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財團聯合信用卡處理中心  
法人  
National Credit Card Center of R.O.C.

# ANNUAL REPORT 2017

106 年度年報





# 2017 Annual Report

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# I

## Preface

In 2017, the global economic growth raised to 3% due to the recovery of manufacturing industry. And, the Taiwan's economic performances also showed a gradual upward trend. According to release by the Directorate-General of Budget, Accounting & Statistics, Executive Yuan, ROC, Taiwan's GDP growth rate was 2.84%; private consumption expenditure increased by nearly 2.37% in 2017. For Taiwan's credit card market, as at year-end 2017, the number of credit cards in circulation reached to 41.73 million, up 7.66%; the total credit card purchase amount for 2017 hit a record high of NTD2.62 trillion, compared with the prior year. The continuing rise of these business performance indicators has been attributed to the facts of credit card chosen as first alternative payment tool besides cash by the Taiwan's consumers and credit card acceptance locations continually expanded year by year. The emerging of various innovations in payment technologies and supporting of the government in pushing ahead with electronic payments have also fueled to the stable growth of Taiwan's credit card market.

In accordance with the plan of "Double the PCE Percentage of Electronic Payments in 5 Years" set up by the government, NCCC has been promoting "Credit Card Payment Platform for Public Agency Fee" allowing the general public to pay by credit card over the counters at public agencies or online. By the year end of 2017, the number of participating public agencies totaled 922 and the total credit card purchase amount for the platform reached to 6,670 million. In addition, NCCC initiated a development project of "Credit Card Payment App for Public Hospital Fee" to enhance the payment services in domestic medical industry. To develop FinTech related businesses and to coordinate with the regulatory authority's policy of promoting international mobile payment businesses in Taiwan (e.g.: Apple Pay, Samsung Pay, Android Pay, etc.), NCCC, in 2017, completed establishment of domestic and foreign TSP systems switching mechanism and planned to establish Token Vault in view of acting as a token service provider to NCCC card issuing members, enhancing transaction security, integrating resources, eliminating repetitive investment costs and enhancing the whole industry's benefits. Meanwhile, NCCC planned to promote local payment card brand

as well. Additionally, NCCC supported card issuing members to make Apple Pay available successfully in March 2017 and will keep supporting these members to interface with other mobile payment services (e.g.: Samsung Pay, Android Pay, etc.).

Furthermore, NCCC provided a Card-on-file service “Üny”, to eliminate the risk of account information compromised and enable cardholders to experience better payment service. In Electronic Stored Value Card Transaction, NCCC has obtained approval from the Financial Supervisory Commission since 2016 to engage in Electronic Stored Value Card Transaction Operation Platform service providing of ESV acquiring business expanding and terminal equipment sharing with ESV card issuers such as iPASS and EasyCard, which produce significant beneficial result for Taiwan's payment industry development.

Moreover, NCCC has been promoting Credit Card Big Data Platform with outstanding performance achieved in Open Data, opened the credit card purchase transaction data of 6 major industries and 6 metropolitan cities as well as 16 counties in Taiwan, published 5 research papers regarding Taiwan credit cardholders' consumption patterns on the NCCC's website. Overall NCCC has come out credit card data sets and 7 papers during the past two years; whilst with free access to generic public creates a foundation for academic research, economic development and government' s policy. First issue of “Credit Card Big Data Platform- Case Study and Statistic Abstract” was published and released to public sectors, banks, and libraries.

Looking ahead in 2018, NCCC shall continue promoting digital financial technology related businesses of virtual and physical payment integration, electronic wallet, cloud-based application of mobile payment, credit card big data platform, and so on, introducing innovations to credit card and committing itself to creating more various and convenient credit card payment applications for Taiwan's consumers. Also, to meet the society's needs and to fulfill corporate social responsibilities, NCCC shall continue to support concern-for-society activities and government policy promoting programs.

National Credit Card Center  
Chairman

*Teng Cheng Liu*







# II

## Introduction to National Credit Card Center

### 1.Introduction


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The Center was first established as “National Debit Card Center” in 1983. In 1988, responding to the trend of financial liberalization and internationalization, the Ministry of Finance amended the “Regulations Governing Banks Conducting National Debit Card Business” and approved the issuance of credit card. Thus, the “National Debit Card” was transformed into “National Credit Card” ; the Center’ s name was changed to “National Credit Card Center” .

NCCC is a non-profit public interest entity and serves as a credit card domestic settlement and authorization switching center in accordance with the government policy. Also, NCCC establishes membership system that provides card issuing member institutions with centralized processing services including international credit card brand licensing and sponsorship, shared information system, as well as merchant network setup. With aim to promote the payment card industry development and to arrive at the goal of non-cash society in Taiwan, NCCC also strives to push forward innovative businesses for the payment card industry.

## 2.History

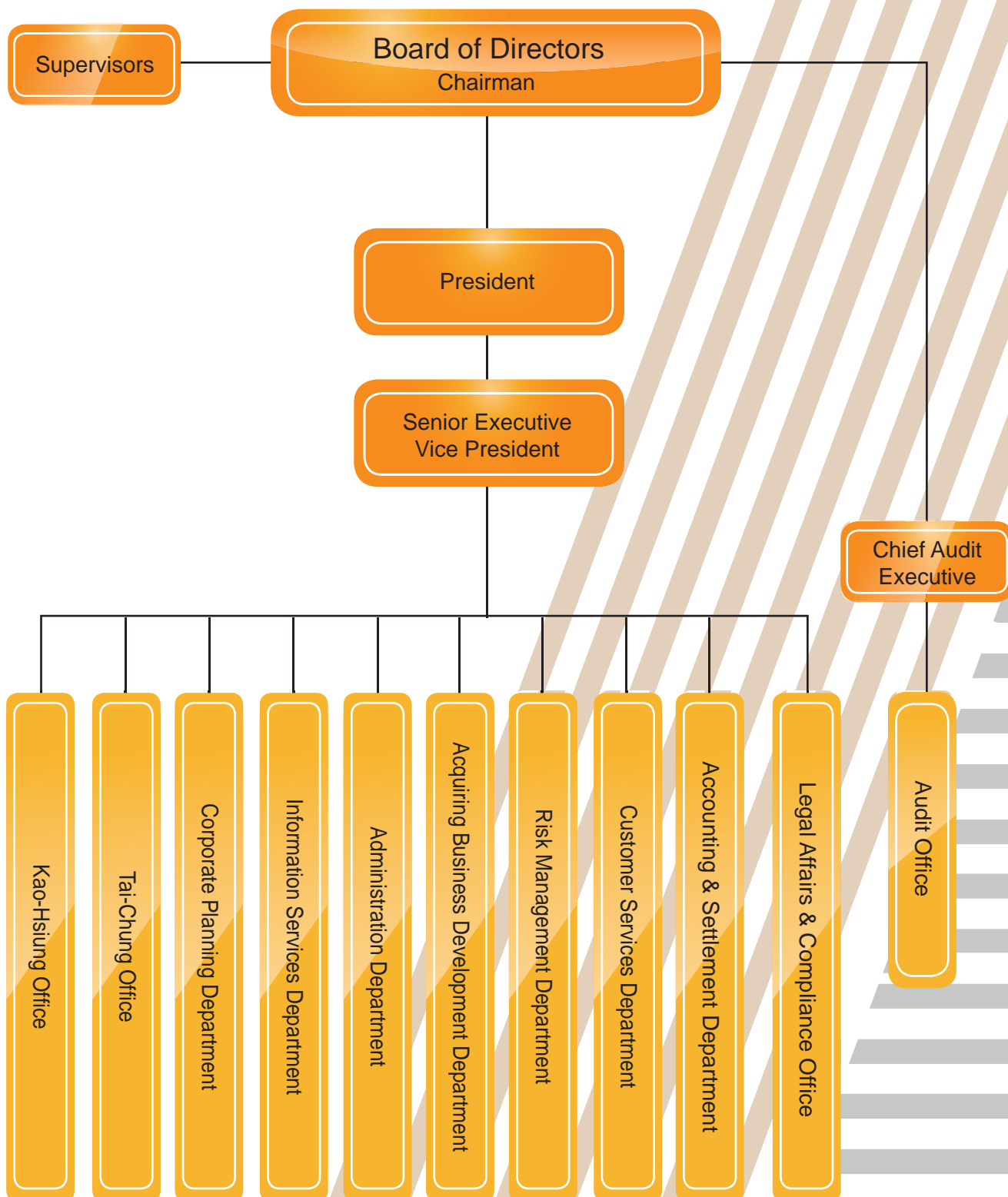
- 1979 ▼ The Council for Economic Planning and Development, Executive Yuan, approved a “Proposal for Issuance of National Debit Card” in May 1979 and planned establishment of “National Debit Card Center” jointly formed by banks and investment & trust companies. And the Ministry of Finance called a meeting gathering the financial institutions to discuss the operating guidelines for National Debit Card.
- 1981 ▼ The Ministry of Finance promulgated the “Regulations Governing Banks Conducting National Debit Card Business”, adopted policy of “one person one card /deposit first/ consumption afterwards”, and called a meeting gathering 24 financial institutions including Central Trust of China to research into the debit card business.
- 1983 ▼ The National Debit Card Center was established and the domestic financial institutions started conducting debit card issuing business. The Center was engaged in handling centralized settlement processing and was committed to operate debit card acquiring business.
- 1988 ▼ Responding to the trend of financial liberalization and internationalization and to enhance the consumer convenience, the Ministry of Finance promulgated eliminating the limit of “one person one card”, adding to the function of revolving credit, and approved the issuance of “credit card”. Concurrently, the Center’s name was changed to “National Credit Card Center”.
- 1989 ▼ NCCC cooperating with Visa International introduced Visa Credit Card, and concurrently launched international credit card domestic settlement business.
- 1989 ▼ NCCC set up the Kaohsiung Branch Office in December 1989 as the credit card market continued expanding.
- 1991 ▼ NCCC partnered with MasterCard International and commenced MasterCard Credit Card issuing business as the credit card business continued growing.
- 1993 ▼ NCCC set up the Taichung Branch Office in July 1993 to meet business expansion need in the central area of Taiwan.
- 1994 ▼ NCCC partnered with JCB International and introduced JCB Credit Card, providing another payment card choice for the general public in Taiwan. The Taiwan’s credit card market has been vigorously growing since then.
- 1996 ▼ The credit card acquiring market was opened; NCCC member banks were allowed to conduct acquiring business themselves. Also, NCCC accepted the member banks’ outsourcing of acquiring business.
- 1997 ▼ 1997NCCC cooperated with Visa International in establishing the first Internet credit card transaction environment in Chinese version in the world and setting up a “National Credit Card Center Worldwide Information Website” delivering the latest professional global payment card business knowledge.
- 2000 ▼ NCCC completed self-built credit card domestic settlement processing system.
- 2002 ▼ To coordinate with the government policy, NCCC set up various operation systems including “Individual Income Tax Payment by Credit Card”, “Payments in Taipei e-services Online”, as well as “Taiwan Traveler Card Payment”.

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- 2004 ▼ To coordinate with the government policy, NCCC set up “A Common Operating Platform for Various Fee Payments in e-government Services” .
- 2007 ▼ In making utmost efforts for protecting the information security of credit cardholders and merchants, NCCC implemented strict data control measures and obtained the ISO 27001 information security certificate in 2007.
- 2009 ▼ To be in line with the government cross-strait financial business policy, NCCC, approved by the regulatory authorities in 2009, conducted China UnionPay Card (including credit card and debit card) POS payment transaction authorization, settlement, and acquiring operations in Taiwan.
- 2010 ▼ NCCC obtained approval to engage in UnionPay Credit Card ATM cash advance transaction authorization and settlement processing services in Taiwan.
- 2011 ▼ NCCC became the first institution obtaining approval to engage in UnionPay Card Online Payment acquiring business in Taiwan.
- 2012 ▼ Faced with the trend of diversified development with transaction volume increasingly growing in the payment card industry, NCCC established a new computer workstation named “Ding Pu Data Center” at Ding Pu Hi-tech Square, Tu-Cheng, to enhance the computer workstation performance efficiency and to correspond with the energy-saving principle, which project was approved by the regulatory authorities. The new computer workstation, representing a milestone of NCCC’ s corporate sustainable development, completed construction and opened in 2012.
- 2013 ▼ To comply with the Personal Data Protection law requirements and strengthen the trusted relationship with clients, NCCC established internal control system for personal data protection. And NCCC obtained BS10012 Personal Information Management System Certification from the British Standards Institution in 2013 by which NCCC abides to fully carry out the information security and personal data protection measures.
- 2014 ▼ To build up Payment Service Provider Trusted Service Manager platform (PSP TSM) and maintain a stable and secure payment system, NCCC coordinated with Financial Information Service Co. and Taiwan Clearing House in jointly establishing Taiwan Mobile Payment Company that opened a new era for mobile payment industry in Taiwan.
- 2015 ▼ The NCCC Jhubei backup computer workstation located at a separate site from main office formally began operation. In accordance with the government policy, NCCC contributed to the “Financial Technology Development Fund” for supporting innovative FinTech service research and development as well as FinTech talent cultivation program.
- 2016 ▼ To support the goal of “Double the PCE Percentage of Electronic Payments in 5 Years” set by the regulatory authorities and to respond to the FinTech development trend of integrating virtual and physical applications, NCCC established “Credit Card Payment Platform for Public Agency Fee” , created Credit Card Big Data platform and committed to promoting mobile payment and Internet payment businesses.
- 2017 ▼ To support the goal of “Double the PCE Percentage of Electronic Payments in 5 Years” , NCCC expanded application scopes of “Credit Card Payment Platform for Public Agency Fee” acceptance channels to public hospital’ s medical service, provided the "Electronic Stored Value Card Transaction Operation Platform" service and optimized payment card acceptance environment, extended the small amount payment platform channels to McDonald's and KFC, and completed establishment of domestic and foreign TSP systems switching mechanism.



