

‘Entrepreneuromics’

principles, perspectives, problems, process, policies and Portugal

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What can I do?

- causes; consequences; definitions
- persons; firms; industries; countries
- research; policy
- economics; other disciplines
- survey; examples
- stories; structure
- Portugal; the world

What will I do?

- causes; consequences; definitions
- persons; firms; industries; countries
- research; policy
- economics; other disciplines
- survey; examples
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The many faces of entrepreneurship

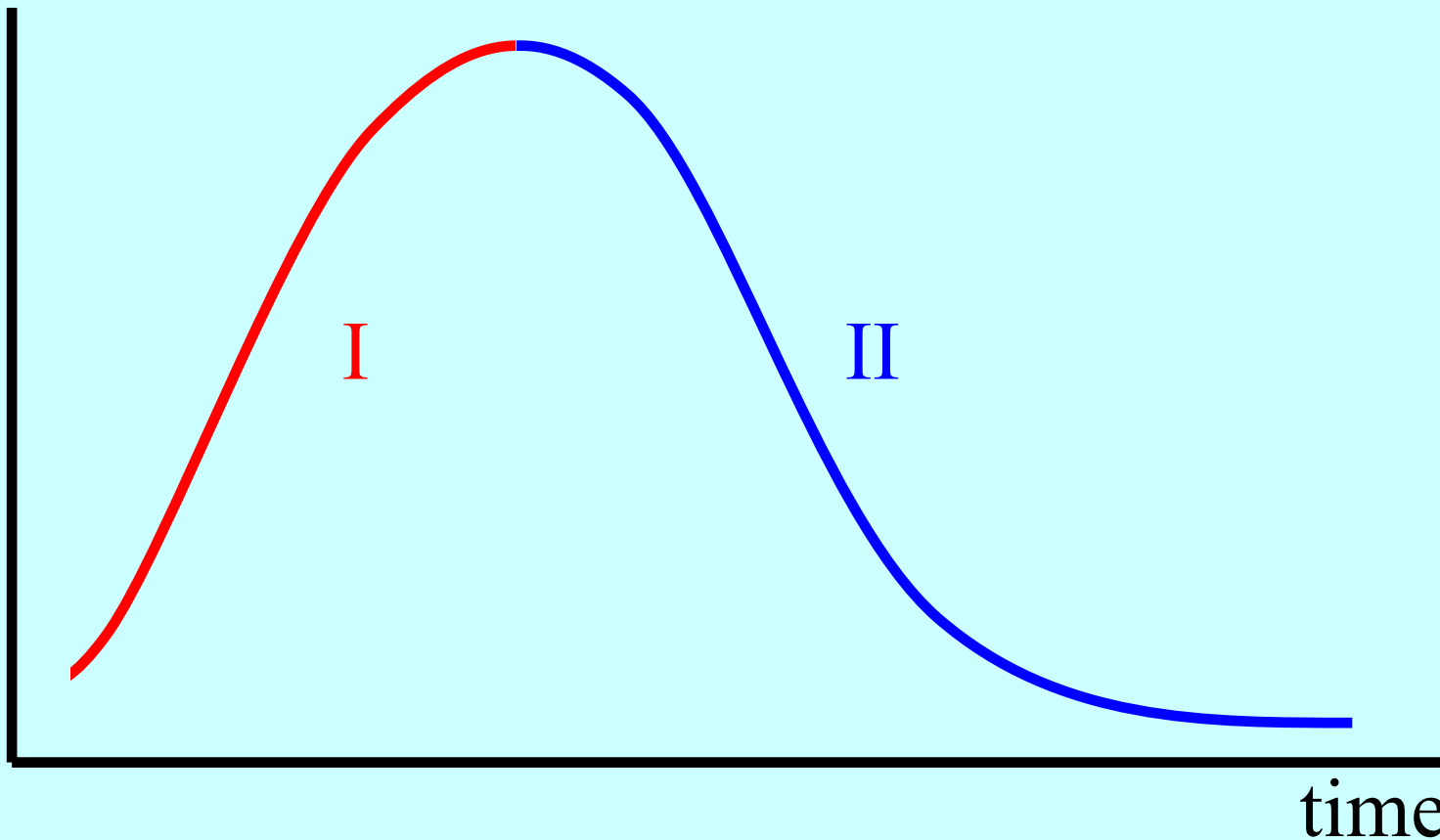
- Entrepreneurship as a frame of mind
- Business ownership
- Self-employment
- Nascent entrepreneurship
- Latent entrepreneurship
- High tech entrepreneurship
- Opportunity and necessity entrepreneurship
- Entrepreneurship and the economy

Two economies: Schumpeter revisited

- Schumpeter mark I regime (1934, *Theory of Economic Development*)
 - innovating entrepreneur in a mechanical way
 - creative destruction, the undermining
 - ‘public basin’, the open source world
 - competitive market environment
 - transformation - exploration
- Schumpeter mark II regime (1950, *Capitalism, Socialism and Democracy*)
 - innovation by large and established firms
 - creative accumulation
 - appropriability
 - high degree of concentration
 - rationalisation - exploitation

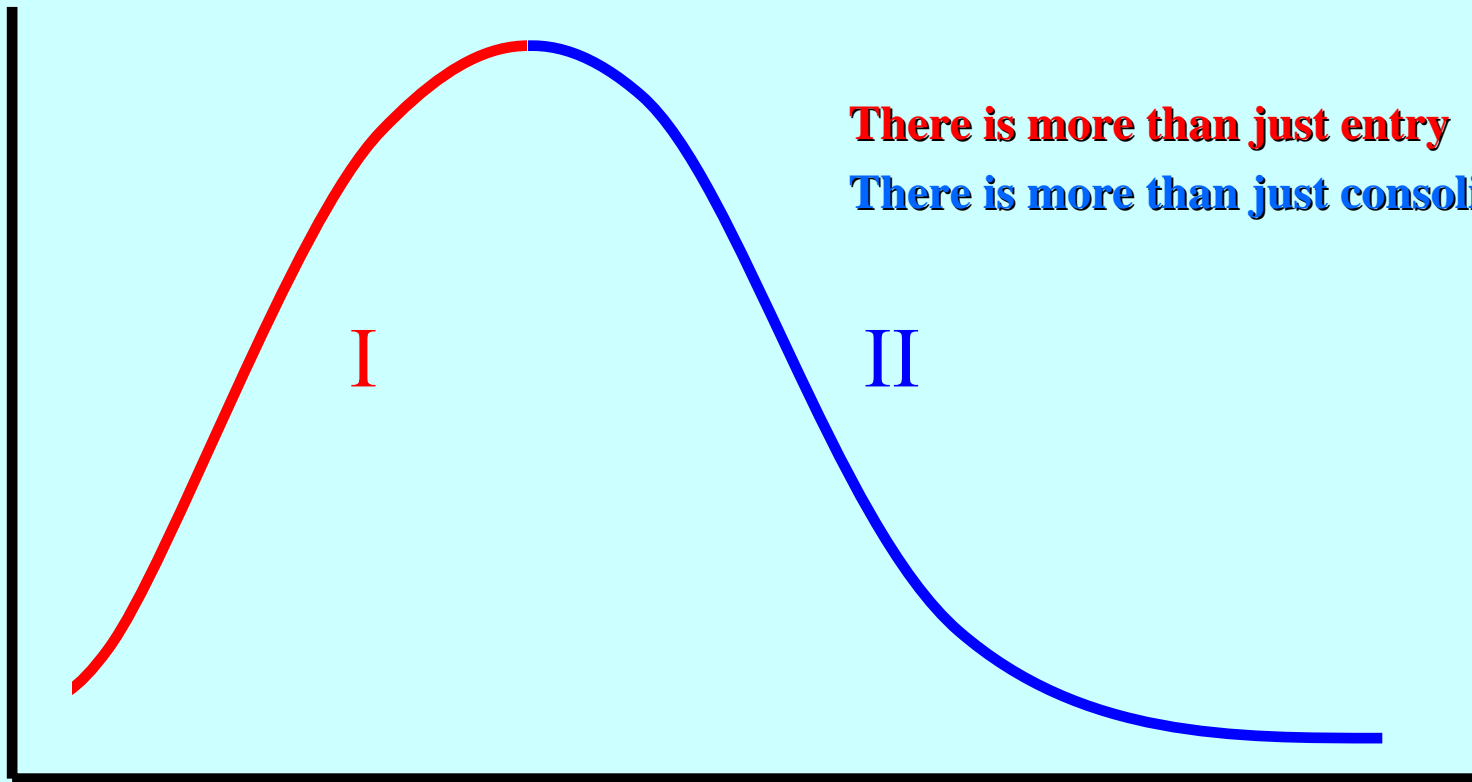
Two economies: Schumpeter revisited

firms



Two economies: Schumpeter revisited

firms



There is more than just entry

There is more than just consolidation

I

II

time

Alexis de Toqueville, 1835

“What astonishes me in the US is not so much the marvelous grandeur of some undertakings as the innumerable multitude of small ones”



