EGM on National Accounts and Economic Statistics

Financial Services and Statistical Business Registers

'Treatment of Deposit-taking Corporations when compiling the financial sector accounts'

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Presentation Outline

- Financial corporations
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- FISIM
- Reference Rate of interest
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**) Financial Intermediation Services Indirectly Measured

*) Monetary and Financial Statistics Manual and Compilation Guide

Financial Corporations

- The financial corporations sector covers all corporations whose main function is to provide financial intermediation services, consisting in channeling funds from institutional units that have surpluses towards units seeking funds.
- Broad classes (2008 SNA, Paragraph 4.101):

I. Financial intermediaries

- institutional units that incur liabilities on their own account for the purpose of acquiring financial assets by engaging in financial transactions on the market.

II. Financial auxiliaries

- institutional units principally engaged in serving financial markets, but do not take ownership of the financial assets and liabilities they handle.

III. Other financial corporations

- institutional units providing financial services, where most of their assets or liabilities are not available on open financial markets.

Financial Corporations (continued)

- Subsectors within the financial corporations according to its activity in the market and the liquidity of its liabilities:

Subsector	Corresponding Broad Class
1. Central Bank	
2. Deposit-taking corporations	
3. Money market funds (MMF)	I. Financial intermediaries
4. Non-MMF investment funds	
5. Other financial intermediaries	
6. Financial auxiliaries	II. Financial auxiliaries
7. Captive financial institutions and money lenders	III. Other financial corporations
8. Insurance corporations (IC)	I. Financial intermediaries
9. Pension funds (PF)	

- On the basis of the criterion of control, each subsector can also be further divided into the following subsectors:
  a. Public financial corporations.
  b. National private financial corporations.
  c. Foreign-controlled financial corporations.

Financial Corporations (continued)

- **Three groupings of the of the financial corporations subsectors according to the seven-sector approach**:

  A. Monetary financial institutions (MFI)

  MFIs receive deposits and/or close substitutes for deposits from institutional units other than MFIs and, for their own account, to grant loans and make investments in securities. Deposits and close substitutes for deposits from institutional units other than MFIs are considered to be part of broad money. Accordingly MMFs are included in MFIs if the liabilities they issue are considered to be part of broad money.

  B. Other financial corporations except MFI and ICPF:

  Other financial corporations comprise non-MMF investment funds, other financial intermediaries except ICPF, financial auxiliaries and captive financial institutions and money lenders.

  C. Insurance corporations and pension funds (ICPF)

Financial Corporations (continued)

FINANCIAL CORPORATIONS SUBSECTORS AND GROUPINGS		
Seven-sector approach	**2008 SNA subsectors**	**2008 SNA broad class**
A. Monetary financial institutions (MFI)	1. Central Bank	I. Financial intermediaries
	2. Deposit-taking corporations	
	3. Money market funds (MMF)	
B. Financial corporations except MFI and Insurance corporations and pension funds (ICPF)	4. Non-MMF investment funds	
	5. Other financial intermediaries except ICPF	
	6. Financial auxiliaries	II. Financial auxiliaries
	7. Captive financial institutions and money lenders	III. Other financial corporations
C. ICPF	8. Insurance corporations (IC)	I. Financial intermediaries
	9. Pension funds (PF)	

Financial Corporations (continued)

- These groups correspond to the groups for the subsectors of the financial corporations sector in the templates for the minimum and encouraged data sets for internationally comparable sectoral national accounts and balance sheets developed to address data gaps which were identified after the 2008 global financial crisis.
- Recommendation 15 of the 20 recommendations endorsed by the G-20 finance ministers and central bank governors calls for the development of "a strategy to promote the compilation and dissemination of the balance sheet approach, flow of funds, and sectoral data more generally, starting with the G-20 economies."

