

## 3.2 Financial institutions

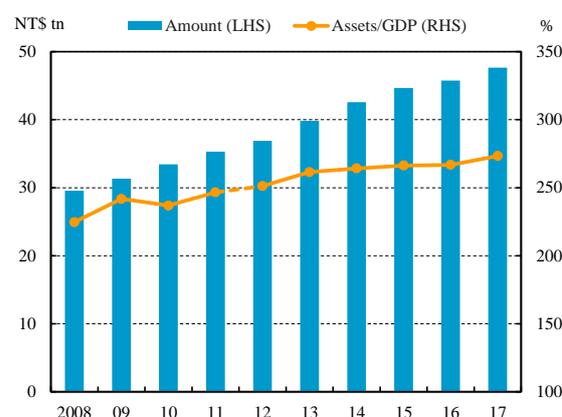
### 3.2.1 Domestic banks

The total assets of domestic banks<sup>42</sup> expanded at a faster pace in 2017. Asset quality remained satisfactory, and the concentration of corporate loans decreased slightly, whereas that of credit exposures to real estate loans mildly increased. Considering that the outlook for the real estate market remains conservative, banks should prudently monitor and control related credit risks. Moreover, the estimated value at risk (VaR) of market risk exposures of domestic banks descended and liquidity risk was moderate thanks to ample funds in the banking system. With domestic banks posting higher profits in 2017 than the previous year, the average capital adequacy ratio further improved, revealing satisfactory capacity to bear losses.

#### **Total assets kept growing at a faster pace**

The total assets of domestic banks kept growing at a faster pace of 4.14%<sup>43</sup> year on year in 2017 and reached NT\$47.65 trillion at the end of the year, equivalent to 273.34% of annual GDP (Chart 3.16). Broken down by sector, asset growth rates of domestic banking units (DBUs) and overseas branches re-embarked on rising trajectories, but that of offshore banking units (OBUs) still declined (Chart 3.17).

Chart 3.16 Total assets of domestic banks

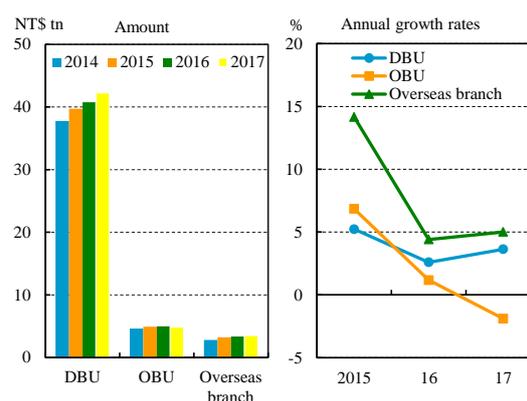


Note: Figures from 2012 forward are on the TIFRSs basis.

Figures of prior years are on the ROC GAAP basis.

Sources: CBC and DGBAS.

Chart 3.17 Total assets of domestic banks by sectors



Note: Figures for total assets are inclusive of interbranch transactions.

Source: CBC.

<sup>42</sup> There were 39 domestic banks (including Agricultural Bank of Taiwan) in 2017.

<sup>43</sup> The rise was mainly due to a significant increase of hold-to-maturity financial investments and continued growth of loans.

## Credit risk

### Customer loans kept on rising

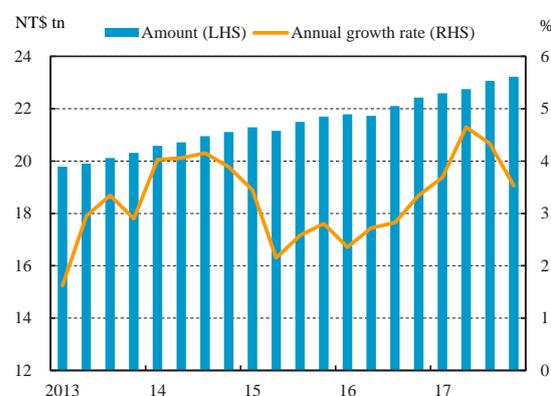
Customer loans granted by the DBUs of domestic banks stood at NT\$23.22 trillion at the end of 2017, accounting for 48.73% of total assets, with the annual growth rate increasing to 3.53% (Chart 3.18). Among them, the annual growth rate of household borrowing rebounded to 5.24% owing to a rise in mortgage loan growth. However, the growth rate of corporate loans fell slightly to 3.16%, while government loans saw a negative growth of -8.64% mainly because of less financing demand from the government as a result of increased tax revenues.

### Credit concentration in real estate went up slightly, and the share of real estate-secured credit continued to increase

At the end of 2017, real estate loans granted by the DBUs of domestic banks amounted to NT\$8.48 trillion, accounting for 36.54% of total loans, reflecting rising concentration of credit exposure in real estate loans. Moreover, the real estate-secured credit granted by domestic banks rose to NT\$15.76 trillion, accounting for 55.71% of total credit,<sup>44</sup> higher than that of the previous year (Chart 3.19).

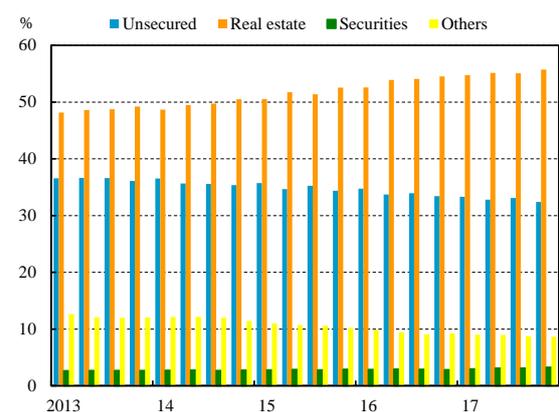
As the real estate trading volume recovered but prices stagnated after falling, prospects for the real estate market remained dim. Banks should prudently readjust loan strategies and strengthen risk management to contain related credit risks.

Chart 3.18 Outstanding loans in domestic banks



Note: Loans of OBUs and overseas branches were excluded.  
Source: CBC.

Chart 3.19 Credit by type of collateral in domestic banks



Source: CBC.

<sup>44</sup> The term "credit" herein includes loans, guarantee payments receivable, and acceptances receivable.

### *Credit concentration of corporate loans slightly diminished*

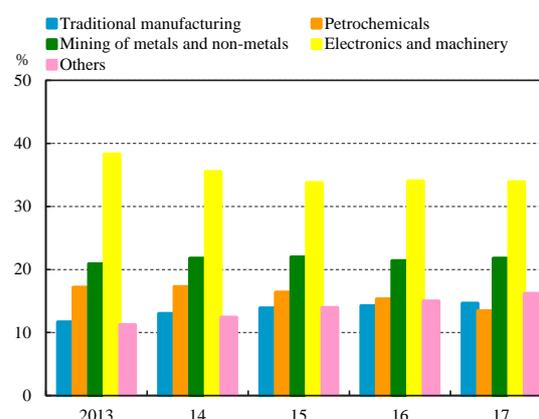
For the DBUs of domestic banks, corporate loans stood at NT\$10.13 trillion at the end of 2017, of which loans to the manufacturing sector registered NT\$4.05 trillion and accounted for the largest share of 40.0%. Within the manufacturing sector,<sup>45</sup> loans to the electronics industry contributed to the largest but decreasing share of the total, reflecting that the credit concentration of corporate loans has mildly diminished (Chart 3.20).

### *Exposures to Mainland China turned to increase*

At the end of 2017, the exposures of all domestic banks to Mainland China stood at NT\$1.73 trillion, or 54% of banks' net worth, higher than 51% a year earlier (Chart 3.21). Although such exposures turned to increase, no bank exceeded the statutory limit of 100%.

In order to reinforce risk control and risk-bearing capacity of domestic banks regarding exposures to Mainland China, the FSC implemented several measures<sup>46</sup> from 2014 onwards. However, considering the fact that long-term sovereign credit ratings of Mainland China were successively cut by credit rating agencies in 2017, as well as increasing NPLs in its commercial banks, domestic banks should closely monitor Mainland China's economic and financial conditions, and prudently manage the risk of such exposures.

