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FINANCIAL SECTOR ASSESSMENT PROGRAM

# REPUBLIC OF INDONESIA

CPSS-IOSCO RECOMMENDATIONS FOR SECURITIES  
SETTLEMENT SYSTEMS: THE EQUITY AND CORPORATE BONDS  
SECURITIES SETTLEMENT SYSTEMS

# DETAILED ASSESSMENT OF OBSERVANCE

NOVEMBER 2010

THE WORLD BANK  
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**GLOSSARY**

BI	Bank Indonesia
BI Act	Bank Indonesia Act
BI-RTGS	Bank Indonesia Real Time Gross Settlement System
BI-SSSS	Bank Indonesia Scripless Securities Settlement System
Bapepam-LK	Capital Market and Financial Institution Supervisory Agency
CCP	Central Counter Party
CP	Core Principle
CPSIPS	Core Principles for Systemically Important Payment Systems
CPSS	Committee on Payment and Settlement Systems
CR	Central Registry
CSD	Central Securities Depository
DASP	Directorate of Accounting and Payment Systems
DNS	Deferred Net Settlement
DR	Disaster Recovery
DVP	Delivery versus Payment
FOP	Free of Payment
FSAP	Financial Sector Assessment Program
IDX	Indonesian Stock Exchange
KPEI	Clearing and Guarantee Corporation
KSEI	Central Securities Depository for the Stock Exchange securities
IOSCO	International Organization of Securities Commissions
MOU	Memorandum of Understanding
OTC	Over The Counter
RSSS	Recommendations for Securities Settlement Systems
RTGS	Real Time Gross Settlement
RTO	Recovery Time Objective
SBI	Bank Indonesia Securities
SBN	Government Conventional Securities
SBSN	Government Sharia Securities
SLA	Service Level Agreement
SLB	Securities Lending and Borrowing
SNA	Systems Network Architecture
SRO	Self Regulation Organization
SUN	Government Securities
SWIFT	Society for Worldwide Interbank Financial Telecommunication

## I. SUMMARY, KEY FINDINGS, AND RECOMMENDATIONS

### Introduction

1. **This assessment forms part of the joint International Monetary Fund (IMF) -World Bank Indonesia Financial Sector Assessment Program (FSAP) which is being undertaken during 2009-2010.** The assessment, which covers the private sector equity and corporate bonds securities system's observance of the CPSS/IOSCO Recommendations for Securities Settlement Systems, was conducted during an ad hoc mission (12 – 19 December 2009). The assessment focuses on two types of trades. First the clearing and settlement process is assessed as regards equity transactions traded on the stock exchange IDX, cleared through the KPEI clearing system (e-CLEARs) and settled through the KSEI settlement system (C-BEST). In addition, the assessment focuses on corporate bond transactions, which are traded outside the exchange and settled through the KSEI settlement system (C-BEST).

2. **The assessment was conducted on processes and functions as opposed to institutions.** Given that the corporate bonds are mostly traded over the counter, the processes relating to trades outside KSEI were also examined. Also, the cash settlement arrangements with four payment banks have been analysed.

3. **The assessment was conducted with the cooperation of the Bapepam-LK, the Bank Indonesia and benefited from discussions held with participants in the equity and corporate bond securities settlement market.** The assessment was undertaken by Froukelien Wendt, Senior Policy Advisor of the Oversight Department of De Nederlandsche Bank on request of the World Bank. The assessment was drafted in close cooperation with the assessors<sup>1</sup> of the Bank Indonesia Scripless Securities Settlement System to ensure consistency between the assessments of the two Securities Settlement Systems in Indonesia.

### Information and methodology used for assessment

4. **The sources of information gathered during the course of this assessment included interviews held with relevant officials from the Bapepam-LK, Bank Indonesia (BI), the Stock Exchange, KPEI, KSEI, a securities company, and three custodian banks of which two are also "payment" banks.** Several documents were provided by the authorities prior to and during the mission, including a detailed self assessment of the equity and corporate bond securities settlement systems. Other sources of information were (i) information posted on the websites of Bapepam-LK, IDX, KPEI and KSEI, (ii) the Capital Market Law, (iii) Government Regulation No. 45 (iv) Bapepam-LK Regulations, (v) Rule book of IDX, (vi) Rule Book of KPEI, (vii) Rule Book of KSEI, and (viii) the Bankruptcy Law.

5. **The tools used to assist and guide the assessor in achieving the objectives of this assessment** were the IOSCO-CPSS publications "Recommendations for Securities Settlement Systems" and "Assessment Methodology for Recommendations for Securities Settlement

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<sup>1</sup> Alice Zanza and Bruce Summers.

Systems” and the Bank-Fund “Guidance for Writing Detailed Assessments for Reports on Observance of Standards and Codes”.

6. **The assessor wishes to express special appreciation to the Bapepam-LK, for their dedicated cooperation and support.** In addition, the assessor wishes to thank IDX, KPEI, KSEI and the banking industry representatives and securities market participants for their cooperation and willingness to meet with the assessor at the requested times.

#### **Institutional and market structure—overview**

7. **The regulatory responsibility for the trading, clearing and settlement of equities and corporate bonds in Indonesia lies with the Capital Market Supervisory Agency, hereinafter referred to as Bapepam-LK.** Bapepam-LK is responsible for guidance, regulation and supervision of the Indonesian capital market, including trading, clearing and settlement of securities in the secondary market and the various activities of the securities companies and custodian banks. Among other functions, Bapepam-LK also has the authority to grant business licenses to securities exchanges, clearing guarantee institutions and central securities depositories. Bapepam-LK reports and is responsible to the Minister of Finance of The Republic of Indonesia.

8. **Three Self Regulatory Organizations (SROs) are responsible for the organization of the trading, clearing and settlement of equities and corporate bonds in the capital market of Indonesia.** The three SROs are (i) the Stock Exchange (IDX), which has to provide rules, systems and facilities for trading securities, and must supervise its members’ activities; (ii) the Clearing Guarantee Institution (KPEI), which is the central counterparty (CCP) that clears and guarantees the settlement of securities exchange transactions and must provide rules for that purpose; and (iii) the Central Securities Depository (KSEI), which acts as a central custodian for custodian banks, securities companies and others, and must provide rules for that purpose (see figure 1).

9. **The Capital Market Law of 1995 provides Bapepam-LK and the SROs with the power to exercise their regulatory and self regulatory responsibilities and clarifies the authority and responsibilities of all participants in the capital market.** Other relevant elements of the capital market legal framework are the Indonesian Civil Code, Government Regulation No. 45, Bapepam-LK Regulations, the Rules of IDX, KPEI and KSEI, the contracts between the SROs and their participants, and the Bankruptcy Law.

10. **The market participants in the equity and corporate bond market are issuers, securities companies, custodian banks, registrars and investors.** As at end of December 2009, KSEI counted 489 issuers, 130 securities companies, 22 custodian banks, 10 registrars and 386.436 sub accounts. From the securities companies, 120 are exchange and clearing member, of which 114 are active. In the current structure all exchange members are clearing members.

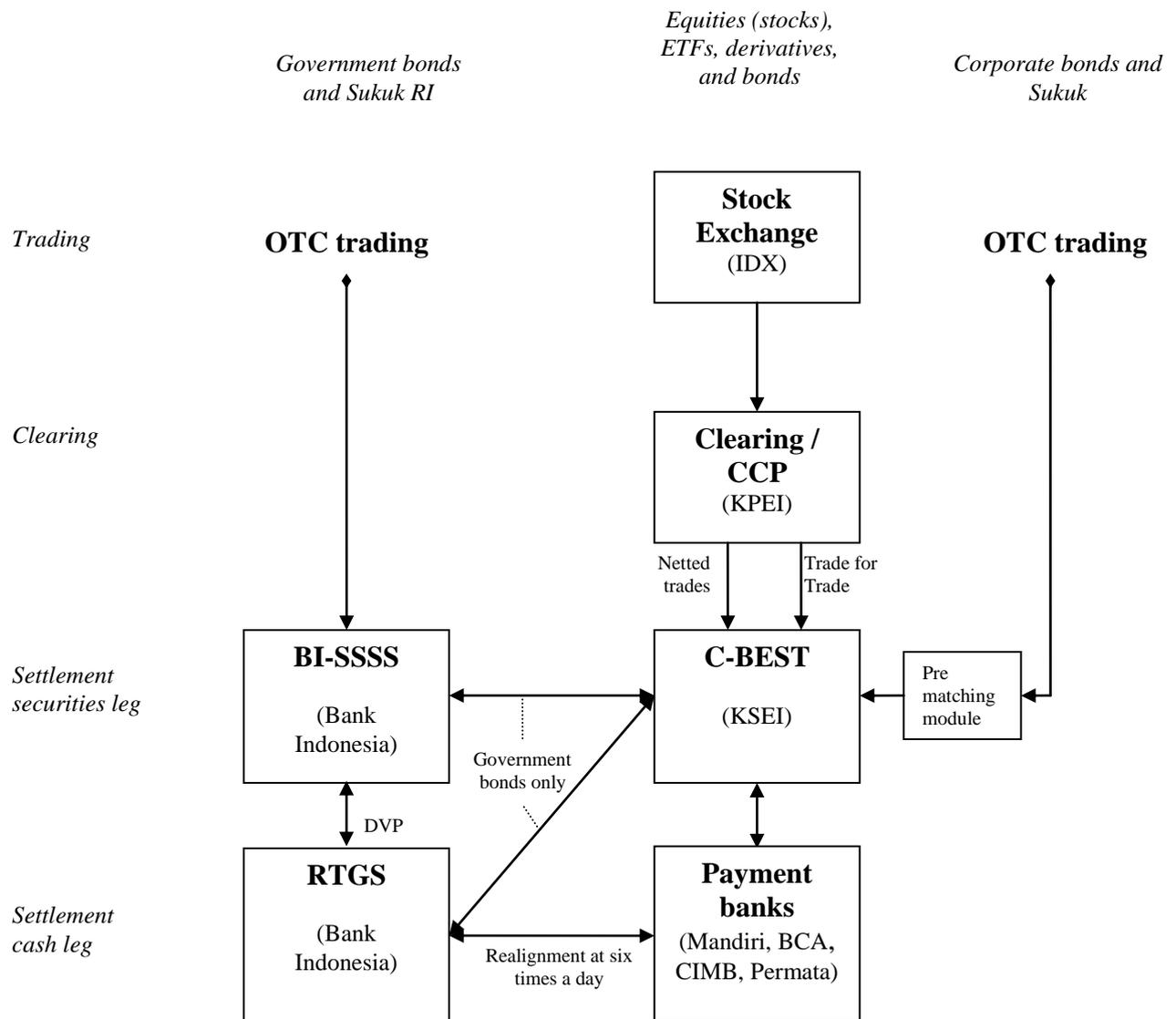
11. **A range of securities are tradable on the stock exchange and these include stocks, exchange traded funds (ETFs), corporate bonds, government bonds, stock options index futures and asset backed securities.** The securities are traded in one of the segments of the Stock Exchange, being (i) regular market, where trading is conducted using an electronic order