Minimum and Encouraged Data Sets

- Groups for the subsectors of the financial corporations sector in the templates for the minimum and encouraged data sets for internationally comparable sectoral national accounts and balance sheets:

Financial corporations (FCs)									
Monetary financial institutions			Insurance corporations and pension funds		Other financial corporations				Of which: Public FCs
Central bank	Deposit-taking corporations except the central bank	Money market funds	Minimum		Minimum				Min.
			Insurance corporations	Pension funds	Non-MMF investment funds	Other financial intermediaries except ICPF,	Financial auxiliaries	Captive financial institutions and money lenders	
Minimum			Encouraged						

Minimum Data Sets - Sectors

Minimum Data Sets – Sectors

Financial corporations (FCs)				
Central bank	Deposit-taking corporations except the central bank	Money market funds	Insurance corporations and pension funds	Other financial corporations

National Accounts: A Practical Introduction, UNSD

Financial corporations (FCs)				
Central bank	Deposit-taking corporations	Insurance corporations	Pension funds	Other financial corporations

Grouping in the *MFSMCG*

- **Grouping of subsectors of the financial corporations sector in the IMFs'** *Monetary and Financial Statistics Manual and Compilation Guide* Revision (MFSMCG) is a slightly different from 2008 SNA and from *the Handbook* (UNSD-ECB).

Money-issuing sectors

a) Central bank;

b) Other deposit-taking corporations (except the central bank) and MMFs;

And the rest:

c) All other financial corporations.

Deposit-taking Corporations

- ***Deposit-taking corporations*** *except the central bank* cover those financial intermediaries through which the main effects of the monetary policy of the central bank are transmitted to the other entities of the economy.
- Deposit-taking corporations except the central bank have financial intermediation as their principal activity. To this end, they have liabilities in the form of deposits or financial instruments (such as short-term certificates of deposit) that are close substitutes for deposits.
- The liabilities of deposit-taking corporations are typically included in measures of money broadly defined.

Deposit-taking Corporations (cont.)

- Financial intermediaries classified as deposit-taking corporations, except central bank:

  a. Commercial banks, universal banks, all-purpose banks;

  b. Savings banks;

  c. Post office giro institutions, post banks, giro banks;

  d. Rural credit banks, agricultural credit banks;

  e. Cooperative credit banks, credit unions; and

  f. Specialized banks or other financial corporations if they take deposits or issue close substitutes for deposits.

Deposit-taking Corporations (cont.)

❑ Production Account – Deposit-Taking Corporations

Transactions and Balancing Items	SNA Approximation		Adjustments		Depository Banks (In Million LCY)	
	U	R	U	R	U	R
Output		0.00		0.00		0.00
Market output		0.00				0.00
Output for own final use		0.00				0.00
Other non-market output						0.00
Intermediate consumption	0.00				0.00	
Taxes less subsidies on products						
Value Added (VA) / GDP	0.00		0.00		0.00	
Consumption of fixed capital	0.00				0.00	
VA Net / Net Domestic Product	0.00		0.00		0.00	

Deposit-taking Corporations (cont.)

Data sources:

- Consolidated profit and loss statement of commercial banks (Central Bank);
- Consolidated balance sheet of commercial banks (Central Bank);
- Data on interest rates (Central Banks);
- Economic surveys of financial institutions and other Statistical forms (National Statistics Center).

Financial Services' Charges

- Financial services of deposit-taking corporations / banks include intermediation (finding borrowers for depositors' funds), recording, bookkeeping, safekeeping, liquidity (making funds available for withdrawal whenever needed and at convenient locations), payment services, loan underwriting, information provision, risk management and advice.
- Financial services may be paid for:
  a. Explicitly (*loan processing fee* is an example of explicit service charge);
  b. Implicitly:
     c. implicit charges for transactions in foreign currencies, or
     d. charges included in the difference between interest on loans and interest on deposits;
  c. Both explicit and implicit charges.

Explicit Service Charge

- Deposit taking institutions, such as banks, may charge households:
  - to arrange a mortgage,
  - to manage an investment portfolio,
  - to give taxation advice,
  - to administer an estate,
  - other.
- Explicit fees should always be recorded as payable From by the unit to whom the services are rendered to the institution performing the service
- If the services are rendered to a corporation or to government, the costs will form part of intermediate consumption.
- If they are rendered to households, excluding unincorporated enterprise. they will be treated as final consumption.

Explicit Service Charge (continued)

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GCC-STAT

From by the unit to whom the services are rendered		To the institution performing the service	
	➔	Corporation, government	Intermediate consumption
		Households	Final consumption

Explicit Service Charge (continued)

- Within the SNA, financial services are not incorporated into the value of any financial asset even if their incurrence is necessary for the acquisition of the asset.
- This is in contrast with the treatment on non-financial assets where the costs of acquiring the asset are included in the value of the asset appearing on the balance sheet.
- Nor do explicit fees affect the value at which transactions in financial assets actually take place in the market.

