Statistics Iceland

Metadata

SECTOR ACCOUNTS – ANNUAL

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2. Metadata update	
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3. Statistical presentation	



3.1 Data description

There are three internationally accepted methods to evaluate gross domestic product for national accounts, i.e. the results of economic activity or the value added during a specific time period. These methods are *the expenditure approach*, where GDP is obtained in the framework of the goods and services account, *the production approach*, where GDP is obtained in the framework of the production account and *the income approach* where GDP is measured as the sum of all components of value added.

In the metadata for annual and quarterly national accounts, both the expenditure approach and the production approach are covered. The expenditure approach is Statistics Iceland's main approach but the national accounts are also published in terms of production and income accounts. The production approach (supply) and expenditure approach (demand) are used independently but the income accounts are on the other hand done resultantly and is largely dependent on the final product of the other two methods. The income approach defines the calculation of GDP as the addition of its various components, consisting of compensation of employees, gross operating surplus and other taxes on production minus other subsidies on production. The annual sector accounts are a product of this approach that reflects income as an element of the value added created in the production process.

The starting point in the sector accounts compilation process is our estimation for the ratio of each sector's contribution to the economy. That is done by allocating each institutional unit into the relevant sector according to ESA 2010 classifications of units and groupings of units.

The sector accounts record the economic flows of institutional sectors in order to illustrate their economic behaviour and interactions between them. They also provide a list of balancing items that have a high analytical value in their own right: value added, mixed income, balance of primary incomes, disposable income, savings, net lending / net borrowing.



3.2	Classification
syst	tem

<u>ESA 2010</u> both provides a methodology and defines classifications that Statistics Iceland uses for compiling national accounts on comparable bases. ESA2010 distinguishes a breakdown by domestic institutional sectors: non-financial corporations, financial corporations, general government, households and non-profit institutions serving households.

Other classification systems used during the compilation of Nationals Accounts are:

Icelandic Classification of Economic Activities (ÍSAT2008) based on <u>NACE Rev. 2</u> (The Statistical Classification of Economic Activities in the European Community).

Classification of the Functions of Government (COFOG).

3.3 Sector coverage

The annual sector accounts are to describe the total economy of a country and cover all institutional sectors of the economy. ESA2010 distinguishes a breakdown by domestic institutional sectors: non-financial corporations, financial corporations, general government, households and non-profit institutions serving households.



3.4 Statistical concepts and definition

The sector accounts are divided into a production account, generation of income account, allocation of primary income account, secondary distribution of income account, redistribution of income in kind account and use of disposable income account. Each account's transfer categories contain both resources and uses as balancing items.

Production account shows the transactions relating to the production process. The main indicators are output, intermediate consumption, and gross value added. This account is drawn up for institutional sectors. The sum of value added of all institutional sectors plus taxes, less subsidies on products constitute GDP. GDP is a newly created value and is defined as the value of output less the value of intermediate consumption; net GDP/value added is a balancing item.

Generation of income account records distributive transactions which are directly linked to the production process. The resources consist of GDP, which includes compensation of employees and taxes on production and imports, minus subsidies on production, where the balancing item is operating surplus (net/gross) and mixed income (net/gross).

Allocation of primary income account records the distribution of income (interest, dividends, rent and others) between different institutional sectors. Compensation of employees is household income, which is presented as resources. Taxes on production and imports, minus subsidies, are presented under resources of the general government. The balancing item is national income (net/gross).

Secondary distribution of income account records current income, property, etc. taxes and transfers. Income taxes and net social contributions appear under resources of the general government, social security benefits other than social transfers in kind - under resources of households. This account shows how other current transfers are distributed between different economic sectors. The balancing item of the secondary distribution of income account is disposable income (net/gross).

Redistribution of income in kind account takes the process of income redistribution one stage further. It shows how the disposable incomes of households, non-profit institutions serving households (NPISHs) and government units are transformed into their adjusted disposable incomes by the receipt and payment of social transfers in kind. Nonfinancial and financial corporations are not involved in this process. The balancing item is adjusted disposable income (net/gross).

