Investment in Austria: a view from the WIFO Investitionstest

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- **Forecasting and nowcasting investment is notoriously difficult**

- **It is crucial to have timely and reliable indicators of investment activity**

- **The WIFO Investitionstest (investment survey) is a tool that provides timely and reliable indicators for Austria**

A brief history

- **The WIFO Investitionstest in manufacturing industries has been conducted biannually (spring and autumn) since 1964.**

- **Role Model: IFO Investitionstest (since 1955).**

- **It was introduced because information about the quantitative development of investment in manufacturing was missing.**

- **Needed for diagnosing and forecasting the Austrian economy.**

- **From the beginning the focus was on expectations and realizations.**

- **Since 1996 part of the "Joint Harmonised EU Programme of Business and Consumer Surveys" (DG ECFIN).**
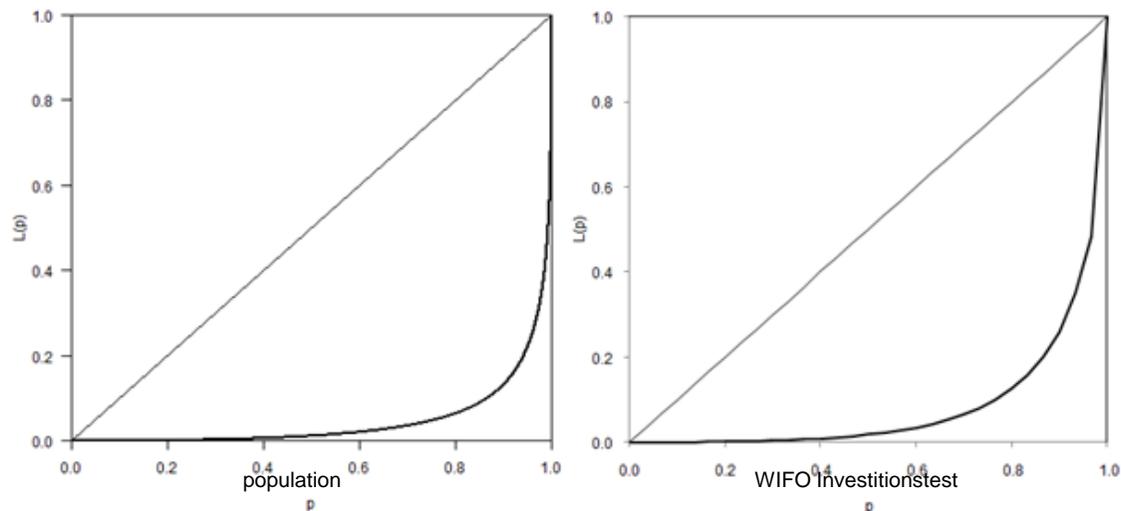
The survey is biannually

- **Autumn:**
    - **Expectations (forecast & nowcast)**
    - **Investment structure (motives)**
    - **Factors influencing investment**
- **Spring**
    - **Realizations**
    - **Expectation (nowcast)**

Structure		
forecast	Autumn	year t+1
nowcast	Spring	year t
nowcast	Autumn	year t
backcast	Spring	year t-1
backcast	Spring	year t-2

- **The survey provides information on changes in plans and about realizations, that are helpful for diagnosing and forecasting business investment.**

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- **Gross sample (panel): 660 firms, response rate ~48%**
- **Net sample covers approx. 18% of employment in manufacturing**

- **The quantitative nature of the survey puts burden on respondents.**
- **Policy at WIFO not to include firms that compile also the monthly WIFO Konjunkturtest, except if firms wish.**
- **Focus on larger firms.**

