

## **The Market Reactions to the Cross-Border Banking-Evidence of Taiwan Banks in China**

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### **Abstract**

*In 2010, China and Taiwan signed the Economic Cooperation Framework Agreement (ECFA) that allows Taiwan banks to establish branches in China. This study examines the market reactions to the cross-border financial service integration of Taiwan banks. We find that investors reacted positively when cross-strait banking was approved by the Taiwanese government, and when branches of Taiwan banks started to operate in China. Interest revenue is the major source of income in the early stage of cross-border banking. The increasing loan and investors' positive reaction imply that information asymmetry problem for firms in foreign credit market might be alleviated through cross-border financial service integration.*

**JEL Classification:** F14, F36, G21

**Keywords:** Financial service integration, Cross-border banking, Market reaction, Taiwan, Event study

### **1. Introduction**

Regional economic integration has had important effects on the economic development of North America, Europe and Asia over last three decades. In 2010, China and Taiwan signed the Economic Cooperation Framework Agreement (ECFA) that allows Taiwan banks to establish branches in China. This agreement has opened the way for China and Taiwan banks to provide integrated financial service cross Taiwan Strait (Yeh and Ho, 2012).

However, due to severe competition and restrictions imposed on the scope of activities to foreign banks, it is uncertain whether the ECFA offers an opportunity or increases operating risk for Taiwan banks into China's financial service market.

This study aims to investigate the impact and market reactions to the entry of Taiwan banks in China. We examine 22 cross-Strait banking announcements. We find that investors reacted positively to the approval by the Taiwanese government, and to the operating announcement in China, with cumulative abnormal returns of 4.7702% and 2.7196% respectively. We also find that interest revenue is the major source of income in the early stage of cross-border banking. The increasing loan implies that the information asymmetry problem for Taiwanese firms in China's credit market might be alleviated through greater integration of cross-Strait financial services.

## **2. Cross-Strait financial services**

In November 1987, Taiwan implemented its 'open door policy' that allows Taiwanese to visit their relatives in Mainland China (Clark, 2002). In 2008, due to the increasing social and economic interactions, China and Taiwan signed a direct air transport agreement that allowed cargo and passengers to fly directly across the Strait, without being routed via a third location, such as Hong Kong and Macau (Lau et al., 2012). According to the Investment Commission (2012), Taiwanese' investments in China increased from USD 174 million in 1991 to 1.437 billion in 2011. In fact, China has become the number one trading partner of Taiwan, with annual trading amount of USD 127 billion that accounted for 21.63% of Taiwan's total trade in 2011 (Bureau of Foreign Trade, 2013).

However, Taiwan-based financial institutions were not allowed to operate in China in 1990s and 2000s. This limitation on financial service had negative effects on the development of small- and medium-sized Taiwanese companies in China, because such firms usually have difficulty obtaining funding from Chinese banks due to relatively small size and the lack of credit history in China. In November 2009, China and Taiwan signed the Cross-Strait Financial Supervision Memorandum of Understanding (MOU), which provides a favorable cooperation platform for opening branches of financial institutions in both Taiwan and China. In June 29, 2010, China and Taiwan then signed the Economic Cooperation Framework Agreement (ECFA), with the financial industry being included in the so-called "Early Harvest Programme" that lists the main areas for greater economic cooperation cross strait. In December 28, 2010, the Chang Hwa Bank and Taiwan Cooperative Bank established their first branches in Kunshan and Soochow, respectively. This marked the first time the entry of Taiwan-based banks in China after over 60 years of political and economic separation.

As mentioned by Sander et al. (2013), credit markets are more exposed to information asymmetry than other markets. They find that cross-border financial service integration like EU membership is a strong driver of cross-border loans. The cross-Strait financial service is expected to reduce the information asymmetry problem for Taiwanese business in China credit market and increase the chance to obtain loans from Taiwan-based banks. Furthermore, the Taiwanese domestic market is highly competitive with interest spread that is usually below 2%. The high economic growth and export expansion in China (Mah, 2005) may bring new business opportunity for Taiwan-based banks in China.

