

# Documentation of statistics for Bankruptcies 2021



#### 1 Introduction

The purpose of these statistics on bankruptcies is to analyze trends in the number of bankruptcies as well as in selected characteristics of companies gone bankrupt. These trends are considered as an essential economic or short time indicators. Compilation of the statistics was established in January 1979 based on a 'simple count method'. In 2009 the method was changed to a registry-based method. Quarterly statistics on selected and aggregated NACE-sections are published from July 2021

Data on petitions for liquidation proceedings are calculated on experimental basis as a high frequent (weekly) short time indicator. They cover the period since 2011.

# 2 Statistical presentation

The statistics on declared bankruptcies show monthly the development in the number of announcements by industry, region, company age, turn-over and employment. Furthermore average company age, total turn-over and total employment (lost jobs) in bankrupt companies are calculated. The bankruptcies are moreover calculated for so called active companies, i.e. companies with employment and/or turnover >= 1 million DKK, as well as inactive companies, i.e. companies without employment and turnover less than 1 million DKK.

Figures on petitions for liquidation proceedings are calculated on experimental basis as a high frequent (weekly) short time indicator. They cover the period since 2011.

The declared bankruptcies are from July 2021 published quarterly together with figures on new registered enterprises on selected and aggregated sections in the so called Quarterly Business Demography, QBD..

## 2.1 Data description

The statistics on declared bankruptcies show monthly the development in the number of announcements of bankruptcies, by industry, number of employed hit, company age, turnover and region. The bankruptcies are moreover calculated for so called active companies, i.e. companies with employment and/or turnover > 1 million DKK, as well as inactive companies, i.e. companies without employment and turnover less than 1 million DKK. Furthermore average company age, total turnover and total employment (lost jobs) in bankrupt companies are calculated.

Figures on petitions for liquidation proceedings are calculated on experimental basis as a high frequent (weekly) short time indicator. They cover the period since 2011.

The declared bankruptcies are from July 2021 published quarterly together with figures on new registered enterprises on selected and aggregated sections in the so called Quarterly Business Demography, QBD. The bankruptcy figures cover the period since 2015.



## 2.2 Classification system

The bankruptcies can be divided in two groups: - Bankruptcies in so called active companies, i.e. companies with employment and/or turnover > 1 million DKK - Bankruptcies in inactive companies, i.e. companies without employment and turnover less than 1 million DKK.

In the monthly publications an adapted version of DBo7 (Danish Industrial Classification 2007) with 10 groups is used.

- · Agriculture, forestry and fishing
- · Manufacturing, mining and quarrying, and utility services
- Construction
- Trade and transport etc. G Wholesale and retail trade: G1 Sale and repair of motor vehicles: G2 Wholesale trade and G3 Retail trade. H Transportation and I Accommodation and food service activities.
- · Information and communication
- · Financial and insurance
- Real estate
- Other business services
- · Public administration, education and health
- · Arts, entertainment and other services
- Activity not stated

For further information on DBo7 and previous Danish Industrial Classifications.

The Quarterly Business Demography apply selected NACE Sections (see more in the link above):

- BTE Sum of the sections B, C, D and E, i.e. mining and quarrying + manufacturing + electricity, gas, steam and air conditioning supply + water supply, sewerage and waste management
- F Construction
- G Wholesale and retail trade
- H Transportation
- I Accommodation and food service activities
- J Information and communication
- KTN Sum of sections K, L, M and N, i.e. financial and insurance + real estate activities + knowledge-based services + travel agent, cleaning and other operational services
- PTSXS94 Sum of sections P, Q, R, S95, S96, i.e. education + human health and social work +
  arts, entertainment and recreation activities + other service activities. The two S-groups are
  parts of Section S (other service activities) covering repair of personal goods and other
  personal service activities respectively.
- BTSXO\_S94 Sum of all groups above.

The geographical distribution is on five Danish regions.

## 2.3 Sector coverage

The statistics cover declared bankruptcies for companies and petitions for liquidation proceedings.



