

# What do we know about factors determining debt structure of companies?

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# Potential explanatory variables

- **Firm fixed effects**
- Tax benefits
- Size
- Cash flow volatility
- Assets tangibility/liquidity
- Market-to-book ratio
- Pecking order
- Business cycle

# Data and methodology

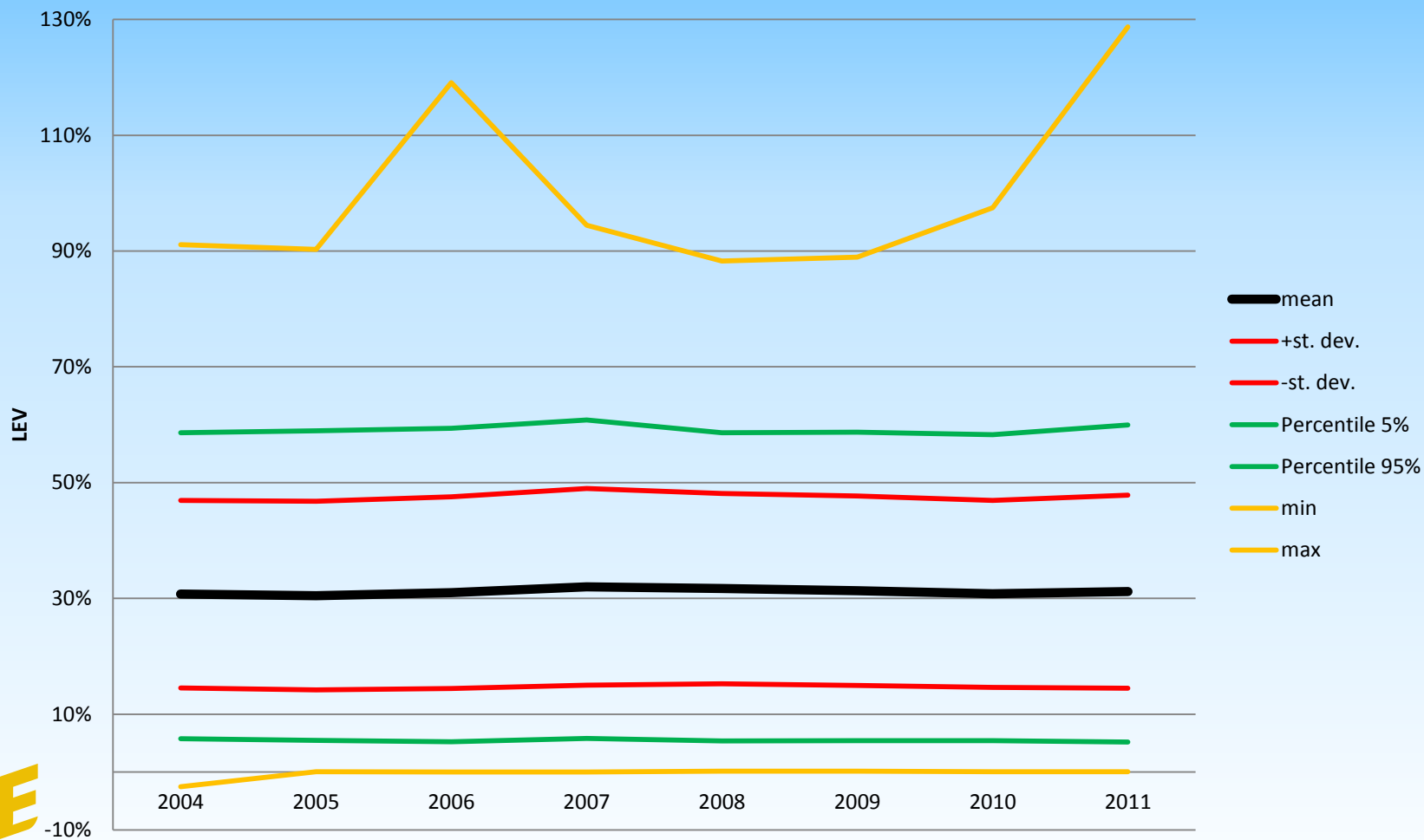
- Germany, France, Great Britain, Italy - four most advanced member countries, Greece and Spain – which suffer the most from crisis, Poland as the biggest economy from new member states and Finland as a representative of “northern economic model”. – 1618 firms in full sample