book and settlement taking place on T+3; (ii) cash market, with trading being conducted in the morning session using continuous auctions and settlement taking place on T+0; (iii) immediate market, which is currently closed and (iv) negotiated market where trading is conducted using advertising screens and where settlement cycles are negotiable and may be longer than T+3. Trades concluded in the negotiated market segment are not netted, but cleared trade by trade. In value terms, the total turnover of the stock exchange is on average IDR 4.49 trillion per day while that of corporate bonds is on average IDR 161 billion per day. As at end of December 2009, the equity market capitalization amounted to IDR 2,019.38 trillion and the corporate bonds outstanding amount was IDR 88.33 trillion. In practice, stock exchange turnover comes mainly from equity trades. Stock exchange volumes for corporate bonds and government bonds are low, since market participants prefer to trade these bonds over the counter (OTC). Stock exchange volumes for ETFs, stock options and index futures are close to zero. All securities issued and traded in the Stock Exchange after the introduction of the scripless system in 2000 are held in dematerialized form. Stocks which are still held in physical form cannot be traded on the exchange.

**12. OTC trades are bilaterally concluded between market participants and settled by KSEI.** The reporting of OTC trades is done through the Beneficiary of Securities Transaction Report which is generated by a computer based system provided by IDX. The central registry and settlement for corporate bonds is handled through KSEI with settlement of trades taking place two days after trading (T+2). All bonds issued after the introduction of the scripless system in 2000 are held in dematerialized form.

**13. Cash settlement for equities and corporate bonds takes place in the cash accounts of one of the four “payment” banks.** Every broker is required to open a cash account with one of the payment banks (settlement banks) in order to facilitate settlement. The four settlement banks are Bank Mandiri, BCA, Bank CIMB Niaga and Bank Permata. In addition, securities accounts in the C-BEST system of KSEI reflect not only the securities of a specific account holder, but also mirror the cash accounts of that account holder at the payment banks for settlement purposes. KSEI has developed a settlement mechanism in which the securities and cash legs are transferred simultaneously followed by reconciliation within the cash accounts (KSEI’s Nostro Account) in the payment banks. Six times a day (09:00, 10:30, 11:30, 13:30, 14:20, and 15:10) the accounts of the payment banks are realigned using the RTGS system of Bank Indonesia (BI-RTGS). For government bonds traded on the stock exchange and OTC between KSEI’s participants, cash and securities settlement is conducted in KSEI. For OTC trading in government bonds between KSEI’s participant and a sub registry member of BI, the securities transfer is directly effected in the BI-SSSS system and cash settlement directly effected in the BI-RTGS system. The volumes of stock exchange traded government bonds are however very low. The possibility of linking the KSEI system to the BI-RTGS system for equity and corporate bonds is under discussion.

**Figure 1. Market structure for government securities, equities and corporate bonds**



## Main findings

### Legal framework

14. **The legal framework governing the clearing and the settlement operations of the equity and corporate bond market supports some, but not all, of the key elements of the clearing and settlement process.** Three key concepts are not appropriately addressed in the legal framework, which are netting, finality and delivery-versus-payment (DVP). Finality of settlement is not covered directly in the legal framework nor is it specified when a trade is considered to be irrevocable and unconditional. DVP is not defined in the Rules of KSEI for all types of transactions and the legal framework does not provide guidance to the cash settlement arrangements within payment banks. It is recommended that the legal framework includes these concepts, in line with international definitions.

*Pre-settlement risk*

15. **The settlement cycle of the stock exchange segment ‘negotiated market’ has no standardized settlement process, so settlement can take place later than T+3, if participants agree.** The segment is mainly used for block trades. In 2009, 17% of the total value of transactions were concluded in the negotiated market. Serious analysis should be devoted to making T+3 the settlement standard for all stock exchange transactions.

16. **KPEI, being the CCP for all stock exchange trades, broadly observes the requirements for CCPs.** It has addressed legal risk, financial risk and operational risk in its rules, financial and operational framework. Nevertheless, it is recommended that the CCP further improves its access criteria, financial risk methods and operational procedures. With regard to legal risk, the CCP as part of the capital market will benefit from specific legal requirements for netting, finality and DVP. On access criteria, the risk profile of the CCP will improve if only the largest, best capitalized securities companies are clearing members of the CCP. Currently, all stock exchange members are clearing members. Since 2002, four securities companies have defaulted.

17. **The financial risk calculations of the CCP may benefit from the use of more advanced models, with parameters based on historic price movements and historic volatility to calculate margin, taking into account the characteristics of different types of securities.** KPEI should introduce back tests for its margin model as well as regular tests to check the adequacy of all its resources in case of the default of the clearing member with the largest exposure in extreme market circumstances. This will provide guidance on the appropriate size of the guarantee fund as well. Furthermore, a cap needs to be introduced for the replenishment of the guarantee fund by clearing members, in case of a loss which cannot be covered by the existing guarantee fund. Currently, no such cap exists, so clearing members are exposed to significant risks that they themselves cannot control.

18. **Finally, the operational system would need procedures to avoid data loss.** We encourage that consideration be given to a larger distance between the primary and secondary site.

*Settlement risk*

19. **Cash settlement takes place in the accounts of four dedicated “payment” banks.** These payment banks have to fulfill a range of requirements from KSEI to ensure that the cash settlement poses little or no credit or liquidity risk to its members. Settlement volumes are sufficiently spread over the different payment banks. Nevertheless, it is recommended to seriously analyze the introduction of cash settlement in the BI-RTGS system, since this will reduce the risk of the capital market as a whole. The use of settlement banks means that all market participants are exposed to settlement bank risk, which is the risk that one of the payment banks may fail. This can be an operational failure; currently, an operational outage of one of the payment banks affects all other payment banks. It can also be a financial failure, where market participants may be confronted with liquidity problems. The surviving payment banks and/or KSEI are exposed to the failing payment bank, in case it is unable to deliver cash during the realignment process. In a similar situation that took place on 12 November 2009, where the settlement system was only able to settle securities at 9 pm and the RTGS closed before 9 pm, payment banks are exposed to each other, either directly or indirectly via KSEI, since

realignment of the end of day cash positions was delayed until the next morning. As long as the payment bank settlement system remains in place, it is recommended that KSEI and the RTGS system harmonize their opening hours in case of extreme situations like the one highlighted above.

20. **KSEI has developed a settlement process in which securities and cash transfers occur simultaneously in the C-BEST system.** As such the technical framework ensures DVP. However, since KSEI has no real cash account in C-BEST, the C-BEST accounts only mirror the cash accounts at the payment banks. The legal framework does not provide enough comfort for the cash transfer in C-BEST as being a final transfer. This comfort is necessary, since a time lag exists between the securities transfer in C-BEST and the real cash transfer in the payment banks to the participant account and from the participant account to its own or client accounts. In the absence of a clear definition of finality it is possible that the final delivery of securities precedes the final transfer of cash. This may cause systemic risk to the system, for example, in the case of a bankruptcy of one of the payment banks.

*Other issues*

21. **Bapepam-LK has regulatory responsibilities over BI-SSSS, as well as over IDX, KPEI and KSEI, whereas BI has an oversight responsibility over BI-SSSS, a system which it owns.** It is recommended to review this structure in such a way that all systems, especially the two CSDs are regulated in a comparable way. BI should also include KSEI and KPEI into their oversight scope as systems relevant for the financial stability of Indonesia. The latter suggests that BI should give consideration to fulfilling the role of lender of last resort for the CCP, in case this is needed, taking into account the risk of moral hazard. Bapepam-LK and BI may consider underlining their intentions to exercise their respective responsibilities in a cooperative way, for example in a covenant or a memorandum of understanding.