On the other hand, the institutional environment in China is a relatively uncertain one with regard to the potential profits that can be obtained from cross-border banking. First, the financial services market for foreign banks in China is quite competitive. After joining the World Trade Organization (WTO) in year 2001, China opened its financial services market to foreign banks, and there are now over 200 foreign financial institutions operating in China. However, China's four major financial institutions hold more than 80% of assets in the banking system (Lee and Liu, 2011). As mentioned by Berger et al. (2000), foreign banks face additional competition from local financial services firms that usually have 'home field advantage'. The foreign banks in China have long struggled to build a business of any scale (China Post, 2010). For example, HSBC Holdings PLC, the biggest foreign bank in China, and Standard Chartered PLC, reported falls in earnings of 60% and 34% in 2009 for their Chinese operations, respectively.

Second, the operating activities of Taiwan banks in China are restrictive. The China Banking Regulatory Commission (CBRC) allows Taiwanese banks to conduct Renminbi (hereafter RMB) business after their branches in China have shown at least two years of operating profit (Chiang, 2011). The CBRC also states that Taiwanese banks can only provide RMB related financial services to registered Taiwanese firms.

However, in practice, many Taiwanese companies that entered the Chinese market in the early years registered as foreign business coming from a third region, like Hong Kong, in order to overcome the regulatory concerns that existed at the time. These Taiwanese firms are now not qualified to use the RMB financial services offered by Taiwan banks.

As mentioned by Mamun et al. (2011), foreign banks should meet capitalization and management standards of entry countries. The regulation restrictions on Taiwan-based banks may limit their business scope in China.

**3. Data and methodology**

The institutional background outlined above motivates our investigation into cross-Strait banking service in two ways. We first analyze the operating income of cross-border banking over years 2011 to 2012. The income and profit data is based on the “Financial Business Statistics” released by the Taiwan Financial Supervisory Commission. Second, we examine the market reaction on the announcement to open a branch in China by using event study methodology. Following Fama et al. (1969), we use market model to calculate the cumulative abnormal return and Ordinary Least Square (OLS) methods to estimate abnormal return (AR) and cumulative abnormal return (CAR) for each event. The models are listed as follows:

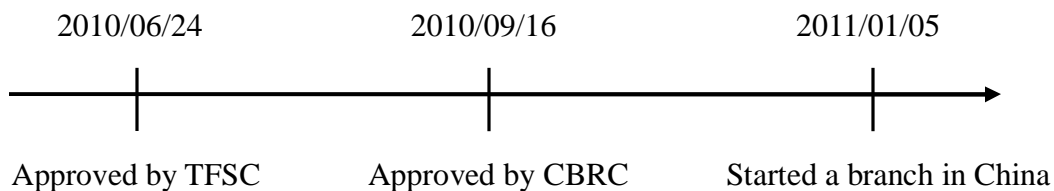
$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \tag{1}$$

$$AR_{it} = R_{it} - E(R_{it}) \tag{2}$$

$$CAR_{it} = \sum_{t=1}^{t=T} AR_{it} \tag{3}$$

, where  $R_{it}$  is the return of bank  $i$  in time  $t$ .  $R_{mt}$  represents market return in time  $t$ .  $\alpha_i$  is intercept and  $\beta_i$  is the intercept of  $R_{mt}$ .  $\varepsilon_{it}$  is the error term.  $AR_{it}$  is the abnormal return of bank  $i$  in time  $t$ .  $E(R_{it})$  is the expected return of bank  $i$  in time  $t$ .  $CAR_{it}$  is cumulated abnormal return for time period from time  $1$  to time  $T$ .

