# **Central Bank Services**

- Focusing on core banking operations: cash, account, and settlement services -

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# Introduction<sup>1</sup>

Central banks implement policies by conducting a variety of financial transactions, such as lending, provision of current account operation, and purchase and sale of securities in the private and public sectors. Banknote issuance and other various banking services form the basis of these central bank transactions. Historically, most central banks have their origins in the fields of issuing banknotes and accepting current account deposits. They later expanded into other services, such as coinage and securities settlement. These financial services all can be described under the single heading of "central bank services."

The Bank of Japan (BOJ) hosted the 9<sup>th</sup> BOJ-EMEAP High-Level Workshop in Tokyo, in November 2005. Nineteen senior officials from all EMEAP central banks and two guest speakers from the Federal Reserve Board and the Bank for International Settlements participated in this workshop<sup>2</sup>. The workshop was aimed at taking stock of the scope of services provided by the EMEAP central banks, especially in the areas of cash services, current account services, and funds/securities settlement services. The discussion at the workshop also covered strategies for such services.

<sup>&</sup>lt;sup>1</sup> I gratefully acknowledge the comments of all central bankers who participated in the workshop. The views and opinions in this paper are my own and do not reflect those of the Bank of Japan or the participants in the workshop.

<sup>&</sup>lt;sup>2</sup> The participants were Mr. Greg Johnston (RBA), Mr. Li Jian Guo, Ms. Tan Jinghui (PBOC), Ms. Siu Ming, Lydia Yip (HKMA), Mr. Mohamad Ishak, Mr. Ahmad Hidayat (BI), Mr. Akinari Horii, Mr. Masayoshi Amamiya, Mr. Hajime Mizuno, Mr. Kenzo Yamamoto, Mr. Tatsushi Kurihara, Mr. Takeo Nakamura (BOJ), Mr. Young-buhm Song (BOK), Mr. Abdul Aziz Abdul Manaf (BNM), Mr. Rene Carreon, Ms. Ma. Aurora L. Cruz (BSP), Mr. Raphael Too (MAS), Ms. Charinya Kaewmanee, Mr. Niruth Raksaseree (BOT). The guest speakers were Ms. Louise Roseman (FRB) and Mr. Gavin Bingham (BIS). Mr. Akinari Horii chaired the workshop.

No single model exists for central bank services. Central bank services differ across countries reflecting the roles of the private sector in the payment system, the central bank's relationship with the government, and the central bank's strategy as well as historical background. As this report explains, cash circulation services, account services for governments and private sectors, fund settlement services on a wholesale basis, and government security settlement services are offered by almost all EMEAP central banks. On the other hand, banknote printing and coinage services, retail fund settlement services, and securities settlement services other than for public debts differ across central banks.

Furthermore, the scope of central bank services changes over time. In order to streamline their businesses, the central banks of Australia and Thailand implemented significant changes in both the scope and method of providing central bank services.

Pricing policy for central bank services differs across central banks. Most EMEAP central banks do not charge for cash and current account deposits. On the other hand, a large majority of EMEAP central banks charge for the operational costs of settlement services. When a service is also available from the private sector, there are cases in which central banks set their prices so that they maintain a level playing field.

In the following pages, this report will explain the scope and contents of central bank services in the order of cash services, current account deposit services, and settlement services. The final section describes the pricing policy for these services.

#### 1. Cash services

#### (1) Banknotes

All EMEAP central banks except for the Hong Kong Monetary Authority (HKMA) provide services for banknote issuance and destruction, which are the two ends of banknote processing services. The HKMA, which entrusts its banknote issuance service to commercial banks, bears the printing costs<sup>3</sup> (Table 1).

