

**Taiwan Clearing House**  
**Principles for Financial Market Infrastructures**  
**Disclosure Report**

Taiwan Clearing House

June 30, 2016

## Contents

I.	Executive Summary.....	2
II.	Summary of Major Changes Since Last Update .....	3
III.	General Background of TCH.....	3
IV.	Principle-by-Principle Summary Narrative Disclosure .....	8
V.	List of Publicly Available Information .....	21

**Taiwan Clearing House**  
**Principles for Financial Market Infrastructures**  
**Disclosure Report**

Responding institution: Taiwan Clearing House

Jurisdiction in which the FMI operates: Republic of China (Taiwan)

Authorities regulating, supervising, or overseeing the FMI: Central Bank of the Republic of China (Taiwan)

Date of disclosure: 2016.6.30

The document is also available at <http://www.twmch.org.tw>

For further information, please contact: Planning Division, Administration Department, Taiwan Clearing House

## I. Executive Summary

Taiwan Clearing House (TCH) is the primary clearing house in Taiwan in charge of the Payment System (PS), i.e., providing check clearing (including automated clearing house (ACH) operations) services. TCH conducts self-assessment and prepares this disclosure report in accordance with the Principles for Financial Market Infrastructures and Principles for Financial Market Infrastructures: Disclosure Framework and Assessment Methodology released by the Committee on Payment and Settlement Systems-Board of the International Organization of Securities Commissions (CPSS-IOSCO) in April and December 2012 respectively.

The Taiwan Payments Clearing System Development Foundation (the Foundation) was established pursuant to Article 3 of the *Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks* promulgated by the Central Bank of the Republic of China (Taiwan) (CBC). For the successful implementation of the check clearing and dishonored check clearing systems, the Foundation set up the Taiwan Clearing House as the designated organization for handling payment business, and has drawn up relevant rules, including "Taiwan Clearing House Service Guide", "Taiwan Clearing House Rules for Participation in Checking Clearing", "Taiwan Clearing House Check Clearing Procedure", and "Directions for Check Clearing and Settlement Risk Control Mechanism" to regulate the organizational structure and operations of TCH.

All financial institutions in Taiwan approved to operate checking deposit business may apply to participate in the check clearing operation of the TCH head office or branch office to become a clearing unit, except for credit cooperatives and farmers and fishermen associations that must clear their checks through Taiwan Cooperative Bank or other clearing units designated by the CBC. Since the establishment of TCH, TCH and its clearing units have been carrying out check clearing and dishonored check clearing operations according to applicable rules and regulations, and settle net clearing balances in a timely manner to maintain a high degree of security and operational reliability for the Payment System.

To address general business risks and operational risks, TCH has established a NT\$500 million check clearing and settlement guarantee fund ("Settlement Guarantee Fund") in accordance with the *Directions for Check Clearing and Settlement Risk Control Mechanism* to ensure successful completion of daily check clearing operation. TCH has also drawn up

operational manuals and procedures in line with the organizational framework for observance by employees. TCH has signed maintenance contracts with suppliers of information technology (IT) systems and regularly conducts on-site and off-site backup drills with related records saved. Thus the payment system provided by TCH is overall secure and reliable.

**II. Summary of Major Changes Since Last Update**

This is the first disclosure report published by TCH in compliance with PFMI principle 23: Disclosure of rules, key procedures, and market data.

**III. General Background of TCH**

**Description of TCH facilities and service market**

TCH plays the role of an intermediary in the whole payment clearing and settlement framework, providing mainly the services of check clearing, dishonored check clearing, automated clearing house (ACH), settlement of net clearing balance of respective financial institutions and other relevant services.

The computerized clearing centers set up at the Taipei Head Office, Taichung City Branch and Kaohsiung City Branch of TCH offer check clearing, dishonored checking, and ACH service platforms for participants to carry out related transactions. TCH adopts the operating mode of regional clearing and centralized settlement, by which Taipei Head Office sends the net clearing balances of the three clearing centers to the CBC for final settlement.

