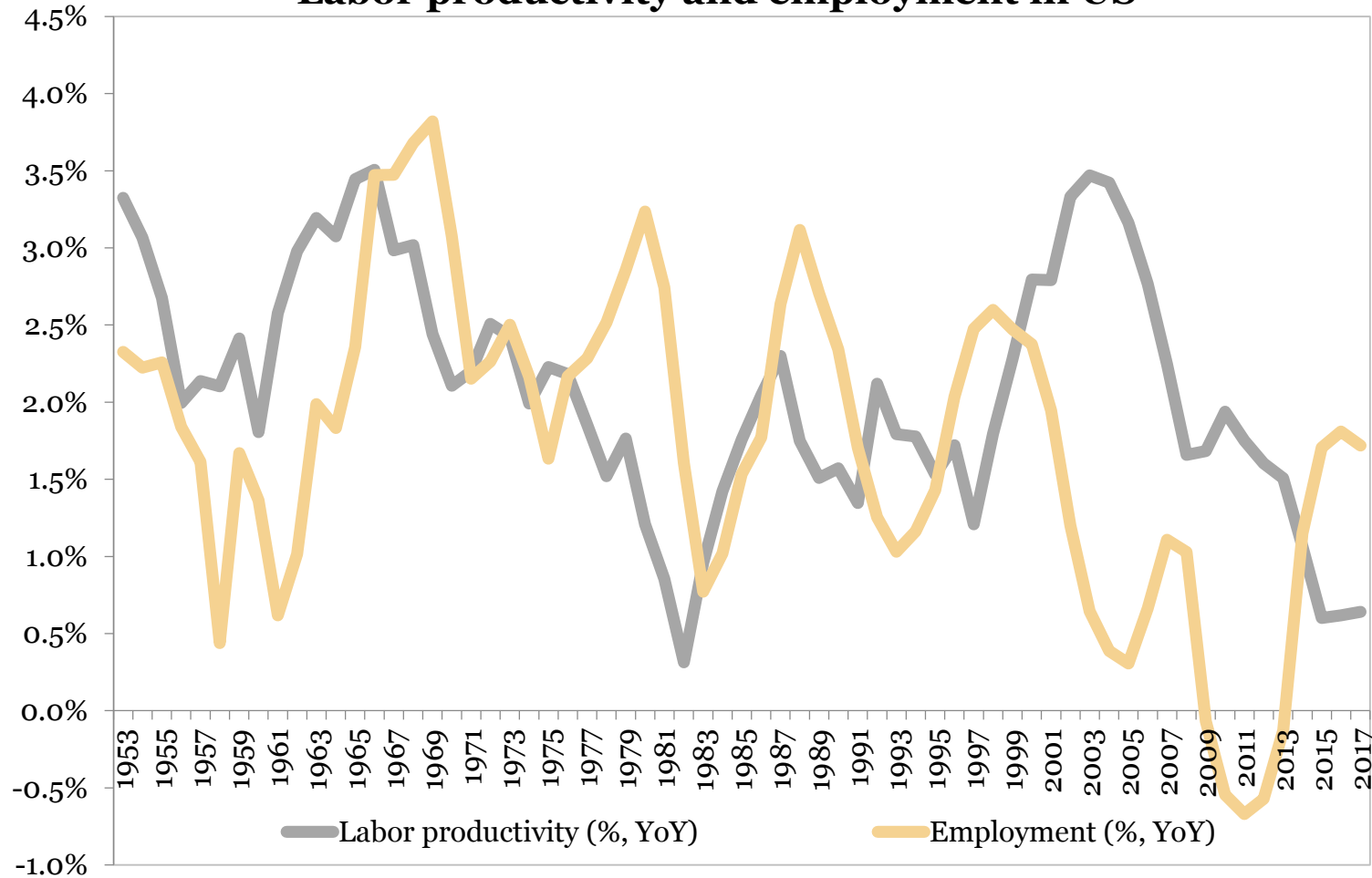


Source: Bloomberg



US ECONOMY – THE MATURITY OF THE CYCLE

Labor productivity and employment in US

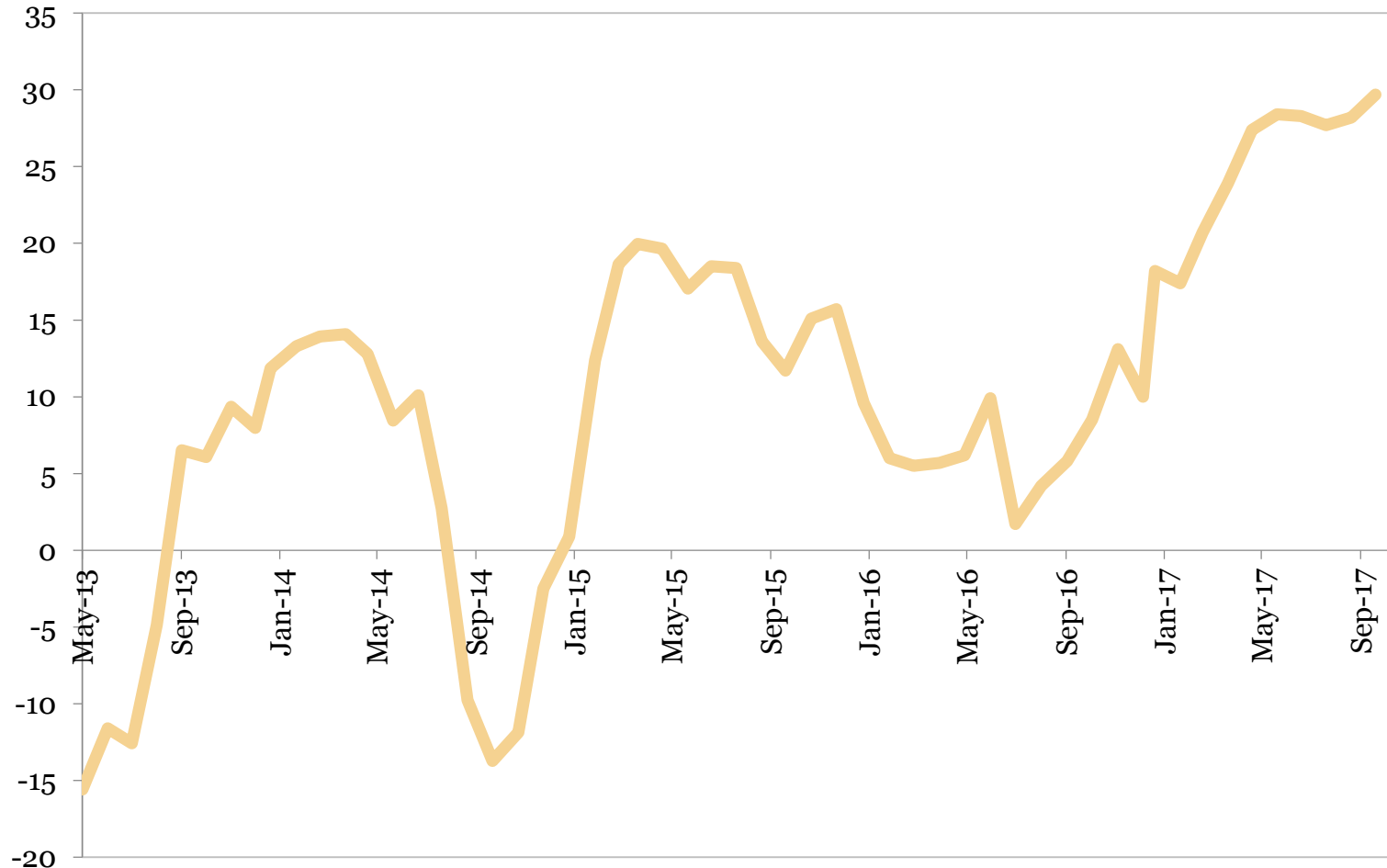


Source: BT based on US Bureau of Labor Statistics (BLS)