(Table 1) Central bank involvement in banknote services

	Special features highlighted in color				
	Issuance <sup>1</sup>	Circulation <sup>2</sup>	Examination	Destruction	Printing <sup>1</sup>
Australia	Y	Y'	Y' 3	Y	$Y^3$
China	Y	$Y^4$	$Y^4$	Y	$Y^4$
Hong Kong SAR	$N^5$	$N^5$	$N^5$	$N^5$	$Y^5$
Indonesia	Y	Y	Y	Y	N
Japan	Y	Y	Y	Y	$N^6$
Korea	Y	Y	Y	Y	$N^7$
Malaysia	Y	Y'8	Y'8	$N^8$	$N^8$
New Zealand `	Y	Y'	Y'	Y	$N^9$
Philippines	Y	Y	Y	Y	Y
Singapore	Y	Y	Y	Y	$N^{10}$
Thailand	Y	Y	$\mathbf{Y}^{11}$	Y	Y
<reference></reference>					
U.S.A.	Y	Y	Y	Y	N
U.K.	$\mathbf{Y}^{12}$	Y'	Y',12	Y	$N^{12}$
Germany	$Y^{13}$	Y	Y	Y	$N^{14}$
France	$Y^{13}$	Y	Y'	Y	Y

- Y: Service offered by central bank
- Y': Limited service offered by central bank (e.g. service for unfit notes and seasonal surplus fit notes)
- N: Service not offered by central bank

Notes: 1. On the basis of legal authority.

- 2. Includes distribution and custody of banknotes.
- 3. The RBA examines unfit notes and other notes returned, at the RBA's request, for sampling/authentication purposes. Other note returns reflecting seasonal surpluses are not examined. Notes are produced by Note Printing Australia, Ltd. owned by the RBA.
- 4. PBOC, in principle, accepts and examines unfit notes and notes in excess of commercial banks' limits for cash holding; however, in practice, commercial banks also deposit other notes to PBOC for interest earning. Notes are produced by China Banknote Printing and Minting Corporation.
- 5. Produced by Hong Kong Note Printing, Ltd. (acquired by HKMA in 1996) . Three note-issuing banks, designated by the government, issue banknotes under a set of terms and conditions.
- 6. Produced by National Printing Bureau, an independent administrative agency.
- 7. Produced by an affiliate of the government (Korea Minting and Security Printing Corporation) .
- 8. Examination and destruction services are wholly owned and controlled by BNM despite being outsourced to a private agent, who has to adhere to strict guidelines drawn up by BNM; BNM provides over-the-counter assessment and reimbursement of mutilated banknotes to the general public. A number of selected overseas printers print banknotes.
- 9. RBNZ procures banknotes through tenders.
- 10. MAS procures banknotes through international tenders.
- 11. Examination in terms of banknotes' quality assurance.
- 12. Examination service is entrusted to private financial institutions. Notes are produced by private manufacturers. In Scotland and Northern Ireland, private banks manufacture and issue sterling notes.
- 13. Issued by ECB; however, national central banks in the euro zone conduct administrative procedures of the issue.
- 14. Produced by two manufacturing companies.

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<sup>&</sup>lt;sup>3</sup> In Hong Kong, the government has authorized three commercial banks: Bank of China (Hong Kong) Limited, Standard Chartered Bank (Hong Kong) Limited, and The Hongkong and Shanghai Banking Corporation Limited, to issue banknotes in Hong Kong. This includes distribution and destruction of notes. This authorization is accompanied by a set of terms and conditions: the issue must be backed by an equivalent value in USD. In addition, the HKMA issues HKSAR \$10 notes and coins.

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In looking at banknote circulation services (distribution, acceptance, and custody), many EMEAP central banks principally accept and take custody of any banknote brought in by commercial banks, regardless of their fitness. The central banks then reissue fit notes. However, in Australia and New Zealand, the central banks limit their provision of such services to unfit notes and seasonal surplus of fit notes in the private sector. Instead, the private sector is responsible for circulation of fit notes. Banknote circulation services in Malaysia are also mainly offered by a private agent.

In this context, many EMEAP central banks count and sort any banknote brought into the central banks. Meanwhile, in Australia and New Zealand, central banks examine only unfit notes and (in New Zealand's case) a sample of seasonal surplus fit notes. The Bank Negara Malaysia (BNM) also examines only mutilated and soiled notes brought in over the counter. In the latter cases, the examination of remaining banknotes is primarily conducted by the private sector (Table 2).