Financial institutions that have been approved to operate checking deposit business and participated in the check clearing operations of TCH are “direct participants”, whereas credit cooperatives as well as farmers and fishermen associations that clear their checks through Taiwan Cooperative Bank or other clearing units designated by the CBC are called "indirect participant." The tally of direct and indirect participants as of year-end 2015 is as follows:

Direct and Indirect Clearing Participants			
Direct participant	Number of participants	Indirect participant	Number of participant
Domestic bank	39	Credit cooperative	23
Foreign bank	14	Farmers and fishermen association	307
Post office	1		

Subtotal	54		330
Percentage	14.06%		85.94%
Total			384

With respect to the check clearing and settlement operations, the duties and responsibilities of TCH and participants are as follows:

Duties and Responsibilities of TCH and Participants		
Time	Duty	Responsibility
21:00 (the day before check clearing day)	Complete the exchange process	<ul style="list-style-type: none"> <li>* Each participant presents checks for clearing on check processing day (the day before check clearing day).</li> <li>* TCH completes the exchange process at 21:00 (except on the peak days).</li> </ul>
09:00 (check clearing day)	Transmit net clearing balance data to CBC Interbank Funds Transfer System (CIFS)	<ul style="list-style-type: none"> <li>* TCH sends the net clearing balance data on each participant based on the receivables/payables of checks presented to CBC.</li> <li>* The net clearing balance for each participant is announced on the CIFS.</li> </ul>
12:10	Complete the first clearing of enhanced ACH (eACH) transactions	<ul style="list-style-type: none"> <li>* TCH completes the first clearing of eACH transactions and transmits the net clearing balance data to CIFS.</li> </ul>
14:00	Complete ACH (batch) clearing	<ul style="list-style-type: none"> <li>* Participants present ACH (batch) clearing data before 14:00.</li> <li>* TCH completes ACH (batch) clearing and then combines the net clearing balance of ACH (batch) with the net clearing balance of dishonored checks, and executes payment settlement at 17:00.</li> </ul>
14:30	Start executing first payment settlement	<ul style="list-style-type: none"> <li>* TCH starts executing payment settlement for checks presented and the first net clearing</li> </ul>

	of presented checks and the first settlement of eACH transactions	<p>balance of eACH transactions.</p> <ul style="list-style-type: none"> <li>* TCH monitors whether participants have prepared sufficient funds and notifies participants with payment shortfall to make up as soon as possible.</li> <li>* Participants with payment shortfall by 15:00 are required to fill out a "Report on Sources for Funds to Paying Net Clearing Balance" for TCH to verify.</li> </ul>
15:30	Complete the payment settlement of presented checks and the first settlement of eACH transactions	<ul style="list-style-type: none"> <li>* Participants with payment shortfall should make up the funds by 15:30.</li> <li>* Participants with payment shortfall at this time but having funds available as verified by TCH should apply to CBC for extension of payment settlement; for participants with payment shortfall and without funds available as verified by TCH, TCH will initiate default handling procedure to complete the day's check clearing and settlement operation.</li> </ul>
15:40	Complete the second clearing of eACH transactions	<ul style="list-style-type: none"> <li>* TCH completes the second clearing of eACH transactions and then combines the net clearing balance of second clearing with the net clearing balance of dishonored checks, and executes payment settlement at 17:00.</li> </ul>
16:30	Complete the clearing of dishonored checks	<ul style="list-style-type: none"> <li>* Participants submit dishonored check data before 16:30.</li> <li>* TCH executes dishonored check clearing and then sends net clearing balance data on dishonored checks (including clearing of ACH (batch) and second clearing of eACH transactions) to CIFS.</li> </ul>
17:00	Start executing	<ul style="list-style-type: none"> <li>* TCH starts executing the deduction and</li> </ul>

	payment settlement of dishonored checks	<p>payment operation for dishonored checks (including clearing of ACH (batch) and second clearing of eACH transactions).</p> <p>* TCH monitors whether participants have prepared sufficient funds and notifies participants with payment shortfall to make up as soon as possible.</p> <p>* Participants with payment shortfall by 17:10 are required to fill out a "Report on Sources for Funds to Paying Net Clearing Balance" for TCH to verify.</p>
17:30	Complete the settlement of dishonored checks	<p>* Participants with payment shortfall at this time but having funds available as verified by TCH should apply to CBC for extension of payment settlement and will be subject to a fine.</p> <p>* For participants with payment shortfall and without funds available as verified by TCH, TCH will initiate default handling procedure to complete the day's dishonored check clearing and settlement operation.</p>