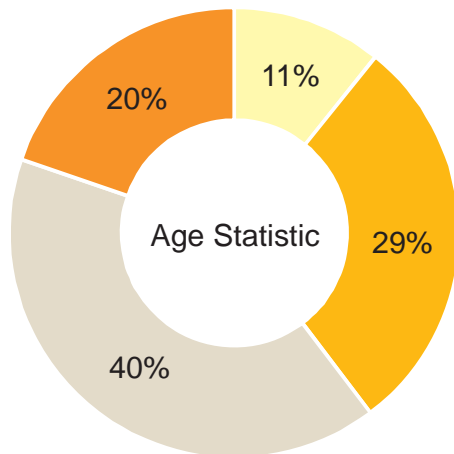
### 3.Organization Structure

#### A.Organization Chart

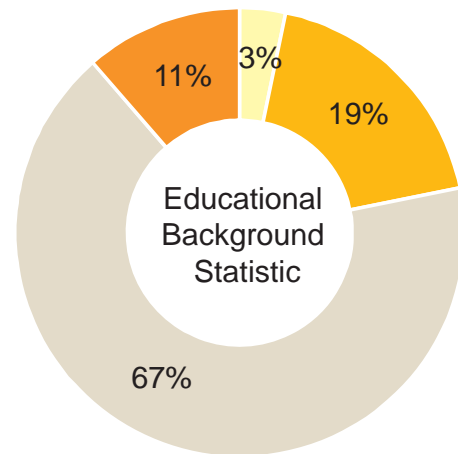


## B. Employees

▼ Age Statistic



▼ Educational Background Statistic



Age Statistic	Total Amount	%
20-29	36	11
30-39	97	29
40-49	136	40
50+	66	20

No. of Staff	335
Average age	42.26
Average years of service	14.85

Educational Background Statistic	Total Amount	%
High School	11	3
Junior College	62	19
Bachelor's degree	224	67
Master's degree	38	11

## C.The Executives of NCCC (at Year-end 2017)

Title	Name
President	Mr. Tong Liang Lin
Senior Executive Vice President	Mr. Hanover H.H. Chu
Senior Executive Vice President	Mr. Eric Hwang
Chief Audit Executive Audit Office	Mr. Charles Chiu
Executive Vice President Corporate Planning Dept.	Mr. Te-Ho Chen
Executive Vice President Accounting & Settlement Dept.	Ms. Carolyn Yao
Executive Vice President Customer Services Dept.	Mr. Kavin Lin
Executive Vice President Information Services Dept.	Ms. Christina Wang
Executive Vice President Administration Dept.	Ms. Carolyn Liu
Executive Vice President Risk Management Dept.	Mr. Leo Y. Lee
Acting Executive Vice President Acquiring Business Development Dept.	Mr. Change Tsai
Compliance Officer Legal Affairs & Compliance Office	Ms. Angela Hsu
Branch Chief Kao-Hsiung Office	Mr. Shang-Chin Huang
Branch Chief Tai-Chung Office	Mr. James Hsu

#### 4.Directors / Supervisors (at Year-end 2017)



Group photo of the 12<sup>th</sup> Board of Directors & Supervisors

Title	Name
Chairman	Teng-Cheng Liu
Director	Rong-Jou Wang
Director	Thomas T.L. Wu
Director	Wei-Cheng Lee (Alan Lee)
Director	C-F Lin
Director	Tong Liang Lin
Director	Huey-Jiun Lin
Director	Chao-Shun Chang
Director	Hsiang Yin Chen
Director	Thomas Chen
Director	Eric Chen
Director	Gary K.L. Tseng
Supervisor	Li-Yeh Yang
Supervisor	C. W. Yang
Supervisor	Frank Hsu



# III



## Business Operations & Operating Results

### 1. Credit Card Authorization Switching and Settlement Operation

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#### A. Credit Card Authorization Switching Center Operation

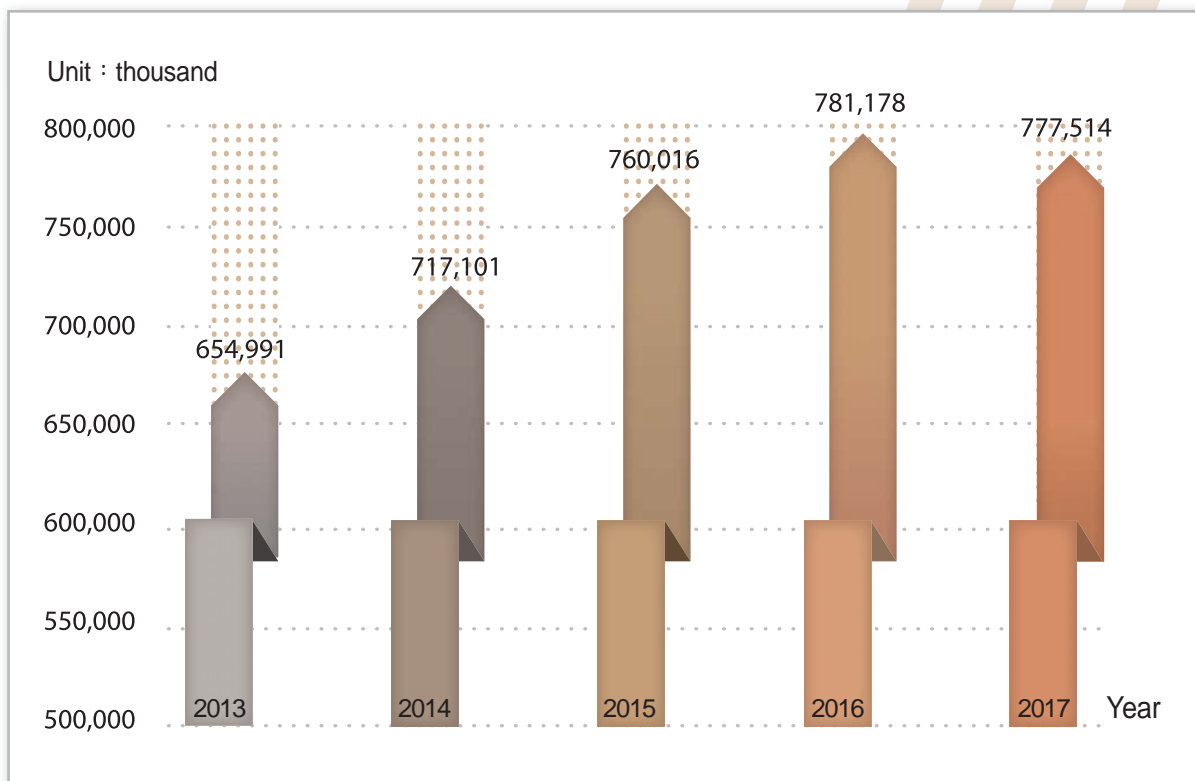
In response to request from the Ministry of Finance for integrating and establishing a credit card domestic authorization network, NCCC and Financial Information Service Co. jointly completed system link and set up a “hub of credit card authorization system link” in 2002. All the domestic credit card issuing and acquiring institutions may choose to link with either NCCC or FISC to switch and complete the transactions through the hub of authorization system link. By doing so, we have achieved the government’s policy goal of “Taiwan-issued international credit cards complete transaction authorization processing inside of the country when used in Taiwan”. Meanwhile, for the transactions made outside of Taiwan by NCCC member-issued credit cards and the transactions made inside of Taiwan by foreign-issued credit cards acquired by NCCC members, NCCC acts on behalf of members to switch the authorization messages through connecting with the interface of the international credit card associations.

#### 《Business Scope》

- (1) To handle inter-bank credit card authorization switching transactions through the hub of authorization system link for Taiwan-issued credit cards (including magnetic-stripe card and chip card) that are used at domestic merchants (including brick-and-mortar, electronic commerce, mail order and TV order) and which transactions are processed via reading magnetic stripe, chip, or by RFID reader, or by manual operation.
- (2) To process authorization switching for transactions made at merchants in foreign country by Taiwan-issued credit cards and transactions made at merchants in Taiwan by foreign-issued credit cards.

### 《Operating Results in 2017》

Number of Transactions: NCCC handled 777,514 thousand authorization switching transactions in 2017, decreasing 0.47% compared to 781,178 thousand in 2016.



### B.Domestic Credit Card Interchange & Settlement

NCCC, by obtaining the regulatory authorities' approval, engages in processing domestic credit card interchange & settlement operations, that is to handle the non-on-us transactions acquired by all acquiring institutions, to consolidate and generate the settlement sum, to process settlement funds collecting and sending through "Central Bank of the Republic of China (Taiwan) Interbank Funds Transfer System". The business aims are as follows:

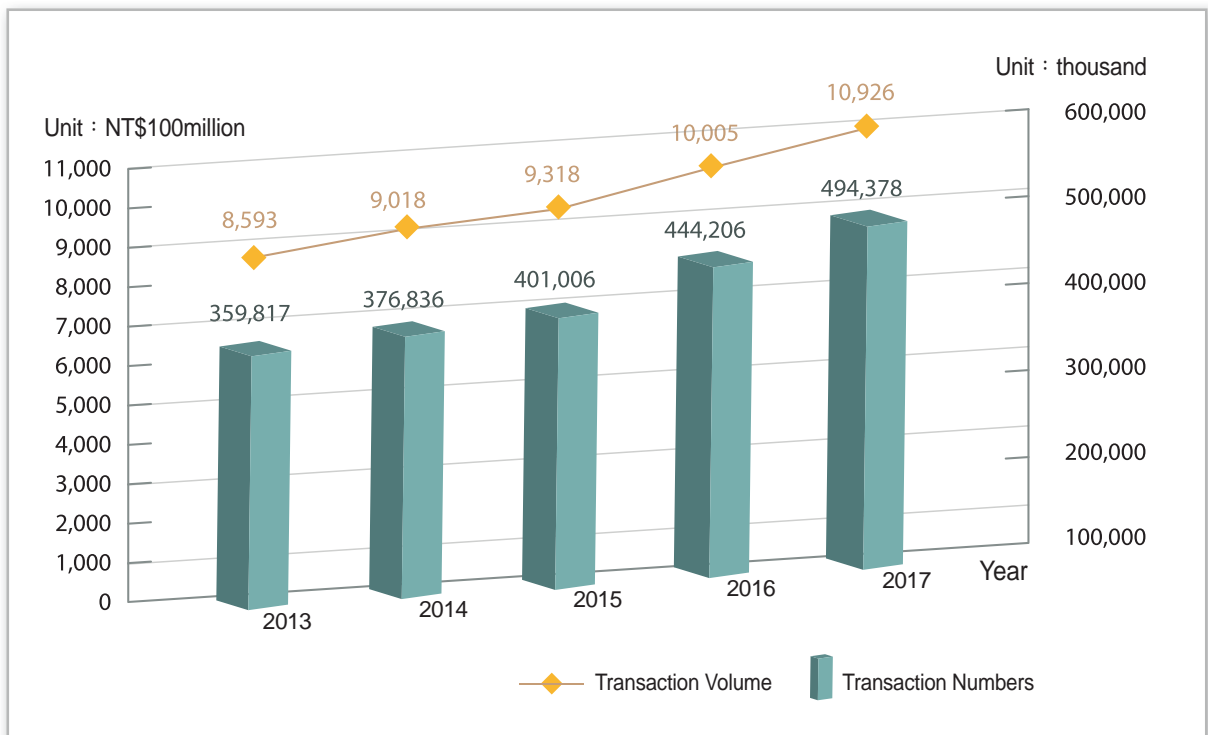
- (1) To develop domestic credit card interchange & settlement operating regulations in accordance with the government policy.
- (2) To handle domestic credit card inter-bank settlement so as to enhance transaction data security.
- (3) To carry out the policy of "domestic transaction to be settled inside of the country" so as to increase operating efficiency.

