Quarterly Financial Accounts Statistics

Methodology

Introduction

Quarterly financial accounts (QFAs) are an integral part of the European system of national accounts ESA95 (European System of Accounts 1995). Their main role is to provide exhaustive information about financial flows between individual entities of national economy[1] and between national and foreign entities, or about the volume (stocks) of financial assets available to these economic entities. Based on information thus obtained it is then possible to analyze in particular the transmission mechanism of the monetary policy adopted by the central bank and, using the volume and structure of owned financial assets and the volume and structure of financial indebtedness of economic entities, to monitor the rate of stability of the country's financial system.

The National Bank of Slovakia (NBS) is primarily responsible for compilation and publication of quarterly financial accounts of the entire economy, except for the general government sector that is managed by the Statistical Office of the Slovak Republic (SO SR). In preparing the QFAs, the NBS closely cooperates also with the Ministry of Finance of the Slovak Republic (MFSR) and with financial sector entities. The NBS obtains data of non-financial entities from reports of the SO SR, from the balance of payments prepared by the NBS, or from the existing statistical reports, i.e. from data of counterparts[2] (e.g. details about household deposits with banks are not obtained directly from the households, but from the statistical reports of the banks).

QFAs in the ESA95 system

The ESA95 system records two basic kinds of information: flows and stocks[3]. Flows refer to actions and effects of events that took place within a given period of time (e.g. an increase of new household deposits in one quarter), while stocks refer to positions at a point of time (the total volume of all household deposits at the end of the specific quarter).

Flows of financial assets and liabilities

Flows reflect the creation, transformation, exchange, transfer or extinction of the financial asset or liability, and there are two kinds of economic flows: a) transactions, and b) other changes in assets.

a) transactions

Financial transactions represent transactions involving financial assets and liabilities which are made between the individual economic entities within one country and between the

[1] In the ESA95 system, the entities of national economy are classified in institutional sectors whose classification is given in chapter "Classification of institutional sectors and financial instruments" on page 4.
[2] The method of collecting source data for the purpose of preparing the QFAs is given in chapter "Data sources for QFA compilation" on page 6.
[3] According to the ESA95, flows and stocks explain economic processes in all types of economic assets and liabilities, i.e. both in financial and non-financial assets and liabilities.

national and foreign entities, and which are recorded in a financial account[4]. They contain information about the actual acquisition and disposal of financial assets and liabilities, i.e. the financial transactions do not include changes in financial assets and liabilities resulting from a change in price, classification, and structure.

b) other changes in assets and liabilities

Other changes in assets and liabilities record changes that are not the result of transactions. They are either 1) other changes in the volume of assets and liabilities, and 2) holdings gains and losses

1) the given category includes changes resulting from reclassification and restructuring of institutional sectors or financial assets and liabilities, as well as unilateral cancellation of debt and uncompensated seizure of assets
2) holdings gains and losses are the result of changes in the price of assets, i.e. they are experienced with all financial assets and liabilities in consequence of their holding without any transformation of the same

Stocks of financial assets and liabilities

Stocks are holdings of financial assets consisting of financial assets and liabilities at a point of time, and they are recorded at the beginning and end of each accounting period (opening and closing balance sheet). Within its boundaries, the ESA95 system is exhaustive in respect of both flows and stock. This implies that all changes in stocks can be fully explained by recorded flows.

According to the above-mentioned description of the stocks and flows of financial assets, a complete financial account for national economy for the specific quarter would look like as follows:

	the value of financial asset/liability in the opening balance sheet
+	financial transaction: total value of acquired assets/liabilities less total value of sold assets/liabilities in the course of the accounting period
+	other changes in the volume of assets and liabilities
+	holdings gains and losses
=	the value of financial asset/liability in the closing balance sheet

Sequence of national accounts

The ESA95 records the flows and stocks in the form of a structured system of accounts which describe the economic cycle, including the creation of income (creation of gross domestic

[4] At present, there exist two terminological meanings of the term "financial account": a broader and a narrower sense. In a broader sense, the term "financial account" means the total financial assets and liabilities, including decomposition of their changes into transactions and other flows. In a narrower sense, the term "financial account" according to the definition of the ESA95 means, within the sequence of national accounts, one of the accumulation accounts which represents transactions involving financial assets and liabilities (the stocks of financial assets and liabilities are referred to as the "balance sheet"")

product), its distribution and redistribution, and its accumulation in the form of assets. The given accounts are grouped in three categories:

a) current accounts
b) accumulation accounts
c) balance sheet accounts

a) current accounts are transaction accounts and refer to the creation, distribution and redistribution of income, and to its use in the form of final consumption. The unconsumed portion of income is recorded in the form of saving which is the last balancing item of current accounts and represents the basic source of accumulation accounts.