Table 1 Summary Observance of the CPSS-IOSCO Recommendations for Securities Settlement Systems-ROSCs

Responsibility	Comments
<b>Legal risk</b>	
1. Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.	The legal framework supports some, but not all, of the key elements of the clearing and settlement process. To fully observe this recommendation “netting”, “finality” as well as “delivery versus payment” should obtain explicit legal recognition, in line with international definitions.
<b>Pre-settlement risk</b>	
2. Confirmation of trades between market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.	Confirmation of trades conducted on the stock exchange occurs in real time, which is in line with the Recommendation. Confirmation of trades for corporate bonds, conducted OTC, is estimated to be 68% on the same day. It is recommended to implement a watertight system for trade confirmation reporting on T+0.
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle	Settlement cycles for equities and corporate bonds vary from T+0 to T+3, which is in line with the Recommendation. However, settlement of trades

Responsibility	Comments
shorter than T+3 should be assessed.	conducted on the negotiated market segment of IDX may take place later than T+3 if participants agree to.
4. The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.	KPEI, being the CCP for stock exchange trades, has addressed legal risk, financial risk and operational risk in its rules, financial and operational framework. Nevertheless, it is recommended that the CCP further improves its access criteria, financial risk methods and operational procedures.
5. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.	Securities lending and borrowing (SLB) is available for the equity trades conducted on the stock exchange. Such a mechanism is not available for corporate bonds traded OTC. It is recommended to extend the SBL service of KPEI to corporate bonds.
<b>Settlement risk</b>	
6. Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.	KSEI holds securities in dematerialized form and transfers them electronically. The dematerialization and electronic holding is covered by statute.
7. CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.	The C-BEST system of KSEI provides for technical DVP. However, the legal framework does not support this fully.
8. Final settlement should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.	Settlement on DVP basis occurs within the day of settlement. However, finality is not a concept which is supported by the legal framework.
9. CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements limits.	There is no deferred net settlement within the KSEI, nor does KSEI extend intraday credit to participants.
10. Assets used to settle the cash leg of securities transactions between CSD members should carry little or no credit risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.	Four payment banks are responsible for the cash settlement leg of securities settlement. The structure observes the requirements of the Recommendation. Nevertheless, it is recommended that authorities consider analyzing the possibility of introducing cash settlement in the BI-RTGS system, since this will reduce the risk of the capital market as a whole.
<b>Operational risk</b>	
11. Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.	The C-BEST system of KSEI observes the requirements of the Recommendation. We strongly encourage measures to prevent a simultaneous unavailability of the primary and secondary site in the future as occurred on 12 <sup>th</sup> November 2009. We also encourage consideration of more geographically disparate production and back-up processing for the IDX, KPEI and KSEI systems.
<b>Custody risk</b>	
12. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is	Sub-Registries holding securities on behalf of individuals are required to maintain an internal system that records these holdings clearly

Responsibility	Comments
essential that customers' securities be protected against the claims of a custodian's creditors.	separating their own from those of clients. This separation of assets ensures that the clients' assets are safeguarded in the event of a Sub-Registry's insolvency
<b>Other issues</b>	
13. Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.	The governance arrangements of KSEI and KPEI observe the requirements of the Recommendation.
14. CSDs and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.	In general, we recommend that the access and exit criteria of KPEI focus more on the specificities of membership of the CCP.
15. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.	The STP project is an important initiative to enhance the efficiency of the capital market of Indonesia.
16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.	About 77% of cross-border transactions are transmitted via the SWIFT network. The domestic settlement agents convert the SWIFT messages into their internal systems for transmission to KSEI. Progress should be made to increase the percentage of cross-border transactions going through SWIFT, or another relevant international communication network. In addition, the conversion from SWIFT procedures and standards into domestic procedures and standards should be easy. .
17. CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.	Disclosure framework requirements are being met.
18. Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities..	It is recommended to review this structure in such a way that all systems, especially the two CSDs are regulated in a comparable way. This means that BI should consider including KSEI and KPEI into their oversight scope. Bapepam-LK and BI should agree formally on cooperation and coordination of the different responsibilities.
19. CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.	Currently, there are no cross border links.

## Recommended Action Plan and Authorities' Response

Table 2 Recommended action plan to improve observance of the RSSS

Reference Recommendation	Recommended Action
<b>Legal risk</b>	
1. Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.	The concepts of netting, finality and DVP should be included in the legal framework for all types of transactions and in line with international definitions.
<b>Pre-settlement risk</b>	
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated.	It should be investigated whether T+3 should also apply to the stock exchange trades conducted in the negotiated market..
4. The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.	With regard to legal risk, the CCP, as part of the capital market, will benefit from specific legal requirements for finality and DVP. With regard to access criteria, the risk profile of the CCP will improve if only the largest, best capitalized securities companies are a clearing member of the CCP. The financial risk calculations of the CCP could benefit from using historic price movements and historic volatility to calculate margin, taking into account the characteristics of different types of securities. KPEI should introduce back tests for its margin model as well as regular tests to check the adequacy of all its resources in case of the default of the clearing member with the largest exposure in extreme market circumstances. Furthermore, a cap needs to be introduced for the replenishment of the guarantee fund by clearing members, in case of a loss which cannot be covered by the existing guarantee fund. Finally, the operational system would need procedures to avoid data loss. We encourage that consideration be given to a larger distance between the primary and secondary site.
7. CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.	To observe this recommendation, DVP should also appropriately be reflected in the legal framework.
8. Final settlement should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.	The legal framework should explicitly state the moment at which both the securities leg and the cash leg are irrevocable and unconditional. For stock exchange trades the moment should be specified, taking into account that the KPEI account within KSEI is used during the settlement process.
<b>Other issues</b>	
16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.	All KSEI members, handling cross border transactions, should become members of SWIFT or another relevant international communication network, and should use domestic communication procedures that can be easily converted into SWIFT messages.

Reference Recommendation	Recommended Action
18. Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.	Bapepam-LK and BI should strengthen and formalize cooperation in the market.

### *Authorities' Responses*

22. **Bapepam-LK disagreed with the assessment that netting, finality and delivery versus payment were not adequately supported by the current legal framework and made reference to various sections of the law, rules and regulations which the assessor had examined.** It should be noted that mere reference to a process does not give it legal basis. In the absence of explicit provisions therefore the assessment on RSSS 1 (Legal framework) could not be varied.
23. **With regard to settlement cycles (RSSS 3), Bapepam-LK believes that the current arrangements comply with best practice even though the T+3 settlement cycle is not met for the negotiated market.** Authorities advised that some of the concerns highlighted in the report with regard to RSSS 4, are in the process of being addressed and these include review of access criteria, enhancement of risk management arrangements and increasing the distance between the primary and the secondary site.
24. **Authorities advised that KSEI is in the process of developing straight through process (STP) capabilities within C-BEST in order to increase efficiency by replacing some manual processes currently in place.** Also, harmonization of operating hours between the RTGS system and KSEI is being considered.
25. **On regulation and oversight, (RSSS 18) authorities noted that KSEI, as a sub-registry for government securities, was already under the BI supervision.** BI and Bapepam-LK were in discussion on the possibility of merging the two depositories and establishing a Memorandum of Understanding to enhance cooperation between the two regulatory bodies.

## II. DETAILED ASSESSMENT

Table 3 Summary Observance of the CPSS-IOSCO Recommendations for Securities Settlement Systems

Responsibility	Grading	Comments
<b>Legal risk</b>		
1. Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.	<b>PO</b>	The legal framework supports some, but not all, of the key elements of the clearing and settlement process. To fully observe this recommendation “netting”, “finality” as well as “delivery versus payment” should obtain explicit legal recognition, in line with international definitions.
<b>Pre-settlement risk</b>		
2. Confirmation of trades between market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.	<b>O</b>	Confirmation of trades conducted on the stock exchange occurs real time, which is in line with the Recommendation. Confirmation of trades for corporate bonds, conducted OTC, is estimated to be 68% on the same day. It is recommended to implement a watertight system for trade confirmation reporting on T+0.
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated..	<b>BO</b>	Settlement cycles for equities and corporate bonds vary from T+0 to T+3, which is in line with the Recommendation. However, settlement of trades conducted on the negotiated market segment of IDX may take place later than T+3 if participants agree to.
4. The benefits and costs of a central counterparty should be evaluated.. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.	<b>BO</b>	KPEI, being the CCP for stock exchange trades, has addressed legal risk, financial risk and operational risk in its rules, financial and operational framework. Nevertheless, it is recommended that the CCP further improves its access criteria, financial risk methods and operational procedures.
5. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.	<b>O</b>	Securities lending and borrowing (SLB) is available for the equity trades conducted on the stock exchange. Such a mechanism is not available for corporate bonds traded OTC. It is recommended to extend the SBL service of KPEI to corporate bonds.
<b>Settlement risk</b>		
6. Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.	<b>O</b>	KSEI holds securities in dematerialized form and transfers them electronically. The dematerialization and electronic holding is covered by statute.
7. CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.	<b>PO</b>	The C-BEST system of KSEI provides for technical DVP. The legal framework, however, does not support this fully.
8. Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where	<b>PO</b>	Settlement on DVP basis occurs within the day of settlement. However, finality is not a concept which is supported by the legal

