



Statistiska centralbyrån
Statistics Sweden

Statistics on turnover

Product description 2005

Department of Economic Statistics



Statistics on turnover

2004

HA0101

A. General information

A.1 Subject area

Trade in goods and services

A.2 Statistical area

Domestic trade

A.3 Statistical production is included in Sweden's official statistics

Yes

A.4 Responsible authority

Authority/organisation: Statistics Sweden (SCB)

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A.6 Duty to report

There is an obligation to provide information for this survey according to the Official Statistics Act (SFS 2001:99), the Statistics Ordinance (SFS 2001:100) and Statistics Sweden's regulations (SCB-FS 2002:23).

A.7 Confidentiality and rules for handling of personal information

For confidentiality regarding the authority's specific task of the production of statistics, chapter 9 § 4 of the Secrecy Act (1980:100) applies.

For the automatic handling of personal information, the rules in the Personal Data Act (1998:204) apply. Within the area of statistics, there are also specific rules on the handling of personal data in the Official Statistics Act (2001:99) and the Official Statistics Ordinance (2001:100).

A.8 Archiving regulations

Questionnaires can be eliminated after 1 year. Observation registers with register data and primary data should be delivered to the National Archives as soon as they are no longer needed for production. Systems documentation



should be maintained and delivered to the archives. Programs and such like can be eliminated when they are no longer required for processing.

A.9 EU legislation

Regulation regarding short-term business statistics: Council Regulation of Short Term Statistics, EC 1165/98.

A.10 Objective and history

Statistics Sweden has been surveying turnover within retail trade since 1963, when responsibility for the statistics was taken over from the National Board of Health and Welfare. The National Board of Health and Welfare had been producing the statistics since 1948. Statistics Sweden currently has a time series on retail trade from 1955. The statistics have been extended with quarterly data for wholesale trade and some services.

The aim with statistics on turnover is primarily to measure the development of turnover, monthly for retail trade and quarterly for wholesale trade and other services.

The statistics are principally used as a basis for the National Accounts' consumption and production calculations and for economic analyses.

A.11 Use of statistics

National Accounts (Statistics Sweden): Calculations of production and private consumption

Ministry of Finance and National Institute of Economic Research: Evaluation of development of private consumption and production

Industry organisations: Sales development and consumption estimates

Individual enterprises: Sales development within different industries

Researchers: Time series

A.12 Structure and implementation

This survey is one of the main sources for the calculation of private consumption and Gross Domestic Product (GDP). Just under 50 per cent of the foundation for private consumption comes from the statistics on turnover. The National Accounts actually needs information on the turnover of different goods and services but, to avoid loading the data providers/enterprises with burdensome questionnaires, only the total turnover for the relevant period is collected. A compilation of turnover per industry/industry group is then produced. The National Accounts then use various keys to divide the turnover into goods and services.

From the 2003 survey onwards, the monthly statistics carry out a survey on retail trade sales, together with the Swedish Research Institute of Trade (HUI). A preliminary calculation is carried out, which is reported 26 to 30 days after the end of the survey month. Then a more definitive calculation is provided roughly 45 days after the end of the survey month. When the preliminary data for a new month are presented, the new data for the previous month, which can have been revised, are also published.

A sampling frame for the monthly statistics is created at the end of the year before the survey year. For quarterly statistics, the frame is created during the first quarter of the actual survey year. In both cases, an information letter is sent



to all new enterprises in the sample.

Questionnaires are then sent at the end of the measurement month/quarter. Data collection is carried out via a questionnaire that is sent to the enterprise's financial manager or another specified contact person. If a person other than the financial manager responds to the questionnaire, this person is then recorded as the contact person. Data collection is carried out via Touchtone Data Entry (TDE), fax, post or telephone. With TDE, the enterprises key in their turnover data by telephone. Slightly over 60 per cent of data providers currently provide data via TDE.

Roughly one week before the submission deadline, a "preliminary reminder" is sent to the enterprises that have not yet responded. A list of enterprises that have not responded after the submission deadline is given to Statistics Sweden's interview department, where they call and remind the enterprises over the period of a few days. The submission deadline for monthly statistics is roughly 15 days after the end of the survey month. The corresponding deadline for quarterly statistics is roughly 25 days.