(Table 2) Central bank involvement in banknote circulation services: two categorizations

		Central bank
		banknote circulation services
Services	7 EMEAP	Central banks accept, examine, and take custody of any banknote brought in
provided for	central banks	by commercial banks, regardless of their fitness. The central banks reissue
all banknotes		fit notes.
Limited	Australia	National Note Processing and Distribution Centre (NNPDC) <sup>4</sup> commenced
provision of		operation in 2001 with the centralizing note-processing functions on a
services		wholesale basis. The private sector is responsible for the recirculation of fit
		notes. They may return only unfit notes and seasonal surplus fit notes to
		NNPDC. The RBA's role is to take overall responsibility for the quality of
		notes in circulation, i.e., the RBA meets the operating cost of NNPDC,
		conducts and covers the cost of quality/authentication sampling checks of
		private service providers, and compensates the private sector for interest
		forgone on working stocks up to a certain limit <sup>5</sup> .
	Malaysia	The BNM outsources examination and services to a private agent, which
		adheres to the guidelines set by the BNM. The BNM also outsources
		destructing service to an appointed agent, although the BNM has
		responsibility in the service. The BMN examines only mutilated and soiled
_		notes brought in by the general public and commercial banks over the counter.
	New Zealand	The RBNZ encourages trading of notes (includes counting and sorting of
		notes) among private banks. The RBNZ's involvement is limited to issuance
		of new notes, collection/destruction of unfit notes, and seasonal supply and
		demand adjustment of notes. Notes and coins are held by the commercial
		banks with no remuneration.

<sup>&</sup>lt;sup>4</sup> Operated by Note Printing Australia Limited, which is owned by the RBA.

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<sup>&</sup>lt;sup>5</sup> Unfit notes are excluded from the limit, with interest foregone paid separately on unfit holdings without limit. In addition, the payment of interest forgone is dependent on commercial banks observing specific requirements, including the exchange of currency between themselves and fitness sorting of notes according to the RBA's standard.

About half of the EMEAP central banks or related institutions are responsible for banknote printing services. As for the remaining half, public or private institutions other than central banks are responsible for this service (Table 1).

At the workshop, participants also discussed efforts made to boost the efficiency of cash services. Thailand has reformed its banknote supply chain by shifting the provision of examination services from the central bank and government to the private sector. The Bank of Thailand (BOT) also improved cash deposits/withdrawals by consolidating multiple accounts to a single account per bank to support electronic cash ordering.

## (2) Coins

More than half of EMEAP central banks are responsible for issuance, circulation, and examination of coins, although involvement is on a lesser scale than involvement in banknote services. Meanwhile, minting and destruction of coins are mostly conducted by entities other than central banks (Table 3).

(Table 3) Central bank involvement in coin services

Circulation<sup>2</sup> Issuance<sup>1</sup> **Examination Destruction** Minting<sup>1</sup>  $N^3$ Y' Australia N China Y Y Y  $Y^4$ Y  $N^5$  $N^5$  $N^5$  $N^5$  $N^5$ Hong Kong SAR Indonesia Y Y Y Y N  $N^6$ Y Y N N Japan  $N^7$  $N^7$ Korea Y Y Y Malaysia Y Y Y Y N Y' 8 New Zealand Y Y' Y N Philippines Y N Y  $\mathbf{Y}^9$  $N^9$  $N^9$  $N^9$  $N^9$ Singapore  $N^{10}$  $N^{10}$  $N^{10}$  $N^{10}$  $N^{10}$ Thailand <reference> U.S.A.

Y: Service offered by central bank

Special features highlighted in color

- Y': Limited service offered by central bank (e.g. service for unfit coins and seasonal surplus fit coins)
- N: Service not offered by central bank

Notes: 1. On the basis of legal authority.

U.K.

Germany

France

- 2. Includes distribution and custody of banknotes.
- 3. Produced and issued by the Australian Government Royal Australian Mint.
- 4. Produced by China Banknote Printing and Minting Corporation.

