

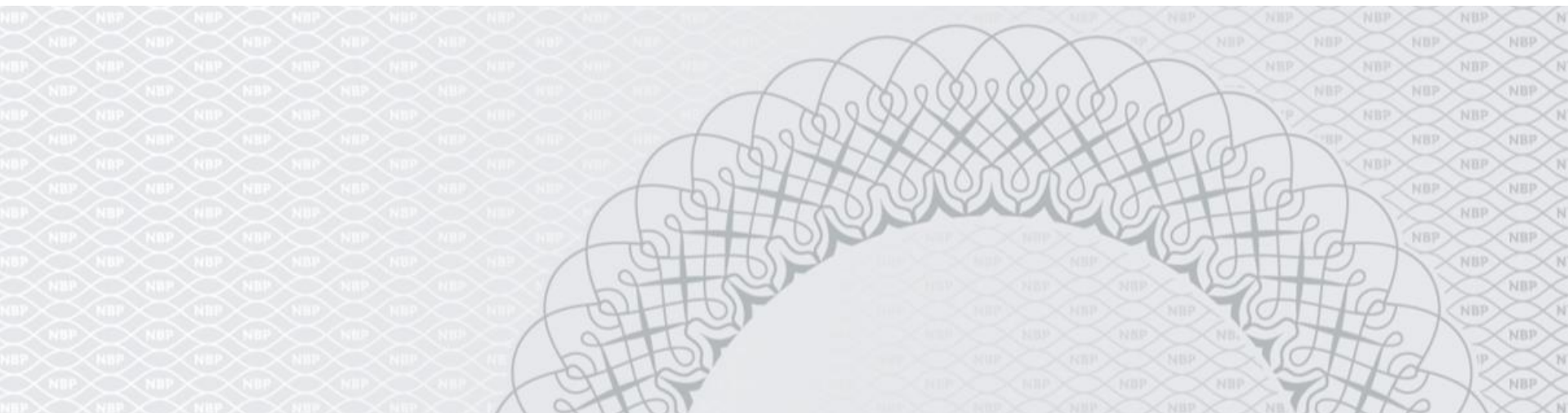
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Narodowy Bank Polski