Responsibility	Grading	Comments
necessary to reduce risks.		framework.
9. CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements limits.	NA	There is no deferred net settlement within the KSEI, nor does KSEI extend intraday credit to participants.
10. Assets used to settle the cash leg of securities transactions between CSD members should carry little or no credit risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.	O	Four payment banks are responsible for the cash settlement leg of securities settlement. The structure observes the requirements of the Recommendation. Nevertheless, it is recommended to seriously analyze the introduction of cash settlement in the BI-RTGS system, since this will reduce the risk of the capital market as a whole.
<b>Operational risk</b>		
11. Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.	O	The C-BEST system of KSEI observes the requirements of the Recommendation. We strongly encourage measures to prevent a simultaneous unavailability of the primary and secondary site in the future as occurred on 12 November 2009. We encourage serious consideration of more geographically disparate production and back-up processing for the IDX, KPEI and KSEI systems.
<b>Custody risk</b>		
12. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.	O	Sub-Registries holding securities on behalf of individuals are required to maintain an internal system that records these holdings clearly separating their own from those of clients. This separation of assets ensures that the clients' assets are safeguarded in the event of a Sub-Registry's insolvency
<b>Other issues</b>		
13. Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.	O	The governance arrangements of KSEI and KPEI observe the requirements of the Recommendation.
14. CSDs and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.	O	In general, we recommend that the access and exit criteria of KPEI focus more on the specificities of membership of the CCP.
15. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.	O	The STP project is an important initiative to enhance the efficiency of the capital market of Indonesia..
16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.	BO	The majority of cross-border transactions (77%) are transmitted via SWIFT to the members of KSEI. The members convert the SWIFT messages into their internal system to be able to forward them to the KSEI system.
17. CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.	O	Disclosure framework requirements are being met.
18. Securities settlement systems should be subject	BO	Bapepam-LK has regulatory responsibilities

Responsibility	Grading	Comments
to regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.		over BI-SSSS, as well as over IDX, KPEI and KSEI, whereas BI has an oversight responsibility over BI-SSSS, a system which it owns and operates.. It is recommended to review this structure in such a way that all systems, especially the two CSDs are regulated in a comparable way. This means that BI should consider including KSEI and KPEI in their oversight scope. Bapepam-LK and BI should agree formally on cooperation and coordination of the different responsibilities.
19. CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.	NA	Currently, there are no cross border links.

*Aggregate:* Observed (O) 10–, Broadly observed (BO) 4–, Partly observed (PO) 3–, Not observed (NO) 0–, Not applicable (N/A)2 –

Table 4 Detailed Assessment of Observance of the CPSS-IOSCO Recommendations for Securities Settlement Systems

Recommendation 1.	Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.
Description	<p>The legal framework governing the clearing and the settlement operations of the equity and corporate bond market supports some, but not all of the key elements of the clearing and settlement process. It consists of the following laws, rules and regulations:</p> <ul style="list-style-type: none"> <li>• The Capital Market Law (CML) of 1995</li> <li>• Government Regulation, number 45 of 1995,</li> <li>• Bapepam-LK Rules</li> <li>• IDX Rules</li> <li>• KSEI Rules</li> <li>• KPEI Rules</li> <li>• Circular letters of the Stock Exchange, KPEI and KSEI</li> <li>• Agreements between Stock Exchange, KPEI, KSEI and their respective members</li> <li>• Agreements between KSEI and the payment banks</li> <li>• Agreements between KPEI and clearing members on securities borrowing and lending</li> </ul> <p>Other relevant laws are the Indonesian Civil Code and the Bankruptcy Law.</p> <p>These laws, regulations, circular letters and pronouncements are explicit and are readily available to participants. The CML is posted on the website of Bapepam-LK while the respective rules and circular letters are available on the websites of IDX, KPEI and KSEI. All changes to existing regulations and procedures are advised to participants through circular letters which are issued from time to time.</p> <p>To reinforce the contractual arrangements between KPEI, KSEI and each of their participants, there are bilateral agreements between KPEI and its participants and between KSEI and its participants. These clearly stipulate the obligations of the parties in the system.</p> <p>Bilateral agreements also exist between KSEI and each of the four payment banks, being CIMB Niaga, Bank Mandiri, Bank Permata and BCA. These four payment banks have concluded bilateral agreements with their participants, who are also the participants of KSEI. The agreements stipulate the obligations of the parties in the cash settlement system.</p> <p>The legal framework does support the enforceability of transactions, especially CML Article 1 item 28 and Bapepam-LK Rule III.A.10.1.c concerning securities transactions.</p> <p>The legal framework also provides for the protection of customers by requiring securities companies and the custodian banks to register the funds and securities of clients in separate accounts from their own accounts. The securities companies are further obliged to maintain separate securities records for each client. The securities posted at the custodian bank are not part of the assets of the custodian bank and cannot be seized by creditors (CML Articles 37 and 44, Bapepam-LK Rules V.D.3, V.D.4 and VI.a.3 as well as KSEI Rule 1.8).</p> <p>The holding of securities in dematerialized form and the electronic recording of securities is supported by CML Art 55 item 1. In addition, the Electronic Information and Transactions Act of 2008 supports the validity and admissibility of electronic evidence for payment transactions in a court of law.</p>

	<p>Netting arrangements are supported by the Bapepam-LK Rules and the Rules of KPEI. Nevertheless, netting should also be supported by primary law in Indonesia to give full legal protection to the practice and avoid possible unwinding of netted positions in case of bankruptcy of one of the clearing participants. Securities lending arrangements are acknowledged by the CML and Bapepam-LK rules and extensively specified in the Regulations of KPEI.</p> <p>Finality of settlement is not a concept which is reflected as such in the legal framework of the equity and corporate bonds securities settlement system. The framework does not specify when a trade is considered to be irrevocable and unconditional. Also, the timing of the transfer of rights for cash is not clearly described. CML Art 55 suggests that the transfer of rights occurs at the time the securities are debited to one securities account and credited to another within a custodian bank. The article only refers to stock exchange transactions in securities, so OTC transactions and fund transfers are not addressed. The KSEI rules may however be interpreted as if the transfer of rights occurs at the time of securities transfer within KSEI.</p> <p>The rules of KSEI describe the concept of DVP as “a securities transaction settlement procedure by means of book-entry between securities accounts in KSEI, in which the delivery of securities and payment of cash is performed simultaneously”. According to the rules of KSEI the non-netted stock exchange trades (Article 8.2.1 b), the debt securities (Article 8.2.3) and the OTC transactions (Article 8.3.1) are settled on the basis of DVP. However, the KSEI rules do not state the same for netted stock exchange trades and participation units (Articles 8.2.1a and 8.2.2). So the legal framework does not support DVP for netted stock exchange trades and participation units.</p> <p>Foreign banks participate in the equity and corporate bond securities settlement systems. They operate through a local office in Indonesia, so no other jurisdictions are relevant for determining the adequacy of the legal system.</p>
Assessment	<b>Partly Observed</b>
Comments	To fully observe this recommendation, “netting”, “finality” as well as “delivery versus payment” should obtain explicit legal recognition, in line with international definitions. It is important to have clarity on the timing of transfer of rights given the payment bank structure for cash settlements. More precisely, the legal framework needs to provide clarity on whether the cash leg of a transaction is final in the books of KSEI or in the books of the payment bank.
Recommendation 2.	Confirmation of trades between market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.
Description	<p>Distinctive procedures exist for the confirmation of stock exchange transactions and OTC transactions. Confirmation of trades conducted through the stock exchange occurs automatically on a real time basis.</p> <p>For bonds traded OTC through a participant, reporting should occur thirty minutes after the bond transaction is conducted (Bapepam-LK SE Rule X.M.3). Bapepam-LK has delegated the collection of trade reports to the stock exchange. The broker dealers use the stock exchange system, namely the Centralized Trading Platform (CTP) to report their trades. Bapepam-LK has access to this system and Bapepam-LK estimates that 35% of corporate bond transactions are confirmed on the same day. However, this percentage has increased between October and December 2009 to 68% after Bapepam-LK shortened the time to report an OTC trade from one hour to thirty minutes. As per 1 January 2010 Bapepam-LK has implemented a sanction for late reporting. For the whole private sector the trade confirmation percentage is well above 90%. Nevertheless, it is recommended to develop a watertight system of</p>

	<p>capturing trade confirmations for OTC traded corporate bonds.</p> <p>All trades must be matched before settlement. KSEI has developed a pre-matching system to facilitate the pre-matching process, which is not mandatory.</p> <p>Confirmation of trades to indirect market participants occurs on the same day. Indirect market participants are able to compare trade information in their own systems and the system of the direct participants' back office (Bapepam-LK SE Rule III.A.10. and Bapepam-LK SE Rule V.E.1).</p>
Assessment	<b>Observed</b>
Comments	
Recommendation 3.	Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated..
Description	<p>The agreed settlement standard for stock exchange transactions on the regulated market segment is three days after trade (T+3). From January to November 2009, 83 per cent of the stock exchange trades (in value) were conducted in the regular market segment. Bapepam-LK has conducted a study in 2006, which concluded that a settlement cycle of T+2 should be feasible for this market segment to mitigate settlement risk and enhance liquidity. The majority of market participants (77%) agreed and is prepared to introduce a settlement cycle of T+2. It is unclear when T+2 will indeed be implemented.</p> <p>The agreed settlement standard for stock exchange transactions on the cash market segment is on the same day as the trade (T+0). This segment is intended for securities borrowing and lending purposes for securities which are not offered in the securities borrowing and lending (SBL) system of KPEI. From January to November 2009, 0.01 percent of the stock exchange trades (in value) were conducted in the cash market segment.</p> <p>There is no agreed settlement standard for stock exchange transactions in the negotiated market segment. Trades in this market segment consist of block trades, which are executed by means of an advertising screen. In value terms, 17 percent of the stock exchange trades were conducted in the negotiated market segment during the period January to November 2009.</p> <p>The agreed settlement standard for stock exchange transactions in the immediate market segment is one day after trade (T+1). This segment is however closed.</p> <p>The agreed settlement standard for OTC transactions is two days after trade (T+2).</p> <p>While the majority of transactions meet the T+3 settlement standard (83 percent), an important portion nonetheless falls outside this settlement window.</p> <p>In value terms, trade fails constituted 0.2 percent in 2008. In previous years trade fails were less than 0.04 percent. Trade fails are caused by a lack of funds or securities.</p> <p>The Alternate Cash Settlement tool of KPEI was introduced as a measure to provide incentives to participants to settle their obligations on due date. A clearing member failing to deliver securities must substitute the obligation with a cash value of 125% of the highest price of the security on that day or the next day.</p> <p>In addition market participants may use the Securities Borrowing and Lending (SBL) system of KPEI or the Cash market segment of the Stock Exchange (with a settlement cycle of T+0) to fulfill their delivery obligations on time.</p> <p>KSEI does not have specific punitive measures in place for the timely settlement of OTC transactions.</p>