The submitted questionnaires are registered manually and checked once visually. Data submitted using TDE is registered and checked, often immediately when the data is submitted. So-called "error lists" of registered material are produced and corrected. When a large part of the material has been received, macro checking is carried out, involving the control of data material on a more aggregated level. Imputation of any non-response is then carried out. Simple respondent errors are checked when registered or, with TDE, by telephone. Material is checked partly using error lists and graphic editing. Comparisons are made with Value Added Tax (VAT) statistics and with previously submitted data. The results are published around 26 to 30 days after the end of the survey month for monthly statistics. For quarterly statistics, the results are reported around 6 weeks after the end of the relevant quarter.

The estimation procedure is described in point 2.2.1.

A.13 Planned changes in the upcoming survey

B. Quality declaration

0 Introduction

Statistics on turnover are collected using a sample and register-based survey, which measures the development of turnover monthly for retail trade and quarterly for wholesale trade and other services. The survey results are reported by industry.

1 Contents

1.1 Statistical target characteristics

Statistics on turnover report total turnover, growth in percentage and index series, in total and divided into the different sub-sectors.



1.1.1 Objects and population

The population is made up of all enterprises within SNI2002 (Swedish Standard Industrial Classification 2002) 50, 51, 52, 55, 60, 61, 62, 63, 64, 70 (excl 70201), 71 (excl 71.2), 72, 74 (excl 74.15), 80, 85, 90, 92 (excl 92.5, 92.6 and 92.72) and 93. The survey object is enterprises.

1.1.2 Variables

Survey variable: Turnover

Description: Income from sales of goods and services

Within the sectors in SNI 50, 52, 55, 92.1-4, 92.71 and 93, turnover is reported, including VAT but excluding exports. In other industries, turnover is reported excluding VAT but including exports.

The following is added to questionnaires: ATG agents and outlets should report the commission on the mediated services but not the actual value of the mediated goods or services.

1.1.3 Statistical measures

Turnover is reported as a *growth figure* between the same periods over two years, as a *level* and an *index* with a specified base year. The reporting is carried out for different industry sectors.

In the first stage, the described statistical measurements are calculated in *current prices* as well as in *constant prices*, *constant and calendar-adjusted prices* and in *current and calendar-adjusted prices*. The constant price calculation of turnover is carried out using an industry price index produced by the prices department at Statistics Sweden. To be able to compare a period with a corresponding period in the previous year, which often does not have the same number of weekends and calendar days, the figures are calendar-adjusted. The index for calculating turnover in calendar-adjusted prices is produced by Statistics Sweden, in consultation with HUI and other large actors on the market. For retail trade, a seasonally-adjusted series and a trend series is also calculated in the form of an index.

1.1.4 Study domains

Statistics on turnover are reported for different industries and groups of industries according to the Swedish Standard Industrial Classification 2002 (SNI2002) within the industries SNI 50, 51, 52, 55, 60, 61, 62, 63, 64, 70 (excl 70201), 71 (excl 71.2), 72, 74 (excl 74.15), 80, 85, 90, 92 (excl 92.5, 92.6 and 92.72) and 93.

1.1.5 Reference period

The reference period is one calendar month for retail trade (SNI 52) and one calendar quarter for other industries. Annual values are calculated from the compiled monthly and quarterly data.

1.2 Comprehensiveness

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2 Accuracy

2.1 Overall accuracy



Sampling error for total turnover in retail trade (SNI 52) is calculated, at a 95 % confidence interval, as roughly plus/minus 0.7 per cent. Newly started enterprises are not included in the survey year, which means that the under coverage successively increases and results in an underestimation of total turnover. The development compared to the corresponding period in the previous year is not affected in the same way, if it can be assumed that the under coverage affected both periods' growth figures to the same extent.

Turnover is produced for enterprises whose main activity comes under retail trade but these enterprises can also have activities in other secondary industries. This means that the turnover data can also cover activities in other industries within or outside retail trade. For example, the clothing industry can include turnover from other industries and vice versa.