Jarosław T. JAKUBIK | Economic Analysis Department

# Monetary policy, economy and real estate market

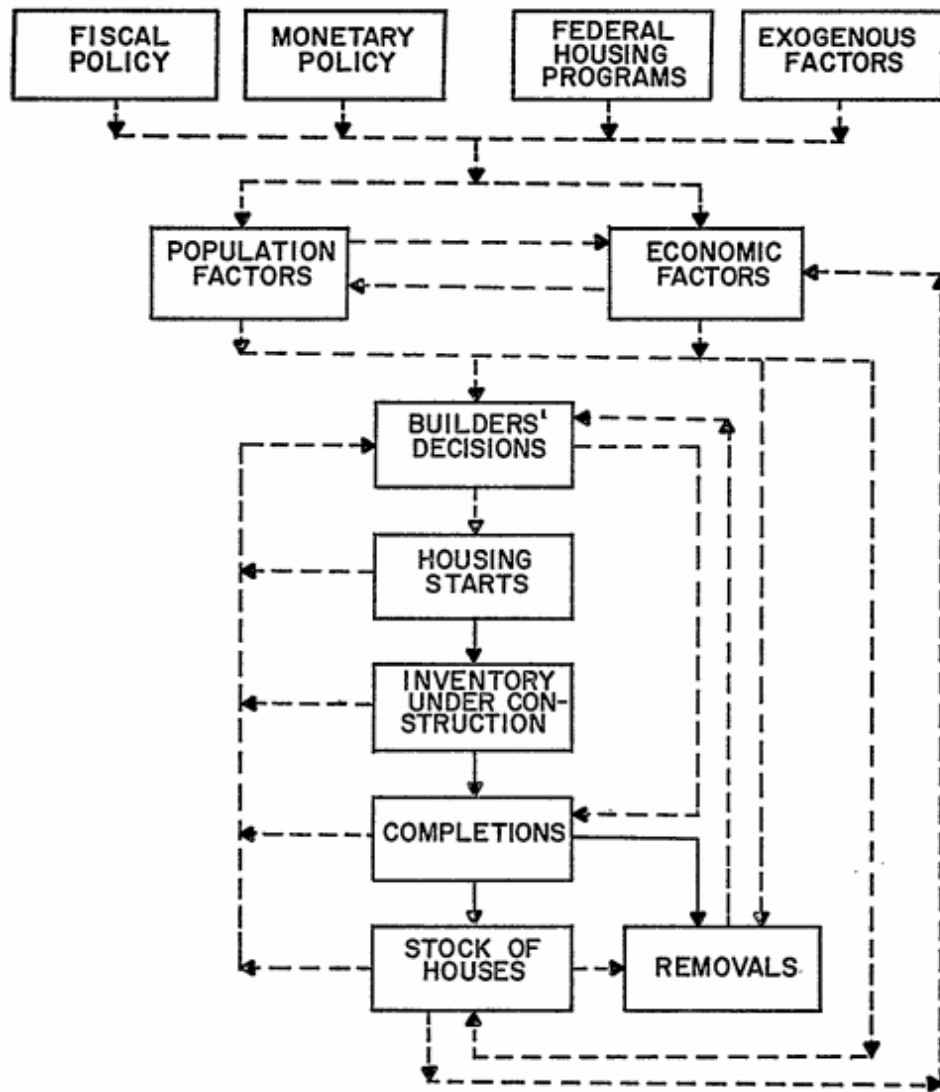
Zalesie Górne / 22 November 2017



# Overview

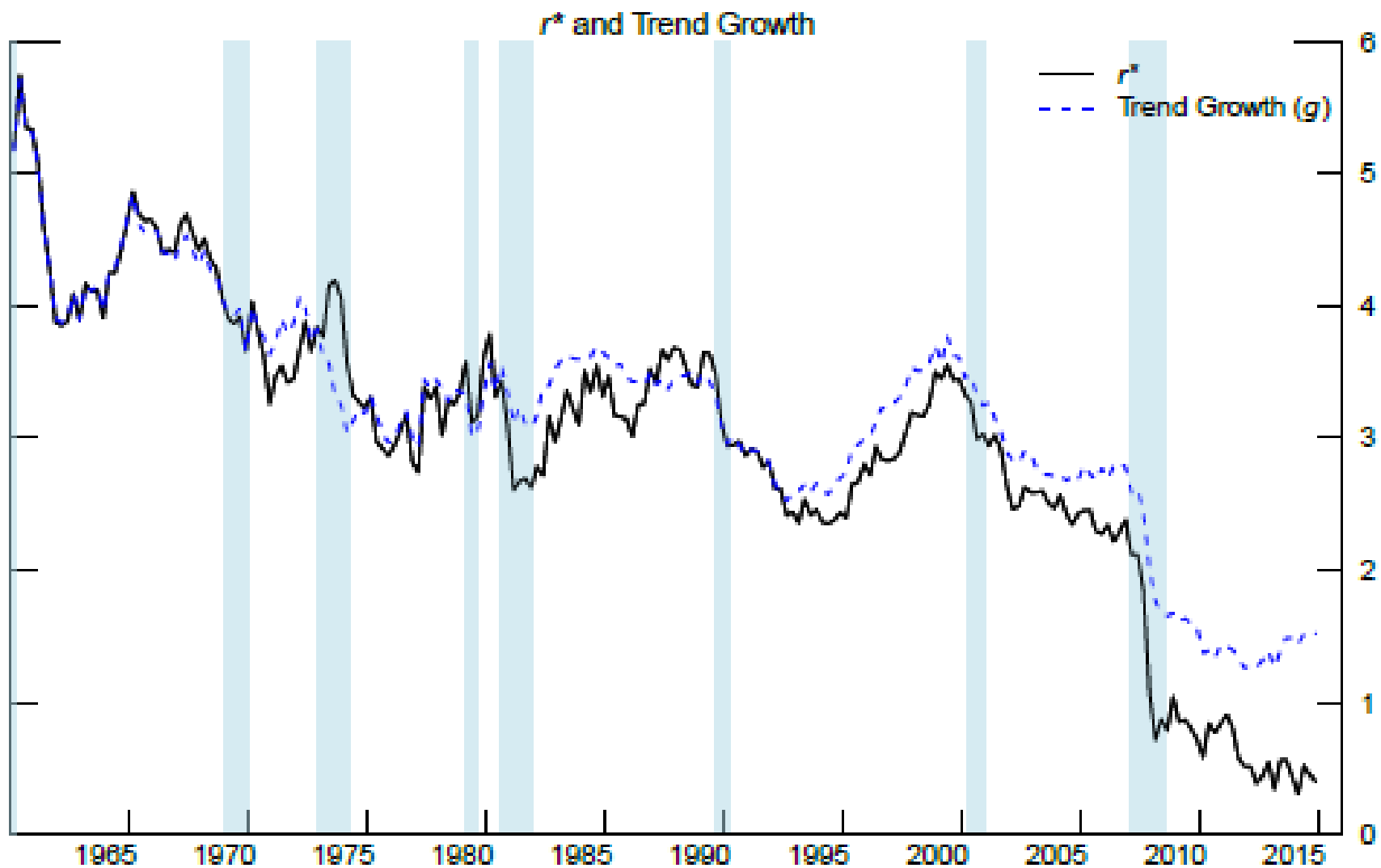
- Monetary Policy and the Housing Market
- Population factors
- Economic impact of population change on:
  - Labour force
  - Consumption and savings
  - Wealth (housing and investments)
  - Financial markets (interest rate and investment funds)
- Conclusions

# The Impact of Fiscal and Monetary Policy on the Housing Market

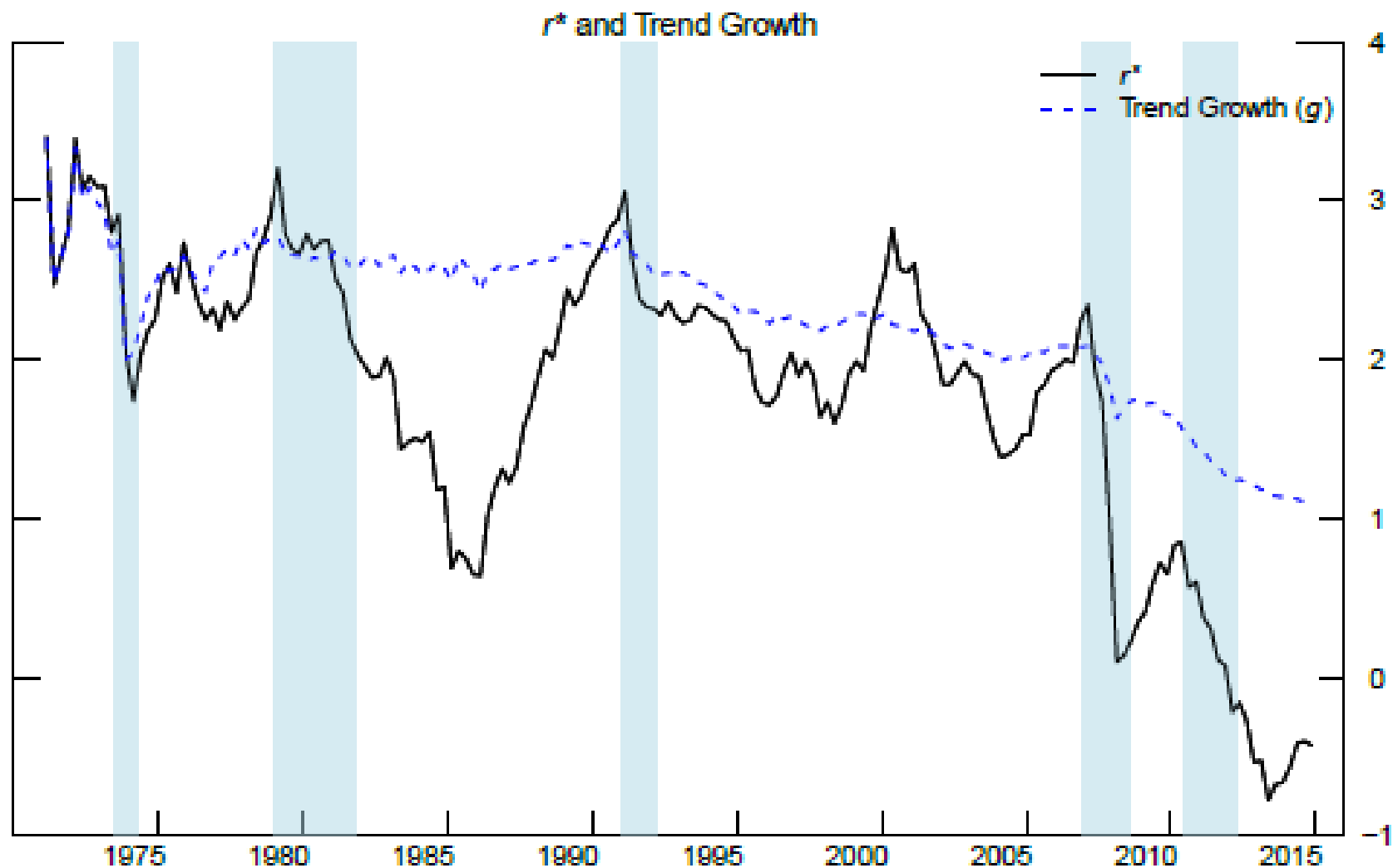


Source: Naylor, T. H. (1967). The Impact of Fiscal and Monetary Policy on the Housing Market. *Law & Contemp. Probs.*, 32, 384.