From the Amadeus dataset of Bureau Van Dijk I selected all firms meeting following criteria:

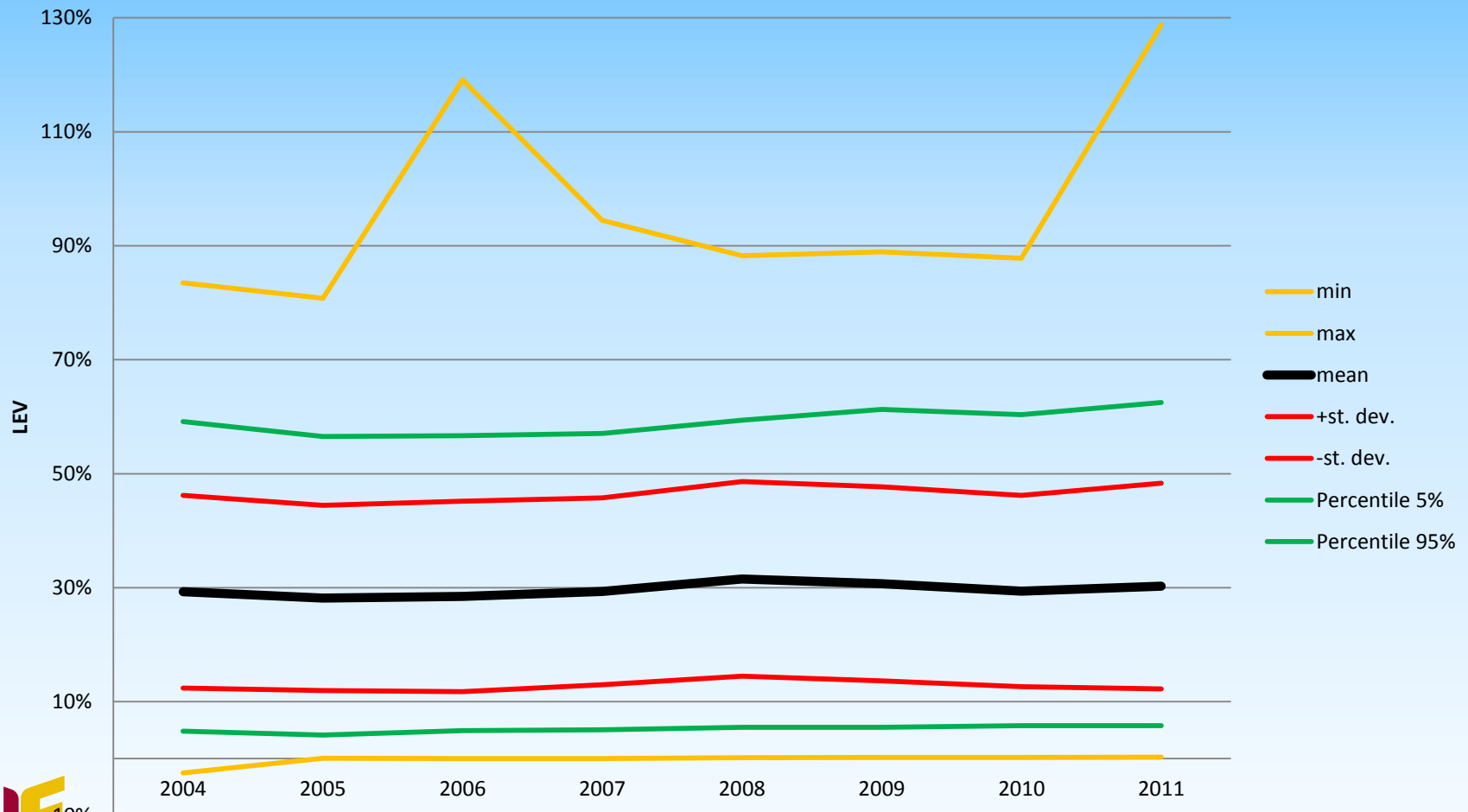
- nonfinancial companies
- independent
  - or state-owned
  - or private or family owned
  - or foundation owned
- with data from whole period
- indebted during all period