Data on check clearing and dishonored checks processed by TCH between 2011 and 2015 are presented as follows:

Data on check clearing and dishonored checks processed between 2011 and 2015				
	Number of checks cleared	Amount of checks cleared (NT\$1,000)	Number of dishonored checks due to insufficient fund	Amount of dishonored checks (NT\$1,000)
2011	117,703,741	19,193,509,402	200,365	69,833,487
2012	114,811,240	18,270,227,249	207,933	70,159,792
2013	114,438,376	18,469,437,545	199,620	75,942,704
2014	109,330,613	18,468,615,913	182,964	84,300,435
2015	104,755,617	18,044,295,538	191,442	93,399,186



To mitigate the risk associated with participant default, TCH has drafted the *Directions for Check Clearing and Settlement Risk Control Mechanism*, according to which, TCH and participants establish a settlement guarantee fund and an advance mechanism to ensure daily check clearing and settlement is successfully completed.

### **Overview of FMI organization**

The highest decision-making body of TCH is the Foundation's Board of Directors and TCH is under the supervision of CBC. TCH has a CEO and a secretary-general. The CEO oversees all affairs of TCH in accordance with the resolutions adopted by the Board and is assisted by the director-general. TCH consists of four departments - Administration, Clearing Business, Information Technology & Management and Auditing and 14 branches that conduct business according to their assigned duties and responsibilities.

### **Legal and regulatory framework**

The legal foundation of TCH's check clearing and settlement business is built upon The *Central Bank of China Act* and TCH business rules. TCH's regulatory body is CBC. The CBC Department of Banking is responsible for the administration of financial payment system and interbank payment settlement business.

Supervisory regulations governing check clearing include Article 32 of *The Central Bank of China Act*, *Negotiable Instruments Act*, *Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks*, and *Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement*; regulations governing the implementation of check clearing business include *Taiwan Clearing House Rules for Participation in Checking Clearing*, *Taiwan Clearing House Check Clearing Procedure*, *Directions for Check Clearing and Settlement Risk Control Mechanism*, *Taiwan Clearing House Directions for Media Exchange and Automated Clearing House Operations*, *Taiwan Clearing House Operating Procedures for Media Exchange and Automated Clearing House Operations*, *Taiwan Clearing House Operational Rules for Media Exchange and Automated Clearing House Operations*, and *Taiwan Clearing House Directions for Financial Collection System*.

### **System design and operation**

The TCH check clearing system involves physical check exchange where each clearing unit

by itself or via an express service delivers the checks to the district clearing center or its branch. The clearing center sorts the checks presented and completes receipt/payment clearing of each clearing unit through the check clearing system. The physical checks and an electronic file thereon are then returned to the drawer banks. For dishonored checks, the clearing units transfer related data to the dishonored check clearing system through networks. After the system carries out clearing of dishonored checks, the check presenting banks take back the physical dishonored checks and an electronic file thereon.

The ACH service platform of TCH offers ACH (batch) and eACH transaction services. The ACH (batch) system periodically sorts and clears the debit and credit transactions presented by the participants, and periodically replies the transaction results. Also, all participants will take back the transaction data periodically. The eACH system instantly sorts the debit and credit transactions presented by the participants, transmits the transactions to the participants for processing and then replies the (transaction) result in real time.