b) accumulation accounts are flow accounts, i.e. they record the various causes of changes in the assets and liabilities of institutional sectors and the change in their net worth. The accumulation accounts are broken down in capital account (non-financial account) and financial account. The capital account measures the changes in net worth due to saving and capital transfers and subsequently records acquisitions less disposal of non-financial assets/liabilities[5] by resident units. The difference between the net worth and acquisition less disposal of non-financial assets/liabilities creates a balancing item for the financial account. It implies that if the given difference on the capital account is positive, in the amount of SKK 100 for example, the difference between the financial assets and liabilities on the financial account will also equal SKK 100. The given differences on the capital and financial accounts are referred to as net lending/net borrowing.

c) balance sheet accounts give a picture of the stocks of financial and non-financial assets/liabilities and of the net worth:
financial assets – financial liabilities = net worth
non-financial assets – non-financial liabilities = net worth

Rules of accounting

National accounting is based on the principle of double entry. It implies that each transaction must be recorded twice, once as a source (or a change in liabilities) and once as a use (or a change in assets). The total of transactions recorded as sources and the total of transactions recorded as uses must be equal, thus permitting a check on the consistency of the accounts.

Valuation

The flows and balances within the national accounts are measured according to their exchange value, i.e. the value at which they are in fact exchanged for cash. Market prices are thus the ESA95's basic reference for valuation. When no market price for certain financial or non-financial assets is available[6], the preferred valuation method is the reference to market prices of related assets. However, in some cases neither of these methods can be used, in which case other qualified estimate of the market price needs to be made.

Time of recording

[5] Non-financial assets/liabilities include investment assets, stocks, and valuables
[6] For example, certain debt securities are only recorded in their nominal value or issue price, while the current market price is not available

The system records flows on an accrual basis, that is, when economic value is created, transformed or extinguished, or when claims and obligations arise, are transformed or are cancelled. Thus, acquisition or sale of a financial asset is recorded when the asset changes hands, not when the corresponding payment is made. Interest is recorded in the accounting period when it accrues, regardless of whether or not it is actually paid in that period.

Consolidation

Consolidation refers to the elimination, from both uses and sources, of reciprocal relationships (financial operations) established between units of the same group. With regard to the QFAs, consolidation is applicable only in the case of financial relationships within the general government sector (S.13), while data for other national economy sectors are not consolidated.

Classification of institutional sectors and financial instruments

The QFAs are a system of reciprocal relations of the individual institutional sectors through the individual financial instruments. Institutional sectors and sub-sectors consist of institutional units which are similar in respect to their economic behavior. Sectors in the QFAs can be broken down in two categories: resident sectors (or domestic sectors) and non-resident sector (or foreign sector). Resident sectors are those sectors that have a center of economic interest in the economic territory of the given country. Foreign sector makes it possible to record the total volume of financial assets and liabilities of the individual sectors of the Slovak economy in respect of foreign countries, or rather to determine the overall indebtedness or creditor position of the Slovak economy in respect of foreign countries.

Financial assets are economic assets comprising means of payment, financial claims and economic assets which are close to financial claims in nature. In the ESA95 system, each financial asset has a counterpart liability, except for financial assets included in the category of monetary gold and special drawing rights (AF.1). The classification of financial assets and liabilities is based particularly on the principle of liquidity and legal personality of the individual financial assets and liabilities. Innovations in financial markets have diminished the usefulness of short-term/long-term distinction for financial assets and liabilities. However, when maturity analysis of an instrument is important, such as for analysis of interest rates and asset yields, a breakdown of a range of maturities may be required. Short-term financial assets (liabilities) are financial assets (liabilities) whose original maturity is normally one year or less, and in exceptional cases two years at the maximum. Long-term financial assets (liabilities) are financial assets (liabilities) whose original maturity is normally more than one year, and in exceptional cases more than two years at the minimum.