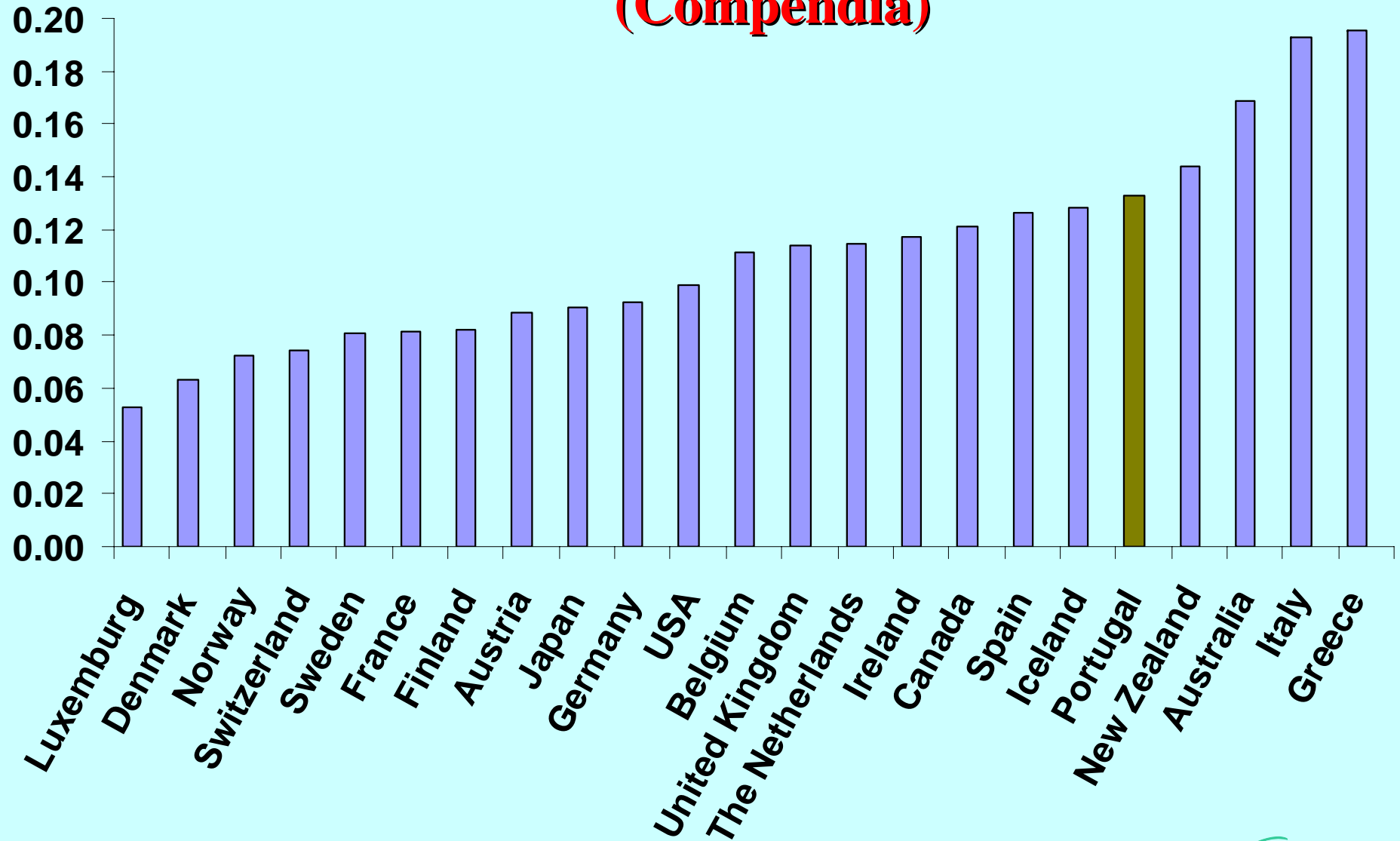
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Erasmus

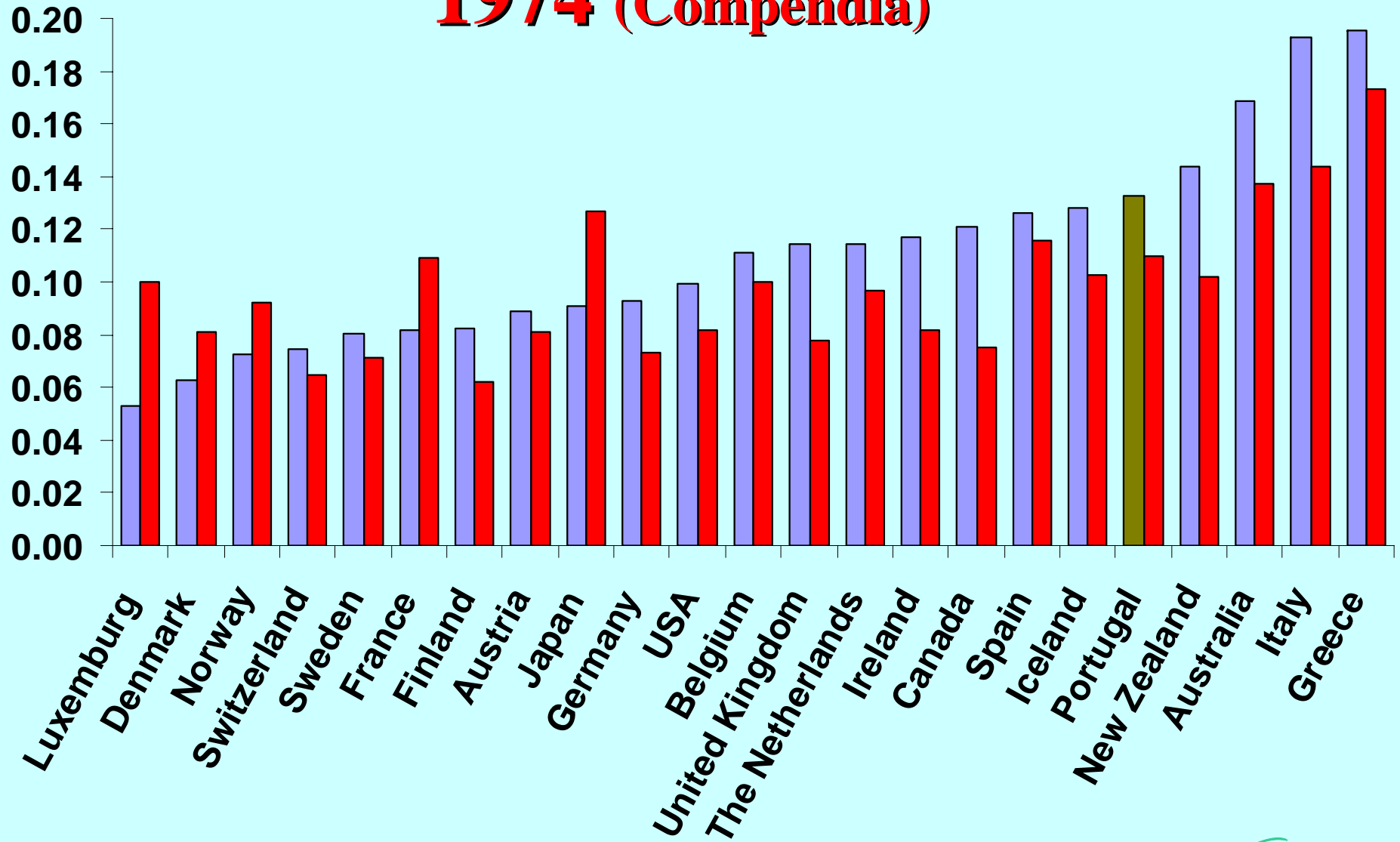
Is there something to explain?

