Explanatory notes on the compilation of financial statistics

1. The purpose and basic principles of compilation:

The main purpose of compiling financial statistics is to observe the stock of money and credit in circulation throughout the economy in specific time periods, as well as the various factors that affect them, in order to understand the sources of growth and decline in private sector liquidity. Based on the double-entry principle, and the reported balance sheets of financial institutions, we are able to analyze the factors that cause the quantity of money to expand or contract. Particular attention is paid to the financial transactions between financial institutions and the other sectors of the economy. For this reason, data submitted by each financial institution to the Economic Research Department of the Central Bank of the Republic of China (Taiwan) are classified by sector.

2. Sectoral divisions:

The current methodology conforms to the United Nations "System of National Accounts," and classifies the transactions of financial institutions into six sectors according to whether the counter party is a foreign entity, the government, a government enterprise, a private enterprise, an individual (household) or a domestic financial institution. These sectors are defined as follows:

(1) Foreign sector:

This sector is made up of non-residents. Non-residents include individuals (or households), non-profit organizations, government enterprises, private enterprises (including offshore securities units of Securities Firms), government and financial institutions (including foreign branches, offshore banking units of domestic banks and offshore insurance units), all of which are permanent residents abroad.

(2) Government sector:

This sector refers to the central, municipal, county (city) governments, autonomous institutions below the county (city) level, and non-profit institutions affiliated to them.

(3) Government enterprises:

This refers to all government-controlled (owned) enterprises engaged in a business other than financial services, that are likely to be set up for the purpose of making profits or assisting in national economic development. These enterprises are mostly characterized as monopolies or public utilities.

(4) Private enterprises:

This section comprises of enterprises controlled (owned) by private individuals, excluding those providing financial services. They are all profit-oriented regardless of organizational form, whether that may be a company, a partnership or a proprietorship.

(5) Individuals or households and non-profit institutions:

This refers to any individuals (or households) that mainly purchase consumer goods or provide essential services, those engaged in agriculture, forestry, fishery and animal husbandry on a non-profit basis, as well as those engaged in social welfare and community activities on a non-profit basis.

(6) Domestic financial institutions:

This refers to financial service institutions organized and registered in accordance with the Banking Act or other decrees. The financial statistics at present classify financial institutions as monetary financial institutions, trust and investment companies, and life insurance companies (as shown below). Monetary financial institutions are grouped according to whether they are able to create money (for the total number of financial institutions in each category, please refer to Table 2 of this publication):