2.2 Sources of inaccuracy

2.2.1 Sample

2.2.1.1 Sampling frame

The sampling frame for monthly statistics is drawn up in November of the year before the survey year. For quarterly statistics, this is carried out during March of the actual survey year. The sampling frame is made up of active enterprises in Statistics Sweden's Business Database. The term "active enterprises" refers to enterprises that are registered for tax, VAT or employee charges. The frame population consists of enterprises (non-financial and personal enterprises) with the following industry codes according to SNI2002: SNI 50, 51, 52, 55, 60, 61, 62, 63, 64, 70 (excl 70201), 71 (excl 71.1 and 71.2), 72, 74 (excl 74.15), 80, 85, 90, 92 (excl 92.5, 92.6 and 92.72) and 93. For the survey year 2004, the frame population consisted of 411 482 enterprises.

Maintenance of Business Database:

Carried out by ES/FDB department at Statistics Sweden.

Sampling frame:

Created by ES/MET department at Statistics Sweden

2.2.1.1.1 Monthly statistics on retail trade (SNI 52) and quarterly industries Hairdressing and other beauty treatments (SNI 93020) and Gambling and betting activities (SNI 92710)

The frame population for these industries consists of those enterprises that have an annual turnover of at least SEK 200 000 according to Statistics Sweden's VAT Register, relating to the most recent 12-month period before the survey round. To avoid missing enterprises, such as newly started or restructured enterprises, that are not included in the VAT Register or that have turnover data registered for the period that is too low, a sample is also drawn among enterprises with an annual turnover of less than SEK 200 000. The frame population then consists of all enterprises within the relevant industries with an annual turnover of under SEK 200 000, or enterprises that are completely missing from the VAT Register. Monthly gross wages received from the National Tax Authority are used as a size measurement for these enterprises.



2.2.1.1.2 Quarterly statistics of other industries (excl SNI 52, SNI 93020 and SNI 92710)

The sampling frame for these industries is created from all active enterprises in the Business Database.

2.2.1.2 Over coverage

Over coverage is around 3 per cent when the survey is carried out. An example of over coverage would be enterprises classified in the wrong industries (that should not be surveyed), inactive enterprises or enterprises that have gone bankrupt but are still included in the sample. These enterprises receive a status code and contribute with SEK 0 to the turnover figures.

2.2.1.3 Under coverage

Under coverage consists of, for example, newly started and restructured enterprises. A measurement of under coverage has not been carried out.

2.2.1.4 Sample process

For 2004, 7 578 enterprises were selected to submit turnover data via the questionnaire. Of these, 2 833 enterprises were to submit monthly statistics and the rest quarterly statistics. Stratification is carried out by turnover according to the VAT Register (the previous 12-month period) and number of employees, according to the Business Database. The supplementary sample is stratified by salary data/gross wages provided to the National Tax Authority. The size breakdown differs between the different industries and is described below.

2.2.1.4.1 Stratification; Monthly statistics on retail trade (SNI 52)

Ordinary sample 40A

Industry stratification

52260, 5221-5224+5227, 5232-5233, 52410, 52443-52444, 52453, 52454, 52481, 52482, 52483, 52484, 52485, 52486, 52487, 52488, 52494, 52495, 52491-52492, 52496+52499, 52500, 52700

Variable

VAT

Stratification

1 = SEK 200 000 - SEK 1.4 million

2 = SEK 1.5 - 3.4 million

3 = SEK 3.5 - 14.9 million

4 = SEK 15.0 - 99.9 million

5 = SEK 100.0 - 999.9 million

6 = 1 billion +

Ordinary sample 40B (not documented in this paper)

Ordinary sample 40C (not documented in this paper)

Ordinary sample 40D (not documented in this paper)

Supplementary sample 84 (not documented in this paper)



2.2.1.4.2 Stratification; Quarterly statistics, other industries (excl. SNI 52)

Ordinary sample 41 (not documented in this paper)

Ordinary sample 47 (not documented in this paper)

Ordinary sample 57 (not documented in this paper)

Supplementary sample 784 (not documented in this paper)

2.2.1.5 Sampling method

The sample is an independent random sample drawn using the SAMU system (Statistics Sweden's coordinated sampling system for enterprise statistics).

2.2.1.6 Sampling frame size

For the monthly retail trade statistics in 2004, the sampling frame size in the SAMU sample was 30 662 enterprises, with 1 421 enterprises in the supplementary sample.

