
INTRODUCTION

As an autonomous part of the national accounts, the financial accounts provide a comprehensive overview of the financial situation and financial relationships in the economy, including external relations, in the national accounts breakdown, i.e. with regard to economic sectors and financial instruments.

The financial accounts complement the picture of the business cycle using financial data. The accounts aim to provide a better insight into the operation and structure of the financial system and to show the main channels used to obtain and invest financial resources. They are an important source of information with broad application in monetary policy analyses as well as financial stability and monitoring of the transmission mechanism. In addition to identifying financial risks and imbalances in individual sectors, the financial accounts can be used in financial modelling and simulations. They also play an essential role in the analysis of sectors for which comprehensive financial data are not available from other statistics (direct data collection), i.e. for example in the analysis of non-financial corporations and households

DEFINITION OF FINANCIAL ACCOUNTS WITHIN THE SYSTEM OF NATIONAL ACCOUNTS

The national accounts are a complete and closed system of accounts where flows and stocks are arranged so as to systematically describe the business cycle. They cover production, the generation, distribution and redistribution of income and its use for final consumption or accumulation as non-financial and financial assets. They describe all material, income and monetary flows between economic agents within the national economy and vis-à-vis the external environment, as well as the impacts of these flows. The flows are recorded according to their economic nature in two forms: as transactions and as other changes in assets. The decomposition into components is very important analytically, as it enables us to distinguish to what extent changes in assets and liabilities were intentional (transactions) and to what extent they were a result of factors exogenous to the sector. The values of assets and liabilities are recorded as of the start and end of the accounting period, at an annual or quarterly frequency. The national accounts system is built around a sequence of inter-connected accounts, grouped into three categories according to their nature: current accounts, accumulation accounts and balance sheets (see Box 1).

The quarterly financial accounts can be defined as the part of the balance sheets and accumulation accounts relating to financial assets and liabilities (the grey-shaded parts in Chart 1).¹ More specifically, they record the opening and closing stocks of financial assets and liabilities and the individual flow components that affect the change in those stocks. The quarterly financial accounts system is complete and closed with regard to both flows (i.e. the sum of financial transactions, revaluations and other changes in assets) and stocks. This means that all changes in stocks are fully accounted for by recorded flows. Therefore, the following relationship between stock and flow variables is binding for each instrument:

Stock at beginning of accounting period	Opening balance sheet
+ (-) financial transactions	Financial account
+ (-) revaluation	Revaluation account
+ (-) other changes in assets	Other changes in volume of assets account
= stock at end of accounting period	Closing balance sheet

BOX 1 A brief outline of the individual accounts and account groups

The current accounts (parts I and II) record the production of goods and services, the generation of income in production, and the distribution and redistribution of income and its use in the form of final consumption. More specifically, they comprise a production accounts (I) and distribution and use of income accounts (II). Income not used directly for final consumption appears under a balancing item as saving, which is transferred to the accumulation accounts.

The accumulation accounts (part III) record increases in financial and non-financial assets and their sources of financing. The system of accumulation accounts comprises the capital account (III.1), the financial account (III.2) and the other changes in assets accounts (III.3).