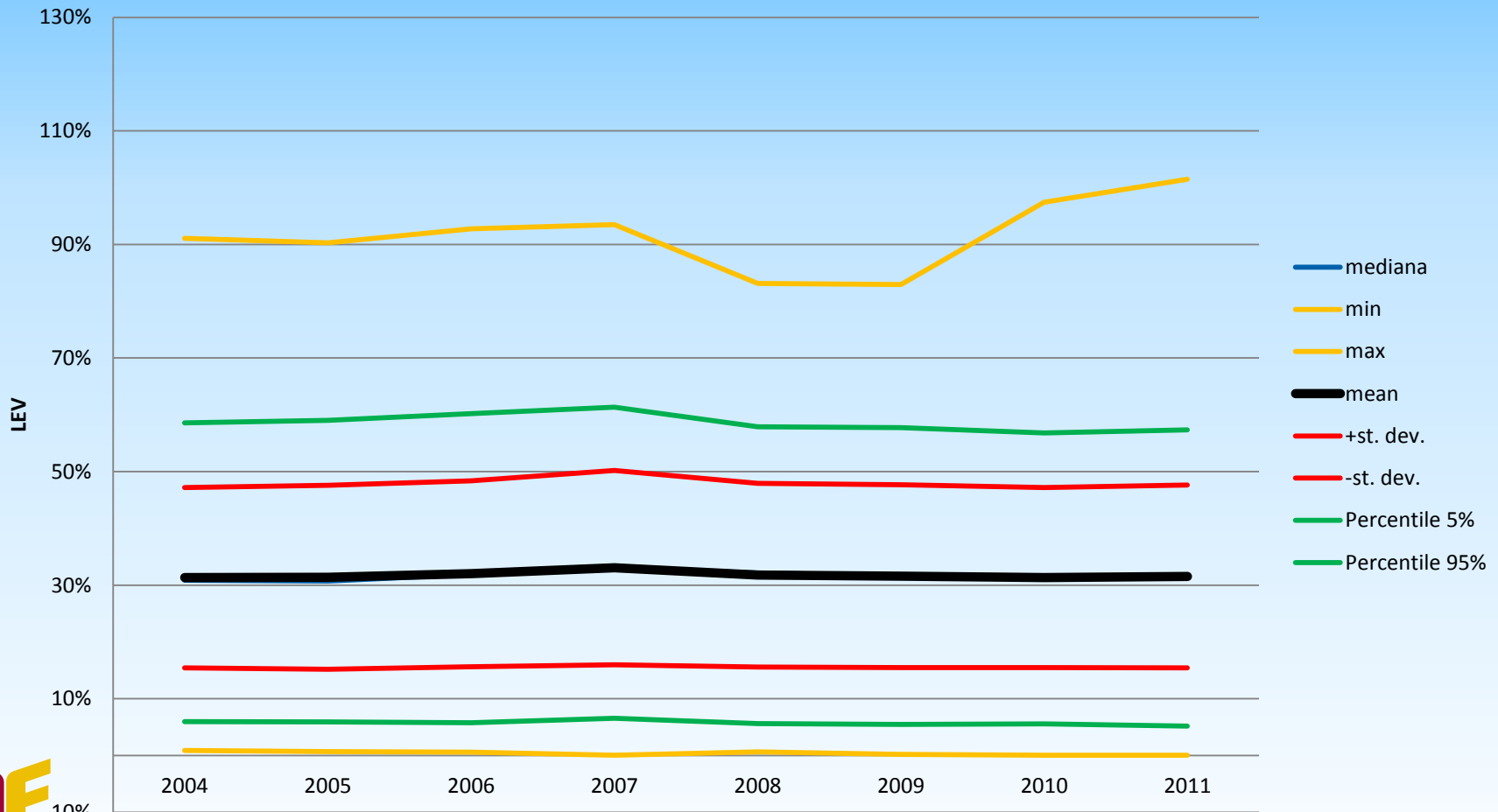
# Variation in the leverage in the full sample



