

# ALGORITHM TO IDENTIFY BUSINESS ANGELS USING A FIRM SURVEY AND A LARGE SCALE FIRM DATA BASE FOR GERMANY

**Marius Berger**

Department Economics of Innovation and Industrial Dynamics  
ZEW – Leibniz Centre for European Economic Research, Mannheim

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**ZEW**

## DATA BASE

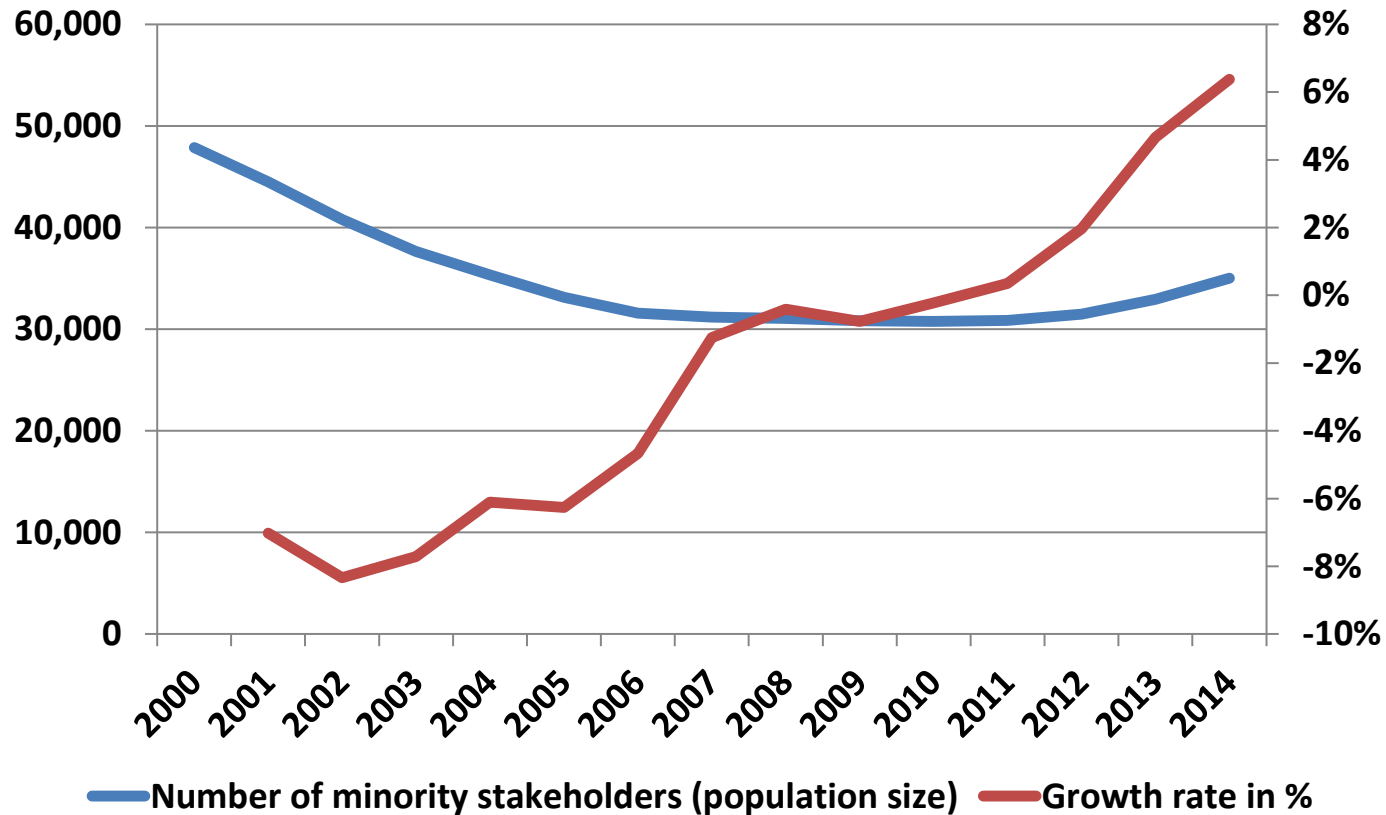
- ❖ ***IAB/ZEW Start-up Panel (until 2016: KfW/ZEW Start-up Panel ):***  
**Firm survey of young firms (up to seven years old)**
  - Telephone-interviews of 5,000-6,000 firms in each year
  - Focus on Hightech-Start-ups
  
- ❖ **Mannheim Enterprise Panel (MUP) (in co-operation with the credit-rating agency *Creditreform*):**  
**Firm data of Germany's firm population**
  - 3,000,000 active firms
  - 5,500,000 closed firms
  - Longitudinal data of owner structure since 1999

# IDENTIFICATION OF PRIVATE INVESTORS IN THE MUP

Identification of investors of young corporate firms (up to ten years old) in the large scale firm data base MUP

- Equity investments of persons who are not involved in the management
  - Equity share  $\leq 25\%$  (minority stakeholders)
  - Excluding persons who are directly related to the firm's owners (spouses, children, parents)
  - Further family members and friends cannot be excluded (these persons cannot be considered as professional investors)
- result: a broad group of investors, which includes passive occasionally investors, professional passive investors and Business Angels