**IV. Principle-by-Principle Summary Narrative Disclosure**

<b>Principle-by-Principle Summary Narrative Disclosure</b>	
<b>Principle 1: Legal basis</b>	
<i>An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions</i>	
Summary Narrative	<p>TCH has established business rules, standard operating procedures, file format, forms, basic facilities, fee standards and incident handling procedures for its check clearing system, and procedurally there are advisory committee discussion, board of directors review and CBC consent in place for TCH policies. The system's rights and obligations with regard to the regulator, participants and participants' customers are clearly defined and posted on TCH website for public inquiry. The legal basis for TCH's check clearing system can be regarded as well-founded, transparent and enforceable.</p> <p>The net clearing balance processed and completed by the check clearing system is deemed enforceable and non-cancellable. Article 40 of <i>Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement</i> also stipulates the non-cancellable nature of interbank funds transfer transactions.</p>

## **Principle 2: Governance**

***An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders***

Summary

Narrative

The Foundation is established pursuant to the *Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks*. For the operation of the check clearing and dishonored check clearing systems, the Foundation set up TCH with the objective of enhancing system security and efficiency.

The Foundation's Board of Directors has seven directors and three supervisors, and has the authority to make decision on, supervise and guide TCH activities. The business rules, organizational structure and duties and responsibilities of TCH business units require the approval of the Board, according to which businesses are conducted through internal authorization and delegation of responsibility.

In consideration of the opinions and interests of participants and relevant stakeholders, an advisory committee made up of TCH and participants is established with the tasks of discussing and formulating business rules, operating systems or important matters of TCH to ensure policy stability and feasibility. All policies decided by the advisory committee are submitted to the Board of Directors for review and then to CBC for consent before it is implemented. TCH also makes its business rules or other material events known to the public through notice, press release or website.

TCH has established risk management mechanism and internal control mechanism with control measures in place to ensure successful operations and readiness for contingencies or disasters and to reduce damages caused by unforeseen risks to the minimum. Preventive, detection and recovery measures are also in place to address in particular cyber attack. In addition, to improve risk management, TCH has obtained certification for ISO 27001 (information security management system) and BS 10012 (personal information management system) since 2007 and 2013 respectively to enhance the security and efficiency of the payment system.

**Principle 3: Framework for the comprehensive management of risks**

*An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks*

Summary Narrative	<p>TCH has established comprehensive risk management policies, operating procedures and systems to manage its legal, credit, liquidity and operational risks. TCH also reviews its procedures and rules every year, and if necessary, makes revision following discussion by the advisory committee or review by the Board of Directors. Important rules and regulations or their revisions also require the consent of CBC as described below:</p> <ol style="list-style-type: none"><li>1. Legal risk: TCH has legal basis at the supervision level and operating rules and procedures in place at the implementation level. TCH business rules require clearing units to observe check clearing rules and provide that serious violation of the rules that may affect the check clearing operations are subject to warning, imposition of fines, suspension of check clearing privilege and revocation of clearing unit qualification.</li><li>2. Credit and liquidity risks: Every participating clearing unit is required to pay NT\$100,000 clearing bond. In addition, a NT\$500 million check clearing and settlement guarantee fund is set up to ensure that checks are cleared and settled by the end of the day without disruption.</li><li>3. Operational risk: TCH has drawn up operations manuals and procedures, has signed maintenance contracts with suppliers of information technology (IT) systems, conducts regular on-site and off-site backup drills in line with international standards for business continuity, and maintains ISO 27001 and BS 10012 certification.</li></ol>
----------------------	---

**Principle 4: Credit risk**

*An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and*

*their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.*

<p>Summary Narrative</p>	<p>TCH has established a comprehensive framework to manage its credit exposures to participants and those arising from payment, clearing, and settlement processes.</p> <p>TCH has identified that its systemic credit risk arises from check clearing participants and established a settlement guarantee fund as readily accessible financial resources. TCH also has a robust monitoring procedure in place to monitor daily the deduction and payment of net settlement amount of each participant, and makes proper use of loss sharing mechanism as a risk management tool. TCH is highly confident that it is able to cover the current exposure and potential future exposures to all participants.</p> <p>TCH has set up rules and procedures to properly address all possible credit losses in case of participant default. TCH has also spelled out clearly the allocation of credit losses and financial resources that may be used to cover credit losses so that TCH may safely continue its operation during a stress event.</p>
------------------------------	---