 $N^{11}$ 

 $N^{12}$ 

 $N^{13}$ 

5. Produced by the UK Royal Mint and Royal Canadian Mint and circulated by commercial banks.

 $N^{11}$ 

Y

Y

- 6. Produced by Japan Mint, an independent administrative agency.
- 7. Produced by an affiliate of the government (Korea Minting and Security Printing Corporation). Destroyed by private companies.
- 8. Repatriation of coins to RBNZ is only allowed in special circumstances. RBNZ examines only mutilated coins.
- 9. MAS maintains legal authority to issue legal tender coins, but has outsourced circulation/coin management to Singapore Mint. They mint, issue (i.e. physical transactions), circulate, examine, and destroy coins.

 $N^{11}$ 

Y

Y

 $N^{11}$ 

N

N

 $N^{11}$ 

 $N^{12}$ 

 $N^{13}$ 

- 10. Ministry of Finance is responsible for production, issuance, circulation, examination and destruction.
- 11. Royal Mint is responsible for production, issuance, circulation, and destruction.
- 13. Produced by a government affiliated body. Issued by the government.

# 2. Current account deposits

Current account deposit services provided by central banks are classified into three types: transactions with the private sector, transactions with the government, and transactions with other institutions including overseas central banks.

As to account services for the private sector, all EMEAP central banks provide current accounts to banks. On the other hand, the majority of EMEAP central banks do not offer accounts to securities and insurance companies. The few EMEAP central banks that offer accounts to securities and insurance companies do so mainly because of historical background or because they regard such companies as influential funds settlement providers. In addition, not a few EMEAP central banks offer accounts to non-financial institutions, such as clearing houses and exchanges (Table 4).

(Table 4) Account services for private institutions

Special features highlighted in color

		Non-financial institutions			
	Banks	Securities firms	Insurance companies	Other financial institutions <sup>1</sup>	
Australia	Y	N	N	Y	$Y^2$
China	Y	N	N	Y	$Y^3$
Hong Kong SAR	Y	N	N	N	N
Indonesia	Y	N	N	N	$\mathbf{Y}^{4}$
Japan	$Y^5$	Y	N	$Y^6$	Y 7
Korea	Y	Y	Y	Y	Y 8
Malaysia	Y	N	N	Y	N
New Zealand	Y	N	N	N	N
Philippines	Y	N	N	Y	N
Singapore	Y	N	N	$\mathbf{Y}^9$	$Y^{10}$
Thailand	Y	Y	N	N	N
<reference></reference>					
U.S.A.	Y	N	N	N	N
U.K.	Y	Y	N	N	N
Germany	Y	Y	N	N	Y
France	V	V	N	N	Y

Notes: 1. Refers to non-bank financial corporations, mutual funds, pension funds, trust funds, nominees, etc.

- Some non-financial institutions, including the Australian Stock Exchange and the Sydney Futures Exchange Clearing House hold settlement accounts at the RBA. The criteria for approval are set out in Table 5.
- 3. Refers to payment and clearing institutions, such as China Union Pay, City Commercial Bank's Draft Processing Center.
- 4. Refers to Shared ATM-clearing house company and BI employee pension fund.
- 5. Includes depository institutions, such as *shinkin* banks.
- 6. Includes money brokers (tanshi companies) and governmental financial institutions.
- 7. Refers to Tokyo Bankers Association and the Japan Government Bond Clearing Corporation.
- 8. Refers to Korea Securities Depository, Korea Deposit Insurance Corporation, Korea Exchange, Korea Money Broker Corporation, Seoul Money Brokerage Services.
- 9. Refers to finance companies.
- 10. Refers to a clearing house.