EU ECONOMY – AT THE PEAK OF THE CYCLE

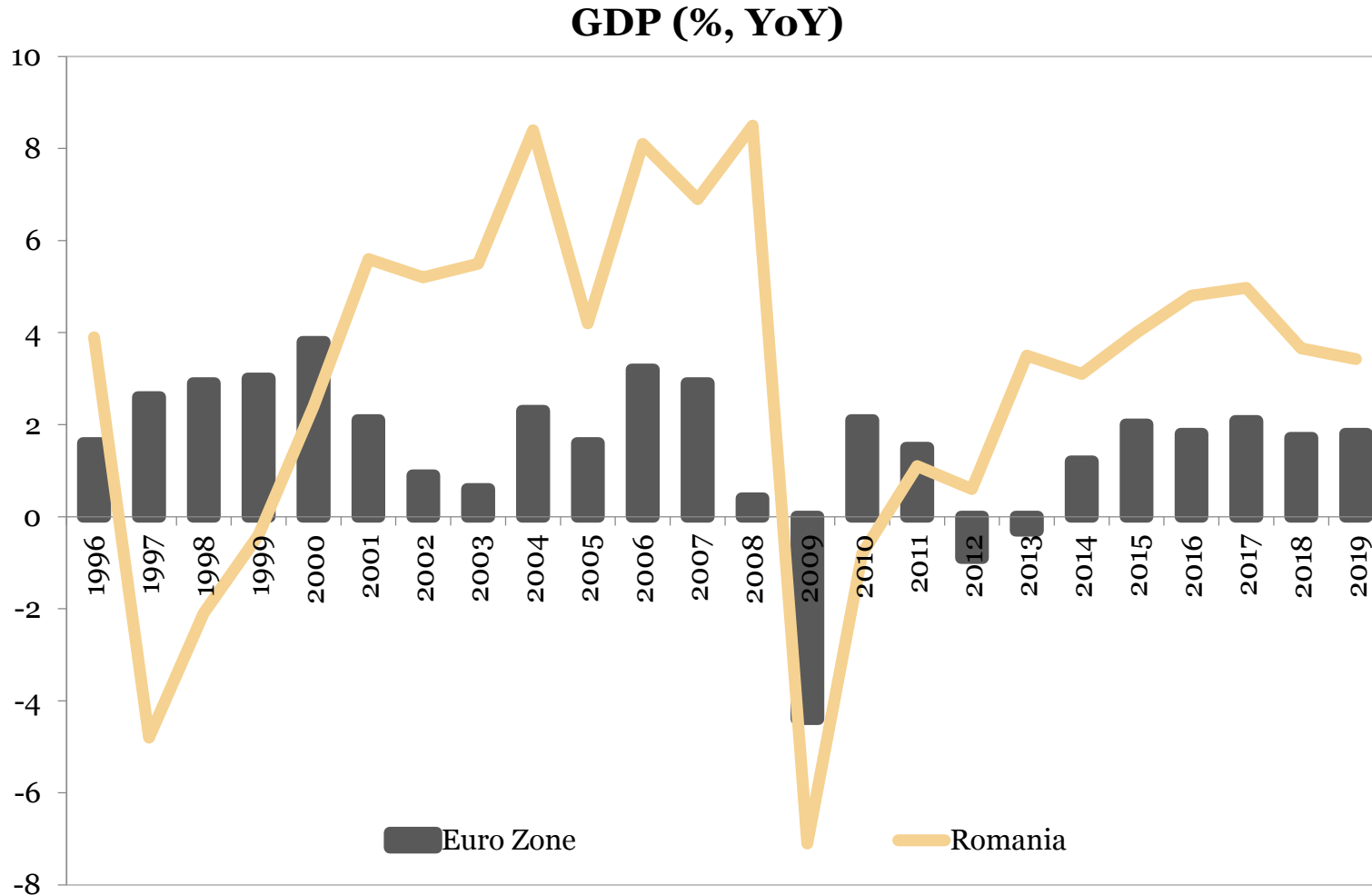
Investor confidence in Euro Zone



Source: Sentix



ROMANIA – THE CHAMPION OF GROWTH IN EU

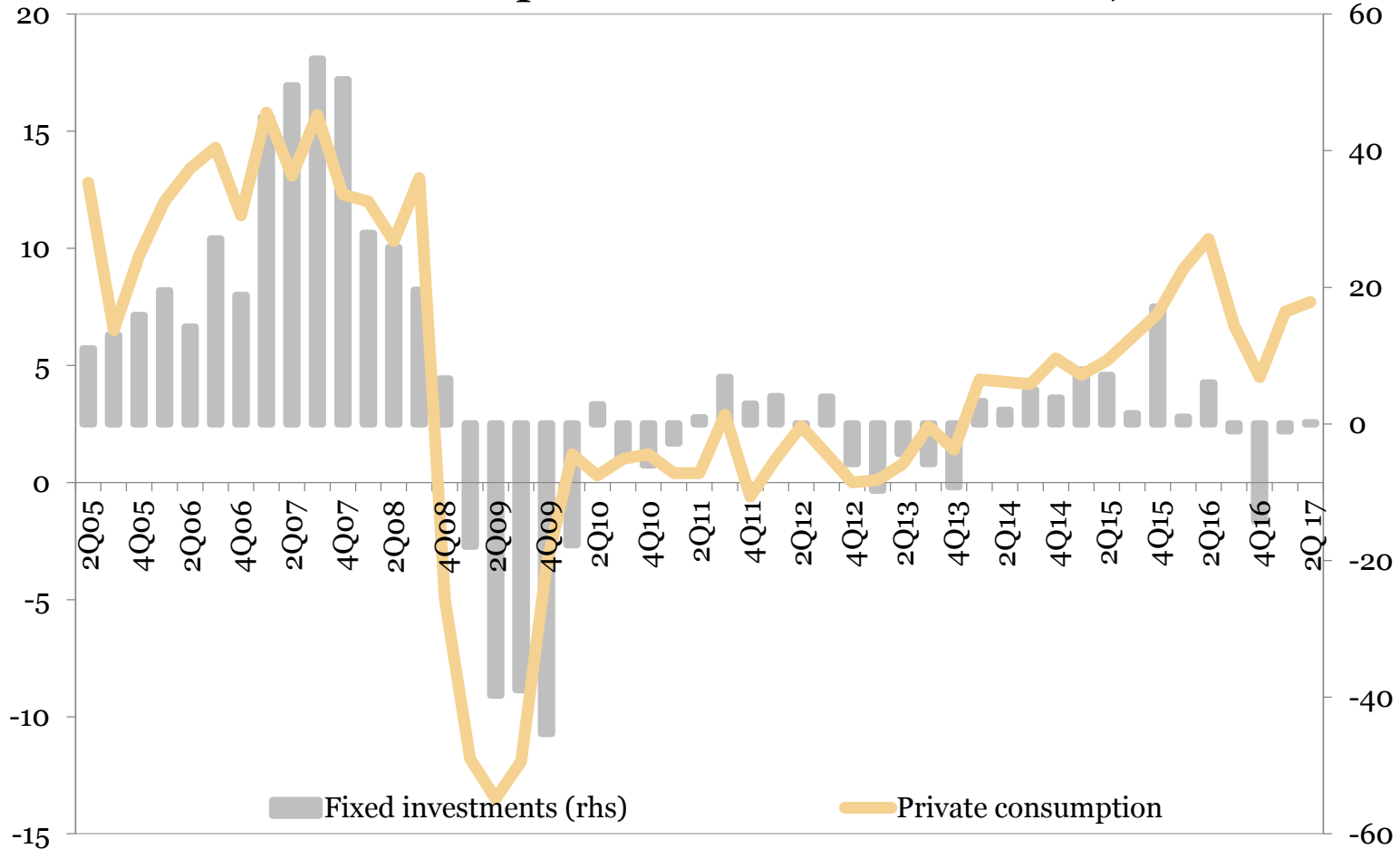


Source: Eurostat, BT forecasts



STRONG CONSUMPTION vs. LOW INVESTMENTS

Private consumption vs. fixed investments (% YoY)