# Natural rate of interest ( $r^*$ ) declined – US



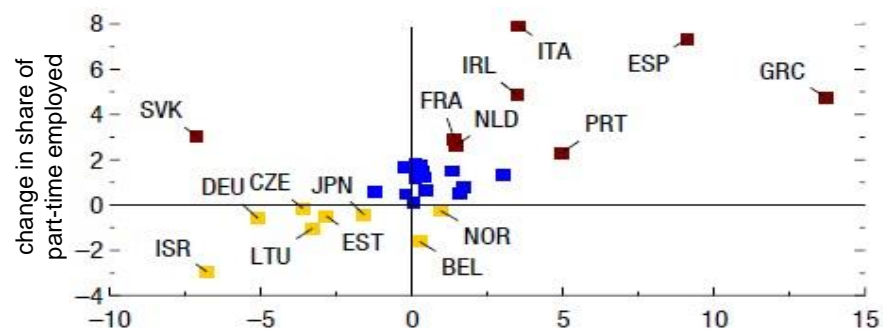
## Natural rate of interest ( $r^*$ ) declined – Euro Area



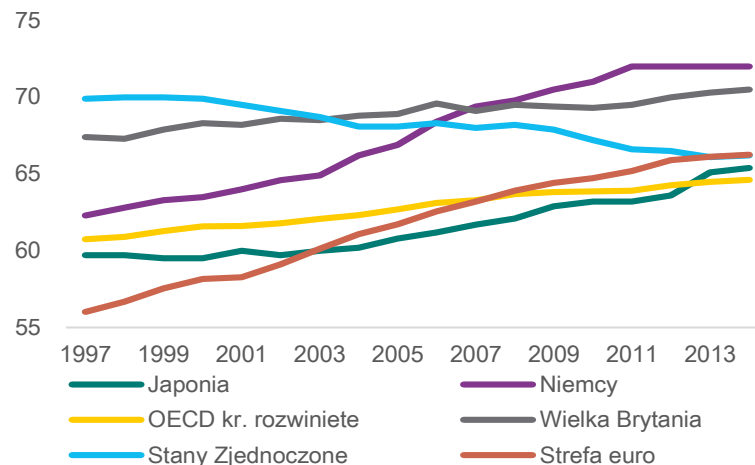
## Labor market

- Despite the improvement in the labor market situation, in most developed economies, core inflation is constrained by weak wage growth.
- Wage growth is suppressed by factors such as:
  - low labor productivity;
  - (still) weak inflation.
- However, in the period after the global crisis, structural factors have become increasingly important, including:
  - professional activation of low-income groups - women and the elderly;
  - increase in the share of part-time and temporary contracts in countries where the labor market crisis was deep;
  - weakening the negotiating power of employees and change of preferences in favor of employment security to the detriment of higher wages
  - labor immigration from developing countries;
  - increased competition as a result of structural reforms and globalization.

Correlation between unemployment rate and change in share of part-time employed (pp, 2016 r. in relations to 2000-2007)



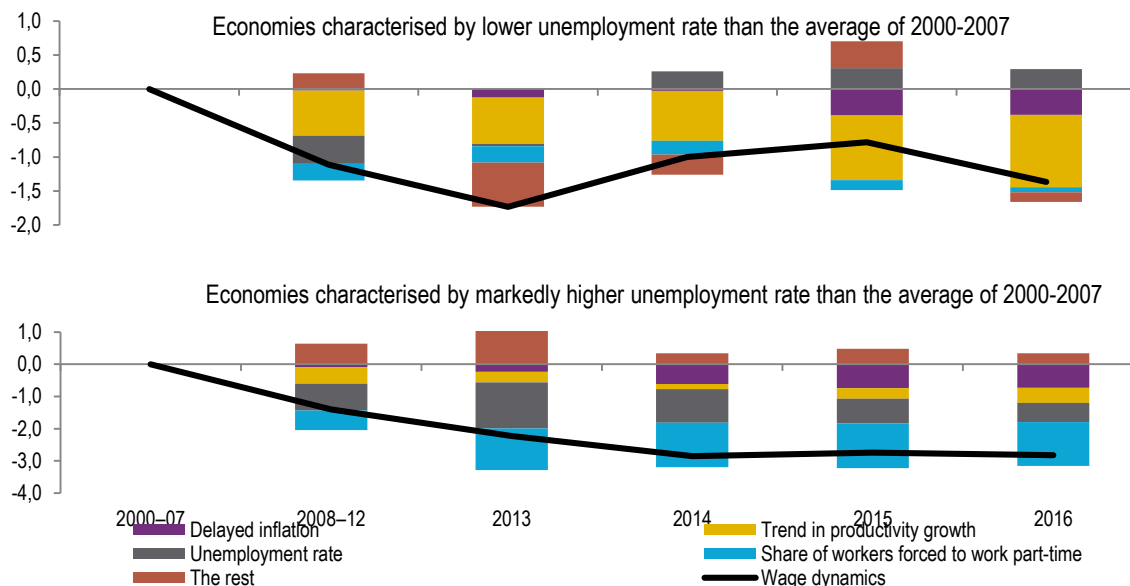
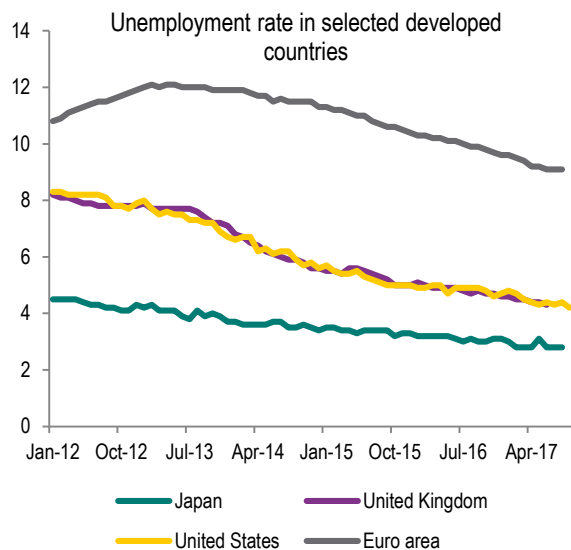
Participation rate, female aged 15-64 (%)



# Despite tight labour markets conditions, wage growth in the main developed economies remains weak.

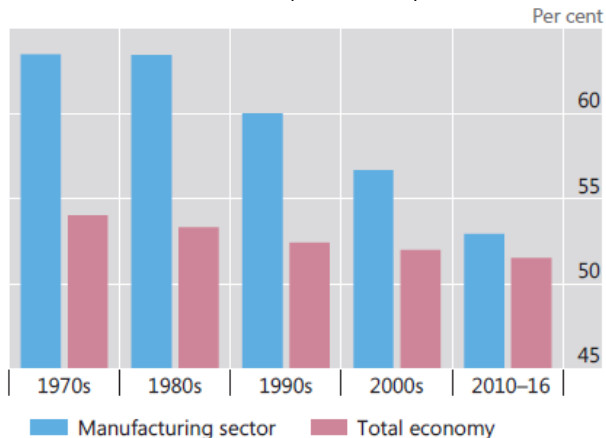
- Low wage pressure is due, inter alia, to: i) sluggish growth in labour productivity; ii) low inflation expectations; iii) still low labour utilisation in some countries; iv) increase in labour participation in the groups with lower wages (women, elderly people); v) reduced workers' wage-bargaining power and higher preferences for the job security and benefit packages over the wage increase; vi) an increased importance of temporary or part-time jobs, vii) an impact of structural reforms; viii) a declining number of hours worked.