Our sample includes 10 Taiwanese banks that had been approved by the CBRC to open branches in China. We use three important dates to observe investors’ reactions on cross-Strait banking: (1) the approval date by the Taiwan Financial Supervising Commission (TFSC), (2) the approval date by China Banking Regulatory Commission (CBRC), and (3) the date that Taiwanese banks started to operate in China. Since each bank has different schedules for approval and operations, the observations include 22 event days (16 for application approval and six for branch opening). Figure 1 illustrates the event dates of First Bank to establish branch in China.



**Figure 1. Three events for establishing branches in China- example of First Bank.**

The window period to observe investors’ reactions is 13 days, which includes two days in the pre-announcement period and 10 days in the post-announcement one (-2, 0, +10). The period used for estimation of the expected returns is 120 days. The Land Bank and Bank of Taiwan are included in the profit analysis but excluded from the event analysis since they are not publicly traded. Table 1 lists all event days of the sample.

**Table 1: Events and profits of cross-Strait banking of Taiwan banks**

Banks	Date Approved by TFSC	Date Approved by CBRC	First Operating Date in China	Branch Location in China	Income before Tax of 2011 (in mil.)	Income before Tax of 2012 (in mil.)
Chung Hwa Bank	2010/06/24	2010/09/16	2010/12/28	Kunshan	41	64
Taiwan Cooperative Bank	2010/06/24	2010/09/16	2010/12/28	Soochow	45	143
First Bank	2010/06/24	2010/09/16	2011/01/05	Kunshan	42	59
Land Bank (unlisted)	2010/06/24	2010/09/16	2010/12/29	Suzhou	52	64
Cathay United Bank	2010/08/01	2010/10/13	2010/12/30	Shanghai	69	299
Hua Nan Bank	2010/08/19	2010/10/13	2011/01/20	Shenzhen	44	70
Chinatrust	2010/09/16	2011/11/10	2012/04/11	Shanghai	N/A	83
Mega International Commercial Bank	2011/01/27	2011/11/18	2012/06/21	Suzhou	N/A	142
Bank of Taiwan (unlisted)	2011/02/10	2011/12/26	2012/07/10	Shanghai	N/A	36
E.SUN Bank	2011/06/16	2011/12/26	2012/09/21	Dongguan	N/A	62

Note: TFSC is the Taiwan Financial Supervisory Commission. CBRC is China Banking Regulatory Commission. The profit is based on figures released by the Taiwan Financial Supervisory Commission ([http://www.banking.gov.tw/abridged\\_income\\_statement](http://www.banking.gov.tw/abridged_income_statement)).

#### 4. Results

The last two columns of Table 1 show the profits of Taiwan-based banks of 2011 and 2012. Chung Hwa Bank, Taiwan Cooperative Bank, First Bank and Land Bank were the first four banks that won approval to establish branches in China in 2010. Of the 10 branches examined in this study, six Taiwanese banks started operations in China before 2011, and four in 2012. The 10 branches are mainly located in southeast China, in cities such as Shanghai, Suzhou, Kunshan and Dongguan, where most Taiwanese enterprises operate. As shown in Table 1, all 10 branches had rising profits in 2012, with interest revenue being the main source of income. Cathay United Bank had the highest net income among the 10 branches. The statistics also show that interest expenditure was very low for these branches, probably due to the restrictions on RMB related services.

Table 2 show the estimation of stock return on three event days. The first column shows that investors reacted positively on the day of the approval announcements made by the TFSC, with significant abnormal return (AR) of 0.6781%. This positive reaction continued to the sixth day with highest cumulative abnormal returns (CAR) of 6.3101%, and extended to the tenth day of 4.7702% at 0.05 significance level. In contrast, Table 2 shows insignificant market reaction on the approval by CBRC, with only one significant positive abnormal return of 0.9885% at the first date after approval. This finding shows that CBRC's approval probably was seen as repeated news after TFSC's approval. It may also reflect investors' concern for the uncertainties related to operating process in China<sup>1</sup>. The last column in Table 2 reports investors' positive reaction on the announcements that new bank branches had started operations in China. There are positive and significant CAR of 2.7196%, starting from two days prior to the first operating date and extending to the eighth day.