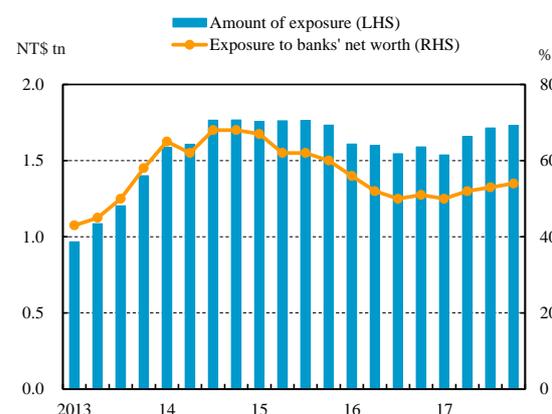
**Chart 3.20 Exposure to the manufacturing sector by domestic banks**



Notes: 1. Exposure to each sector = loans to each sector/loans to the whole manufacturing sector.  
2. Exposures of OBU's and overseas branches were excluded.

Source: CBC.

**Chart 3.21 Exposure to Mainland China by domestic banks**



Source: FSC.

<sup>45</sup> Loans to the manufacturing sector are divided into five categories by industry, including: (1) electronics, (2) mining of metals and non-metals, (3) petrochemicals, (4) traditional manufacturing, and (5) others.

<sup>46</sup> See CBC (2015), *Financial Stability Report*, Chapter IV, May and CBC (2017), *Financial Stability Report*, Chapter III, May.

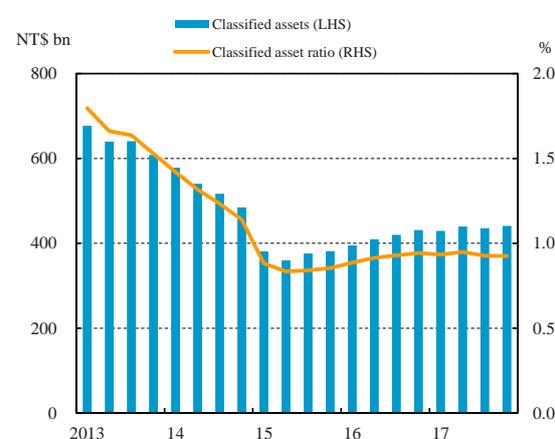
### Asset quality remained satisfactory

Outstanding classified assets<sup>47</sup> of domestic banks stood at NT\$441 billion at the end of 2017, increasing by 2.26% from the previous year. The average classified asset ratio was only 0.93% (Chart 3.22), revealing that the asset quality of domestic banks remained satisfactory. Meanwhile, the expected losses of classified assets<sup>48</sup> decreased by 2.39% from a year earlier to NT\$53.4 billion, while the ratio of expected losses to loss provisions was only 12.57%. This indicated that domestic banks had sufficient provisions to cover expected losses.

Furthermore, the outstanding NPLs of domestic banks registered NT\$75.8 billion at the end of 2017. Although the average NPL ratio slightly rose to 0.28% (Chart 3.23), it was much lower than those in the US and neighboring Asian countries (Chart 3.24). Among 39 domestic banks, almost all had NPL ratios less than 0.5%. In terms of borrowers, the NPL ratio for individual loans was 0.26%, whereas for corporate loans it registered 0.35%.

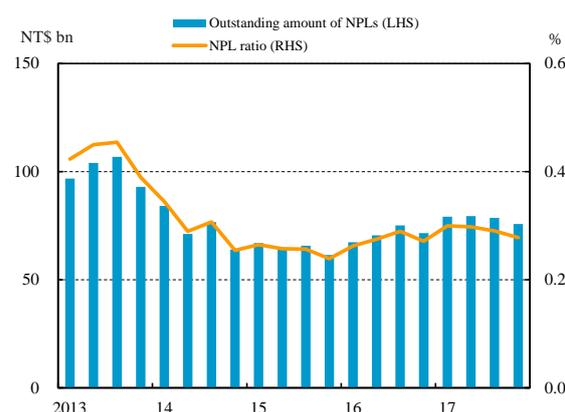
At the end of 2017, owing to the marginally larger increases in both loans and NPLs, the loan coverage ratio and the NPL coverage ratio slightly fell to 1.36% and 490.59% from 1.37% and 503.45% a year earlier, respectively (Chart 3.25). Nevertheless, the capability of domestic banks to cope with potential loan losses remained satisfactory.

**Chart 3.22 Classified assets of domestic banks**



Note: Classified asset ratio = classified assets/total assets.  
Source: CBC.

**Chart 3.23 NPL ratio of domestic banks**



Note: Excludes interbank loans.  
Source: CBC.

<sup>47</sup> Assets of domestic banks are broken down into five categories: normal, special mention, substandard, doubtful and loss. The term “classified assets” herein includes all assets classified as the latter four categories.

<sup>48</sup> Loss herein refers to the losses from loans, acceptances, guarantees, credit cards, and factoring without recourse.

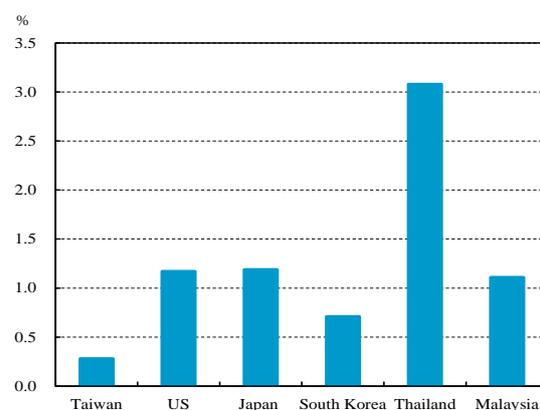
## Market risk

### *Estimated value-at-risk for market risk exposures decreased*

At the end of 2017, the net position of debt securities accounted for the largest share of total market risk exposures of domestic banks, followed by the net positions of FX and of equity securities. Based on the CBC's VaR model,<sup>49</sup> the estimated total VaR for market risk exposures of domestic banks stood at NT\$105.3 billion at the end of 2017, down by 22.97% compared to a year earlier (Table 3.1). Among them, the interest rate and FX VaRs decreased by 25.33% and 13.46%, respectively. The main reasons were that the yields on Taiwan and US government bonds oscillated in a narrow range and the NT dollar exchange rate against the US dollar appreciated moderately in 2017, resulting in lower volatility in bond and FX markets compared to the previous year. On the other hand, the equities VaR remained almost the same (Table 3.1).

In 2018 Q1, the US government bond yields trended up owing to the Fed's faster-than-expected interest rate hikes and increasing demand for government bond issuance as a result of tax cuts. This in turn drove up government bond yields of several major countries. Additionally, global stock markets experienced a significant downturn as US stocks sank and the volatility in international financial markets picked up dramatically. All of these could pose higher market risk to domestic banks.

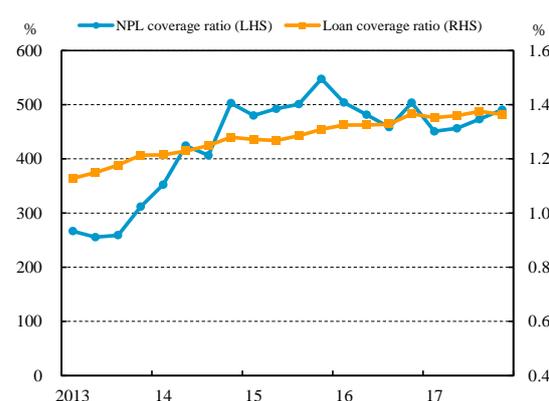
**Chart 3.24 NPL ratios of banks in selected countries**



Note: Figure for Japan is end-September 2017 data, while the others are end-December 2017 data.

Sources: CBC, FDIC, FSA, FSS, BOT and BNM.

**Chart 3.25 NPL coverage ratio and loan coverage ratio of domestic banks**



Notes: 1. NPL coverage ratio = total provisions/non-performing loans.

2. Loan coverage ratio = total provisions/total loans.

3. Excludes interbank loans.

Source: CBC.

<sup>49</sup> For more details about the CBC's VaR model, please see CBC (2016), *Financial Stability Report*, Box 2, May.

Table 3.1 Market risks in domestic banks

Unit: NT\$ bn

Types of risk	Items	End-Dec. 2016	End-Dec. 2017	Changes	
				Amount	PP;%
Foreign exchange	Net position	223.4	223.5	0.1	0.04
	VaR	5.2	4.5	-0.7	-13.46
	VaR/net position (%)	2.33	2.01		-0.32
Interest rate	Net position	1,547.4	1,799	251.6	16.26
	VaR	121.6	90.8	-30.8	-25.33
	VaR/net position (%)	7.86	5.05		-2.81
Equities	Net position	64.5	59.8	-4.7	-7.29
	VaR	9.9	10	0.1	1.01
	VaR/net position (%)	15.35	16.72		-1.37
Total VaR		136.7	105.3	-31.4	-22.97

Note: PP = percentage point.