### 《Business Scope》

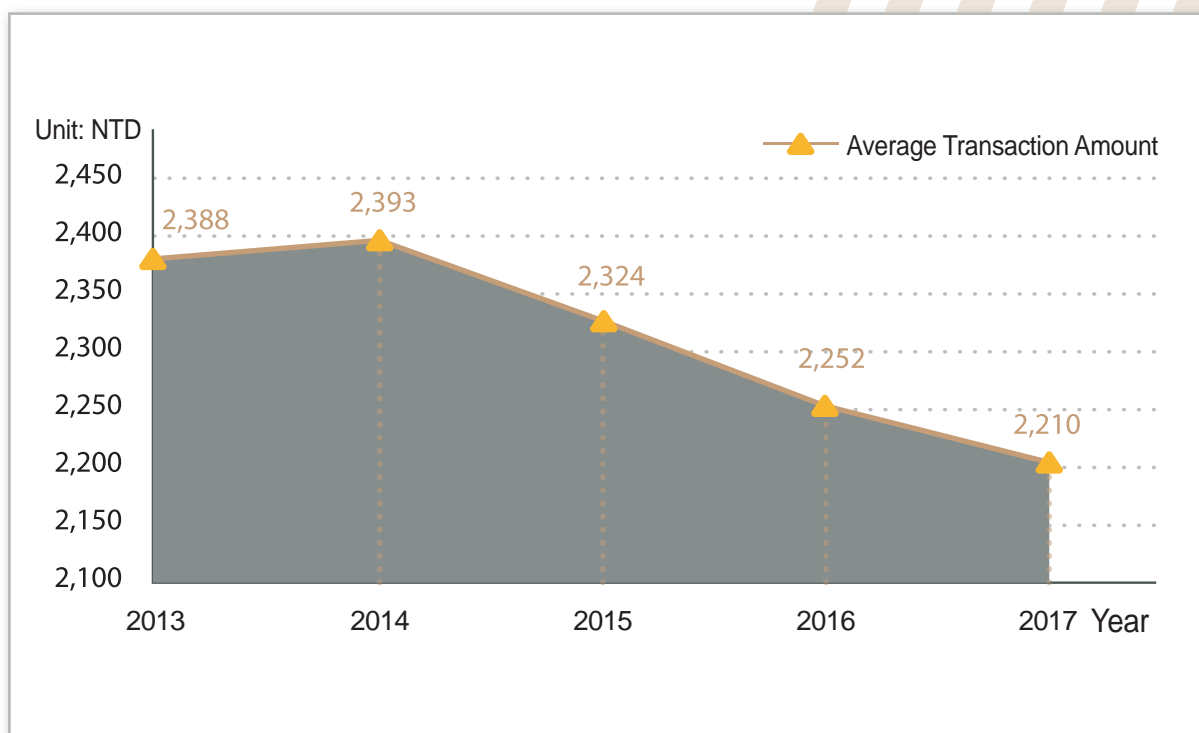
Domestic Interchange & Settlement processing includes credit card and debit card of U Card, VISA, MasterCard and JCB issued in Taiwan. The number of participating institutions totaled 39.

## 《Operating Results in 2017》

- (1) Transaction Volume: The domestic settlement summed to NT\$1,092,600 million in 2017, up 9.21% compared to NT\$1,000,500 million in 2016.
- (2) Transaction Numbers : The number of domestic settlement transactions totaled 494,378 thousand in 2017, up 11.29% compared to 444,206 thousand in 2016.



Growth rate of number of transaction is higher than growth rate of transaction volume. Average transaction amount shows a progressive decrease from 2014, which is shown below. Considering possible reasons may lead to the roll-out of mobile payments, such as Apple Pay, Samsung Pay, and Android Pay, with the characteristics of higher frequency and lower purchase value.



### C. Domestic and International Transaction Settlement for NCCC Member-issued Credit Cards

NCCC is established as a member organization. To help members reduce operating costs, NCCC consolidates domestic and international transactions made by NCCC member-issued credit cards and handles settlement operation for the members. The operation effectiveness can be summarized as follows:

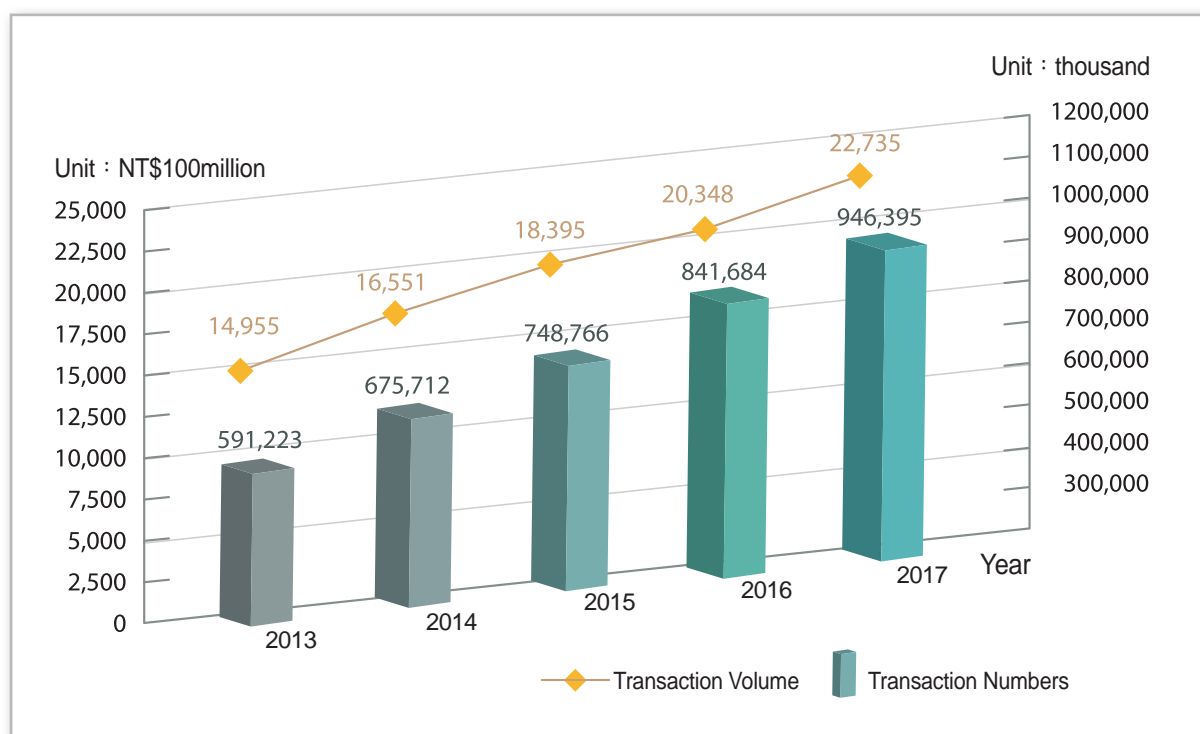
- (1) To coordinate setting up a settlement system linking with the international credit card associations and processing transaction settlement for members.
- (2) To provide centralized transaction processing service so as to reduce members' operating cost and improve operating efficiency.
- (3) To periodically provide business statistic data for members' reference in policy making.

#### 《Business Scope》

The NCCC member-issued cards include credit card and debit card of U Card, VISA, MasterCard and JCB. The number of participating institutions totaled 27.

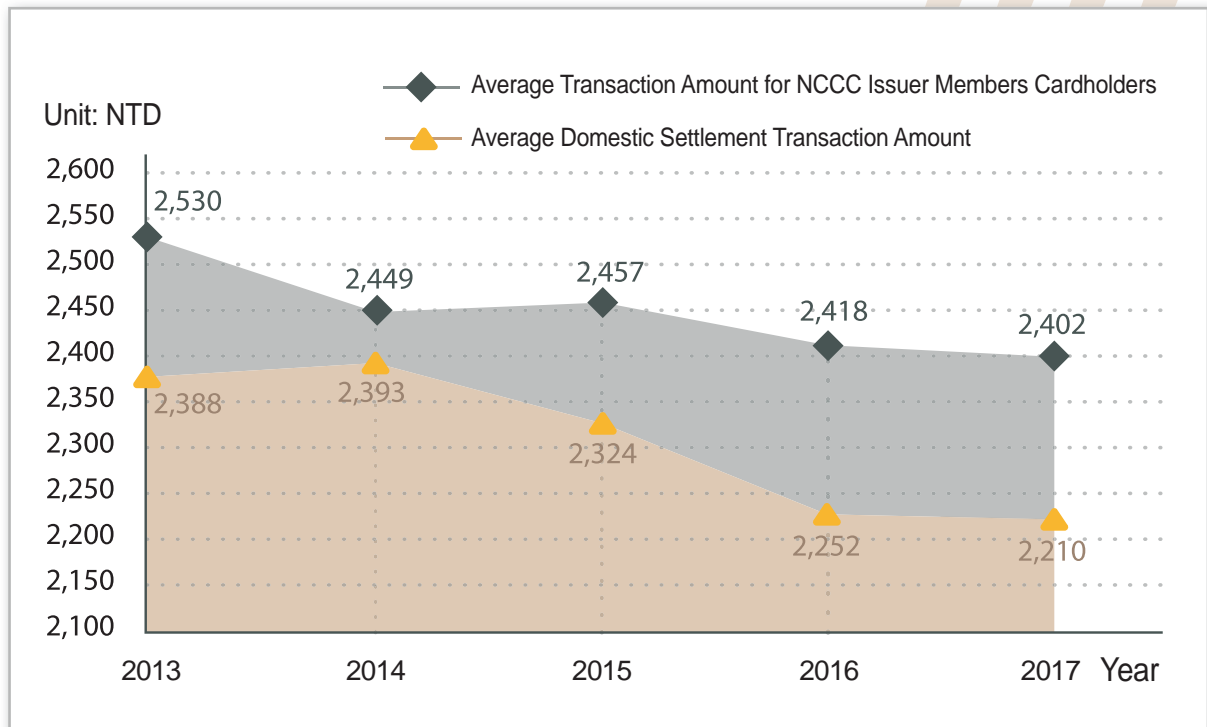
#### 《Operating Results in 2017》

- (1) Transaction Volume: The total transaction amount was NT\$2,273,500 million in 2017, up 11.73% compared to NT\$2,034,800 million in 2016.
- (2) Transaction Numbers : The total number of transactions totaled 946,395 thousand in 2017, up 12.44% compared to 841,684 thousand in 2016.





Average transaction amount for NCCC issuer members' cardholders and average domestic settlement transaction amount both show decreasing trends, which are shown below:



## 2.Acquiring Operation

The acquiring operation related services include not only payment card transaction settlement for the merchants, but merchant recruitment, merchant credit evaluation, as well as card acceptance equipment installment, and so on.

When cardholders make transactions at NCCC merchants, NCCC acquires the sales receipts with transaction details, sends payment to merchants after deducting handling charge, and processes payment with each corresponding card issuing bank.

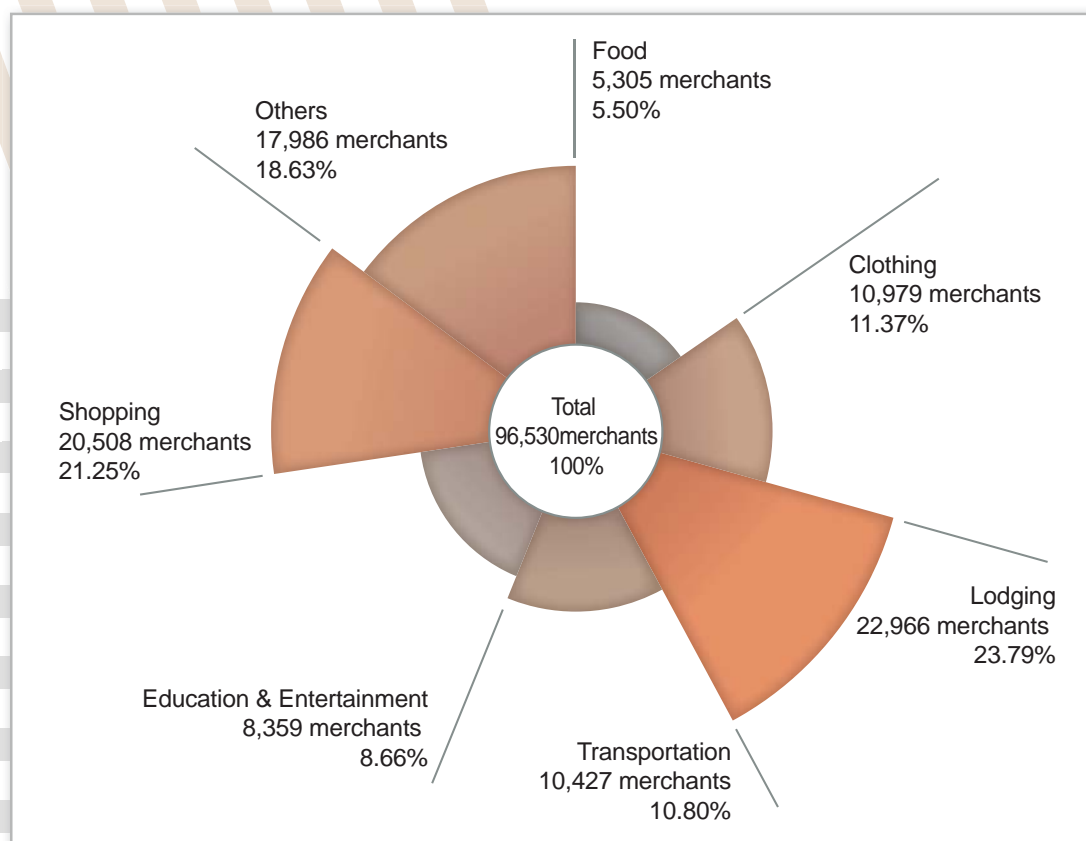
### 《Business Scope》

The NCCC acquiring operation includes credit card and debit card transactions of U Card, VISA, MasterCard, JCB, UnionPay and TaiwanPay twallet+. NCCC has also accepted acquiring service outsourcing from American Express International (Taiwan), Inc. to conduct certain acquiring operation services for American Express Card on behalf of Amex in Taiwan. In addition, NCCC has entered into an agreement with the Citibank Taiwan Ltd. for Diners Club Card to share NCCC' s EDC terminal equipment.

