The PPI for Software Consultancy Services in The Netherlands

Uwe Kirsten

ukrn@cbs.nl

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1. Service being priced (1)

Computer And Related Services
= NACE rev. 1.1 code 72 ≈ ISIC 72

Information Technology Services
= NACE rev. 2 code 62 ≈ ISIC version 4

Software Consultancy Services And Supply
= NACE 72.2 = major part of NACE 72

Other Software Consultancy Services And Supply
= NACE 72.22

Nearly no prepackaged software in The Netherlands
= NACE 72.21

1. Service being priced (2)

CPA 72.22.xx Software Consultancy	
11	Systems and technical consulting services
12	Custom software development services
13	Systems analysis and programming services
14	Systems maintenance services
15	Other professional computer-related services

2. Pricing unit of measure

- ► Price mechanism is mostly hours

- ► Industry invoices mostly hours

- ► Few projects based on success

- ► Few success-related projects are based on a mark-up

- ► Pricing unit of measure is hours

3. Market conditions and constraints (1)

Market size

In 2004:

- ► Industry turnover: €11 billion
- ► About 30,000 companies
- ► About 120,000 employees
- ► 22 big companies of more than 500 employees
- ► Market share of big companies: ca. 45%

In 2007?: market has likely increased

3. Market conditions and constraints (2)

Market developments

► Many mergers and takeovers between 2005 and 2007: Big companies reduced from 22 to 15

► Continuously product innovations
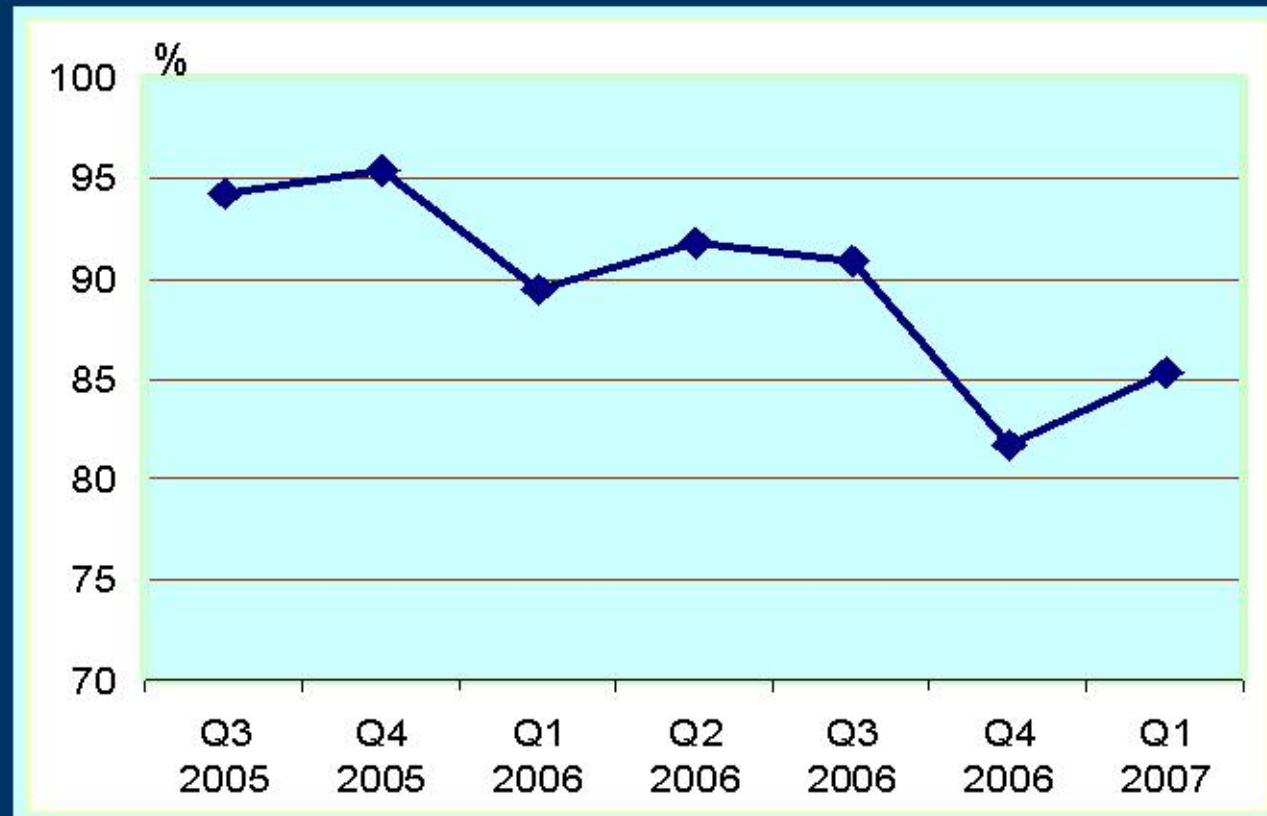
► Productivity improvements: new programming software

