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INSTITUTIONAL SECTORING – TURNOVER AND PRICES

Jakob Kalko

Jakob.Kalko@ssb.no

+47 62 88 54 95

Introduction

The aim of the paper is to describe surveys or data Statistics Norway has within sectors Business to Export (BtoE) and Business to Business (Bto2B), concerning the variables turnover and price development.. The paper focuses only at divisions within

NACE 49-63 (Section H, I, J)

NACE 69-82 (Section M N)

Chapter 1 focuses on BtoE, covering the turnover part in section 1.1, and the price aspect in section 1.2. (pg. 3-7).

Chapter 2 covers B2B, with the aspect of turnover in section 2.1 and prices in section 2.2 (pg. 8-18).

Chapter 3 finishes the paper with a short summary

1 Business to export

The Balance of payments reflects all transactions and economic positions between unit's resident of Norway and non-residential statistical unit units. The units can roughly be divided into two types of institutional units:

- Enterprises/businesses
- Households

Residence of enterprises

An enterprise is said to have a center of economic interest and to be a resident of a country when the enterprise is engaged in a significant amount of production of goods and/ or services there or when enterprise owns land or buildings located there. The enterprise must maintain at least one production establishment in the country and must plan to operate the establishment indefinitely or over a long period of time.

Source: Balance of Payments Manual, 5'th edition

Residents are therefore institutional units which engage (and continue to engage) in economic transactions within a country's territory. The residential unit can belong to a non-residential enterprise group.

Residence of households and individuals

A household has a center of economic interest, when household members maintain, within the country a dwelling or succession of dwellings, treated and used by members of their household as their principal residence. All individuals who belong the same household must be residents of the same country.

In addition and especially of importance for service areas: *Travelors or visitors - individuals who leave an economic territory for limited periods of time (less than one year) for business or personal purposes are treated as residents.*

Source: Balance of Payments Manual, 5'th edition

Tourists, visiting Norway, represents a center of economic interest **outside** Norway. A transaction between Norwegian enterprises and foreign tourists in Norway is therefore regarded as export.

1.1 BtoE – Turnover

1.1.1 Survey for external trade

SSB established in 2005 a survey for external trade within services for non-financial enterprises. The survey were published annually until 2010, from 2011 it is published quarterly. The survey is conducted by the division for foreign trade. Export in the survey is defined as *all services (including trade), which is delivered from the reporting enterprise to companies, affiliates, legal persons or other units regarded as foreigners and paid by the counterparts are regarded as export*. The survey includes also questions concerning import

The population for the survey, includes enterprises which fulfill one of the following criteria (2013 survey):

Table 1.1.1 – Definition of population for foreign trade. Non-financial units

- Total ingoing and outgoing cash flows exceeding NOK 500 000 (60 000 Euros) or outgoing transactions concerning import of services exceeding NOK 50 000 based on cash-flow statistics
- Enterprises within the quarrying and mining industry, which has joint VAT number with an enterprise which fulfill the first criteria
- FATS units
- The enterprise has been in the sample for at least 4 years and has reported figures on external trade in service
- From 2013 the survey also includes enterprises within external ocean transport industry and has a turnover of at least NOK 5 000 000.

Source: <http://www.ssb.no/en/utenriksokonomi/statistikker/uhtjenester/kvartal/2014-06-19?fane=om#content>

These criteria are made to exclude many small units, which have no or very limited export activity. This increases the quality of the sample and the estimation of totals. The survey does not cover section L (NACE 68) and I (NACE 55-56).

From this population consisting of approximately 33 000 enterprises (2013 survey), a sample is drawn. Enterprises, which fulfill criteria in table 1.1.2 are selected every year (2013 survey, approximately 700 enterprises:

Table 1.1.2 . Census part of the sample for foreign trade. Non-financial units

| |
|---|
| <ol style="list-style-type: none">1. 100 largest enterprises measured by total export in the cash-flow register2. 100 largest enterprises measured by total import in the cash-flow register3. 100 largest enterprises measured import of services in the cash-flow register4. 50 largest units measured by turnover5. 250 largest units measured by reported export in reference year t-16. 250 largest units measured by reported import in reference year t-17. 15 largest units within each division, measured by reported export t-18. 15 largest units within each division, measured by reported import t-1 |
|---|

Source: <http://www.ssb.no/en/utenriksokonomi/statistikker/uhtjenester/kvartal/2014-06-19?fane=om#content>

In addition, around 2 700 enterprises are selected by a simple stratified method. The strata are defined by industry, importance of the specific industry regarding external trade, cash flow statistics and if the enterprise is a FAT unit or not.

The questionnaire is electronic. It lists different services (CPA items) and the respondent is to provide SSB with information of total export within each service and how the export is divided between different countries within each service. Explanatory notes for the services are included in the questionnaire.

When data are collected and edited the sample is being inflated up to stratum total by multiplying with average reported figures for export (and import) with the number of enterprises in the stratum.