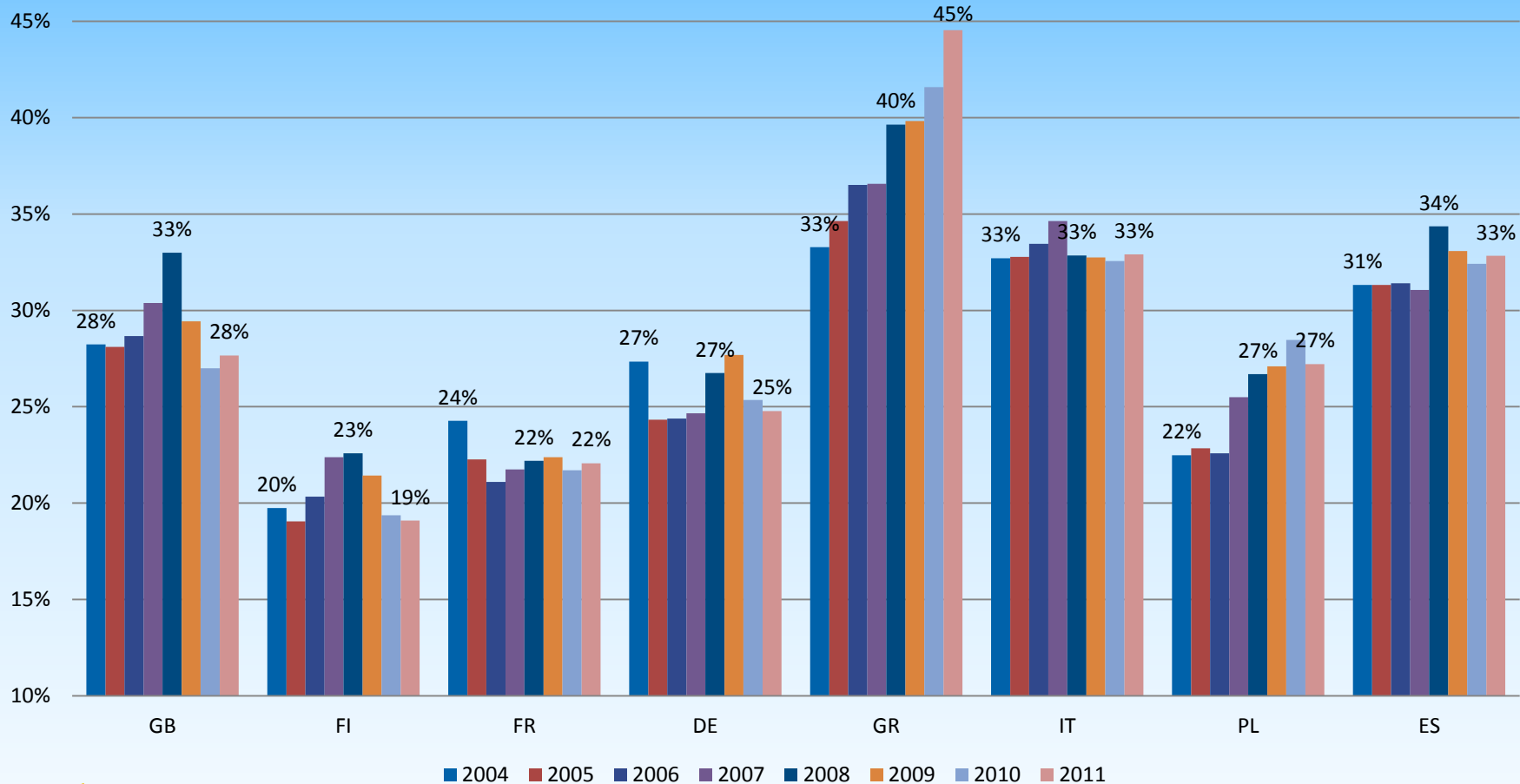
# Variation in the leverage in the group of big companies