The ESA95 system distinguishes the following institutional sectors and sub-sectors:

Non-financial corporations	S.11
Financial corporations	S.12
The central bank	S.121
Other monetary financial institutions	S.122
Other financial intermediaries	S.123
Financial auxiliaries	S.124
Insurance corporations and pension funds	S.125
General government	S.13
Central government	S.1311
Regional government	S.1312
Local government	S.1313
Social security funds	S.1314
Households	S.14
Non-profit institutions serving households	S.15
Foreign countries (non-residents)	S.2
European Union (EU)	S.21
EU Member States	S.211
EMU Member States and EU institutions	S.212
Rest of the world and international organizations	S.22

The ESA95 system distinguishes the following financial instruments:

Monetary gold and special drawing rights	(A)F.1[7]	
Monetary gold		(A)F.11
Special drawing rights (SDRS)		(A)F.12
Currency and deposits	(A)F.2	
Currency		(A)F.21
Transferable deposits		(A)F.22
Other deposits		(A)F.29
Securities other than shares	(A)F.3	
Securities other than shares and financial derivatives		(A)F.33
Short-term		(A)F.331
Long-term		(A)F.332
Financial derivatives		(A)F.34
Loans	(A)F.4	
Short-term		(A)F.41
Long-term		(A)F.42
Shares and other equity	(A)F.5	
Shares and other equity, excluding mutual funds shares		(A)F.51
Quoted shares		(A)F.511
Unquoted shares		(A)F.512
Other equity		(A)F.513
Mutual funds shares		(A)F.52
Insurance technical reserves	(A)F.6	
Net equity of households in life insurance reserves and in pension funds reserves		(A)F.61
Net equity of households in life insurance reserves		(A)F.611
Net equity of households in pension funds reserves		(A)F.612
Prepayments of insurance premiums and reserves for outstanding claims		(A)F.62
Other accounts receivable/payable	(A)F.7	
Trade credits and advances		(A)F.71
Other		(A)F.79

[7] Stocks and transactions have the AF code and the F code, respectively

Data sources for QFA compilation

As already mentioned in the introduction, the main role of the QFAs is to give a comprehensive picture of the financial flows within the national economy as well as in relation to foreign countries. In this regard it is important, in order to create top-quality data and analytical outputs, to provide for the maximum possible coverage through all available data as well as for comparability of such data in time.

QFAs as compiled statistics

As the QFAs represent all financial transactions between all entities in the national economy and in relation to foreign countries, it is necessary that various data sources be used in their compilation. The content of these data sources is either focused on the specific area of business activity (e.g. data from reports for institutional sectors S.121 and S.122 - monetary financial institutions), i.e. they are focused on economic activities and financial instruments related to the specific sector, or it is focused on a specific financial instrument type (e.g. data on securities obtained from the Central Depository's database). Data thus obtained are considered partial primary inputs and the QFAs are, therefore, the secondary input from the given sources. The overall quality, time availability, and intercomparability depend to a great extent on such input statistics.

Data coverage

The volume of available data for the needs of the QFAs is different and varies with the individual sectors and sub-sectors as well as with the individual financial instruments. For example, the most reliable and most complete data that can be obtained in a relatively short period of time after the end of the respective quarter are the data for sectors S.121, S.122 and S.125. This is because the NBS has, due to its supervision on financial markets, long-time experience in collecting data from financial institutions, and because it is possible to address and obtain data from all entities within the given sector. On the other hand, a lot of room has been left so far in obtaining data from the sectors which consist of a great number of entities and which can be neither regulated nor influenced in connection with the necessary data. It refers to the sectors S.11 and S.14 and S.15, i.e. non-financial companies and households, including non-profit institutions serving households. In such a situation is it inevitable to make relevant statistical estimates.

Counterparts

The QFAs make it possible to monitor financial flows in economy using individual financial instruments, while in the case certain financial instrument is an asset of one sector, it must be automatically displayed as a liability of other sector. The given double-entry record of financial instruments makes it possible to collect data about one financial flow both from an entity holding certain financial asset and from an entity issuing the given asset, i.e. from the debtor (in the case of securities, for example, the issuer is a debtor in respect of the security holder). In the case of certain financial instruments, when data is available only from one of parties to the financial transaction, split out by counterparts, the other party to the financial transaction is determined automatically, i.e. from the counterpart. The given system of data collection from counterparts is mainly used in obtaining data about sectors from which it is impossible to collect the exact data (e.g. household sector).