For other services in 2004, the sampling frame size in the SAMU sample was 380 820 enterprises.

2.2.1.7 Sample size

For the monthly retail trade statistics in 2004, the sample size in the SAMU sample was 2 456 enterprises, with 322 enterprises in the supplementary sample.

For other services in 2004, the sample size in the SAMU sample was 310 104 enterprises, of which 4 672 were surveyed by questionnaire and the remaining 305 432 via the VAT Register.

2.2.2 Frame coverage

Under and over coverage increases successively over the year because the surveyed population is dynamic, with a large number of enterprises closing down or starting up. Over coverage in the form of enterprises that have closed down or are classified in the wrong industry, and that do not belong to the target population, can usually be identified but this results in some underestimation and increases the random error. Enterprises classified in the wrong industry that do belong to one of the surveyed industries are reported in the industries in which they were selected and thus contribute to turnover figures.

It is considerably more difficult to address under coverage as it is difficult to include enterprises that are newly started during the survey year. It is difficult to judge the full significance of under coverage.



2.2.3 Measurement

The measurement tool is a questionnaire that is sent every month/quarter to data providers. On this questionnaire, the enterprise should fill in their turnover for the relevant period. Instructions on the questionnaire indicate whether turnover should include/exclude VAT and include/exclude exports. It is also stated in the instructions that turnover data should refer to the enterprise's entire turnover for the period and that the sum should be in SEK thousands. The enterprise's previously submitted information from the survey year is reported on the questionnaire, as well as the submitted information from the same period the previous year. It is then possible for the enterprise to control and correct incorrectly submitted details for previous periods. The questionnaire also shows which industry the enterprise belongs to. If the industry is not correct, the enterprise has the possibility to describe their principal activity on the questionnaire.

For enterprises in size groups 3-6 within the industries surveyed quarterly, SNI 50, 51, 55, 60-64, 70-72, 74, 90 excl 92710 and 93 excl 93020, the VAT Register is used as the measurement tool. A number of variables can be gathered from the VAT Register:

- M32 - Closing VAT 25 %.
- M33 - Closing VAT 12 %.
- M34 - Closing VAT 6 %.
- M12 - VAT exempt turnover within Sweden.
- M14 - Turnover from marginal taxed goods and services.
- M15 - Tax base for marginal taxed turnover.
- M21 - Turnover from goods from outside EC.
- M22 - Turnover from services abroad.
- M23 - Turnover from goods to another EC country.

These variables are sufficient for statistics on turnover to carry out the necessary calculations. The different VAT variables in the VAT Register are then aggregated as follows:

Private consumption industries (50, 55, 92 and 93)

The turnover required in these industries is Turnover (Y) including VAT and excluding exports, aggregated from the VAT statistics according to the following:

$$Y = M32/0,25 + M33/0,12 + M34/0,06 + M12 + M32 + M33 + M34$$

Service providing industries (SNI 51, 60-64, 70-72, 74, 90)

The turnover required in these industries is Turnover (Y) excluding VAT and including exports aggregated from VAT statistics according to the following:

$$Y = M32/0,25 + M33/0,12 + M34/0,06 + M12 + M14 - M15 + M21 + M22 + M23.$$

2.2.4 Non-response

The unweighted response rate for the monthly survey was between 72 and 76 per cent for the preliminary calculations. For the more definitive calculations, the corresponding figure was roughly 83 per cent. The weighted response rate, in which the responding enterprises' turnover is taken into account, was roughly



91 per cent for the preliminary calculations. The weighted response rate for the more definitive calculations was around 94 per cent during 2004.

For the industries surveyed quarterly, the unweighted response rate was around 90 per cent and the weighted response rate was between 90 to 94 per cent.

When the final controls are carried out, a list of the largest surveyed enterprises (different size groups have different limits but this is often size groups 5-8), which have not responded, is produced, from which a final attempt will be made to collect data. For the largest enterprises in each industry group for which it is not possible to gain data, other sources are used. The ranking is then as follows: 1. Turnover figures submitted to the survey for the same period the previous year. 2. Turnover figures according to the VAT Register for the same month of the previous year. 3. Turnover figures submitted to the survey during the previous month. If the turnover data is not available from the first option, the second option will be looked at, and so on. The use of these sources only applies for a few enterprises and never for the absolute largest in each industry.