Figure 1

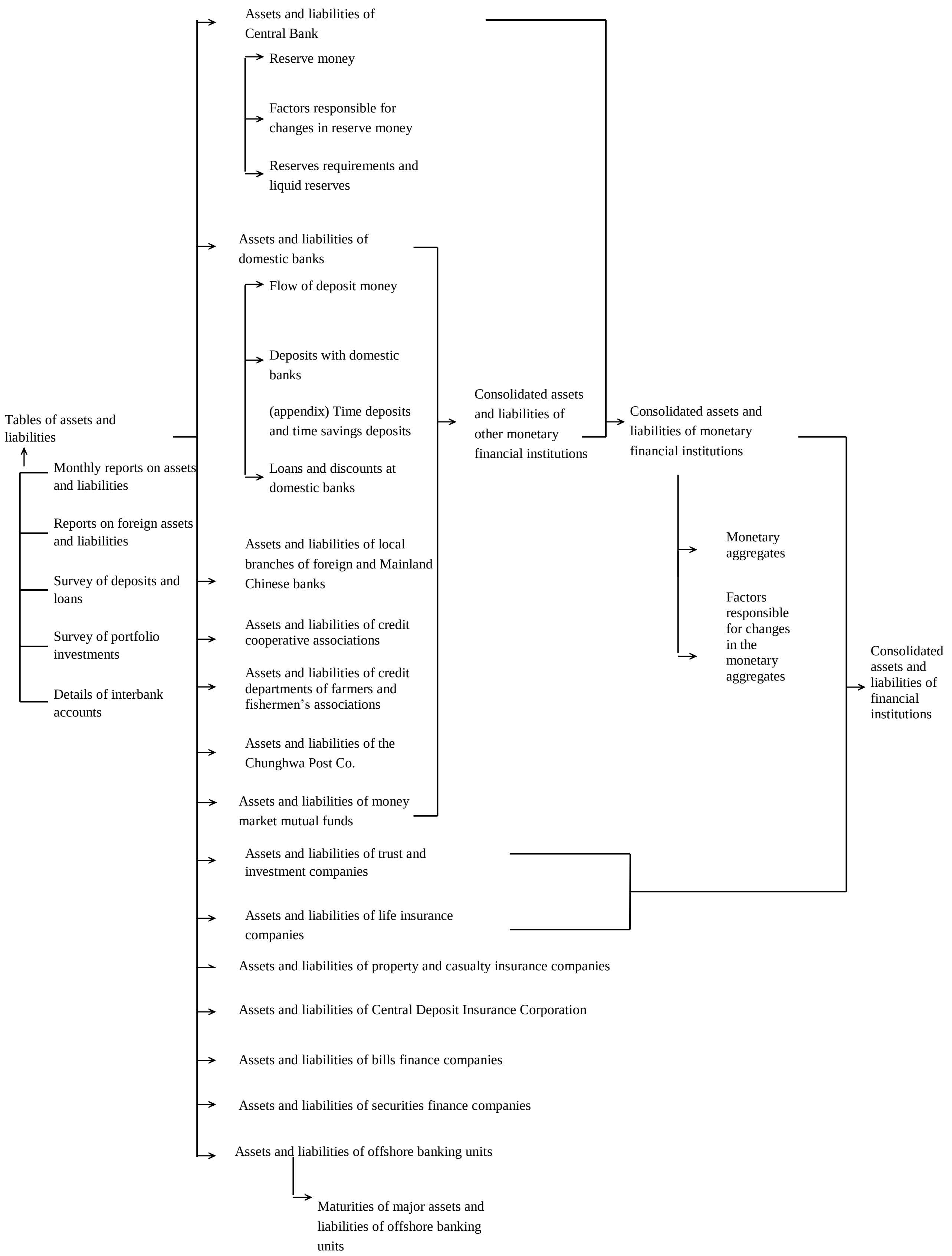
- Financial institutions
  - Monetary financial institutions
    - Central Bank
    - Other monetary financial institutions
      - Domestic banks
      - Local branches of foreign and Mainland Chinese banks
      - Credit cooperative associations
      - Credit Departments of Farmers’ and Fishermen’s Associations
      - Chunghwa Post Co.
      - Money market mutual funds (from Oct. 2004 to Apr. 2017)
  - Trust and investment companies (prior to Dec. 2008)
  - Life insurance companies

Although property and casualty insurance companies, bills finance companies and securities finance companies also provide financial services, they differ greatly from financial institutions in terms of the financial liabilities they hold. For this reason, they are classified as private enterprises, instead of financial institutions, in the compilation of financial statistics. Their assets and liabilities are thus shown in their own category for reference.

3. Method of compilation:

The financial statistics are compiled by using the financial data submitted to the Central Bank by the various financial institutions. After reviewed by Economic Research Department personnel of the Central Bank, they are then tabulated according to grouping. The resulting tables provide a solid basis for further statistical analysis on monetary aggregates. These tables appear in this book in the order given in Figure 2 below:

Figure 2


Assets and liabilities of Central Bank
Reserve money
Factors responsible for changes in reserve money
Reserves requirements and liquid reserves
Assets and liabilities of domestic banks
Flow of deposit money
Deposits with domestic banks
(appendix) Time deposits and time savings deposits
Loans and discounts at domestic banks
Consolidated assets and liabilities of other monetary financial institutions
Consolidated assets and liabilities of monetary financial institutions
Tables of assets and liabilities
Monthly reports on assets and liabilities
Reports on foreign assets and liabilities
Survey of deposits and loans
Survey of portfolio investments
Details of interbank accounts
Assets and liabilities of local branches of foreign and Mainland Chinese banks
Assets and liabilities of credit cooperative associations
Assets and liabilities of credit departments of farmers and fishermen's associations
Assets and liabilities of the Chunghwa Post Co.
Assets and liabilities of money market mutual funds
Monetary aggregates
Factors responsible for changes in the monetary aggregates
Consolidated assets and liabilities of financial institutions
Assets and liabilities of trust and investment companies
Assets and liabilities of life insurance companies
Assets and liabilities of property and casualty insurance companies
Assets and liabilities of Central Deposit Insurance Corporation
Assets and liabilities of bills finance companies
Assets and liabilities of securities finance companies
Assets and liabilities of offshore banking units
Maturities of major assets and liabilities of offshore banking units

4. Key assets and liabilities:

The statistical tables as listed in Figure 2 are compiled from the data submitted to the Central Bank by the various financial institutions. The data submitted may take the form of monthly statistical tables and monthly reports of important assets and liabilities. The definitions and main components of these assets and liabilities are as follows:

(1) Assets:

(1-1) Foreign assets:

Foreign assets refer to claims by financial institutions on non-residents, including monetary gold, foreign currencies held in vaults, foreign currencies in transit, deposits with foreign banks, overdrafts of foreign banks, spot and forward advances on exports, inward remittances, holdings of securities issued by non-residents, net amounts due from foreign banks, claims on offshore banking units, offshore securities units and offshore insurance units, etc.

