The PPI for Software Consultancy Services in The Netherlands

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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)

<table>
<thead>
<tr>
<th>CPA 72.22.xx Software Consultancy</th>
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</thead>
<tbody>
<tr>
<td>11 Systems and technical consulting services</td>
</tr>
<tr>
<td>12 Custom software development services</td>
</tr>
<tr>
<td>13 Systems analysis and programming services</td>
</tr>
<tr>
<td>14 Systems maintenance services</td>
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<tr>
<td>15 Other professional computer-related services</td>
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</tbody>
</table>
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:*

![Graph showing response rates from Q3 2005 to Q1 2007 with a general downward trend.](image)
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 !!!