Explicit Service Charge (continued)

- Explicit service charges by deposit taking institutions, such as banks, may include charges to:
  - ✓ arrange a mortgage (for households),
  - ✓ manage an investment portfolio,
  - ✓ give taxation advice,
  - ✓ administer an estate, and
  - ✓ so on.

Source: 2008 SNA, 6,161-6.162.

Implicit Service Charge

- Normally banks offer their services in bundles that are priced using an interest rate that is either higher (in the case of loans) or lower (in the case of deposits) than the market rate for a similar, service-free instrument ("reference" rate of interest.). The difference between the rate of return on a "reference" rate of interest and the rate of interest offered and charged by the bank is termed an interest margin: "*combined fees implicitly charged by the bank to the depositor and to the borrower*" (2008 SNA, 6,163).
- The 2008 SNA states that *the margin between a "reference" rate of interest and the rate on a loan or deposit account is considered to be the service charge* (paragraphs 6.163-6.169).
- As the interest margin varies, banks' service provision may also vary either over time or in the cross-section.

Implicit Service Charge

- Implicit charges for financial services have to be measured indirectly as:

  the difference:
  between the buying and mid-price
  and
  between the mid-price and selling price.

- *Should be calculated at the time of the transaction concerned so that holding gains and losses are not treated as services.*

- (The 2008 SNA states that *the margin between a "reference" rate of interest and the rate on a loan or deposit account is considered to be the service charge* (paragraphs 6.163-6.169).

- As the interest margin varies, banks' service provision may also vary either over time or in the cross-section.

Output of DTCs and FISIM

- **Output of deposit taking corporations**

  = Explicit bank service charges

  + FISIM

- *The difference between the rate paid to banks by borrowers and the reference rate plus the difference between the reference rate and the rate actually paid to depositors represent charges for financial intermediation services indirectly measured (FISIM)* (2008 SNA, 6.163).

- **FISIM**

  = (Reference rate - Interest rates on deposits)*Deposits

  \+ (Interest rates on loans - Reference rate)*Loans

  OR

  = Reference rate*Deposits - Interest rates on deposits*Deposits

  \+ Interest rates on loans* Loans - Reference rate*Loans

FISIM

- *The difference between the rate paid to banks by borrowers and the reference rate plus the difference between the reference rate and the rate actually paid to depositors represent charges for financial intermediation services indirectly measured (FISIM)* (2008 SNA, 6.163).

- FISIM

  = (Reference rate - Interest rates on deposits)*Deposits

  + (Interest rates on loans - Reference rate)*Loans

  OR

  = Reference rate*Deposits - Interest rates on deposits*Deposits

  + Interest rates on loans* Loans - Reference rate*Loans

FISIM (continued)

- Reference rate*Deposits and Reference rate*Loans representing "*the amounts based on the reference rate recorded in the SNA as interest" are described as "**SNA interest**"*; and
- Interest rates on deposits*Deposits and Interest rates on loans*Loans represent "the total amounts actually paid to or by the financial institution and are described as "***bank interest***".
- The implicit service charge is thus

  equals sum of the bank interest on loans *less* the *SNA interest* on the same loans;

  plus the *SNA interest* on deposits *less* the bank interest on the same deposits.
- The service charge is payable by or to the unit in receipt of the loan or owning the deposit as appropriate. (2008 SNA, 6.164).

Reference Rate of interest

- The 2008 SNA and the UNSD Handbook recommend that:
  - the reference rate to be used in the calculation of SNA interest is a **rate between bank interest rates on deposits and loans**.
  - The reference rate should contain no service element and reflect the risk and maturity structure of deposits and loans (for banks within the same economy, there is often little if any service provided in association with banks lending to and borrowing from other banks).
- A simple way to obtain a reference rate that reflects the maturity structure of the financial assets and liabilities is to calculate a simple average of the ratio of interest receivable on loans to the stock of loans and ratio of interest payable on deposits to the stock of deposits as shown on the next slide *) (the UNSD Handbook, paragraph 3.33).

*) If the absolute value of the effect on the average rate payable to depositors of the FISIM provided to depositors equals the effect on the average rate receivable from borrowers of the FISIM provided to borrowers (implying that the margins for loans and deposits are equal).

