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**Implementation of IMF *Balance of Payments Manual*, 5th Edition,
in Singapore's Balance of Payments**

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**IMPLEMENTATION OF
IMF BALANCE OF PAYMENTS MANUAL, 5TH EDITION
IN SINGAPORE'S BALANCE OF PAYMENTS**

I. INTRODUCTION

1 The implementation of the IMF Balance of Payments, 5th Edition (BPM5) poses tremendous challenges to national compilers. This paper presents the following two-stage approach adopted by the Singapore Department of Statistics (DOS) in its implementation of BPM5:

- i) Stage 1 : Reclassification
- ii) Stage 2 : New Data Sources and Methodologies

2 Stage 1 involves the reclassification of existing data into their respective BPM5 standard components. It has been completed. Singapore's balance of payments (BOP) has been published in the BPM5 format since 1Q98.

3 Stage 2 is an on-going process to move our BOP statistics towards the BPM5 standard. The implementation issues pertaining to our BOP are first identified and prioritized. This is followed by the identification and development of new data sources, the refinements of current methodologies as well as the development of new methodologies. New and revised data developed through this process will be incorporated into our BOP from end-1998 onwards.

II. STAGE 1 : RECLASSIFICATION

4 Stage 1 entails the reclassification of existing data into their respective components in the BPM5 format. Reclassification was carried out only for those components for which detailed data are available, or where reasonable estimates could be derived from available statistical indicators. Table 1 summarizes the main reclassification made.

5 The reclassification exercise was initiated in 1994. The first set of our reclassified BOP statistics was ready in mid-1995, and provided to the IMF for release in the IMF BOP Statistics Yearbook. Further reviews of the reclassification were carried out, and the national presentation of our BOP was changed to the new format in 1Q98. The new format of our BOP is available from 1980 onwards for the annual series, and from 1988 onwards for the quarterly series.

TABLE 1: RECLASSIFICATION OF SINGAPORE'S BOP

BPM4	BPM5	Remarks
Merchandise	Goods	Reclassify repairs on goods and goods procured in ports by carriers from the services account
	Transportation	Reclassified from shipment (freight) and other transportation and services (port services)
Travel	Travel	Expanded to include medical and students' expenditure reclassified from other transportation and services
Investment Income		Reclassified to income account
	Insurance	Reclassified from shipment, other transportation and services
Official Transactions	Government	Identical except for wages paid to local staff reclassified to income account
Other Transportation and Services	Other Services	Identical except for items that are reclassified to other components (see other components)
	Income	Reclassified from investment income, other transportation and services (labour and property)
Unrequited Transfers	Current Transfers	Identical except for migrant's transfers reclassified to capital account
	Capital Account	Reclassified from unrequited transfers
	Income	Reclassified from investment income, other transportation and services
Non-Monetary – Private and Official	Direct	Reclassify non-monetary – private and official to direct investment, portfolio investment, and other investment – other sectors
	Portfolio	
	Other Investment – Other Sectors	
Monetary	Other Investment - Banks	Identical

III. IMPACT OF RECLASSIFICATION

Current Account

6 The reclassification has led to marginal upward revisions to the current account balance. But this does not affect significantly the analytical trend of our current account balance (Table 2)

Goods Account

7 The merchandise trade account has been renamed the goods account, with its coverage expanded to include:

- i) repairs on goods; and
- ii) goods procured in ports

These two items were previously recorded in the services account. The data are available from trade statistics and surveys on ship repairing, aircraft repairing and transportation companies.

8 As Singapore is a major bunkering port and centre for repairs of ships and aircraft, the reclassification has resulted in the improvement of our trade balance (Table 2). Instead of consistent trade deficits, the goods account shows trade surpluses since 1994.

TABLE 2: KEY ANALYTICAL BALANCES IN THE CURRENT ACCOUNT

	S\$ million				
	1990	1994	1995	1996	1997
BPM4 FORMAT					
Trade Balance	-6,703.5	-1,600.3	-1,855.0	-733.6	-2,628.3
Services Balance	13,119.3	20,103.3	23,465.6	23,006.4	26,369.9
Current Account Balance	5,612.9	17,364.7	20,254.2	20,564.6	21,722.4
BPM5 FORMAT					
Trade Balance	-2,959.1	2,068.7	1,384.2	3,136.4	1,700.7
Services Balance	7,550.9	14,068.7	17,238.7	14,928.9	16,241.7
Income Balance	-763.3	-1,009.8	-1,255.4	-1,512.6	-1,762.1
Current Account Balance	5,652.5	17,493.2	20,355.2	20,760.2	21,979.5

Services Account

9 The new BPM5 format has resulted in lower services surpluses (Table 2). This is because a significant proportion of our services surplus in the BPM4 format are derived from investment income (reclassified to the income account), repairs and goods procured in ports (reclassified to the goods account). Due to the same reasons, the new format shows declines in the total exports of services by about one-third (Table 3).