	Bapepam-LK has studied the costs and benefits of a shorter settlement cycle for the stock exchange regulated market segment. The study concluded that there are benefits and risks to a settlement cycle shorter than T+3. The study is available on the website of Bapepam-LK.
Assessment	<b>Broadly Observed</b>
Comments	It should be investigated whether T+3 should also apply to the stock exchange trades conducted on the negotiated market segment.
Recommendation 4.	The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.
Description	<p>A CCP mechanism exists for equities, ETFs, government bonds, corporate bonds, stock options and index futures, which are traded on the stock exchange. In practice, bonds are traded in the OTC market without being cleared and settled at the CCP.</p> <p>Legal risk: The legal framework does not support netting. Clearing (CML Art 1, no. 9 including footnote; CML art 14.1; Bapepam-LK rule III.A.10.1a); Netting (Bapepam-LK Rule III.A.10.1b); Novation (Bapepam-LK Rule III.A.10.2); Default Rules (Bapepam-LK Rule III.B.6). The timing of assumption of liability is at the time that Clearing takes place (Bapepam-LK Rule III.A.10.2i.1), which is the moment that the rights and obligations are determined (Bapepam-LK Rule III.A.10.1a).</p> <p>The legal framework does not address finality with regard to trades which are novated by the CCP. In an extreme situation this may impose large losses to the CCP, when it has to guarantee the settlement of transactions towards its members on one side, but is confronted with new positions following unwinding on the other side, for which insufficient collateral is available.</p> <p>Access criteria: The access criteria only include financial, but no specific operational requirements for participation in KPEI. The requirements for being a clearing member are exactly the same as the requirements for Stock Exchange Members. The additional financial requirement for being a clearing member is the agreement of the participant to provide collateral and guarantee fund to the CCP.</p> <p>A general observation on the membership of the CCP is that trading members and clearing members are different types of participants on paper. However in practice, all active trading members of the exchange (114 companies) are also clearing members of the CCP. This means an exposure of the CCP to all securities companies in the capital market, whether they are large or small. The CCP will benefit from a structure in which only the largest, most solid securities companies are clearing members of the CCP. As such they will provide a security cushion for the CCP, which is not exposed to defaults of the smaller, less solid securities companies. The financial and operational access criteria of the CCP should reflect this.</p> <p>Financial risk: KPEI measures its exposure towards its clearing members after every trading session (at 7.30 am and 1.30 pm) and at the end of the day. For derivatives trading the exposure is calculated once a day. The clearing member is required to deposit (additional) collateral as soon as possible, but anytime before the end of the new trading session.</p> <p>KPEI is able to monitor the positions of its clearing members during the day. Additional collateral (if necessary) will not earlier be deposited than during the next usual collateral deposit.</p> <p>In order to protect itself against possible default by a clearing member, KPEI has put in place various measures. As a first line of defense every clearing member is obliged</p>

to provide the CCP with collateral to cover the individual exposure of that clearing member. The risk calculation method calculates for the to-be-paid securities a security charge of 125% and deducts from the to-be-received securities a haircut which may vary from 5-100%. The assumptions are conservative for expected normal market conditions and do not take into account the characteristics of different types of equities. The haircut parameter value is assessed quarterly, based on fundamental and market statistics of the security. The CCP does not back test its margin model or the parameters of the model.

As a second line of defense the CCP calculates a trading limit for each clearing member, above which the Clearing Member alias Stock Exchange Member is not allowed to trade.

The third line of defense involves every clearing member being obliged to contribute to the guarantee fund, which is supposed to cover extreme market conditions. KPEI monitors the daily value at risk (VaR) of all members and compares this to the available guarantee fund. KPEI also conducts stress tests, using Monte Carlo simulations, which include extreme stress scenarios like the Asia crisis price movements of 1999. The current size of the guarantee fund is deemed not to be sufficient to cover such extreme scenarios. It is however not clear whether the full defense package (collateral, trading limit and guarantee fund) is sufficient, since the CCP does not perform tests (for example on a monthly basis) to check the adequacy of all its resources in case of the default of the clearing member with the largest exposure in extreme market circumstances.

In case the guarantee fund may appear not be sufficient KPEI may ask the so called Credit Network (which consists of the surviving clearing members) for a replenishment. KPEI has not specified a cap for replenishments. In case the first replenishment is not sufficient KPEI may ask the surviving clearing members for new replenishments until its losses are covered. The clearing members are thus exposed to significant risks that they themselves cannot control.

A fourth line of defense consists of the CCP's own resources.. The authorized capital of KPEI is Rp 60 billion, while the paid up capital is Rp 15 billion. Both the guarantee fund as well as KPEI's own assets are held mainly in state owned banks.

KPEI accepts online collateral and offline collateral. Online collateral means that the collateral (equities, ETFs, bonds) of the clearing member has to be deposited in a specific collateral account within KSEI. Only KPEI is authorized to debit this account, by means of a power of attorney. This ensures the availability of collateral for CCP purposes. Offline collateral constitutes bank deposits, bank guarantees and government treasury notes. These are mainly held in a dedicated account within one of the four payment banks. The guarantee fund may only be invested in the Indonesian government bonds and bank deposits, whose composition is subject to the approval of the Credit Policy and Risk Management Committee (see RSSS 13).

To avoid liquidity risk KPEI requires clearing members to deposit minimum cash collateral of 10% of the average settlement value from the last six months. In addition KPEI has credit lines with Bank Mandiri to obtain immediate liquidity using back-to-back agreements.

Operational risk:

KPEI manages several operational systems, being e-CLEARs (trade acceptance, netting, novation, processing and reporting), ARMS (risk management system) and ROLM IF and ROLM SO RMOL IF and RMOL SO (systems for the specific clearing of index futures and stock options), and e-BOCS (system for the specific clearing of bonds).

For each system alert and monitoring facilities exist to identify operational problems. KPEI systems do have a back up site. The connection to this back up site is tested

	<p>twice a year with participants. The RTO for KPEI systems is 2 hours. In practice the back up site is available, within 15 minutes. KPEI has implemented a Disaster Recovery Plan. The main server can be replaced one hour after a disaster.</p> <p>Since 2002 KPEI has declared four clearing members into default. In these cases KPEI used the credit line from Bank Mandiri to settle the transactions. The collateral of the defaulting member was sold afterwards. The guarantee fund has not been touched in any of these cases. The default rules are transparent and are stated in the Rules of KPEI which are published on the website of the CCP KPEI.</p>
Assessment	<b>Broadly Observed</b>
Comments	<p>With regard to legal risk, the CCP, as part of the capital market, will benefit from specific legal requirements for finality and DVP. With regard to access criteria, the risk profile of the CCP will improve if only the largest, best capitalized securities companies are clearing member of the CCP. Currently, all stock exchange members are clearing members. The financial risk calculations of the CCP may benefit from the use of more advanced models, with parameters based on historic price movements and historic volatility to calculate margin. These models should take into account the characteristics of different types of securities. KPEI should introduce back tests for its margin model as well as regular tests to check the adequacy of all its resources in case of the default of the clearing member with the largest exposure in extreme market circumstances. Such a test compares the historical available collateral and clearing fund with the actual measured exposure of the CCP.</p> <p>Furthermore, a cap needs to be introduced for the replenishment of the guarantee fund by clearing members, in case of a loss which cannot be covered by the existing guarantee fund. Finally, consideration should also be given to increasing the distance between the primary and secondary site (see also RSSS 11).</p>
Recommendation 5.	Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.
Description	<p>KPEI offers a Securities Borrowing and Lending service (SBL) whose main objective is to increase settlement efficiency within the Indonesian capital market. KPEI functions as an intermediary and central counterparty for SBL transactions as from July 2001. Once a borrower indicates an intention to borrow securities, KPEI intermediates in finding a lender. KPEI calculates and blocks collateral at the collateral account of the borrower and transfers the borrowed securities from the account of the lender to the delivery account of the borrower. KPEI guarantees the return of the securities to the lender and uses the collateral of the borrower in case the borrower is not able to return the securities. From January to November 2009, the activity in the SBL market was 509 trades, corresponding to a volume of 763 million shares and IDR 2.4 trillion. Of the 344 securities listed on IDX 97 are registered as SBL stock. The 99 participants consist of 2 custodian banks (only as lender), and 97 clearing members (borrower and lender), which may conduct SBL transactions for their own or their client accounts.</p> <p>SBL does not cover all securities. Securities companies can buy non-SBL securities at the Cash Market segment of IDX with settlement cycle T+0. Nevertheless, it is recommended to develop a SBL service for corporate bonds as well.</p> <p>Currently, REPOs are settled in the C-BEST system of KSEI; however KSEI is not able to identify these trades as REPO trades. Based on a new KSEI regulation, which was approved by Bapepam-LK on 4 December 2009, KSEI is explicitly allowed to provide REPO settlement services, which will be implemented in the first half of 2010.</p> <p>The legal and contractual framework supports SBL activities. The Capital Market Law, elaborating on the Indonesian Civil Code, states that the borrowing and lending of securities may occur when a securities exchange member lacks the securities needed to settle a securities exchange transaction. Securities in collective custody</p>