Data consistency

However, in many cases the data about the specific financial instrument are available from both sectors and sub-sectors concerned. Despite the fact that both parties report data about the same financial instrument (reported as an asset by one sector and as a liability by the other sector), it often happens that such data differ from each other. The given discrepancy is not necessarily a problem for the source sectors, but the identification and subsequent elimination of the identified differences is a key task of significant importance for the compilation of the QFAs as a consistent system. The originated differences do not necessarily result from errors in one of the source statistics. There are several possible causes for that. One of the main reasons is a different methodology of data reporting in the individual sectors. It means, for example, different definition of the financial instrument or valuation of the same instrument in accounting and statistical reports of the individual sectors. Another source of differences can be, for example, different period of updating of the reported data or different moment of recording of a financial transaction (e.g. acquisition of shares dated 30/03 can be recorded in the reports of one sector as a transaction of 1Q and in the other sector as a transaction of 2Q of the specific year). With regard to the fact that account needs to be taken of possible mistakes, stricter requirements are imposed on data users who are to provide for reliable control mechanisms of the acquired data.
The principle of data consistency is given precedence over all other principles of the QFAs compilation. It is particularly important in connection with the recording of the correct value of financial instruments, because the asset holder and the debtor (issuer) can perceive the price of one asset (it mainly refers to debt and equity securities) differently. Generally, the principle of market valuation can only be applied to financial assets that are publicly traded on the market; otherwise it is necessary to choose a different economic concept of the financial asset valuation.

Table no.1

Overview of the valuation of financial instruments in the QFAs[1)]

Financial instrument	Valuation method
Monetary gold and special drawing rights	
Monetary gold	Market price
Special drawing rights	Face value[2)]
Currency and deposits	Face value[2)]
Securities other than shares	Face value[2)] + market price
Loans	Face value[2)]
Quoted shares	Market price
Unquoted shares	Share capital in book value
Other equity	Face value[2)]
Mutual funds shares	Market price
Insurance technical reserves	Market price
Other accounts receivable/payable	Book value

1) Interest on financial assets and liabilities are recorded in the QFAs in the respective financial instrument as if it was reinvested

2) Face value is the price of the financial instrument shown on the means of payment or the sum in which the account receivables/ payables are denominated

Data sources for QFAs compilation

In compiling the QFAs, the NBS uses in principle two kinds of the source data: internal and external. Within the external source data, the most important role is played by the SO SR and MFSR in whose cooperation it is possible not only to compile the QFAs but also to compare the QFAs with quarterly non-financial accounts (QNFA) and with annual financial accounts (AFA) for which the SO SR is responsible.
Internal sources:

- Monetary and banking statistics
- Balance of payments
- International investment position
- Statistics of mutual funds and mutual fund management companies
- Statistics of financial intermediaries (leasing companies, factoring companies, and hire purchase companies)
- Statistics of security dealers
- Statistical data of the stock exchange and central depository
- Financial balance sheets and statistical data of insurance corporations, pension funds, supplementary pension funds, and companies managing pension funds and supplementary pension funds

External sources:

- Financial balance sheets of general government entities (MFSR) and quarterly financial accounts of the government (SO SR)
- State final account (MFSR)
- Non-financial enterprises and households sample survey (SO SR)
- Annual financial accounts (SO SR)