Source: Eurostat, AMECO, INS

MID-RUN MACROECONOMIC SCENARIO

| Core macroeconomic scenario | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|
| Indicator / year | 2015 | 2016 | 2017 | 2018 | 2019 |
| GDP (nominal) (EUR, bn) | 160.3 | 169.6 | 177.6 | 187.2 | 199.9 |
| GDP (real) (% YoY) | 4.0 | 4.6 | 5.2 | 4.1 | 3.4 |
| Private consumption (% YoY) | 5.9 | 7.4 | 7.4 | 5.4 | 4.5 |
| Fixed investments (% YoY) | 7.4 | -3.5 | 1.3 | 3.2 | 2.5 |
| Public consumption (% YoY) | 0.2 | 4.7 | 3.5 | 2.0 | 1.1 |
| Exports (% YoY) | 4.6 | 8.3 | 8.8 | 6.7 | 4.3 |
| Imports (% YoY) | 8.0 | 9.8 | 8.9 | 7.1 | 4.5 |
| Unemployment rate (%) | 6.8 | 5.9 | 5.1 | 4.9 | 5.1 |
| Inflation (HICP) (% YoY, average) | -0.4 | -1.1 | 1.1 | 3.1 | 2.9 |
| Monetary policy rate (%) | 1.75 | 1.75 | 1.75 | 3.50 | 3.25 |
| Budget deficit (% GDP) | 0.8 | 3.0 | 3.0 | 3.0 | 3.0 |
| Public debt (% GDP) | 38.0 | 37.6 | 38.2 | 38.0 | 37.9 |
| Current account (% GDP) | -1.2 | -2.3 | -3.1 | -3.4 | -3.4 |
| 10 YR interest rate (%) | 3.5 | 3.3 | 3.9 | 4.8 | 5.1 |
| EUR/RON (yearly average) | 4.44 | 4.49 | 4.56 | 4.65 | 4.63 |

Source: Statistics Office, Eurostat, European Commission, AMECO, BT forecasts



REAL ESTATE MARKET IN ROMANIA



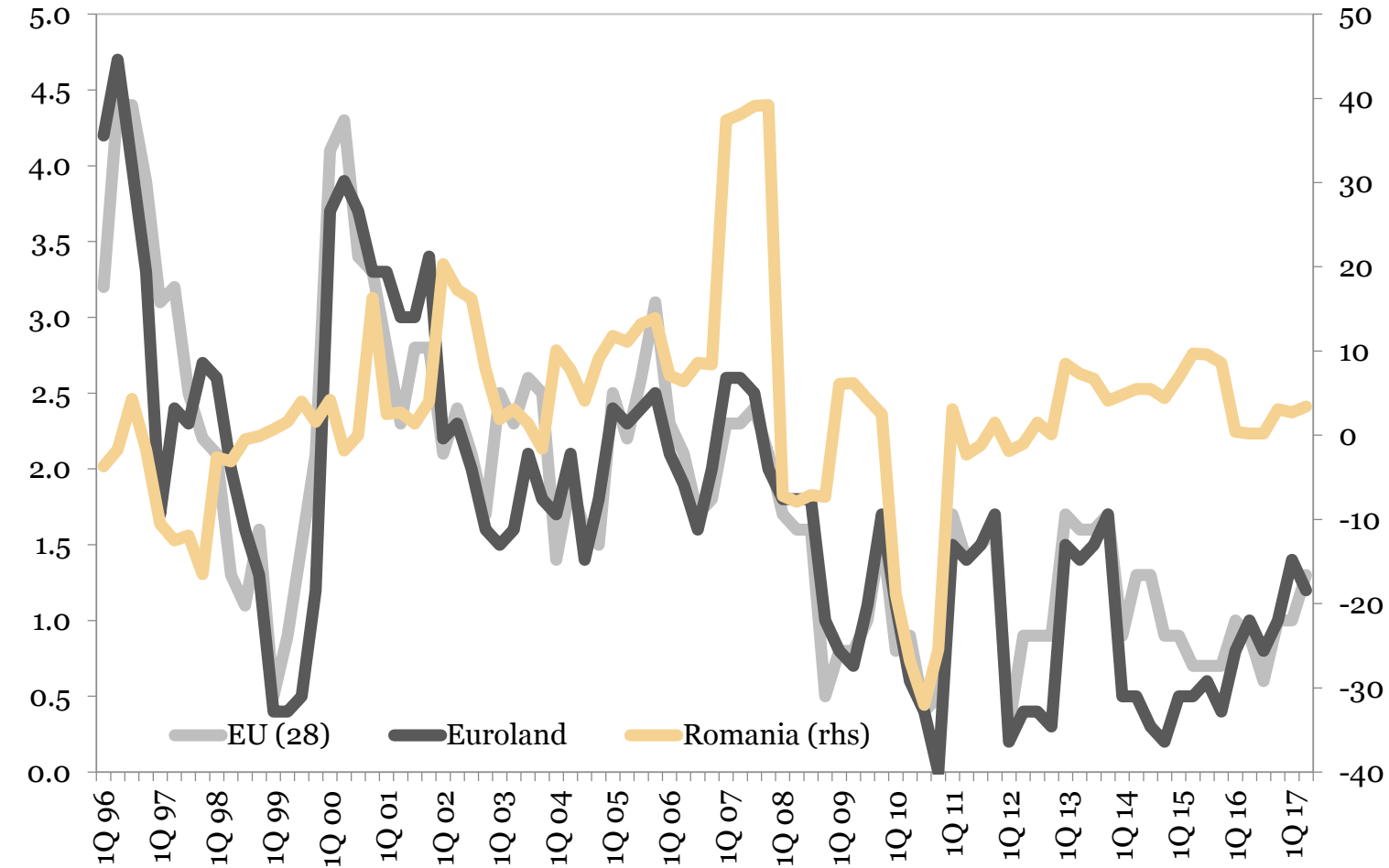
REAL ESTATE IN ROMANIA

- ❑ The 4th sector in the economy (8.5% of GDP in 1H2017, below the UE average)
- ❑ In the post-crisis cycle since 2012, after 4 years of adjustment
- ❑ Residential market recovery supported by the First House Program, the improvement of the real disposable income of the population and the decline of the real financing costs
- ❑ First House Program – a catalyst for the residential market – the Government guarantees 50% of the loans, the advance is established at 5% and the interest rate is capped at ROBOR 3M + 2.5pp
- ❑ The residential market – an investment opportunity given the lack of alternatives (low development of the financial market, low level of deposits' rates)
- ❑ The strong increase of the housing loans – 9.3% ytd to RON 63.9bn (around EUR 14bn) during 1-3Q2017, a record level



