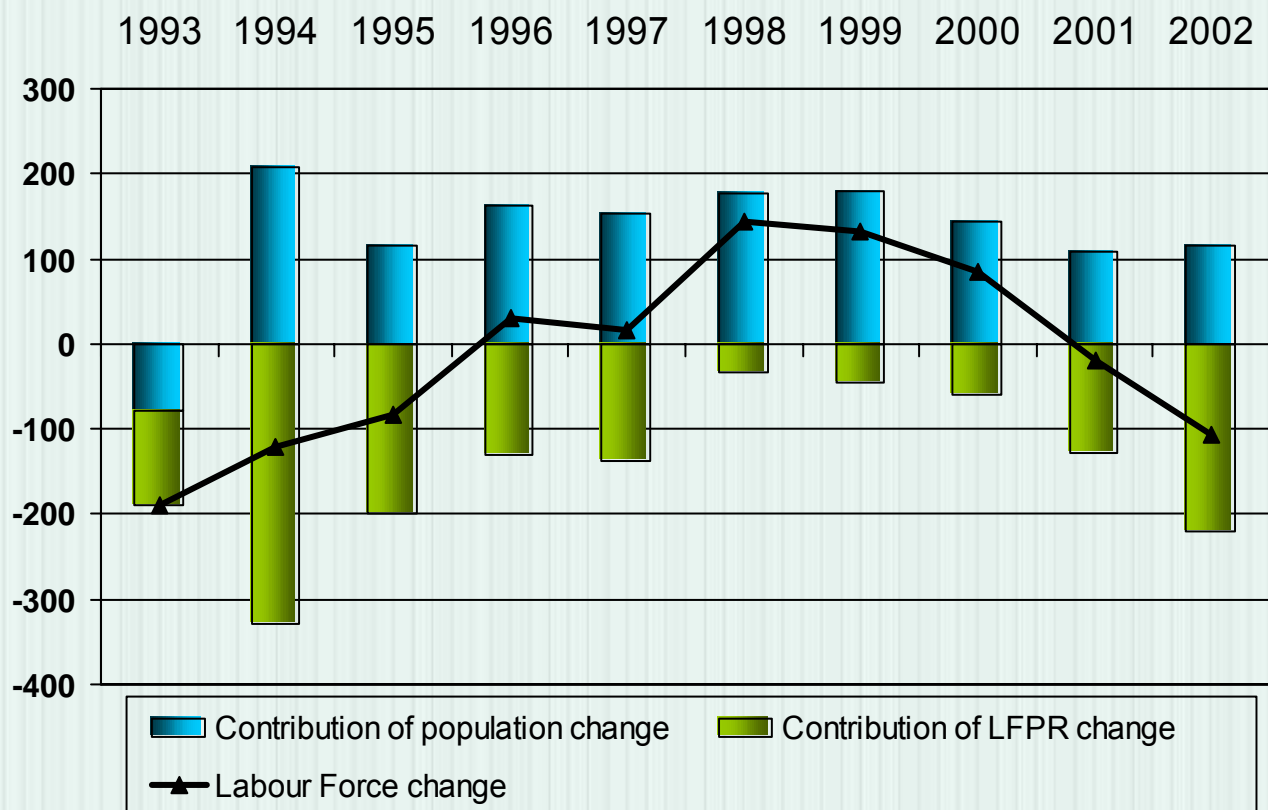


Employment determinants of economic growth in Poland

Paweł Strzelecki
Jacek Socha

Contribution of population and participation rates change to labour force* change between 1993 and 2002