10 In the BPM4 format, the main components of our services account are *shipment, travel, investment income, official transactions, other transportation and services*. In the BPM5 format, they are *transportation, travel, insurance, government and other services*.

TABLE 3: EXPORTS OF SERVICES

	S\$ million				
	1990	1994	1995	1996	1997
BPM4 FORMAT					
Shipment	2,962.1	4,480.3	5,093.6	5,363.3	5,639.2
Travel	8,325.4	10,218.7	10,837.4	10,412.5	9,303.3
Investment income	11,628.5	14,849.5	17,979.6	20,008.0	22,657.9
Official transactions	184.1	170.8	160.6	169.5	168.7
Other transportation &	16,564.4	24,876.3	30,552.3	31,373.4	35,787.5
Total	39,664.5	54,595.6	64,623.5	67,326.7	73,556.6
BPM5 FORMAT					
Transportation	4,033.4	6,174.4	7,265.1	7,322.3	7,660.1
Travel	8,427.4	10,357.9	10,981.0	10,551.7	9,442.5
Insurance	160.3	503.8	502.4	559.7	661.2
Government	166.8	159.9	131.8	137.9	137.9
Others	10,432.1	17,988.3	23,375.6	23,638.8	27,343.8
Total	23,220.0	35,184.3	42,255.9	42,210.4	45,245.5

11 Our receipts from *Transportation* is much larger than our receipts from *Shipment*. Hence the component *Transportation* better reflects our position as a regional transportation hub. Data on freight services are available from survey on transportation companies and sample survey of importers, while data on port services are available from airport and seaport authorities, and survey of transportation companies.

12 Receipts from *Travel* in the new format is slightly larger than in the old format due to the inclusion of students' and medical expenditure. *Insurance* includes life, general, cargo insurance and reinsurance. The data are available from survey of importers and survey on insurance companies. The separate *insurance* component reveals that Singapore is a small but growing regional insurance centre.

13 *Government* refers to expenditure of foreign missions in Singapore and Singapore's overseas missions (embassies, trade offices, etc). The difference between *official transactions* and *government* represents wages paid to local employees by foreign missions.

14 *Other Services* includes financial, communication, merchanting, professional and business services, which currently we are unable to make more precise classification. However, the reclassification has enabled us to reduce the size of this large component by about one-quarter and help to improve the analytical usefulness of our services account.

Income Account

15 Our labour income payments are larger than our receipts, resulting in the larger difference between investment income payments (in BPM4) and income payments (in BPM5) in comparison to the difference in receipts. Our labour income payments are mainly wages paid to foreign crew by local shipping lines and airlines. The data are available from survey of transportation companies.

TABLE 4: INCOME

	S\$ million				
	1990	1994	1995	1996	1997
BPM4 FORMAT					
Investment income receipts	11,628.5	14,849.5	17,979.6	20,008.0	22,657.9
Investment income payments	9,705.6	12,177.4	14,736.0	15,573.9	16,621.1
BPM5 FORMAT					
Income receipts	11,796.4	14,924.9	18,142.7	20,196.1	22,860.0
Income payments	9,972.4	12,559.3	15,155.0	15,988.6	17,060.9

Current Transfers and Capital Account

16 Unrequited transfers in the old format has been split into current transfers and the capital account. Current transfers recorded consistent deficits due to outward remittances by foreigners working in Singapore. Migrant's transfers in our capital account are compiled largely from administrative data. It also recorded deficits, as most migrants are not required to place monetary deposits with the Singapore government.

TABLE 5: TRANSFERS

	S\$ million				
	1990	1994	1995	1996	1997
BPM4 FORMAT					
Unrequited transfers	-802.9	-1138.3	-1356.4	-1708.2	-2019.2
BPM5 FORMAT					
Current transfers	-763.3	-1009.8	-1255.4	-1512.6	-1762.1
Capital account	-39.6	-128.5	-101.0	-195.6	-257.1

Financial Account

17 Overall balance remains the same. The financial account (previously known as capital account) has been completely restructured. The previous classification of non-monetary/monetary sector has been changed to direct, portfolio and other investments (Table 6). This new classification is analytically more useful as it is in line with current interest in the nature of cross-border financial flows. The balance of financial account is the same as the capital account in the previous format.