(Table 5) Private sector eligibility for access to an account at EMEAP central banks

Australia	- Actual or prospective providers of third party (i.e. customer) payment services with a need
	to settle clearing obligations with other providers.
	- Ability to demonstrate liquidity to meet settlement under routine and seasonal peak
	periods, as well as periods of stress.
	- Members of the Reserve Bank Information and Transfer System (RITS).
China	- Financial institutions with reserve accounts at PBOC and some concessionary financial
	institution, such as China Union Pay.
Hong Kong	- All licensed banks in Hong Kong are required to maintain a settlement account with the
SAR	HKMA.
	- Restricted licence banks in Hong Kong are also allowed to open a settlement account with
	the HKMA, provided that they have demonstrated a business need to do so.
Indonesia	- Banking institutions.
	- International financial institutions.
	- Other institutions that support BI's mission in monetary stability, banking supervision,
	and payment system.
Japan	- Financial institutions that, by opening current accounts to start transactions with the BOJ,
	will contribute to the BOJ's objectives under the BOJ Law.
	- Financial institutions that are sound in terms of business and management, with
	appropriate business procedures in place.
	- Financial institutions that agree to enter into a contract with the BOJ regarding on-site
	examinations.
Korea	- Banking institutions.
Malaysia	- Organizations that have direct dealings with the BNM.
New	- Financial institutions (including overseas central banks).
Zealand	- Provision of an exchange settlement account to the applicant will not detract from the
	soundness and efficiency of the financial system.
	- Existence of a legitimate business interest that can be served by access to an exchange
	account.
	- Provision of an exchange settlement account will not adversely affect the reputation of the
DI III	RBNZ.
Philippines	- Banks and non-banks performing quasi-banking functions that are required to maintain
	reserves against deposit liabilities, funds held in trust, and liabilities for deposit
Cingg	substitutes.
Singapore	- Banks and finance companies that meet statutory reserve requirements of MAS.
Thailand	- Commercial banks, specialized financial institutions, finance and securities companies,
	securities companies, and credit foncier companies.

In looking at current account services for the government, almost all EMEAP central banks provide services related to receipt and payment. This is because acquiring information on developments in the national treasury balance is a prerequisite for conducting central bank monetary operations. Accounting services of treasury funds are offered, together with receipt and payment services, by a majority of EMEAP central banks. In addition, the central banks of Australia, Japan, and Singapore provide the governments with services which allow them to manage their excess cash. Australia and New Zealand also offer overdraft facilities to cover short term requirements for cash, while Japan provides cash management services, such as forecasting fiscal revenue and expenditures (Table 6).

(Table 6) Account services for the government

Special features are highlighted in color

	Collection and disbursement of funds	Accounting for government deposits <sup>1</sup>	Assistance in excess funds management	Provision of an overdraft facility	Cash managment <sup>2</sup>
Australia	Y	Y	$Y^3$	Y	N
China	Y	Y	N	N	N
Hong Kong SAR	N	N	N	N	N
Indonesia	Y	Y	N	N	N
Japan	Y	Y	$Y^4$	N	Y
Korea	Y	Y	N	N	N
Malaysia	Y	Y	N	N	N
New Zealand	Y	N	N	Y	Y
Philippines	Y	Y	N	N	N
Singapore	Y	N	Y	N	N
Thailand	Y	Y	N	N	N

### <reference>

U.S.A.	Y	Y
U.K.	Y	N
Germany	Y	N
France	Y	N

Notes: 1. Refers to accounting (recording) and data processing services for government deposits maintained at a central bank.

<sup>2.</sup> Includes forecast of national treasury balance, provision of excess funds management, and provision of an overdraft facility.

The RBA provides a term deposit facility to the Australian Government. However, overall responsibility for the Government's cash management resides with the Australian Office of Financial Management.

<sup>4.</sup> The BOJ transfers excess funds from the government current account to a term deposit facility.

A number of EMEAP central banks offer account services for overseas central banks. The central bank in Japan also provides automatic investment facilities and custody of securities, while Australia and New Zealand offer custodial services to their overseas central bank clients. The criteria for overseas central banks wishing to open accounts usually differ from the requirements set for private applicants, such as reciprocal basis or compliance of contracts. Only New Zealand applies the same criteria to overseas central banks and private financial institutions (Table 7).