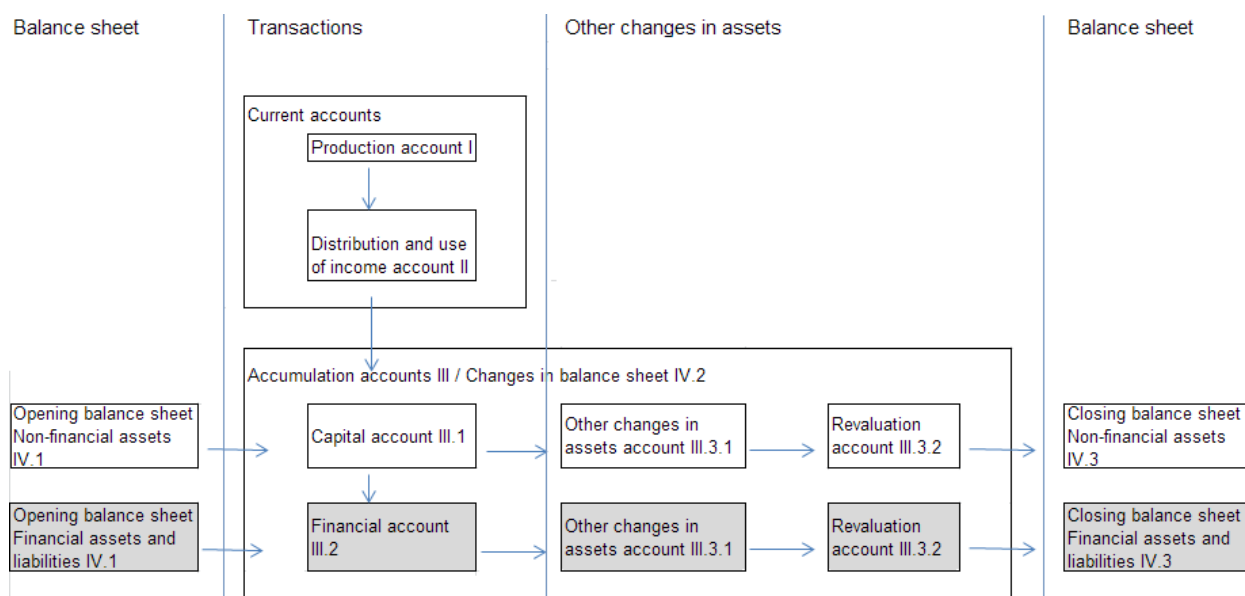
The capital account (III.1) records net acquisition of non-financial assets and own disposable sources of financing thereof. It is linked to the current accounts through saving, which is the main source of financing. The final balancing item is net lending (+) / net borrowing (-), i.e. the amount the sector is able to lend to, or has to borrow from, other sectors in the current period.

The financial account (III.2) records transactions pertaining to financial instruments. The balancing item, i.e. net acquisition of financial assets minus net incurrence of liabilities, represents net lending (+) or net borrowing (-). This concept is identical to that of the capital account balancing item. The capital account balancing item equals the amount not consumed or invested in non-financial assets in the current period. It can thus be used to increase financial assets or reduce liabilities. The ability to finance, as indicated by the capital account, must be reflected in a rise in financial assets or a corresponding decrease in liabilities on the financial account. Conversely, a need for external financing must be reflected in a decrease in the financial assets or an increase in the financial liabilities of the sector vis-à-vis other sectors or the rest of the world. The financial account is the last account in the sequence of accounts recording transactions. Its balancing item is not transferred to any other account.

The other changes in assets account (III.3) records changes in assets and liabilities which are not recorded on other accumulation accounts. It is divided into the other changes in volume of assets account (III.3.1), recording changes caused primarily by non-economic factors, most often of a technical nature, and the revaluation account (III.3.2). This account records nominal gains/losses from holdings of assets and liabilities due to changes in their prices.

The balance sheet (part IV) shows the stocks of financial and non-financial assets and liabilities at the start and end of the accounting period. The value of assets and liabilities in the closing balance sheet (IV.3) equals the sum of the value recorded in the opening balance sheet (IV.1) and the amount on the changes in balance sheet account (IV.2). Balance sheet changes comprise changes in assets and liabilities as recorded on the individual accumulation accounts, i.e. the financial account, the revaluation account and the other changes in volume of assets account. The balance sheet is the last account in the sequence, as it shows the final result of the entries on the current and accumulation accounts. The classification of assets and liabilities in the balance sheet is identical to that used on the financial account. The balancing item is net worth.