A CONSOLIDATION PROCESS

Value added in the real estate sector (% YoY)

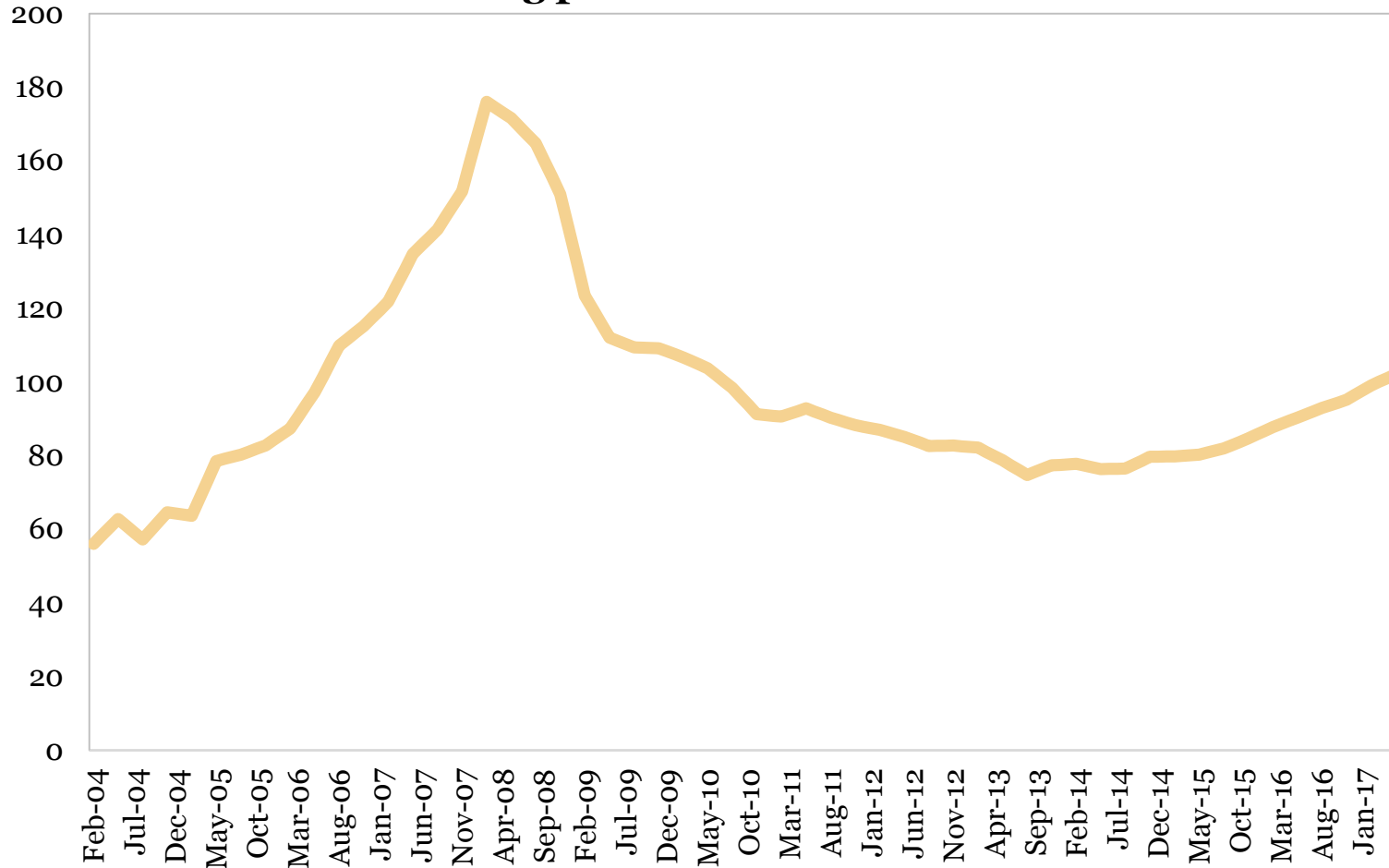


Source: Eurostat



HOUSING PRICES ON AN UPWARD TREND

Housing prices index in Romania

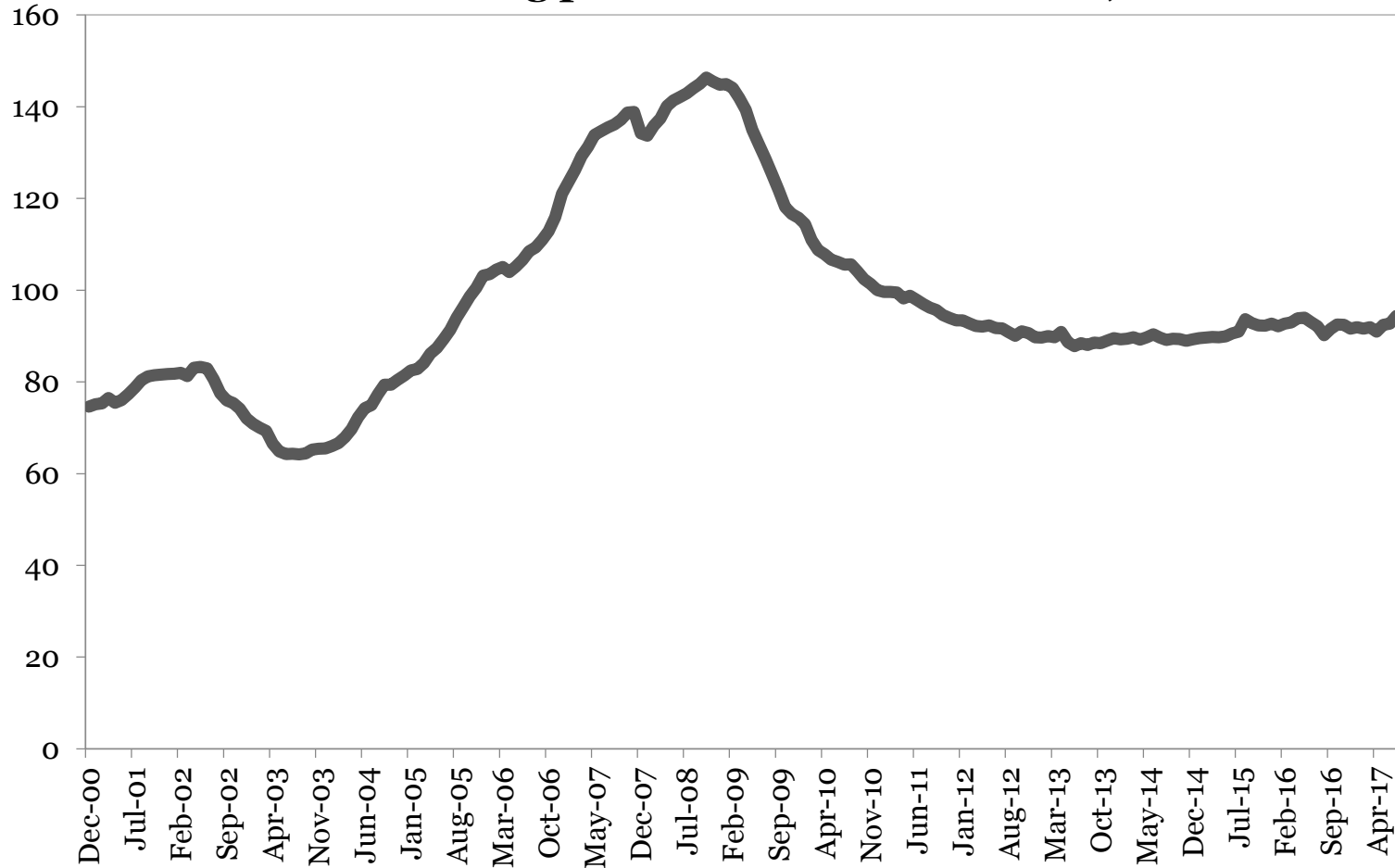


Source: Imobiliare.ro



STABILIZATION OF THE RESIDENTIAL PERMITS

Residential building permits in Romania (index, MA12)



