28th Voorburg Group Meeting

Tokyo, Japan
October 7-11, 2013

Mini-presentation for SPPI on:

NACE 58.2 Software Publishing

in Sweden

Marcus Fridén
Price Unit, Statistics Sweden

Contents

1. Definition of the survey being priced

In the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2) Group 58.2, Software publishing divides into Classes 58.21 Publishing of computer Games and 58.29 Other software publishing.

In the Swedish SPPI only 58.29 Other software publishing is being covered. Therefore this paper will mostly concern 58.29.

2. Unit of measure to be priced

According to the NACE classification the service being priced within 58.21 should be the price for a computer game, no matter the platform used. That includes packaged games, as well as on-line games and those that are available for download.

For 58.29 the service being priced should be a price for non-customised software, including translation or adaptation of operating systems and other applications on own account.

3.   Market conditions and constraints

NACE 58.2 is a relatively small group in the Swedish business sector (excluding financial services), contributing to 0.3 percent of total turnover and 0.5 percent of value added.

Within Group 58.2, Class 58.29 Other software publishing stands for about 82 % of the turnover. Since 58.21 Publishing of computer games is considered such a small part, this is not covered in the Swedish SPPI. It is also reasonable to believe that the development of computer games contains more one-off transactions that are harder to price.

Compared with the overall SPPI, Other software publishing has a share of around 1.1 %, which makes it relatively small.

The industry is closely integrated with NACE 62 Computer programming, consultancy and related activities. A lot of enterprises have secondary activities in either one of the industries, and about a   third of the turnover by product in 58.2 is classified as Computer programming, consultancy and related activities.

4. Standard classification structure and product details

On the Group level Software publishing in NACE Rev. 2 conforms to ISIC Rev. 4.

NACE has two classes within 58.2, as does the Swedish version of NACE Rev. 2, called SNI 2007 (Standard för svensk näringsgrensindelning 2007). SNI 2007 sometimes has 5-digit subclasses, but for 58.21 and 58.29 this is not the case.

Table 1: Industrial classification of software publishing

NACE Division	NACE Group	NACE Class	SNI 2007 5-digit level	Name	ISIC Rev. 4
58	58.2	58.21	58.210	Publishing of computer games	5820
		58.29	58.290	Other software publishing	5820

The class of 58.21 is a homogenous one, consisting of merely the publishing of computer games for all platforms.

The class of 58.29 includes publishing of ready-made (non-customised) software, including translation or adaptation of non-customised software for a particular market on own account:
- operating systems
- business and other applications

58.29 exclude:
- reproduction of software, see 18.20
- retail sale of non-customised software, see 47.41
- production of software not associated with publishing, including translation or adaptation of non-customised software for a particular market on a fee or contract basis, see 62.01
- on-line provision of software (application hosting and application service provisioning), see 63.11

The CPA 2008 (Statistical Classification of Products by Activity in the European Economic Community, 2008 version) is much more detailed on the product level. However, this classification is not used at Statistics Sweden.

5. Evaluation of standard vs. definition and market conditions

The prices being collected are only in a few cases such services that are described in the classification. The most frequent unit of measurement within 58.29 is hourly charge out rates for different kinds of consultants. System designers, system technicians, computer programmers and project leaders are the most common ones. Some prices for licenses are also collected.

Sampling is done by the activities of the enterprises. It is common that new respondents consider themselves to be classified in the wrong industry. As can also be seen from the actual prices being collected, most enterprises provide services related to computer programming, whether it be system designers, technicians or similar. The software being produced is often customised, which is not in line with the classification.

As far as the enterprises activities are concerned the classification might be correct, but the revenue is often generated elsewhere. NACE 62 Computer programming, consultancy and

related activities stands for about a third of the turnover by product in 58.2, which might be one reason to why the reported prices often are similar to the ones reported in 62.

6. National accounts concepts and measurement issues related to GDP

The product group used in the National Accounts system is 58.2. On the production side the SPPI index for 58.29 is used.

About one third of the production within 58.2 is estimated as being exported. SPPI does not explicitly cover export prices, but does not exclude it either. Attempts have been made at collecting export prices for services separately, but one problem that arises is that enterprises often do not distinguish between domestic and foreign customers.

In software publishing the services are often produced by foreign controlled enterprises. Approximately 44 percent of the turnover within the industry is generated by such enterprises. This might be one of the reasons to the quite large share of exports in the industry.

The kinds of services being provided are also by nature such ones that they are suitable for consumption across borders.