Chart 1 Account sequence chart



MAIN PRINCIPLES AND CLASSIFICATIONS

The ESA 2010 (European System of Accounts) manual is a binding methodological regulation for compiling the quarterly financial accounts in the Czech Republic. Compliance with the individual statistical standards, definitions, accounting rules and classifications ensures consistency with the overall system of national accounts as well as international comparability. The structure of ESA 2010 is in line with the globally valid national accounting principles SNA 2008 (System of National Accounts). It is further harmonised with the main social and economic statistics. The following ESA 2010 methodological principles and classifications are relevant to the generation of the quarterly financial accounts:

Accounting rules: National accounting is based on the principle of double entry. Each transaction must be recorded twice, once as a resource (or a change in liabilities) and once as a use (or a change in assets). The total of transactions recorded as resources and the total of transactions recorded as uses must be equal, thus permitting a check on the consistency of the accounts.

Valuation: Financial assets and liabilities are valued at current market prices as of the balance sheet date. Where only nominal prices are available, these are converted to market prices using an estimate. Alternatively, nominal prices are used.

Consolidation: The financial accounts are compiled primarily as unconsolidated accounts. Therefore, all financial assets and liabilities must be recorded on the accounts regardless of whether they relate to transactions outside or within the sector monitored.

Time of recording: Records on the accounts are made on an accrual basis. The system records flows based on title, i.e. when claims and obligations arise, are transformed or are cancelled. Flows must be recorded at the same point of time for all institutional units involved and in all accounts.

Classification: Economic entities (institutional units) and financial instruments are subject to unified classification to ensure greater clarity and broader analytical use of the financial accounts.

Institutional sectors are the main economic units monitored in the national accounts. First of all, they are classified on a territorial basis (resident versus non-resident sectors). Resident institutional units are subdivided into sectors according to their economic behaviour, specified in terms of their principal economic function and type of activity. Non-resident institutional units are included in the national accounts only in so far as they are engaged in transactions with resident units. Although the rest of the world sector plays a role similar to that of a resident sector, it is not internally characterised by similar objectives and patterns of behaviour. Where appropriate, resident sectors may be further divided into subsectors according to specific criteria relevant to that sector. Each institutional unit belongs to only one sector or subsector.

For the purposes of the quarterly financial accounts, resident entities are grouped into five sectors; the financial corporations and general government sectors are broken down into subsectors to allow a more detailed description.

Sektory		Subsektory	
S.11	Non-financial corporations		
S.12	Financial corporations	S.121	Central bank
		S.122	Deposit-taking corporations except the central bank
		S.123	Money market funds (MMF)
		S.124	Non MMF investment funds
		S.125	Other financial intermediaries, except insurance corporations and pension funds
		S.126	Financial auxiliaries
		S.127	Captive financial institutions and money lenders
		S.128	Insurance corporations
		S.129	Pension funds
S.13	General government	S.1311	Central government
		S.1312	State government
		S.1313	Local government
		S.1314	Social security funds
S.14	Households		
S.15	Non-profit institutions serving households		
S.2	Rest of the world		

The highlighted subsector does not exist in the Czech Republic

The classification of financial instruments is based primarily on their liquidity and legal characteristics. Financial assets yield property income or holding gains and must have counterparts in the liabilities of other institutional sectors. Therefore, the same financial instruments feature on both sides of the accounts.

Kategorie		Subkategorie	
AF.1	Monetary gold and SDRs	AF.11	Monetary gold
		AF.12	Special drawing rights
AF.2	Currency and deposits	AF.21	Currency
		AF.22	Transferable deposits
			AF.221 Interbank deposits
		AF.229 Other transferable deposits	
AF.29	Other deposits		
AF.3	Debt securities	AF.31	Short-term
		AF.32	Long-term
AF.4	Loans	AF.41	Short-term
		AF.42	Long-term
AF.5	Equity and investment fund shares	AF.51	Shares and other equity
			AF.511 Listed shares
			AF.512 Unlisted shares
		AF.519	Other equity
		AF.52	Investment fund shares/units
AF.521 Money market fund shares/units			
AF.522	Non-MMF investment fund shares/units		
AF.6	Insurance, pension and standardised guarantee schemes	AF.61	Non-life insurance technical reserves
		AF.62	Life insurance and annuity entitlements
		AF.63	Pension entitlements
		AF.64	Claims of pension funds on pension managers
		AF.65	Entitlements to non-pension benefits
		AF.66	Provisions for calls under standardised
AF.7	Financial derivatives and employee stock options	AF.71	Financial derivatives
			AF.711 Options
		AF.712	Forwards
AF.72	Employee stock options		
AF.8	Other accounts receivable/payable	AF.81	Trade credits and advances
		AF.89	Other accounts receivable/payable, excluding trade credits and advances

The highlighted financial instruments are not reported separately in the quarterly financial accounts at the CNB.