Source: Statistics Office (INS)



METHODOLOGY

METHODOLOGY

- ❑ OLS
- ❑ **TRENDPRICES - F(TRENDREALINTERESTRATE, TRENDREALWAGES, TRENDEUPRICES)**
- ❑ **TRENDPRIVATECONSUMPTION - F(TRENDPRICES, TRENDREALWAGES)**

TRENDPRICES = the trend component for the housing prices in Romania

TRENDREALINTERESTRATE = the trend component for the real interest rate

TRENDEUPRICES = the trend component for the EU housing prices

TRENDREALWAGES = the trend component for the real wages in Romania

- ❑ Hodrick – Prescott filter

$$\text{Min} \sum_{t=1}^T (Y_t - Y_t^*)^2 + \lambda \sum_{t=2}^{T-1} ((Y_{t+1}^* - Y_t^*) - (Y_t^* - Y_{t-1}^*))^2$$

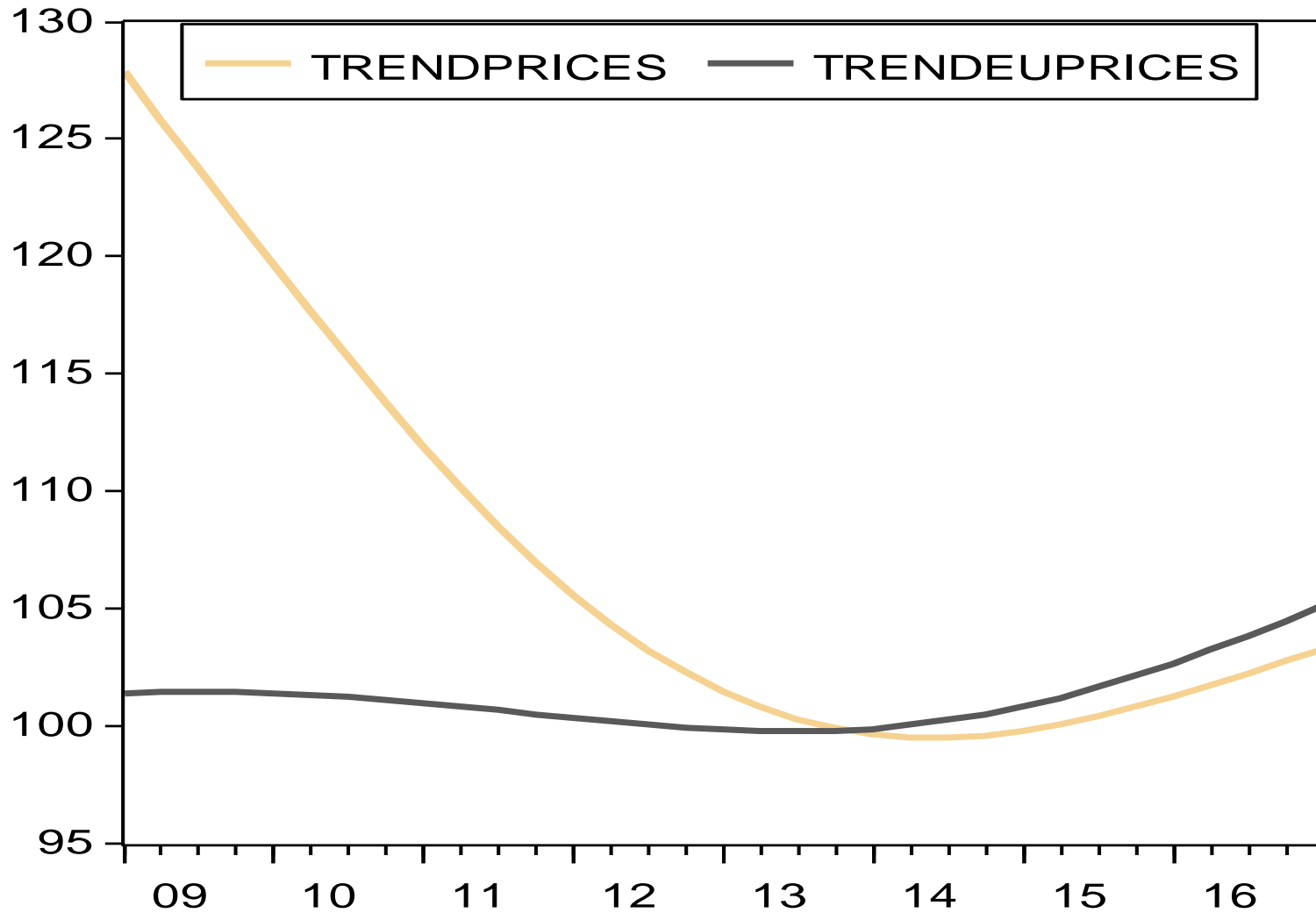
- ❑ Quarterly statistics from Eurostat, Statistics Office, National Bank of Romania (1999-2017)
- ❑ E-Views