**Principle 5: Collateral**

*An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.*

<p>Summary Narrative</p>	<p>To ensure that checks are cleared and settled every day without disruption, TCH and participants have contributed in total NT\$500 million for the setup of a settlement guarantee fund pursuant to Article 3 of <i>Directions for Check Clearing and Settlement Risk Control Mechanism</i> to cover participant default.</p> <p>The settlement guarantee fund is a readily accessible bank deposit, which can be taken as a collateral with low credit, liquidity and market risks.</p> <p>The settlement guarantee fund is deposited at the Bank of Taiwan in the name</p>
------------------------------	---

	<p>of TCH. In case of a default, the guarantee fund is used as a collateral to obtain overdraft from the Bank of Taiwan, which is transferred into the reserve account of clearing unit who is unable to pay its net payable to complete the check settlement. If the default amount is greater than the balance of the settlement guarantee fund, the excess portion will be shared equally by the top 5 clearing units which have the highest net receivable amount of the day. The TCH Auditing Department includes the settlement guarantee fund in its monthly assets audit. Thus TCH has an operationally flexible collateral management system.</p>
--	--

**Principle 6: Margin**

*A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.*

Summary	No assessments required. This principle is not part of PS assessment.
Narrative	

**Principle 7: Liquidity risk**

*An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.*

Summary	<p>To effectively measure, monitor and manage liquidity risk, TCH and participants jointly contribute NT\$500 million for the setup of a settlement guarantee fund pursuant to the TCH <i>Directions for Check Clearing and Settlement Risk Control Mechanism</i>, which provides liquid resources when needed. Balance of the settlement fund is examined and evaluated every year to maintain the adequacy of liquid resources during operations so as to ensure that intraday settlement of payment obligations is concluded without disruption under the stress testing and scenario analysis of participant default.</p> <p>TCH has a sound framework for managing liquidity risk. In order to complete the settlement, and to identify, measure, and monitor settlement and funding flows on an ongoing and timely basis, TCH has prescribed clear rules and operating procedures, evaluates and adjusts the size and</p>
Narrative	

	<p>combination of its liquid resources so that it possesses sufficient liquid resources to cover its funding gap arising from liquidity risk exposure. Both TCH and participants have access to transparent information to understand and manage liquidity risk. If the default amount is greater than the balance of the settlement guarantee fund, the excess portion will be advanced in equal proportions by the top 5 clearing units of the day by net receivable amount. The advances are transferred into the TCH Check Clearing and Settlement Account to complete check settlement for the day.</p>
--	--

**Principle 8: Settlement finality**

*An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.*

<p>Summary Narrative</p>	<p>To ensure the successful completion of the day's check and dishonored check clearing and settlement, TCH carries out settlement in accordance with Article 18 of <i>Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks</i>, Articles 26, 27 and 63 of <i>Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement</i>, and Articles 6 and 10 of <i>Taiwan Clearing House Rules for Participation in Checking Clearing</i>, and specifies clearly certain time of the day for final settlement, which will not be delayed into the next business day.</p> <p>TCH clearly defines the cutoff time for check clearing and settlement. Past the cutoff time, participants may not cancel unsettled payment transaction or transfer instruction or other obligations.</p> <p>The final settlement procedure and timeline are clearly defined in the relevant regulations of CBC and TCH, and participants will be notified of addition or change of those regulations.</p>
------------------------------	---

**Principle 9: Money settlements**

*An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.*

<p>Summary</p>	<p>The TCH clearing and settlement system accepts NTD checks only. The net</p>
----------------	--