(Table 7) Account services for other central banks

Special features are highlighted in color

	Account services	Scope of service			
	for other central banks	Deposits	Automatic investment facility	Custody of securities	Assistance in liquidation of assets in custody
Australia	Y	Y	N	Y	$Y^1$
China	N				
Hong Kong SAR	N				
Indonesia	N				
Japan	Y	Y	Y	Y	Y
Korea	Y	Y	N	N	N
Malaysia	Y	Y	N	N	N
New Zealand	Y	Y	N	Y	N
Philippines	N				
Singapore	Y	$Y^2$	N	N	N
Thailand	Y	Y			
<reference></reference>					
U.S.A.	Y	Y	Y	Y	Y
U.K.	Y	Y	Y	Y	Y
Germany	Y	Y	Y	Y	N
France	Y	Y	Y	Y	Y

Notes: 1. The RBA, under limited circumstances, agrees to enter into a buy and sell back trade in eligible securities to allow a central bank client to generate sufficient credit balances in its account to fund a payment.

(Reference) Overseas central banks' eligibility for access to accounts at EMEAP central banks

Australia	- Any overseas central bank can apply to hold an account at the RBA, but must agree to
	the terms and conditions to operate these accounts, which include maintaining these
	accounts in credit at all times and the payment of transaction fees.
Japan	- Eligibility is judged on an individual basis.
Korea	- Overseas central banks may open deposits accounts in accordance with the Foreign
	Exchange Transaction Regulation issued by the Ministry of Finance and Economy.
Malaysia	- Account services are provided on a reciprocal and bilateral basis.
New Zealand	- There are no specific criteria for overseas central banks.
Singapore	- Account services are generally provided on a reciprocal basis.
Thailand	- Account services are provided under a bilateral agreement.

<sup>2.</sup> Processes payments and receipts on behalf of central banks.

#### 3. Settlement

#### (1) Funds settlement

All EMEAP central banks engage in interbank fund settlement as operators of wholesale A number of EMEAP central banks do not provide retail settlement payment systems. services as the private sector provides such services. Other central banks offer these services due to historical background and/or unprofitability of such services when offered by the private sector (Table 8).

(Table 8) Funds settlement service Special features are highlighted in color

Interbank funds settlement		
Wholesale payment	Retail payment	
$\mathbf{Y}^{1}$	N	
Y	$\mathbf{Y}^2$	
$Y^3$	N	
Y	$Y^4$	
$Y^5$	N	
Y	N	
Y	N	
Y	N	
Y	N	
Y	N	
Y	$Y^6$	
Y	Y	
$N^7$	N	
Y	Y	
	payment Y <sup>1</sup> Y Y Y <sup>3</sup> Y Y Y <sup>5</sup> Y Y Y Y Y Y Y Y Y Y Y Y	

Notes: 1. The RBA operates RITS (the Reserve Bank Information and Transfer System). Interbank obligations arising out of Australia's wholesale funds transfer system (High Value Clearing System), as well as debit securities settlements in Austraclear, are settled on RTGS basis through RITS. The payment scheme (i.e. rules and procedures) of HVCS is managed by Australia Payments Clearing Association.

- The PBOC manages Check Clearing System and operates BEPS (retail fund settlement system).
   Service provided by Hong Kong Interbank Clearing Limited (a private company jointly owned by
- HKMA and HKAB).
- 4. The BI operates the national check clearing system, which processes all checks and retail credit
- payment scheme (i.e. rules and procedures) is managed by Tokyo Bankers Association, while system operations are outsourced to the BOJ.
- 6. SMART (System for Managing Automated Retail Funds Transfer), Cheque Clearing System
- 7. The payment scheme (i.e. rules and procedures) of CHAPS is managed by CHAPS Clearing Company, while its system is operated by the BOE.

## (2) Securities settlement

In general, EMEAP central banks provide securities settlement services for public debts, such as government bonds. About half of the EMEAP central banks offer services for bonds other than government bonds, as the services do not generate enough profit for private institutions as long as the market size remains small. On the other hand, the RBA transferred its Australian Government bond settlement services to a private institution, Austraclear Limited, which previously offered securities settlement services for private sector bonds and bonds issued by State (i.e. regional) governments (Table 9).