	<p>may be lent or pledged, except for securities in the account of an investment fund. Bapepam-LK further defines the content of the SBL agreement between borrower and lender. Short selling is allowed, except for naked short selling.</p> <p>KPEI, including its SBL service, is subject to supervision by Bapepam-LK. Bapepam-LK has to approve all rules, policies and risk management arrangements with regard to the SBL activity of KPEI, as well as the policies of IDX for the Cash Market and the regulation of KSEI for REPO settlement.</p> <p>Securities lending and borrowing (SLB) is available for the equity trades conducted on the stock exchange. Such a mechanism is not available for corporate bonds traded OTC. It is recommended to extend the SBL service of KPEI to corporate bonds.</p>
Assessment	<b>Observed</b>
Comments	-
Recommendation 6.	Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.
Description	<p>All corporate bonds and securities issued after the introduction of the scripless system in 2000 are held in dematerialized form. Currently, about 65% of securities are dematerialized while 35% are still in the form of a physical certificate. Securities that are still in the form of a physical certificate are immobilized, which means that they are deposited in KSEI and transferred by book-entry.</p> <p>KSEI holds securities in dematerialized form and transfers them electronically. The dematerialization and electronic holding is covered by statute.</p> <p>KSEI operates a direct holding system, in which KSEI is not the official registrar of the issuer, but keeps records of the beneficial owners. One exception concerns the record keeping of government bonds, where KSEI is a sub-registry of BI-SSSS.</p>
Assessment	<b>Observed</b>
Comments	-
Recommendation 7.	CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.
Description	<p>All settlement instructions related to securities and cash are settled in C-BEST. KSEI has developed a settlement process in which securities and cash transfers occur simultaneously in the C-BEST system. As such the technical framework ensures DVP. However, for cash settlement, KSEI has no real cash accounts in C-BEST. The real cash accounts for settlements are provided by the four payment banks. C-BEST maintains a connection with the payment banks and <i>mirrors</i> the real cash accounts.</p> <p>Both for the stock exchange trades and the OTC trades the settlement procedure links the securities transfer and the cash transfer within the C-BEST system. Securities and cash transfers occur simultaneously in C-BEST. Cash settlement instructions are sent to the payment banks to debit and credit the cash accounts of the account holders of the payment banks. During the day six realignments are conducted between the accounts of the four payment banks and KSEI within the BI-RTGS system. More specifically, during the day settlements take place in the C-BEST system of KSEI. Depending on the activity of the clients of the four payment banks, in each realignment process, one payment bank, representing its various clients, may be confronted with a long position in cash (because its clients have sold more securities that day than they bought), whereas another payment bank, representing its various clients, may be confronted with a short position in cash (because its clients have bought more securities that day than they sold). During the realignment process the first payment bank will transfer money to the other payment bank, so that they both end the day with a balanced position.</p> <p>The settlement process consists of the following steps:</p> <p><b>Stock exchange and OTC trades</b></p>

- Early in the morning account holders of the payment bank have to transfer the projected amount of necessary funds for the settlements that day from their client account to a settlement account.
- KSEI is authorized to take action upon this settlement giro account, among others to obtain balance information, to book-transfer and freeze funds contained in such an account. This account, which is owned by the account holder, is called an auto debit account, meaning that no matter how much funds are deposited, they will be automatically debited into the KSEI Cash Account within the payment bank.
- The KSEI cash account in the payment bank is mirrored in the nostro account in the name of the payment bank in C-BEST. The KSEI cash account in the payment bank reflects the total amount of cash and will change according to real cash deposits and withdrawal in the payment bank. On the other hand, the nostro account of the payment bank in C-BEST only mirrors this to reflect the available cash for cash settlements in C-BEST.

#### **Stock exchange trades**

- KPEI nets both the securities and cash instructions and sends them on the trade date before the batch procession periods.
- The clearing members, alias participants of C-BEST, are obliged to provide enough securities and cash, depending on their positions, before the two batch processing periods. Batches are run from 7.00 am – 8.00 am and from 12.30 pm – 1.30 pm during working days. The participants therefore transfer the necessary securities and/or cash from their depository account (001) within C-BEST to their delivery account (002) or collateral account (004) within C-BEST.
- C-BEST checks whether the necessary securities and/or cash amounts are available. If this is the case the securities and cash are transferred to the KPEI accounts within C-BEST.
- Every movement from the depository account within C-BEST to their delivery account (002) or to collateral account (004) within C-BEST will be synchronized with e-CLEARs.
- During the batch processing, KPEI will conduct the exchange settlement by transferring securities and/or cash positions from the delivery account to the KPEI account and from the KPEI account to the receiving account (003) in e-CLEARs.
- Having received the securities and/or cash positions in the receiving account the clearing member can transfer the position from the receiving account to the depository account. Every movement in e-CLEARs will be synchronized with C-BEST.
- The participant can monitor the securities and funds transfers in C-BEST.
- The account holders have the ability to withdraw the cash from the C-BEST system during the day. They should explicitly give a wire transfer instruction; otherwise this will be done automatically at the end of the day. KSEI will transfer the corresponding fund recorded between the KSEI cash account in the payment bank and the settlement giro account of the account holder. The payment bank will debit or credit the participants' real cash accounts. The cash proceeds of the securities settlements are available immediately if both counterparties use the same payment bank. Otherwise the cash is available after the realignment process. During the day six realignments take place between the accounts of the four payment banks in the BI-RTGS system with regard to the remaining stock exchange settlements.

#### **OTC trades:**

- Participants of KSEI send their settlement instructions to KSEI. KSEI places the instructions into a matching queue.
- Once matched the instructions are moved into a settlement queue to await the settlement date.
- On the settlement date C-BEST will transfer securities from the delivery account of the participant to the receiving account of the counterparty participant and

	<p>will transfer cash from the receiving account to the delivery account</p> <ul style="list-style-type: none"> <li>• The participant can monitor the movements of the securities and funds in C-BEST.</li> <li>• The account holders can withdraw the cash from the C-BEST system during the day by explicitly giving a wire transfer instruction, otherwise this will be done automatically at the end of the day. KSEI will transfer the corresponding fund recorded between the KSEI cash account in the payment bank and the settlement account of the account holder. The payment bank will debit or credit the participants' real cash accounts. The cash proceeds of the securities settlements are available immediately if both counterparties use the same payment bank. Otherwise the cash is available after the realignment process.</li> <li>• If securities' positioning was successful, the instruction requesting the cash payment execution is created for positioning on the participant's accounts in KSEI. Since KSEI links to more than one payment bank, there will be cash movement from one account to another account in C-BEST, in order to fulfil the settlement process which triggers the real cash movement in those banks. It has been scheduled in C-BEST to run 6 times realignment processes in a day on 09:00, 10:30, 11:30, 13:30, 14:20, and 15:10. In this process, C-BEST will calculate the amount real cash position that will be moved from one payment bank to another payment bank and send those messages to involved payment bank.</li> <li>• Outside C-BEST, payment banks can utilize the RTGS system provided by Bank Indonesia to move the real cash position. Having sent real cash position, the Payment Bank will send DCNF message to C-BEST. On the other hand, the Payment Bank receiving real cash position should send REALNC message to C-BEST. Having received these confirmation messages from the Payment Banks, the C-BEST will move the cash position from one NOSTRO cash KSEI account to another NOSTRO cash KSEI account in C-BEST.</li> <li>• The settlement in C-BEST is followed by the cash settlement within the payment banks. KSEI will transfer the corresponding fund recorded between the KSEI cash account in the payment bank and the settlement giro account of the account holder. The payment bank will debit or credit the participants' real cash accounts. The cash proceeds of the securities settlements are available immediately if both counterparties use the same payment bank, otherwise the cash is available at the end of the realignment process.</li> </ul> <p>The legal framework for securities and cash settlement does not sufficiently provide support for the process as a delivery-versus-payment process, defined as 'a link between securities transfers and fund transfers that ensures that delivery occurs if, and only if, payment occurs'. Also, the legal framework does not provide enough comfort for the cash transfer in C-BEST as being a final transfer, see RSSS 8.</p> <p>A small number of trades (on average less than 20% in the period from March 2008 to March 2009) are settled on a Free-of-payment (FOP) basis. FOP trades mainly consist of collateral transfers and SBL trades.</p>
Assessment	<b>Partly Observed</b>
Comments	The technical framework ensures DVP, however, the legal framework does not. This is important since KSEI has no real cash account in C-BEST, and the C-BEST accounts only <i>mirror</i> the cash accounts in the payment banks.
Recommendation 8.	Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.
Description	<p>Finality of settlement is not a concept which is reflected as such in the legal framework of the equity and corporate bonds securities settlement system. The legal framework does not explicitly specify when a trade is considered to be irrevocable and unconditional, both for the securities and the cash leg.</p> <p>Nevertheless, for the settlement of the <i>securities leg of an OTC trade</i> the logical</p>