DATA SOURCES

The quarterly financial accounts are compiled statistics

The complexity of the financial accounts and the breadth of their coverage in the quarterly financial accounts statistics place considerable requirements on data sources. With a few exceptions, there are no direct data sources collected solely for financial accounts purposes. Detailed statistics on selected parts of the financial system are used almost exclusively for their compilation. These may focus on the financial relationships of a selected set of entities with similar economic behaviour (e.g. banks) or on the use of financial instruments across the economy (e.g. securities statistics). In this sense, the primary input data are regarded as partial statistics and the quarterly financial accounts as secondary – compiled – statistics. The overall data quality, the level of detail and the time lag with which the data are made available depend fundamentally on the properties of the partial statistics.

Data coverage

The high demand for input data can be covered largely by partial statistics or additional sources, but full coverage is impossible for a number of reasons and estimates are to some extent unavoidable. Generally, the situation is most complicated as regards the links of economic sectors such as non-financial corporations and households, i.e. sectors with a large number of entities, which at the same time are not subject to supervision. In this area, it is always necessary to assess carefully whether additional surveys place an excessive statistical burden on entities, whether they are efficient and whether they provide relevant economic information.

Counterparties

The quarterly financial accounts statistics deal with the financial side of the economy from the point of view of financial instruments, i.e. instruments for which one entity's asset is always another entity's liability. This mirror feature offers the option of collecting data either from entities investing in financial assets or from issuers/debtors. If data is collected from at least one of these parties, the type of relationship and the counterparty are clearly identified. Information from counterparties thus makes it possible to cover data from sectors and areas where direct data collection is either difficult or impossible.

Ensuring consistency

The partial statistics overlap to some degree as a result of economic links, and in some cases the same information may be published under two partial statistics. A comparison of mirror data from the partial statistics reveals that the data very often differ. While such discrepancies do not usually need to be addressed within the partial statistics, identifying and eliminating them is a key task and a major aid in the compilation of the quarterly financial accounts as a consistent information system. Discrepancies between data do not necessarily imply that one of the statistics is wrong. There are several possible reasons for discrepancies. Besides methodological differences (such as different definitions or valuations of financial instruments across the statistics), discrepancies may be due to the use of different primary sources, different update frequencies of reporting entities or different transaction record times. This places certain demands on data users as regards knowledge of the specific content and definition of financial instruments in the financial accounts.

In justified cases, and especially where it is impossible to ensure consistent and methodology-compliant data in any other way, none of the partial statistics is respected: an alternative approach is selected, resulting in data that are different but methodologically unified and sectorally consistent. The principle of consistent reporting is crucial and superior to the other principles within the quarterly financial accounts. Such cases relate mainly to problems with financial instrument valuation, as the price of an instrument can be viewed differently by holders in different sectors or by its holder and issuer (the debtor). The general principle of market price valuation can only be fully observed for financial instruments traded on a public market. In other cases, the market price is usually estimated using an economic concept.

Table 1 Overview of valuation methods used for financial instruments

Financial instrument	Valuation method
Monetary gold and SDRs	Market prices
Currency and deposits	Book values
Debt securities	Book values
Loans	Book values (gross loans)
Listed shares	Market prices
Unlisted shares	Own funds at book value
Other equity	Own funds at book value
Investment fund shares/units	Market prices
Insurance and pension schemes	Book values
Financial derivatives	Market prices
Employee stock options	Transaction prices
Other accounts receivable/payable	Book values

Note: Book values may equal market prices

Financial relationships not covered by data from the relevant sector or counterparty are subject to estimates. The economic purpose of estimates is not to establish an exact value but to provide representative and up-to-date information that can be used to identify the strength of financial links and any financial risks relatively reliably. Similarly, a series of zero values does not necessarily mean that no financial link exists, but only that it is negligible.