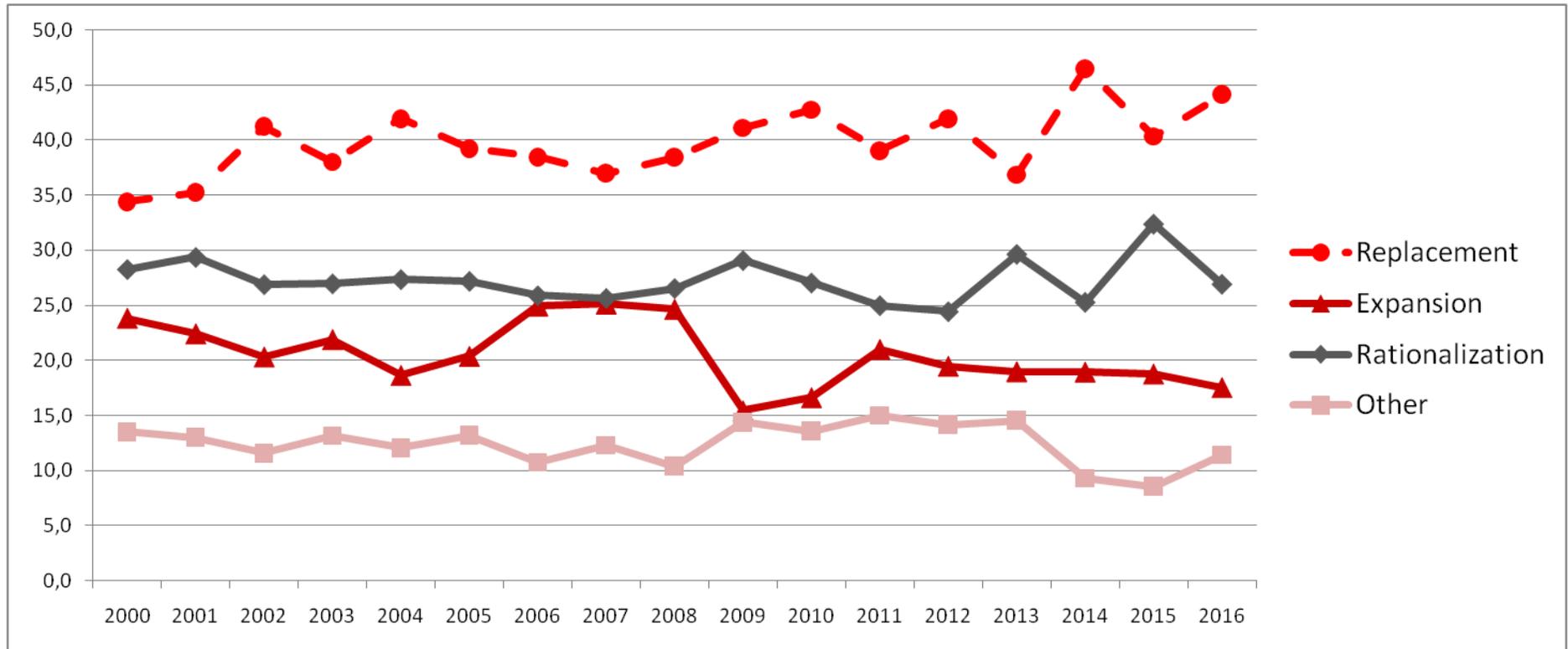**Distribution of investment in manufacturing and construction, 2009**

Source: Brunner und Schwarz (2012)