(1-2) Loans and discounts:

Loans refer to amounts of credit granted by financial institutions to government, government enterprises, private enterprises and individuals (or households), etc., including:

(1-2-1) Loans: This refers to all short-, medium- or long-term loans extended on credit or against collateral to finance the expansion of working capital or capital expenditure. In addition, the credit card revolving credit and net balance of loans and deposits in the mutual accounts provided by medium business banks are also included.

(1-2-2) Discounts: All discounts of principal and interest on commercial papers and bankers' acceptances not yet matured.

(1-2-3) Overdrafts: All advances owed on checking accounts that are within the contracted overdraft limit.

(1-2-4) Advances on imports: All import accommodations granted upon provision of related documents.

(1-2-5) Reverse repurchase agreements: In line with the Ministry of Finance's adjustment of the accounting treatment of repurchase agreements of bills and bonds acquired by banks, reverse repurchase agreements are reclassified as "loans" instead of "investments" from January 2004.

(1-3) Portfolio investments:

Portfolio investments refer to securities issued by different levels of government, government enterprises, private enterprises and financial institutions that are bought by financial institutions. Beginning Jan. 2006, portfolio investments are measured at fair value instead of original cost. Portfolio investments include:

(1-3-1) Governments securities: These include bonds issued by different levels of government, i.e. central, provincial/municipal, county/city, treasury bills and city treasury bills.

(1-3-2) Shares and securities of government enterprises and private enterprises: These include all shares, corporate bonds, commercial paper, bankers' acceptances, beneficiary's certificates, and shares in long-term investments in government enterprises and private enterprises, etc.

(1-3-3) Shares and securities in financial institutions: These include negotiable certificates of deposit, savings bonds, bank debentures and stocks issued by banks, as well as Treasury bills, and savings bonds issued by the Central Bank, shares in long-term investments in financial institutions, and structured products issued by banks, etc.

(1-4) Investments in real estate:

These refer to investments in real estate for capital gains.

(1-5) Claims on financial institutions:

(1-5-1) Claims on the Central Bank: All deposits, required reserves and redeposits placed with the Central Bank and the holding of negotiable certificates of deposit issued by the Central Bank.

(1-5-2) Claims on other monetary financial institutions: These consist of deposits, call loans and overdrafts with domestic banks, branches of foreign and Mainland Chinese banks in Taiwan, credit cooperative associations, the credit departments of farmers' and fishermen's associations, the Chunghwa Post Co. and money market mutual funds.

(1-5-3) Claims on life insurance companies, etc.: These consist of deposits, call loans and overdrafts with life insurance companies and trust and investment companies.

(1-6) Cash in vaults:

This comprises all New Taiwan (NT) dollars in vaults, NT dollars in transit and working capital.

(1-7) Other assets:

These refer to assets other than listed above, including accounts receivable, prepaid accounts, inter-branch accounts (net), checks for clearing, fixed assets (net), past-due accounts, and the outstanding balance of financial derivatives.

(2) Liabilities and equity:

(2-1) Foreign liabilities:

This refers to amounts due by financial institutions to non-residents, including foreign bank interbank deposits, foreign bank interbank overdrafts, foreign bills payable, acceptance foreign bills of exchange held by non-residents, foreign bank accommodation, outward remittances, net dues to foreign banks, issues of bills held by non-residents, dues to offshore banking units, offshore securities units and offshore insurance units, etc.

(2-2) Currency issued:

This includes all notes and coins issued by the Central Bank.

(2-3) Deposits of enterprises and individuals:

These include all deposits of government enterprises, private enterprises, individuals and non-profit organizations in financial institutions, including checking accounts (namely, accepted or certified cheques, cashier's cheques and traveller's cheques), passbook deposits, passbook savings deposits, time deposits, negotiable certificates of deposit, time savings deposits and foreign currency deposits. The carrying values of the host contracts of structured products issued by banks are excluded.

(2-4) Postal savings:

This includes all transfer accounts, passbook savings deposits and time savings deposits received by the Chunghwa Post Co.

(2-5) Money market mutual funds:

Included in this category are trust funds entrusted to and managed by banks' trust departments, with more than 70 percent of net asset value invested in money market instruments, for the beneficiary assigned by the trustee.

(2-6) Trust funds:

Included in this category are trust funds entrusted to and managed by financial institutions according to the conditions given in the trust contracts for the beneficiary assigned by the trustee.