The most frequently used techniques involve segmentation of annual time series and grossing up based on balance sheet rules (residual grossing up), but other approaches are used as well, for example the use of up-to-date quarterly (reference) series. Where a financial account item can be estimated by different methods, these estimates are compared and their economic relevance assessed.

The compilation of the financial accounts depends on dozens of primary sources, some of which are internal (CNB) and some of which are from external data providers. The Czech Statistical Office (CZSO) is the key partner as regards data sources and cooperation in creating the financial accounts methodology. The statistical areas where primary sources originate and which the quarterly financial accounts draw on include the following:

Internal sources:

- Monetary and financial statistics (MFS)
- International investment position (IIP)
- Portfolio investment statistics (PI)
- Financial balance sheets of insurance corporations (FBSIC)
- Financial balance sheets of pension funds (FBSPF)
- Statistics on other financial intermediaries (OFI)
- Statistics on collective investment funds (CIF)
- Security-by-security statistics (SBS)
- Debt securities database (DSD), internal database of CNB Division 391, source: statistical reports RISIFE41, RISIFE22, RISIFI33, JISIFE51, DOPOS34, DOPOS46, SBS, CSDB, Ministry of Finance data
- Shares and other equity database (SOED), internal database of CNB Division 391, source: PSE, RMS, Magnus, additional securities information, QFAGG, AFA

Table 1

Use of estimates

Data sources

External sources:

- General government balance sheets and the government's quarterly financial accounts, source: CZSO (QFAGG)
- Quarterly report of financial institutions accounting as businesses Pen3c-04, source: CZSO (Pen3c-04)
- Annual financial accounts, source: CZSO (AFA)
- Quarterly report on financial indicators P6-04, source: CZSO (P6-04)
- Annual report of economic agents in selected production branches P5-01, source: CZSO (P5-01)
- European securities database, source: ECB (CSDB)
- Magnus database, source: Bisnode Česká republika, a.s. (Magnus)
- Prague Stock Exchange (PSE), RM-System (RMS).
- Additional information on securities issuers, source: annual and half-yearly reports, internet sources (additional securities information)
- Additional information on employee options, source: annual reports of non-financial and financial corporations (EO AR)

Data from closing balance sheets are the dominant part of the data sources. Primary data on financial transactions are rare and focus on specific areas (deposits, listed and unlisted equity, partly financial derivatives). In most cases, therefore, data on financial transactions are obtained indirectly, i.e. after the impact of exchange rate or market revaluation is reflected in the difference between balance sheets for two consecutive periods. Market revaluation is calculated for listed and unlisted equity, other equity and long-term bonds. Exchange rate revaluation is calculated in relationships with the rest of the world and where information on liabilities in foreign currency is available (bank deposits and loans). In many cases, especially in situations where exchange rate or market revaluation of an instrument is not feasible, financial transactions are recorded as a mere difference in stocks. Information on other changes in volume of assets pertains almost exclusively to changes in the classification of financial instruments or institutional sectors.

Table 2 Coverage of financial accounts by data sources by sector and financial instrument financial assets side

