

#### Research project on Stockholding in Europe

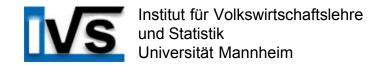
## "Stockholding in Germany"

### Axel Börsch-Supan

(University of Mannheim, ZEW, CEPR, NBER)

### **Lothar Essig**

(University of Mannheim)



## **Outline**

#### Macroeconomic trends

- Main developments in - government policy

- capital markets

### • Microeconomic picture

- Data sources and their quality
- Stock market participation trends
- Who are the stockholders?
- The wealth-portfolio and the age-portfolio profiles
- Future work

## **Macroeconomic Trends**

- Recession, slow stabilization after unification boom
- Change in government with unstable 1st year
- Privatization of state-owned firms: Deutsche Telekom and Deutsche Post
- Small reform of the social security system and diminished expectations of pension benefits
- Stock market run up (DAX, NEMAX)
- Mutual funds still small, few private pensions,
   reserve accounts -> insurance products
- Mergers between insurance companies and banks 3

## Data for Microeconomic Analysis

- German Income and Expenditure Survey
- Run every 5 years by German Statistical Office
- Very large quota sample; West; 1993/1998
- Financial assets are reported in DM
- Not always consistent across waves
- Quality differences between 1993 and 1998
- E.g.: ambiguous definitions



# **Stock Market Participation**

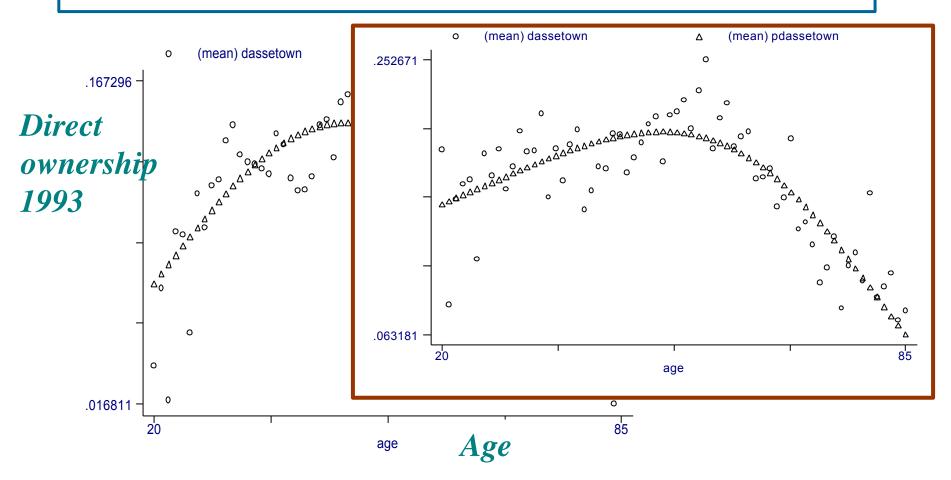
- Direct stockholding: **12.0** % (1993) vs. **17.6** % (1998)
- Indirect stockholding: 10.3 % (1993), unknown in 1998
- Total stockownership: **19.8** % (1993) [[<<49.4% in 1998]]

#### Hence:

- Participation has increased, but still only a minority invests in stocks.
- Reasons: Not really clear. Risk aversion (experience of 20s and 30s)? Low returns until 1980s? Probably NOT high entry and/or management costs.



# Age Profile of Stockownership





# Age and Stockownership

#### Hence:

- Profile of participation is hump-shaped
- It peaks around age 47 in 1993, and around age 51 in 1998 (cohort effect?)
- At peak:
  - direct stockholding = 14.8% (3 pp. above avg.)
  - total stockholding = 23.2% (3 pp. above avg.)



# Wealth and Stockownership

## Table 6 Proportion of Households Investing in Stocks, by Financial Asset Quartiles

1	99	3
	$\mathbf{v}$	v

	Quartile I	Quartile II	Quartile III	Quartile IV	Top 5%	Top 1%	Average
Direct stockholding	3,13%	9,40%	13,73%	28,14%	40,44%	49,20%	12,00%
Indirect stockholding	3,12%	8,09%	13,25%	21,89%	29,53%	28,50%	10,32%
Direct plus indirect stockholding	5,99%	16,30%	24,80%	41,57%	54,10%	60,50%	19,77%

#### 1998

	1000						
	Quartile I	Quartile II	Quartile III	Quartile IV	Top 5%	Top 1%	Average
Direct stockholding	3,50%	13,30%	23,40%	41,90%	58,20%	76,70%	17,57%



## Wealth and Stockownership

#### Hence:

- Below median wealth households also invest in stocks, but to a much lower extent
- Distribution more "even" than e.g. Italy
- Participation increases very strongly with wealth: In the IV quartile of wealth participation is 28%
- Even higher in top 5 and 1% of the wealth distribution (40 and 50%)



# Education and Stockownership

# Table 5 Direct and Indirect Stockholding by Education

	Less than	High School	College	Average
	High School			
Direct stockholding	9,78%	12,76%	20,45%	12,00%
Indirect Stockholding	8,44%	12,44%	16,59%	10,32%
Direct plus indirect stockholding	16,60%	21,81%	31,33%	19,77%
Sample Proportion	71,31%	11,26%	17,60%	

#### 1998

	No College	College	Average
Direct stockholding	14,73%	28,08%	17,57%
Sample Proportion	78,77%	21,23%	



### Who Holds Stock?

#### • Main traits:

 Individuals in their middle age, with high financial wealth and high income (also high education but probably small *direct* effect)

#### • Other features:

Less likely if married (-2%), more if male (+2%),
less if two income recipients (-1.5%??), less if
self-employed (-4%), more if college (+1%)



## **Future Work**

- Complete analysis of portfolio
  - Asset shares
  - Regression analysis

- Own new data collection effort
  - Pretest June 2001
  - Main wave???

- Inquire into the reasons for portfolio change
  - Privatization
  - Transparency and structure of corporate governance
  - Capital market reforms
  - Financial education
  - Social security reform
  - Tax treatment