### 《Operating Results in 2017》

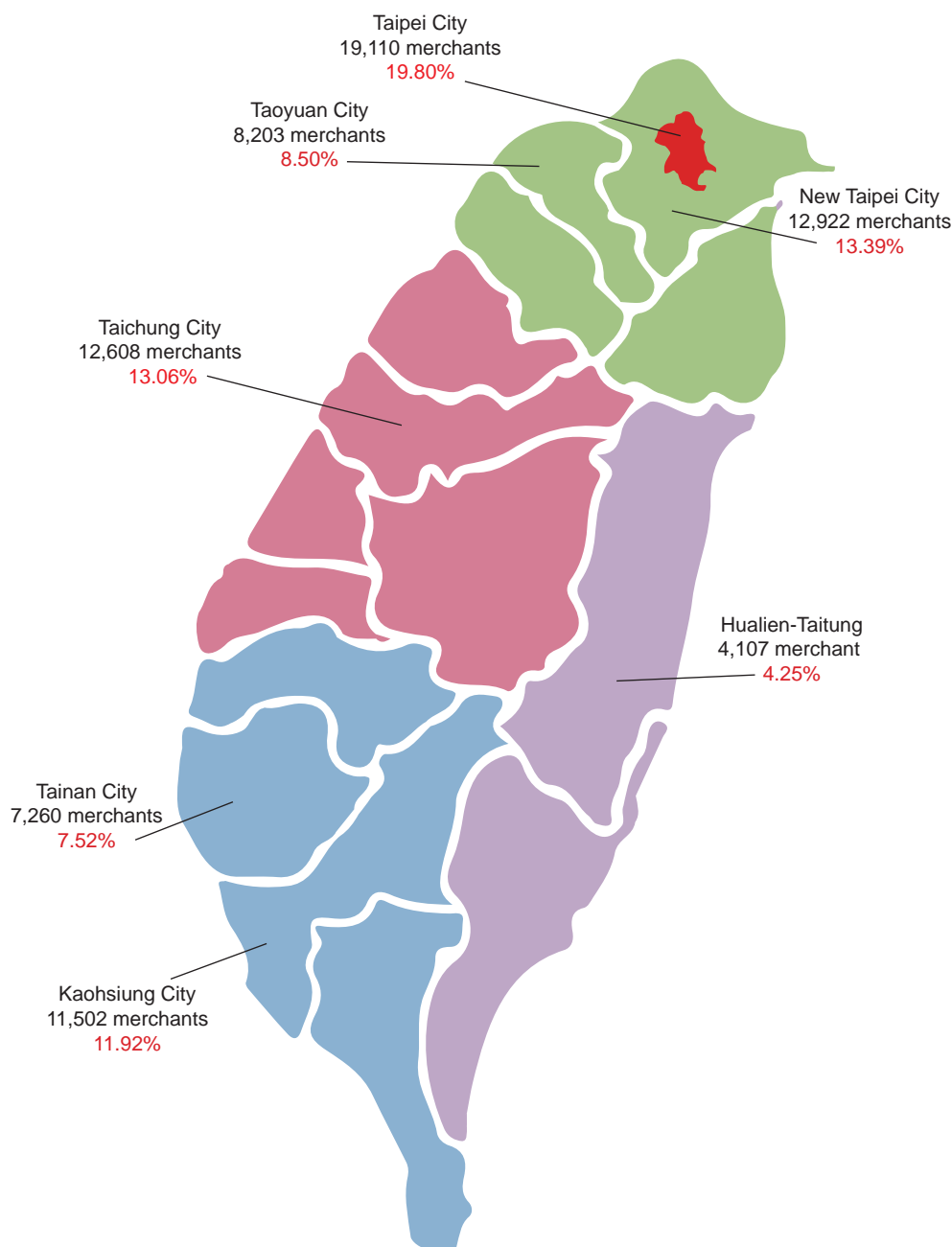
#### A. NCCC Merchant Categories & Percentage of Shares

As at the year-end 2017, the number of NCCC merchants (including installment payment merchant locations) was 96,530, of that, Food 5,305, Clothing 10,979, Lodging 22,966, Transportation 10,427, Education & Entertainment 8,359, Department Store/Supermarket 20,508, and Others 17,986. The percentage share of each merchant category is shown below:



## B. Network of NCCC Merchants

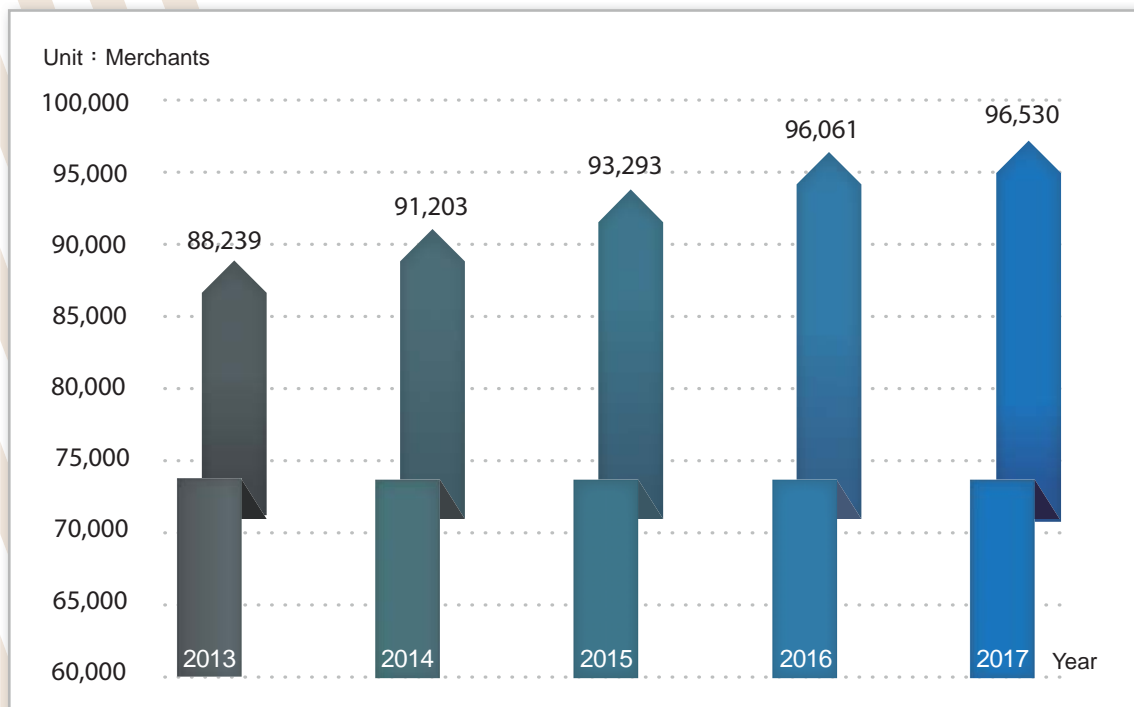
As at the year-end 2017, the number of NCCC merchants (including installment payment merchant locations) was 96,530, of that, Taipei City 19,110, New Taipei City 12,922, Taoyuan City 8,203, Taichung City 12,608, Tainan City 7,260, Kaohsiung City 11,502, Northern Taiwan 46,716, Central Taiwan 20,682, Southern Taiwan 25,025, and Eastern Taiwan 4,107. The percentage share of each city or county or area is shown below:



Northern Taiwan (Keelung, Taipei, Taoyuan, Hsinchu, Yilan) 46,716 merchants (48.4%)  
 Central Taiwan (Miaoli, Taichung, Changhua, Nantou, Yunlin) 20,682 merchants (21.43%)  
 Southern Taiwan (Chiayi, Tainan, Kaohsiung, Pingtung) 25,025 merchants (25.92%)  
 Eastern Taiwan (Hualien, Taitung) 4,107 merchants (4.25%)  
 Total 96,530 merchants (100%)

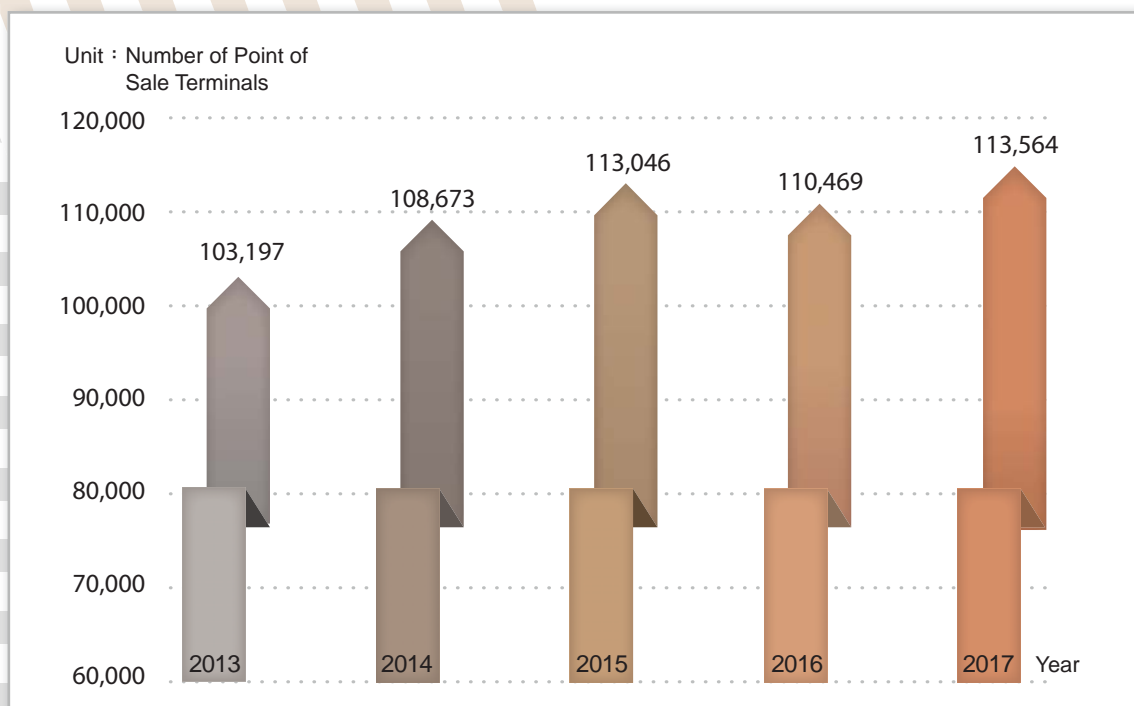
### C. NCCC Merchant Base

As at the year-end 2017, the number of NCCC contracted merchants (including installment payment merchant locations) was 96,530, an increase of 0.49% versus the year-end 2016, which is shown below:



### D. Number of Point of Sale Terminals

As at the year-end 2017, the number of NCCC's Point of Sale Terminals (including terminal owned by NCCC and purchased by merchant itself, and virtual terminal) was 113,564, an increase of 2.8% versus the year-end 2016, which is shown below:



### 3.NCCC Common Operating Platforms

#### A. Credit Card Issuing Business of NCCC Members

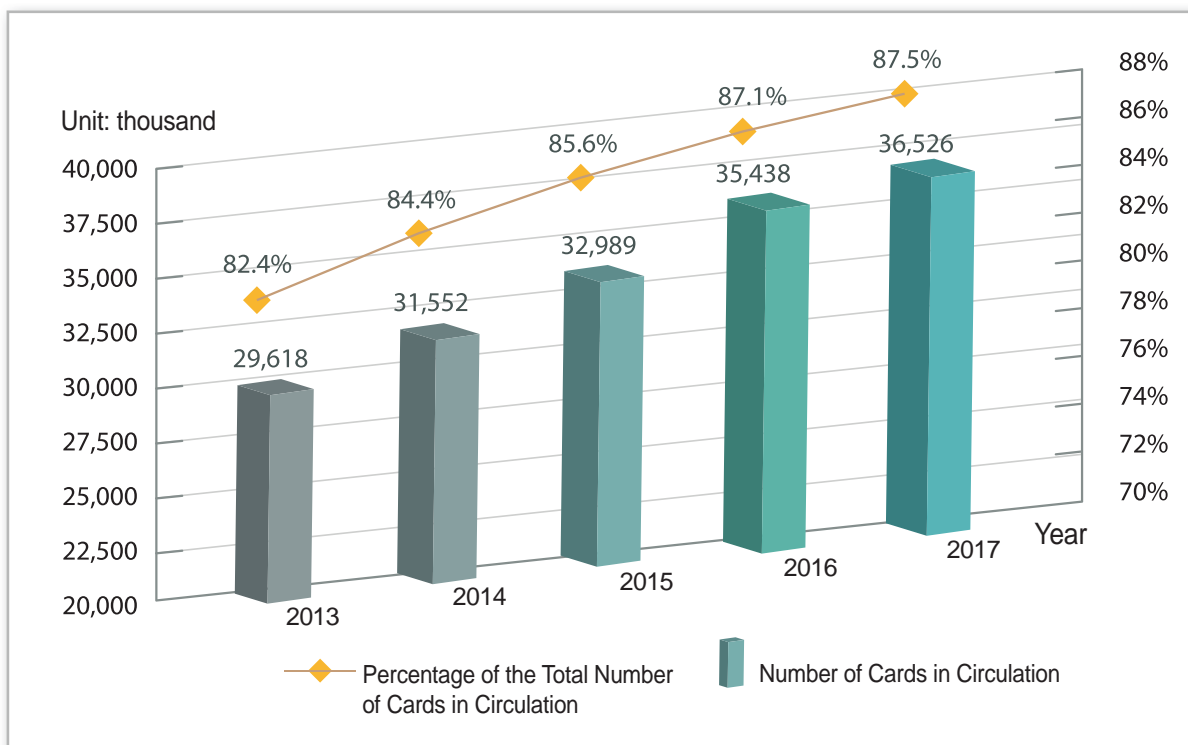
NCCC member institutions have issued U Card, Visa, MasterCard, and JCB cards. The card issuance continued expanding sharply in the wake of matured consumer banking environment, rising consumer demand, coupled with market promotion and cardholder solicitation by the NCCC member institutions. Until the recent years, the increase of cards issued has been slowing down, and the number of cards in circulation has been growing at a steady pace.

##### 《Business Scope》

U Card, VISA, MasterCard, and JCB Card issued by NCCC member institutions.

##### 《Operating Results in 2017》

**Accumulated Number of Cards in Circulation:** The number of cards in circulation of NCCC Members was 36,526 thousand in 2017, an annual growth rate of 3.07%, compared to 35,438 thousand in 2016, accounts for about 87.5% of the total number of cards in circulation. Number of cards in circulation refers to number of cards issued minus cards cancelled and the card accounts maintain a normal status.





## B. Installment Payment Operating Platform

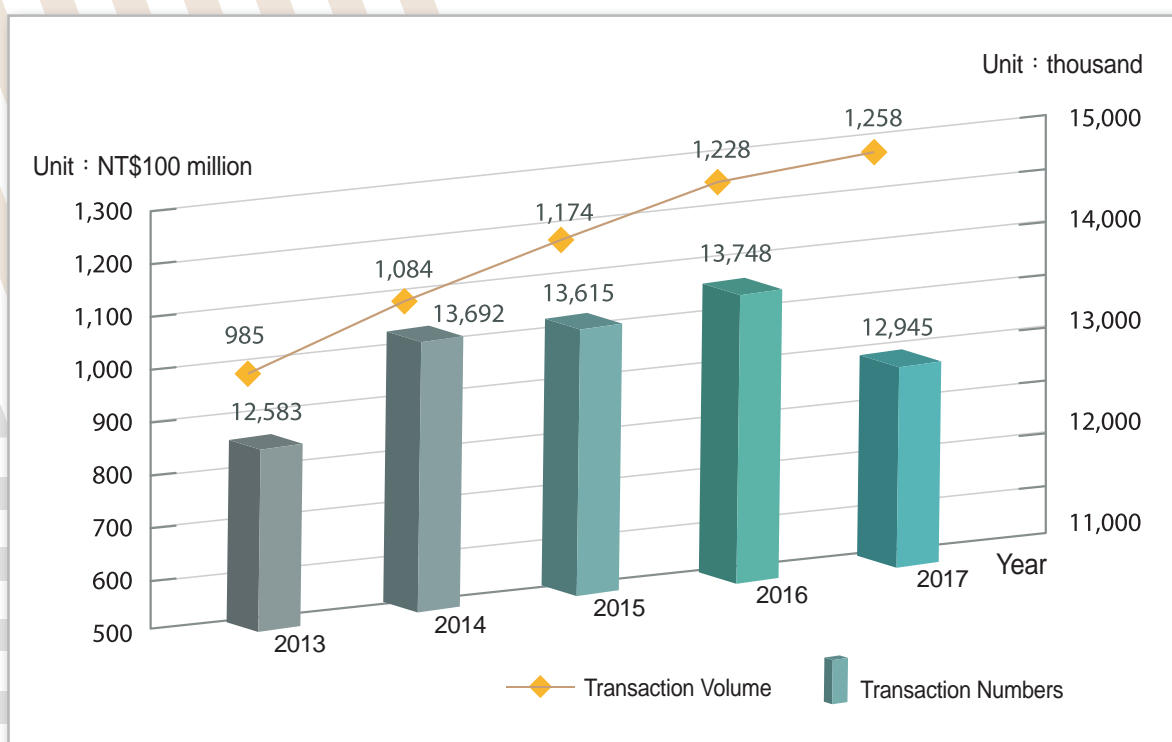
In response to the market needs, NCCC developed a common operating platform for both the card issuing institutions and their installment payment merchant partners in 2004. Those merchant partners who link to the NCCC platform system can provide online installment payment service function that allows the cardholders to pay off the transaction bill in several times for one transaction amount.

### 《Business Scope》

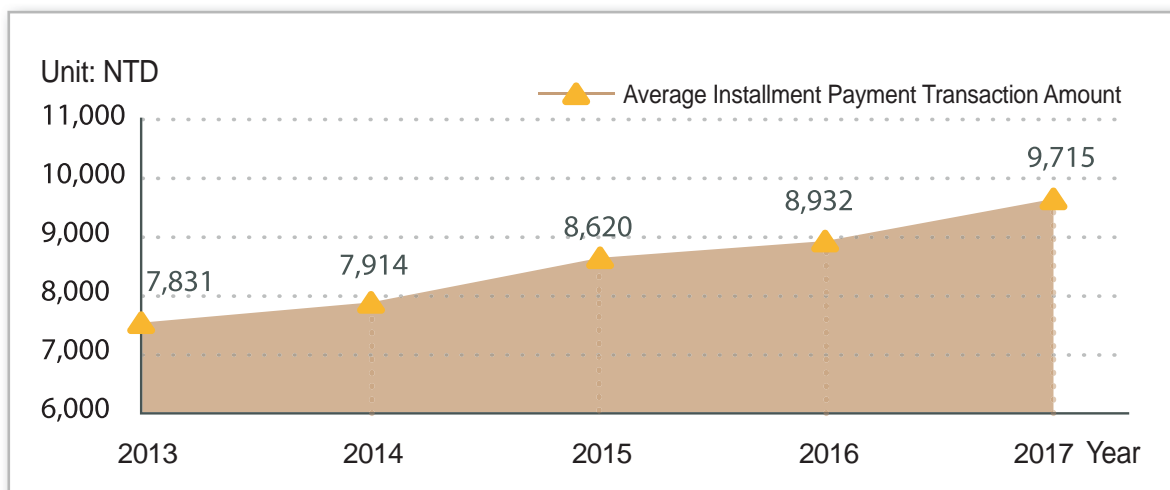
The installment payment operating platform service applies to those card issuing institutions and merchants who participate the platform.

### 《Operating Results in 2017》

- (1) Transaction Volume : The total installment payment amount summed to NT\$125,800 million in 2017, increasing 2.4% compared to NT\$122,800 million in 2016.
- (2) Transaction Numbers : The total number of installment payments was 12,945 thousand in 2017, decreasing 6.2% compared to 13,748 thousand in 2016.



The average transaction amount of installment payment is gradually increasing. The result represents that cardholders tend to pay in installments with higher transaction amount, which is shown below:



#### C. Credit Cardholders Online Transaction Authentication Service

To enhance credit card online transaction security and strengthen cardholder services, NCCC has implemented “Access Control Server (ACS) Authentication Service for Online Transaction Security” that enables the cardholders to make online purchase transactions in a more secure environment through identification enrollment and password verification processes. The Access Control Server (ACS) Authentication Service platform, passed examination by Visa designated qualified Security Assessor, provides a wide applied online transaction authentication system supporting 3 card brands of VISA Verified by Visa, MasterCard SecureCode and JCB J/Secure.

#### D. Credit Card Purchase Transaction Benefit Platform

To meet the market needs, NCCC created a credit card purchase transaction benefit platform in 2014, providing transaction benefit promotion program for the card issuing institutions and merchants. When the credit cardholders make purchase transactions at merchants, the transactions will be immediately checked against the benefit terms and be exchanged for the benefit via the platform and point of sale terminal, which can simplify operations, leverage marketing resources, and further increase customers along with sales volume. The credit card purchase transaction benefit platform service applies to those card issuing institutions and merchants who participate the platform.

#### E. Credit Card ATM Cash Advance

NCCC established a credit card cash advance network and has partnered with the participating institutions to provide ATM cash advance transaction service to the credit card holders. The cardholders can use credit cards of U Card, Visa, MasterCard, JCB,

and AmEx to make cash advance transactions by entering password at those ATMs on which a “NCCNET Plum Blossom” sticker displayed (as below). The business scope includes the following:

- (1) Domestic ATM cash advance transaction service on the NCCC value-added application platform.
- (2) ATM transaction switching service for foreign Visa PLUS Card
- (3) ATM transaction switching service for foreign MasterCard Cirrus Card



#### F. Bonus Point Accumulation & Redemption

NCCC created a bonus point accumulation and online redemption platform for the card issuing institutions. The participating merchants linked to the NCCNET POS network can provide online redemption function that enables the cardholders to immediately redeem the bonus points accumulated to the transaction amount when paying for purchase.

#### G. Government Fee Payment

To increase the penetration rate of electronic payments and to expand the credit card acceptance channels, NCCC established a "Credit Card Payment Platform for Public Agency Fee", allowing the general public to pay government bodies related fees and bills over the counters by credit card. The payment platform also applies to public hospital's related medical service fees (not including plastic surgery, postnatal nursing and physical examination). The platform supports not only POS but also websites and Apps of publicly-owned institutions and hospitals' link, to the extent that raising the convenience of fee payment. Furthermore, to provide consolidated all-in-one service, NCCC will provide App as a portal for all participating institutions and the general public.

To coordinate with the government policy of bringing greater convenience to the people and to provide incremental service functions to the credit card issuers, NCCC has partnered with Chunghwa Telecom and motor vehicle administration bodies in providing the general public with fee payment services, where people can use credit card to pay school registration fee, public service related charges, motor vehicle administration fees and various types of taxes by obtaining transaction authorization via phone voice operating system or via Internet. The business scope includes the following:

- (1) E-government service platform: including "school registration & miscellaneous fees" and "on-campus administration affairs fees" charged by all levels of schools as well as public service related fees charged by all levels of government bodies who participate on the e-government service platform.
- (2) Motor vehicle administration fee: including traffic violation fine, fuel fee, handling fee, license plate fee, license plate number selection charge, etc.
- (3) Various types of taxes: including payments of Individual Consolidated Income Tax, assessed tax, as well as business tax, etc.

## 4. Fraud Prevention Operation

To monitor credit card frauds in retail transactions, NCCC has utilized prevention system with parameters preset and reporting mechanism as a monitoring tool to identify any abnormal activities and proceed with investigations. For those merchants who are verified violating merchant contract, NCCC will take actions of educating, or warning, or monitoring, or terminating merchant contract depending upon the violation extent. Also, NCCC, as the credit card fraud reporting center, provides a fraud transaction information reporting platform that consolidates information from credit card institutions and international associations and shares the information with each other to prevent exposure to fraud; thus, establishing an effectively risk controlled credit card transaction environment in Taiwan.