# POPULATION OF PRIVATE INVESTORS IN THE MUP



Source: Mannheim Enterprise Panel (MUP), ZEW

70% of the investments are realized in the year of foundation

# IDENTIFICATION OF PROFESSIONAL PRIVATE INVESTORS

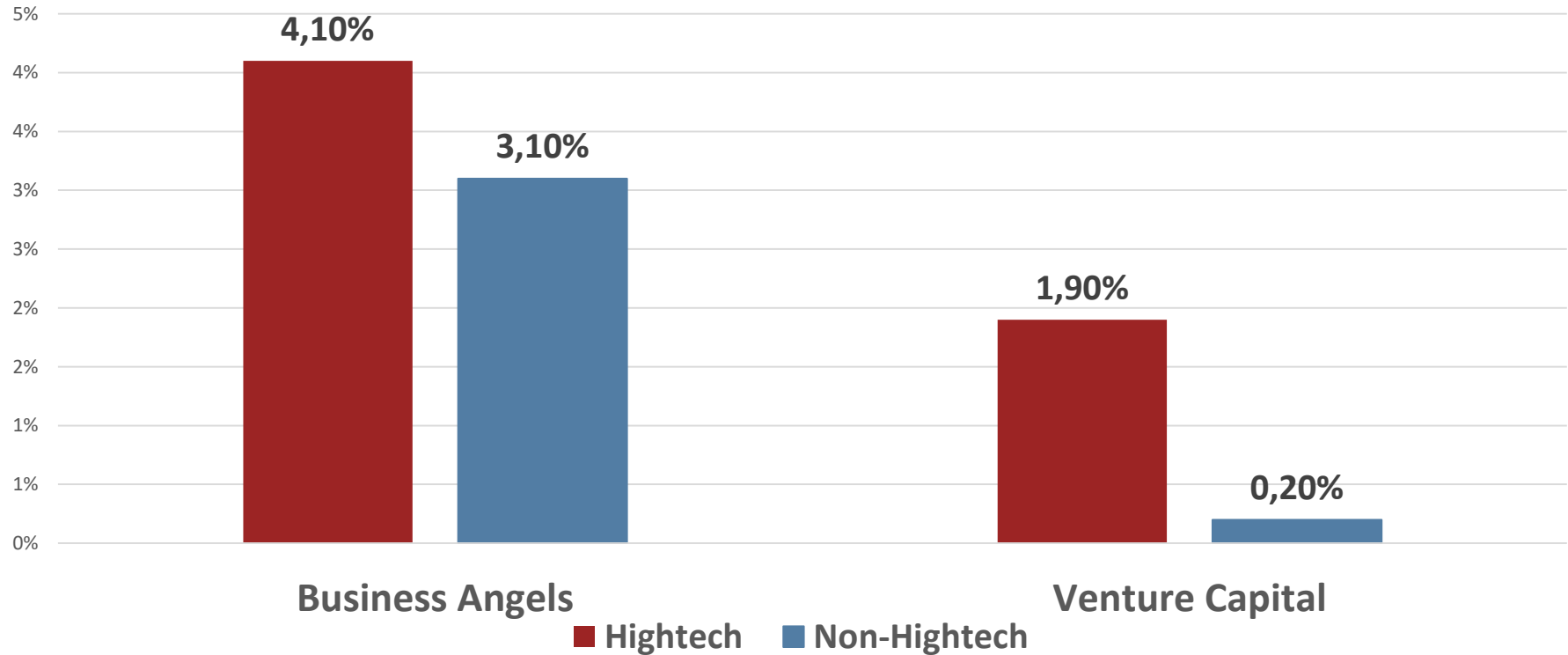
Survey 2013 of the Mannheim Start-up Panel

Identification due to investments:

- *Investments in the start-up by a private investor (loans or equity capital) (but not Venture Capital Companies)*  
→ Identification of investors
- Identification due to the type of investment:  
*Active investors, who are equity shareholders, and hence sharing in losses and in profits*  
→ Identification of **Business Angels**

# START-UPS RECEIVING INVESTMENTS FROM PRIVATE INVESTORS AND VC-COMPANIES: SHARE OF POPULATION SIZE

Foundation years 2009-2012



# ESTIMATION OF THE NUMBERS OF BUSINESS ANGELS

## Estimation procedure for the foundation cohorts 2009-2012:

- Estimation of the number of start-ups financed by Business Angels:  
KfW/ZEW Start-up Panel (see above)
- Estimation of the number of investments:  
KfW/ZEW Start-up Panel
- Analysis of the owner structure of interviewed firms with Business Angel investments:  
Mannheim Enterprise Panel
- Identification of further equity investments of the identified Business Angels within the foundation cohort of 2009-2012: → 2,5 pro BA:  
Mannheim Enterprise Panel
- Assumptions regarding BA investments which are not visible in the MUP:
  - Lower Margin: identified BAs also engage in form of invisible investments
  - Upper Margin: identified BAs only engage in form of visible investmentsown calculations

# RESULTANT NUMBER OF BUSINESS ANGELS

**Results weighted by population weights:**

In 2013, were engaged in the firms of the foundation cohorts 2009-2012:

- **Business Angels (equity capital): between 6,300 und 9.100**
- **(Equity-)Investors altogether (acc. to MUP, see above): 14,000**



# OUTLOOK

What comes next?

- **upcoming 2019 Start-up Panel contains questionblock on Business Angels**
- **investigate recent dynamics in the German Business Angel market**
- **... impact of policy measures (INVEST)**