Source: CBC.

### *The impacts of market risk on capital adequacy ratios were slight*

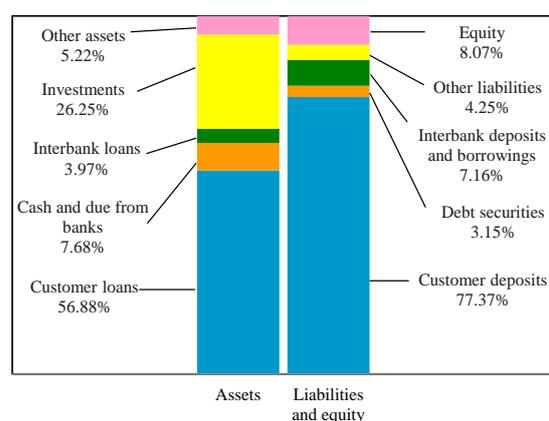
According to the estimation mentioned above, the total VaR would lead to a decrease of 0.15 percentage points in the average capital adequacy ratio of domestic banks and cause the ratio to drop from the current 14.17% to 14.02%. Nevertheless, it would still be higher than the statutory minimum of 9.25% in 2017.

### **Liquidity risk**

#### *Liquidity in the banking system remained ample*

The assets and liabilities structure of domestic banks remained roughly unchanged in 2017. For the sources of funds, relatively stable customer deposits still made up the largest share of 77.37% of the total, while for the uses of funds, customer loans accounted for the biggest share of 56.88% (Chart 3.26). The average deposit-to-loan ratio of domestic

Chart 3.26 Asset/liability structure of domestic banks



Notes: 1. Figures are as of end-December 2017.

2. Equity includes loss provisions. Interbank deposits include deposits with the CBC.

Source: CBC.

banks rose to 138.76%, and the funding surplus (i.e., deposits exceeding loans) also expanded to NT\$10.57 trillion. This indicated that the overall liquidity of domestic banks remained abundant (Chart 3.27).

### **Overall liquidity risk remained relatively low**

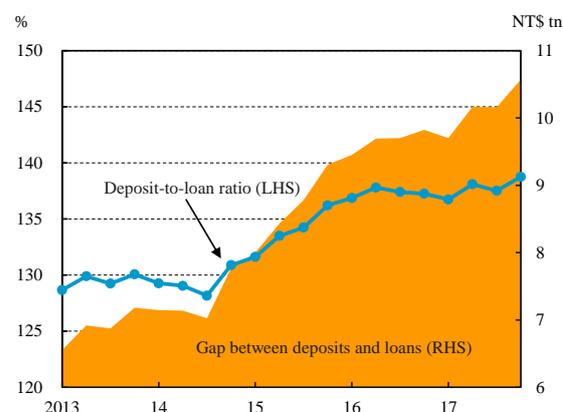
The average NT dollar liquid reserve ratio of domestic banks was well above the statutory minimum of 10% in every month of 2017 and stood at 32.64% in December, an increase of 1.44 percentage points year on year (Chart 3.28). Looking at the components of liquid reserves in December 2017, Tier 1 liquid reserves, mainly consisting of certificates of deposit issued by the CBC, accounted for 84.96% of the total. The quality of liquid assets held by domestic banks remained satisfactory. Moreover, the average liquidity coverage ratio (LCR) of domestic banks was 135% at the end of 2017 (Chart 3.29), and all banks met the minimum LCR requirement in 2017.<sup>50</sup> Therefore, the overall liquidity risk of domestic banks was relatively low.

## **Profitability**

### **Profitability increased moderately**

In 2017, the net income before tax of domestic banks was NT\$307 billion, increasing by 1.71% year on year (Chart 3.30). The rise was mainly owing to growth in net gains on financial instruments and net interest revenues. Though performing well in profits, the average ROE of domestic banks fell slightly year on year to 9.03% from 9.23% owing to a higher increase in equity than in profits; nevertheless, the average ROA of 0.66% remained at

**Chart 3.27 Deposit-to-loan ratio of domestic banks**



Note: Deposit-to-loan ratio = total deposits/total loans.  
Source: CBC.

**Chart 3.28 Liquid reserve ratio of domestic banks**



Note: Figures are the average daily data in the last month of each quarter.  
Source: CBC.

<sup>50</sup> The minimum LCR requirement for domestic banks was 80% in 2017, except for O-Bank with a minimum requirement of 60% during its initial period of restructuring.

the same level as the previous year (Chart 3.31). Compared to selected Asia-Pacific economies, the average ROE of domestic banks ranked in the middle; however, the average ROA still lagged behind (Chart 3.32).

Almost all domestic banks were profitable in 2017, except for one whose profits turned to a loss because of substantial loan loss provisions. As in the previous year, 13 banks achieved a profitable ROE of 10% or more and four banks had ROAs above the international standard of 1% (Chart 3.33). Compared to 2016, there were 19 banks with higher ROEs and ROAs.

### *Factors that might affect future profitability*

The interest rate spread between deposits and loans of domestic banks dropped in the first half of 2017, but rebounded somewhat to 1.36 percentage points in Q4 (Chart 3.34). If the upward trend persists, it will help to improve the future profitability of domestic banks. Nevertheless, in response to the *Mutual Evaluation* by the Asia/Pacific Group on Money Laundering (APG) in 2018, the FSC required domestic banks to reinforce their AML control mechanisms and regulatory compliance programs. As a result, the compliance costs of domestic banks will increase.

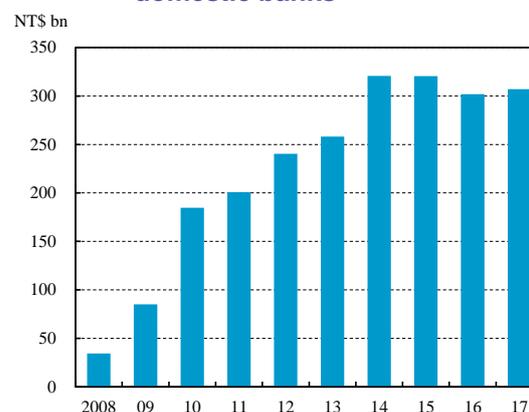
Furthermore, owing to overbanking in the domestic market, coupled with regulation relaxations and government policies encouraging banks to develop overseas

**Chart 3.29 Liquidity coverage ratio of domestic banks**



Source: CBC.

**Chart 3.30 Net income before tax of domestic banks**

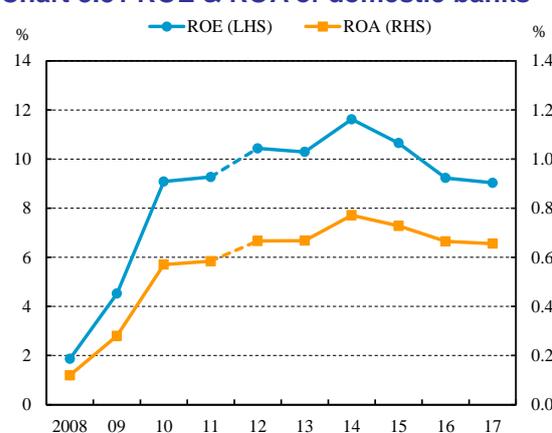


Note: Figures from 2012 forward are on the TIFRSs basis.

Figures of prior years are on the ROC GAAP basis (same as all charts in this section).

Source: CBC.

**Chart 3.31 ROE & ROA of domestic banks**



Notes: 1. ROE = net income before tax/average equity.

2. ROA = net income before tax/average total assets.

Source: CBC.

markets, domestic banks have actively established overseas business units in recent years. Consequently, overseas business profit contribution for domestic banks has been on the rise. However, overseas business units still face some challenges such as management issues and higher macro risks in some countries. Hence, domestic banks are advised to reinforce monitoring and risk management on the operation of overseas business units (Box 3).