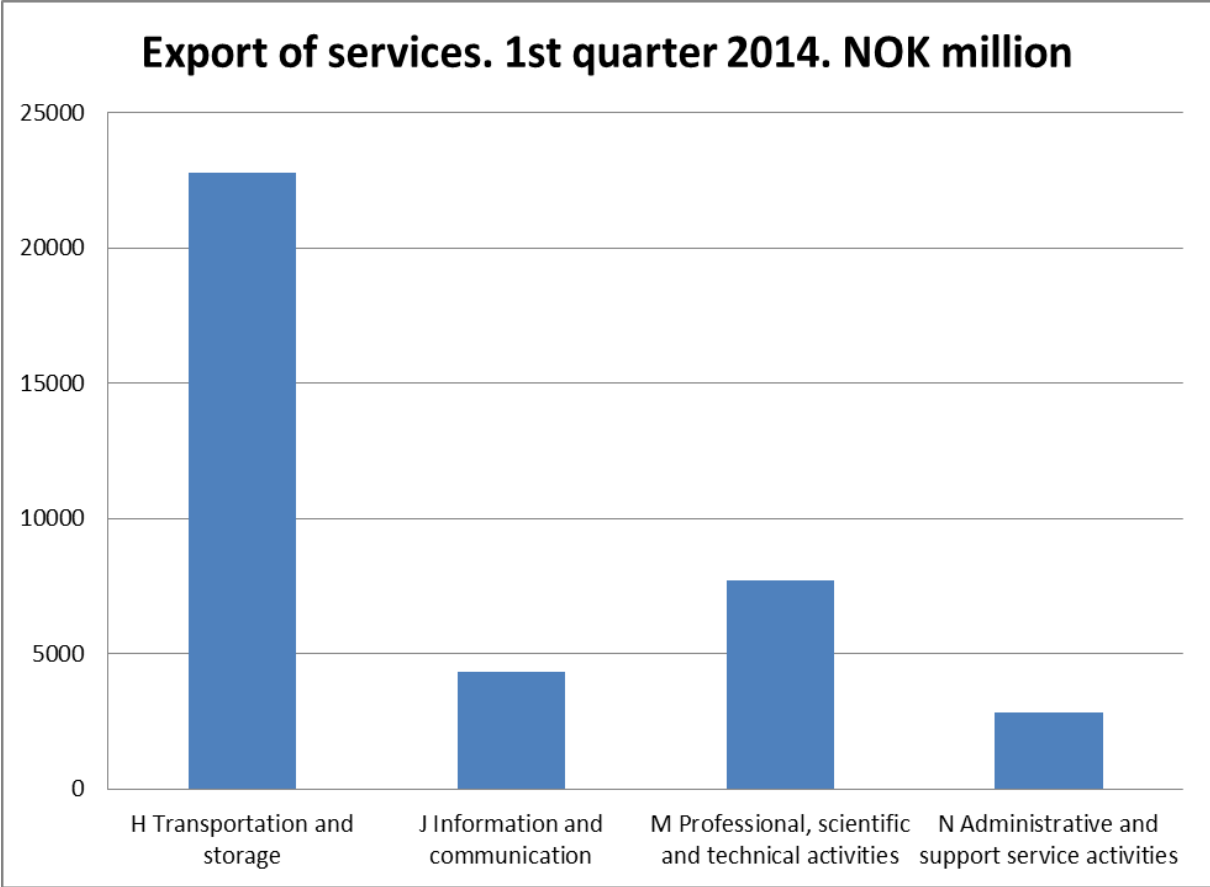
1.1.2 Use of data in other divisions in SSB and some results

Data are published every quarter, at section level. Data are available also at group level (3.digit) and are used by the division for Construction and service statistics within NACE 69, 70, 71, 73 and 78 to fulfill Eurostat's requirements for export data within Structural Business Statistics (annex 8).

The NA is also using the data, although it does not cover all their needs. The NA needs e.g. also information the import and export activity within services of *financial* units, non-profit organizations, households and governmental units.

For the 1'st quarter of 2014 the export of services by non-financial enterprises was divided as in figure 1.1.1.

Figure 1.1.1 Expert of services. 1'st quarter 2014. NOK million.Non-financial enterprises Section H,J,M,N