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Some impressions

Investment dynamics

Gross investment in manufacturing

growth rate of investment, real
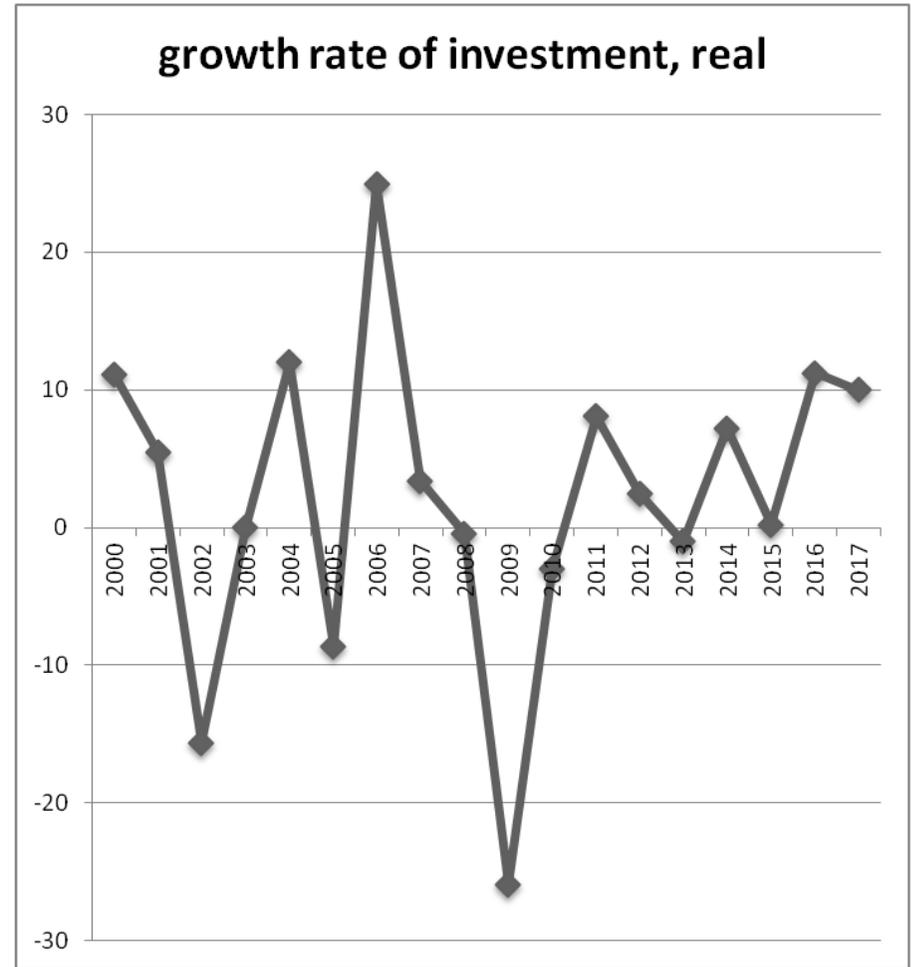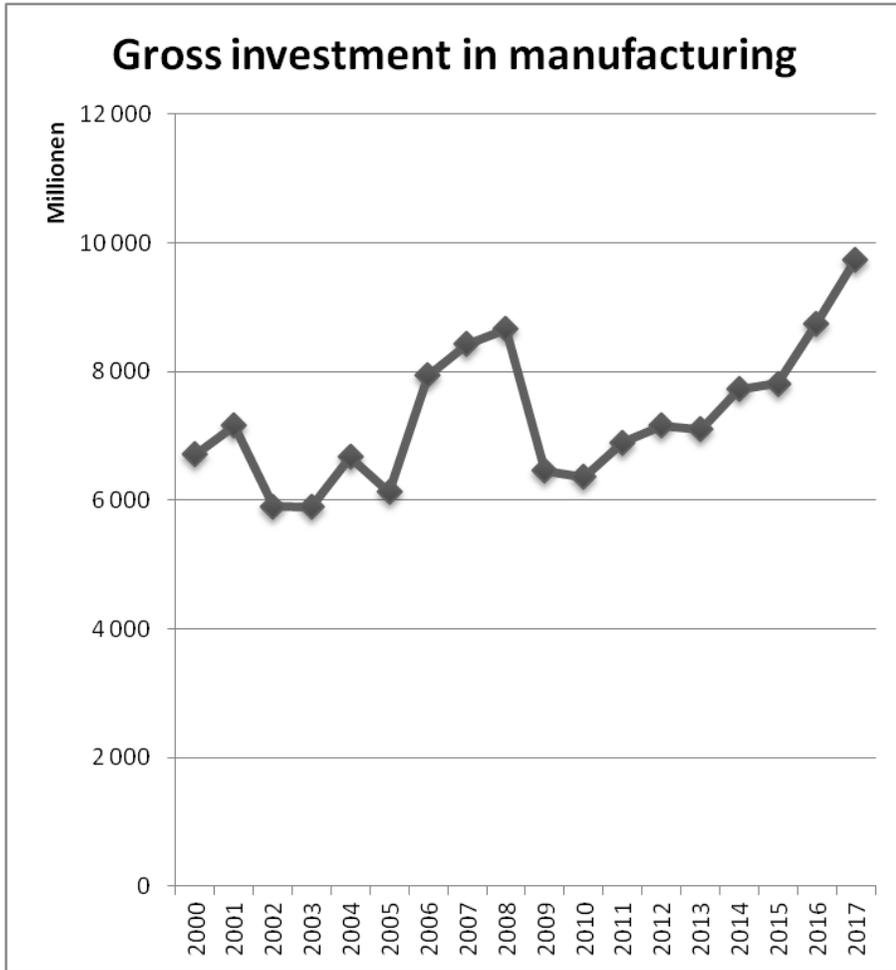
Source: WIFO Investitionstest

Investment motives current year

Multiple answers possible, rescaled so that total is 100 in each year.