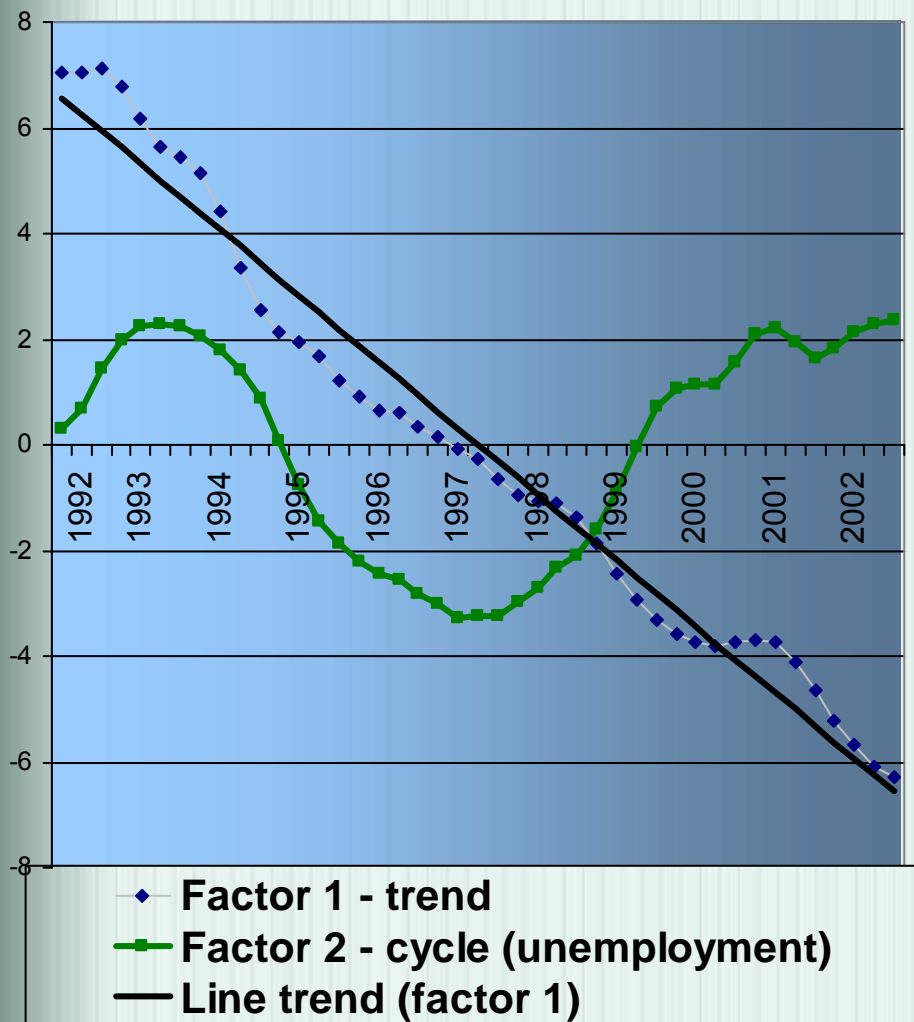


*labour force in working age (15-60/64)

Factors behind participation rate changes

- Social factors: changes in family formation, effects of structural unemployment etc.
 - Economic cycle: discouraged worker effect, added worker effect.
 - Social security system: (early retirement, government policy)
-

Results of principal component decomposition of participation rates in groups separated by age and gender