Use of disposable income account shows the distribution of disposable income between final consumption and savings in the household and general government sectors. Again, nonfinancial and financial corporations are not involved in this process. The balancing item of the use of income account is savings (net/gross).



ESA2010 distinguishes a breakdown by domestic institutional sectors, used in the sector accounts. These sectors are:

S.1 Total Economy (domestic institutional sectors)

- **S.11 non-financial corporations:** consists of institutional units which are independent legal entities and market producers, and whose principal activity is the production of goods and non-financial services. Within the non-financial corporations sector we also show the public non-financial corporations subsector.
- **S.12 financial corporations:** consists of institutional units which are independent legal entities and market producers, and whose principal activity is the production of financial services. Such institutional units comprise all corporations which are principally engaged in financial intermediation and auxiliary financial activities.
- **S.13** general government: consists of institutional units which are non-market producers whose output is intended for individual and collective consumption, and are financed by compulsory payments made by units belonging to other sectors, and institutional units principally engaged in the redistribution of national income and wealth. This includes central government, local government and social security funds.
- **S.14 households:** consists of individuals or groups of individuals as consumers and as entrepreneurs producing market goods and non-financial and financial services (market producers). Households as consumers may be defined as small groups of persons who share the same living accommodation, who pool their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. Households as entrepreneurs are sole proprietorships and partnerships without legal status, which are market producers.
- **S.15** non-profit institutions serving households: consists of non-profit institutions which are separate legal entities, which serve households and which are private non-market producers. Their principal resources are voluntary contributions in cash or in kind from households in their capacity as consumers, from payments made by general government and from property income.



	S.2 Rest of the World: consists of non-resident units which are engaged in transactions with resident institutional units, or have other economic links with resident units. Its accounts provide an overall view of the economic relationships linking the national economy with the rest of the world.
	Other relevant definitions:
	Compensation of employees (D.1) is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during an accounting period. (ESA 2010, paragraph 4.02). Compensation of employees consists of wages and salaries in cash or in kind (D.11) and employer's actual and imputed social contributions (D.121 and D.122).
	Savings as published as part of National Accounts, are savings of the total economy, national savings. National saving is the sum of each sector's saving, determined from the income and outlay accounts of each sector. The household saving rate is defined as the share of household net disposable income that is saved. The financial corporations savings are the sector's disposable income less households net assets in the pension fund system. The general government's savings equal the sector's disposable income less the general government final consumption expenditure.
3.5 Statistical unit	ESA 2010 institutional sectors.
3.6 Statistical population	The sector accounts cover all the economic transactions that are within the production boundary and are done within a given period.
3.7 Reference area	The reference area for the Icelandic annual sector accounts is the total economy of Iceland.
3.8 Time coverage	Covers a period from 2000.
3.9 Base period	Not applicable.



4. Unit of measure

4. Unit of measure

All units are shown in monetary terms: in Iceland's case in Million Icelandic Krona (million ISK).

5. Reference period

5. Reference period

The reference period of the figures in the annual sector accounts is the calendar year.

6. Institutional mandate

6.1 Legal acts and other agreements

See Act no. <u>163/2007</u> regarding Statistics Iceland legal basis for official statistics.

In Iceland, the preparation of government finance statistics is based on the European System of National Accounts 2010 (ESA 2010). The legal basis of the standard is Regulation of the European Parliament and of the Council (EU) no. 549/2013 of 21 May 2013 on the European system of national and regional accounts in the European Union.

The Regulation was incorporated into the EEA Agreement by Decision of the EEA Joint Committee No. 58/2014 of 8 April 2014. On the basis of the Regulation, Eurostat, has issued guidance and opinions on individual subjects intended to facilitate the interpretation of the standard and further guidance on its use. Eurostat also monitors compliance with existing regulations.

Implementation of European Parliament and Council Regulation (EU) No. 549/2013 is in the hands of Statistics Iceland, which is an independent institution and centre for official statistics in Iceland.

7. Confidentiality

7.1 Confidentiality - policy

See <u>rules on confidentiality</u>.