TABLE 6: FINANCIAL ACCOUNT

	S\$ million				
	1990	1994	1995	1996	1997
Financial Account Balance	7,154.8	-17,855.6	-926.3	-3,437.6	-6,734.8
BPM4 FORMAT					
Non-Monetary	4,109.5	-19,562.9	-8,830.2	-9,827.6	-16,584.1
Private	4,177.4	-6,329.2	5,500.1	8,174.8	1,812.0
Official	-67.9	-13,233.7	-14,330.3	-18,002.4	-18,396.1
Monetary	3,045.3	1,707.3	7,903.9	6,390.0	9,849.3
BPM5 FORMAT					
Direct Investment	6,418.1	6,659.3	4,179.2	4,650.9	6,921.0
Portfolio Investment	-1,880.4	-15,269.4	-11,630.9	-12,144.8	-16,138.9
Other Investment	2,617.1	-9,245.5	6,525.4	4,056.3	2,483.1
Other Sectors	-428.2	-10,952.8	-1,378.5	-2,333.7	-7,366.2
Banks	3,045.3	1,707.3	7,903.9	6,390.0	9,849.3

18 With greater international capital mobility, our financial account has also become more volatile in recent years. In view of this, additional details of the financial account are released to facilitate more in-depth analysis of our BOP financial flows (Table 7).

TABLE 7 : CLASSIFICATION OF SINGAPORE'S FINANCIAL ACCOUNT

Functional Category	Direction	Type of Instrument	Sector
Direct Investment	Inward	-	-
	Outward		
Portfolio Investment	Assets	Equities	-
	Liability	Bonds	
Other Investment	Assets	Trade Credits	Banks
	Liability	Loans	Other Sectors
		Currency and Deposits	
		Others	

19 Our direct and portfolio investment flows are relatively more stable. The additional breakdown for other investment reveals that loans, and currency and deposits are the more volatile components.

III. STAGE 2 : NEW DATA SOURCES AND METHODOLOGY

20 Stage 2 commenced concurrently with Stage 1 in 1994. The initial task was to study the recommendations of BPM5 that need to be implemented in Singapore's BOP. A complete review of our methodology was carried out. In the review the required changes were identified and prioritized.

21 Work on the development of new data sources began in 1996. Various new data sources have been developed, including new surveys, refinement of existing surveys and other data sources. The new data collected are now being assessed to determine their suitability for incorporation into our BOP.

22 In stage 2, historical data are not always available for the backcasting of data series to earlier years. This is the case with new data items compiled from new data sources. While backcasting is not possible for these data items, considerable efforts will be made to enhance the comparability of the new and old data series on the broad basis.

23 Table 8 summarizes our efforts and plans in Stage 2. We have categorised them into high, medium and low priority. The categorization is based our assessment of the impact of the subject on the quality of our BOP estimates. We will channel most of our resources into items of high

priority to ensure that they will be completed earlier. The new surveys are further elaborated in the appendix.

Goods Account

24 For most countries, including Singapore, the primary source of data for the goods account is trade statistics. The definition of trade in trade statistics differs from the BPM with respect to the change of ownership rule. This means that some adjustments to the trade statistics are required in the compilation of the BOP goods accounts, for example, adjusting for goods on consignment, goods on lease and holdings of stocks in merchanting¹.

25 In addition, the other two main recommendations of BPM5 that will affect our goods accounts are:

- i) recording the gross value of the goods, instead of the net value for goods that have crossed the boundary for goods processed without change of ownership;
- ii) reclassification of transactions that are traditionally classified under goods but in which the element of 'services' is more substantial, e.g. blueprints, video, tapes and computer disks.

26 We will be developing an approach to identify traders whose trade normally does not involve change of ownership. Their trade will be adjusted out of trade statistics. This will enable us to carry out the necessary adjustment without making major changes to our trade reporting system. Data on processing fees and stocks in merchanting have been collected in the TIS. Commodities with substantial element of 'services' will be identified from trade statistics and reclassified to the services account.

Services Account

27 The TIS is a major new survey which affects a large number of our respondents. The main problems encountered are:

- i) identifying transactions with non-residents
- ii) providing geographical information

The problem faced by respondents varies. i) is usually encountered by companies who are not required to report trade in services transactions in previous surveys, while ii) is usually faced by companies which has large amount of transactions and does not keep geographical information in their company records. We have worked closely with respondents to understand and resolve their difficulties. In some cases, respondents were guided on how to provide the best estimates based on available information.

¹ Merchanting is the purchase and subsequent resale of goods in which the goods do not enter or leave the country of the trader.