Source: <http://www.ssb.no/en/utenriksokonomi/statistikker/uhtjenester/kvartal>

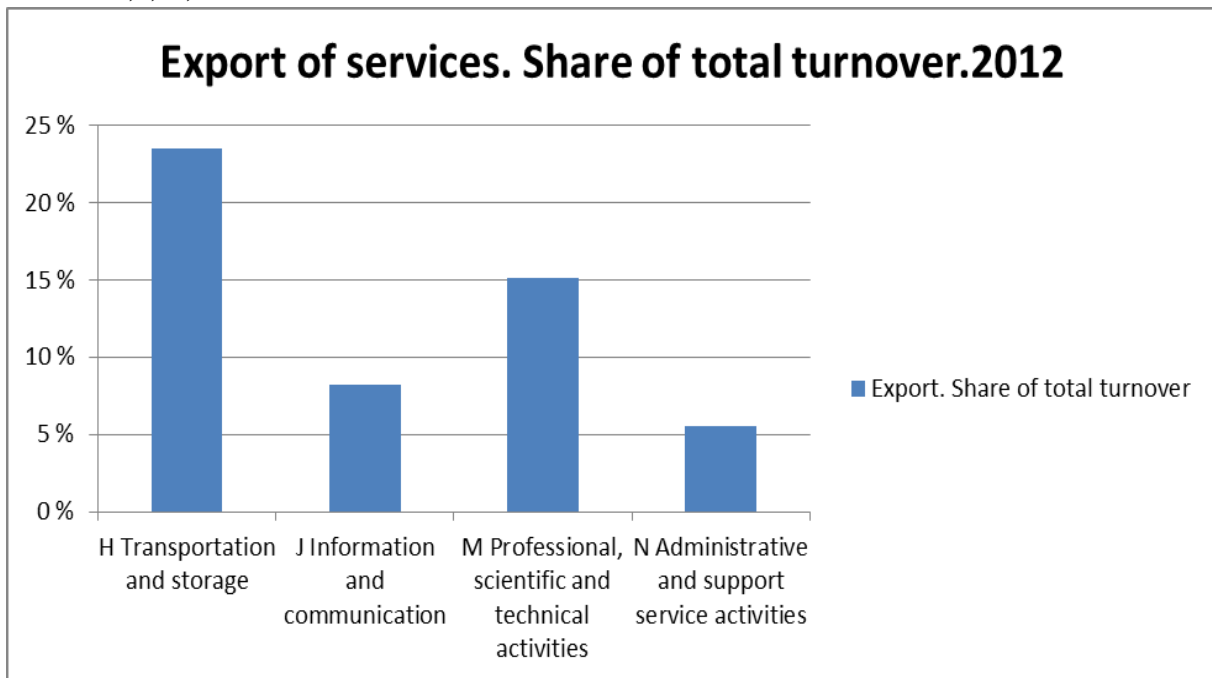
The figure shows that export made by enterprises within transportation and storage is the far the largest among these sections, having total of approximately NOK 22 billion, This is due to high activity within Freight ocean transport.

Figures are also published with the service (CPA) as the statistical unit and divided by different regions in the world.

Aggregating the quarterly export results from the 2012 survey and comparing this with total turnover from the SBS 2012, gives an indication of how important export is for the each section.

The figure is based on comparison of data from two independent surveys. Statistical units are the same (enterprise). Total export within the survey of foreign trade are estimated by simple stratified inflation of the sample, whereas total turnover in SBS is a census variable.

Figure 1.1.2 Export of services. Share of total turnover. Non-financial enterprises. Section H,J,M,N. 2012.



Source: SBS survey 2012 and survey for foreign trade, 2012

The results indicates that approximately 20- 25 per cent of the turnover within Transport and Storage is related to export..

Export covers around 15 percent of the total turnover within professional, scientific and technical activities. NACE 71, Architecture and engineering activities stands for the major part of the export within this section.

1.1.3 NACE 55-56

NACE 55-56 is not covered by the survey for foreign trade. Export of accommodation and service activities (non-residents expenditures for travelling and staying in Norway) are based on information from on a survey of foreign tourists consumption, combined with number of guest nights (residents,non-residents) and information from CPI.

1.2 BtoE – Price development

For the services within section H,I, J,M and N there is no explicit survey, which covers price development for BtoE. SPPI for Sea and Costal water transport – including external ocean transport were published until the 4’th quarter of 2012, but were been stopped. The questionnaire is now being evaluated. For NACE-group 55-56 and 79 information from CPI are used to a large extend.

The SPPIs which are published today is showed in table 1.2.1

Table 1.2.1 SPPIs published by Statistics Norway, 2014.

| NACE | Industry |
|-------------|-------------------------------------|
| 49.4 | Freight transport on road |
| 51.1 | Passenger air transport |
| 52.1 | Storage and warehousing |
| 52.24 | Cargo handling |
| 53. | Postal and Courier service |
| 62. | Computer consultancy services |
| 69.1 | Legal activities |
| 69.2 | Accounting and auditing activities |
| 70.22 | Business management and consultancy |
| 71.11 | Architectural services |
| 71.121 | Civil engineering services |
| 71.2 | Technical testing and analysis |
| 73.1 | Advertising |
| 77.1 | Car rental |
| 78. | Employment activities |
| 81.2 | Cleaning activities |

The NA uses SPPIs as a proxy for the development of export prices. For areas not covered by SPPI or CPI, the wage-cost index is used as proxy for many industries. For areas, where consumption from tourists are significant (e.g. hotels, restaurants, travel agencies) CPI for resident households is used as a source for calculating BtoE

2. BtoB

The chapter will go through turnover data and price indexes available within the BtoB sectors – and also mention possibilities for using proxies where data are not available.

The business sector is defined as profit and non-profit organizations, including individuals representing these units.