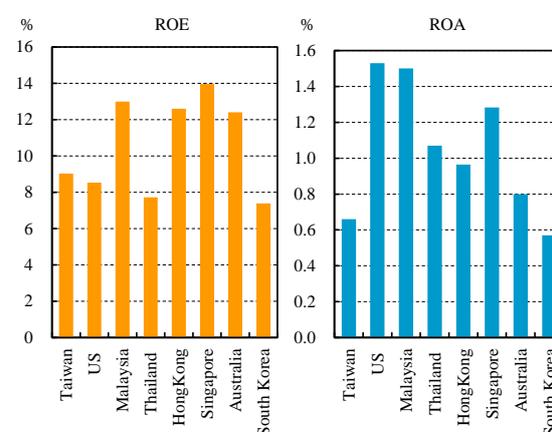
### Capital adequacy

#### Capital ratios trended upward

The average capital ratios of domestic banks declined slightly in 2017 Q2 owing to seasonal factors such as cash dividends declared and paid. Afterwards, as a result of capital injection, accumulated earnings, issuing eligible capital instruments and lowering risk weights of certain assets by the FSC, the average common equity ratio, Tier 1 capital ratio, and capital adequacy ratio of domestic banks rose to 11.19%, 11.78%, and 14.17%, respectively, at the end of 2017 (Chart 3.35). However, compared to some Asia-Pacific economies, Taiwan's banking industry had relatively lower capital levels (Chart 3.36).

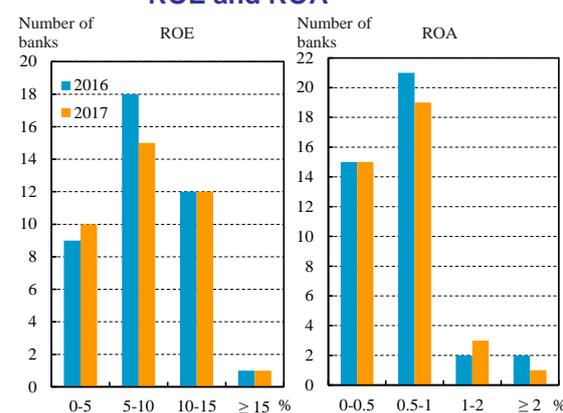
Further breaking down the components of regulatory capital, common equity Tier 1 capital, which features the best loss-bearing capacity, accounted for 78.94% of eligible capital. This showed that the capital quality of domestic banks was satisfactory.

Chart 3.32 ROEs and ROAs of banks in selected economies



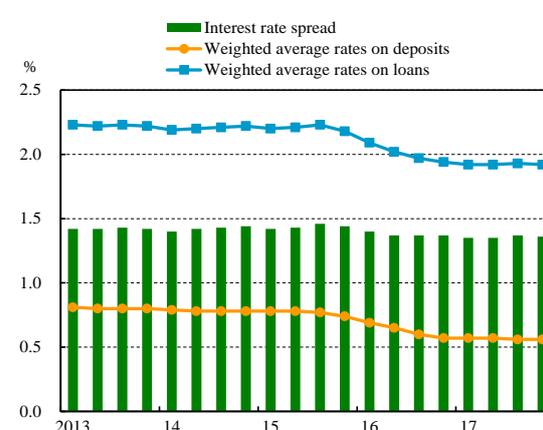
Note: Figures are 2017 data.  
Sources: CBC, FDIC, BNM, BOT, APRA, FSS and IMF.

Chart 3.33 Domestic banks classified by ROE and ROA



Source: CBC.

Chart 3.34 Interest rate spread of domestic banks



Notes: 1. Interest rate spread = weighted average interest rates on loans - weighted average interest rates on deposits.  
2. The weighted average interest rates on deposits and loans exclude preferred deposits of retired government employees and central government loans.

Source: CBC.

***All domestic banks had capital ratios higher than the statutory minimum and leverage ratios higher than the international standard***

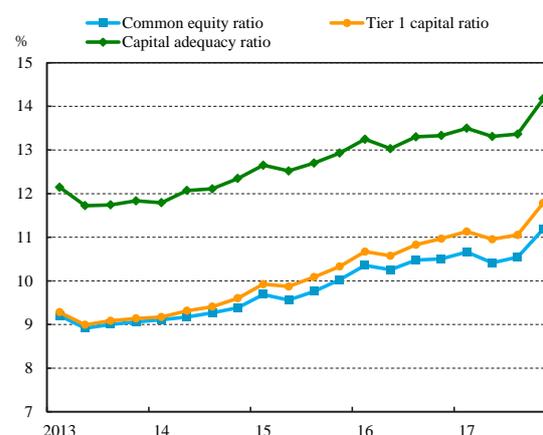
At the end of 2017, the common equity ratios, Tier 1 capital ratios, and capital adequacy ratios for all domestic banks remained above the statutory minimum requirements<sup>51</sup> for 2017 (Chart 3.37). The average leverage ratio<sup>52</sup> of domestic banks at the end of 2017 stood at 6.42%, higher than a year before and well above the international standard of 3%. It indicated domestic banks maintained sound financial leverage (Chart 3.38).

### Credit ratings

***Average credit rating level further enhanced***

Of the overall risk assessments of Taiwan's banking system made by credit rating agencies, Standard & Poor's kept Taiwan's Banking Industry Country Risk Assessment (BICRA)<sup>53</sup> unchanged at Group 4 with moderate risk. Compared to other Asian economies, the risk level of Taiwan's banking system was the same as that of Malaysia, but much lower than those of Mainland China, Thailand,

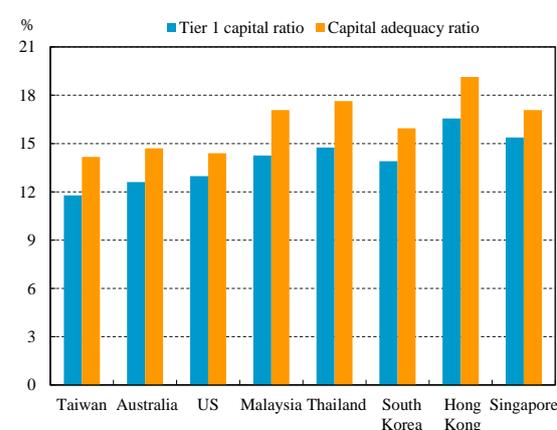
**Chart 3.35 Capital ratios of domestic banks**



Notes: 1. Figures from 2013 forward are based on Basel III.  
2. Common equity ratio = common equity Tier 1 capital/risk-weighted assets.  
3. Tier 1 capital ratio = Tier 1 capital/risk-weighted assets.  
4. Capital adequacy ratio = eligible capital/risk-weighted assets.

Source: CBC.

**Chart 3.36 Capital ratios of banking industry in selected economies**



Note: Figures are as of the end of 2017.

Sources: CBC, APRA, FDIC, BNM, BOT, FSS, HKMA, and IMF.

<sup>51</sup> The minimum capital requirements in the Basel III transition periods of domestic banks are as follows:

Ratios	2017	2018	2019 onwards
Common equity ratio (%)	5.75	6.375	7.0
Tier 1 capital ratio (%)	7.25	7.875	8.5
Capital adequacy ratio (%)	9.25	9.875	10.5

<sup>52</sup> With a view to keeping in line with international standards published by the Basel Committee on Banking Supervision (BCBS), the FSC required all banks to calculate Basel III leverage ratios from 2013 onwards and disclose the ratios starting from 2015. Moreover, the leverage ratio will be incorporated into Pillar 1 (minimum capital requirement) from January 1, 2018.

<sup>53</sup> BICRA is scored on a scale from 1 to 10, ranging from the lowest-risk (group 1) to the highest-risk (group 10), which indicates the assessment results by Standard & Poor's of economic and industry risks of a country's banking system.

Indonesia and the Philippines. Moreover, the assessment of Taiwan's banking system by Fitch Ratings' Banking System Indicator/Macro-Prudential Indicator (BSI/MPI)<sup>54</sup> also remained unchanged at level bbb/1 (Table 3.2).

All domestic banks received ratings by credit rating agencies. The average credit rating of domestic banks further improved in 2017, as the credit rating index<sup>55</sup> went up slightly compared to 2016 (Chart 3.39).

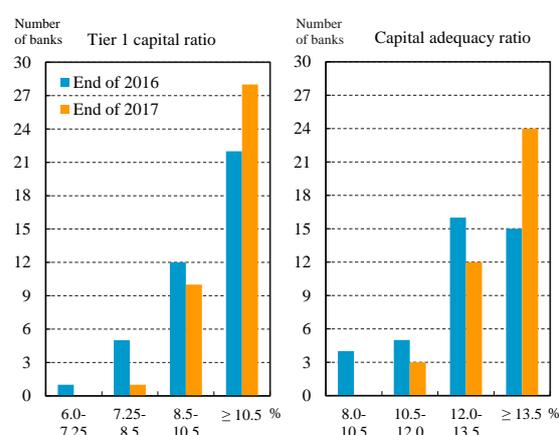
### *Rating outlooks for almost all domestic banks remained stable or positive*

Almost all domestic banks maintained credit ratings of twAA/twA (Taiwan Ratings) or AA(twn)/A(twn) (Fitch Ratings) and none had credit ratings lower than twBB/BB(twn) at the end of 2017 (Chart 3.40), similar to the previous year. Only two banks received negative rating outlooks, while those for the other 37 banks remained stable or positive.