	<p>moment that market participants consider a trade to be irrevocable is the moment that the securities are transferred from the delivery account of the seller to the receivable account of the buyer. Such a securities transfer takes place during the day, since OTC trades are settled trade for trade between 6.00 am and 3.00 pm.</p> <p>For the <i>securities leg of a stock exchange trade</i>, in practice the same moment may be considered as irrevocable. Such a securities transfer takes place from 7.00 am – 8.00 am and from 12.30 pm – 1.30 pm during working days. An issue in this case is how this moment relates to the account of KPEI, since during the settlement of a stock exchange trade the securities are first delivered from the delivery account to the KPEI account and subsequently from the KPEI account to the receivable account of the buyer.</p> <p>For the <i>cash leg of a trade</i>, irrespective whether an OTC trade or a stock exchange trade is concerned, it is important that the moment of finality is explicitly specified, since the C-BEST accounts mirror the cash accounts at the payment banks. The legal framework does not provide enough comfort for the cash transfer in C-BEST as being a final transfer. This comfort is necessary, since a time lag exist between the securities transfer in C-BEST and the real cash transfer in the payment banks to the participant account and from the participant account to its own or client accounts. In the absence of a clear definition of finality it is possible that the final delivery of securities precedes the final transfer of cash. This may cause systemic risk to the system, for example in the case of a bankruptcy of one of the payment banks.</p> <p>Unilateral revocation of unsettled transfer instructions is not possible in KSEI, since revocation of unsettled transfers must be approved by both parties.</p> <p>No provisions transfers of securities exist between KSEI and BI-SSSS.</p>
Assessment	<b>Partly Observed</b>
Comments	The legal framework should explicitly state the moment at which both the securities leg and the cash leg are irrevocable and unconditional. For stock exchange trades the moment should be specified, taking into account that the KPEI account within KSEI is used during the settlement process.
Recommendation 9.	CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.
Description	KSEI and does not operate a net settlement system and does not provide intraday credit facilities to its participants.
Assessment	<b>Not applicable</b>
Comments	-
Recommendation 10.	Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or not credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.
Description	<p>Cash settlement takes place in the accounts of four dedicated payment banks, being Bank Mandiri, CIMB Niaga, Bank Permata and BCA. In 2009 the distribution of settlements handled in value terms was as follows;</p> <ul style="list-style-type: none"> <li>• CIMB Niaga 47%</li> <li>• Bank Mandiri 29%</li> <li>• BCA 13%</li> <li>• Bank Permata 0.4%</li> </ul>

	<p>In 2009, Bank Permata was selected as the fourth payment bank, after CIMB Niaga and Lippo Bank merged, which were both payment banks. With their merger a new fourth payment bank needed to be selected. The recent introduction of Bank Permata as payment bank may explain the bank's low market share. Bank Mandiri has the largest number of accounts and is the only state owned bank acting as payment bank.</p> <p>KSEI sets minimum requirements to ensure that the cash settlement poses little or no credit or liquidity risk to its members. Requirements are set concerning, among others, financial soundness, the IT infrastructure, system applications and security measures, a dedicated organization and business continuity planning. The selection procedure of payment banks by KSEI includes an evaluation of the several proposals and a site visit. KSEI monitors the performance of the payment banks. Every month the performance is discussed with the payment banks; the latter are also subject to supervision by Bapepam-LK.</p> <p>In case of an OTC trade the cash proceeds following the securities settlements are available immediately if both counterparties use the same payment bank. Otherwise the cash is available after an hour. In case of a stock exchange trade, the cash proceeds are available at the end of the day or earlier, if the participant explicitly gives a wire transfer instruction.</p> <p>The realignment takes place between the four payment banks and KSEI via the BI-RTGS system. The BI-RTGS substantially observes the CPSIPS.</p> <p>The use of payment banks means that all market participants are exposed to settlement bank risk, which is the risk that one of the payment banks may fail. This can be an operational failure. Currently, an operational outage of one of the payment banks affects all other payment banks. It can also be a financial failure, where market participants may be confronted with liquidity problems. The surviving payment banks and/or KSEI are exposed to the failing payment bank, in case it is unable to deliver cash during the realignment process.</p> <p>In a similar situation as on 12 November 2009, where the settlement system was only able to settle securities at 9 pm and the RTGS closed before 9 pm, payment banks are exposed to each other, either directly or indirectly via KSEI, since realignment of the end of day cash positions was delayed until the next morning. As long as the payment bank settlement system remains in place, it is recommended that KSEI and the RTGS system harmonize their opening hours in case of extreme situations like occurred on November 12<sup>th</sup>.</p>
Assessment	<b>Observed</b>
Comments	<p>The payment bank system for the settlement of the cash leg of securities trades complies with the requirements of the CPSS-IOSCO assessment methodology for SSS. Nevertheless, it is recommended to seriously analyze the introduction of cash settlement in the BI-RTGS system, since this will mitigate the risks (as described above) for the capital market in Indonesia as a whole.</p>
Recommendation 11.	<p>Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for <u>timely recovery of operations and completion of the settlement process.</u></p>
Description	<p>The systems of KPEI and KSEI were developed by the Belgian firm Capital Market Company (CAPCO) in 2000. In 2005 KSEI bought the source code and took over the responsibility for the maintenance of the systems. KPEI also bought the source code and has engaged a company named Sigma Cipta Caraka to maintain its systems. .</p> <p>KSEI has identified sources of operational risk and uses alert and monitoring tools to identify operational problems. Procedures are in place to solve any problems. A dedicated team within KSEI continuously monitors the business and system operations. A formal capacity plan exists and key systems are subject to stress-tests at</p>

	<p>least once a year.</p> <p>For the systems of KPEI and KSEI, contingency plans and backup facilities are in place. The BCP and DRP are tested twice a year, involving all participants - including the payment banks -, where participants use the DRC to settle transactions for a week. The RTO is 2 hours. On average the system can be resumed within 1 hour. Procedures also exist to ensure the preservation of data.</p> <p>In 2005, KSEI enhanced its back up system to have the same capacity as its primary system. Since 2009 the backup system of KPEI has the same capacity as its primary system. The DRC system of KPEI and KSEI is located 30 km from the main system, which is located in the Stock Exchange Building in Jakarta. The 30 kilometer separation is minimally acceptable, since the environment is vulnerable to geographically widespread disruption. Consideration of more geographically disparate production and back-up processing for the IDX, KPEI and KSEI systems should be considered. Plans exist to have another secondary site in Surabaya or Bali.</p> <p>The Internal Audit and Risk Management departments are responsible for the risk management and control within KSEI. These departments conduct regular reviews of the system. The head of the audit unit is responsible for the audit of the operational activities of KSEI on a continuous daily basis and report his results to the Board of directors (Bapepam-LK Rule III.C.6). The Board of Directors approve the BCP document and act as BCP manager. At least once a year the system is audited by an external auditor.</p> <p>KSEI uses a private network for participants to send instructions to C-BEST. C-BEST uses encrypted messages to send data between the system and the participants' terminal. For authentication, the system uses 4 identifications (member name, user name, password and key file). Internal operational and security controls are included in the internal as well as external audit.</p> <p>A SLA is in place with third party vendors, including the communication provider. Financial sanctions are imposed if the requirements in the SLA are not met. The service providers are reviewed on a yearly basis, with the possibility to change to another provider.</p> <p>Until November 2009, only a few, small system failures occurred, due to database problems which delayed the settlement processing for a couple of hours. System availability was 99.8%. On 12 November 2009 a big outage occurred due to the implementation of new hardware. Both the primary as well as the secondary sites were unavailable. KSEI was able to settle the transactions of that day at 9 pm. Realignment between the payments banks and KSEI could only take place the following morning, since the BI-RTGS system was closed. KSEI is currently investigating the causes of this disruption which involved the outage of both the primary and secondary site. Authorities are strongly encouraged to put in place measures to prevent such a simultaneous unavailability of the primary and secondary site in the future.</p>
<b>Assessment</b>	<b>Observed</b>
<b>Comments</b>	-
<b>Recommendation 12.</b>	Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.
<b>Description</b>	<p>KSEI, the custodian banks and the securities companies hold securities in the name of the direct participants. KSEI holds 360,340 sub accounts.</p> <p>The customer's assets are adequately protected. The securities companies and the custodian banks are obliged to register the funds and securities of clients in accounts separated from its own accounts. The securities of customers are not part of the assets of the custodian and may not be taken in case of a bankruptcy of the custodian.</p>

	<p>These arrangements are supported by the legal framework. The securities must be maintained in a safe place and be made available at any time for inspection by Bapepam-LK.</p> <p>Both custodian banks and securities companies are subject to prudential supervision by Bapepam-LK. Custodian banks must submit an annual activity report to Bapepam-LK that is audited by an accountant registered with Bapepam-LK. Bapepam-LK conducts compliance audits and internal controls on book keeping practices of securities companies and custodian banks as well as of the CSD.</p> <p>The recent initiatives employed by authorities to further enhance market transparency as well as protect customer assets are commendable. The first initiative called Investor Area was implemented by KSEI in June 2009. This facility provides the investor with real time access to information about its securities positions in its sub accounts within KSEI and also to the securities transfers in C-BEST up to the last 30 days. Another market-wide project is the Single Investor ID project, which aims to facilitate the monitoring of both the securities and the cash positions of individual investors during the trading, clearing, settlement and depository process.</p>
Assessment	<b>Observed</b>
Comments	-
Recommendation 13.	Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.
Description	<p>KSEI and KPEI are non-profit institutions. Shareholders of KSEI are 9 custodian banks (36 % of shares), 30 securities companies (32.5%), 4 registrars (4%), IDX (19%), KPEI (7.5%) and 1 Treasury Stock (1%). Some shareholders of KSEI, being securities companies and custodians, are also participants of KSEI. The sole shareholder of KPEI is IDX.</p> <p>The Board of Directors of KSEI is subject to supervision by a Board of Commissioners. The Board of Directors of KPEI is also subject to supervision of a Board of Commissioners. The nomination of directors and commissioners is governed by Bapepam-LK rules. The candidate directors and commissioners should pass a fit and proper test of Bapepam-LK. Nomination for directors and commissioners must be proposed by shareholders. Directors and commissioners are elected and appointed during a general shareholder meeting.</p> <p>All information about governance is publicly available on the websites of KSEI and KPEI.</p> <p>Incentives for the management are stated in the work plan and the annual budget of KSEI, which describes the salaries and other benefits for directors and commissioners of KSEI. These documents contain the goals, the performance with respect to the current budget, restriction and assumptions. Key performance indicators are defined to make the management accountable for their performance.</p> <p>Procedures are in place to review the price levels of KSEI and KPEI against their cost of operations. Bapepam-LK has to approve the budget and profit utilization plans. Profit is used to improve IT systems and other procedures to improve the market as a whole.</p> <p>KSEI has a risk management policy to address the review and approval of new products and services. The Board of Directors gives approval for new products or services. The risk management function is independent from and has authority over operational functions. The Board of Directors reviews the risk management policies and procedures. Furthermore, an internal control committee has been established to represent the users of KSEI.</p> <p>The system's participants can influence the decision making process of KSEI via four committees, being</p>