Factors explaining the deviations of wage growth from the average of 2000-2007 according to IMF research (WEO, 2017):

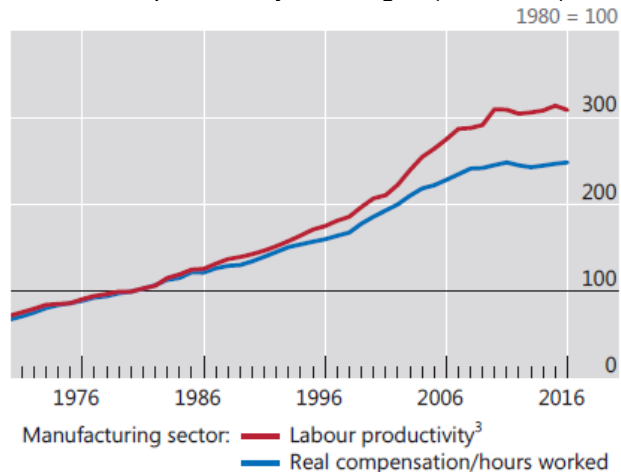


# Labour market in G7 countries

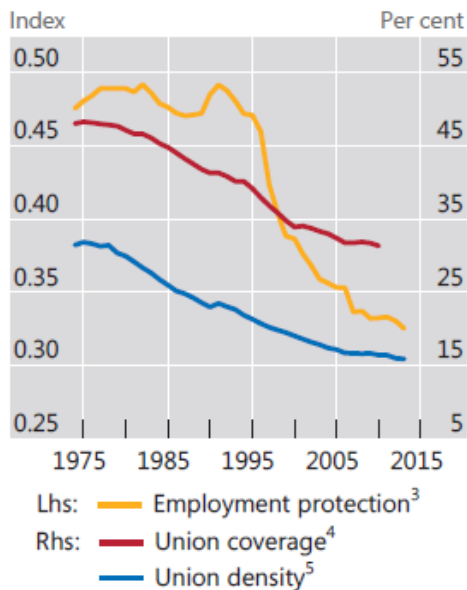
Labour share (% of GDP)



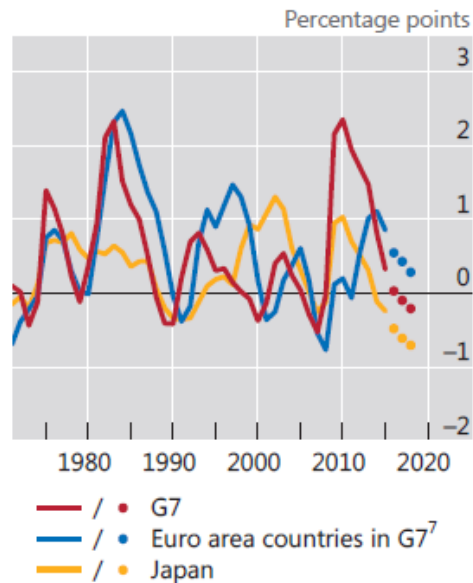
Labour productivity and wages (1980=100)



Labour's pricing power (%)



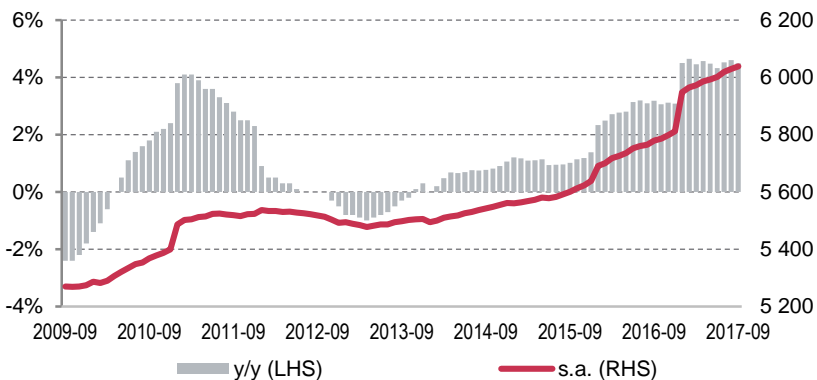
Unemployment gap



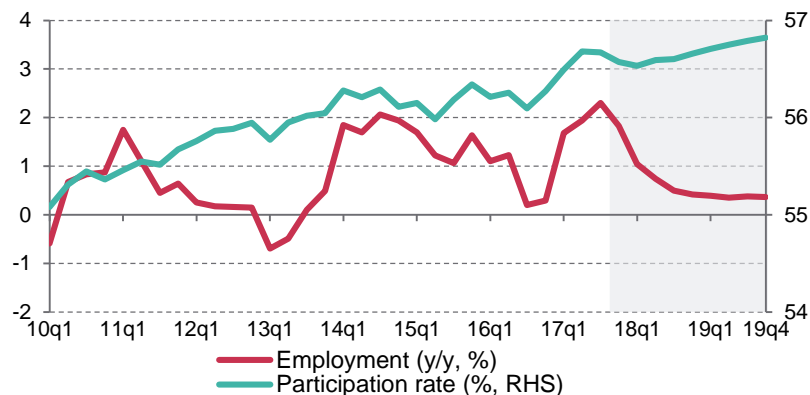


# In Poland despite favourable labour demand conditions limited labour supply will lead to a slowdown in employment growth

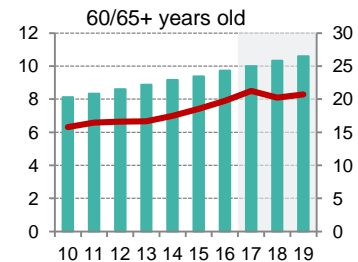
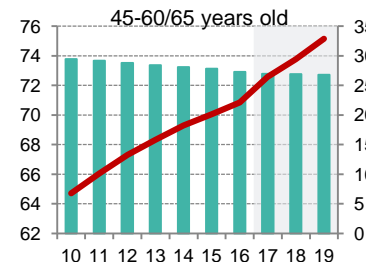
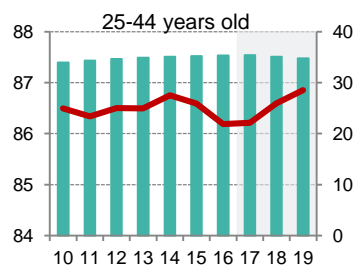
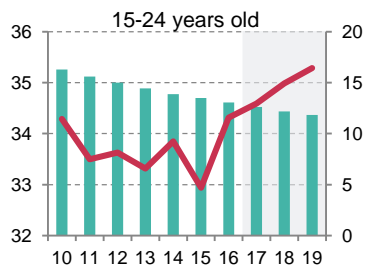
Labour demand