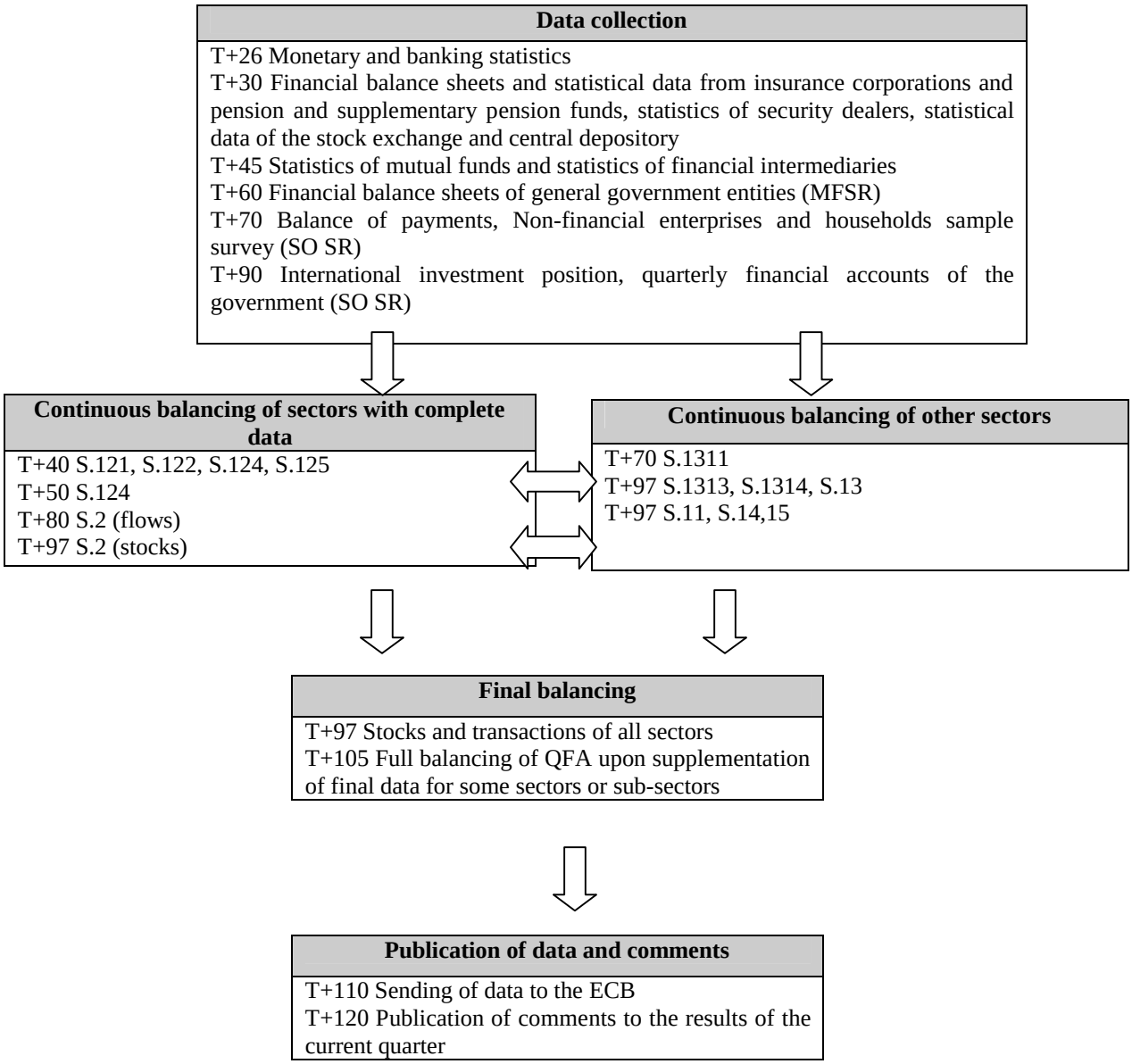
QFA compilation process

The following factors play a key role in the QFA compilation process: time availability of data, quality within the meaning of methodological requirements, and required structure of the existing data. The "incoming" data need to be evaluated continuously in terms of their completeness, quality, and economic interpretability, and the asset and liability sides balanced continuously. In the event that different data regarding assets of one sector and liabilities of the other sector are reported between or within the sectors for a financial instrument, possible causes of discrepancies are analyzed and a consensus on "giving preference" to a data source of a higher quality to be used in equalizing the asset and liability counterparts reached. In certain cases, when it is possible to identify exactly the data source (in the case of the financial market and general government entities), consultations are made with the given entities of the source data regarding the check on the correctness of the reported data and the elimination of possible mistakes and inaccuracies.

There exist certain differences in compiling and balancing the stocks and transactions in the QFAs. Data concerning the stocks are generally more available and of a higher quality in the majority of the institutional sectors. Data concerning transactions are available in full or in part in the majority of sectors, except for the sector S.11 – non-financial institutions and S.14, 15 – households and non-profit institutions serving households. In the majority of sectors, full or partial availability of data concerning transactions is related to the fact that transaction data

can be complied using two different methods. The first one is the so-called direct method, i.e. the individual sectors disclose data directly about transactions. The second method, the so-called indirect method, means at the first stage the collection of data about stocks, revaluations, reclassifications, and exchange rate differences of data for the individual financial instruments, while the transaction data is obtained as a difference of stocks between two quarters less the values concerning other flows (revaluations, reclassifications, and exchange rate differences). Due to the fact that different types of data are used between and within the individual sectors for calculation of transactions[8], the transactions are calculated using a combination of the both methods.

The below scheme describes the procedure followed in compiling the QFAs



[8] Data concerning exclusively transactions exist in some sectors, and data concerning exclusively other flows exist in the other sectors. There are also sectors in which some entities report data about transactions, while other entities of the same sector report exclusively data about non-transactions. There are also sectors that report no data necessary for the calculation of transactions. In such case the calculation of the difference in data about stocks between two consecutive quarters is combined with data obtained from counterparts.