	<ul style="list-style-type: none"> <li>• Working Committee <ul style="list-style-type: none"> <li>i. <i>Internal Control Committee</i>: provide suggestions on compliance of KSEI services with regulation, provide recommendations upon the appointment of third party parties, including payment banks.</li> <li>ii. <i>Business Committee</i>: provide recommendations on new business plans, new services and corresponding fees.</li> <li>iii. <i>Regulation Committee</i>: provide recommendations on the drafting of KSEI rules</li> </ul> </li> <li>• <i>Budget Committee</i>: provide recommendations on the budget plans of KSEI.</li> </ul> <p>These committees represent the shareholders through which they can provide suggestions and input to the board.</p> <p>KPEI has two committees, being</p> <ul style="list-style-type: none"> <li>• <i>Audit Committee</i>: review the financial report, ensure the corporate governance, review the internal audit function and control the external auditor performance.</li> <li>• <i>Credit policy and risk management committee</i>: monitor the risk management policies and provide recommendations for the guarantee fund, the credit policies and in case of defaults.</li> </ul>
Assessment	<b>Observed</b>
Comments	-
Recommendation 14.	CSDs and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.
Description	<p>The access criteria of KSEI and KPEI are stated in their respective Rules, which are publicly available on their websites.</p> <p>KSEI rules specify that parties that are eligible to become account holders in KSEI are securities companies, custodian banks, and other parties deemed worthy according to applicable laws and prevailing regulations of the capital market. In the latter case access is given to KPEI, investors and securities issuers. KPEI is allowed to open securities accounts in KSEI for the purpose of exercising their clearing and guarantee function. Investors may access C-BEST to obtain information on the balance of their securities sub accounts. Securities issuers, or other parties appointed by the securities issuers, are granted access and operation rights to C-BEST for the purpose of conveying conformations of reports to/from KSEI in correlations with the administrations of the securities owned by the securities issuer and kept in KSEI.</p> <p>KPEI rules specify that parties entitled to become clearing members shall be stock exchange members who are, based on the assessment of KPEI, particularly on the aspect of credit risk, fit and proper to become clearing members.</p> <p>The rules of KSEI and KPEI have clear arrangements in place to facilitate the exit of members who no longer meet the requirements. KSEI also specifies under what conditions the participants may terminate their membership. KPEI does not have specific rules for the voluntary terminations of membership.</p>
Assessment	<b>Observed</b>
Comments	A general observation, which was also made under RSSS 4, is that in practice, all active trading members of the exchange are also clearing members of the CCP. In this respect the rule that KPEI members should be particularly fit and proper on the aspect of credit risk is not applied in practice. We recommend that the access criteria of the CCP not only specify financial requirements, but also use them in practice by offering access only to the larger and safer securities companies. In general, we recommend that the access and exit criteria of KPEI focus more on the specificities of membership of the CCP.
Recommendation 15.	While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.
Description	Most fees that KSEI and KPEI charge to their participants are cost based. A fee charged for an instruction is fixed, independent of the value of the instruction.

	<p>For KSEI the Business Committee provides recommendations on new business plans, new services and corresponding fees.</p> <p>For KPEI the budget is discussed by the shareholder meeting. The shareholder (which is IDX), may propose amendments before it is submitted to Bapepam-LK for approval.</p> <p>KSEI and KPEI have to submit their annual budget plans to Bapepam-LK for approval. Profits will not be paid out to shareholders, but have to be used to enhance IT systems and the clearing and settlement arrangements for the Indonesian capital market as a whole. The budget committee and the business committee of KSEI review the pricing of KSEI in relation to the costs.</p> <p>On an annual basis both KSEI and KPEI analyze customer satisfaction using a customer survey and forum group discussions. KSEI publishes the results on its website.</p> <p>Currently, parts of the trading-clearing-settlement chain are still conducted manually. Communication procedures relating to securities messages, securities identification processes and counterparty identification are different for different parts in the transaction life cycle. Cross-border transactions are transmitted via SWIFT; however, they have to be converted into the internal systems of the KSEI members (see also RSSS 16). The current processing is deemed inefficient, costly for the market, and subject to errors and delays.</p> <p>In this respect, the current STP project will be beneficial to the market. The project, initiated by Bapepam-LK, aims to bring full STP from the exchange members, via IDX, KPEI and KSEI to the back offices of all market participants. This will improve the efficiency of the market, reduce redundancies and costs and increase the speed of data processing and the capacity of the system as a whole. It may ease migration to SWIFT for all market participants.</p>
Assessment	<b>Observed</b>
Comments	The STP project is an important initiative to increase the efficiency in the market. It aims to replace the current manual procedures and data conversion between systems by automated straight-through processing.
Recommendation 16.	Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.
Description	KSEI is connected to the SWIFT network since September 2008. The network is used as messaging network to those KSEI members, who are also SWIFT members for domestic securities transactions. About 77% of cross-border transactions are transmitted via SWIFT to the KSEI members. The members convert the messages into their internal systems to be able to forward them to KSEI. Currently, the costs of SWIFT are considered to be too high for some members.
Assessment	<b>Broadly Observed</b>
Comments	In order to observe this recommendation all cross-border transactions should be transmitted via a relevant international communication network. Therefore, all KSEI members that handle cross-border transactions should become members of SWIFT, or another relevant international communication network, and use domestic communication procedures that can be easily converted into SWIFT messages.
Recommendation 17.	CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.
Description	The rules, regulations and other relevant information are available on the websites of KPEI and KSEI. The websites include information about the governance of the entities, the different systems and the rights and obligations of the participants with

	<p>regard to the different types of services. KPEI's website includes specific descriptions of the collateral and risk management procedures, including the guarantee fund, and the SBL service.</p> <p>The website of KSEI includes a comprehensive fee schedule, outlining the different types of fees. It is recommended that KPEI also includes such a fee schedule on its website.</p> <p>The information is available in Indonesian and English, in the form of digital announcements and websites.</p> <p>KSEI and KPEI have completed the CPSS-IOSCO disclosure framework for their respective companies and publicized them on their respective websites. The disclosure framework of KPEI is published on the 'members' area of the KPEI website. It is recommended that KPEI publishes its CPSS-IOSCO disclosure framework on the publicly available part of its website.</p>
Assessment	<b>Observed</b>
Comments	-
Recommendation 18.	Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities..
Description	<p>Bapepam-LK has regulatory responsibilities over BI-SSSS, as well as over IDX, KPEI and KSEI, whereas BI has an oversight responsibility over BI-SSSS, a system which is owned by BI itself. The different regulatory frameworks for both CSDs do not support the consistency within the market. In addition it is noted that BI has not developed an oversight function with regard to KPEI and KSEI. The stability of the financial market will benefit from such an oversight role. In addition BI may consider ways to perform the lender of last resort function for KPEI in case this may be deemed necessary to ensure financial stability in Indonesia.</p> <p>Such a combined responsibility will need a cooperative framework between Bapepam-LK and BI. It is noted that such a framework may currently already be beneficial for the link between KSEI and BI-SSSS for the stock exchange traded government bonds. Also the discussion about cash settlement in the BI-RTGS system may benefit from cooperation between Bapepam-LK and BI.</p> <p>A joint task force made up of BI and Bapepam representatives, together with representatives of the financial market SROs, is currently engaged in a review of the efficiency of the settlement mechanisms supporting the capital markets.</p> <p>Statutes provide a sound basis for the allocation of regulatory responsibilities and the commitment to cooperation among the different authorities is key to well functioning and adaptable clearing and settlement systems. The initiative involving the authorities and the private sector in a strategic review of the efficiency of clearing and settlement is an important example of collaborative strategy development.</p>
Assessment	<b>Broadly Observed</b>
Comments	It is recommended to review the regulatory structure for CCPs and CSDs in such a way that all systems, especially the two CSDs are regulated in a comparable way. This means that BI should also include KSEI and KPEI into their oversight scope as systems relevant for the financial stability of Indonesia. The latter includes that BI should give consideration to fulfilling the role of lender of last resort for the CCP, in case this is needed, without giving ways to moral hazard. Bapepam-LK and BI may consider underlining their intentions to exercise their respective responsibilities in a cooperative way, for example in a covenant or a memorandum of understanding.
Recommendation 19.	CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.
Description	There are no current cross border links.

Assessment	<b>Not applicable</b>
Comments	-