(2-7) Life insurance reserves:

This includes all kinds of reserves of life insurance companies referred to in the Insurance Act and its enforcement regulations.

(2-8) Government deposits:

This refers to all kinds of deposits placed by different levels of government, including central, municipal and county/city governments, with monetary financial institutions. Included are ordinary deposits of government institutions, government Treasury special deposits, total Treasury income deposits and government foreign currency deposits.

(2-9) Liabilities of financial institutions:

(2-9-1) Due to the Central Bank: This consists of all borrowings from the Central Bank including all forms of accommodation obtained from the Central Bank.

(2-9-2) Due to other monetary financial institutions: This consists of all forms of borrowings from domestic banks, branches of foreign and Mainland Chinese banks in Taiwan, credit cooperative associations, the credit departments of farmers' and fishermen's associations, the Chunghwa Post Co. and money market mutual funds (the redeposits of the Chunghwa Post Co. with the Central Bank and other banks are included).

(2-9-3) Due to life insurance companies: This consists of all forms of borrowings from life insurance companies.

(2-10) Bank debentures:

This consists of all bonds which, in accordance with the Banking Law, are issued by specialized banks with permission from the governing authority.

(2-11) Central Bank-issued certificates of deposit, savings bonds and treasury bills:

The Central Bank, with the aim to manage liquidity conditions in the financial market, issues certificates of deposit and savings bonds.

(2-11-1) Certificates of deposit can only be issued to banks, credit cooperative associations, the Agricultural Bank of Taiwan, bills finance companies, the Chunghwa Post Co. and other financial institutions with the permission from the Central Bank. The interest rate could be either fixed or determined by bidding, with the interest paid just once upon maturity.

(2-11-2) Savings bonds may be purchased by financial institutions, individuals, foundations, government enterprises, private enterprises and other bodies. They may only be issued for 6 months, 1, 2 or 3 years. The interest rate is set by the Central Bank, the interest being paid in one lump sum upon maturity for bonds maturing after 6 months, or calculated at six monthly intervals with compound interest for bonds with terms to maturity greater than 6 months.

(2-11-3) Treasury bills are issued with a maturity of less than 364 days. They are sold at a discount in open auctions, and repaid at face value upon maturity. From July 1999 onwards, the Central Bank has not issued any Treasury bills owing to the amendments of relevant regulations.

(2-12) Other liabilities or other items (net):

This refers to other liabilities not listed above. Other liabilities include outward remittances and drafts issued, accounts payable, accounts collected in advance, inter-departmental accounts, inter-branch accounts, operational and debt reserves, deferred revenues, liabilities to be settled, exchange, the outstanding value of financial derivatives, etc. Other items (net) are recorded by netting out other assets and other liabilities. Net balance of transactions between financial institutions is also included in this item.

(2-13) Equity:

This refers to shareholders' equity, including share capital, capital surplus, retained earnings, etc.

(2-14) Total liabilities & equity (=total assets):

This refers to all items on the debit (credit) side of balance sheet. This excludes contingent liabilities (assets).

5. Definitions of key terms:

(1) Currency held by the public:

This refers to currency held by all sectors/departments except the monetary financial institutions. Currency held by the public = Currency issued by the Central Bank – Cash in vaults of monetary financial institutions.

(2) Deposit money:

This refers to the checking accounts, passbook deposits and passbook savings deposits of enterprises and individuals in other monetary financial institutions.

(3) Quasi-money:

This refers to the time deposits (including general time deposits and negotiable certificates of deposit (NCDs)), time savings deposits, and foreign currency deposits (including passbook deposits, general time deposits and negotiable certificates of deposit (NCDs)) of enterprises and individuals in other monetary financial institutions. In addition, postal deposits are also included. From Jan. 1994 on, the data also include repurchase agreements and non-resident NT deposits. From Oct. 2004 on, the data also include money market mutual funds. The carrying values of the host contracts of structured products issued by banks are excluded.

(4) Reserve requirements and free reserves:

The Central Bank requires financial institutions to appropriate reserves according to the required reserve ratios. The category of reservable liabilities includes checking accounts, passbook deposits, savings deposits, time deposits, foreign currency deposits, overdrafts with banks, due to banks, bank debentures, interbranch accounts, repurchase agreements for liabilities, the carrying values of the host contracts of structured products issued by banks and other liabilities regulated by the Central Bank. The assets which count as reserves include cash in vaults, reserve deposits or the deposits placed in a special account of the interbank clearing fund with the Banking Department of the Central Bank or entrusted institutions. Total assets mentioned above held by banks are actual reserves. Free reserves refer to the actual reserves less required reserves and borrowings from the Central Bank.