28 The new methodology for insurance services requires detailed data on life, general and freight insurance, outward and inward reinsurance. This has been collected in the TIS, and we will be able to compute the service charges, which are to be recorded in the services account. Other changes will be recorded in current transfers or other accounts.

29 The expansion of financial services to include implicit service charges in foreign exchange trading will have a significant impact on our BOP as Singapore is the fourth largest foreign exchange trading centre in the world. We are working on an approach to estimate the service charges from existing data on revenue from foreign exchange activities, instead of estimating it from the spread between the midpoint rate and the buying/selling rate as recommended by BPM5.

Income Account

30 The main data gaps in the income account are income of household sector and interest income on trade credits, factoring and leasing. These data have been collected in new surveys or will be estimated from the corresponding financial flows data in the financial account.

31 The main BPM5 recommendations that affect the income account are the two new valuation methods –

- i) record interest income on accrual rather than due for payment basis
- ii) when computing earnings, measure depreciation based on current replacement cost rather than historical cost

To implement these two new valuation methods involves substantial increase in respondents' burden but has limited impact on the quality of our BOP statistics.

32 The method of recording interest on accrual basis rather than due for payment basis will have a significant impact on the BOP if the due for payment dates are not well spread across the year. A study on existing data on Singapore's interest income shows that there is no quarterly bias.

33 On the other hand, in most accounting records depreciation is usually measured based on historical cost. There will be a substantial increase in respondent burden if we require respondents to compute their income based on current replacement cost.

34 Therefore the two new valuation methods will not be implemented in the near future.

Financial Account and the International Investment Position

35 The implementation of the BPM5 on the financial account and international investment position is the most challenging part of the whole exercise. After the review on our methodology, the main tasks identified are:

- i) collect data on market value basis instead of cost value basis;
- ii) for the change in market value position, distinguishing transaction, price, exchange rate and other changes;
- iii) direct investment - reverse investment, intercompany debt transactions between direct investors and their subsidiaries;
- iv) portfolio investment - bonds and notes, money market instruments and financial derivatives, repurchase agreements and securities lending;
- v) other investments –trade credits, factoring, financial leasing, other loans.
- vi) investment through investment intermediaries
- vii) investment of household sector

36 Existing data sources for the financial account were reviewed and refined to ensure that the BPM5 requirements are met. New data sources are being developed, including a number of new surveys.

37 Most respondents are able to report the market value for traded securities, but for non-traded securities usually only the cost value is available. Another difficulty faced by most respondents is distinguishing transaction, price, exchange rate and other changes. The breakdowns are usually not available in existing company records, and considerable efforts have to be put in by respondents to compile them, sometimes involving individual computation of a large number of securities.

38 For surveys on investment intermediaries, the main challenge is to avoid double counting with the surveys on end-investors. Clear instructions are given in the survey forms on what transactions should be reported in each survey. In addition to the difficulties previously mentioned, some investment intermediaries have to go through records of individual client to distinguish investment on behalf of resident from those for non-resident clients.

39 Resident investment intermediaries are approached for data on investment by the resident household sector. They include property agents, fund managers and stockbroking companies acting as custodians. Therefore investment by the household sector that does not go through these intermediaries will not be covered in our BOP.

40 The issues faced by our potential data providers for financial derivatives vary and depend on their current recording practice. For example, companies that track the mark-to-market value of their derivative instruments have no problem in reporting the market value by instrument type, but some are not able to distinguish transactions with non-residents from those with residents. It will take some time before all our potential data providers are able to provide the necessary data.

41 The new data sources (surveys) for the services and financial accounts impose the greatest amount of burden on our data providers. Some respondents express concerns about the amount of effort required to generate the necessary data. Assistance have been provided whenever possible. Their feedback has enabled us to gain a better understanding of the real world situation and improve our surveys, which in turn help to improve the quality of our BOP statistics.

CONCLUSION

42 The implementation of BPM5 is extremely challenging and involves not only the reclassification of existing BOP data, but also the development of new methodologies/data sources, and the refinement of existing methodologies/data sources. The successful completion of Stage 1 has enabled us to publish our BOP statistics in the improved BPM5 format and enhances the analytical usefulness of our BOP statistics.

43 Stage 2, which is now on-going, will require the assistance and co-operation of large numbers of respondents and data providers in both the private and public sectors. The improved data will enhance the quality of our BOP statistics and benefits greatly all users of Singapore's macro-economic statistics.

APPENDIX DETAILS OF MAJOR NEW SURVEYS

Trade in Services Survey (TIS)

1 The survey collects additional details as well as geographical information on our trade in services. The classification of items in the survey is based on BPM5 as well as the joint OECD-EUROSTAT classification. Special survey forms are used for transportation, financial and insurance services. The survey currently covers about 3000 companies.