RESULTS



STRONG DEPENDENCE ON EU PRICES

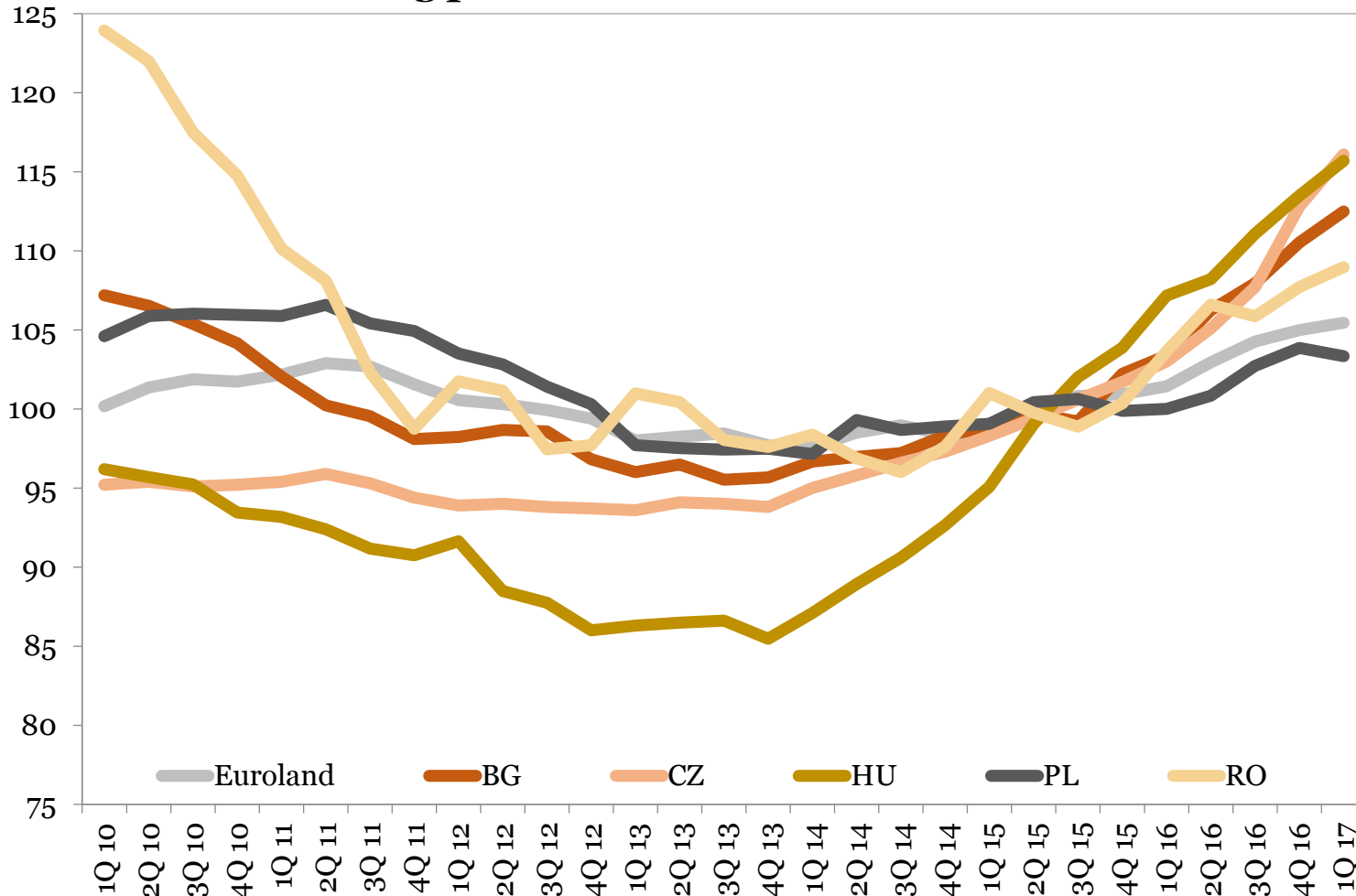


Source: estimates based on the methodology described above



REGIONAL CONVERGENCE IN TERMS OF PRICES

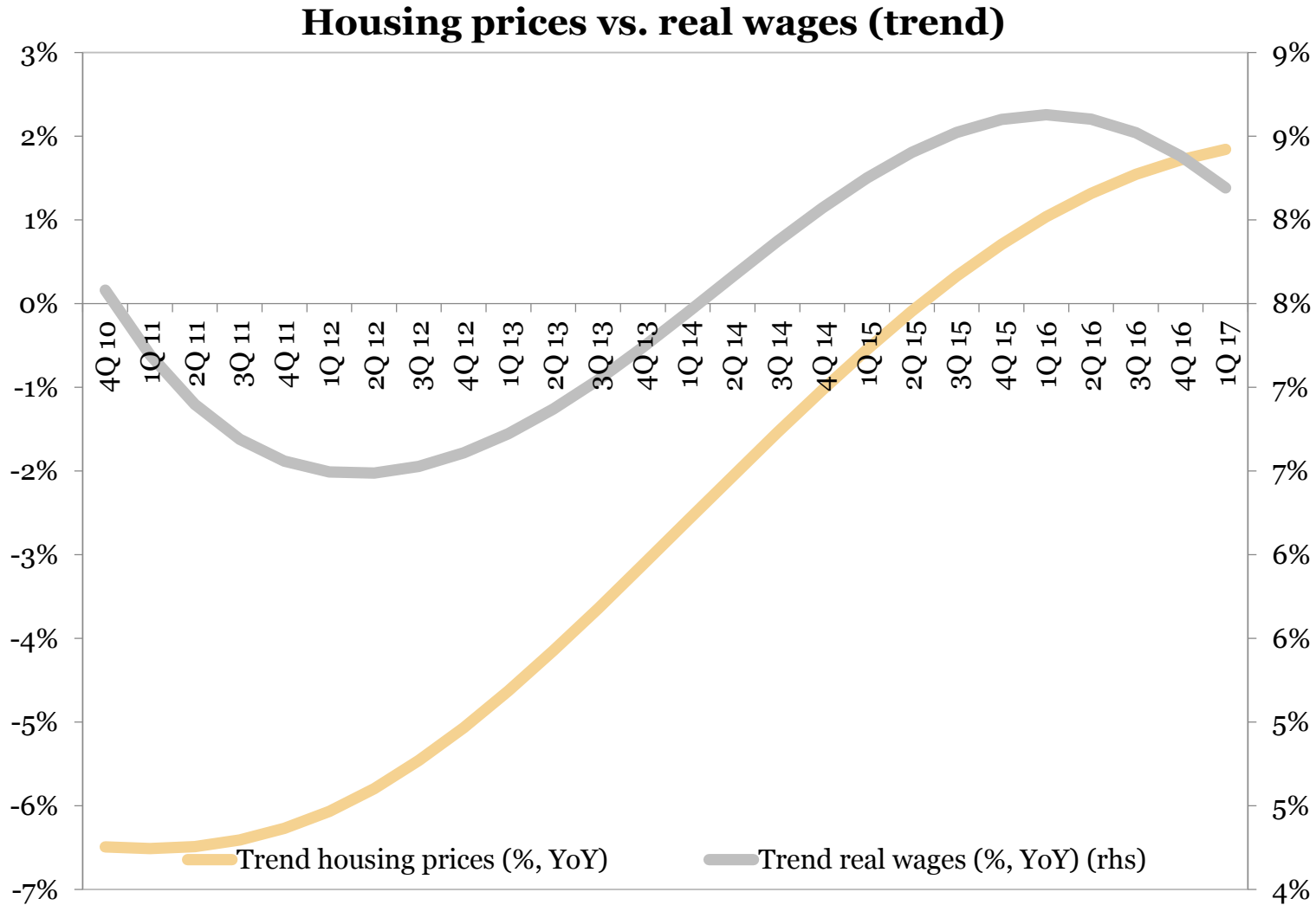
Housing price index in Euroland and CEE



Source: Eurostat



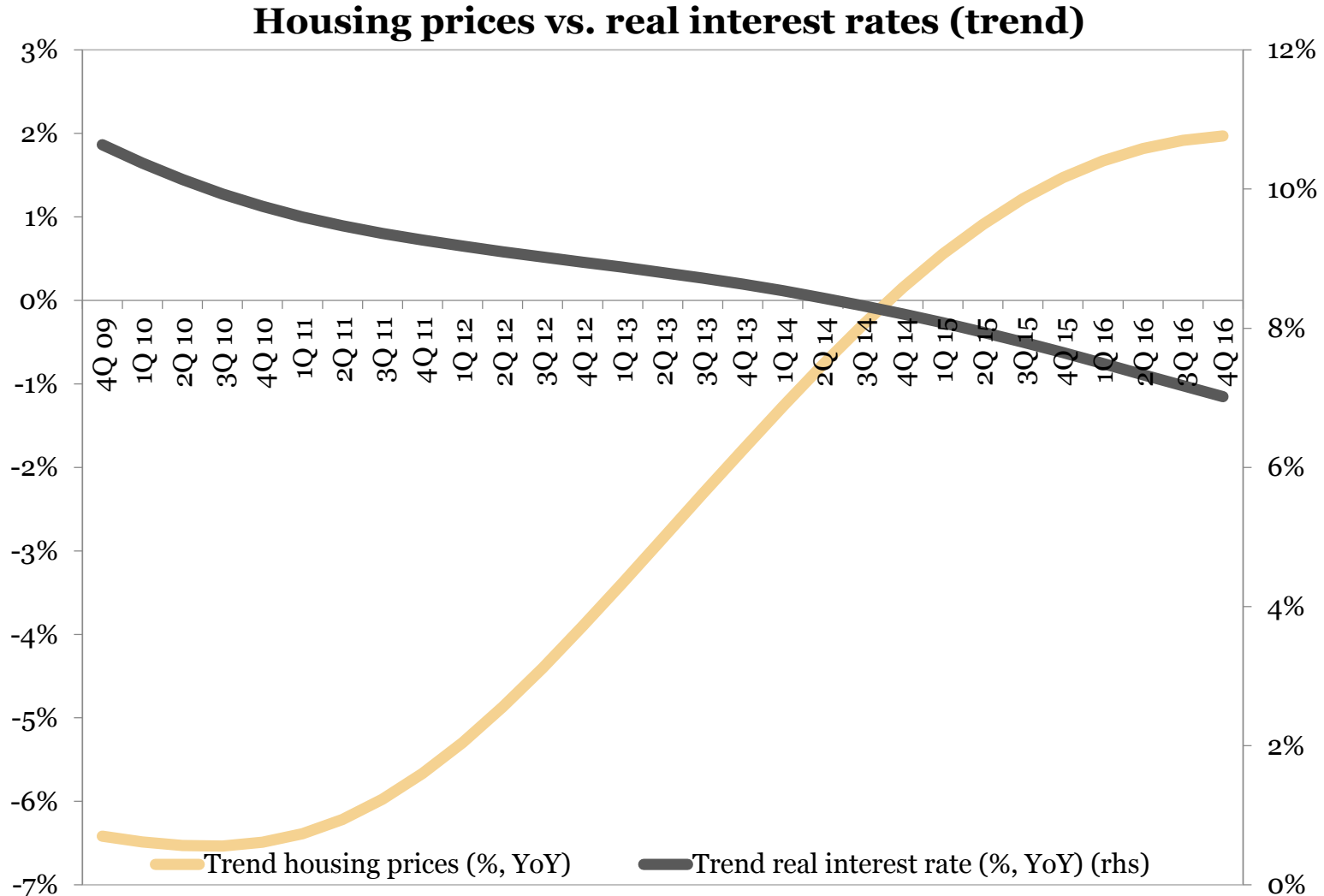