## **3.2.2 Life insurance companies**

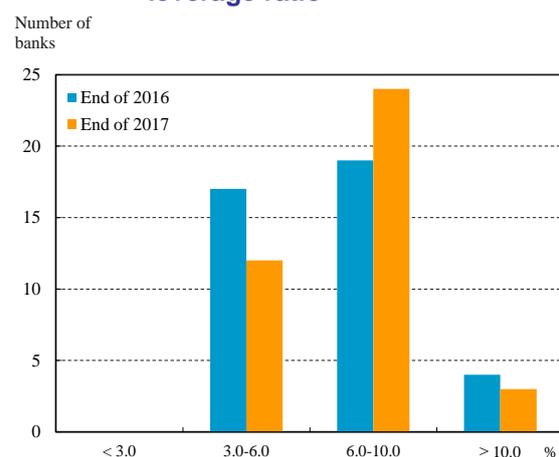
In 2017, total assets of life insurance companies continued their rapid growth, and their average RBC ratio further improved. Overall credit ratings held stable and pretax income grew year on year; however, life insurance companies still faced higher market risks.

**Chart 3.37 Domestic banks classified by capital ratios**



Source: CBC.

**Chart 3.38 Domestic banks classified by leverage ratio**



Note: Leverage ratio = Tier 1 capital/total exposures.

Source: CBC.

<sup>54</sup> Fitch Ratings assesses banking system vulnerability with two complementary measures, the BSI and the MPI. These two indicators are brought together in a Systemic Risk Matrix. The BSI represents banking system strength on a scale from aa, a, bbb, bb/b to ccc/cc/c. The MPI indicates the vulnerability of the macro environment on a scale from 1 to 3.

<sup>55</sup> The credit rating index is an asset-weighted average rating score of rated domestic banks, measuring the overall creditworthiness of those banks on a scale from 1 (weakest) to 100 (strongest). The rating score for banks is determined according to their long-term issuer ratings from Taiwan Ratings or sovereign long-term ratings from Fitch Ratings. The higher the index is, the better the bank's overall solvency.

### Assets maintained fast growth

The total assets of life insurance companies maintained fast growth with a higher year-on-year growth rate of 9.96% in 2017. At the end of the year, total assets held by life insurance companies reached NT\$24.47 trillion, equivalent to 140.35% of annual GDP (Chart 3.41). The top three companies in terms of assets made up a combined market share of 56.16%, a slight decrease of 0.1 percentage points year on year. The market structure of the life insurance industry remained roughly unchanged in 2017.

### Foreign portfolio investments remained the primary usage of funds

In terms of the usage of funds of life insurance companies, foreign portfolios accounted for 59.05% at the end of 2017, the largest share of total assets, whereas the share of domestic securities investments continued to drop to 18.66%. As for their sources of funds, insurance liabilities accounted for 84.80%, the primary share of total liabilities and equity, while the share of equity increased slightly to 5.58%. Overall, financial leverage of life insurance companies decreased marginally (Chart 3.42).

### Pretax income grew year on year

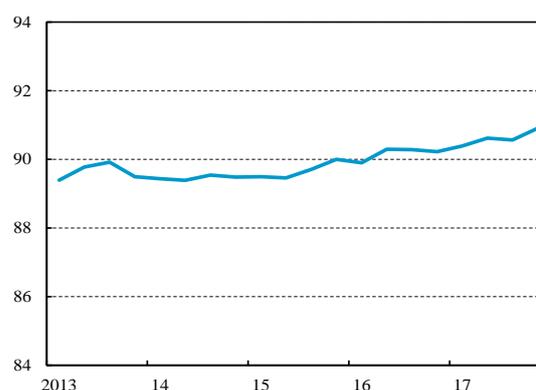
Life insurance companies reported net income before tax of NT\$116.7 billion in 2017, a substantial year-on-year increase of NT\$10.2 billion or 9.59% (Chart 3.43). This

**Table 3.2 Systemic risk indicators for the banking system**

Banking System	Standard & Poor's		Fitch	
	BICRA		BSI/MPI	
	2017/2	2018/2	2017/1	2018/3
Hong Kong	2	2	a/3	a/3
Singapore	2	2	aa/2	aa/2
Japan	2	2	a/1	a/1
South Korea	3	3	a/1	a/1
<b>Taiwan</b>	<b>4</b>	<b>4</b>	<b>bbb/1</b>	<b>bbb/1</b>
Malaysia	4	4	bbb/1	bbb/1
Mainland China	5	6	bb/1	bb/1
Thailand	6	6	bbb/1	bbb/1
Indonesia	7	7	bb/1	bb/1
Philippines	7	7	bb/1	bb/1

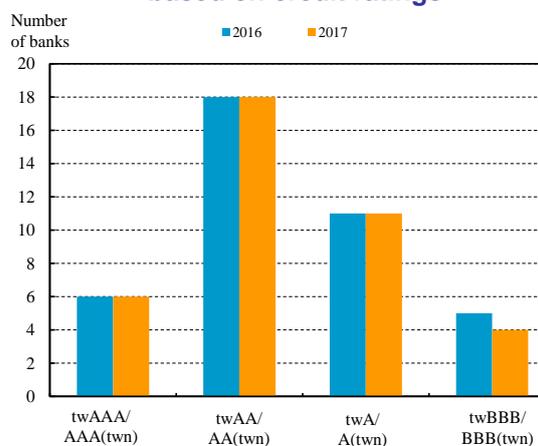
Sources: Standard & Poor's and Fitch Ratings.

**Chart 3.39 Credit rating index of domestic banks**



Sources: Taiwan Ratings Corporation, Fitch Ratings, and CBC.

**Chart 3.40 Number of domestic banks based on credit ratings**



Notes: 1. End-of-period figures.

2. The number of domestic banks reduced from 40 in 2016 to 39 in 2017.

Sources: Taiwan Ratings Corporation and Fitch Ratings.

was chiefly driven by growth in interest revenue and gains on securities investments, as well as a decrease in policy underwriting expenses. However, owing to a greater increase in total equities, the average ROE dropped to 9.42%, while the average ROA held at 0.5% (Chart 3.44), indicating slightly weakened profitability.

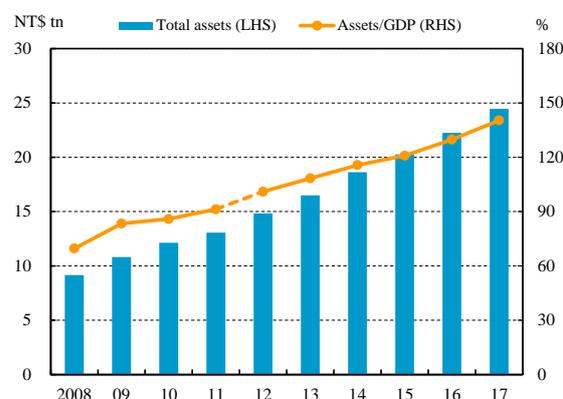
### Average RBC ratio further improved

In 2017, life insurance companies strengthened their capital through accumulation of operating profits and issuance of subordinated debt. As a result, the average RBC ratio rose to 304.9% at the end of the year (Chart 3.45). By individual company, there were 16 companies with RBC ratios over 300%. Only one company had an RBC ratio below the statutory minimum of 200% and needed to improve its financial structure, though its assets accounted for only 1.47% of the total (Chart 3.46).

### Overall credit ratings remained stable

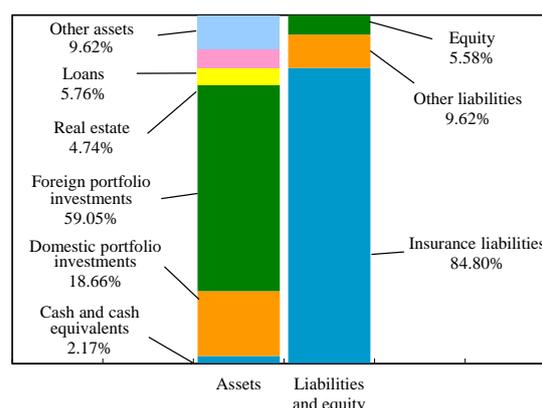
Among the 12 life insurance companies rated by Taiwan Ratings or Fitch Ratings, most received unchanged credit ratings in 2017. As of the end of the year, all rated life insurance companies maintained credit ratings above twA or its equivalent, and most received positive or stable credit outlooks.