Narrative	<p>clearing balances of "regional clearing and central settlement areas" are settled through the CBC bank deposit accounts; for "manual clearing areas", Bank of Taiwan under the designation of CBC carries out settlement. Bank of Taiwan is a state-owned bank and handles businesses on behalf of the treasuries. It poses very low credit and liquidity risks to the assets it settles.</p> <p>The settlement timeline for net clearing balances is set up according to the CBC <i>Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks and Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement</i>, according to which the receipt and payment of net clearing balance for the day are completed during business hours. If necessary, participants can also choose realtime fund transfer to better control their credit and liquidity risks.</p>
<p><b>Principle 10: Physical delivery</b></p> <p><i>An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.</i></p>	
Summary	No assessments required. This principle is not part of PS assessment.
Narrative	
<p><b>Principle 11: Central securities depositories</b></p> <p><i>A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.</i></p>	
Summary	No assessments required. This principle is not part of PS assessment.
Narrative	
<p><b>Principle 12: Exchange-of-value securities systems</b></p> <p><i>If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.</i></p>	
Summary	TCH belongs to the CBC payment and settlement system. TCH's clearing and settlement system is connected with the CIFS, and processes mainly clearing of checks and dishonored checks and settlement of receivable or
Narrative	



	<p>payable among participants. TCH adopts the operating mode of regional clearing and centralized settlement, by which Taipei Head Office sends the net clearing balances of the clearing centers to the CBC for final settlement. The system participants use NTD as clearing assets. It does not involve settlement of two linked obligations like a securities or foreign exchange transaction, and its final settlement is not conditional upon the final settlement of another obligation. Thus the TCH system does not incur principal risk associated with the settlement of two linked obligations.</p> <p>The check clearing and settlement system carries out clearing and settlement operations at a certain time every day after calculating the net clearing balance of each participant that does not involve the settlement of two linked obligations. Thus this principle is not applicable.</p>
--	--

**Principle 13: Participant-default rules and procedures**

*An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.*

<p>Summary Narrative</p>	<p>TCH has prescribed well-defined rules and procedures to manage participant defaults. When a participant default occurs, TCH can continue to meet its obligations and replenish its resources after a default event.</p> <p>TCH is well prepared to implement its default rules and procedures, has established appropriate discretionary procedures in its operational guidelines, and has publicly disclosed key aspects of its default rules and procedures on its website under Rules and Other Services.</p>
------------------------------	---

**Principle 14: Segregation and portability**

*A CCP should have rules and procedures that enable the segregation and portability of positions of a participant’s customers and the collateral provided to the CCP with respect to those positions.*

<p>Summary Narrative</p>	<p>No assessments required. This principle is not part of PS assessment.</p>
------------------------------	--

**Principle 15: General business risk**

*An FMI should identify, monitor, and manage its general business risk and hold sufficient*

<p><i>liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.</i></p>	
<p>Summary Narrative</p>	<p>The purpose and objective of TCH are to process check clearing and payment settlement among financial institutions and provide related services. TCH has established a business continuing plan and conducts drills regularly to ensure the successful conclusion of daily clearing and settlement operation and maintain the stability of the financial system.</p> <p>TCH is financially stable and holds liquid assets equivalent to at least six months of current operating expenses. TCH also uses accounting statements to analyze anticipated income and expenses and formulates response strategies to maintain stable income.</p>
<p><b>Principle 16: Custody and investment risks</b></p> <p><i>An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.</i></p>	
<p>Summary Narrative</p>	<p>Pursuant to Article 5 of <i>Taiwan Clearing House Rules for Participation in Checking Clearing</i>, the clearing bonds paid by participants are deposited at CBC, a CBC correspondent bank or other state-owned banks to ensure that those assets are fully protected. The bonds are not used in other investment activities.</p> <p>The settlement guarantee fund is deposited at the Bank of Taiwan in the name of TCH. Bank of Taiwan is a state-owned bank with sound accounting practices, custody procedures and internal control systems and handles businesses on behalf of the treasuries. It is well capable of protecting this asset. In addition, TCH does not participate in sharing of loss according to its settlement risk control mechanism.</p> <p>The assets of the Foundation are utilized in accordance with the CBC-approved <i>Directions for Utilization of Funds of Taiwan Payments Clearing System Development Foundation</i>, which provides detailed and rigorous provisions regarding investment targets, criteria for selection of</p>

	<p>investment instruments, investment limits and implementation procedures. The Foundation also constantly inspects its investment portfolios, and if any investment is deemed to pose a threat to the safety of the Foundation's funds following assessment, the matter will be promptly reported to the CEO and the investment is liquidated with approval of the chairman. Thus TCH's investments have minimal credit, market, and liquidity risks.</p>
--	--