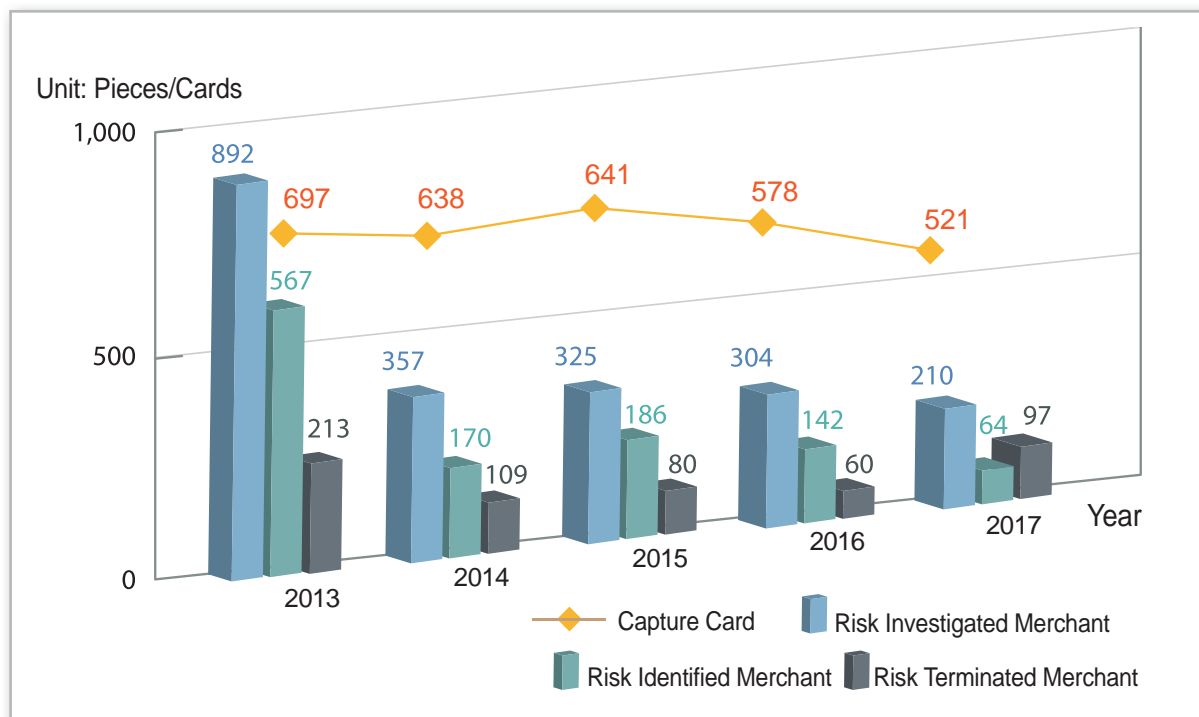
### 《Business Scope》

For NCCC merchants, NCCC implements effective monitoring and management system, consolidates and sends analytic fraud information to the credit card institutions, which helps creating a more secure credit card transaction environment in Taiwan.

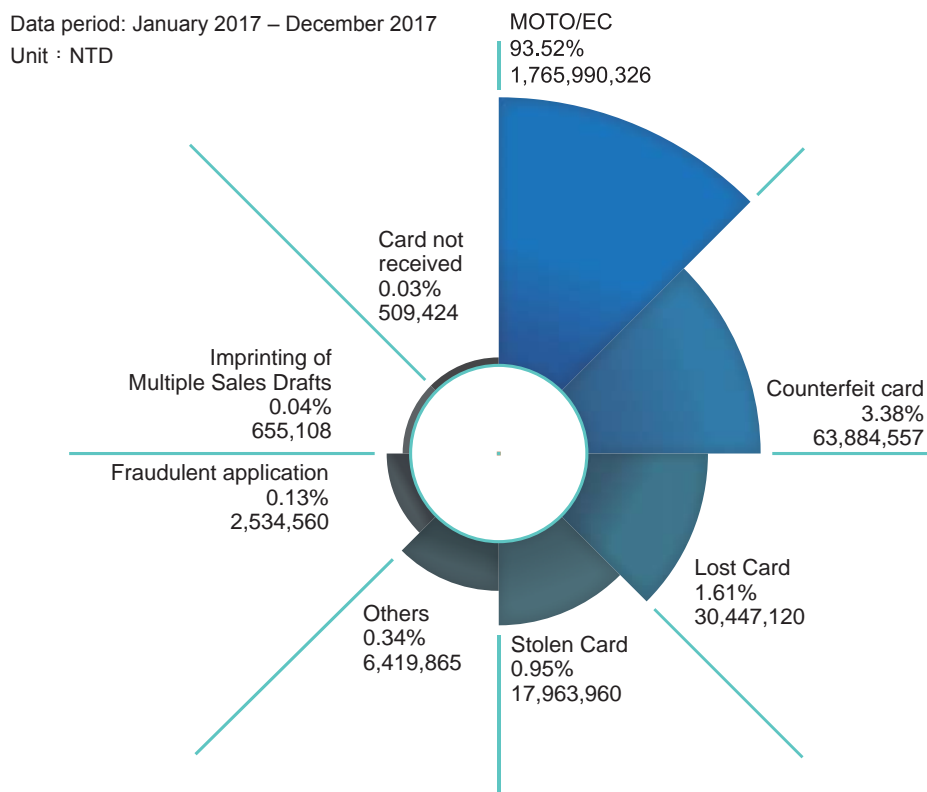
### 《Operating Results in 2017》

#### A. Risk Merchant Control and Credit Card Confiscation

- (1) Number of risk merchants investigated: 210 merchants investigated in 2017, dropped 94 from 304 merchants in 2016.
- (2) Number of risk merchants on monitor list: 64 merchants on monitor list in 2017 dropped 78 from 142 merchants in 2016.
- (3) Number of risk merchants cancelled: 97 merchants cancelled in 2017, increased 37 from 60 merchants in 2016.
- (4) Number of cards confiscated by merchants: 521 cards confiscated by merchants in 2017, dropped 57 from 578 cards in 2016.



## B. Fraud Transaction Categories Distribution Analysis reported by Domestic Issuers



Data period: January 2017 – December 2017

Total fraud loss reported by domestic card issuing institutions: NT\$1,888,404,920 (not actual loss)

Data source & Notes:

In compliance with the international credit card associations' operating regulations, all the card issuers must periodically submit credit card fraud transaction data for card associations to consolidate and to have a good control of the fraud information. Those transaction data were synchronized with NCCC's big data and released on NCCC's website for stakeholders' better understanding of credit card fraud trend. The above chart shows the various categories of fraud and its proportion accordingly.

Along with vigorous exploration of mobile payments and e-commerce, cyber fraud incidents have been rising simultaneously in recent years. Among those, the fraud incidents from the international well-known websites of game points selling and online video and audio streaming platform showed the most significant growth. The primary source of fraud reported by domestic card issuing institutions comes from those well-known websites. Financial losses may be avoided by dispute resolution for domestic transactions; however, increasing e-commerce transactions and associated fraud have huge impacts and become a challenge not only for domestic card issuers, but also for those in Asia, North America, Europe...etc. Especially with numerous compromised credit cards and data breaches around the world, management of e-commerce fraud becomes even more complicated, and a vital task for all card associations.

To prevent e-commerce fraud, cardholders are advised to keep their credit cards safely, to increase awareness of fraudulent transactions, and to carefully select appropriate measures, such as 3-D secure mechanism.

Remarks:

- |  |  |
|--|--|
| I. Lost card: Card lost and found used fraudulently  | V. Counterfeit card: Card counterfeited and used fraudulently  |
| II. Stolen card: Card stolen and used fraudulently   | VI. MOTO/EC: Non-face-to-face transaction made without authorization by the genuine cardholder                                 |
| III. Card not received: New/Renewed Card intercepted during mail and used fraudulently                         | VII. Imprinting of Multiple Sales Drafts: Merchant falsely uses cardholder's data such as card number and forges transactions. |
| IV. Fraudulent application: Card applied and used fraudulently without authorization by the genuine cardholder | VIII. Others: Other types of fraud not listed above  |



## 5. Credit Card Big Data Application Platform

In response to the government's policy and data analysis reference needs by the industries, government and academic sectors, NCCC, in 2015, initiated opening credit card transaction data processed by NCCC, which are categorized into groups by areas (6 metropolitan cities and 16 counties), industries (food & beverage, clothing, lodging, transportation, education, entertainment, department stores, etc.), and electronic commerce transactions, cross-border transactions, and fraudulent transactions, for offering all communities to download for reference. In 2016, NCCC continued developing more various analysis factors on the platform and opening credit card related data to public. The achievements of data open are summarized as follows:

### A. Business Statistics:

12 sets of statistical reports covering domestic settlement transaction amount & number of transactions, processing center's transaction amount & number of transactions, number of cards issued by NCCC Members, number of point of sale terminals installed by NCCC, fraudulent transaction amounts reported by domestic card issuing institutions, NCCC merchant categories & share of each category, number of credit card authorization-switching transactions, credit card cash advance transaction amount & number of transactions, number of NCCC acquired merchants, NCCC merchant network distribution - percentage share in each area, number of NCCC's risk-monitoring merchants & number of cards picked up in-store, and operating statistics of e-government service platform.

### B. NCCC Processed Data:

104 sets of statistical reports covering the credit card transaction data processed through NCCC; categorized into groups by areas, industries, electronic commerce and foreign credit cardholders' purchase transactions in Taiwan.

### C. Purchase Transaction Data of Taiwan-Issued Credit Card:

900 sets of statistical reports covering the purchase transaction data made by all the credit cards issued by Taiwan's banks and/or financial institutions; linking with de-identified cardholders' characteristics (including gender, age, annual income, occupation, education, etc.) and generating analyses of Taiwan credit cardholders' consumption patterns as well as purchase transactions made cross border, cross cities/counties in Taiwan, electronic commerce, and top 10 countries of overseas consumption.

### D. Credit Card Fraud

8 sets of statistical reports covering credit card fraud reported by domestic issuers (not amount of loss); categorized into groups by industries.

# IV

<https://nccc.com.tw>

## Business Performance

### 1. Major Achievements in 2017

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#### A. Coordinating with government' s policy of open data, continuing to release open data reports, and increasing data applications:

To coordinate with government' s policy of open data, NCCC continued to release credit card related data to the public in 2017. There were 5 data analysis reports and 1,024 statistical reports from credit card transactions, which were published on NCCC' s website for the reference of academic research, industry development, and government policy and were categorized into groups by areas, industries, and de-identified cardholders' characteristics. To fulfill information sharing and financial inclusion, NCCC organized open data from 2015 to 2016 with 7 case analyses, and published the first issue, Credit Card Big Data Platform – case analyses and statistical reports, to public sectors, banks, and libraries.

#### B. Expanding payment card channels and implementing innovative applications:

(1) NCCC aggressively expanded application scopes of “Credit Card Payment Platform for Public Agency Fee” . From January 2017, acceptance channels began to include public hospital' s medical service. The public can pay medical service fees over the counters or online platforms on the app or official website. NCCC produced a guidance video in June 2017. The video was played on the payment platform, credit card issuers' channels, and 5 terrestrial broadcast TV stations to promote the payment platform to the public.

- (2) NCCC, on 1 June 2016, obtained approval to engage in “Electronic Stored Value Card Transaction Operation Platform” service to expand ESV acquiring business and started terminal sharing with ESV card issuers. NCCC followed FSC’s approved guideline to evaluate the demand of systems and build up the infrastructure, which made iPASS and EasyCard were available for this service on 28 September and 28 December 2017 respectively. NCCC is also actively approaching other ESV card issuers to expand application channels.
- (3) Credit card was served as an electronic invoice carrier. NCCC provided turnkey solution to member issuers, which facilitates cardholders using electronic invoice carrier for mobile payments in May 2017. As of 2017 yearend, 11 member institutions have implemented the service.
- (4) NCCC, as a National Travel Card acquirer, promoted qualified 2,174 merchants in 2017. As of 2017 yearend, there are 4 issuers, and 24 acquirers to provide National Travel Card service.

#### C. Enhancing innovative digital financial technology:

- (1) Responding to the development of digital financial environment and to increase financial service operation efficiency, NCCC continually developed the platform of “Credit Card Served as an Auxiliary to Cardholder Authentication” to provide authentication service for the electronic payment institutions in the first phase. On 16 May 2017, NCCC obtained approval to engage in the second phase, for online applying for digital bank account and credit card with identity verification. The service launched on 9 June 2017 and there were 30 credit card issuers participating by 2017 yearend.
- (2) NCCC obtained approval from Financial Supervisory Commission to engage in the business of “foreign-currency acquiring, authorization switching, clearing and settlement processing” and US Dollar-settlement operation for foreign-issued Visa, MasterCard, and JCB credit card transactions on 24 January 2017, and reviewed by the Central Bank on 2 March 2017. The service launched in May 2017 and there were 6 international insurance business institutions participating by 2017 yearend.
- (3) NCCC planned to develop domestic payment card brand. The aim is to create a cashless society with “the best payment card”. NCCC invited member institutions to discuss brand positioning and the features of the card in the first half of 2017 and held meetings with member institutions and their representatives to determine future plans in September and December 2017 respectively.