2.1 BtoB - Turnover

2.1.1 CPA survey

SSB has not a formal survey, collecting turnover data for the BtoB sector. It was considered being included in the annex 8 in the new SBS regulation 2008, but was let out after a pilot was conducted for the reference year 2004. The pilot in Norway seemed to have most challenges, asking the enterprises to divide sale between different industry groups within the business sector – and not so much splitting the data between the two sectors.

The annex 8 in the SBS regulation does anyway help to split the turnover between the household sector and the business sector within two area, legal activities and accounting/auditing services.

Table 2.1.1. CPA survey, 2012. Legal activities

| Product | Turnover (MNOK) | Turnover (per cent) |
|--|------------------------|----------------------------|
| Legal advisory and representation services in criminal law | 1744,7 | 13 |
| Legal advisory and representation services in business/commercial law | 6454,7 | 48,2 |
| Legal advisory and representation services in labour law | 510,3 | 3,8 |
| Legal advisory and representation services in civil law | 2107,9 | 15,8 |
| Patent and copyrights consultancy services | 128,6 | 1 |
| Notarial services | 112,1 | 0,8 |
| Arbitration and conciliation services | 286,6 | 2,1 |
| Auction legal services | 41,7 | 0,3 |
| Other legal services | 1630,7 | 12,2 |
| Other additional products | 361,4 | 2,7 |

Source: SSB, CPA survey 2012

More than 80 per cent of the total turnover can be divided between the household and business sector within the CPA survey:

- Legal advisory and representation services in criminal law, covering 13 per cent is usually paid by governmental authorities.
- Clients within business law and labour law (where the client is representing an enterprise) belongs to the business sector, covering 52 per cent of the turnover.
- Activities within Civil law are directed towards households and covers 16 per cent of the total turnover.
- Patent and copyright services will be directed towards the business sector, covers 1 per cent.

The BtoB sector covers 80 per cent of the mentioned above turnover.

The remaining services are consumed by both sectors, not possible split, by “the nature” of products. The CPA gives anyway a good proxy of turnover within BtoB.

Another area, covered by the CPA-survey is Accounting and auditing services.

Table 2.1.2. CPA survey, 2012. Accounting and auditing services

| Product | Turnover (MNOK) | Turnover (per cent) |
|---|-----------------|---------------------|
| Financial auditing services | 6865,1 | 31,2 |
| Accounting services except tax returns | 3752,6 | 17,1 |
| Bookkeeping services | 4702,4 | 21,4 |
| Compilation services of finan. statements and review services | 2002,7 | 9,1 |
| Payroll services | 1183 | 5,4 |
| Tax consultancy services including tax returns | 1564,7 | 7,1 |
| Insolvency and receivership services | 49,4 | 0,2 |
| Other additional products | 1882,6 | 8,6 |

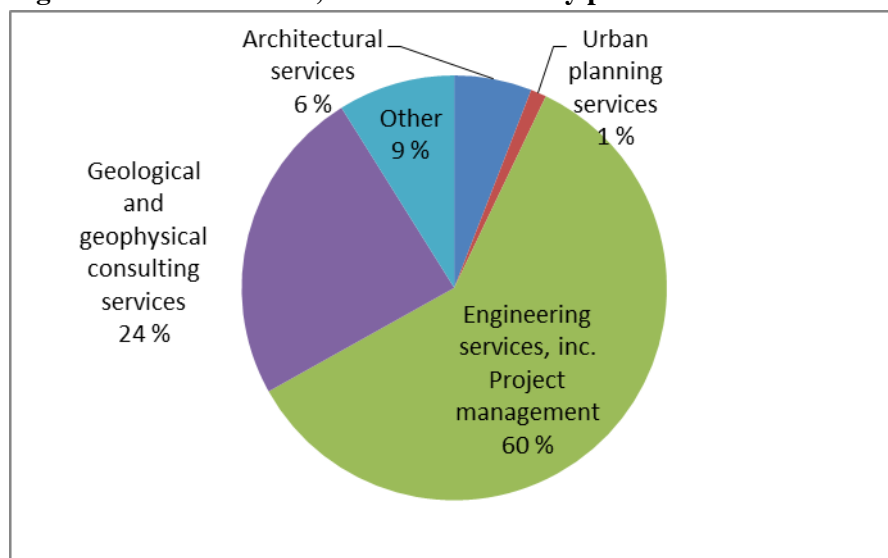
Source: SSB, CPA survey 2012

- Financial auditing services, accounting and bookkeeping services services, compilation services of financial statements and payroll services are directed towards the business sector and account for 84 per cent of the total turnover.
- The remaining 16 per cent includes both the household and the business sector.

The CPA-survey provide also within this area good information concerning turnover within BtoB

Within NACE 71.1, aggregated products were distributed as shown in figure 2.1.1

Figure 2.1.1. NACE 71.1, turnover divided by products. 2012.