Financial instruments	Creditor's sector	Non-financial corporations (S.11)	Central bank - CB (S.121)	Other monetary and financial institutions - OMI (S.122+S.123)	Financial corporations except CB, OMI and ICP (S.124+S.125+S.126+S.127)	Insurance corporations and pension funds - ICP (S.128+S.129)	General government (S.13)	Households (S.14)	Non-profit institutions serving households (S.15)	Rest of the world (S.2)
Monetary gold and SDRs (AF.1)			MFS							
Currency (AF.21)		AFA,P6-04	MFS	MFS	OFI,CIF,Pen3c-04	FBSIC,FBSPF	MFS	residual	AFA	estimate
Deposits (AF.22+AF.29)		MFS	MFS	MFS	MFS	MFS	MFS	MFS,IIP	MFS	MFS
Debt securities (AF.3)		DSD	MFS	DSD	DSD	DSD	QFAGG	DSD	DSD	DSD
Loans (AF.4)		AFA,MFS,IIP, P6-04,QFAGG	MFS	MFS	OFI,CIF,Pen3c-04	FBSIC,FBSPF	QFAGG	MFS	MFS,AFA	IIP,MFS,QFAGG, OFI
Listed shares (AF.511)		SOED	MFS	MFS	SOED	SOED	SOED	SOED	SOED	SOED
Unlisted shares (AF.512)		SOED	MFS	MFS	SOED	SOED	SOED	SOED	SOED	SOED
Other equity (AF.519)		SOED	MFS	MFS	SOED	SOED	SOED	SOED	SOED	SOED
Investment fund shares/units (AF.52)		SBS,PI,CIF	MFS	MFS	SBS,PI,CIF	FBSIC,FBSPF	CIF	CIF	CIF	MFS, CIF
Non-life insurance technical reserves (AF.61)		FBSIC	FBSIC	FBSIC	FBSIC	FBSIC	FBSIC	FBSIC	FBSIC	FBSIC
Life insurance and annuity entitlements (AF.62)								FBSIC		
Pension entitlements (AF.63)								FBSIC		
Financial derivatives and employee stock options (AF.7)		P6-04	MFS	MFS	OFI,CIF,Pen3c-04	FBSIC,FBSPF	QFAGG	EO AR	AFA	IIP
Other accounts receivable/payable (AF.8)		AFA,P6-04	MFS	MFS	OFI,CIF,Pen3c-04	FBSIC,FBSPF	QFAGG	AFA	AFA	IIP,MFS,QFAGG

Table 3 Coverage of financial accounts by data sources by sector and financial instrument – liabilities side

Financial instruments	Debtor's sector	Non-financial corporations (S.11)	Central bank - CB (S.121)	Other monetary and financial institutions - OMI (S.122+S.123)	Financial corporations except CB, OMI and ICPF (S.124+S.125+S.126+S.127)	Insurance corporations and pension funds - ICPF (S.128+S.129)	General government (S.13)	Households (S.14)	Non-profit institutions serving households (S.15)	Rest of the world (S.2)
Monetary gold and SDRs (AF.1)										IIP
Currency (AF.21)			MFS							MFS, Pen3c-04
Deposits (AF.22+AF.29)			MFS	MFS						IIP, MFS, CIF
Debt securities (AF.3)		DSD	MFS	DSD	DSD	DSD	QFAGG			DSD
Loans (AF.4)		AFA, MFS, IIP, P6-04, QFAGG	MFS	MFS	OFI, CIF, Pen3c-04	FBSIC, FBSPF	QFAGG	MFS, QFAGG, P501, FBSIC, OFI, AFA	MFS, OFI, AFA	IIP, MFS, OFI, QFAGG
Listed shares (AF.511)		SOED	MFS	SOED	SOED	SOED				IIP, MFS, CIF, FBSIC, SBS
Unlisted shares (AF.512)		SOED	MFS	SOED	SOED	SOED	SOED			IIP, MFS, OFI, CIF, FBSIC, FBSPF, QFAGG
Other equity (AF.519)		SOED	MFS	SOED	SOED	SOED	SOED			IIP, MFS, OFI, CIF, FBSIC, QFAGG
Investment fund shares/units (AF.52)				MFS	CIF	FBSIC, FBSPF				IIP, MFS, CIF, FBSIC, FBSPF,
Non-life insurance technical reserves (AF.61)						FBSIC, FBSPF				FBSIC
Life insurance and annuity entitlements (AF.62)						FBSIC, FBSPF				
Pension entitlements (AF.63)						FBSIC, FBSPF				
Financial derivatives and employee stock options (AF.7)		P6-04, EO AR	MFS	MFS	OFI, CIF, Pen3c-04	FBSIC, FBSPF	QFAGG, IIP			IIP
Other accounts receivable/payable (AF.8)		AFA, P6-04	MFS	MFS	OFI, CIF, Pen3c-04	FBSIC, FBSPF	QFAGG	AFA	AFA	IIP, MFS, Pen5b-01, FBSIC