7.2 Confidentiality – data treatment	Source data is stored at Statistics Iceland. Access to more detailed data than has already been published is granted on an individual basis. In these cases the main principle is to uphold the confidentiality of the data in guidance with Statistics Iceland Rules of Procedure for Treating Confidential Data – see 7.1.		
8. Release policy			
8.1 Release calendar	The Sector Accounts are published according to Statistics Iceland advance release calendar. So far the publication has always been on schedule. The release calendar lists in advance all the statistical data and publications to be released over the year. See rules on statistical releases .		
8.2 Release calendar access	The <u>Advance release calendar</u> with scheduled releases for the forthcoming calendar year (1 January to 31 December) is published in November each year.		
8.3 User access	All users are granted equal access to national accounts data, dissemination dates of official statistics are announced in advance and no user category is provided access to official statistics before other users. Official statistics are first published in the statistical database. All results from the sector accounts are accessible through Statistics Iceland's website under the heading "sector accounts".		
9. Frequency of diss	9. Frequency of dissemination		
9. Frequency of dissemination	Full set of annual sector accounts data are released once a year on Statistics Iceland's website, with the time lag of nearly t+15 months.		
10. Accessibility and clarity			
10.1 News release	See Statistics Iceland's <u>news archive</u> .		
10.2 Publication	The publication using non-financial sector accounts as a reference consists of a short news item published on Statistic's Iceland, including a direct link to the data set.		



10.3 On-line database	In order to enable easy access to sector accounts data, all validated data should be made available to users by publishing them in an online database.
	Statistics Iceland uses PC-Axis for dissemination of statistical information. PC-Axis is a family of software used by statistical institutes all over the world. The programs are developed by statistical institutions with dissemination of statistical information in mind.
	Exports/downloads of statistical information are proposed in various formats such as Excel, CSV, PC-Axis.
	All results from the annual sector accounts are accessible through Statistics Iceland website under the heading "Sector accounts".
10.4 Micro-data access	It is possible to apply for micro-data access though <u>Statistics Iceland research service</u> .
10.5 Other	
10.6 Documentation on methodology	Iceland complies with international guidelines on national accounts provided for in the UN's System of National Accounts (SNA2008) and the European version European System of National and Regional Accounts (ESA2010).
	 The main publications about detailed methods used in compilation of sector accounts in Iceland are: European system of accounts, ESA 2010 – accounting framework of the European Union. System of National Accounts, SNA 2008 – accounting framework of the United Nations. Icelandic Classification of Economic Activities (ÍSAT2008) based on NACE (The Statistical Classification of Economic Activities in the European Community). The main publications about detailed methods used in compilation of national accounts in Iceland are: Gross National Income Inventory (ESA95) Iceland; Statistics Iceland, March 2004; on Statistics Iceland's website. A very detailed description of methods used for compilation of national accounts at current prices. This report is requested by Eurostat and the structure of it is laid down by Eurostat. Similar report exists for all the member states of European Economic Area. National Accounts 1945-1992 (in Icelandic); National Economic Institute, Reykjavik August 1994.



10.7 Quality documentation	At the time being, Statistics Iceland does not publish any documents or reports on quality management regarding the compilation of sector accounts.	
11. Quality management		
11.1 Quality assurance	See Statistics Iceland's quality policy.	
11.2 Quality assessment	Due to the fact that non-financial sector accounts is a secondary product within the NA unit at Statistics Iceland, quality degradation occurs due to two factors: 1. Cross-Domain inconsistencies 2. Sector classification Both of these two aforementioned factors are currently undergoing detailed analysis whereby a plan of action will be implemented at a future date, improving the overall quality by reducing cross-domain inconsistencies and improving the sector classification process.	