Source: SSB, CPA survey 2012

- **Architectural services** cover 6 per cent of the total turnover. It includes activities towards both residential building projects, where the customer can belong within both sectors –and activities towards non-residential buildings where the customer belongs to the business sector. Turnover within Landscape can also be a result of activities directed against both sectors.
- Within **engineering activities**, covering 60 per cent of the turnover, services directed towards residential building projects (new and existing) might be used not just by the Business sector, but also the Household sector. The product account for 7 percent of the total turnover in NACE 71.1.
- The turnover from the rest of the products is assumed not have significant turnover from the Household sector.

Based on the above assumptions turnover within BtoB cover most likely at least 90 per cent of the total turnover. BtoA is an acceptable proxy for B2B, perhaps combined with a small adjustment factor.

Within NACE 71.2, Technical testing and analysis, BtoA is also good proxy for BtoB

- Technical automobile inspection covers 3 per cent of the total turnover. The product is consumed by both sectors
- The product other technical testing services covers in Norway 24 per cent of the total turnover. Classification of ships covers the majority part (BtoB-transactions). One service which could be consumed of the household sector is analysis of radioactive levels in houses. Anyway, the BtoB sector can be assumed to cover nearly all the turnover within this product.

Based on this even that there is some activity within the household sector, B2A is a good proxy for B2B in NACE 71.2

The CPA-surveys for NACE 70.2, 73.1, 73.2, 71.2 and 78 includes no products, where significant – if any – turnover can be directed to the household sector. A good proxy for B2B for these areas is B2A.

2.1.2 Possible use of information from SPPI-surveys

The quarterly SPPI survey for NACE 77.1, Car rental, asks for turnover and number of transactions within 3 customer categories (and two car types, B and C) :

1) Foreign tourists

2) Households

3) Private/public enterprises

The statistic has a high coverage rate in the sample, measured by turnover – and distribution of values could be an indication of how turnover is divided between B2B and B2C within this industry. It covers only 15 per cent of the total turnover in NACE 77 and should not be used as a proxy for division 77 as a whole, due to high diversification of activity within this division. We have no current plans of using the information from the SPPI-survey for this purpose.

A quarterly SPPI for NACE 80, Security and investigation services is at the last stage of development. In this index information concerning turnover from 1) Guard services and 2) Security system services towards households will be collected. Guard services are primarily directed towards the business market. Two other areas within NACE 80, security system services towards *businesses* and handling of values are most likely not included in the index, which will result in lower weight for B2B Vs B2C in the index, compared to reality. The weights for the two sub indexes, could anyway considered used as a proxy of turnover B2B/B2C. We have no current plans of using the information from the SPPI for this purpose.

2.1.3 Use of other Sources

NA produces yearly supply and use tables and transform these data to input-output tables of the industry by industry kind. Tables are made for both domestic production and for production+import. This table could provide with some help, concerning splitting the turnover between B2B and B2C.

Tables for domestic production are build up like showed in table 2.1.3, some categories being aggregated compared to the published data.

Table 2.1.3 Input-output table

| | Total use, industries | Final consumption by households | Final consumption expenditure | Gross capital formation | Exports | Final uses | Total uses |
|--|-----------------------|---------------------------------|-------------------------------|-------------------------|---------|------------|------------|
| Industry 1,2,3,n | | | | | | | |
| Total | | | | | | | |
| Use of imp. Goods | | | | | | | |
| Taxes less subsidies on products | | | | | | | |
| Total intermediate consumption, purchaser price | | | | | | | |
| Value added, basic prices | | | | | | | |
| Output, basic prices | | | | | | | |

Source: <http://www.ssb.no/en/nasjonalregnskap-og-konjunkturer/statistikker/nr>

The IO-table includes of course all industries in both rows and columns in at the website

The total consumption is divided between households, non-profit organizations and governmental consumption and is also published. The export is *not* divided between institutional sectors, e.g. export to households is not published.

The final consumption expenditure of households is expenditure incurred by resident households on consumption of goods and services. The consumption is registered in the period they are acquired. Some exceptions should be measured. In some cases, comparison of final consumption expenditure of households with output, basic prices gives a good indication of B2C and B2B relationship measured by turnover, taking the following facts into consideration:

- Output in basic prices does not equal turnover (SBS) within all industries. Depends on industry sales/production structure in the industry and if the industry receive subsidies. Output is the value of domestic production activities (market production, production for own final use and non-market production). Output in basic prices includes subsidies on products but not VAT or other taxes on products. Subsidies are **not** included in turnover. Another difference between out in basic prices and turnover is that turnover includes all kinds of sale, including of goods services not produced by the unit itself. Output includes the production of goods/services **produced** by the seller. Within services (Norway) subsidies exists especially

within NACE 72 (FOU). NACE 79 is an example of where output and turnover is quite different, due a high degree of resale in the industry. Outside services, Distributive trade is the classical example of this.

- Within some activities, consumption of households is regarded as Gross capital formation. Expenditure on dwellings on households constitutes gross fixed capital formation. So does acquisitions by households of valuables (e.g. art objects etc.)
- Within industries with export, the table gives no information how export is divided between the household sector and the business sector. Not taking this to account can provide a wrong picture of the weight between the two sectors.