**Principle 17: Operational risk**

*An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.*

<p>Summary Narrative</p>	<p>Since TCH becomes ISO 27001 certified in 2007, TCH has established relevant information security documents in compliance with the ISO 27001 standards to clearly define the structure of information security organization, and standard procedures for personnel security, risk management, event management, internal audit and business continuity management as guidelines for information security management.</p> <p>The TCH Information Security Steering Committee has (1) a risk management team that conducts information assets risk assessment and management once every six months or as needed; and (2) an audit team that conducts regular internal and external audits to examine whether the operating procedures of the system are implemented according to rules, and reviews relevant system documents and computer operation manuals in a timely manner to ensure compliance with applicable rules, regulations, and operational practices.</p> <p>TCH has taken anticipated increase in transaction volume into consideration at the initial phase of system planning and design. Personnel are assigned to record transaction volume, monitor system usage, and hold discussion meetings with vendors to effectively grasp the system resources and availability of mainframe equipment.</p>
------------------------------	--

	<p>TCH has established business continuity management procedures to ensure the continuing operations of important businesses and information systems in case of a major disaster, sabotage or equipment breakdown and to eliminate all kinds of scenarios that may disrupt operations. Personnel and operational testing and on-site and off-site backup drills for check clearing and dishonored check clearing systems are conducted monthly or quarterly with advanced planning. But for the data recovery procedure, TCH will continue to examine and revise, and include simulated scenarios in the backup drill plan and testing.</p>
--	---

**Principle 18: Access and participation requirements**  
*An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.*

Summary	TCH has drawn up objective and publicly disclosed criteria for participation in accordance with Article 14 of <i>Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks</i> and Articles 2, 3 and 4 of <i>Taiwan Clearing House Rules for Participation in Checking Clearing</i> , which permit fair and open access. TCH has also drawn up <i>Directions for Check Clearing and Settlement Risk Control Mechanism</i> for more effective risk control. All participation rules and measures are posted on TCH website and readily available to clearing units.
Narrative	<p>TCH monitors all participants on a daily basis in accordance with Article 6 of <i>Directions for Check Clearing and Settlement Risk Control Mechanism</i>, and will promptly notify participants with payment shortfall by phone to make payment before the prescribed time. Article 11 of <i>Directions for Check Clearing and Settlement Risk Control Mechanism</i> and Article 18 of <i>Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks</i> also stipulate the suspension and orderly exit of a breaching clearing unit.</p>

**Principle 19: Tiered participation arrangement**  
*An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.*

Summary	TCH has established relevant management measures and rules that permit the
---------	--

Narrative	<p>collection of basic information of indirect participants. Credit cooperatives, farmers associations and fishermen associations are considered indirect participants for they do not have a clearing account at CBC and have not paid clearing bonds to TCH. Those indirect participants can only clear their checks through Taiwan Cooperative Bank or other clearing units. Clearing units that clear checks on behalf of others assume all clearing responsibilities of organizations that they clear checks for.</p> <p>In case a credit cooperative, farmers association or fishermen association has a risk event (including credit risk, liquidity risk and operational risk) that results in default, its clearing agent shall make advances on its behalf and recover the payment from the defaulting unit later on.</p> <p>The amount of checks presented by credit cooperatives, farmers associations and fishermen associations for clearing only represent a miniscule percentage of the amount of checks cleared by Taiwan Cooperative Bank (TCB) every day and the amount is relatively low. Even in case of a risk event that leads to default, the risk borne by TCB is still very low.</p> <p>TCH rules and operating procedures are established based on business needs after consulting the TCH advisory committee and implemented after approval by the Board of Directors and CBC. The same process applies to any amendment of those rules and procedures made necessary by changes in business or regulations.</p>
-----------	--

**Principle 20: FMI links**  
*An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.*

Summary	No assessments required. This principle is not part of PS assessment.
Narrative	