12. Relevance	
12.1 User needs	Users consist of authorities, press, researchers, international organisations and companies as well as the public, using the national accounts for economic comparison, management and planning among other things.
	The annual sector accounts provide a description of the different stages of the economic process as well as keeping track of the economic flows of institutional sectors allowing users to illustrate their economic behaviour and the interactions between them.
	Statistics Iceland appreciates good cooperation with users of official statistics. Discussions can both be regular and on an ad hoc basis. Regular communication is usually on Statistics Iceland initiative as a formal consultation on meetings or with user surveys. Ad hoc communication can both be on the initiative of Statistics Iceland or its users; this can be through a telephone, e-mail, or meetings. Cooperation with users will help increase understanding of user needs and gives users information on statistics and its production. Statistics Iceland organizes meetings and surveys to identify user needs and expectation with the aim of improving quality. The user group for economic analysts discusses the needs and expectations of those who use statistics to analyse economics and the progress of the economy.
12.2 User satisfaction	Information on the user satisfaction of the sector accounts are not collected at this point in time but, Statistics Iceland carries out general user surveys, with the main goal of measuring user satisfaction with Statistics Iceland and user estimation of the quality of official Icelandic statistics. By doing so, Statistics Iceland can make improvements and better fulfil user needs. The user survey has been conducted five times, since 2007.
12.3 Completeness	The sector accounts are in compliance with the European System of Accounts 2010 (ESA 2010) methodology.



13. Accuracy and reliability		
13.1 Overall accuracy	In 2014 the new European system of accounts was adopted. In preperation, various estimation methods were revised and modified. To support the overall accuracy, Statistics Iceland ensures that total uses and resources are balanced, providing a coherent set of data. The accuracy of the national accounts also depends on the quality of data of other statistical activities used as input. Inaccuracy in the various source data that are used can affect the accuracy of the national accounts figures. However, the conceptual consistency and, over time, the uniform adaptation of the sources and systematic balancing contribute to reducing the inaccuracy of the national accounts figures.	
13.2 Sampling errors	Not applicable	
13.3 Non-sampling errors	Statistics Iceland, along with Eurostat, tries to reduce non-sampling errors through continuous methodological improvements.	
14. Timeliness and punctuality		
14.1 Timeliness	Full set of annual sector accounts data are officially released on Statistics Iceland's website, with the time lag of nearly t+15 months.	
	Preliminary figures for the total economy (S.1), general government (S.13) and the rest of the world (S.2) are sent to Eurostat with the time lag of t+9, but not released on Statistics Iceland's website.	
	Annual sector accounts data was first published for the Icelandic economy in 2014 and initially covered the years 2000-2011. In September 2015 data was published for 2012-2013 and are now released on a yearly bases.	
14.2 Punctuality	The sector accounts are published according to Statistics Iceland advance release calendar.	



15. Coherence and comparability		
15.1 Comparability – geographical	There is a high degree of comparability with the sector accounts of other countries, especially those of EU and EEA member states, as they all follow the same standards (ESA2010). Worldwide geographical comparison is also possible as most non-European countries apply the SNA 2008 guidelines, and SNA 2008 is consistent with ESA 2010.	
15.2 Comparability – over time	It is fundamental, when compiling national accounts, that the figures should be comparable over time to the largest extent to make the time-series as comparable between periods as possible. When fundamental changes occur in the process of data collecting or the methods applied, the comparability can be affected.	
15.3 Coherence – cross domain	Sector account datasets are consistent with national accounts main aggregates but temporary differences may occur when revisions of national accounts are published, due to different publication timelines of the two data sets. Those differences are then adjusted in next annual sector accounts publication. Inconsistencies are however present between the financial accounts and sector accounts (non-financial sector accounts) in net lending/borrowing per all sectors. These differences are regularly monitored but reconciliations of accounts are not implemented.	
15.4 Coherence – internal	All inconsistencies are reported to Eurostat where, as of yet, no decision has been made whether to make those reports public. The inconsistencies occur due to mehtodological differences between approaches, as well as occasional differences between data sources.	
16. Cost and burden		
16. Cost and burden	In exceptional cases data is requested directly from companies but never from individuals. Most data is already available within companies and institutions. The response burden is therefore kept at minimum.	
17. Data revision		
17.1 Data revision - policy	See Statistics Iceland <u>revision policy</u> .	