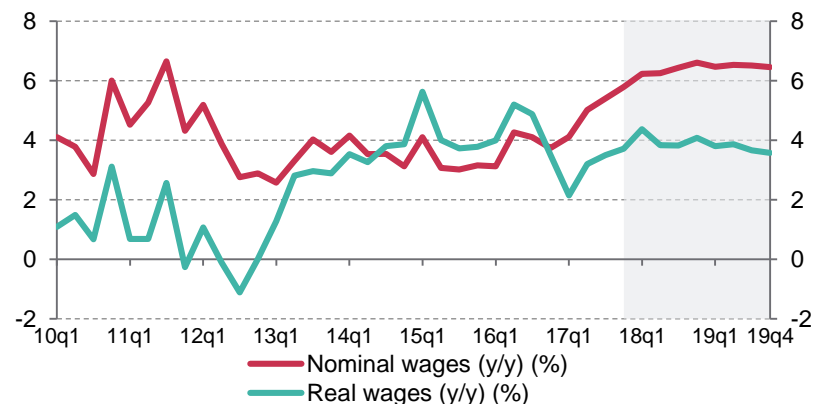
Labour supply



Participation rate in the given age group (% on LHS)  
Share of age group in the population (% on RHS)

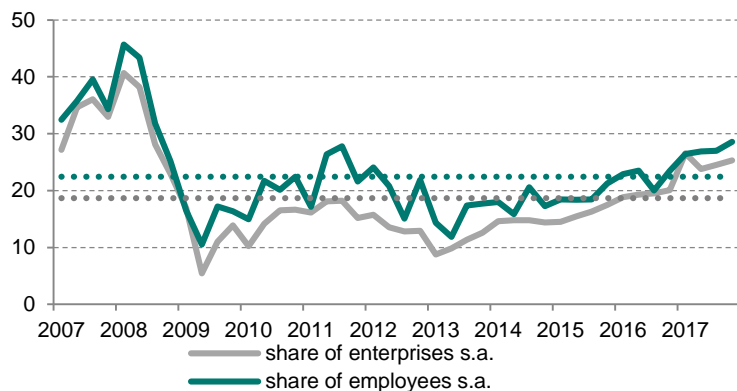


Higher wage dynamics

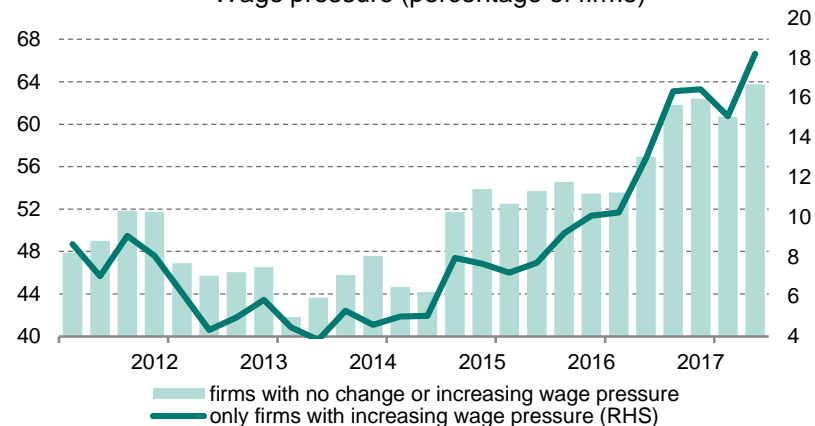


# Good labour market conditions have a positive influence on consumption

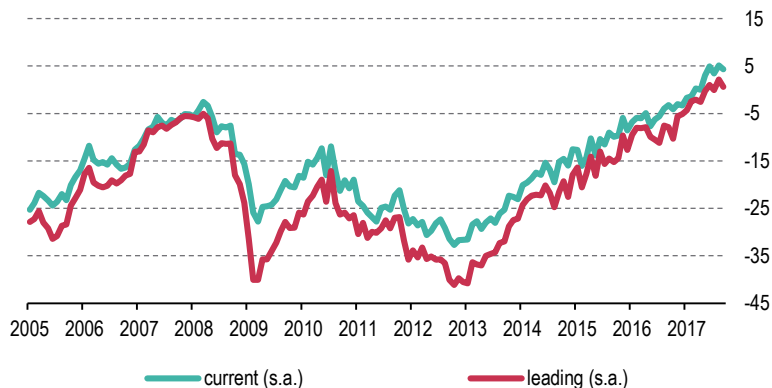
Wage increases forecasts



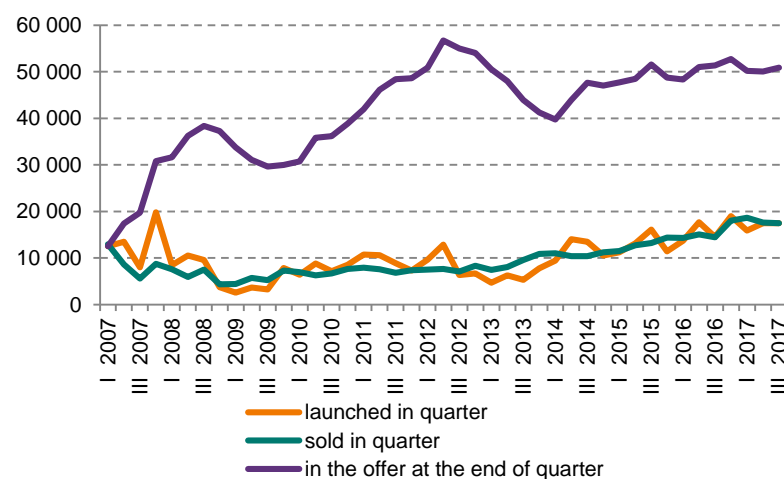
Wage pressure (percentage of firms)



Consumer confidence indicators



Housing situation in Poland's 6 largest markets\*



\*Warsaw, Kraków, Tri-City Agglomeration of Gdańsk, Sopot and Gdynia, Wrocław, Poznań, Łódź.

Source: REAS.

## Demography, monetary policy and housing market

- Many researchers were concerned about the possibly depressing effects of slower population growth on aggregate demand and output growth (Keynes (1937), Hansen (1939) and Myrdal (1940)).
- The debate on the effects of population growth on economic development focuses more on population size changes than structure changes (Bloom et al., 2003).
- In 2013 Lawrence Summers revived the term “secular stagnation” (Alvin Hansen, 1939) partly because an aging population creates an excess of savings relative to investments.
- Recently many researches focuses on a social and economic impact of an aging population on:
  - fiscal (and monetary policy),
  - health care system,
  - pension systems,
  - changing preferences.