**Principle 21: Efficiency and effectiveness**  
*An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.*

Summary	TCH always takes into consideration the needs of participants before introducing a new business and holds workshops to explain the specifics of new business, its flow process, clearing procedure and timeline, settlement
Narrative	

	<p>mechanism, file transfer format and hardware equipment. TCH also formulates a business plan and submits it to CBC for approval before implementing the new business.</p> <p>By the system-defined check clearing process, participants are able to carry out the presentation, take-back, and payment of checks as well as dishonored check operation during certain time of the day and successfully complete the check clearing operation by paying the net clearing balance, if applicable, before the prescribed time.</p> <p>To provide participants with pragmatic services and make sure their needs are met, TCH holds regular advisory committee meetings to communicate with participants. TCH also incorporates ISO 27001 certification program and conducts regular backup drills as the mechanism to examine the efficiency and effectiveness of its services.</p>
--	--

**Principle 22: Communication procedures and standards**  
*An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.*

<p>Summary Narrative</p>	<p>TCH uses internationally accepted communication standards TCP/IP, adopts PKI mechanism and employs MPLS VPN to carry out communication and data exchange with participants.</p> <p>The transactions of check clearing and dishonored check clearing systems take place only between TCH and participants, for which TCH-announced file transfer format is used.</p>
------------------------------	--

**Principle 23: Disclosure of rules, key procedures, and market data**  
*An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.*

<p>Summary Narrative</p>	<p>TCH makes strenuous efforts to render its rules and procedures for check clearing and dishonored check clearing businesses comprehensive, publicly disclose those rules and procedures in Chinese, and update them on TCH website in a timely manner. TCH also holds discussion sessions and advisory</p>
------------------------------	--

	<p>committee meetings regularly and as needed to consult the views of all sectors in the formulation of business rules and clarify questions to enhance participants' understanding of relevant rules and procedures. The fee schedule for participants and discount policy are posted on TCH website.</p> <p>Updated check clearing and dishonored check clearing transaction data, system design and operations are also posted on TCH website in a timely manner.</p>
<p><b>Principle 24: Disclosure of market data by trade repositories</b></p> <p><i>A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.</i></p>	
Summary	No assessments required. This principle is not part of PS assessment.
Narrative	

## V. List of Publicly Available Information

### Legal Basis

#### Supervision

1. Article 32 of The Central Bank of China Act
2. Negotiable Instruments Act
3. Regulations Governing the Business of Negotiable Instruments Exchange and Clearance of Accounts among Banks
4. Directions for the Central Bank of the Republic of China (Taiwan) to Govern Electronic Interbank Funds Transfer and Settlement

#### Implementation

1. Taiwan Payments Clearing System Development Foundation Directions for the Establishment of Taiwan Clearing House Advisory Committee
2. Taiwan Clearing House Rules for Participation in Checking Clearing
3. Taiwan Clearing House Check Clearing Procedure
4. Taiwan Clearing House Directions for Collection of Bills for Financial Institutions
5. Taiwan Clearing House Directions for Media Exchange and Automated Clearing House Operations
6. Taiwan Clearing House Operating Procedures for Media Exchange and Automated Clearing House Operations

7. Taiwan Clearing House Operational Rules for Media Exchange and Automated Clearing House Operations
8. Taiwan Clearing House Directions for Financial Collection System
9. Directions for Check Clearing and Settlement Risk Control Mechanism
10. Taiwan Clearing House Computer Operations Manual of Check Clearing
11. Taiwan Clearing House Computer Operations Manual of Dishonored Check Clearing
12. Computer Operations Manual of Media Exchange and Automated Clearing House Operations
13. Computer Operations Manual of Direct Debit Authorization
14. Taiwan Clearing House Instructions for Check Clearing and Dishonored Check Record Operation in Case of Suspension of Work in Some Areas
15. Guidelines for Case of Theft, Loss or Destruction of Batch of Checks for Clearing During Transit by Express Delivery Service
16. Guidelines for Handling Dishonored Checks

### **Publications**

Check Clearing Manual

### **Website**

<http://www.twncch.org.tw>