Two examples can be viewed below:

Table 2.1.4 NACE 78 and 55-56. Total use. Current prices. 2011. NOK million

| Industry | Total use, industries | Consumption by households | Final consumption expenditure | Gross Capital formation | Exports | Total use |
|-------------------|-----------------------|---------------------------|-------------------------------|-------------------------|---------|---------------|
| NACE 78 | 20 676 | 0 | 0 | 7 485 | 1 057 | 29 218 |
| NACE 55-56 | 17 371 | 18 731 | 18 740 | 596 | 30 681 | 67 389 |

Source: SSB, Annual national accounts 2011.

Table 2.1.5 . NACE 78 and 55-56. Output, basic prices and turnover, 2011. Current prices. NOK million

| Industry | Output, basic prices | Turnover, SBS |
|------------|----------------------|---------------|
| NACE 78 | 29 218 | 29 204 |
| NACE 55-56 | 67 839 | 63 827 |

Source. SSB, annual national accounts 2011 and SBS, 2011

NACE 78 has a close relationship between output in basic prices and turnover. There is no consumption of output within residential households. Transactions are purely services and it is not likely that any of the Gross Capital formation is due to households acquisitions of services or goods within this industry. Export covers 3-4 per cent of the total use. The “nature” of the industry support that transactions are BtoB (employment services are directed towards businesses). It is not an unreasonable assumption that the export is directed only towards the business market as well and that the industry consists only of B2B transactions.

NACE 55-56 has also a close relationship between output in basic prices and turnover, but the structure of use is somehow different. The consumption of (resident). households cover approximately 28 per cent of the use of output and the export sector 46 per cent. It cannot be assumed that all export is to the B2B sector. The nature of NACE 55-56 includes B2B and B2C transaction. Guests at Hotels and Restaurants can represent an enterprise (BtoB) or a household (BtoC). To make the confusion total – one guest can during one stay at a hotel switch from the business sector to the household sector. It is not possible, based on these data to make assumptions about the division of turnover between B2B and B2C in this industry as a whole.

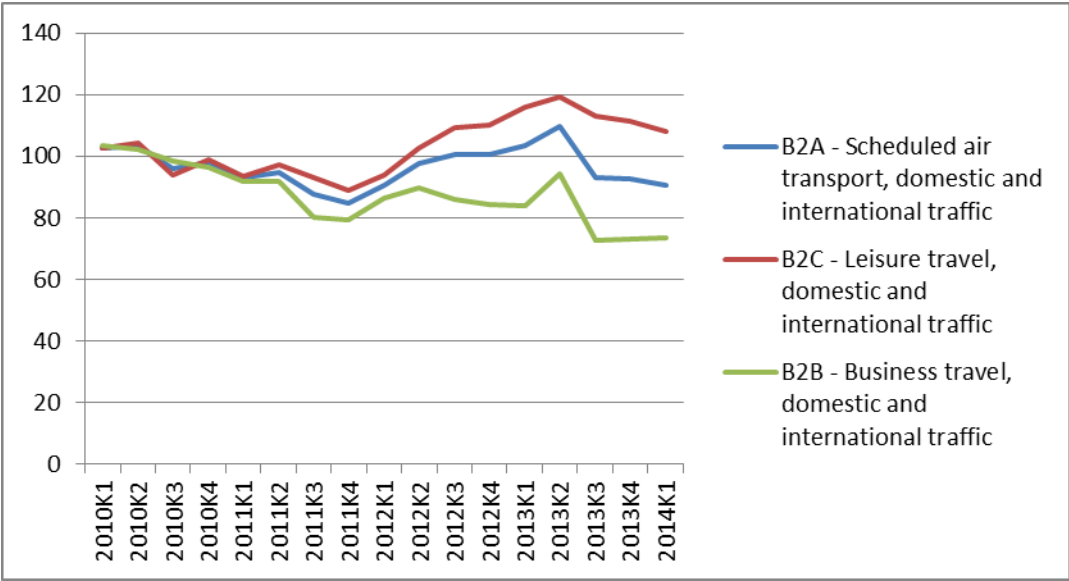
It is out of scope of the paper to go through all industries, but it can be mentioned that within some other divisions, circumstances are quite similar to the one within NACE 78, looking at the input-out tables. NACE 58 (publishing services) is one example

2.2 BtoB - Price development

2.2.1 SPPI-surveys splitting B2B and B2C

Statistics Norway has a number of SPPI-surveys, but only a few distinguishes between the Business and the Household sector – and only two publishes the data. The SPPI-survey for Airtransport of passengers publishes indexes for B2B, B2C and B2A.