Business ownership rates 2004

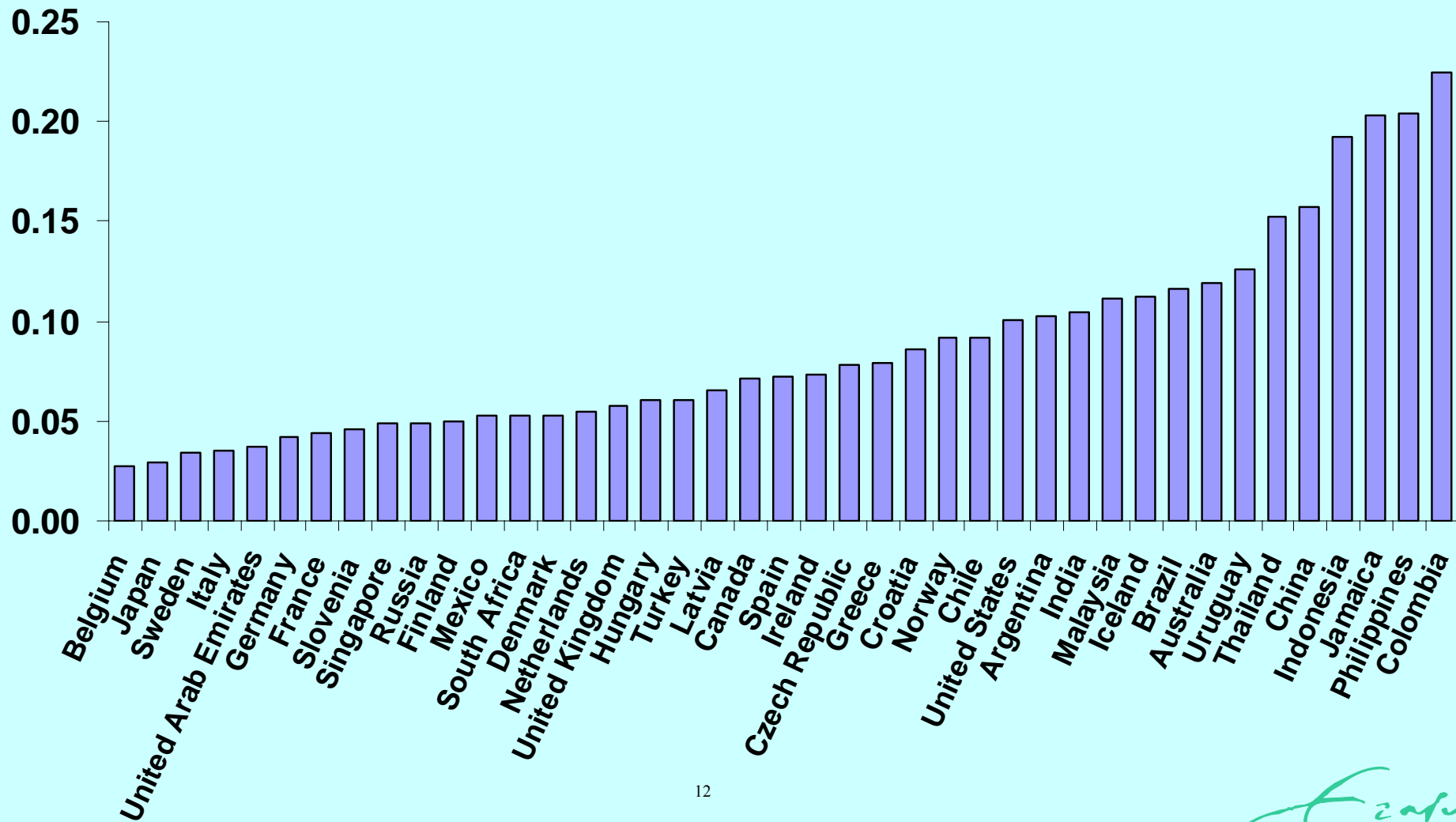
(Compendia)



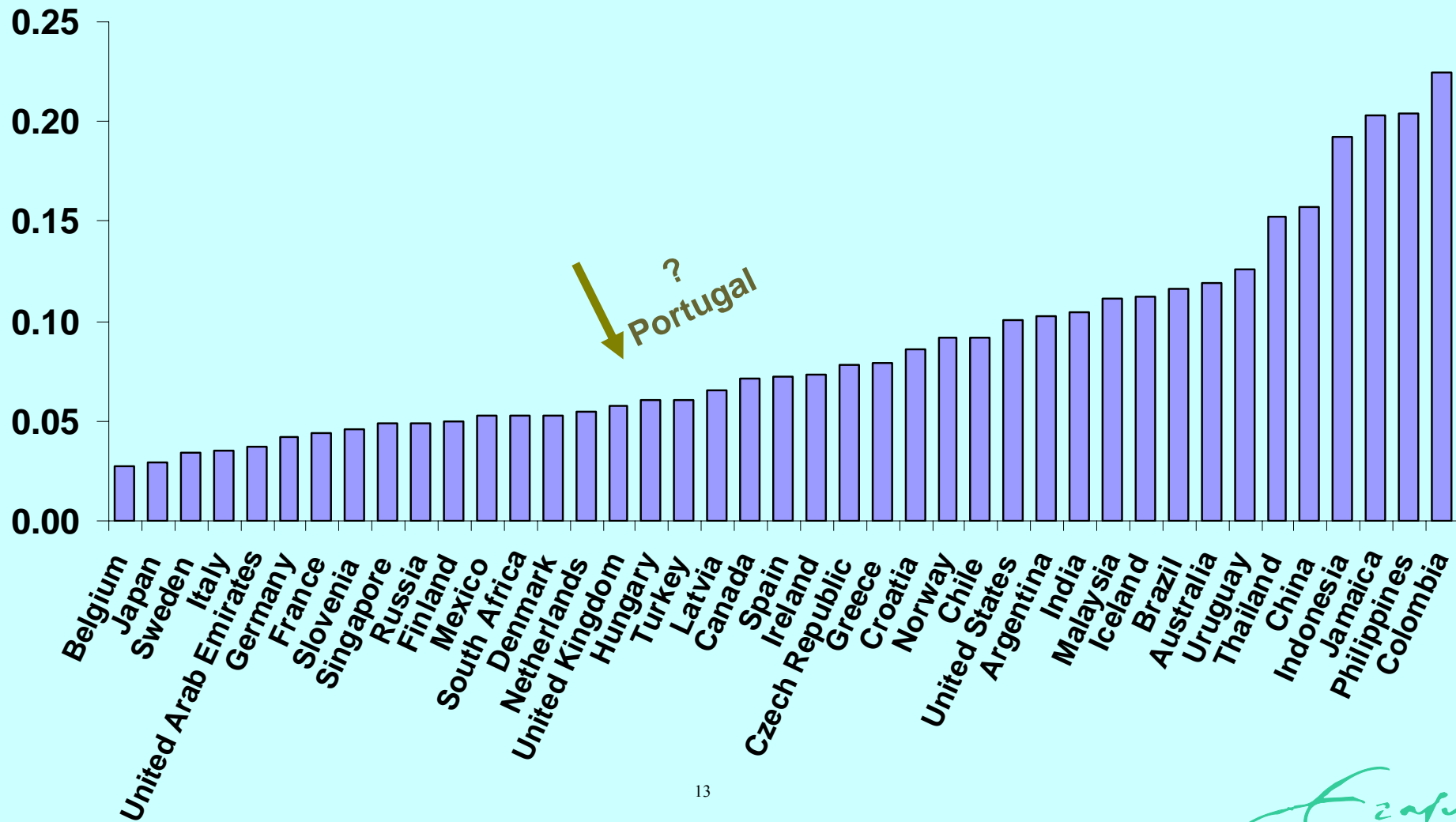
Business ownership rates 2004 and 1974 (Compendia)