## Possible implications of ageing for monetary policy

- Drop in the natural real rate of interest (NRI)
- Adjustment in external balances
- Changes in transmission of monetary policy and shocks
- Increased probability of hitting the zero lower bound (ZLB)
- Shift in preferences towards inflation-output volatility trade-off

## Demography, monetary policy and housing market

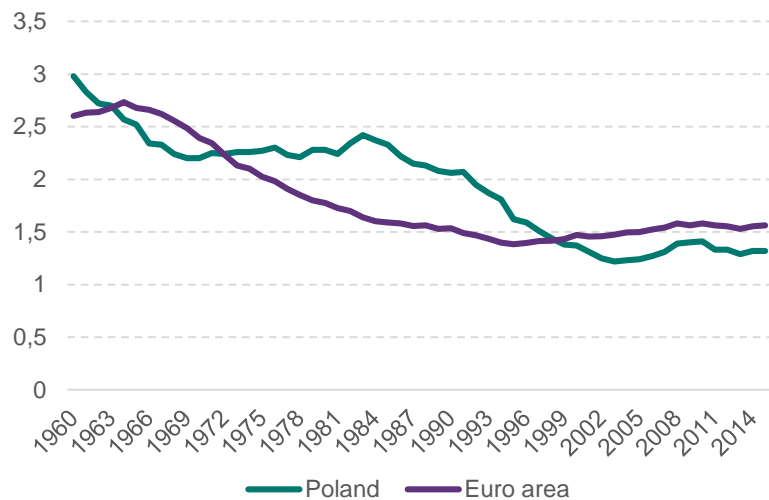
Channels through which monetary transmission mechanism differs across demographics

	Young society	Old society	Rationale
Interest rate channel	More important	Less important	Credit demand: young adults need more credit than older ones
Credit channel	More important	Less important	External risk premium: young adults have higher external risk premium
Wealth effect	Less important	More important	Income distribution: young possess little wealth, whereas old own much of it, making the latter more sensitive to monetary policy changes
Risk-taking channel	More important	Less important	Risk aversion: older adults are more risk averse, reacting less to changes in monetary policy
Expectation channel	Less important	More important	Inflation expectations: older adults more sensitive to inflation than the younger ones
Exchange rate	Not clear	Not clear	Not clear

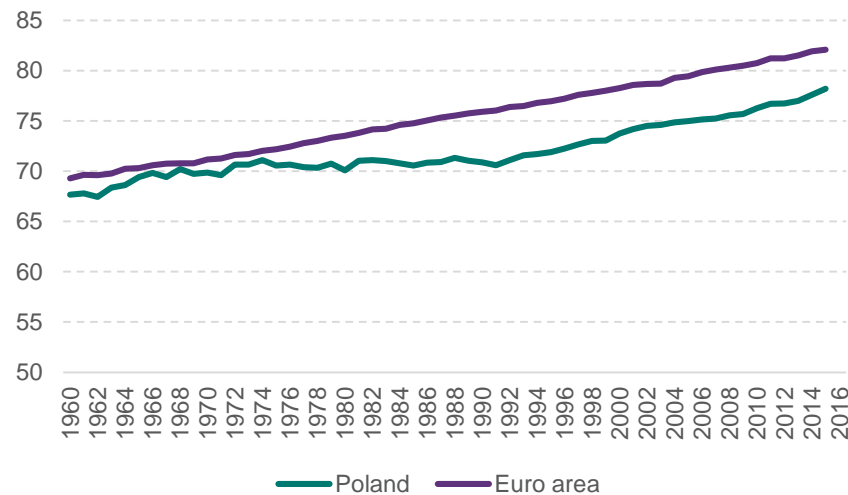
Imam, P. A. (2015). Shock from graying: Is the demographic shift weakening monetary policy effectiveness. *International Journal of Finance & Economics*, 20(2), 138-154.

# Demography and monetary policy – population indicators in Europe

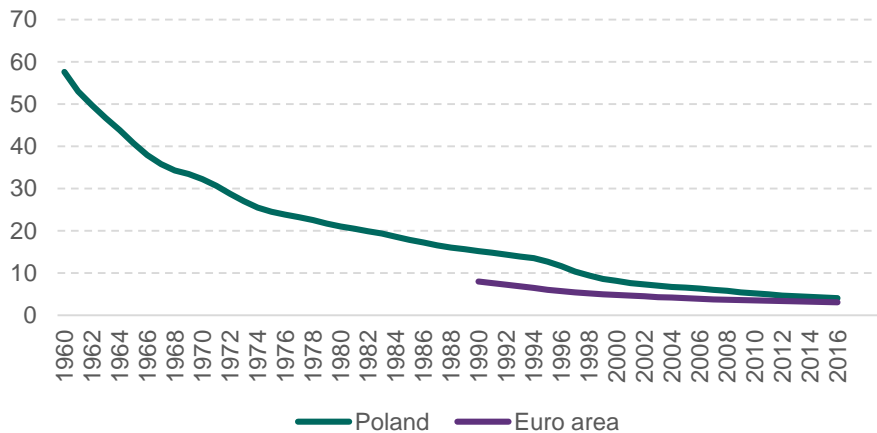
Fertility rate total (births per woman)



Life expectancy at birth, total (years)

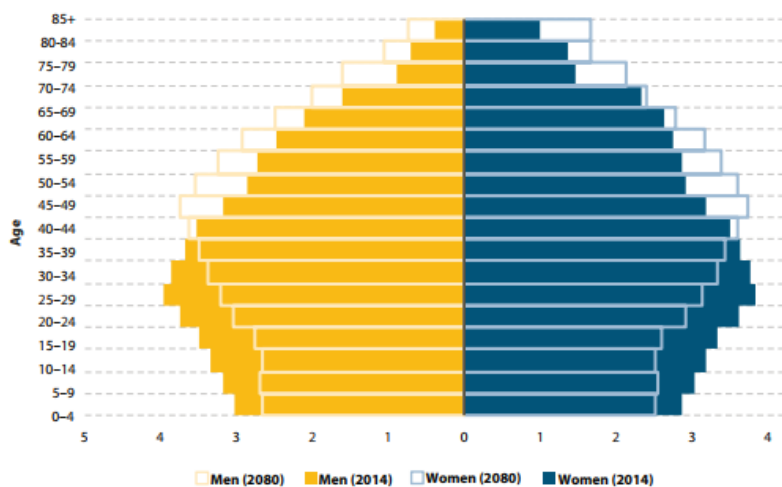


Mortality rate



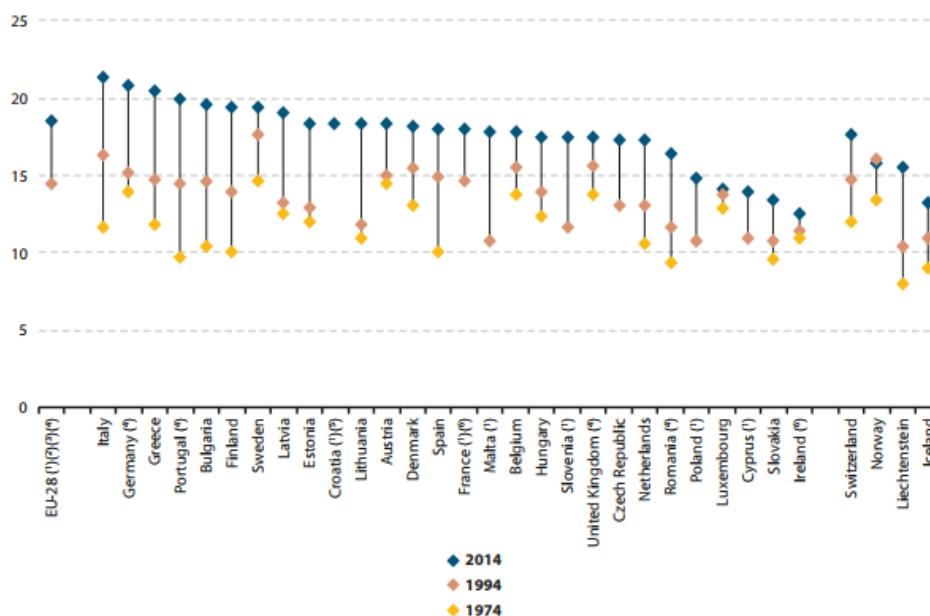
# Demography and monetary policy - ageing