Survey of Singapore Investment Abroad, Other Foreign Assets and Liabilities (SIO)

2 This was an ongoing survey to collect data on outward investment by the corporate sector. It has been recently expanded to incorporate the requirements of the coordinated portfolio investment survey, and cover other foreign assets and liabilities. The recent improvements to the survey are:

- i) expand the instrument coverage to money market instrument, factoring, financial lease, repurchase agreements and securities lending;
- ii) collect geographical distribution of portfolio investment and other investment (for selected items only);
- iii) collect market value, distinguishing transaction, price, exchange rate and other changes;
- iv) expand the coverage to financial institutions;
- v) collect data on reverse investment.

3 The survey currently covers about 7000 companies and data will be available with a time lag of one and a half year.

Survey of Debt Transactions

4 This survey was launched in 1997 to collect data on debt securities, trade credits, overseas loans. Intercompany debt transactions between foreign direct investors and Singapore subsidiaries are also collected. The survey has a time lag of one year. The first survey only covered companies with foreign direct investment, but subsequent surveys will be expanded to cover other companies.

Surveys on Investment Intermediaries

5 It comprises two surveys, survey of nominees and custodians, and survey of fund managers, both launched in 1997. The main objective of the first survey is to improve the coverage of foreign portfolio investment in Singapore listed companies as a significant portion of it are through nominees. The data are collected on a security by security basis. The second survey collects data on Singapore registered unit trusts (or mutual funds), outward portfolio investment by the household and corporate sector, as well as inward portfolio investment through

Singapore based fund managers. The coverage of the two surveys ranges from 100 to 200 companies.

Survey on Property Investment Abroad

6 This survey was launched in 1996 to collect data on investment in overseas properties by the household sector. The survey is targeted at Singapore companies that market overseas properties to residents. The coverage ranges from 50 to 100 companies. This survey has now been incorporated into the TIS.

TABLE 8: STAGE 2 OF IMPLEMENTATION OF BPM5

Accounts	Subject	Priority	Issue and Action	New Data Sources
Goods	Reclassify commodities with substantial 'services' component to services account	Medium	Identify the commodities from Trade Statistics	
	Goods without change of ownership	Medium	Identify from trade statistics	
	Merchandising	Medium	To collect from traders engaged in merchandising	TIS
Services	Overall coverage and quality of trade in services statistics	High	A new survey to collect statistics on trade in services, TIS, is conducted. More disaggregation and geographical distribution are collected by the survey.	TIS
	Insurance Services	Medium	New methodology on recording insurance services requires additional data	TIS
	Financial Services	Medium	Implicit Services Charges in Foreign Exchange Trading	
	Travel Services	Medium	Students expenditure - relevant data have been collected Breakdown to Business and Personal Travel - estimate from existing data	
Income	Income of Household sector	Medium	Rental, labour and portfolio investment income by the household sector)Survey of Property)Investment Abroad)SIO
	Interest Income	Medium	Interest income from trade credits, factoring, leasing)Surveys of Nominees)Survey of Fund Managers)Survey of Debt Transactions
	Accrued Interest	Low	The accrued interest method will better reflect the economic use of capital over a period	
	Depreciation Charges	Low	Measuring depreciation based on current replacement cost rather than historical cost	

Accounts	Subject	Priority	Issue and Action	New Data Sources
Accounts	Subject	Priority	Issue and Action	New Data Sources
Current Transfers	Tax	Low	Improve estimates of withholding tax, income tax	Inland Revenue
	Remittances	Low	Estimate inward remittances of Singaporean working abroad from their wages	SIO
Capital Account	Migrant's Transfers	Low	Improve estimates on migrant's transfers through developing data models	
Financial Account	Coordinated Portfolio Investment Survey	High	Singapore's participation in this survey will help to improve our coverage of portfolio investment. The requirements have been incorporated into our annual Survey of Singapore's Investment Abroad. In addition, new surveys on investment intermediaries have also been conducted.	SIO Surveys of Nominees Survey of Fund Managers
	Financial Derivatives	High	To formulate an approach for collecting data on financial derivatives. Some potential respondents have been consulted	
	Trade Credits, Factoring, Financial Leases	Medium	Incorporate data requirements into current or new surveys	SIO Survey of Debt Transactions
International Investment Position		High	Current data sources will be refined to collect market value, distinguish transaction and other changes. All new data sources on financial transactions have incorporated the requirements of the IIP	

TIS : Trade in Services Survey

SIO : Survey of Singapore's Investment Abroad, Other Foreign Assets and Liabilities