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Factors influencing investment (Balances)
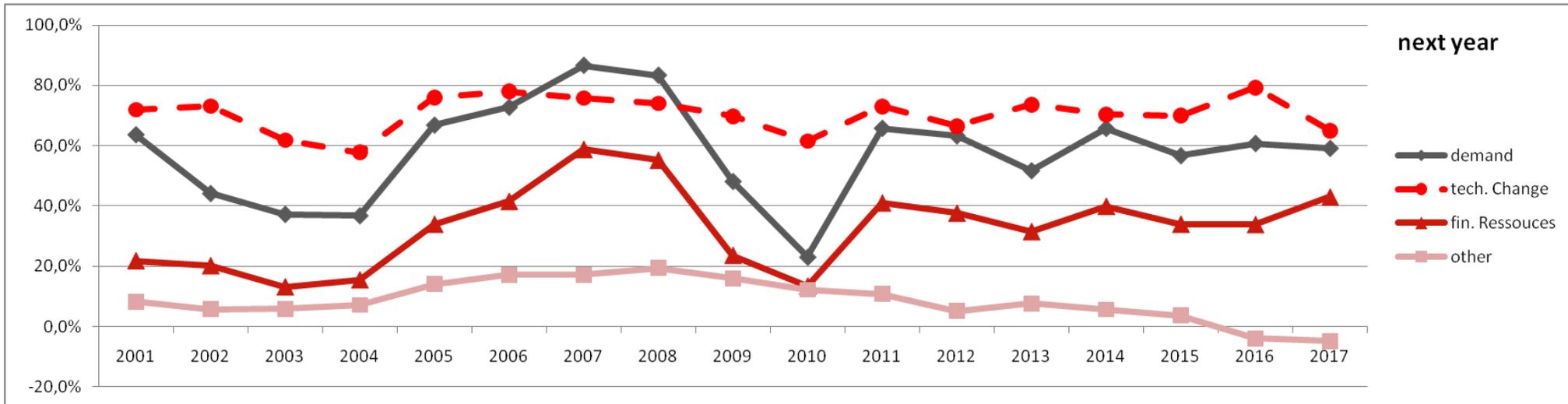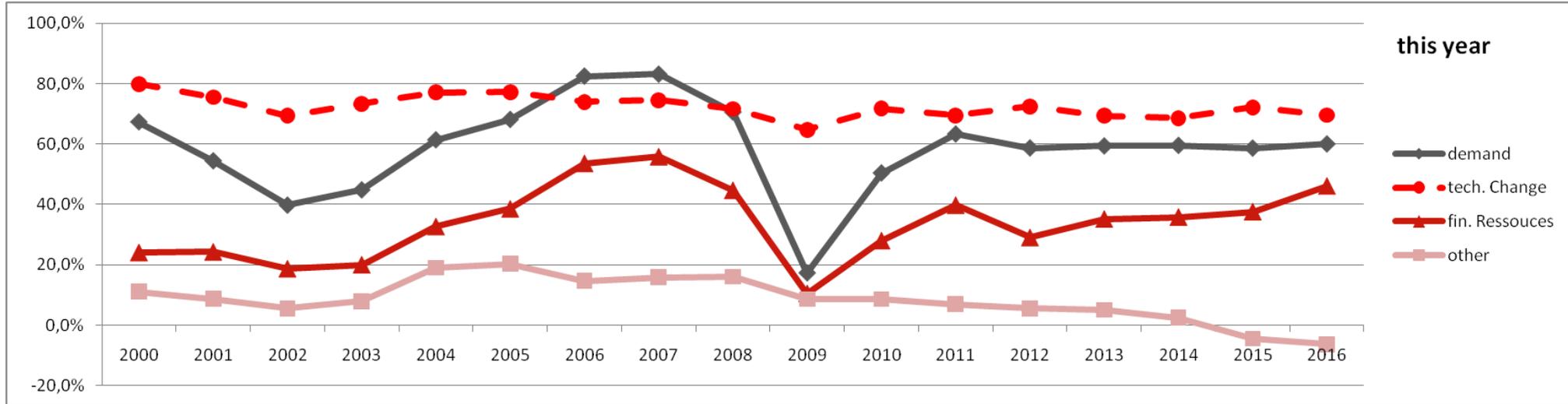
But what about tracking, reliability and consistency?