# Variation in the leverage in the group of small companies



# Average leverage ratio in the European countries



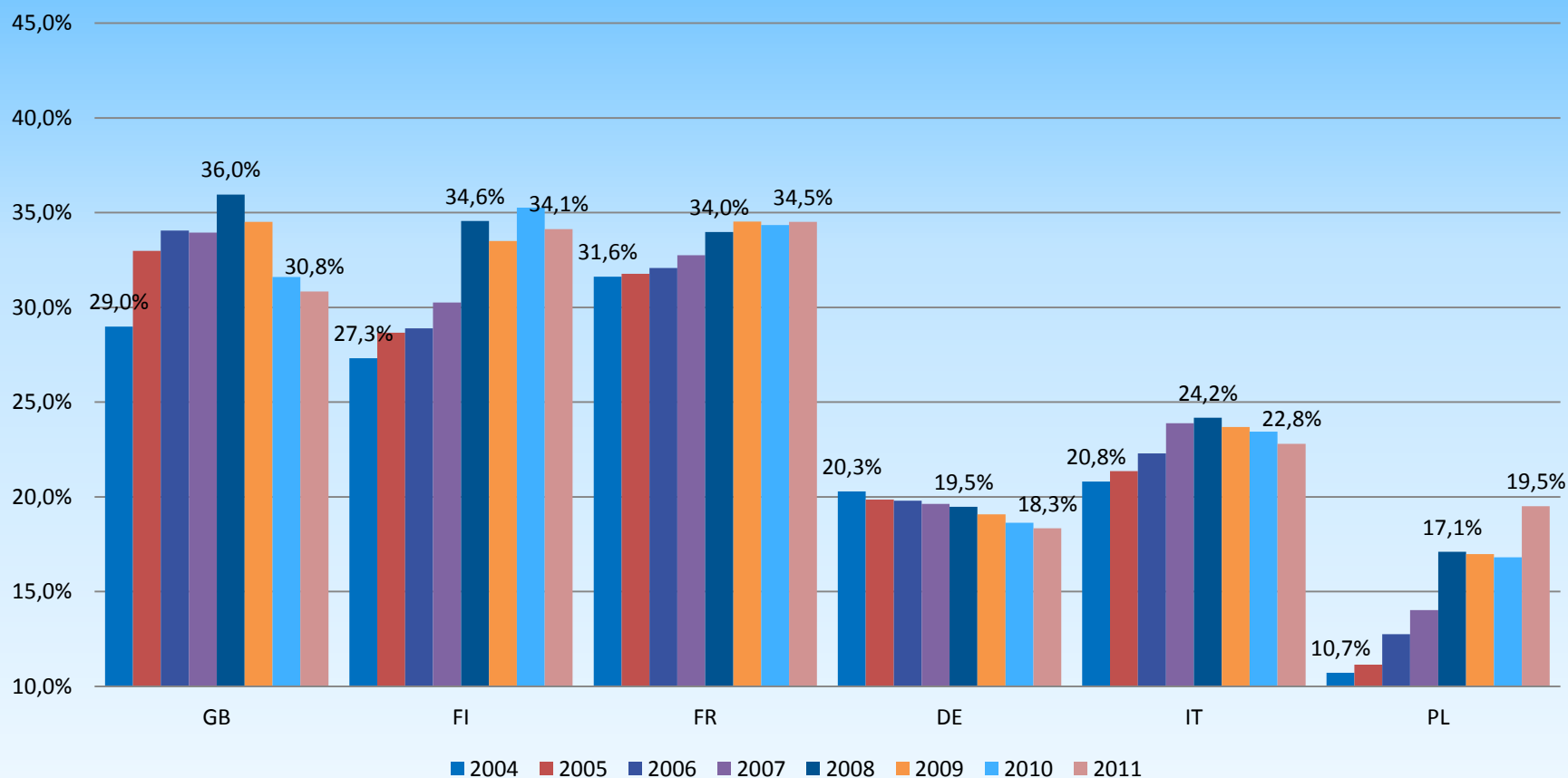
# Parameters of fixed effects panel models

	GB	FI	FR	DE	GR	IT	PL	ES
Const.	0,70		-1,64		0,46	0,21	0,32	
Size			0,05			0,03		
Asset liq				0,43			0,28	
IR	0,53	0,88				0,26		
Tax benef			4,83		-0,63	0,22		0,91
Profit	-0,11	-0,09	-0,04	-0,06				
GDP exp	-0,40							-0,94
Debt str	0,03		-0,03		-0,05			
<b>Adj R<sup>2</sup></b>	<b>0,830</b>	<b>0,759</b>	<b>0,737</b>	<b>0,728</b>	<b>0,717</b>	<b>0,767</b>	<b>0,575</b>	<b>0,785</b>
<b>Adj R<sup>2</sup> const*</b>	<b>0,800</b>	<b>0,714</b>	<b>0,709</b>	<b>0,698</b>	<b>0,655</b>	<b>0,762</b>	<b>0,449</b>	<b>0,771</b>
<b>Difference</b>	<b>0,030</b>	<b>0,045</b>	<b>0,028</b>	<b>0,030</b>	<b>0,062</b>	<b>0,005</b>	<b>0,126</b>	<b>0,014</b>