Figure 2.2.1. Price index, NACE 51.1. B2B,B2C,B2A. 1'st quarter 2010-1st quarter 2014. Baseyear=2010

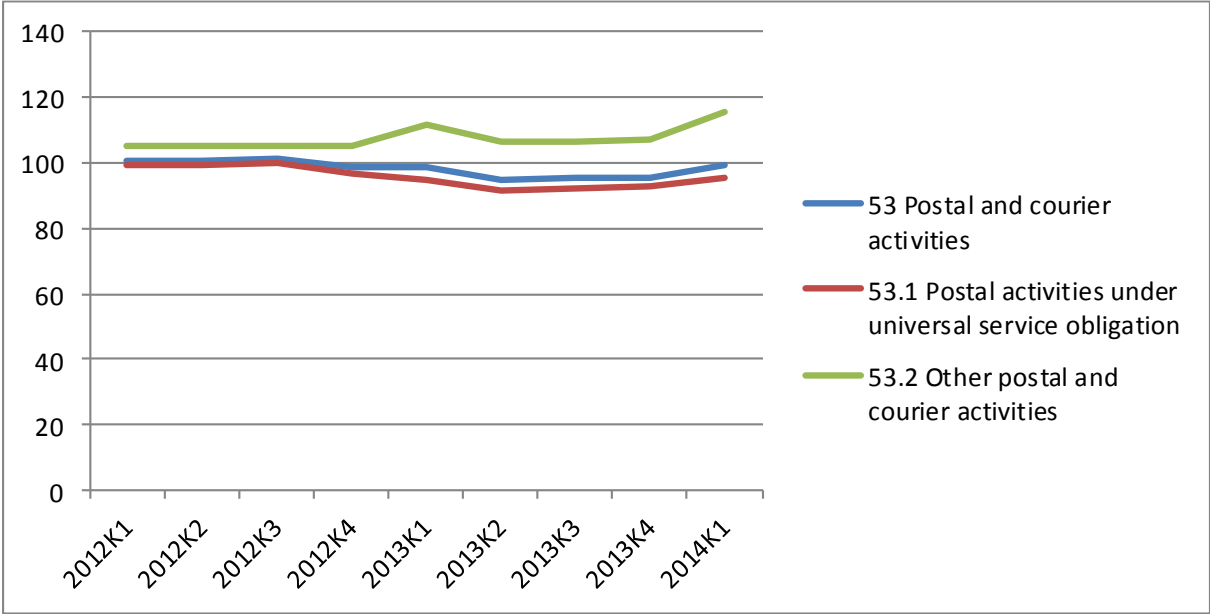


Source: <https://www.ssb.no/en/priser-og-prisindekser/statistikker/tpitralag>

The distinction between the sectors is made through the flexibility of the tickets. Flexible tickets are regarded as being a B2B transaction, whereas non-flexible tickets are regarded as BtoC transactions. SSB is aware that there are weaknesses using these assumptions. The price development has been different between the sectors. Compared to 1st quarter 2010, the index for B2B has decreased by 15 percent, whereas the B2C index has increased by 15 percent.

The SPPI within Postal and courier services only measures B2B transactions. The development can be viewed in figure 2.2.2

Figure 2.2.2. Price index, postal and courier activities. 1'st quarter 2010-1st quarter 2014.
Baseyear=2010. NACE 53, 53.1, 53.2. BtoB transactions.



Source: <https://www.ssb.no/en/priser-og-prisindekser/statistikker/tpitralag>

Note:

Changes in the product mixture in the industry group postal services have as a result that the index for post and courier services is not directly comparable between the different quarters in 2012 and 2013.

Within *Legal activities*, a sub-index for Civil law, is produced as a part of the total index. The sub index is not published but has been used by the CPI.

Within *Car rental*, sub indexes for foreign tourists, resident households and businesses are produced. The sub indexes are not published – and will probably not be in the future due the market structure (few large competitors).

The next new SSPI-survey to be published, NACE 80, Security and investigation services, are collecting data within the household and the business sector, aggregating the two indexes to one final. We have no planes of publishing these sub indexes, but the CPI has expressed interest of using them. This is to be followed up in the near future.

2.2.2 Other use of SPPIs

Statistics Norway produces today SPPI's, within following areas. *Suggestions*, if they can be used as BtoB proxy or not are based on the coverage rate compared to the division (measured by turnover) and "knowledge"/assumptions about the use-structure within subgroups not covered.

Table 2.2.1. SSPIs – B2B proxy or not ?

| NACE | Can be used as B2B proxy, 2.digit level |
|-------------------|---|
| 49.41 | Yes, with some assumptions |
| 51 | Yes |
| 52.1, 52.24 | No |
| 53. | Yes |
| 62. | Yes |
| 69. | Yes |
| 70.2 | Yes |
| 71.11+71.121+71.2 | No |
| 73.1 | Yes, with some assumptions |
| 77.1 | No |
| 78. | Yes |
| 80 (feb. 2015) | No, but B2B index will probably exist |
| 81.2 | Yes, with some assumptions |

Comments

NACE 49

SPPI for NACE 49.41 is published. NACE 49.41 covers 61 per cent of the total turnover (SBS 2012) within NACE 49 (excluding 49.5). We assume that within NACE 49.41, BtoB is the far dominating sector, based on knowledge of the market (no explicit data). Removal services for households belong to NACE 49.42. The second largest group, 49.3, has customers within both the household sector and business sector and covers 31 percent of turnover Industries are quite different in structure, but BtoB within 49.4 is significant larger, measured by turnover than within 49.3. The conclusion is that the majority of the BtoB transactions in division 49 is measured through the SPPI 49.41 and may be used with as a proxy for 49, with some assumptions.