## 2.4 Statistical concepts and definitions

Bankruptcy: Legal actions against an insolvent debtor, whereby the debtor's property is seized to satisfy his creditors. The number of announcements of bankruptcies is counted excluding units from the Faroe Islands and Greenland. After the 'simple count method', bankruptcies of both enterprises and individuals (personal bankruptcies) were counted. After the registry-based method, only bankruptcies of enterprises are counted, i.e. bankruptcies associated with a 'CVR'-number.

Company Age: For companies gone bankrupt the company age is calculated as the difference between their start date (as registered in the Statistical Business Registry) and the date of the bankruptcy announcement.

Industry Group: A company is placed in an industry group according to its main activity. The most detailed level can be aggregated to fewer groups. In the bankruptcy statistics we use an adapted version with 10 groups. See more under classification system for more information about <u>DBo7</u>.

Employment: Employment data for the companies gone bankrupt stem from the Statistical Business Registry. Their original source is the so called 'eIndkomst-system'. Please consult its quality declaration for further details and definitions concerning the measure of employment.

Turnover: Turn-over data for the companies gone bankrupt stem from the Statistical Business Registry. Their original source is the statistics on 'Purchases and sales by industry' (the socalled 'VAT statistics'). Turn-over is annual and based on data from the last calendar year. For further details and definitions concerning turn-over, please consult the declaration of contents for 'Purchases and sales by industry'.

## 2.5 Statistical unit

Declared bankruptcies and petitions bankruptcy refer to legal units (CBR numbers).

#### 2.6 Statistical population

Companies gone bankrupt or companies with a petition for winding\_up.

## 2.7 Reference area

Declared bankruptcies and petitions for liquidation proceedings covers all Denmark excluding Faroe Islands and Greenland. The declared bankruptcies are distributed on five Danish regions. More detailed information can be obtained on request.

#### 2.8 Time coverage

The statistic on declared bankruptcies with its actual content cover the period since 2009. The statistic on petitions for liquidation proceedings cover the period since 2011.

#### 2.9 Base period

Not relevant for this statistics.



#### 2.10 Unit of measure

For declared bankruptcies: - Number of announcements of bankruptcies. - Company age in years. - Turn-over in million DKK. - Employment in full time employed.

For petitions for liquidation proceedings: - Number of announcements.

## 2.11 Reference period

The reference period for the bankruptcy is the month where the bankruptcy is declared (where the announcement appears in the Danish Official Gazette (Statstidende)). The reference period for the petitions for liquidation proceedings is the week/month where the petition is received at the bankruptcy court.

## 2.12 Frequency of dissemination

The declared bankruptcies are published monthly. The petitions for liquidation proceedings are published weekly.

## 2.13 Legal acts and other agreements

Is irrelevant to the statistics as the data are collected from The Danish Official Gazette (declarations) or directly from the courts of bankruptcies (petitions for liquidation proceedings).

No EU regulation.

#### 2.14 Cost and burden

There is no response burden as the data are collected from The Danish Official Gazette or the courts of bankruptcies.

#### 2.15 Comment

Other information is not available.

# 3 Statistical processing

Data from The Danish Official Gazette (Statstidende) are checked for missing reports and duplicates.

The announced bankruptcies in the month of reference are added on business sector, turnover, age, employment and geography. The bankruptcies are moreover calculated for so called active companies, i.e. companies with employment and/or turnover >= 1 million DKK, as well as inactive companies, i.e. companies without employment and turnover less than 1 million DKK. The main series with the total number of bankruptcies are seasonal adjusted together with the series of bankruptcies in active companies.

The series on petitions for liquidation proceedings are checked at delivery.



#### 3.1 Source data

The declared bankruptcies are delivered from the Danish Official Gazette (Statstidende) and the Statistical Business Register. The petitions for liquidation proceedings are delivered from the courts of bankruptcies. More information in Danish in <a href="Bekendtgørelse af konkursloven">Bekendtgørelse af konkursloven</a>

## 3.2 Frequency of data collection

Data on declared bankruptcies are delivered monthly. Data on petitions for liquidation proceedings are delivered weekly.