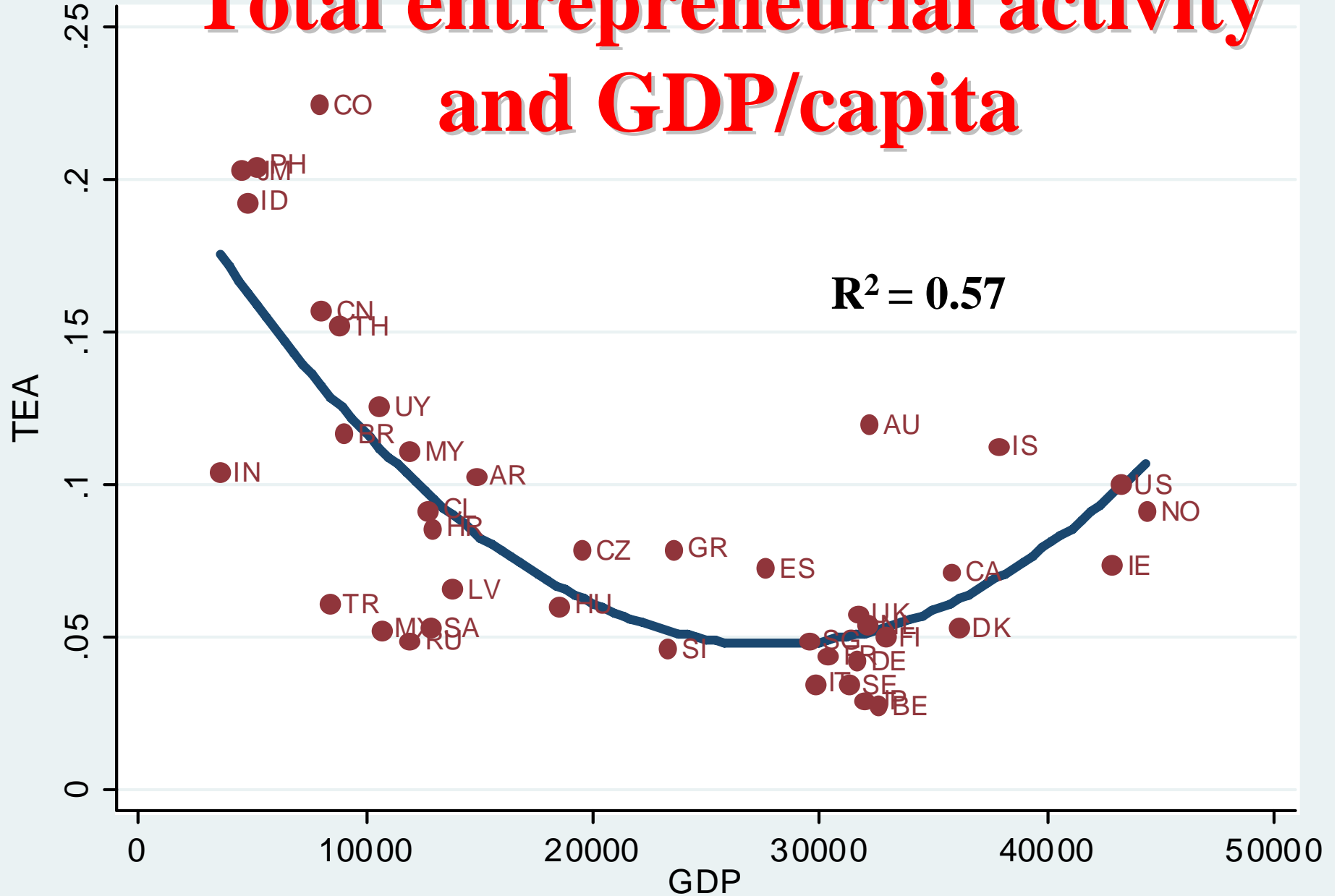
Total entrepreneurial activity 2006 (GEM)



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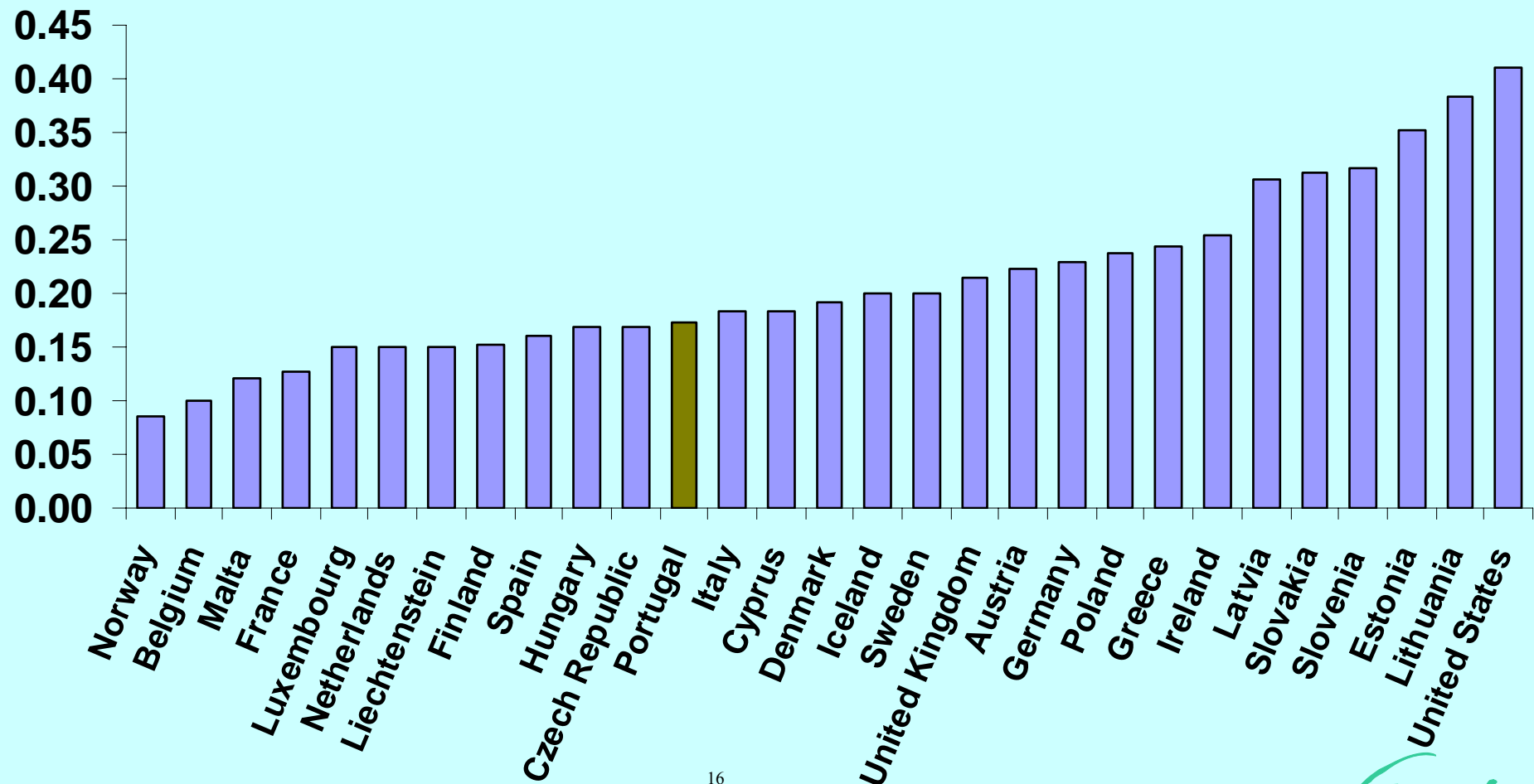
Total entrepreneurial activity and GDP/capita