NACE 51

The SPPI 51.1 splits BtoB and BtoC. It covers 99 per cent of the turnover within NACE 51. BtoB in this index covers B2B in division 51.

NACE 52

SPPIs are produced for NACE 52.1 and 52.24 and covers just below 5 per cent of the total turnover. This is not useable as a proxy for BtoB or B2A for NACE 52.

NACE 53

SPPI-survey measures only transactions within the BtoB market. The survey covers all units in the industry.

NACE 62

Based on knowledge of the market (and the input-output tables from NA), we assume that B2B sector is dominating this industry. The SPPI can be used as proxy for this sector.

NACE 69

Aggregating the indexes for 69.1 and 69.2 will give a good proxy for the price development within B2B. CPA data indicates that B2B transactions cover 90 per cent or more of the total turnover. It is probably possible, through weighting strata together in 69.1 and 69.2 to a total for 69, to give an even more precise estimate of B2B price development.

NACE 70

B2B=B2A.

NACE 71

Within NACE 71, SPPIs are produced for Architectural services, Civil engineering services and Technical testing and analysis. Together they cover 35 per cent of the market. B2B transactions are dominating both these industries and the remaining 65 percent (geological survey and other technical consultancy). Activities within NACE 71 are heterogeneous and the remaining 65 per cent differs especially from architectural services and civil engineering, having some export of services. A B2B price index for NACE 71 should therefore not be based on the current indexes.

NACE 73.

NACE 73 has no significant presence of the household sector. NACE 73.1 covers 95 per cent of the market, measured by turnover. The survey does not include some large players within 73.12, acting like brokers, buying time (and space) from media for resale. The index can be used as a proxy for B2B, but with some assumptions.

NACE 77

The index for car rental covers 14 per cent of the turnover for division 77. It includes both B2B and B2C transactions. It is possible to create sub index for B2B within car rental, but it covers as mentioned only minor part of the turnover. In addition, activities compared to the other NACE groups are not comparable. The price index for 77.1 should not be used a proxy for B2B, within NACE 77.

NACE 78

B2B=B2A.

NACE 80

The SPPI for NACE 80 will distinguish between B2B and Botch and might be used for internal purposes in SSB.

NACE 81

The SPPI within 81.2, cleaning activities *measures only B2B price movements* and covers 56 per cent of the total turnover. Activities within 81.1 may include some (outdoor) cleaning, whereas 81.3 have no activities in common with 81.2. Index may be used as a proxy for B2B for the whole division.

2.2.3 Other solutions –B2B or B2C.

The NA is using the development of the wage-cost index as a proxy for the price-development, within many industries, where no price indexes are developed. Combining this index, with industries dominated by B2B sector may give a reasonable proxy for the price development.

For the B2C sector, information from CPI may be helpful within some industries covered in the paper. CPI has information concerning price development within e.g. services within Restaurants, Hotels and other service areas. The information may be considered as proxy for B2B, but it has to be taken into account that the same product may be priced different in the two sectors and that the price movements not automatically follow each other.

Another point is that CPI and SPPI is not measuring the same concept. While the CPI measures the price development for households, the service producer price index measures the price development for the producer that together with volume gives the producers' turnover.

3. Summary

- SSB has a survey, covering external trade (import and export) for non-financial enterprises. Among the sections covered in the paper, Section H – Transport and storage has the largest export, both measured by absolute numbers (NOK) and as a share of total turnover, compared to turnover.
- SSB has not any survey covering the price development B2E within these areas. The existing SPPI's are used as proxies for the Price development for B2E.
- SSB has not a formal survey, collecting turnover data for the BtoB sector. The use of information from CPA surveys gives reasonable proxies for some areas. The use of turnover information covered by SPPI's for Car rental and Security and investigation services. The use of knowledge of market structure, combined with description of the products (CPA2008), makes it possible to assume that within some divisions BtoB=BtoA. Management consultancy (NACE 70.2) is an example of this. The use of information from the national account (SUT, IO), may also provide us with information concerning turnover within BtoB/BtoC.
- SSB has a couple of SPPIs (NACE 51.1, 53) where BtoB prices are measured and published. Within other areas, if the coverage of BtoB transactions, SPPIs may be used as a proxy.
- Having no information of the price development, NA uses in many cases the wage-cost index as a proxy. Within areas where BtoB transactions are significant larger than BtoC, this could be considered as a proxy

References

Fløttum, Erling Joar (2006): *Nasjonalregnskapet – systemet og utformningen I Norge*

Simpson, Liv Hobbestad and Todsén, Steinar (2012): *Norwegian Methodology for Supply-Use and Input-Output Tables (internal document)*

IMF (1993/2013); *Balance of Payments manual*

Sagelvmo, Ingunn: *Transformation of Supply and Use tables to Industry by Industry Input-Output table. The Norwegian experience*