(Table 9) Types of securities settled by central banks

Special features are highligh				
	Public debts	Other bonds	Stocks	Other
Australia	N	N	N	N
China	Y	$Y^1$	N	N
Hong Kong SAR	Y	$Y^2$	N	N
Indonesia	$Y^3$	N	N	N
Japan	Y	N	N	N
Korea	Y	$Y^4$	N	N
Malaysia	Y	$Y^5$	N	N
New Zealand	Y	Y	Y	N
Philippines	Y	N	N	N
Singapore	Y	N	N	N
Thailand	$Y^6$	N	N	N
<reference></reference>				
U.S.A.	$\mathbf{Y}^7$	N	N	N
U.K.	N	N	N	N
Germany	N	N	N	N
France	N	N	N	N

Notes: 1. Refers to financial bonds, such as those issued by China Development Bank and China Export & Import Bank.

- $2.\ {\rm Hong}\ {\rm Kong}\ {\rm Dollar}$  and non-Hong Kong Dollar bonds.
- 3. Includes BI Certificate of Deposit.
- 4. Unlisted securities only.
- 5. Unlisted private debt securities.
- 6. Includes FIDF (Financial Institutions Development Fund) .
- 7. Includes bonds of federal agencies, government-sponsored enterprises (e.g. Fannie Mae, Freddie Mac), and international institutions.

Table 10 elaborates on securities settlement services provided by EMEAP central banks in Table 9. All EMEAP central banks in the table offer settlement services, and many of them offer custody services as well. Meanwhile, half of the EMEAP central banks do not offer clearing services.

(Table 10) Securities settlement service

Special features are highlighted in yellow

	Clearing	Settlement	Custody <sup>1</sup>
China	$N^2$	Y	$N^2$
Hong Kong SAR	Y	Y	Y
Indonesia	Y	Y	Y
Japan	$N^3$	Y	Y
Korea	Y	Y	$Y^4$
Malaysia	Y	Y	Y
New Zealand	N	Y	Y
Philippines	N	Y	N
Singapore	Y	Y	Y
Thailand	N	$Y^5$	$N^6$

<reference></reference>			
U.S.A.	N	Y	Y

Notes:1. Refers to both safekeeping of physical securities and bookkeeping for securities accounts under the book-entry system.

- CDC (China Government Securities Depository Trust & Clearing Co. Ltd.) conducts settlement of government bonds, financial bonds, and corporate bonds. SD&C (China Securities Depository and Clearing Co. Ltd.) conducts settlement of stocks, investment trusts, and convertible debentures.
- 3. Japan Government Bond Clearing Corporation conducts this service.
- 4. Partly conducted by KSD (Korea Securities Depository)
- 5. The BOT conducts only settlement of government debt instruments.
- 6. With the exception of custody for special purpose.

#### 4. Pricing policy

In the previous sections, this report summarized the scope and content of central banking services offered by EMEAP central banks in the categories of cash, current account deposit, and settlement. This section introduces pricing policy for central bank services as well as central bank cost sharing practices for services entrusted to the private sector.

Central bank services are offered according to their benefit to the public, comparative advantages of having a central bank provide the service, a central bank's role relative to the government and private sectors, central bank strategy, and historical background. Most EMEAP central banks do not charge for cash and current account deposit services. Meanwhile, many EMEAP central banks charge for settlement services and services that are public in nature, but benefit a limited number of recipients. They also often charge for services that can be profitable to the private sector and services that are also provided by private institutions.

Most EMEAP central banks charge service users partial or full cost (direct and indirect cost), depending on the public nature of the service. Australia looks to achieve a target rate of return based on notional capital, by adding expected return and imputed cost to the full cost in cases where the private sector can provide a comparable service to maintain a level playing field.