For the smaller enterprises (different industry groups have different limits but this is often size group 0-4) that have not responded, non-response is compensated by re-weighting.

2.2.5 Processing

If the data providers submitted data via telephone (TDE), the submitted data is checked immediately in the system against values from the previous year and the previous period. If the data appears to be unreasonable, the data provider is asked if the information is correct. These data are also checked against values for the previous year and previous period when the data is manually registered.

Macro editing is then carried out, firstly by checking that the data are not accumulated figures. Then every industry is controlled to find growth numbers and confidence intervals that seem to be unnatural or divergent. In industries where the growth number appears to be divergent in some way, the data are studied for the enterprises in the industry. Enterprise data that deviate a lot against the VAT Register for the same period one year earlier are studied on micro level and verified by contacts with the enterprise.

2.2.6 Model assumptions

Estimations for the industries surveyed monthly and those surveyed quarterly are described below.

1. *Monthly statistics on retail trade (SNI 52) and quarterly industries Hairdressing and other beauty treatments (SNI 93020) and Gambling and betting activities (SNI 92710) are described under 2.2.6.1.1*
2. *Quarterly statistics for industries SNI 50, 51, 55, 60, 61, 62, 63, 64, 70, 71, 72, 74, 8041, 852, 90, 92 (excl 92.71), 93 (excl 9302) are described under 2.2.6.1.2*
3. *Quarterly statistics for industries SNI 80 (excl 8041) and 85 (excl 852) are described under 2.2.6.1.3*

The remaining calculations are the same as the calculations for indexes and fixed prices and so on.



2.2.6.1 Estimation of turnover in current prices

2.2.6.1.1 Estimation of turnover - Group 1

Turnover in current prices in each industry group for a period in a specific year ($Y_{b,k,c}^{Lop}$). $Y_{b,k,c}^{Lop}$ is estimated using the estimator:

$$\hat{Y}_{b,k,c}^{Lop} = \sum_{h=1}^H \frac{N_h}{n_h} \sum_{i=1}^{n_s} y_i * \frac{X_b}{\sum_{h=1}^H \frac{N_h}{n_h} \sum_{i=1}^{n_s} x_i} + \sum_{g=1}^G \frac{N_g}{n_g} \sum_{j=1}^{n_s} y_j + \sum_{l=1}^L y_l$$

A
B
C

I-----I
I-----I
I-----I

where

A. Ordinary sample

y_i = Turnover for enterprise i

N_h = Number of enterprises in sampling frame for stratum h

H = Number of strata in the ordinary sample

n_h = Number of respondents in stratum h

b = Industry group

k = Period. (k=12 is sometimes given below, which is applicable for the monthly survey on retail trade. But k=4 is just as applicable for the industry groups that are only surveyed every quarter).

Lop = Current prices

c = Year

Auxiliary information from VAT Register

X_b = Total turnover for an industry group according to the VAT Register for the most recent 12-month period.

x_i = Turnover for enterprises according to the VAT Register for the most recent 12-month period.

B. Supplementary sample

y_j = Turnover for enterprise j

N_g = Number of enterprises in sampling frame for stratum g

G = Number of strata in supplementary sample

n_g = Number of respondents in stratum g

C. Consolidated enterprise units and special enterprises

y_l = Turnover for enterprise l



Non-response

Non-response in the size categories in the sample survey is dealt with using compensation weighting in the supplementary and the ordinary sample. Compensation weighting is used for both the numerator and the denominator in the ordinary sample, so also for the VAT data that exists for all enterprises. For consolidated enterprise units and special enterprises, non-response is dealt with as described in point 2.2.4.

When calculating the preliminary retail trade statistics on a monthly basis, a slightly modified model is used. This is based on the above model, but is used in combination with a method that aims to ensure that the share of over coverage (treated as respondents with SEK 0 in turnover) among respondents is the same for the preliminary as for the definitive publication. This is essential because an enterprise that has been classified as over coverage will continue to be so during the rest of the survey year, and the majority of over coverage is identified at the same time as the sample is changed. Total turnover would otherwise be underestimated because over coverage is always “answered” for the preliminary publication, which means that the over coverage would be over-represented.