Correlation between BCS forecast and ex-post realisations

■ **Numbers provide timely (directional) indications about changes in investment**

	Autumn 1	Spring 1	Autumn 2
	"nowcasts" t		"forecast" t-1
Austria	**0.76**	**0.68**	**0.49**
Belgium	0.45	0.48	0.35
Germany	0.80	0.71	**0.52**
Greece	0.11	0.60	0.41
Spain	0.05	0.10	-0.01
Finland	0.62	0.66	0.32
France	**0.87**	**0.85**	0.39
Italy	0.54	0.79	0.61
Luxembourg	0.55	0.47	0.35
Netherlands	0.31	0.47	0.03
Portugal	0.77	0.57	0.49
Denmark	0.49	0.31	0.04
Sweden	0.76	0.62	0.42
UK	0.70	0.77	0.21
Average	0.55	0.58	0.33

Source: DG ECFIN, European Business Cycle Indicators, 2014/4

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- **According to further evaluations the forecast accurarcy and quality of the Austrian investment survey seems to be better than the European average.**

- **Econometric analysis confirm that at the European level changes in investment plans convey additional information to the economic projections.**

- **However, the values published cannot serve as replacement for published "official" values, even if they provide quantitative information.**

- **Brunner and Schwarz (2012) study the consistency at the firm level.**

- **How are investments expectations/plans revised? And are there stable and predictable changes across investment plans?**

- **The idea is to use the 5th plan as realization at the firm level and study whether there are systematic differences across time and firm size using quantile regression methods (allows to discriminate for investment size).**

forecast	Autumn	year t+1	1st plan
nowcast	Spring	year t	2nd plan
nowcast	Autumn	year t	3rd plan
backcast	Spring	year t-1	4th plan
backcast	Spring	year t-2	5th plan

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Revision coefficients of the 1st investment plan for selected years

1965

1990

2009
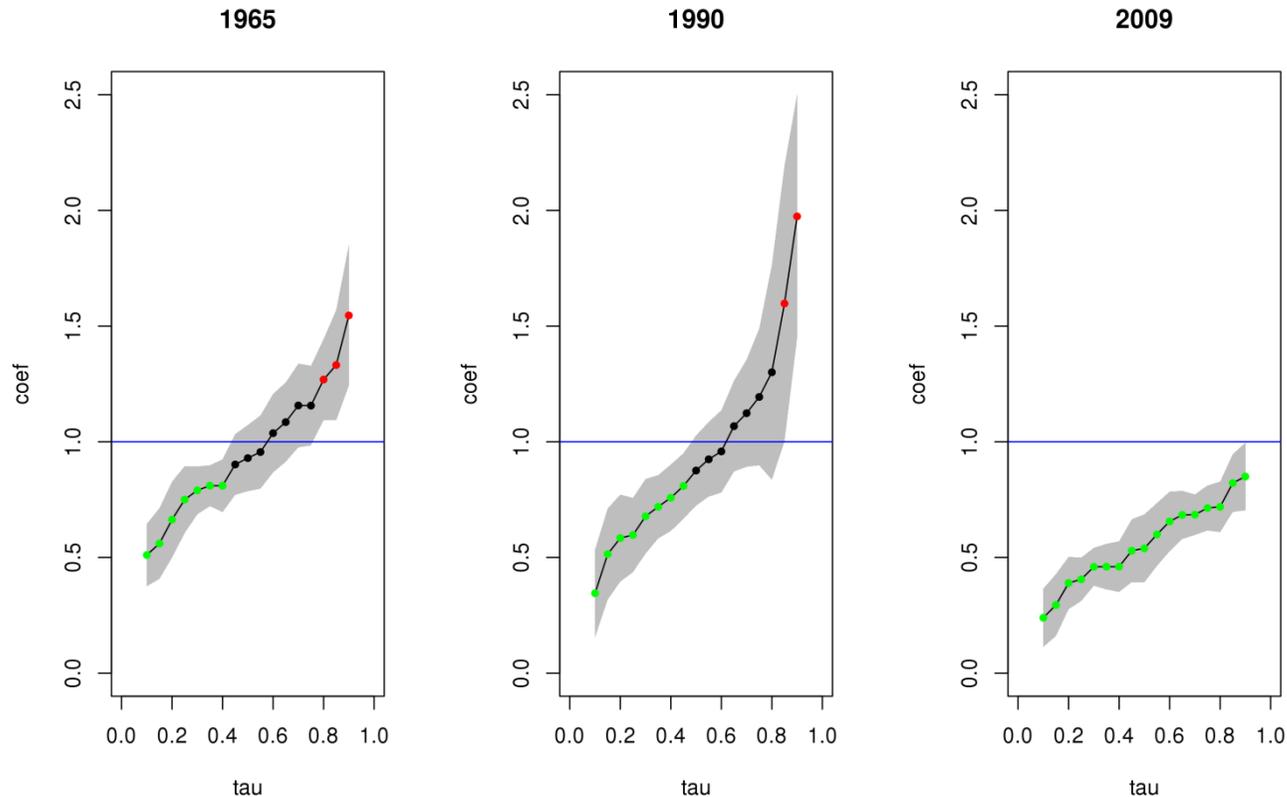
Source: Brunner und Schwarz (2012)