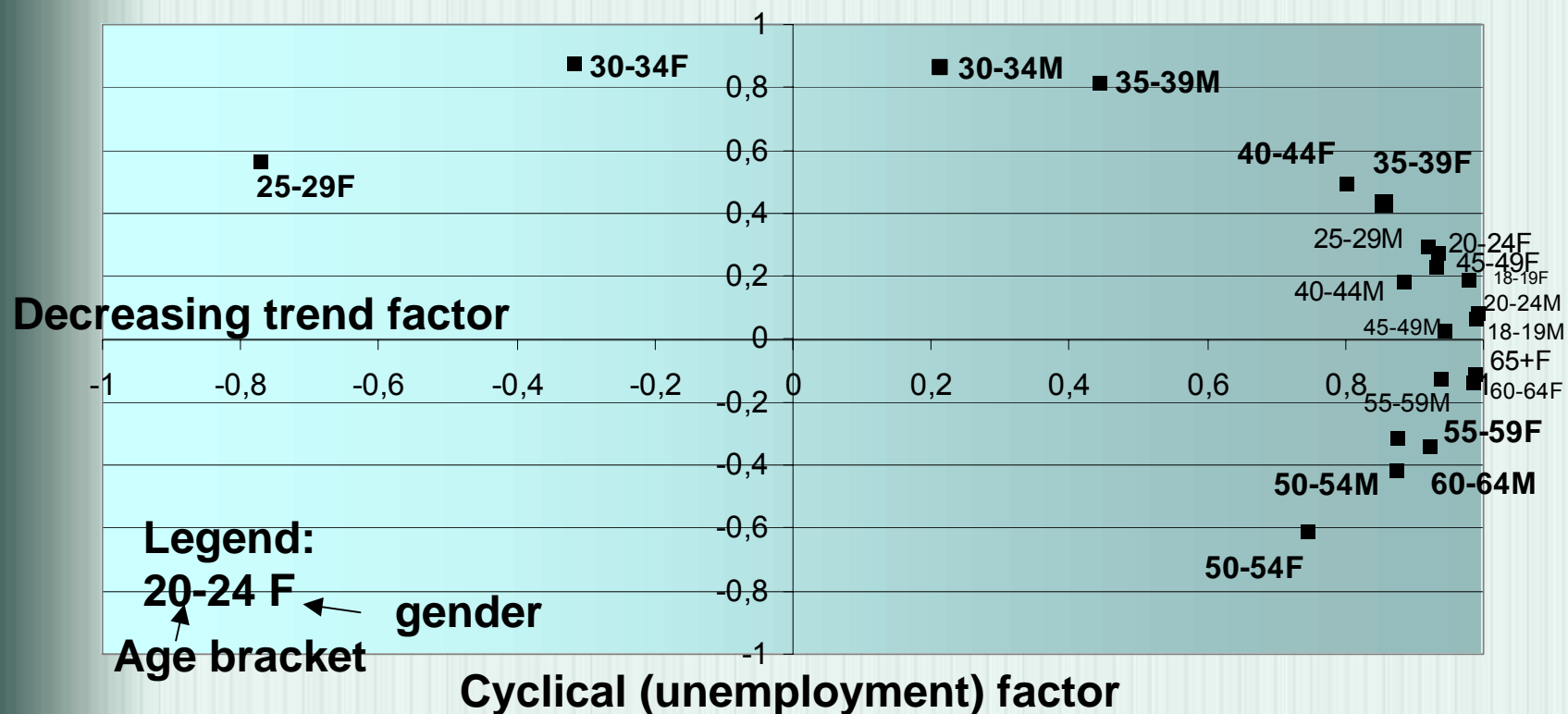
First two independent components explain 91% of total variation of the data set.

They are independent and can have interpretation:

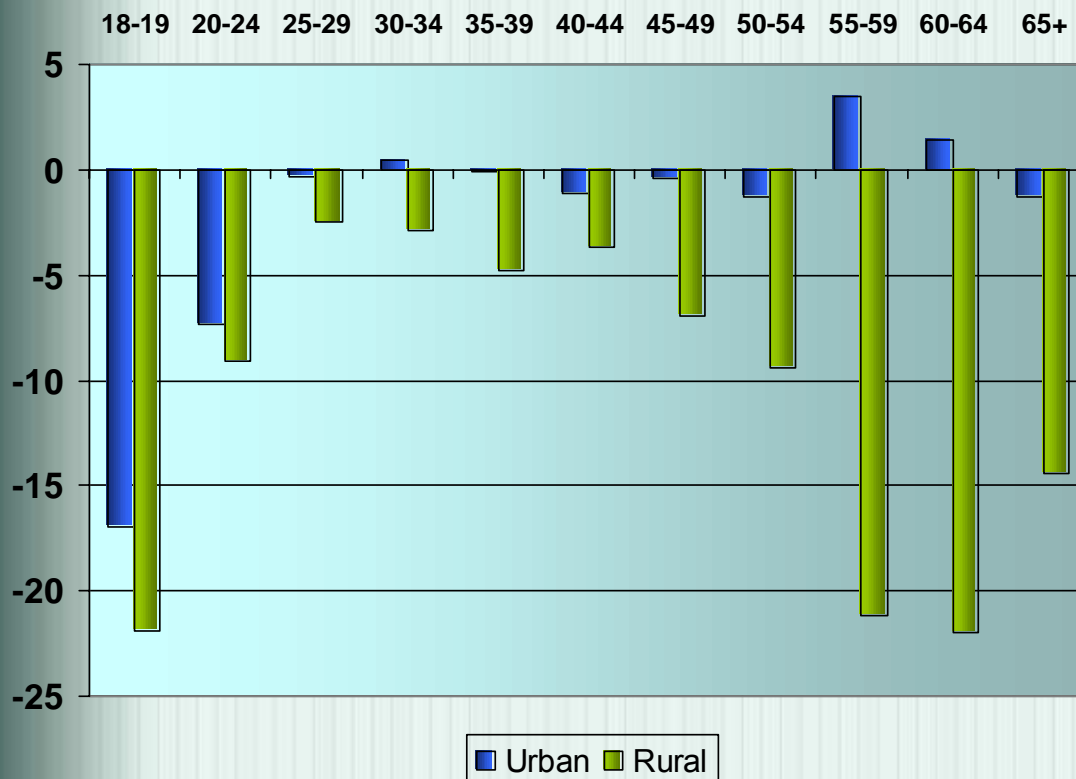
First factor – decreasing trend

Second factor – cycle similar to unemployment rate

Correlations between observed values of participation rates and factors (factor loadings)



Changes in participation rate* by age and place of residence (urban/rural) between 1993 and 2002

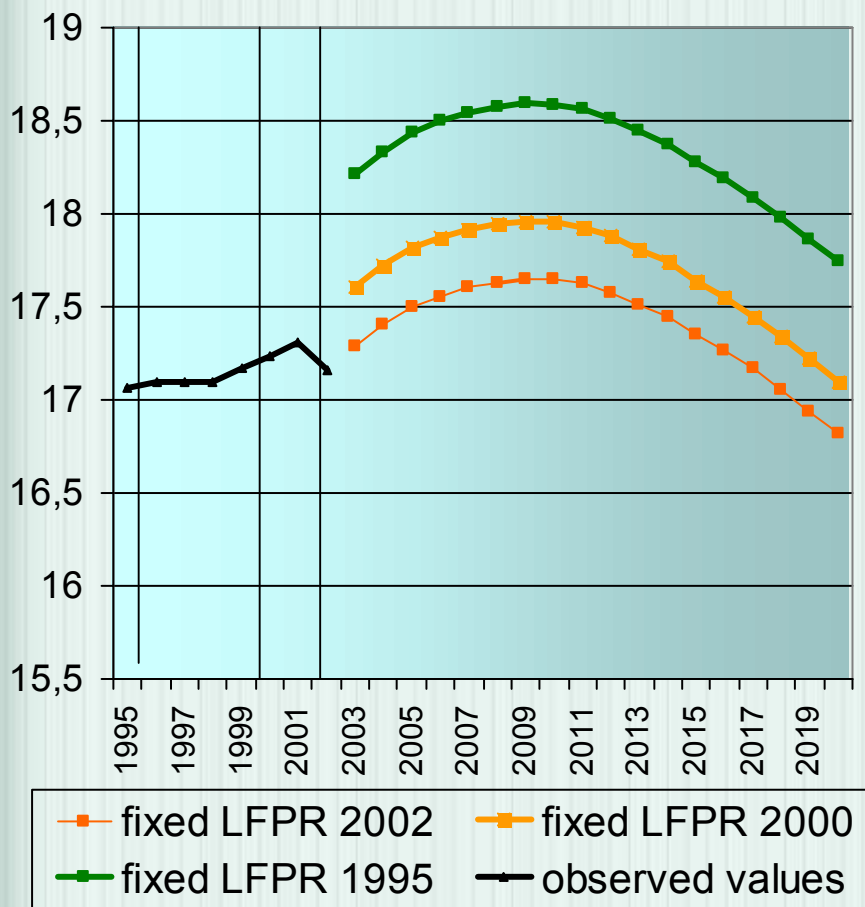


-Strong decrease in participation of population aged 15-24 (increase of enrolment rates)

-Strong decrease in participation of rural population over 55 (early retirements and excessive employment)

*in percentage points

Labour force* in the future – projections. Effects of LFPR and population change.