Over coverage is only a problem in size categories 1-4. To compensate for the unusually high over coverage at the preliminary calculation, a so-called over coverage coefficient is taken into account. The preliminary estimation per stratum for month (t) can be expressed:

$$Oms_{prel}(t) = \frac{N}{(m_{\ddot{a}}(1 + \gamma_{(t-1)}))} * \sum_s y_k$$

where

$m_{\ddot{a}}$ = number of genuine responses, i.e. number of responses excluding over coverage

$\gamma_{(t-1)}$ = share of over coverage calculated from definitive data month (t-1)

By using the over coverage coefficient for the calculation of the preliminary turnover in the relevant industry, the differences between the preliminary and the more definitive results are reduced. The results during 2004 for larger study domains show that the differences in growth numbers between the preliminary and the more definitive calculations are small. For individual industries, however, the difference in certain months can be slightly larger.

2.2.6.1.2 Estimation of turnover - Group 2

The first variable to be looked for is turnover in current prices in the respective industry group for a period in a specific year ($Y_{b,k,c}^{Lop}$). $Y_{b,k,c}^{Lop}$ is estimated using the estimator:

$$Y_{b,k,c}^{Lop} = (M + Kcr + S)(1 + Z)$$

where

b = Industry group



k = Quarter

Lop = Current prices

c = Year

Y = total turnover in the industry group

S = turnover for large enterprises. These enterprises are *surveyed in total* using a questionnaire.

When questionnaire data is not received, the previous year's value for the same period is imputed or the VAT Register is used to ensure the best imputation possible. Around 0.3 % of the total number of enterprises belong to this group, but this corresponds to a considerably larger amount of the industry's total turnover.

$$\hat{S} = \sum_{i=1}^n x_i$$

where

x_i = Turnover submitted by enterprise i

S = Industry/industry group's turnover for large enterprises

Z = turnover for enterprises submitting VAT data once a year. These enterprises are enumerated with an under coverage coefficient. In over half the industries, this coefficient is not greater than 1.01 but, in certain industries, it can be higher. An annual declarant is an enterprise that submits VAT information once a year.

The calculation is done according to the following principle:

$$\hat{Z} = Z_{t-1} = \frac{\hat{A}_{t-1}}{Y_{t-1} - \hat{A}_{t-1}}$$

Y is the total turnover for the industry group

\hat{A} is the turnover of annual declarants in the industry group

Z is the annual declarants' share of turnover in relation to the other enterprises

Kcr = is the turnover for small enterprise groups. These enterprises are surveyed by questionnaire and estimated using a normal HT estimator. Roughly 10 % of the total number of enterprises belong to this group. Below is a description of the calculation method.

The calculation is done according to an HT estimator:

$$\hat{Kcr} = \sum_{h=1}^H \frac{N_h}{n_h} * \sum_{i=1}^n x_i$$

where

x_i = Turnover submitted by enterprise i

Kcr = Turnover of industry/industry group for small enterprise groups



N = Number of enterprises in the stratum
 n = Number of respondent enterprises in the stratum
 H = Number of strata

M above is the turnover for small single enterprises. These data are estimated using the VAT Register and the current ratio method. Roughly 60 % of the total number of enterprises (when calculating with cut-off limits) belong to this group. Below is a description of the calculation method. (See 2.2.3 to know how the different VAT Register variables are used).

Current ratio method. For an enterprise that submits information for two of the three months in the quarter, an enterprise-specific imputation is done, taking development in the industry into consideration.

Example:

Enterprise A has responded for months 1 and 2:

Month 1	Month 2	Month 3
108	114	

The division of turnover over the same months in the industry sector for enterprises that have responded for all three months in the quarter in question is

Month 1	Month 2	Month 3
25 %	40 %	35 %

$108+114=222$, which should constitute 65 % of enterprise A's turnover for the quarter, meaning that an estimate of enterprise A's quarterly turnover is $222/0.65 = 342$. For enterprises not responding for more than two of three months, the missing month in the quarter is enumerated and this estimated quarterly value is distributed among the upcoming months, according to turnover in the industry as a whole.

Enterprise A's turnover after imputation:

Month 1	Month 2	Month 3
108	114	120

Enterprises responding for one of the three months:

An estimate is calculated using the mean value for the enterprise's current stratum for the months in question. The basis for the mean value in the stratum are those enterprises that have responded for all three months and those that have been imputed using the current ratio method.