**Chart 3.41 Total assets of life insurance companies**



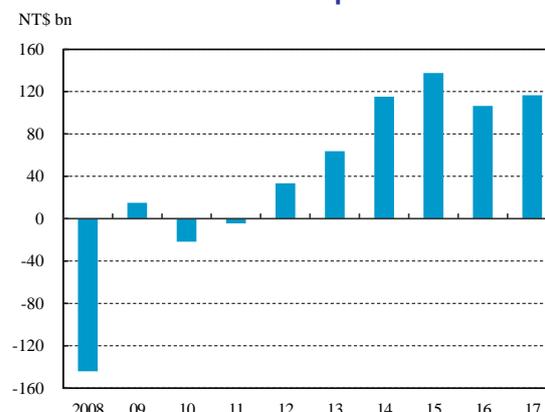
Note: Figures from 2012 forward are on the TIFRSs basis. Figures of prior years are on the ROC GAAP basis.. Sources: FSC and DGBAS.

**Chart 3.42 Asset/liability structure of life insurance companies**



Note: Figures are as of the end of 2017. Source: FSC.

**Chart 3.43 Net income before tax of life insurance companies**



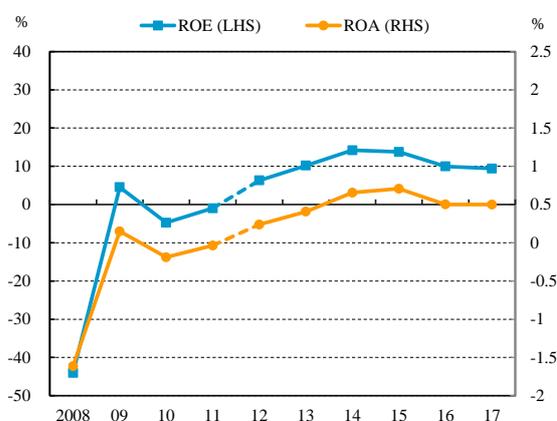
Note: Figures from 2012 forward are on the TIFRSs basis. Figures of prior years are on the ROC GAAP basis. Source: FSC.

### Investment positions expanded, with higher market risks

Foreign portfolio positions of life insurance companies grew continually and reached NT\$14.45 trillion in 2017, posing higher FX risks. In January 2018, the FSC amended the applicable regulations and required life insurance companies to accelerate the accumulation of FX valuation reserves,<sup>56</sup> which could help mitigate the impacts of FX rate fluctuations on their profits.

In addition, volatility in international stock and bond markets heightened in 2018, and, should the US-China trade dispute heat up, downward pressure on global stock prices may further increase. Moreover, considering that the yield on Taiwan government bonds may follow the upward trend of US government bond yields, interest rate risk on bond investments remains high. Therefore, life insurance companies should prudently control the equity risk and interest rate risk of their securities investment positions.

Chart 3.44 ROE & ROA of life insurance companies



Notes: 1. Figures from 2012 forward are on the TIFRSs basis. Figures of prior years are on the ROC GAAP basis.  
2. ROE = net income before tax/average equity.  
3. ROA = net income before tax/average assets.

Source: FSC.

Chart 3.45 RBC ratio of life insurance companies



Notes: 1. RBC ratio = regulatory capital/risk-based capital.  
2. Figures are exclusive of life insurance companies in receivership.

Source: FSC.

<sup>56</sup> See Section 4.2 “Measures undertaken by the FSC to maintain financial stability.”

### 3.2.3 Bills finance companies

The total assets of bills finance companies continued expanding in 2017, while the guarantee business grew moderately and credit asset quality remained sound. The average capital adequacy ratio slightly rose; however, profitability weakened slightly and liquidity risk stayed high.

#### Total assets continued to expand

The total assets of bills finance companies increased by 4.82% in 2017 and stood at NT\$1,034 billion at the end of the year, equivalent to 5.93% of annual GDP (Chart 3.47). The asset expansion was mostly due to the increase in short-term bill investments.

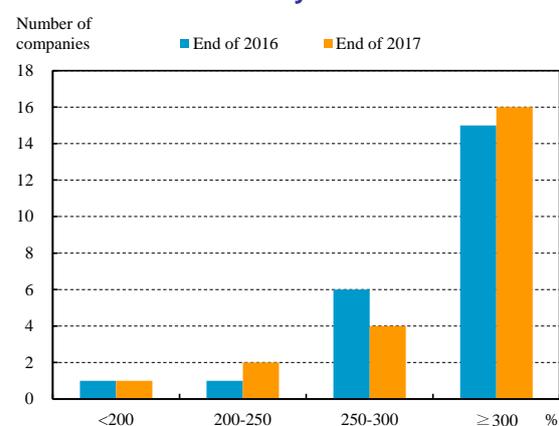
The asset and liability structure of bills finance companies remained roughly unchanged in 2017. On the asset side, bill and bond investments constituted 94.45% of total assets. On the liability side, bills and bonds sold under repo transactions as well as borrowings accounted for 86.50% of total assets, while equity only accounted for 11.84% (Chart 3.48).

#### Credit risk increased moderately

#### Guarantee liabilities grew moderately while credit concentration in real estate trended up

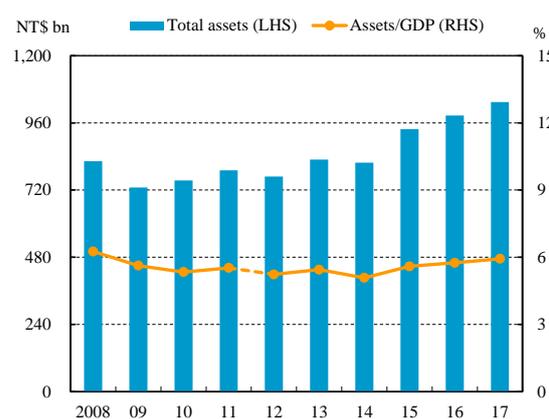
Owing to rising funding demands of corporates in money markets spurred by low short-term

Chart 3.46 Life insurance companies classified by RBC ratios



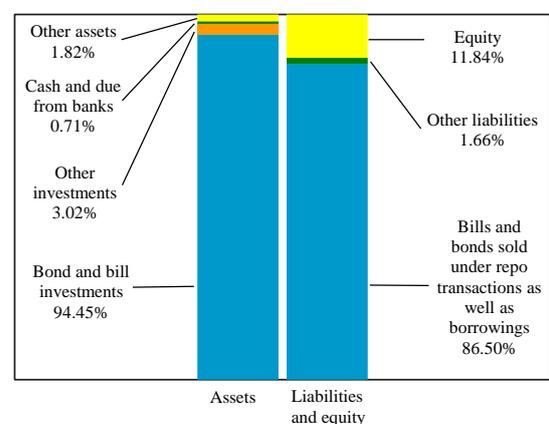
Note: Figures for 2016 are exclusive of Chaoyang Life Insurance. Source: FSC.

Chart 3.47 Total assets of bills finance companies



Note: Figures from 2012 forward are on the TIFRSs basis. Figures of prior years are on the ROC GAAP basis. Sources: CBC and DGBAS.

Chart 3.48 Asset/liability structure of bills finance companies



Note: Figures are as of the end of 2017. Sources: CBC and FSC.

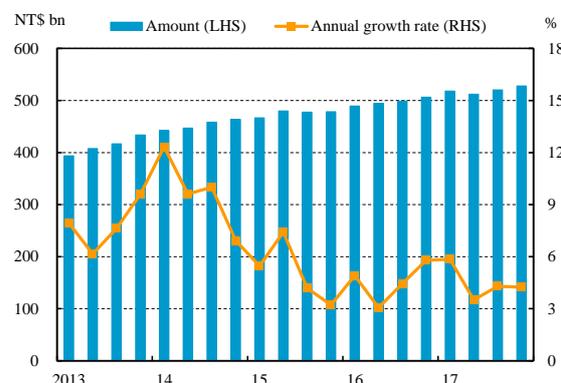
market rates, CP guaranteed by bills finance companies registered NT\$527.8 billion at the end of 2017, an increase of NT\$21.5 billion year on year; nevertheless, the annual growth rate moderated to 4.24% (Chart 3.49). As a result, the average multiple of guarantee liabilities to equity rose to 4.88 times at the end of 2017, compared to 4.67 times a year before. The multiple of each company, however, was still below the regulatory ceiling of 5.5 times.