#### 3.3 Data collection

Data on declared bankruptcies are collected from The Danish Official Gazette (Statstidende) and the Statistical Business Register. Data on petitions for liquidation proceedings are delivered as a spread sheet.

#### 3.4 Data validation

There are check for missing reports (missing days in data) and eventual duplicates in the production process for the declared bankruptcies. There are no checks of the petitions for liquidation proceedings.

## 3.5 Data compilation

The announced declared bankruptcies in the month of reference are added on business sector, turnover, age, employment and geography. There are no further calculations on the petitions for liquidation proceedings. Company age is calculated as the difference between the start date in the Statistical Business Registry and the date of bankruptcy.

## 3.6 Adjustment

Seasonal adjustment is performed for the series with the total number of declared bankruptcies and the series with bankruptcies in firms with employment by using X-13 Arima without previous correction.

The quality indicators shows clear seasonal pattern and the series are therefore well qualified for correction.

No other corrections.

## 4 Relevance

The statistics on declared bankruptcies and petitions for liquidation proceedings are used by public and private decision-makers as short time indicators and as indicators of the state of affairs in enterprises.



#### 4.1 User Needs

The statistics on declared bankruptcies and petitions for liquidation proceedings are used by public and private decision-makers as short time indicators and as indicators of the state of affairs in enterprises.

#### 4.2 User Satisfaction

There are no investigations of user satisfaction. Feedback is received directly from our users.

## 4.3 Data completeness rate

There are no regulation requests or guidelines for publications or data deliveries from the statistics on declared bankruptcies or petitions for liquidation proceedings .

Complete figures are made in the current publications.

## 5 Accuracy and reliability

There are no changes to former published data. Company ages can be underestimated due to companies changes in the 'cvr'-number. Turn-over and employment figures does not necessarily reflect the situation on the time of bankruptcy as these data refer to an earlier reference period (year or quarter).

Earlier published figures on petitions for liquidation proceedings can be changed by new data deliveries.

# 5.1 Overall accuracy

The number of bankruptcies is counted directly from the source, as a bankruptcy is valid only if announced in the Danish Official Gazette (Statstidende).

Company age is calculated from the start date in the Statistical Business Registry. This date is the start date for the specific 'cvr'-number, i.e. the company's administrative identification number in the Central Business Registry (Centrale Virksomhedsregister). A potential error arises when companies change 'cvr'-number for administrative reasons, in situation where the company for practical purposes can be considered the same. In such cases, company ages will be underestimated.

Data on turn-over refer to turn-over in the four quarters previous to the data of bankruptcy while employment refer to the figure in the previous quarter. They do therefore not necessarily reflect the size of the company at the time of bankruptcy as e.g. lay-offs can have happened in the mean time.

For information on inaccuracy concerning turn-over and employment data, please consult the declarations of content for 'Purchases and sales by industry' and 'eIncome-system', respectively.

The figures on the most recently published periods of petitions for liquidation proceedings can be altered by new data deliveries.

# 5.2 Sampling error

Not relevant for this statistics.



### 5.3 Non-sampling error

Company age is calculated from the start date in the Statistical Business Registry. This date is the start date for the specific 'cvr'-number, i.e. the company's administrative identification number in the Central Business Registry (Centrale Virksomhedsregister). A potential error arises when companies change 'cvr'-number for administrative reasons, in situation where the company for practical purposes can be considered the same. In such cases, company ages will be underestimated.

Data on turn-over refer to turn-over in the four quarters previous to the data of bankruptcy while employment refer to the figure in the previous quarter. They do therefore not necessarily reflect the size of the company at the time of bankruptcy as e.g. lay-offs can have happened in the mean time.

For information on inaccuracy concerning turn-over and employment data, please consult the declarations of content for 'Purchases and sales by industry' and 'eIncome-system', respectively.