17.2 Data revision - practice

Revisions, in other words altered data relating to a period which has already been published, are a natural part of national accounts work. A distinction is made between two kinds of revisions:

- Current or routine revisions
- Major or occasional revisions

The current revisions of main aggregates are normally released twice a year. In short the cycle of current revisions can be described as follows:

- Version 1, named provisional data, is now published around the end of February of the following year (t + 60 days). The 4th quarter of that year is published on the same day.
- Version 2, named preliminary data, is published around the end of August (t+8 months) and the 2nd quarter of the year on the same day.
- Version 3, is published around the end of February, a year later (t+14 months).

The annual figures in the first publication, Version 1, are partly a simple sum of the year's four quarters based on the quarterly national accounts and only according to the expenditure approach.

This description refers to the expenditure approach only.

The income approach is lagging behind in time and the Version 1 of annual sector accounts full dataset is published soon after the Version 3 of the expenditure approach has been published. Version 2 of the annual sector accounts data is published just over a year later (t+29 months).

Strictly speaking Statistics Iceland never considers national accounts figures to be final. Other revisions, covering longer periods, named occasional or major revisions may arise for a number of reasons. The most common reasons are new sources, new methods or classifications, amended procedures for the application of ESA2010 and the like. Such revisions relate to a longer period and are generally undertaken at less frequent intervals. These major revisions are divided into major ad-hoc revisions and major regular revisions.



No major scheduled revisions are set to take place for non-financial sector accounts. Due to the status of non-financial sector accounts as a secondary product within the NA unit at Statistics Iceland, all major scheduled revisions for main aggregates will be incorporated into non-financial sector accounts.

18. Statistical processing



18.1 Source data

Most of the data sources used for the annual sector accounts compilation are direct sources where data sources for general government accounts and the rest of the world account are considered exhaustive. Four main pre-existing annual datasets serve generally as input in all relevant current accounts as well as the capital account when establishing the annual sector accounts:

- The main aggregates for the total economy (S.1) are published quarterly/annually by the department of national accounts and public finance, with varying revisions twice a year for the quarterly figures and ones a year for figures published annually.
- General government accounts (S.13) are compiled independently of the accounts for other sectors and published
 quarterly by the department of national accounts and public finance, with the same revision policy as the main
 quarterly aggregates.
- Data for the disposable income of the household sector (S.14) are published annually by the department of national
 accounts and public finance, 9 months earlier than the full set of the annual sector account figures can be published.
 The main data source used in calculating the disposable income of the household sector is the individual income tax
 returns database from the Directorate of Internal Revenue.
- Balance of payment (S.2) dataset is published quarterly by the Central Bank of Iceland.

As most of the pre-existing annual data are already available for S.1, S.13, S.14 and S.2 the estimate of the remaining transactions, based on additional information and specific methods, mainly concern the accounts for non-financial corporations (S.11), financial corporations (S.12) and non-profit institutions serving households (NPISH/S.15).

- Main data sources for S.11 are the Enterprise Account Register, the Enterprise Register, the VAT Register and the Payas-you-earn Register from the Directorate of Internal Revenue, and the annual accounts of the largest municipalities.
- For S.12 the main data sources come from the FINREP reports and the annual reports on the insurance-, pension-, credit- and securities market from the Financial Supervisory Authority of Iceland.
- Data sources for NPISH are the Enterprise Account Register and the Pay-as-you-earn Register from the Directorate of
 Internal Revenue, as well as the annual accounts of the largest NPISHs. The NPISH data-collection is currently
 considered the weakest spot in the annual sector accounts data-collection as in that sector are units that are neither
 covered by the standardized company accounts nor do we have direct access to other sources of company accounts.
 The collection and processing of these units has however recently started at Statistics Iceland, but not yet





	implemented into the annual sector accounts compilation. There is currently not a fixed time schedule at hand on when that implementation will be finished.
18.2 Frequency of data collection	Due to te nature of data sources, the frequency of data collection of primary statistics can vary. The frequency and timing of the compilation of national accounts are not necessary aligned with the frequency and timing of (all) primary statistics data.
18.3 Data collection	The data collection process occurs through several transmission protocols: • Statistic's Iceland Online Data Collection Portal • Database mirroring between institutions • Cloud services • Email The transmission protocols vary between source data and intra data, external sources and internal sources.