Record keeping practice

► Administration of hours and turnover

► mostly split per level of competence

3. Market conditions and constraints (3)

Response Rates:

4. Standard classification structure

Index structure

► no submarkets

► 10 strata classified according to number of employees

► Companies of less than 6 employees (the lowest three strata) are excluded

Sampling

► Oversampling factor of three

► Natural limit of number of companies per stratum

5. Evaluation of standard vs. definition and market conditions

Industry Associations:

prefer NACE rev. 2 over NACE rev. 1.1

National Accounts:

ISIC version 3 code 3000 Manufacture of computers and other information processing equipment partially included in ISIC version 4 code 6209 ?

6. National Accounts concepts and measurement issues (1)

Supply-And-Use tables: Deflation! B-B, B-all.

Evaluation of the *Software Consultancy SPPI* by National Accounts

3 fields of evaluation:
1. Plausibility
2. Coverage
3. Timeliness

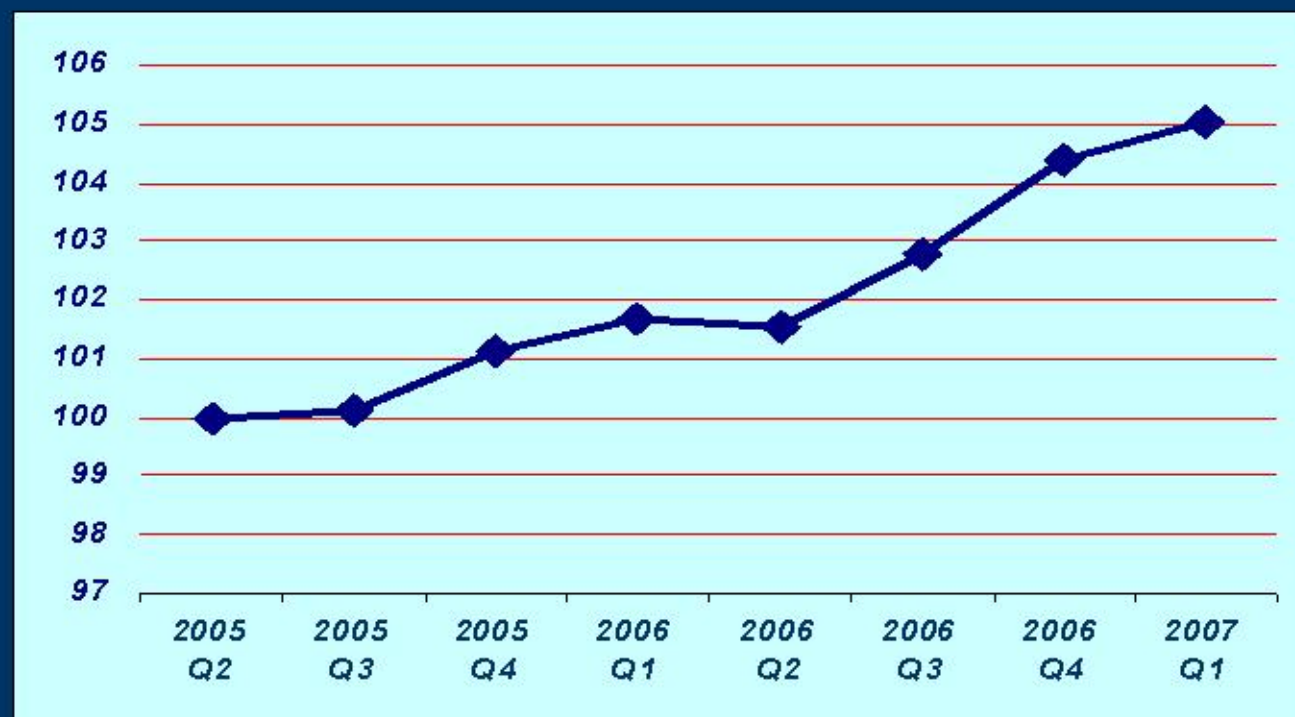# 6. National Accounts concepts and measurement issues (2)