### 5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

## 5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.



## 5.6 Quality assessment

The quality and reliability of the number of declared bankruptcies are very high. The numbers are counted directly on the source data as a bankruptcy is valid only if announced in the Danish Official Gazette (Statstidende). There are no changes to former published data.

Company age is calculated from the start date in the Statistical Business Registry. This date is the start date for the specific 'cvr'-number, i.e. the company's administrative identification number in the Central Business Registry (Centrale Virksomhedsregister). A potential error arises when companies change 'cvr'-number for administrative reasons, in situation where the company for practical purposes can be considered the same. In such cases, company ages will be underestimated.

Data on turn-over refer to turn-over in the four quarters previous to the data of bankruptcy while employment refer to the figure in the previous quarter. They do therefore not necessarily reflect the size of the company at the time of bankruptcy as e.g. lay-offs can have happened in the mean time.

For information on inaccuracy concerning turn-over and employment data, please consult the declarations of content for 'Purchases and sales by industry' and 'eIncome-system', respectively.

The figures on the most recently published periods of petitions for liquidations can be altered by new data deliveries.

### 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

#### 5.8 Data revision practice

Only final figures for declared bankruptcies are published.

The figures on the most recently published periods of petitions for liquidations can be adjusted by new data deliveries.

## 6 Timeliness and punctuality

The statistics on declared bankruptcies is nearly always published on the fourth working day after the reference month.

Publications on declared bankruptcies are released on time, as stated in the release calendar.

The statistics on petitions for liquidations are normally published every Wednesday but delays may occur.

# 6.1 Timeliness and time lag - final results

The statistics on declared bankruptcies is nearly always published on the fourth working day after the reference month. Average timeliness in 2020 6,5 days.

The statistics on petitions for liquidations are normally published every Wednesday, i.e. three days after the reference week.



## 6.2 Punctuality

Punctuality for declared bankruptcies is normally 100 pct.

Punctuality for petitions for liquidations is not estimated.

# 7 Comparability

The figures for declared bankruptcies before 2009 are not fully compatible with the later figures as the former figures also contain personal bankruptcies. The size of the difference is not available.

# 7.1 Comparability - geographical

Bankruptcy statistics at our neighbour: Netherland Norway Sweden Germany Finland



## 7.2 Comparability over time

There can be different time of references for the statistics on declared bankruptcies and the information on turn-over and employment.

Changes in method

In 2009, the production of the statistics was changed from a 'simple count' method to a registry-based method. The change in method affects comparability over time in several ways:

- a) with the registry-based method, personal bankruptcies are no longer included. The number of personal bankruptcies vs. the number of business bankruptcies in the period prior to 2009 is unknown.
- b) with the registry-based method, there will be more occurrences of 'activity not stated' as there will no longer be a manual classification of companies with this code in the registry (correspondingly, there will be fewer occurrences in the group 'Financial and insurance', as especially many holding companies are registered with 'activity not stated')
- c) with the registry-based method, bankruptcies that are announced more than once in the Danish Official Gazette (Statstidende) are counted only once bankruptcies that are cancelled within the same month as their announcement will also be excluded.
- d) the new variables concerning company age, turn-over and employment are based on the registry-based method and can therefore not be calculated prior to 2009.

Data for January-December 2009 are produced and published by both methods. There are approx. 3,6 pct. more bankruptcies with the simple count method in 2009 than with the registry-based method. There will be a change in the methods from the publication for September 2010. Up to September 2010, data for the companies gone bankrupt, stem from the Statistical Business Registry. Their original source is the statistics 'Indicator for employees in employment' (the socalled ATP statistics). Now data will be based on the socalled eIncome-system, where 'o' from respondents are treated in another way than before. Data from the new eIncome-system will place more bankruptcies in the group 'non registered employment'. This will not influence on the total number of bankruptcies.