18.4 Data validation

The data validation process consists of validation templates, where aggregates and cross-domain aggregates are validated.

Description:

When key aggregates are compiled by the respective team in charge of each domain, they implement a validation procedure from which cross-domain and local aggregates, within and across tables, are compared against each other using a validation template.

Cross-domain aggregates are usually compiled in one of two ways:

- 1. Cross-domain aggregates are used directly from other domains where a single/or specific domain is responsible for a cross-domain aggregate.
- 2. The cross-domain aggregate is calculated and retroactively validated from a corresponding aggregate from another domain using the aforementioned validation template.

As previously mentioned, the templates provide a validation procedure for which consistency within and across tables can be ensured.

The final validation procedure performed by all approaches are visualization procedures whereby aggregates are analyzed visually.

Note that these procedures were not implemented for the non-financial sector accounts until recently.



18.5 Data compilation

The starting point in the annual sector accounts compilation process is our estimation for the ratio of each sector's contribution to the economy. That is done by allocating each institutional unit into the relevant sector according to ESA 2010 classifications of units and groupings of units.

Each indent of the sector accounts production account is compiled by splitting the sums from the production approach of the national accounts between sectors. That is done by obtaining the salary paid by each sector (specific process for each year) and finding the ratios of the sectors in each 5 digits activity code of ISAT 2008, which is the Icelandic version of the NACE rev.2 classification of activities. To be more precise then we use tax return records filed by businesses to the Directorate of Internal Revenue under the Pay-As-You-Earn scheme to give us the estimated salary (no social contributions included) in each sector which we then use to determine the ratio of each sector's share in each activity code. Estimated ratio of each sector's share is also used to divide various items in the current accounts for which direct and/or reliable sector wise data is not available.

A direct estimation method means that on the basis of exhaustive accounting statistics for the industry in question, output and intermediate consumption are obtained by statistical processing of the underlying business accounts. In the Icelandic national accounts the compilation of production accounts is chiefly based on such direct estimation methods. Thus, company accounts are collected from tax authorities and central and local government accounts are collected directly from these authorities.

In some exceptional cases production account items are constructed entirely by using indirect estimation methods. These are in the following industries and sub-industries:

- Own-account construction and repair, activity 41.3.
- Dwelling service production and renting of machinery and equipment, activity 68.20.1.

Annual non-financial sector accounts are compiled for S.11 non-financial corporations, S.12 financial corporations, S.13 general government, S.14 households and S.15 non-profit institutions serving households. When data sources are available they are pulled in compilation tables where all necessary steps to ESA 2010 concepts and definitions are done. When national accounts aggregates are prepared they are available to all NA staff in a common Windows share point. If some corrections of data are needed, they are done on shared files. In such a way we assure using of the last version of aggregates which come into different process tables or parts of national accounts. The main data sources for GDP by the production approach are annual accounting statements and administrative data. Annual accounting statements are the primary and exhaustive data basis of compiling GDP by the production approach for all institutional sectors. Basic data sources are complete and cover all



	institutional sectors. For GDP by the production approach the important task is to do all steps from accounting and administrative concepts to ESA 2010 national accounting concepts. The whole compilation process, data sources and conceptual adjustments are described in the GNI inventory. The ESA 1995
	GNI inventory for 2005 is published on http://www.hagstofa.is/media/42448/Inventory2008_version4.pdf . A new inventory, on Iceland's Gross National Income compilation in compliance with ESA2010, is to be published soon.
	FISIM are allocated to direct users (sectors) of financial intermediation services of monetary institutions for the whole period since 2000.
	Compilation of sector accounts items which are not included in GDP compilation is done item by item for all S.1 sectors and S.2 and also balancing of resources and uses is done in such a way. Data sources are available every year and all compilation is done in SQL/excel.
	When all items are balanced and table filled in, some quality checks are made. Indices are calculated; if they are below or above a certain limit, we do additional checks of items. We also calculate the household saving rate and the household investment rate at this stage to check if results are reasonable. If some mistakes are found, we correct the item compilation file.
18.6 Adjustment	Not applicable
19. Comment	
19. Comment	