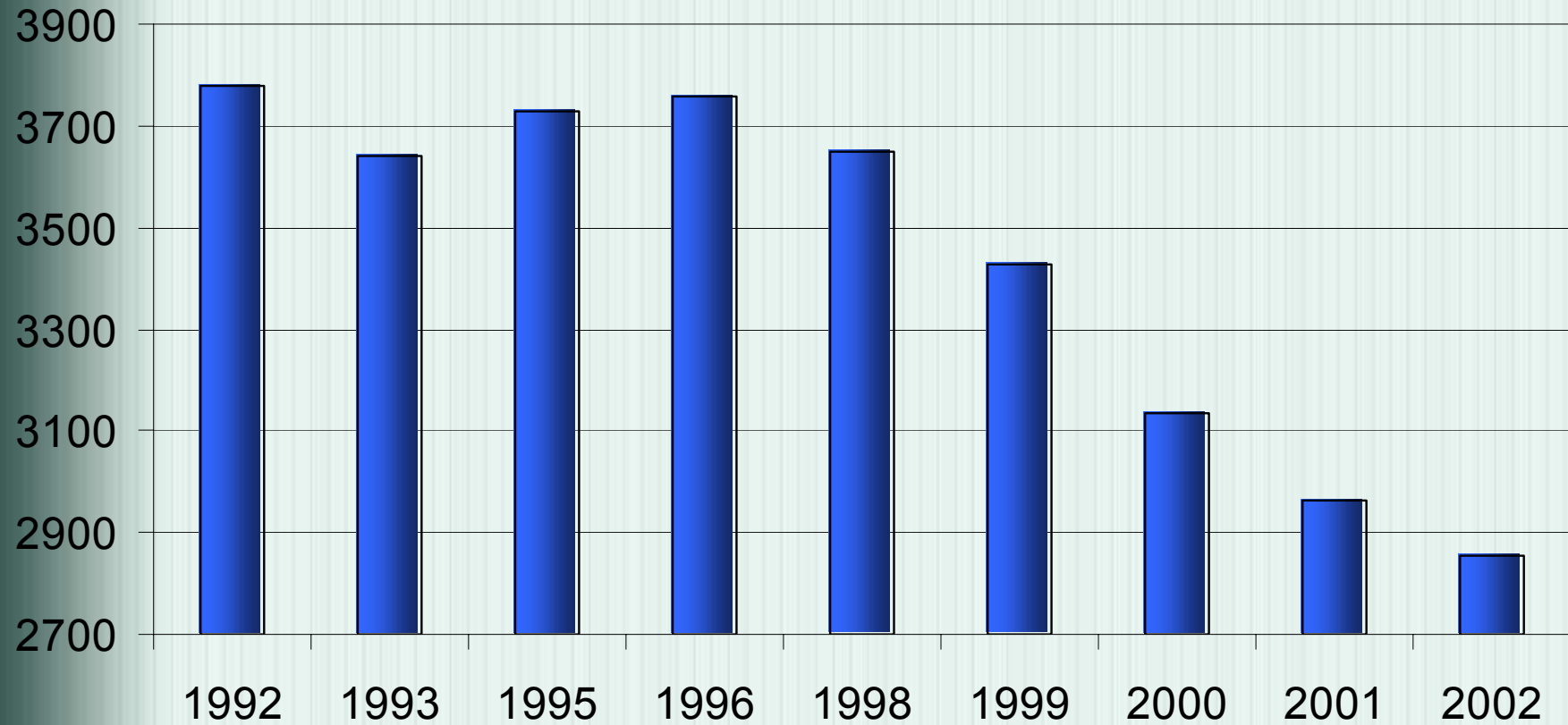
-Positive influence of age structure

-Negative effects of recent LFPR changes

*in millions

Labour demand function in Polish manufacturing sector

preliminary results



■ Employed in manufacturing

The research hypotheses:

- Labour demand on micro level strongly depends on production and costs of labour force
 - The model assumes firms profit maximisation under demand constrains which is equivalent to costs minimisation
-

Data set

- Panel of over 5000 enterprises from Polish manufacturing covering the period 1998-2002
 - Dates are based on Central Statistical Office's F-01 reports
-

Estimation results

- Elasticity of labour demand with respect to labour costs and to production have been increasing over time
 - These changes in enterprises behaviour can be explained by hardening of economical environment, what makes the companies labour demand more sensitive to changes of output demand and costs settings
-

Results are not satisfactory

- The elasticities are not stable (excessive changes) within the sample period
- The heteroscedasticity problems occurred during the estimation process

There are some advantages

- The coefficients are significant and their signs are economically appropriate
 - We obtained the same short run coefficients using two different models
-

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The end