Changes in industrial classification. For the grouping by industry, there have been changes in the industrial classification nomenclature affecting comparability. For the period 1979 to 1992 the industrial classification nomenclature DSE 77 was used. For the period 1993 to 2008, the industrial classification was according to DB93 (Danish Industrial Classification of All Economic Activities) and its revision DB03. DB93 and DB03 are identical at the level of aggregation used in the statistics. Beginning in 2009, DB07, the Danish Industrial Classification based on NACE Rev. 2., is used. Data for the period 2005-2008 have been recoded to be available in DB07 groups.

Changes in geographical divisions. From 2007 onwards it is possible to obtain statistics broken down by region. Prior to 2007, the statistics is available broken down by 'province'.

The figures on petitions for liquidations are fully comparable over time.



#### 7.3 Coherence - cross domain

There is not necessarily coherence between the statistics of declared bankruptcies and statistics on the population of companies, even if there often are inquiries on the number of companies that potentially could went bankrupt.

This is among other things due to the definition of companies used in the population calculations where a company must meet demands on employment and turn-over - an activity demand. An example is the 'General enterprise statistics'. These demands are not used in the statistics of bankruptcies where we often see companies without employment or very low turn-over.

Another problem is the difference in the reference period where for example the 'General enterprise statistics' is annual and the statistics on bankruptcies is monthly.

There is more information on the concept of 'active companies' in the quality declaration for 'General enterprise statistics'.

The statistics on bankruptcies for the period up to 2008 inclusive cover personal as well as company bankruptcies and since then only company bankruptcies.

Coherence with other statistics is not relevant for petitions for liquidations.

#### 7.4 Coherence - internal

There can be different time of references for the statistics on bankruptcies and the information on turn-over and employment.

Time of reference is not relevant for petitions for liquidations.

# 8 Accessibility and clarity

Statistics on declared bankruptcies are published monthly in a Danish press release, at the same time as the tables are updated in the StatBank. In the StatBank, these statistics can be found under <u>Bankruptcies</u>. For more information, go to the <u>subject page</u>.

Statistics on petitions for liquidations are published weekly in the Statbank and at https://www.dst.dk/da/Statistik/eksperimentel-statistik-covid-19

Statistics on Quarterly Business Demography are published quarterly in the Statbank. (Link og dokumentation kommer på, når det er oprettet)

#### 8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

#### 8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.



#### 8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

#### 8.4 News release

These statistics on declared bankruptcies are published monthly in a Danish press release.

#### 8.5 Publications

No further publication.

#### 8.6 On-line database

These statistics are published in the StatBank under **Bankruptcies** in the following tables:

- KONK3 Bankruptcies by key figures
- KONK4 Bankruptcies by industry
- KONK5 Bankruptcies by company age
- KONK6 Bankruptcies by turnover
- KONK7 Bankruptcies by employed
- KONK8 Bankruptcies by region
- KONK9 Bankruptcies (historical summary) by seasonal adjustment
- KONK10E Bankruptcies and petitions for bankruptcy, yearly
- KONK11E Bankruptcies and petitions for bankruptcy, monthly
- KONK12E Bankruptcies and petitions for bankruptcy, weekly
- KONK15 Bankruptcies by most detailed industry

Her kommer link til Quarterly Business Demography.

#### 8.7 Micro-data access

There is no access to micro-data.

## 8.8 Other

There is access to special designed statistics as paid service.

#### 8.9 Confidentiality - policy

Data Confidentiality Policy at Statistics Denmark is followed.

## 8.10 Confidentiality - data treatment

There is generally not published statistics on individual companies. This imply in the field of paid services that it as principal rule won't be possible to combine company-demographic and geographic data on a detailed level.



## 8.11 Documentation on methodology

A methodical description of the 'simple count' method appeared in Statistiske Efterretninger 1981, nr. A10.

For the registry-based method, this quality declaration is the most detailed documentation that has been published.

Documentation of the statistics on declared bankruptcies in Times: <u>Documentation of bankruptcies</u> and data..

## 8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

## 9 Contact

The administrative placement of this statistics is in the division of Short Term Statistics. The person responsible is Søren Dalbro, tel.  $+45\ 3917\ 3416$ , e-mail: sda@dst.dk

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