- (4) NCCC passed system validation of token transactions for Visa and MasterCard by 2016 yearend and launched Apple Pay in March 2017, with 2 member issuers. Samsung Pay and Android Pay also launched afterwards. Till 2017 yearend, 8 member issuers completed system validation and 6 of them started to provide token service in 2017. To carry out the principle of domestic transactions to be processed domestically, NCCC worked together with JCB to build up domestic Token Vault and projected to provide token services for JCB credit card issuers in 2018, to lower activity cost and increase industrial competitiveness.
- (5) In response to the growing trend of mobile payments and to optimize domestic credit card payment environment, NCCC provided a Card-on-file service “Üny” in 2017, to eliminate the risk of account information compromised and enable cardholders to experience better payment service.
- (6) Under the existing switching and settlement infrastructure of handling VISA and MasterCard dual currency credit card transactions, NCCC included JCB and launched on 21 September 2017.
- (7) NCCC has been working together with Chunghwa Telecom Co. Ltd. to provide “e-Tax Refunding for Purchase by Foreign Visitors” service, and provided “Designated (Downtown) Counter for Tax Refund Service” on 11 July 2017. Travelers can make a secure credit card deposit payment, using Union Pay Cards.

#### D. Strengthening information security and risk control:

- (1) NCCC continuously complied with Executive Yuan’ s policy, which requires regulation of information system classification and security control, to implement classification of information system, evaluate risk, protect the target, utilize resources effectively, and take an appropriate action of safety management to maintain the security level of information system since 2015, and followed the “Evaluation Plan of Computer System Information Security” to conduct the evaluation plan by stages to ensure the consistent protection capability of computer system.
- (2) To reinforce information security management, strengthen security management of operational environment, ensure capability of personal information management, and increase reliance between NCCC and clients, NCCC obtained approval of Information Security Management System (ISO27001:2013) and Personal Information Management System (BS10012:2009) in 2017. Moreover, NCCC continuously complied with credit card associations’ requirements, including passing onsite assessment of Access Control Server, Payment Card

Industry Data Security Standard (PCI DSS), and Personal Identification Number (PIN).

- (3) In accordance with complying with Anti-money Laundering Control Act and Countering the Financing of Terrorism, NCCC joined Taiwan Depository and Clearing Corporation's "Anti-money Query System" in October 2017, to make sure if merchants' representatives are on the Sanction list or related to politically exposed persons.
- (4) As the credit card fraud reporting center, NCCC continually provides and reinforces a fraud transaction information reporting platform that consolidates information from credit card institutions in a timely manner, and cooperates with investigation agency (such as Prosecutor Office, Investigation Bureau of Ministry of Justice, Criminal Investigation Bureau) to prevent exposure to fraud. NCCC received 40 fraud reports from domestic credit card issuers and assisted judicial institutions to process 61 cases of the authenticity of Union Pay cards in 2017, which summed up to 4,308 cards.

E. Engaging in public welfare in accordance with government and fulfilling corporate social responsibilities:

- (1) NCCC actively participated in various charity events, including "2017 Taiwan International Percussion Convention" held by Ju Percussion Group, "St. Petersburg Ballet Theater's Swan Lake" held by UDN Fun Life, and "2017 financial service carnival" held by Taiwan Financial Services Roundtable. Moreover, NCCC made donations to innovation and entrepreneurship fund and financial services education fund to fulfill corporate social responsibilities.
- (2) To coordinate with Financial Supervisory Commission's "special interest group (SIG) of increasing the Personal Consumption Expenditure percentage of electronic payments", NCCC participated and hosted electronic payment related festivals, one on 24 June and the other on 25 November 2017. These events offered the ideas of convenience that electronic payments may bring about and the application scenarios to consumers.
- (3) To facilitate innovative financial industry, NCCC took part in "2017 FinTechBase Demo & Matching" event held by Taiwan Financial Services Roundtable and discussed FinTech industry and start-up matching platform to include financial institutions' involvement in financial technology on 25 October 2017.
- (4) NCCC participated in "FinTech Days" held by Taiwan Academy of Banking and Finance, to explore the development and application of innovative technology on 28 November and 29 November 2017.



## 2. Business Plans for 2018

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A. Responding to the trend of virtual and physical integration in digital financial technology, develop electronic wallet, mobile payment, and e-Commerce payment businesses:

- (1) Continually promote NCCC's Wallet Service, which provides Card-on-file service in the first phase, and continues to develop the Wallet Services' application, such as in connection with other NCCC's value-added platforms (installment, loyalty program, discounts...etc.).
- (2) In response to the increasing international trend of digital economics, NCCC follows the government's policy to develop innovative technologies such as smart transportation, medical services, and smart logistics, and integrates NCCC's Wallet Service with IoT applications.
- (3) Participate in FinTech and examine the Proof of Concept of combining block chain and "Credit Card Served as an Auxiliary to Card holder Verification" platform.
- (4) Enhance the security mechanism of mobile and internet transactions, NCCC plans to upgrade ACS (Access Control Server) from 3D-Secure 1.0 to 3D-Secure 2.0 in order to increase mobile transactions' security and convenience.
- (5) Continually implement transaction compatibility test service for domestic-issued mobile phone credit card (SE/HCE) and debit card (Smart Pay) and conduct transaction interoperability test for various payment tools on NCCC's point-of sale terminal system.
- (6) Plan to build a NCCC App for Mobile Payments, based on technologies of mobile application, GPS, push notification, AR (Augmented Reality), to provide information of merchant outlets and related discounts or loyalty programs to be delivered anytime and anywhere.

B. In accordance with government policy of "Double the PCE Percentage of Electronic Payments in 5 Years", expanding payment card application channels and implementing innovative service functions:

- (1) Strengthen "Credit Card Payment Platform for Public Agency Fee" App to assist public sectors and hospitals to provide various convenient services to the public.
- (2) Evaluate system integration with international card associations' TSP services to continually provide member issuers processing and settlement services, increasing the overall efficiency of the market.



- (3) Examine the possibility of combining NCCC' s Wallet Service (including card-on-file and express payment functions) with FIDO (Fast Identity Online), potentially to create innovative applications in electronic and mobile payment.
- (4) To continue pushing ahead with development and implementation of NCCC's point-of-sale terminal system network integration (including but not limited to credit card, debit card, electronic invoice, electronic wallet, installment payment, bonus accumulation/redemption, rewards, etc.) in order to provide all-rounded services and increase electronic payment tool usage.
- (5) Corresponding to the policy of “Credit Card as Receipt Storage Media” , NCCC continues to promote and assist member banks to implement related systems.

#### C. Enhancing Credit Card Payment Data Open System Applications:

- (1) In accordance with the national development and industry requirements, NCCC expands the data collection scope to acquiring fraud reports, continually promotes the open data of credit card transaction, and publishes credit card reports on a regular basis as well as quarterly data analysis periodicals.
- (2) To expand the scope of interfacing with external structured open data systems and data collection, NCCC evaluates the feasibility of implementation of unstructured data such as community, public sentiment, transaction model analysis...etc., into the big data analysis platform. In the meanwhile, NCCC plans to establish cross-field data analyses as well as vertically integrated industry analyses, in coordination and set up a cross-analysis model.
- (3) To evaluate setting up Application Programming Interface so as to form an information service supply chain, NCCC aims at creating a new business model of the data economy in synergy.

#### D. Developing a Domestic Payment Card Brand and creating a Taiwan-based payment infrastructure.

#### E. Upgrading infrastructure and Improving back-office operating efficiency & service quality:

- (1) To enhance NCCC as a credit card authorization switching center and NCCC' s brand as an acquirer, NCCC plans to establish DFS card (Discover/Diners) processing services in Taiwan. Hence, NCCC' s acquiring business will include 6 major international credit card associations, which best describes NCCC' s

prominence and profession in Taiwan payment card industry.

- (2) After implementation of internet-based front end system of terminals, NCCC continues to provide small and medium-sized enterprises internet access for online authorization, and plans to upgrade depending on the actual operational needs.
- (3) Continually assist the issuers who participate in NCCC' s ACS 3D verification platform to utilize OTP (One Time Password) mechanism, increasing convenience and security during the authorization process.
- (4) NCCC shall plan to develop a real name registration mechanism, for online modification requests of merchants, and to upgrade the e-Statement system so as to increase security level and service quality.
- (5) To enhance the OA facilities of Dingpu Data Center for those who will work during emergency drills; and the drills are conducted periodically to ensure business continuity.

#### F. Strengthening information security and risk control:

- (1) Continually implement the 3rd phase of MTPD (Maximum Tolerable Period of Disruption) at the secondary site to achieve system recovering within 8 hours, where the goal is to achieve emergency-responsiveness and business continuation with acceptable resources.
- (2) To fulfill Executive Yuan' s policy that requires regulation of information system classification and security control, NCCC plans to upgrade its SIEM (Security Information and Event Management) and related systems.
- (3) NCCC shall continually participate in meeting and seminars related to credit card technologies and adopt new technologies for fraud detection to improve its security.
- (4) Continually improve NCCC' s management of Third-Party Payment Service Providers.
- (5) NCCC shall continually strengthen the cooperation with law enforcement agencies, international credit card associations, Bankers Association of ROC and credit card business institutions to collect and analyze the latest fraud cases, criminal techniques as well as having a good command of the updated fraud loss information for reference of the credit card industry stakeholders.

- (6) To fulfill the government's policy, NCCC keeps updated plans for anti-money laundering and countering of the financing of terrorism, based on daily operations and periodic training; at the same time, NCCC plans to follow government agencies' policy and participates in activities that better promote anti-money laundering and anti-financing for terrorism.
- (7) NCCC shall continually increase the employees' awareness of law compliance, to reinforce implementation of the NCCC's personal information management policy and to enhance the employees' concept of protecting personal data.

G. Fulfilling corporate social responsibilities, participating in concern-for-society activities, including public welfare and charity as well as financial knowledge education programs:

- (1) To fulfill corporate social responsibilities, NCCC shall continually support concern-for-society activities, government policy promoting programs and any other activities for public welfare.
- (2) NCCC shall conduct forums or symposiums on various related topics accompanied with corporate image advertisement posting on periodicals of economics and finance to reflect NCCC's professional image of creativity and innovation in the Taiwan's payment card industry.



# NCCC Annual Major Events

## 1. Major Events in 2017

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### Jan. 2017

#### ▶ Jan. 01

NCCC further extended the application range of Credit Card Payment Platform for Public Agency Fee to public hospitals in 2017, enabling the general public to pay by credit card at public hospitals in addition to at the public sectors and state-run enterprises.

Industrial Bank of Taiwan, one of NCCC member institutions, changed name to "O-Bank" on 1 January 2017 and commenced issuing of Visa Debit Card and MasterCard Debit Card.

#### ▶ Jan. 19

The 2nd meeting of the 12th NCCC Board of Directors and Supervisors was held.

## Feb.2017

## ▶ Feb.16

NCCC continued promoting opening payments data of credit card and released open data results along with application cases at the routine press conference called up by Financial Supervisory Commission for offering all communities to download for reference.

## Mar.2017

## ▶ Mar.01

NCCC modified the National Travel Card Transaction Verification System, which was established and maintained based upon the commission of Directorate-General of Personnel Administration, Executive Yuan, in accordance with the new measures to be implemented on 1 March 2017.

## ▶ Mar.02

NCCC submitted an application to the regulatory authority for approval to engage in the business of "foreign-currency acquiring, authorization switching, clearing and settlement processing" in order to provide Offshore Insurance Unit, duty free shops and airlines shopping.

## ▶ Mar.03

NCCC Chairman attended the launching ceremony of "Innovation and Entrepreneurship Fund".

## ▶ Mar.14

NCCC held a seminar of "Introducing OTP Operation to ACS".

## ▶ Mar.20

NCCC expanded the credit card acceptance channels of Credit Card Payment Platform for Public Agency Fee to Taiwan Power Company 291 service offices and Taiwan Water Corporation 17 service offices.

## ▶ Mar.29

NCCC facilitates member issuers to adopt Visa' s & MasterCard' s tokenization services for provision and process of Apple Pay.

## Apr.2017

### ▶ Apr.13

The 3rd meeting of the 12th NCCC Board of Directors and Supervisors was held.

### ▶ Apr.18

NCCC passed annual British Standards Institution BSI re-certification of BS10012 for the Personal Information Management System. The BSI recertification reinforces NCCC's ability in managing data security and strengthens clients' trust in NCCC.