The quarterly financial accounts are compiled and presented in various degrees of complexity. The main method of presentation is a two-dimensional table compiled for institutional sectors as lender or borrowers and for financial instruments (e.g. Tables 2 and 3). A more detailed view is provided by a three-dimensional “from whom to whom” table, which also shows information on the creditor and debtor institutional sector for each financial instrument. This table enables in-depth analysis of who finances whom, in what amounts and through which financial instruments (see Table 4). The natural aim is to present stock and flow quarterly financial accounts in the form of three-dimensional tables to the maximum extent possible.

Table 4 Illustration of “from whom to whom” financial links between institutional sectors for financial instrument AF.(i)

Table 4

	S.11	S.12	S.13	S.14	S.15	S.2
S.11	S.11_S.11	S.11_S.12	S.11_S.13	S.11_S.14	S.11_S.15	S.11_S.2
S.12	S.12_S.11	S.12_S.12	S.12_S.13	S.12_S.14	S.12_S.15	S.12_S.2
S.13	S.13_S.11	S.13_S.12	S.13_S.13	S.13_S.14	S.13_S.15	S.13_S.2
S.14	S.14_S.11	S.14_S.12	S.14_S.13	S.14_S.14	S.14_S.15	S.14_S.2
S.15	S.15_S.11	S.15_S.12	S.15_S.13	S.15_S.14	S.15_S.15	S.15_S.2
S.2	S.2_S.11	S.2_S.12	S.2_S.13	S.2_S.14	S.2_S.15	0

Given its specific position, the rest of the world sector is consolidated by definition

The quarterly financial accounts data are released on the CNB website 110 days after the end of the reference quarter. Data for the most recent quarter are presented in Excel tables, while time series from 2004 are presented through [the ARAD database](#). A commentary and a table of additional financial indicators are published along with the data.

Partial statistics entering the compilation process as primary data have various publication times after the end of the reference period and also different revisions policies. This in turn affects the revisions to and publication of the quarterly financial accounts data. Generally speaking, efforts are made to use the latest available information, including retrospectively for already released quarters. Therefore, a revision of the previous quarter’s data is also regularly released together with the data for the current quarter. In connection with the revision of major source statistics (government statistics, international investment position, annual national accounts), the data for four or more quarters are updated retrospectively twice a year. In the longer term, the whole time series is revised where appropriate (e.g. due to changes in methodology).