Population structure, by age and sex, EU, 1994 and 2014 (°) (% of total population)



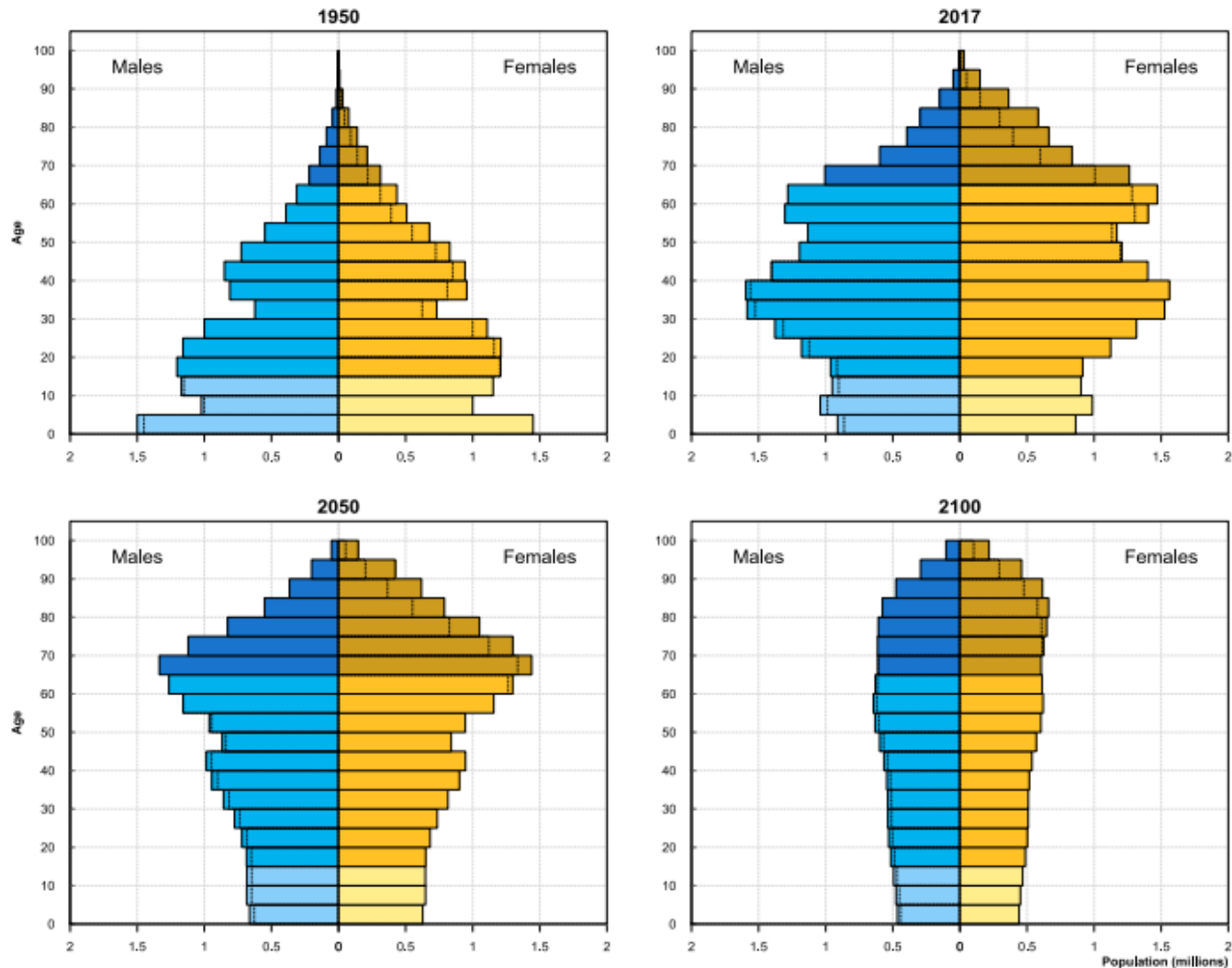
(°) As of 1 January, 1994: EU-27, 2014: EU-28; provisional.

Share of population aged 65 years and over, 1974, 1994 and 2014 (% of total population)



(°) 1974: not available.  
 (°) 1994: EU-27.  
 (°) 2014: break in series.  
 (°) 2014: estimate.  
 (°) 1994: not available.  
 (°) 2014: provisional.

# Demographic situation in Poland - ageing



Source: United Nations, (2017), *World Population Prospects The 2017 Revision Volume II: Demographic Profiles*.



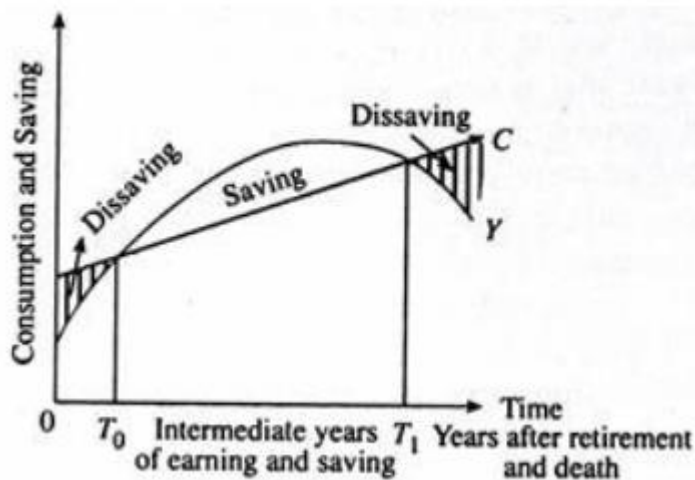
## Wealth and inequalities

- Demography could also affect the transmission mechanism of monetary policy to the economy, in particular, the strength of wealth effects versus income effects.
- Demographic change have an impact on long-run growth rate of consumption and, therefore, of output, which is a key determinant of the longer-run equilibrium interest rate.