## May.2017

### ▶ May.23

NCCC facilitates member issuers to adopt Visa' s & MasterCard' s tokenization services for provision and process of Samsung Pay.

## Jun.2017

### ▶ Jun.01

To raise the application of Credit Card Big Data platform value, NCCC cooperated with KPMG consultant to build up the platform of "Credit Cardholders' Consumption Patterns" and "Fraud Risk of Payment Patterns".

### ▶ Jun.07

NCCC facilitates member issuers to adopt Visa' s & MasterCard' s tokenization services for provision and process of Android Pay.

### ▶ Jun.09

NCCC conducted "Credit Card Served as an Auxiliary to Cardholder Authentication" providing authentication service for digital deposit account opening and credit card application in the second phase.

### ▶ Jun.20

The NCCC Access Control Server (ACS) Authentication Service platform completed onsite assessment by Visa designated qualified Security Assessor, Rock Pte. Ltd., and was certified as in compliance with Visa ACS security program.



## ▶ Jun.24

NCCC joined an electronic-payment-related activity to support the goal of "Double the PCE Percentage of Electronic Payments in 5 Years". People experienced the convenience of electronic payment and comprehended the methods and application channels of electronic payment.

## ▶ Jun.28

NCCC held a seminar of "Cases of Credit Card Fraud Crime".

## ▶ Jun.29

NCCC and 10 issuers co-hosted "Taichung Gourmet Feast" during summer vacation, with themed restaurants in department stores and famous restaurant, which totaled 200 stores.

## Jul.2017

## ▶ Jul.11

NCCC partnered with Chunghwa Telecom Co. Ltd. to provide "e-Tax Refunding for Purchase by Foreign Visitors" service, and provided "Designated (Downtown) Counter for Tax Refund Service" .

## ▶ Jul.20

The 4th meeting of the 12th NCCC Board of Directors and Supervisors was held.

## Aug.2017

## ▶ Aug.01

NCCC continuously provides National Travel Card Transaction Verification System based upon the delegation of Directorate-General of Personnel Administration, Executive Yuan.

## ▶ Aug.02

NCCC held a forum of "Credit Card Recognition & Risk Management of Transaction" for specified industry associations, which are potential customers for credit card acceptance.

## ▶ Aug.21

NCCC passed Payment Card Industry Data Security Standard PCI DSS annual certification for data security.

▶ Aug.22

NCCC held a seminar of "2017 Business of NCCC".

▶ Aug.23

NCCC held a seminar of "Optimization of Cardholders' Online Transaction Verification".

▶ Aug.31

NCCC obtained approval from the Financial Supervisory Commission to engage in collecting credit card acquiring fraud information to improve fraud risk patterns analysis platform completely as well as set up the big data laboratory.

## Sep.2017

▶ Sep.04

NCCC optimized the "EC Transaction Cardholders' Verification Operation" by adding website verification function of card issuers.

▶ Sep.26

NCCC held a seminar of "Credit Card as an Electronic Invoice Carrier".

▶ Sep.28

The "Electronic Stored Value Card Transaction Operation Platform" launched with iPASS.

## Oct.2017

▶ Oct.01

NCCC joined the Taiwan Depository & Clearing Corporation for "Anti-Money Laundering Inquire System".

▶ Oct.12

The Shanghai Commercial Savings Bank Ltd launched UnionPay acquiring services utilizing NCCC's authorization switching and settlement services.

▶ Oct.17

NCCC launched "Üny Card-on-file Service" and cooperated with AVON as a pilot merchant.

▶ Oct.19

The 5th meeting of the 12th NCCC Board of Directors and Supervisors was held.

▶ Oct.24

NCCC completed the upgrade of credit card authorization switching system with capability of processing JCB ATM chip transactions.

▶ Oct.25

NCCC participated the "2017 FinTechBase Demo & Matching" held by the Taiwan Financial Services Roundtable.

## Nov.2017

▶ Nov.01

NCCC Chairman and President participated "The 15th JCB World Conference" held by JCB International.

▶ Nov.05

NCCC and DBS Bank (Taiwan) Ltd completed system link of card issuing authorization.

▶ Nov.07

NCCC passed 2017 Information Security Management System annual certification.

▶ Nov.11

NCCC participated "2017 Financial Services Charitable Carnival" in Taichung held by the Taiwan Financial Services Roundtable.

▶ Nov.12

NCCC took part in "2017 FinTech Singapore FinTech Innovation Trends Expedition" hosted by the Taiwan Financial Services Roundtable, and visited Singapore FinTech Association and the FinTech laboratory.

▶ Nov.25

NCCC held an Electronic Payments Carnival in Communities Series. The financial institutions, credit card associations and merchants joined and demonstrated innovative payments to thousands of people.

▶ Nov.28

NCCC sponsored "2017 FinTech Days" hosted by the Taiwan Academy of Banking and Finance.

## Dec.2017

### ▶ Dec.09

DBS Bank (Taiwan) acquired ANZ (Taiwan) Bank and completed the acquisition.

### ▶ Dec.11

NCCC completed the upgrade of UnionPay Online Payment in December 2017, integrating payment gateway of Web, App and mobile payment.

### ▶ Dec.11

NCCC participated "2017 Information Security Week" held by the office of the President and promoted the convenience of electronic payments.

### ▶ Dec.16

NCCC participated "2017 Financial Services Charitable Carnival" in Kaohsiung held by the Taiwan Financial Services Roundtable.

### ▶ Dec.18

McDonald's joined the small amount payment platform and pilot outlets went live.

### ▶ Dec.19

KFC joined the small amount online payment and launched.

### ▶ Dec.28

The "Electronic Stored Value Card Transaction Operation Platform" launched with EasyCard. The integrated terminal of credit card and 2 brands of electronic stored value cards (iPASS, EasyCard) launched.

### ▶ Dec.29

The Chairman of Financial Supervisory Commission, Wellington L. Koo made an inspection visit to NCCC.

## 2.Events Happening



NCCC co-sponsored a public welfare event of “ST Petersburg Ballet Theatre - Swan lake”, where sixty of teachers and students from the Department of Theater Arts, National Taiwan College of Performing Arts were invited to appreciate the splendor of the musical. Photo of NCCC Senior EVP, Hanover Chu (sixth from left in the front row), the teachers and students at the event.(2017/6/17)



NCCC participated “The 15th JCB World Conference” held by JCB International. Photo of NCCC Chairman, Liu Teng Cheng (first from right), NCCC President, Lin Tong Liang (first from left), Mayor of Taipei City, Ko Wen-je (fourth from right), Financial Supervisory Commission Chairman, Koo Wellington L. (third from right), and other delegates at the event. (2017/11/1)





NCCC participated "2017 Information Security Week" held by the office of the President. Photo of NCCC Chairman, Liu Teng Cheng (third from left), NCCC President, Lin Tong Liang (second from left), NCCC Senior EVP, Hanover Chu (first from left), and Financial Supervisory Commission Vice Chairman, Cheng Mount Cheng. (second from right). (2017/12/11)



NCCC donated to Taiwan Financial Services Roundtable the "Financial Services Industry Public Funds for Educational Use". Photo of NCCC Chairman, Liu Teng Cheng (fifth from right in the front row) attending at the scholarship & grant awards presentation ceremony. (2017/12/20)





NCCC signed a "Credit Card Payment Platform for Public Agency Fee" cooperation agreement with General Welfare Service of Ministry. Photo of NCCC President, Lin Tong Liang (left) and General Welfare Service of Ministry Minister, Tu Chuan Jun (right). (2017/11/7)



NCCC participated "2017 Financial Services Charitable Carnival" in Taichung held by the Taiwan Financial Services Roundtable. Photo of NCCC President, Lin Tong Liang (fourth from left), Financial Supervisory Commission Chairman, Koo Wellington L. (fourth from right), and other delegates at the event. (2017/11/11)



NCCC held an Electronic Payments Carnival in Communities Series. Photo of NCCC Chairman, Liu Teng Cheng (fourth from right), NCCC President, Lin Tong Liang (third from right), Financial Supervisory Commission Chairman, Koo Wellington L. (fifth from right), and other delegates at the event. (2017/11/25)

# VI. Appendix

## Directory of Member Institutions (As of December 31, 2017)

Member Institution Name	Address	Telephone
CTBC Bank Co., Ltd	11F., No.188, Jingmao 2nd Rd., Nangang Dist., Taipei City 115, Taiwan (R.O.C.)	(02)2768-0505
Mega International Commercial Bank Co., Ltd	4F., No.99, Sec. 3, Chongyang Rd., Sanchong District, New Taipei City 241, Taiwan (R.O.C.)	(02)8982-2222
Cathay United Bank	9F., No.88, Sec. 1, Zhonghua Rd., Wanhua District, Taipei City 108, Taiwan (R.O.C.)	(02)2383-0111
E. Sun Commercial Bank Ltd	No.10, Alley 17, Lane 42, Jhongsing N. St., Sanchong Dist., New Taipei City 241, Taiwan (R.O.C.)	(02)8512-1313
Union Bank of Taiwan	5F., No.399, Ruiguang Rd., Neihu District, Taipei City 114, Taiwan (R.O.C.)	(02)2719-2233
The Shanghai Commercial Savings Bank Ltd	3F., No.87, Zhengzhou Rd., Datong District, Taipei City 103, Taiwan (R.O.C.)	(02)2558-2111
Bank Sinopac Co., Ltd	6F., No.17, Bo-ai Rd., Zhongzheng District, Taipei City 100, Taiwan (R.O.C.)	(02)2375-2277
Standard Chartered Bank(Taiwan Limited)	B1F., No.168, Dunhua N. Rd., Songshan District, Taipei City 105, Taiwan (R.O.C.)	(02)2547-7888
KGI Bank	3F., No.188, Jingping Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)	(02)8023-9077
Taipei Fubon Commercial Bank Co., Ltd.	6F., No.50, Sec. 2, Zhongshan N. Rd., Zhongshan Dist., Taipei City 104, Taiwan (R.O.C.)	(02)6611-2555
Far Eastern International Bank	No.33, Alley 3, Lane 182, Sec. 2, Wenhua Rd., Banqiao District, New Taipei City 220, Taiwan (R.O.C.)	(02)8073-1166
Jih Sun International Bank	9F., No.85, Sec. 2, Nanjing E. Rd., Zhongshan Dist., Taipei City 104, Taiwan (R.O.C.)	(02)2561-5888
Taishin International Bank	3F., No.207, Sec. 2, Jiuzong Rd., Neihu District, Taipei City 114, Taiwan (R.O.C.)	(02)8798-9999
Entie Commercial Bank	2F., No.36, Sec. 3, Bade Rd., Songshan District, Taipei City 105, Taiwan (R.O.C.)	(02)2577-8577
Ta Chong Bank Ltd	6F., No.58, Zhongzheng 2nd Rd., Lingya District, Kaohsiung City 802, Taiwan (R.O.C.)	(07)9696-589
DBS Bank (Taiwan) Ltd	12F., No.399, Ruiguang Rd., Neihu District, Taipei City 114, Taiwan (R.O.C.)	(02)6612-9889
Taiwan Shin Kong Commercial Bank	8F., No.31, Lane 11, Guangfu N. Rd., Songshan District, Taipei City 105, Taiwan (R.O.C.)	(02)8787-7272
Yuanta Commercial Bank Co., Ltd	6F., No.210, Sec. 3, Chengde Rd., Datong District, Taipei City 103, Taiwan (R.O.C.)	(02)2182-1998
Sunny Bank	No.88, Sec. 1, Shipai Rd., Beitou District, Taipei City 112, Taiwan (R.O.C.)	(02)2820-8166
Hwatai Commercial Bank Co., Ltd	12F., No.33, Jingye 4th Rd., Zhongshan District, Taipei City 104, Taiwan (R.O.C.)	(02)2772-9111
COTA Commercial Bank	2F., No.339, Dazhi Rd., East District, Taichung City 401, Taiwan (R.O.C.)	(04)2280-5288
Aeon Credit Card (Taiwan) Co., Ltd.	E, 5F., No.87, Songjiang Rd., Zhongshan District, Taipei City 104, Taiwan (R.O.C.)	(02)2501-0880
First Commercial Bank	9F., No.203, Sec. 2, Bade Rd., Zhongshan District, Taipei City 104, Taiwan (R.O.C.)	(02)2173-1988
Hua Nan Commercial Bank	12F., No.123, Songren Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C.)	(02) 2371-3111
Taiwan Rakuten Card Inc.	7F., No.49, Sec. 3, Minsheng E. Rd., Zhongshan Dist., Taipei City 104, Taiwan (R.O.C.)	(02) 2516-8328
Taichung Commercial Bank	No.87, Minquan Rd., West District, Taichung City 403, Taiwan (R.O.C.)	(04) 2223-6021
O-Bank	No.99, Sec. 2, Tiding Blvd., Neihu District, Taipei City 114, Taiwan (R.O.C.)	(02) 8752-7000



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