REAL ESTATE PRICES DEPENDENT ON REAL WAGES



Source: estimates based on the methodology described above



PRICES – INTEREST RATES – INVERSE RELATIONSHIP



Source: estimates based on the methodology described above

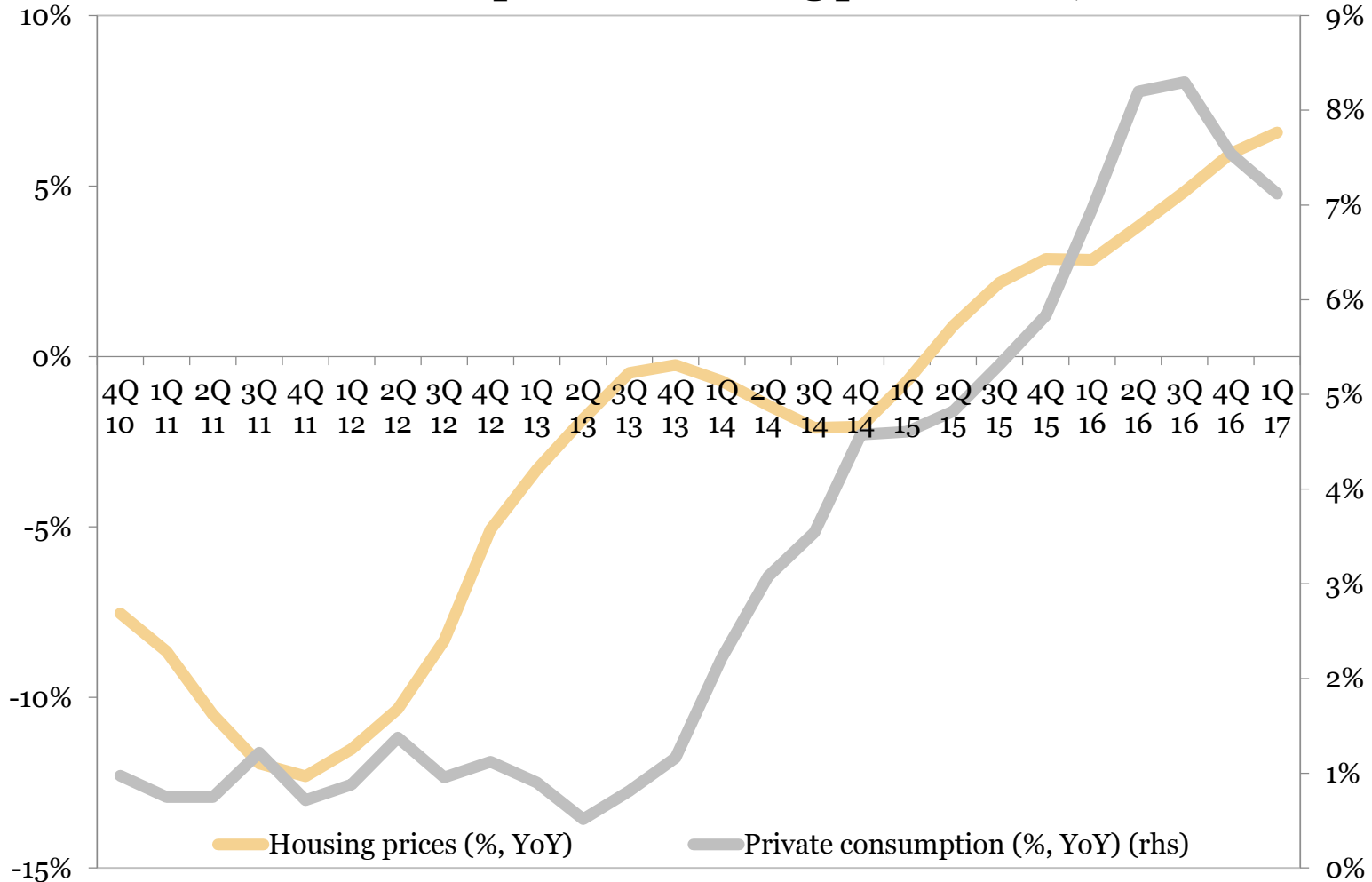


CONCLUSIONS



THE WEALTH EFFECT

Private consumption vs. housing prices (MA4, YoY)