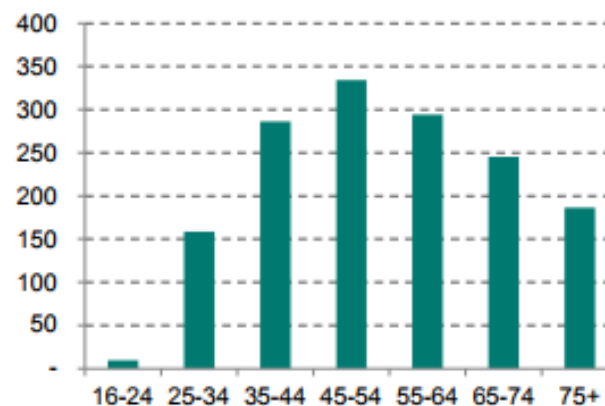
## Wealth and inequalities

- The standard life-cycle consumption model introduced by Modigliani and Brumberg (1954, 1980) assumes that individuals try to smooth consumption over their lifetimes. Savings rates will rise with age as income increases, and then decrease and become negative in retirement as earnings fall.
- Heller (1989) empirically proved that the increase in the share of elderly in these countries could reduce private savings.

Life cycle model

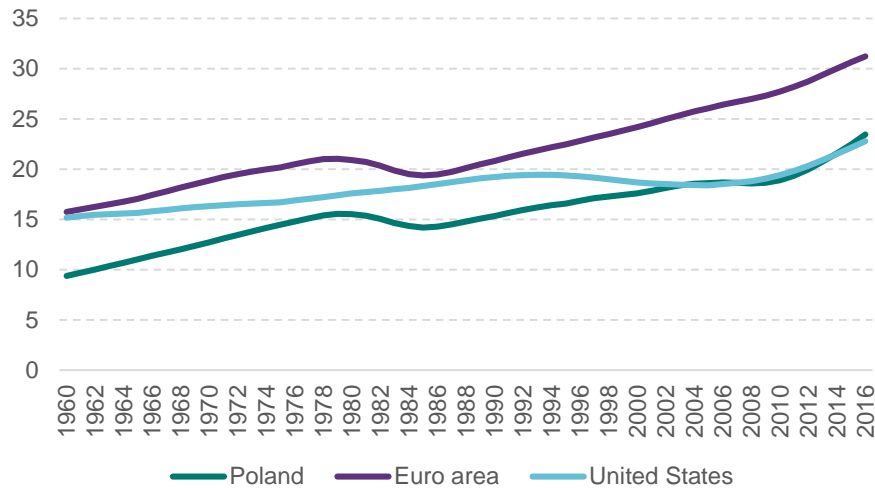


Net wealth depending on the age Poland (PLN thousands.)

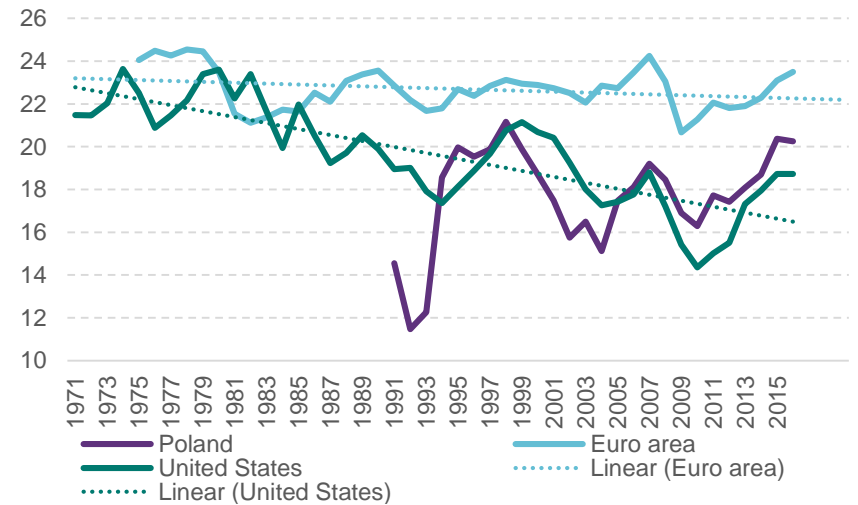


# Wealth and inequalities

Age dependency ratio (% of working-age population)



Gross Savings (% of GNI))



## Conclusions

- Natural interest rate declined
- Low wage pressure despite tight labour market
- Ageing and demographic change will affect monetary policy
  - ... and other economic and social policies, too!
- The ageing of the population make it more difficult for many advanced economies to continue to grow and to remain competitive on world markets
- Demographic change may affect the business cycle and the monetary policy transmission mechanism.
- The demographic transition will likely put downward pressure on the growth rate of potential output, the natural rate of unemployment, and the long-term equilibrium interest rate.

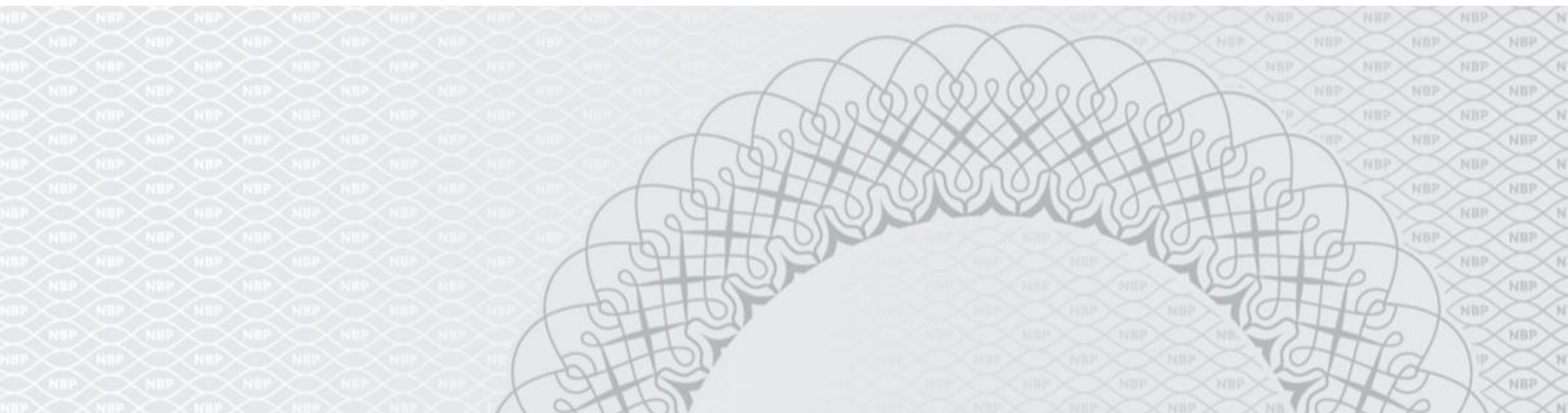
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**Thank you for your attention!**

Zalesie Górne / 22 November 2017



*We protect the value of money*

## References

- Bloom, D., Canning, D., & Sevilla, J. (2003). *The demographic dividend: A new perspective on the economic consequences of population change*. Rand Corporation.
- Imam, P. A. (2015). Shock from graying: Is the demographic shift weakening monetary policy effectiveness. *International Journal of Finance & Economics*, 20(2), 138-154.
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