Plausibility

► *comparison of SPPI* with other published data or data from trade associations

► *two basic price tendencies* since 2006

  ► *demand* induced *upward pressure* on prices

  ► *competition* together with cost-efficiency gains through offshoring (e.g. to India) induced *downward pressure* on prices

6. National Accounts concepts and measurement issues (3)

PPI for Software Consultancy

6. National Accounts concepts and measurement issues (4)

Coverage

- ► NA classification tally with NACE on two digit level

- ► Computer And Related Services (NACE 72) imputation by Software Consultancy (NACE 72.22)

- ► Development of SPPIs for data-processing & web-portals (NACE rev. 2 code 63.1)

- ► Completion of Software Consultancy SPPI by an overall IT SPPI (NACE rev. 2 code 62)

6. National Accounts concepts and measurement issues (5)

Timeliness

► *Questionnaires dispatch moments* generally:
  ► mid-period observation
  ► beginning of next period

► SPPI preliminary publication maximum 100 days after the observation period

► NA definite estimation: maximum 75 days

► Time schedule is scheduled for reorganization

7. Pricing method and criteria for choosing pricing methods

Chosen pricing method:

Hourly charge-out rates
► split of turnovers and hours into competence levels

Criteria for choosing pricing methods:

► Homogeneity
► Price mechanisms
► Pricing unit

8. Quality adjustment methodology

Four productivity issues:

1. Individual productivity changes
   (replacement, settling into a job)

2. Company productivity (technical, process)

3. Productivity of a pool of projects changes,
   due to a change of the mix of the projects subject to a
   mix of competence levels needed

4. Project productivity changes due to
   changes of composition of personnel
   needed

9. Evaluation of comparibility with turnover / output measures

► *Turnover data for Computer And Related Services*
  (= NACE 72) on a two digit level only
  ► Imputation by Software Consultancy SPPI
  (= NACE 72.22)

► *Turnover for weighting companies:* questionnaires ask for turnover relevant to the priced service

► *Turnover for weighting strata:* turnover estimation from Annual Structural Statistics

10. Summary (1)

► *Publication* SPPI for Software Consultancy since July 2007 (series from 2nd quarter 2005)

► *Majority of the turnover* is generated in Other Software Consultancy And Supply (NACE rev.1.1 code 72.22).

► *Observation period:* quarter year

10. Summary (2)

▶ *Classification*
   ▶ No distinction of submarkets
   ▶ PPS sampling

▶ *Aggregation*
   ▶ Article indices: geometric average
   ▶ Company indices: Lowe-index
   ▶ Strata indices: Lowe-index

▶ *Weighting:* Turnover from companies and Annual Statistic for Turnover estimation

10. Summary (3)

▶ *Pricing method:* hourly charge-out rates

▶ *Criteria for choosing pricing methods:* homogeneity, price mechanisms, pricing unit,

▶ *Quality adjustment* on a case-to-case basis

Questions?

Thank You !!!