Blue lines mark the ideal revision coefficient of 1 (= no revision), the grey bands depict the 95% confidence intervals, green dots depict revision coefficients significantly lower than 1, black dots display revision coefficients not significantly different from 1, red dots indicate revision coefficients significantly larger than 1. Tau indicates the quantiles.

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Variance of revision coefficients 1965-2009

- **Firms with larger absolute investment (high tau) tend to underestimate their actual investment.**

- **Firms with smaller absolute investment (low tau) tend to overestimate their actual investment.**

- **This pattern of revisions itself fluctuates more or less erratically from year to year (largely following business cycle dynamics)**

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Source: Brunner und Schwarz (2012)

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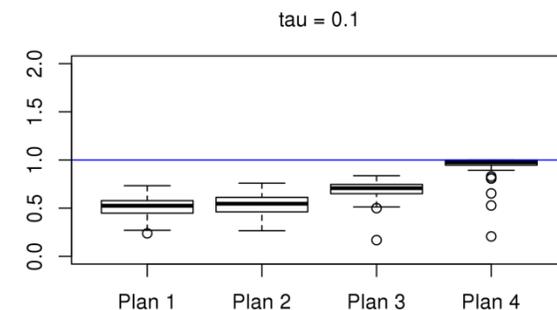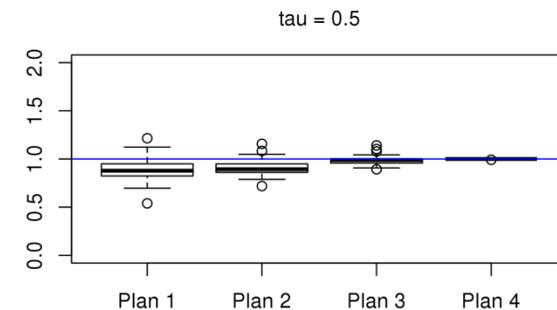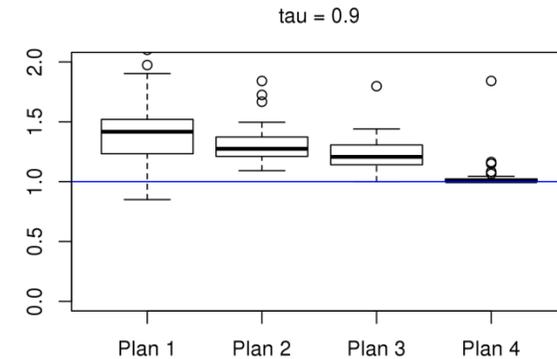
- **The WIFO Investitionstest is an important tool for forecasting and nowcasting investment in Austrian manufacturing.**

- **It provides timely and relevant information about investment dynamics and structure of investment.**

- **Goal for the future to reduce burden for enterprises while retaining quality of information and fulfilling the requirements of the Joint Harmonised EU Programme of Business and Consumer Surveys"**