(Table 11) Central bank services and pricing policy

		Service provider	Cost bearer
Central bank offers services	No fees	Central bank	Central bank
Central bank offers services	}		
J	Charged fees	Central bank	Private sector
Central bank does not offer service (private sector offers the services)		Private sector	Private sector

Looking at pricing policy by type of service, almost all EMEAP central banks do not charge fees for cash services. Only Singapore charges fees for the services, but on a partial cost basis <sup>6</sup> (Table 12). Meanwhile, in Australia, banknote circulation, examination, and custody service were transferred to the private sector in 2001 without compensation except that noted in Table 2.

(Table 12) Pricing policy on cash services <when applicable>

	Central bank services being charged	Pricing method
Singapore	Circulation	Partial cost

\* Pricing method

Partial cost: Partial cost, including running costs

<sup>6</sup> MAS charges a fixed fee per thousand pieces of banknotes deposited by the banks. The fee is based on a set percentage of the imputed running cost for the services provided.

Second, all of the EMEAP central banks also do not charge the private account holders for current account services other than settlement services, such as account opening fee and statement fee. Some central banks charges fees for additional services: the Bangko Sentral ng Pilipinas (BSP) generally does not charge fees for statement of account (SOA) services considering that the same are available on-line. However, full cost charges apply when hard copies of SOA are requested (Table 13).

In looking at account services for governments and for overseas central banks, all EMEAP central banks except the RBA do not charge fees for the services. The RBA seeks to recover the full cost of providing the Australian Government core account services and term deposit and overdraft facilities. The RBA also provides transactional banking services to Australian Government agencies - a service that private sector bankers are also authorized to provide. Under competitive neutrality guidelines issued by the Australian Government, the RBA looks to achieve a target rate of return based on notional capital for its transactional banking business<sup>7</sup>(Table 13).

(Table 13) Pricing policy on account services other than settlement services <when applicable>

	Central bank services being charged	Pricing method*
[Account servi	ces for the private sector	
Philippines	Statement of account services**	Full cost
[Account servi	ces for the government]	
Australia	Provision of core accounts, a term deposit facility, and an overdraft facility to the government	Full cost
	Transactional banking services to government agencies	A target rate of return
[Account servi	ces for overseas central banks]	
Australia	Accounts and payment services to overseas central banks	Full cost

<sup>\*</sup> Pricing methods

Full cost:

Direct and indirect costs

A target rate of return based on notional capital:

Full cost, imputed cost, and expected return contestable for the private sector

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<sup>\*\*</sup> Charges apply when hard copies of SOA are requested.

<sup>&</sup>lt;sup>7</sup> This calculation includes internal, external, and imputed costs.

Last, the majority of EMEAP central banks charge settlement services for partial or full cost through transaction fees as shown in Table 14.

(Table 14) Pricing policy on settlement services <when applicable>

	Central bank services being charged	Pricing method	
[Interbank fun	ds settlement services: wholesale payments		
Australia	RITS (Reserve Bank Information and Transfer System)	Partial cost	
China	HVPS (High Value Payment System)	Full cost	
	BEPS (Bulk Electronic Payment System)		
	CLCS (City Level Clearing System)		
Japan	Funds settlement services through BOJ-NET	Partial cost	
Korea	Funds settlement services through BOK-Wire	Partial cost	
New Zealand	Exchange Settlement Account services	Partial cost	
Philippines	Funds settlement services and manual settlement of interbank payment/services	Full cost	
Singapore	MEPS	Partial cost	
Thailand	BAHTNET (BOT Automated High-Valued Transfer Network)	Partial cost	
【Interbank fun	ds settlement services: retail payments		
China	BEPS (Bulk Electronic Payment System)	Full cost	
	Check Clearing System		
Thailand	SMART (System for Managing Automated Retail Funds	Full cost	
	Transfer)		
	Cheque Clearing System	Full cost	
[Securities set	tlement services \ \ \ \ <where \="" above="" different="" from="" the=""></where>		
Australia	Custody services to overseas central banks	Full cost	
New Zealand	Central securities depository**	Full cost	

<sup>\*</sup> Pricing methods

Partial cost: Partial cost, including running costs

Full cost: Direct and indirect costs

<sup>\*\*</sup> No transaction fees charged to custody accounts of overseas central banks

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