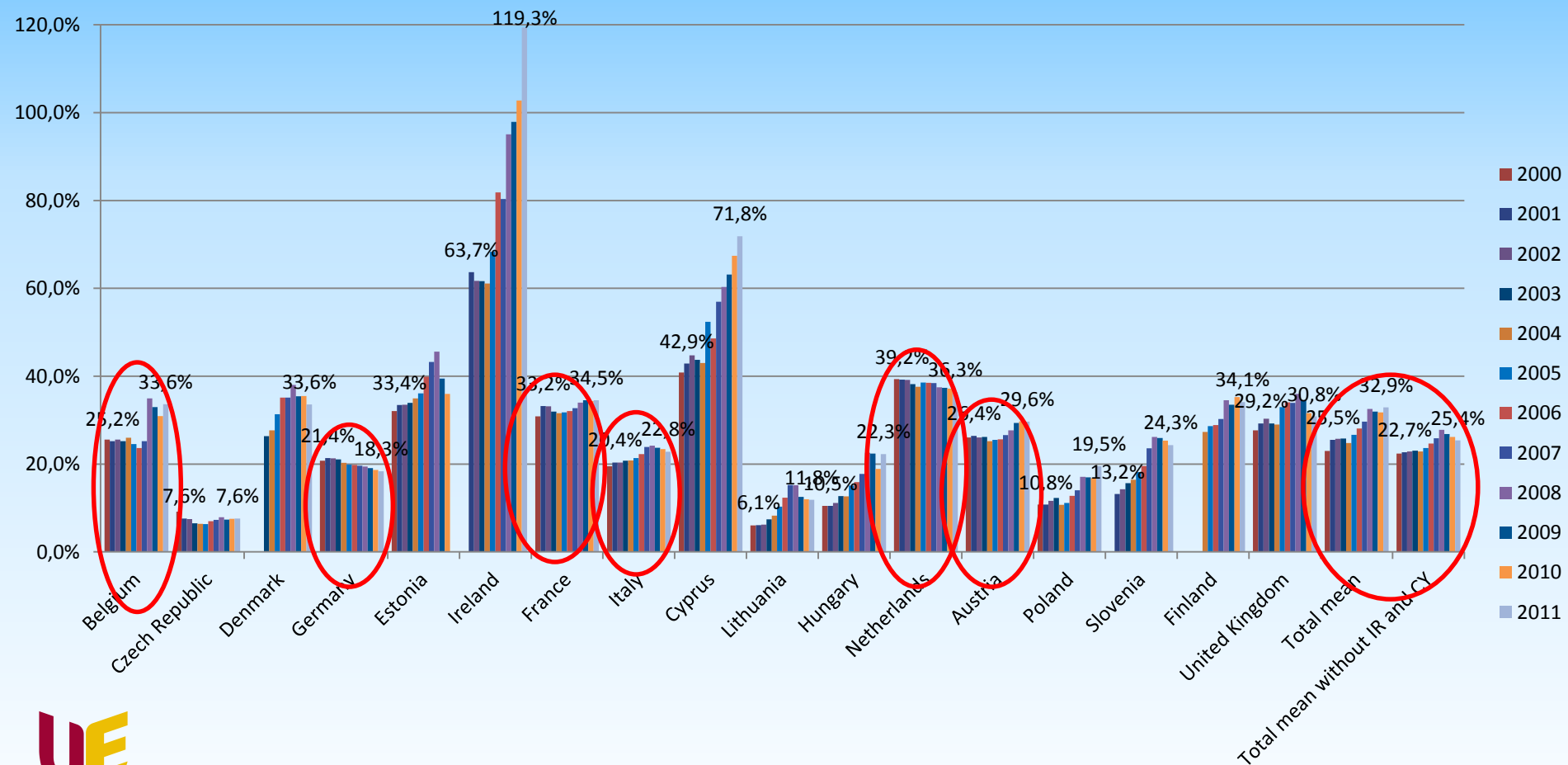
\* Models with only constant ( $\beta_0$ ) as a independent variable  
Table consist only variables with p-value over 0,05 and 0,01



# Debt to fixed assets ratio of firms in selected European countries



# Debt to fixed assets ratio of firms in selected European countries. 2000-2011



# Significance for post-Keynesian Stock-flow consistent modeling

The complication of the models means that to actually simulate one, the modeler requires a set of equilibrium stock-flow norms that are attained in the steady state of the model. Ideally, stylized facts should guide choices of stock-flow ratios. I'm here to tell you: they do not.  
(Kinsella, 2011).

# Significance for post-Keynesian Stock-flow consistent modeling

My research confirms also that companies funds investment mostly from current saving (net worth) and equities and there is no substitution between debt and other sources of investment funding.