About 20 % of production in 58.2 is considered to be consumed by households. This is not explicitly covered by SPPI either.
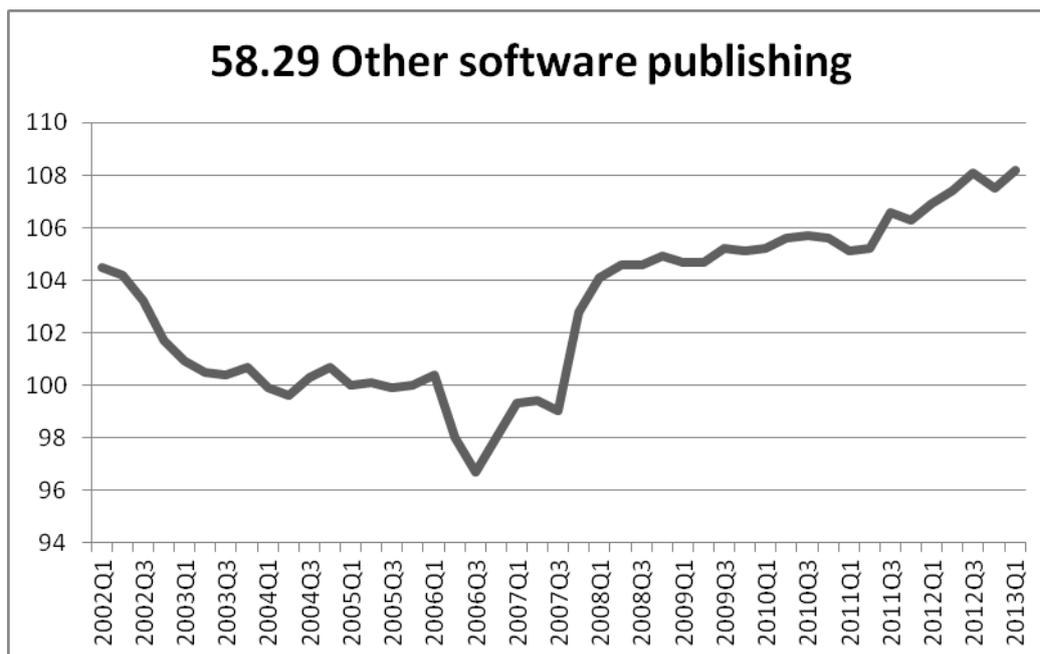
7. Pricing methods and criteria for choosing various pricing methods

The development of a Swedish SPPI for Other software publishing started around 2001. In that time the classification used was NACE rev. 1, where Other software publishing was a part of Division 72, Computer and related activities. In NACE rev. 2 the publishing part has been separated from computer services and is now included in Division 58, Publishing activities, and split into two classes. The enterprises and services provided are still closely integrated with computer services, which cause some difficulties when initiating new enterprises and collecting prices.

The services to be priced and the pricing methods used have been chosen in cooperation with the enterprises. During the NACE revision the largest enterprises were visited, as they were during the development of the index, back in 2001. The main difficulty was that a very small part of the enterprises revenue, if any, was came from publishing. Instead the revenues were mostly generated by computer related services. Thus these are the kind of prices the enterprises could provide.

The index for 58.29 was back casted using the index for 72.21 according to NACE Rev. 1. From the first quarter of 2009 the price development for 58.29 was linked with the back casted index.

Figure 1: Price development in Sweden for 58.29 since 2002

8. Evaluation of comparability of price indexes with turnover/output data

Two EU-regulated surveys collect information on turnover in the business part of the software publishing sector. Short-Term Statistics collect industry-level turnover monthly/quarterly and Structural Business Statistics collect turnover on industry-level as well as product-level annually.

In Software publishing, turnover data is being collected for both 58.21 and 58.29, while price indexes are only calculated for 58.29. Prices and turnover are aligned on this level.

SPPI indexes are used in the Short-Term Statistics when calculating turnover in fixed prices. This is done for Division 58 as well.

9. Summary

The Division 58.2 Software publishing is comprised of two classes, 58.21 Publishing of computer games and 58.29 Other software publishing. Sweden only covers 58.29 in the Service Producer Price Index survey.

Software publishing is closely connected with Computer programming, consultancy and related activities (NACE 62). About one third of the turnover by product in 58.2 comes from 62. This interconnection makes it difficult to price the actual software publishing, as the revenue is often generated elsewhere. The enterprises often report prices for services similar to computer programming.