(5) Reserve money:

The reserve money comprises all reserves held by other monetary financial institutions and currency held by the public, both of which are monetary liabilities of the Central Bank. It is also referred to as “high-powered money” or “base money”. Changes in reserve money affect directly the amount of loanable funds of other monetary financial institutions. Through the money-creating process, money supply and liquidity expand or contract by a multiple which is usually measured by the ratio of monetary aggregate to reserve money.

(6) Monetary aggregate M1A = Currency held by the public + Checking accounts and passbook deposits of enterprises and individuals (including non-profit organizations) in other monetary financial institutions.

(7) Monetary aggregate M1B = Currency held by the public + Deposit money, or

M1B = M1A+Passbook savings deposits of individuals (including non-profit organizations) in other monetary financial institutions.

(8) Monetary aggregate M2 = M1B + Quasi-money

(9) Liquid liabilities:

This includes currency held by the public, all deposits and trust funds of enterprises and individuals received by financial institutions, life insurance reserves, and bank debentures held by enterprises and individuals, Treasury bills and savings bonds issued by the Central Bank. From Jan.1994 on, the data also include repurchase agreements and non-resident NT deposits. From Oct. 2004 on, the data also include money market mutual funds.

(10) Deposits:

This refers to deposits of enterprises and individuals held by other monetary financial institutions. Post savings, non-resident NT deposits, repurchase agreements, money market mutual funds and government deposits are also included. The carrying values of the host contracts of structured products issued by banks are excluded.

Deposits = Deposit money + Quasi-money + Government deposits

(11) Loans and investments:

This refers to the loans to and portfolio investments in enterprises, individuals and government agencies made by other monetary financial institutions.

(12) Total value of deposit debits and their turnover rate:

The total value of deposit debits refers to the total sum of all withdrawals by customers from these deposit accounts during a specific time period. The turnover rate refers to the numbers of times within a specific time period that one NT dollar is withdrawn. For example, the turnover rate during a period of one year is calculated as follows:

$$\frac{\text{Total value of withdrawals or deposit debits in a given month}}{\text{Daily average balance on deposits}}$$

$$\times \frac{\text{Number of business days in the year}}{\text{Number of business days in month in question}}$$

(13) Liquid reserves of other monetary financial institutions:

In order to urge banks to maintain an appropriate degree of liquidity in their assets, the Central Bank requires that other monetary financial institutions hold liquid assets as a certain proportion to the total amount they received from checking accounts, passbook deposits, savings deposits exclusive of pledged deposits, time deposits exclusive of pledged deposits, Treasury deposits, net dues to banks, and balance of repurchase agreements in bills and bonds, the carrying value of the host contracts of structured products issued by banks, and other items regulated by the Central Bank. In the case of Treasury deposits, the amount here refers to the net amount after redeposits with the Central Bank have been deducted. The said proportion requirement has been raised from 7 percent to 10 percent since October 2011. Assets that are deemed to be liquid and serve as liquid reserves are actual liquid reserves including excess reserves, net dues from banks, redeposits of less than one year for designated banks, certificates of deposit issued by the Central Bank, Treasury bills, government bonds, negotiable certificates of deposit (net), bankers' acceptances (net), commercial paper (net), trade acceptances, as well as bank debentures (net), corporate bonds (net), bonds issued in Taiwan by international financial organizations approved by the Central Bank and the Financial Supervisory Commission, corporate bonds denominated in NT dollars and issued by foreign entities referring to relevant regulations, and other liquid assets approved by the Central Bank.

(14) Money market:

This includes the interbank call-loan market and short-term securities market (i.e. the primary market and secondary market). Instruments transacted include commercial paper, negotiable certificates of deposit, bankers' acceptances, trade acceptances, treasury bills and city treasury bills, all of which are with a maturity of less than one year.

(15) Capital market:

This refers to markets where securities with a maturity in excess of one year or no established time limit (such as shares) are transacted, including exchange traded markets and over the counter (OTC) markets. Instruments transacted include government bonds, corporate bonds, bank debentures, certificates of deposit issued by the Central Bank, shares, as well as the NT dollar- and foreign currency-denominated bonds issued in Taiwan by foreign institutions.

(16) Foreign exchange market:

This refers to markets in which banks and their customers and banks and other banks transact foreign currencies, and also the interbank foreign currency call-loan market.

(17) Foreign exchange reserves (total reserves minus gold):

This refers to international reserves (usually expressed in the US dollar), which are readily available to and controlled by monetary authorities either to finance external payments imbalances or to maintain an orderly foreign exchange market.