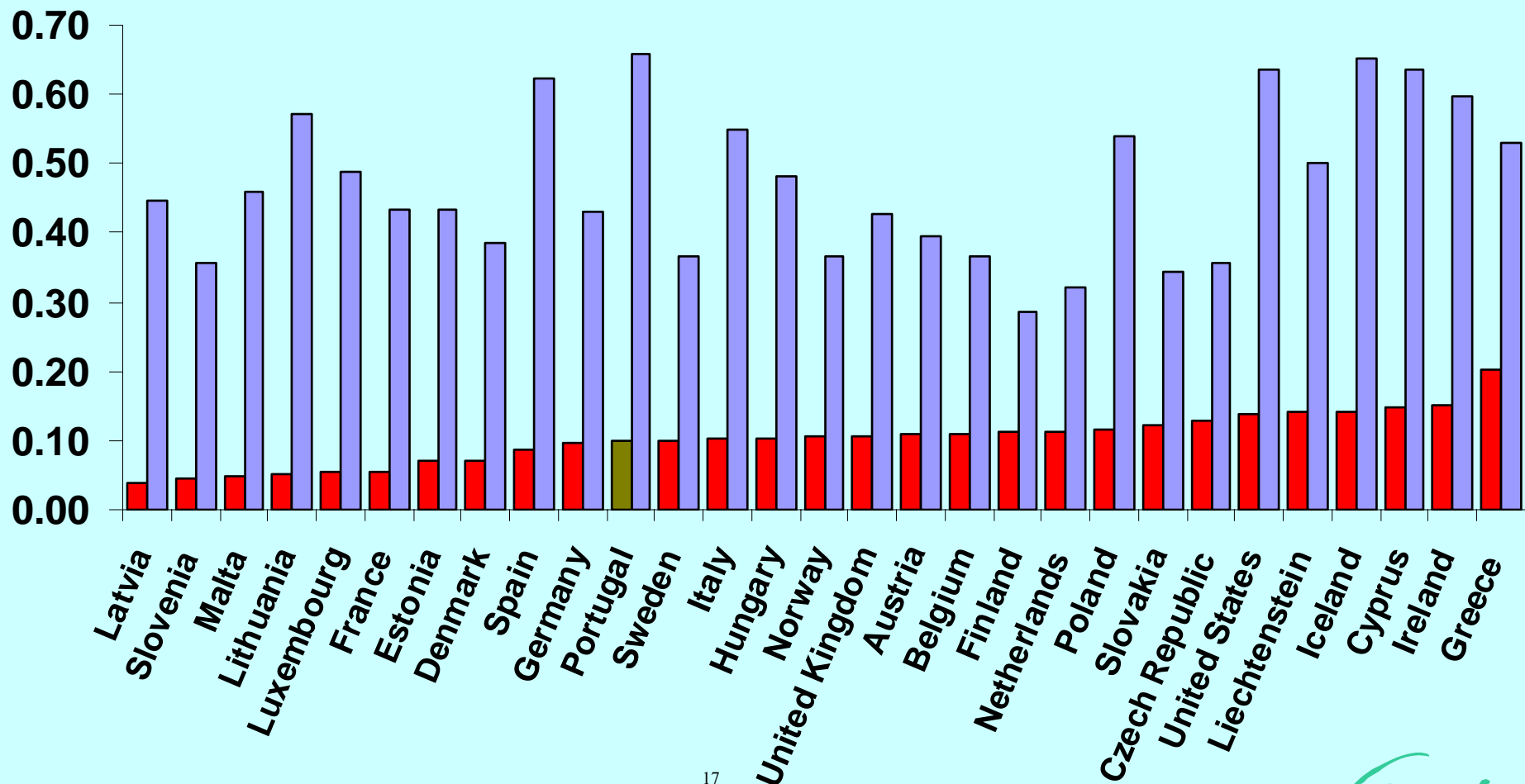
Entrepreneurship and (the level of) economic development

- Two economies
- Dual causality
- Countereffects
- Long lags
- Persistent 'country' effects
- Measurement issues
- Equilibrium relation?

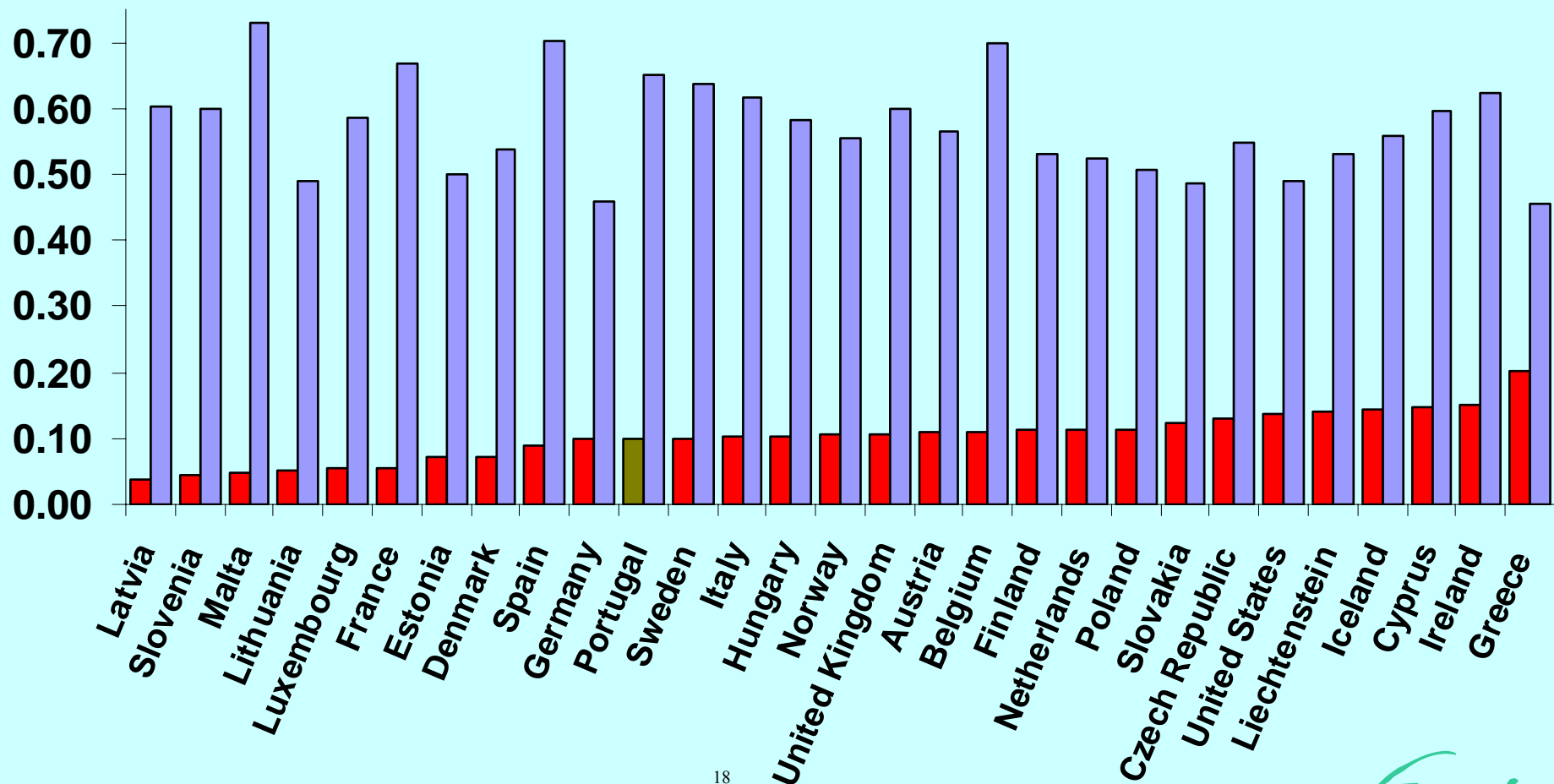
Total entrepreneurial activity 2004 (Eurobarometer)