Source: estimates based on the methodology described above

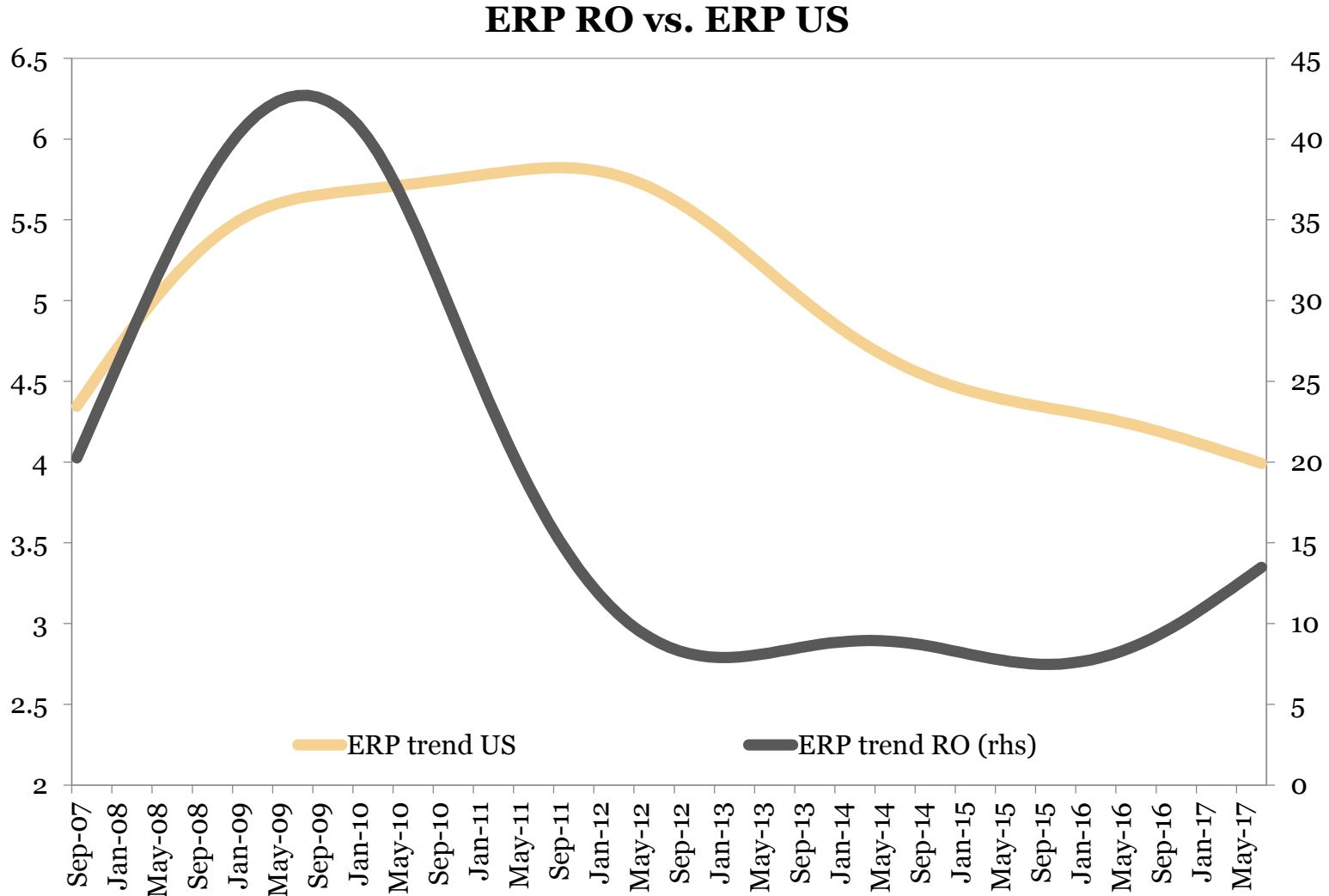


THE HOUSING MARKET AT THE INFLEXION POINT

- ❑ A starting point for studying the relation between the residential prices and the real economy
- ❑ The results in line with the economic theory - a negative dependence of the housing prices on the real interest rate
- ❑ The upward trend for the financing costs to impact the residential market in the future and also the dynamics of the NPL loans
- ❑ In Romania the housing prices highly dependent on the EU trend
- ❑ Strong wealth effect in Romania – the increase of the residential prices contributed to the strong dynamics of the private consumption
- ❑ The persistence of the high risk perception, the expected change of the trend for the housing prices, the continuity of the migration trend for the active population may trigger the end of the post-crisis cycle earlier than anticipated.



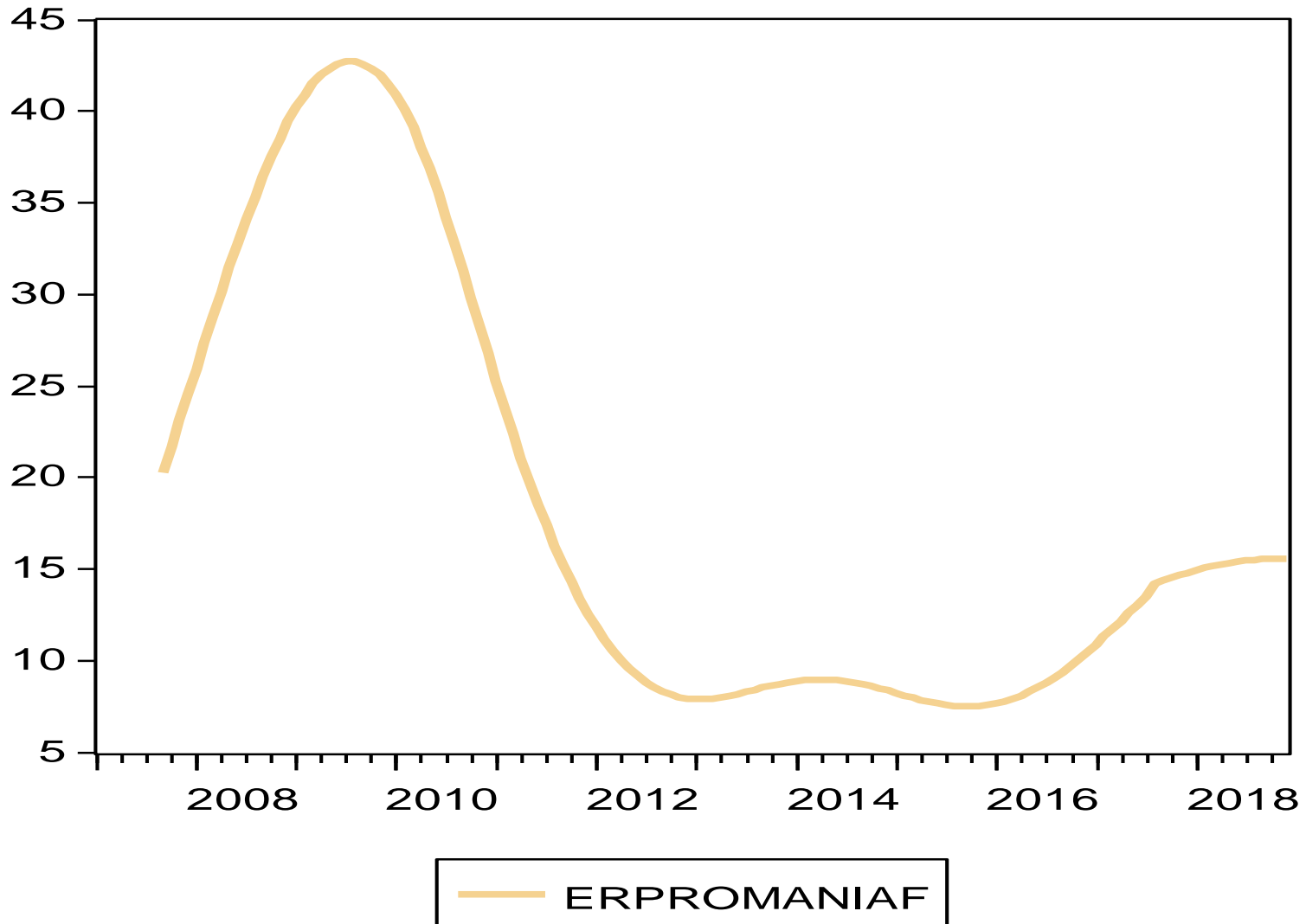
DIVERGENT ERP TREND (RO vs. US)



Source: BT estimates



ERP TO CONTINUE THE UPWARD TREND ...



Source: BT estimates and forecasts



THANK YOU!

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