Endogenous RR Approach

$$Rr_s = 0.5\left[\frac{R_L}{Y_L} + \frac{R_D}{Y_D}\right]x100$$

- **where**
  - Rr_s is the simple average reference rate expressed as a percentage,
  - R_L is the interest receivable on loans made by DTCs,
  - R_D is the interest payable on deposits held with DTCs,
  - Y_L is the average stock of loans and
  - Y_D is the average stock of deposits.
- This approach is known as the endogenous reference rate approach and is suitable for countries with less detailed data. It should be evaluated carefully to ensure that the results are appropriate.

Weighted Average RR

- The compiling agency may also consider calculating the reference rate as a weighted average of the interest rates on loans and deposits using the following formula:

$$Rr_w = 0.5\left[\frac{R_L}{Y_L} + \frac{R_D}{Y_D}\right]x100$$

- **where**
  - Rr_w is the weighted average reference rate expressed as a percentage.

Financial Intermediation Output, Kuwait, 2013

Million KWD

ISIC Revision 3.1		Public	Private	Total
J	**FINANCIAL INTERMEDIATION**	**504.0**	**3,220.2**	**3,724.2**
65	**Financial intermediation, except insurance and pension funding**	**173.8**	**2,149.4**	**2,323.2**
651	Monetary intermediation	173.8	2,149.4	2,323.2
659	Other financial intermediation	317.5	871.2	1,188.7
66	**Insurance and pension funding, except compulsory social security**	**0.0**	**125.2**	**125.2**
660	Insurance and pension funding, except compulsory social security	0.0	125.2	125.2
67	**Activities auxiliary to financial intermediation**	**12.7**	**74.3**	**87.0**
671	Activities auxiliary to financial intermediation, except insurance and pension funding	12.7	70.8	83.4
672	Activities auxiliary to insurance and pension funding	0.0	3.6	3.6

Financial Intermediation Value Added, Kuwait, 2013

Million KWD

ISIC Revision 3.1		Public	Private	Total
J	**FINANCIAL INTERMEDIATION**	**458.5**	**2,732.1**	**3,190.6**
	Of which FISIM (only to be deducted if FISIM is not distributed to uses))			1,956.6
65	**Financial intermediation, except insurance and pension funding**	**159.9**	**1,938.4**	**2,098.3**
651	Monetary intermediation	159.9	1,938.4	2,098.3
659	Other financial intermediation	292.3	636.2	928.5
66	**Insurance and pension funding, except compulsory social security**	**0.0**	**105.0**	**105.0**
660	Insurance and pension funding, except compulsory social security	0.0	105.0	105.0
67	**Activities auxiliary to financial intermediation**	**6.3**	**52.4**	**58.7**
671	Activities auxiliary to financial intermediation, except insurance and pension funding	6.3	49.6	55.9
672	Activities auxiliary to insurance and pension funding	0.0	2.8	2.8

Financial Intermediation - GCC

Financial intermediation value added in GCC countries for 2014 (million USD)

	UAE	Bahrain	KSA	Oman	Qatar	Kuwait
J+K Financial intermediation; real estate, renting and business activities	74,510	6,920	78,131	7,132	27,799	24,077
J Financial intermediation	33,235	5,207	-	3,931	12,386	12,155
Financial service activities and activities auxiliary	26,282	1,519	-	2,462		11,787
Offshore Financial Institutions	-	2,055	-	-		-
Insurance, reinsurance and activities auxiliary	6,953	1,632	-	1,470		368

References

- System of National Accounts, 2008 (*2008 SNA*)
- Monetary and Financial Statistics Manual and Compilation Guide Revision (*MFSMCG*), International Monetary Fund (IMF), Statistics Department (STA), March 20, 2012,
- *Handbook of National Accounting: Financial Production, Flows and Stocks in the System of National Accounts*" (the Handbook) by United Nations Statistics Division (UNSD) and the European Central Bank (ECB) Directorate General Statistics;
- For monetary and financial statistics, these are the *MFSMCG* (International Monetary Fund (IMF)), the *Manual on Sources and Methods for the Compilation of ESA95 Financial Accounts* (Eurostat), and the *Monetary financial institutions and markets statistics sector manual* (European Central Bank (ECB));
- *Computing Nominal Bank Services: Accounting for Default* by St. Gallen, Switzerland, 31st General Conference of the International Association for Research in Income and Wealth, Switzerland, August 22-28, 2010

Thank you