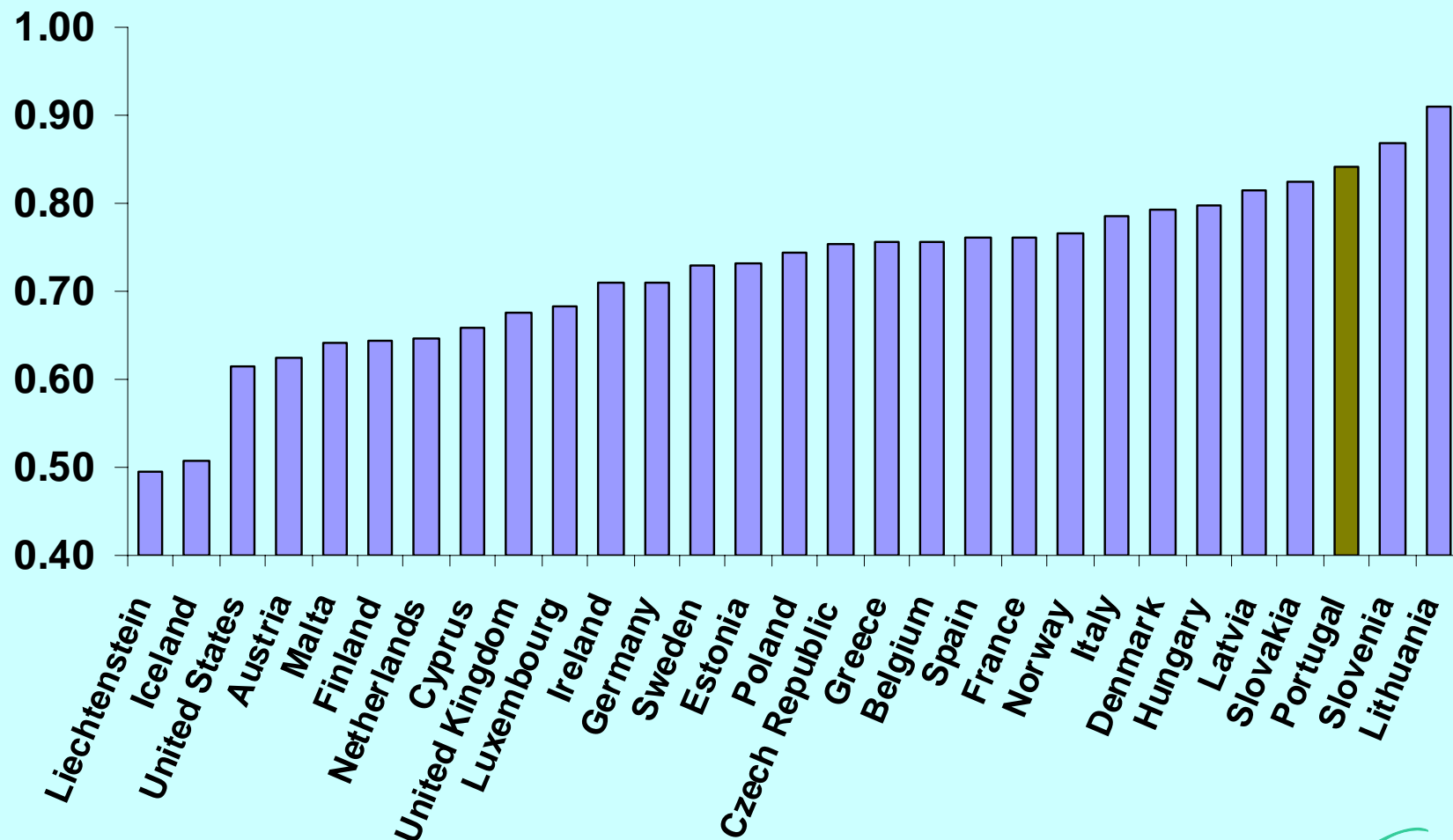
Actual and latent entrepreneurship 2004 (Eurobarometer)



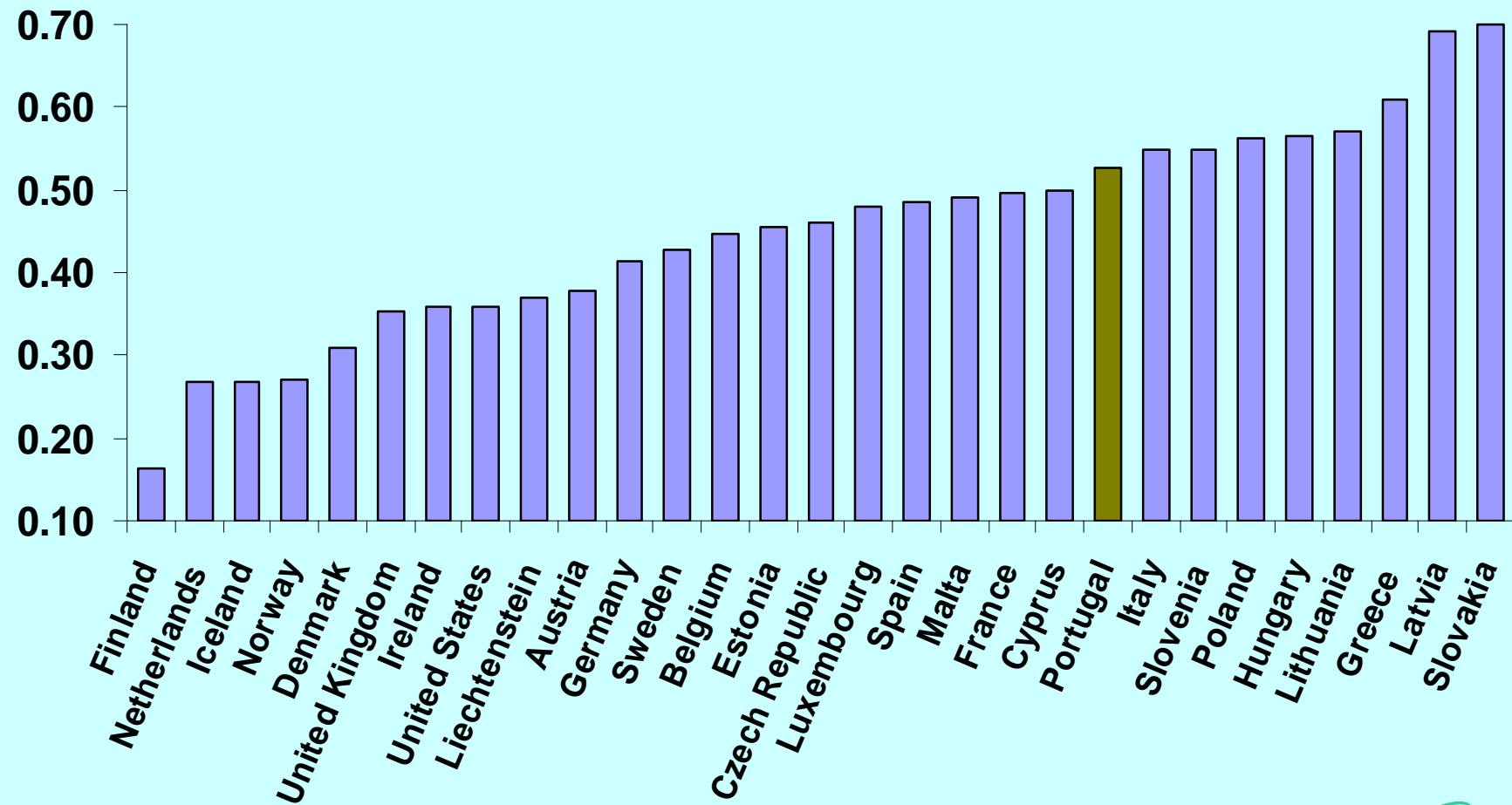
Actual and never considered (Eurobarometer)