2.2.6.1.3 Estimation of turnover - Group 3

A calculation is done according to an HT estimator:

$$\hat{Y} = \sum_{h=1}^H \frac{N_h}{n_h} * \sum_{i=1}^n y_i$$



where

y_i = Turnover submitted by enterprise i

Y = Turnover for industry/industry group for small enterprise groups

N = Number of enterprises in the stratum

n = Number of respondent enterprises in the stratum

H = Number of strata

2.2.6.2 Other

The statistical measurement described in the first paragraph is calculated in *current prices* as well as in *constant prices*, *constant and calendar adjusted prices* and in *current and calendar adjusted prices*. The fixed price calculation of turnover is carried out using an industry price index produced by the department for price statistics at Statistics Sweden. To be able to compare a period with a corresponding period in the previous year, which often does not have the same number of weekends and calendar days, the figures are calendar adjusted. An index to calculate turnover in calendar adjusted prices is produced by Statistics Sweden in consultation with HUI and other large actors on the market.

For retail trade, a seasonally adjusted series and a trend series are also calculated in the form of an index. X11-Arima is used for seasonal adjustments and trend calculations.

2.3 Presentation of accuracy measures

The calculation of measures of uncertainty is done at the same time as the estimates for the different turnover levels. Uncertainty margins (confidence intervals) are not published but are used for checking and control.

3 Timeliness

3.1. Frequency

Statistics on turnover for retail trade sales are produced every month. Statistics on turnover for other industries are produced once every quarter.

3.2 Production time

The production time for the monthly retail trade survey is slightly less than one month, between 26 and 30 days. Further statistical processing of the data material is then carried out around 45 days after the end of the survey month.

For the industries that are surveyed quarterly, production time is around 6 to 7 weeks, which is also the production time for the annual result for all surveyed industries.

3.3 Punctuality

Deliveries of quarterly data to the National Accounts have been according to plan for 2004. The retail trade index for 2004 has been released according to the publishing plan. Data have been sent to Eurostat according to the delivery plan.

4 Comparability and coherence

4.1 Comparability over time



Until 1991, a so called "link relative estimator" was used, henceforth referred to as IF, which means that the estimated change was only based on the enterprises responding at points in time t and $t-1$.

In an analysis carried out at Statistics Sweden, it was noted that IF was not a very reliable method for estimating changes in the type of dynamic industries surveyed for statistics on turnover. When comparing against the VAT Register, it was established that the IF method greatly underestimated the development for all active enterprises during 1987 and 1988.

Therefore, during 1992, a new method came into practice in statistics on turnover for the calculation of total turnover, namely a combined ratio estimator. A turnover level for 1991 was not estimated according to this method, which meant that it was difficult to estimate the turnover change from 1992/1991. This problem was solved by using the turnover according to the VAT Register for 1990 extrapolated with the development according to IF 1991/1990 to arrive at the turnover level for 1991.

At the same time as the review of statistics on turnover in 1991, the stratification variable was also changed from the number of employees year $t-2$ to the turnover according to the VAT Register for the most recent 12-month period. This was shown to be more closely correlated with turnover for year t . The sample was also expanded by a supplementary sample to cover newly started enterprises that had not yet reported any turnover to the VAT Register. The supplementary sample is stratified by gross wages provided to the National Tax Authority.

The methodology changes between 1991 and 1992 resulted in an interruption in the time series.

From 1995 onwards, the material was reported according to SNI92 instead of SNI69. This resulted in new time series being produced for 1990-1994, in SNI92 with 1990 as the base year. The transition to SNI92 has consequently led to a slightly more uncertain time series for the period 1990-1994. SNI92 was applied until 2002, see below.

At the same time as EU adaptation in 1999, which led to an expansion and some changes in the industry classifications, the base year was changed to 1995.

The industries surveyed quarterly (excl SNI 93020 and 92710) were calculated from the reporting year 2001 onwards using a new method, the current ratio method.

Additional industries have been added over the years. Before 2002, sectors within healthcare and social work were added (SNI 80 and 85).