COMPILATION OF THE QUARTERLY FINANCIAL ACCOUNTS

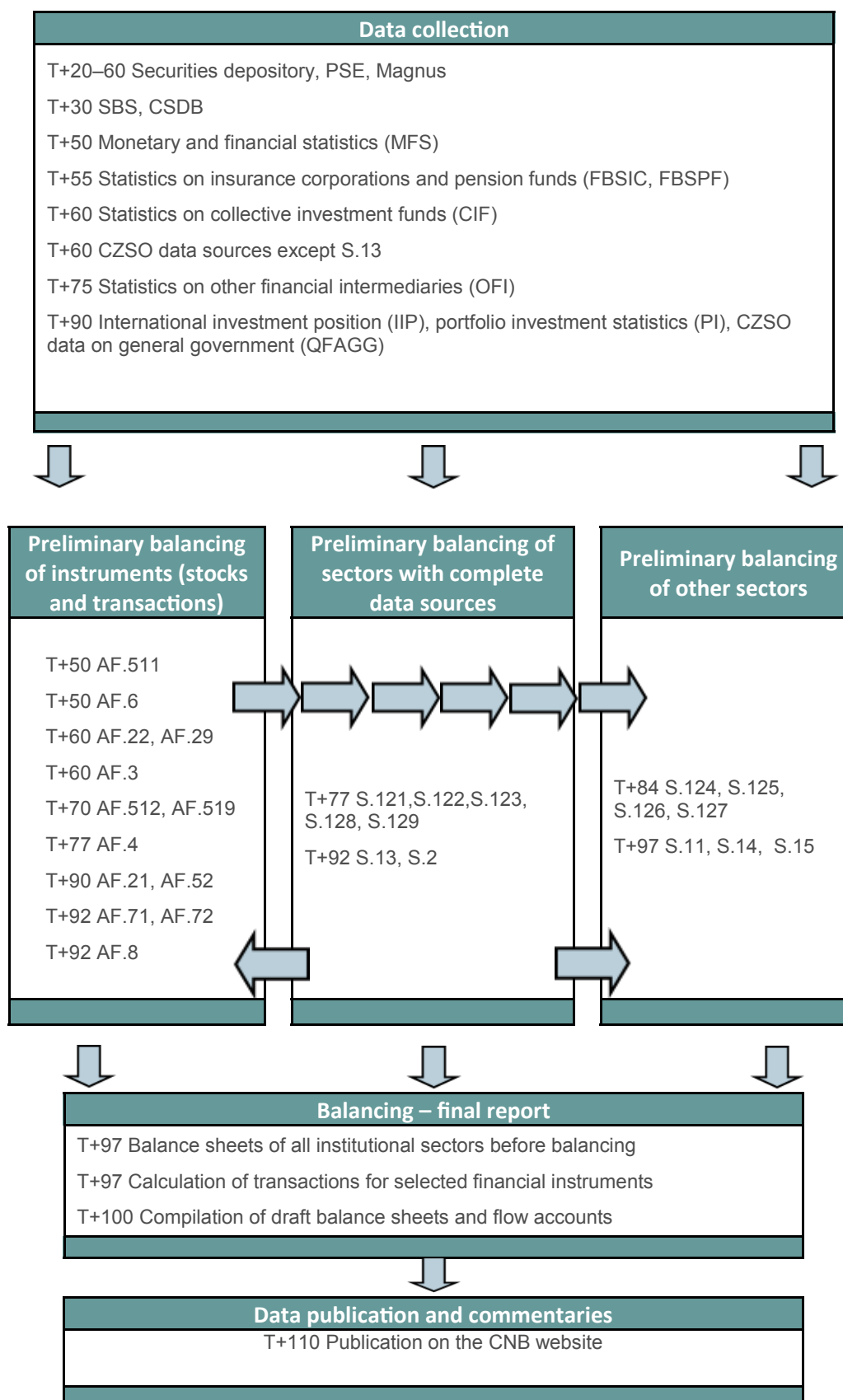
Data
source
hierarchisation

The compilation of the financial accounts is based on hierarchisation of data sources. Input data may differ in quality, availability at the required time and degree of detail. Data hierarchisation only allows the use of a lower quality data source if data are not available from sources higher up in the hierarchy. Sources not used during compilation have a supportive and checking function. The hierarchy of primary sources is not identical across all instruments and sectors and can change over time. The need for a data hierarchy is due among other things to discrepancies in partial statistics.

Balancing

The balance sheets for sectors and financial instruments, or parts thereof, are compiled on an ongoing basis over the course of the compilation period as the source data become available. This allows us to assess the economic content of the data and deal in advance with any new discrepancies between the primary sources. Parallel balance sheet compilation by sector and financial instrument and the interaction between these approaches enhance the system's economic relevance and create a framework for better integration of the items estimated.

Chart 2 The compilation process



1) The term “financial account” currently occurs in the literature in two different senses: a narrower sense and a broader sense. In the broader sense, the financial accounts describe the stocks of financial assets and liabilities, including the decomposition of the changes therein. In the narrower sense, they are one of a series of accounts, following the capital account in the sequence of accounts, with their content indicating changes arising from transactions relating to financial assets and liabilities.