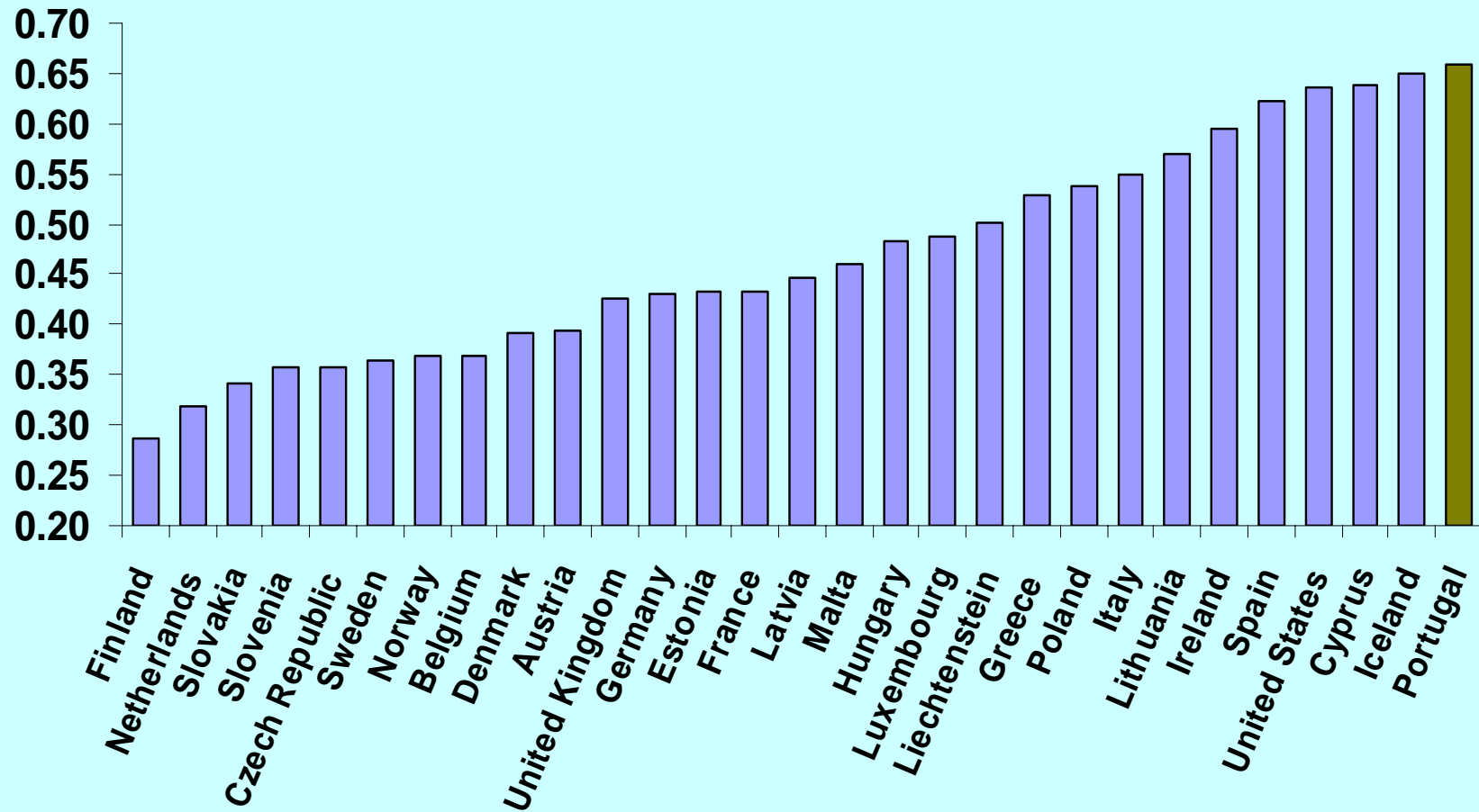
Perception of administrative complexities (Eurobarometer)



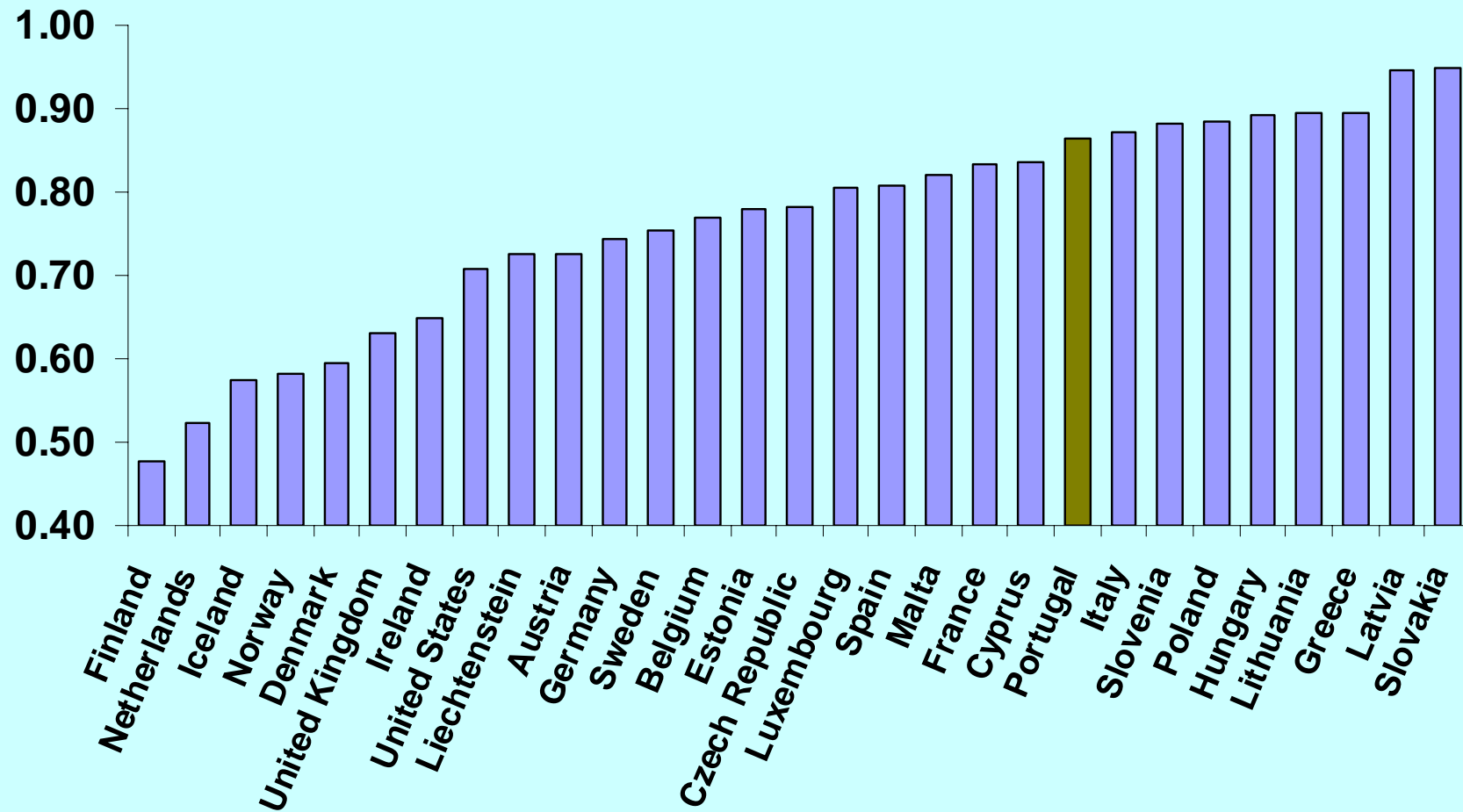
Risk tolerance (Eurobarometer)



Perception of lack of sufficient information (Eurobarometer)



Perception of lack of financial support (Eurobarometer)



An example using Eurobarometer 2004

- Aim
 - Disentangle the role of demographic and perception variables and of country specific effects given that the entrepreneurial decision is a process of successive engagement levels
- Explaining the entrepreneurial ladder
 - 5 engagement levels
 - 12,000 observations
 - 26 countries
 - 12 exogenous variables

Research program

- Multilevel
- Actual versus latent
- Seven engagement levels
- Topics
 - Two basic models
 - Developments over time
 - Eastern versus Western Europe versus US
 - Women
 - Dropouts
 - Necessity versus opportunity
 - Method and statistics

Entrepreneurship is a process

- entrepreneurial ladder
 - steps: conception; gestation; infancy; adolescence; maturity; decline
 - one can jump or fall off
 - most don't climb
 - climbing entails risks
 - the higher the more visible
 - one can climb down or climb again
 - the ladder industry is heavily regulated