At the end of 2017, guarantees granted to the real estate and construction industries and the credits secured by real estate slightly ascended to 29.04% and 35.91%, respectively, of total credits of bills finance companies. Both ratios remained at high levels. As the outlook for the domestic housing market remains conservative, bills finance companies should closely monitor real estate related credit risks.

**Credit quality remained sound**

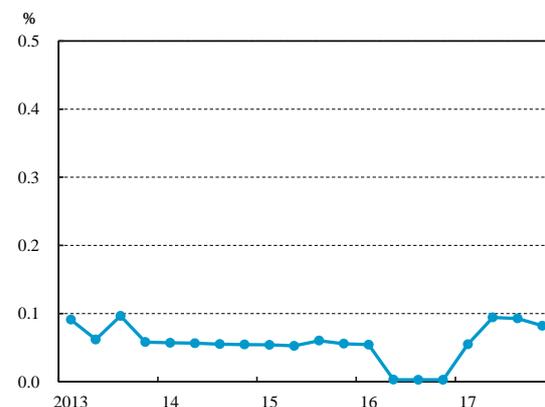
The credit quality of bills finance companies remained sound in 2017, as the non-performing credit ratio stayed at a low level of 0.082% at the end of the year (Chart 3.50). Meanwhile, the credit loss reserves to non-performing credit ratio stood at 18.58 times, reflecting sufficient reserves to cover potential credit losses.

**Chart 3.49 Outstanding CP guaranteed by bills finance companies**



Source: CBC.

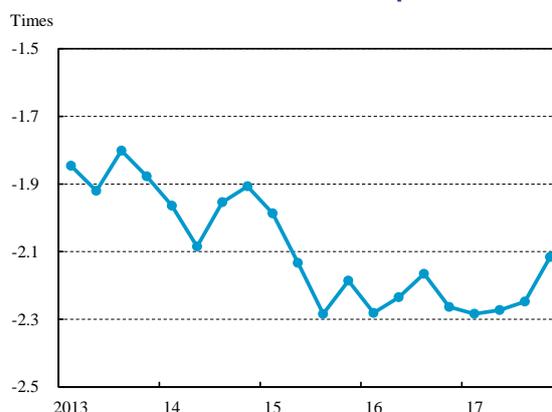
**Chart 3.50 Non-performing credit ratio of bills finance companies**



Note: Non-performing credit ratio = non-performing credit / (overdue guarantee advances + guarantees).

Source: CBC.

**Chart 3.51 0-60 days maturity gap to equity of bills finance companies**



Note: 0-60 days maturity gap = cash inflow of major assets within 0-60 days - cash outflow of major liabilities within 0-60 days.

Source: CBC.

### Liquidity risk remained high

Bills finance companies still faced a significant maturity mismatch between assets and liabilities, as more than 90% of their assets were invested in bills and bonds, 43.22% of which were long-term bonds. In addition, more than 80% of their liabilities were from short-term interbank call loans and repo transactions. Although the 0-60 day maturity gap to equity shrunk to -2.12 times, the liquidity risk in bills finance companies remained high (Chart 3.51).

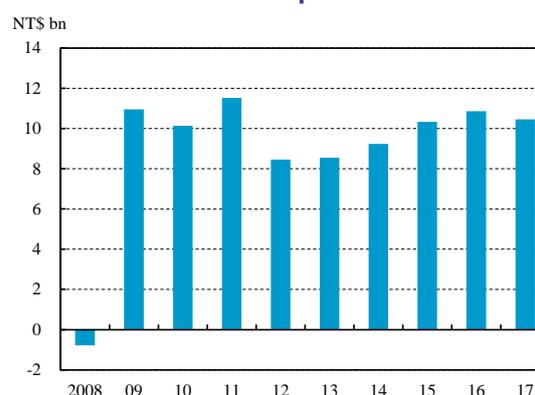
Moreover, major liabilities<sup>57</sup> in bills finance companies grew by 5.05% in 2017, bringing the major liabilities to equity ratio to increase from 7.88 times a year before to 8.29 times at the end of the year. However, the multiple of each company was still below the regulatory ceilings of ten or twelve times.

### Profitability slightly weakened

Bills finance companies posted a net income before tax of NT\$10.5 billion in 2017, a decrease of 3.74% year on year (Chart 3.52).

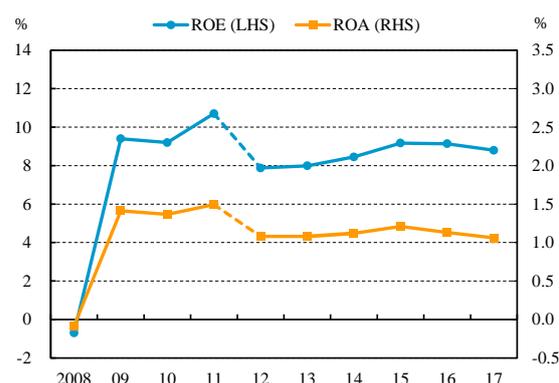
The decline was mainly driven by a decrease in commission fee income amid intense competition in the CP underwriting business, and an increase in the yielding cost of foreign currency bonds. Owing to contraction in profits and the growth in equities and assets, the average ROE and ROA mildly fell to 8.80% and 1.06%, respectively, reflecting a slight weakening of profitability (Chart 3.53).

**Chart 3.52 Net income before tax of bills finance companies**



Note: Figures from 2012 forward are on the TIFRSs basis.  
Figures of prior years are on the ROC GAAP basis.  
Source: CBC.

**Chart 3.53 ROE & ROA of bills finance companies**



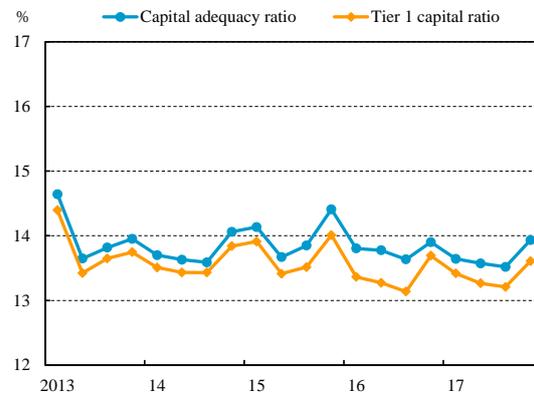
Notes: 1. Figures from 2012 forward are on the TIFRSs basis.  
Figures of prior years are on the ROC GAAP basis.  
2. ROE = net income before tax/average equity.  
3. ROA = net income before tax/average assets.  
Source: CBC.

<sup>57</sup> Major liabilities include call loans, repo transactions as well as issuance of corporate bonds and CP.

### Average capital adequacy ratio mildly rose

The average capital adequacy ratio of bills finance companies mildly ascended to 13.93% at the end of 2017, although the Tier 1 capital ratio slightly declined to 13.61%. Moreover, the capital adequacy ratio for each company remained higher than 13%, well above the statutory minimum of 8% (Chart 3.54).

Chart 3.54 Average capital adequacy ratios of bills finance companies



Source: CBC.

### Box 3

#### Overseas expansion of domestic banks: Current conditions and challenges

In recent years, the government has successively relaxed regulations and promoted overseas expansion policies for banks. Against this backdrop, and faced with the challenges of overbanking, excessive competition, and thin interest margins, domestic banks proactively set up overseas business units. As banks' overseas units have earned a continuously rising share of profits, they have become critical for the future development of domestic banks.