From 2003 onwards, the material is reported according to SNI2002 and, there, all time series, apart from back to 1955, are reported with the base year 2000 (2000=100). In 2003, a process to speed up retail trade statistics was carried out and the survey was then carried out together with HUI. Turnover development is presented twice per reference month: preliminary result and then a more definitive result.



4.2 Comparability between domains

Statistics on turnover are produced in several ways. Previously, before 2003, both Statistics Sweden and HUI produced monthly data on retail trade sales. With the new cooperation between the two, Statistics Sweden's old Sales Index and HUI's old Quick Sales Index have been combined to form the new Retail Trade Index.

But several sources still form the basis for statistics on turnover at industry level. Two of these sources are described below:

VAT statistics

Using the VAT Register, Statistics Sweden compiles statistics on turnover within all industry sectors (SNI2002). Production takes a few months after the end of the survey year. The production time for statistics on turnover is shorter and annual data is reported roughly seven weeks after the end of the survey year. In comparison with the statistics on turnover, statistics from the VAT Register have the benefit of being able to be broken down on regional level (which is also the main purpose of these statistics) but the disadvantage is that the production time is so long.

In terms of definitions, the comparability between statistics on turnover and the VAT Register is good. However, the methodologies of the surveys differ somewhat. Statistics on turnover come from a sample survey whilst the VAT Register is a total population survey.

The populations are not totally comparable either. The VAT Register covers all enterprises that have paid VAT for the measurement period, which means theoretically that the VAT Register also covers newly started enterprises from the survey year, unlike the statistics on turnover. Changes in industry sector during the year can also lead to discrepancies between the surveys.

Structural Business statistics

In Structural Business Statistics, it is possible to see the development for, for example, income and expenditure variables on industry level. Structural Business Statistics is a total population survey of all enterprises, excluding those in the sectors "Financial enterprises" and single person enterprises within agriculture, forestry, hunting and fishing. Structural Business Statistics have a relatively long production time, slightly over one year.

The survey variable turnover does not have the same definition as for short-term statistics on turnover. Structural Business Statistics includes the concept "Total net turnover", which includes all income from sales of goods and services within and outside the country excluding VAT. However, short-term statistics on turnover surveys turnover including VAT and excluding exports in SNI 50, 52, 55, 92.1-4, 92.71 and 93, which means that discrepancies exist. Within the other industries surveyed in short-term statistics on turnover, a relatively good comparison can be made with business statistics. Another important difference between the surveys is that the sampling frame for short-term statistics on turnover, and therefore the industry classifications, are one year older than those for structural business statistics.



4.3 Coherence with other statistics

Not relevant.

5 Availability and clarity

5.1 Dissemination methods

Monthly figures with growth numbers (only retail trade) are published in the Retail Trade Index roughly 26 to 30 days after the end of the survey month. The data is also available in Sweden's statistical databases (SSD). During 2004, 8 tables were presented monthly and 6 tables annually. A number of tables and diagrams are presented every month on Statistics Sweden's website (www.scb.se/ha0101). Before 2004, reporting by industry was also expanded and now comprises more industries and industry groups.

At the same time as the Retail Trade Index is published, press information in Swedish and English is issued. Data are also published in WAP. In January 2004, a press conference was held when the figures for December and the full year 2003 were published.

For quarterly statistics, 9 tables are published in SSD every quarter and annually. Data are published on the website every quarter for sales of motor vehicles (SNI 50), wholesale trade (SNI 51) and hotels and restaurants (SNI 55).

5.2 Presentation

Text, tables and diagrams showing turnover development, indexes and time series are reported in the Retail Trade Index, in the Swedish and English press releases, in SSD, on the website and in WAP. In some cases, a press conference is organised for the presentation of retail trade statistics.

5.3 Documentation

The product is documented according to Statistics Sweden's documentation system. Documentation is carried out regularly, consisting of SCBDOK, METADOK, product description and task descriptions.

Other documentation includes the following:

Methodology report: Turnover in Domestic Trade and certain services activities (F-METOD NR 32, March 24 1993).

Final report for TQM project: An overview and effectivisation of domestic trade with regards to the demands of the EU and the National Accounts. (1996).

5.4 Availability of microdata

Microdata which can identify individuals will potentially not be given out. Users can request special processing if this does not make it possible to identify the submitted information from one individual object.