Determinants of entrepreneurship

- three giants (Schumpeter, Kirzner, Knight)
- economic theory (income choice)
- empirical literature
- our set-up

Theory of income choice

- Ability - entrepreneurial efficiency
 - Jovanovic, 1982 and 1994; Lucas, 1978; Murphy, Shleifer and Vishny, 1991; Holmes and Schmitz, 1990 and Lazear, 2004
- Risk - risk attitudes
 - Kihlstrom and Laffont, 1979 and Parker, 1996 and 1997
- Liquidity constraints - polymorphe
 - Lucas, 1978; Jovanovic, 1982; Evans and Jovanovic, 1989 and Hurst and Lusardi, 2004
- Eclectic add-ons
 - Bates, 1990; Blanchflower, 2004; Blanchflower and Meyer, 1994; Blanchflower and Oswald, 1998; Blau, 1987; Douglas and Shepherd, 2002; Evans and Leighton, 1989 and 1990; Grilo and Irigoyen, 2006; Grilo and Thurik, 2005; Lin, Picot and Compton, 2000; Rees and Shah, 1986; Reynolds, 1997; Wagner, 2003 and Wit and van Winden, 1989

Empirical literature

- gender, age, educational attainment
- financial situation
- employment status
- experience
- minority, immigrant behavior
- family firm effects
- attitudes
- perceptions

Empirical literature

- gender, age, educational attainment
- financial situation
- employment status
- experience
- minority, immigrant behavior
- family firm effects
- attitudes (preference; risk tolerance; locus of control)
- perceptions (adm. complexity; financial constraints; insufficient info, ec. climate)

The seven entrepreneurial engagement levels

Have you started a business recently or are you taking steps to start one?

“It never came to your mind”

“No, you thought of it or had already taken steps to start a business but gave up”

“No, but you are thinking about it”

“Yes, you are currently taking steps to start a new business”

“Yes, you have started or taken over a business in the last 3 years and still active”

“Yes, you started or took over a business more than 3 years ago and still active”

“No, you once started a business, but currently you are no longer an entrepreneur”

The five entrepreneurial engagement levels

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Ordered logit model

- $y_i^* = X_i' \beta + \varepsilon_i$
- y_i^* : unobserved propensity to become entrepreneur
- ε_i : uncorrelated, logistic distribution, zero mean and variance $\pi^2/3$
- X_i : vector of covariates,
- Same β across observations i and engagement levels

Model evaluation

- Heteroskedastic disturbance terms: variance of ε_i
- Parallel regression assumption (PRA)
- Violation: impacts of variables change with increasing level of engagement
- Heteroskedasticity \longleftrightarrow PRA

Results (height of the steps)

- Thinking → taking steps: ‘difficult’
- Taking steps → young business: ‘easy’

Implication: support for the TEA concept (GEM)

Results (impact of covariates on engagement ladder)

- Gender (men): ‘helps’ move up
- Education: ‘helps’ move up
- Self-employed parents: ‘helps’ move up
- Risk tolerance: ‘helps’ move up
- Preference for SE: ‘helps’ move up (strong)
- Age: ‘helps’ move up *iff* ‘young enough’
- Locus of control: no effect
- Perception financial support: no effect
- Perception administrative burden: ‘hinders’ move up
- Portugal (Belgium, France, Spain): ‘hinders’ move up

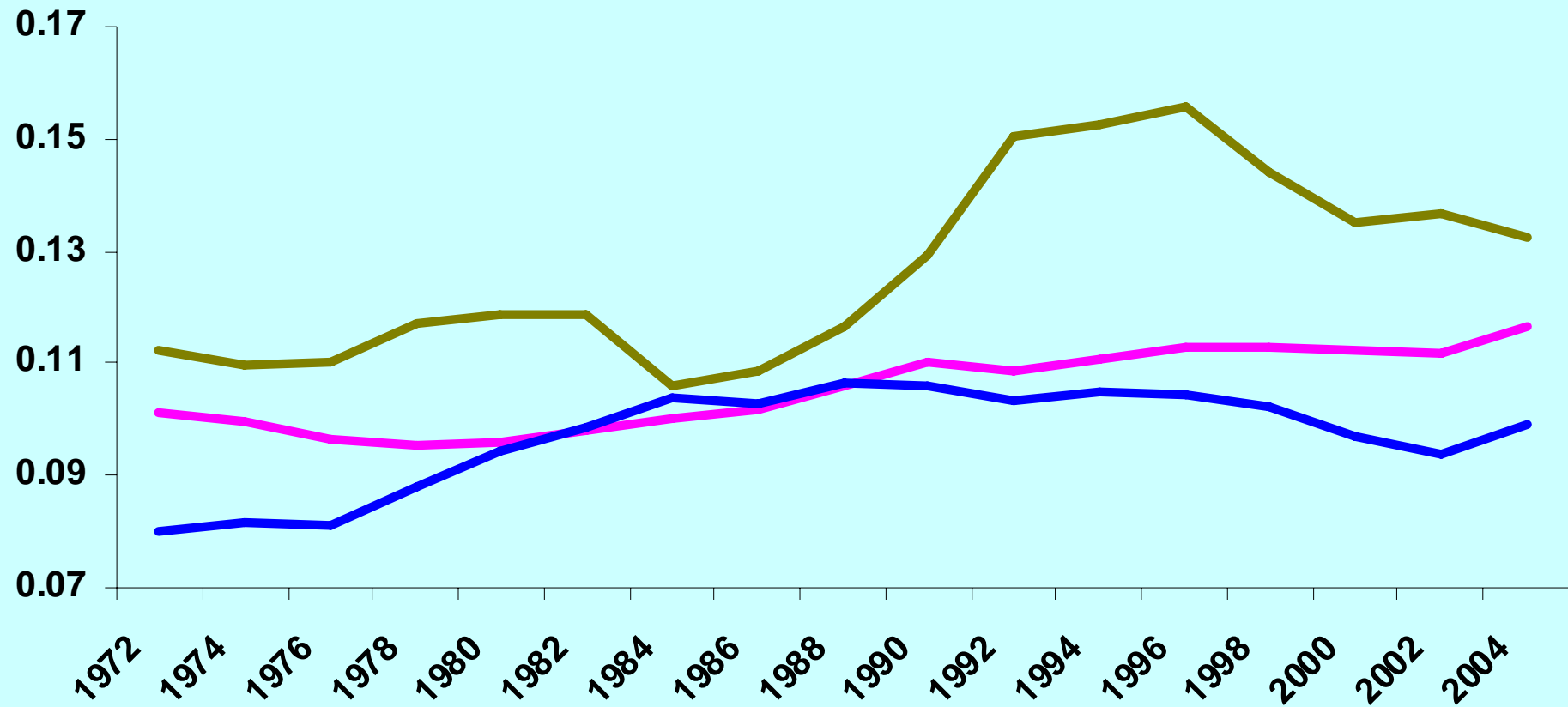
Selected policy messages

- Results on age + aging society: urgency !!
- Administrative complexities: cut red tape and let them climb !!

Credits

- Audretsch, D.B. and A.R. Thurik (2004), A model of the entrepreneurial economy, *International Journal of Entrepreneurship Education*, 2(2): 143-166.
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- Freytag, A. and A.R. Thurik (2007), Entrepreneurship and its determinants in a cross-country setting, *Journal of Evolutionary Economics*, 17(2): 117-131.
- Audretsch, D.B., Carree, M.A., A.J. van Stel and A.R. Thurik (2007), Does self-employment reduce unemployment, *Journal of Business Venturing*, forthcoming.
- Grilo, I. and A.R. Thurik (2005), Latent and actual entrepreneurship in Europe and the US: some recent developments, *International Entrepreneurship and Management Journal*, 1(4): 441-459.
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- Stel, A. van, D. Storey and A.R. Thurik (2007), The effect of business regulations on nascent to young business entrepreneurship, *Small Business Economics*, 28(2-3): 171-186.
- Carree, M.A. and A.R. Thurik (2007), The lag structure of the impact of business ownership on economic growth in OECD countries, *Small Business Economics*, forthcoming.

Business ownership rates in P, EU-15 and USA



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