#### 1. Retrospect and current conditions of overseas expansion

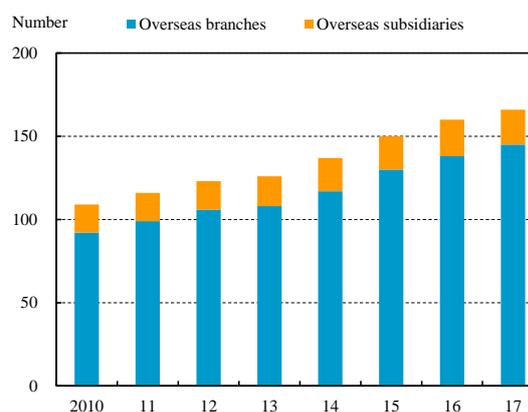
##### 1.1 History of overseas expansion

In the early days, most overseas business units of domestic banks were set up in international financial centers, such as New York, London, and Singapore. However, domestic banks then gradually focused on the countries with Taiwanese enterprise clusters, especially Mainland China. In the past two years, their focus has shifted to New Southbound Policy target countries.<sup>1</sup>

##### 1.2 Most overseas branches and subsidiaries are located in New Southbound Policy target countries

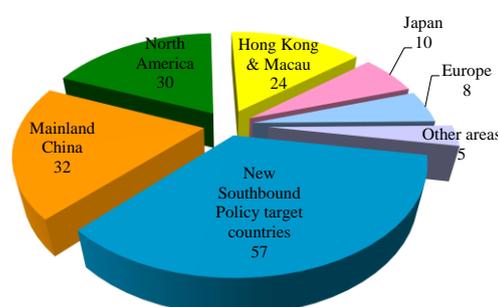
As of the end of 2017, domestic banks had 485 overseas business units,<sup>2</sup> including 145 branches and 21 subsidiaries, both greater than the respective numbers in 2010 (Chart B3.1). As for geographical distribution, most overseas branches or subsidiaries were set up in New Southbound Policy target countries (57), followed by Mainland China (32), North America

**Chart B3.1 Number of overseas business units of domestic banks**



Source: CBC.

**Chart B3.2 Geographical distribution of overseas business units**



Note: Figures are as of the end of 2017 and denote the number of business units.

Source: CBC.

(30), and Hong Kong & Macau (24) (Chart B3.2). This demonstrates that overseas expansion strategies of most domestic banks still focused on the areas where Taiwanese enterprises have trade or investment relationships.

## 2. Profile and management of overseas business units

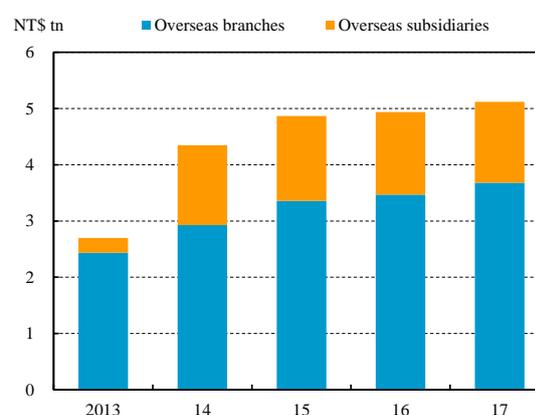
### 2.1 Overseas business units in Hong Kong & Macau and New Southbound Policy target areas have relatively large asset scales

While domestic banks continued overseas expansion, total assets of those units grew gradually and reached NT\$5.12 trillion at the end of 2017, with overseas branches and subsidiaries accounting for 71.88% and 28.12%, respectively (Chart B3.3). Among all areas, total assets of those in Hong Kong & Macau was the largest (NT\$1.37 trillion), while those in New Southbound Policy target areas (NT\$0.96 trillion), North America (NT\$0.89 trillion), Japan (NT\$0.86 trillion), and Mainland China (NT\$0.85 trillion) had similar levels of assets.

### 2.2 Total profit rebounded in 2017, with Hong Kong & Macau registering the highest

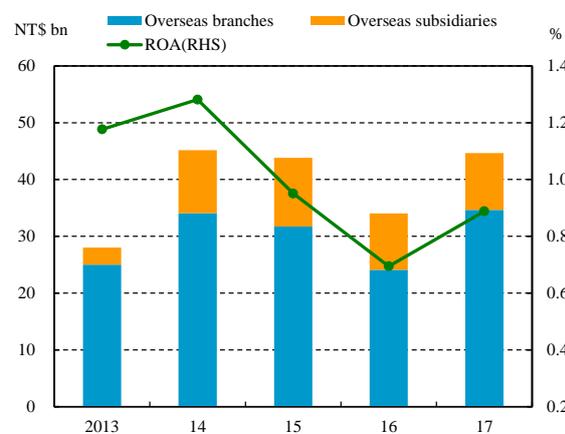
Owing to rising non-interest income and falling loan loss provisions, the total net income before tax of overseas branches and subsidiaries increased markedly by 31.16% year on year to NT\$44.6 billion in 2017. Their average ROA rose to 0.89% (Chart B3.4), higher than domestic banks' overall average of 0.66%. Among all areas, overseas units in Hong Kong & Macau posted net income before tax of NT\$13.8 billion,

**Chart B3.3 Total assets of overseas business units**



Source: CBC.

**Chart B3.4 Total net income before tax of overseas business units**



Source: CBC.

making the largest contribution, followed by North America at NT\$9 billion and New Southbound Policy target areas at NT\$8.6 billion.

### **2.3 Business concentrated on loan extension and capital market activities**

As domestic banks have a limited number of overseas branches, they face greater challenges to enter foreign retail markets. As a result, corporate finance and capital markets have become the core business lines of their overseas branches. Against this backdrop, syndicated loans granted by some domestic banks accounted for more than 80% of their overseas loans. Therefore, a default on any of those syndicated loans may simultaneously create impacts on the profits of several domestic banks. However, because overseas branches were aggressive in writing off bad loans, their NPL ratios remained low with the average ratio sitting at 0.15% as of the end of 2017.

### **2.4 Headquarters have enhanced management of overseas business units recently**

In recent years, domestic banks have strengthened the management of overseas business units. Most of them have adopted a matrix management framework on overseas branches, requiring the business line or management function of overseas branches to report directly to respective authorized units in headquarters. As for overseas subsidiaries, indirect management was employed through the designation of subsidiary board members and senior managers. Meanwhile, most domestic banks set up a specialized department in headquarters so as to effectively integrate and monitor the operation of overseas branches and subsidiaries. Furthermore, the risks of overseas branches were controlled in the bank-wide risk management framework, including the implementation of risks or trading limits as well as significant events reporting mechanisms.

## ***3. Opportunities and challenges of domestic banks' overseas expansion***

### **3.1 With strong growth momentum and wide interest margins, ASEAN countries have become the key expansion areas of several domestic banks**

The Association of Southeast Asian Nations (ASEAN)<sup>3</sup> countries have rapid economic growth, huge domestic needs, high demographic dividends, and strong infrastructure construction demands. In light of the potential these strengths represent and encouraged by the government's New Southbound Policy, many domestic banks favored ASEAN countries when choosing expansion locations. Moreover, as Taiwanese enterprises have strong business presence in several ASEAN countries, and the interest margins there are higher than those in Taiwan, these markets have appealed strongly to domestic banks.

### **3.2 Several ASEAN countries set entry barriers, hindering overseas expansions of domestic banks**

Many domestic banks desire to set up business units in ASEAN countries. However, except for Singapore and the Philippines, most ASEAN countries set entry barriers for foreign banks. Although some ASEAN countries allow foreign entry through mergers or acquisitions, uncertainty surrounding the closure of such deals has become relatively high.

### **3.3 Difficulties in the operation and management of overseas business units**

Owing to differences in ethnicity, culture, and language, domestic banks faced challenges building up large scale localized business in ASEAN countries. Moreover, it is not easy to recruit and train talent in overseas markets. This, together with high employee turnover rates, increased the difficulties with regard to the management of overseas business units.

## **4. Conclusion**

Domestic banks proactively carried out overseas expansion strategies in recent years. While this effort creates new growth momentum for the banking industry in Taiwan, it also presents several challenges to domestic banks. To smoothly join and expand their business in foreign markets, domestic banks should enhance risk management and reinforce compliance and anti-money laundering (AML) activities. The competent authorities should, on the one hand, amend relevant regulations to strengthen banks' management of overseas branches. On the other hand, the authorities should make great effort to sign the memorandums of understanding with foreign counterparties on financial supervision, in order to foster effective supervision of overseas business units and prevent unsound operations of those units from having negative spillover effects on Taiwan's financial stability.

- Notes: 1. New Southbound Policy target countries include Thailand, Indonesia, the Philippines, Malaysia, Singapore, Brunei, Vietnam, Myanmar, Cambodia, Laos, India, Pakistan, Bangladesh, Nepal, Sri Lanka, Bhutan, Australia, and New Zealand.
2. Overseas business units include overseas branches and their sub-branches, overseas subsidiaries and their branches, representative offices, finance companies, etc.
3. ASEAN consists of ten countries, including Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.