<sup>1</sup> The CBRC requires foreign and Taiwanese banks to send application forms to the local Banking Regulatory Commission in China, and to undergo related site investigations. The local Banking Regulatory Commission then reports the results of these to the central Banking Regulatory Commission in Beijing, which then decides whether or not to pass the application within two months.

**Table 2: Market reaction to cross-Strait banking**

Event Date	(1) Approved by TFSC		(2) Approved by CBRC		(3) Starting Operations in China	
	AR	CAR	AR	CAR	AR	CAR
-2	0.1147 (0.6390)	0.1147 (0.6390)	-0.0889 (0.639)	-0.0889 (0.639)	0.6769* (0.0935)	0.6769* (0.0935)
-1	-0.1053 (0.3420)	0.0095 (0.3420)	-0.2832 (0.2385)	-0.372 (0.639)	0.1201 (0.4393)	0.797* (0.0935)
0	0.6781* (0.0969)	0.6876 (0.8099)	0.0732 (0.8099)	-0.2988 (0.4358)	-0.2182 (0.8964)	0.5788* (0.0935)
1	1.5115 (0.8099)	2.1991* (0.0969)	0.9885* (0.0969)	0.6897 (0.342)	3.4261* (0.0935)	4.0049* (0.0935)
2	2.3147* (0.0969)	4.5138* (0.0969)	0.1777 (0.342)	0.8674 (0.342)	-0.1797 (0.4393)	3.8252* (0.0935)
3	-0.4593 (0.2385)	4.0545*** (0.0021)	-0.1747 (0.639)	0.6927 (0.342)	0.1319 (0.4393)	3.9571* (0.0935)
4	-0.0702 (0.8099)	3.9843* (0.0969)	0.8691 (0.342)	1.5618 (0.342)	0.8691 (0.342)	1.5618 (0.342)
5	1.1584* (0.0969)	5.1426** (0.0178)	-0.1923 (0.8099)	1.3695 (0.342)	-1.2032 (0.3012)	3.5170 (0.4393)
6	1.1675* (0.0969)	6.3101* (0.0969)	1.3258 (0.342)	2.6953 (0.342)	-0.4600 (0.3012)	3.0570* (0.0935)
7	-0.5921 (0.2385)	5.718** (0.0178)	-0.3913 (0.2385)	2.304 (0.342)	0.1925* (0.0935)	3.2495* (0.0935)
8	0.0335 (0.8099)	5.7515** (0.0178)	-0.4735 (0.639)	1.8305 (0.342)	-0.5299 (0.8964)	2.7196* (0.0935)
9	-0.6559*** (0.0094)	5.0956** (0.0178)	-0.7515 (0.2385)	0.8099 (0.1355)	0.8509* (0.0935)	3.5705 (0.4393)
10	-0.3254 (0.6390)	4.7702** (0.0178)	0.7371* (0.0969)	1.8161* (0.0969)	-0.446 (0.3012)	3.1245 (0.4393)

Note: This table shows the abnormal returns (AR) and cumulative abnormal returns (CAR) of investors' reactions on three event days regarding the cross-Strait banking process. TFSC is the Taiwan Financial Supervisory Commission. CBRC is the China Banking Regulatory Commission. \*,\*\* and \*\*\* indicate significance at 10%, 5% and 1% level respectively.

## 5. Conclusion

This study examines the impact and market reactions on the cross-border banking of Taiwan banks in China. The results show that loans have been the major source of income for Taiwan banks operating in China. Investors reacted positively when the TFSC gave its approval to open bank branch, and when the branches opened in China. Investors did not react significantly to the approval announcements made by the CBRC. The increasing loan and investors' positive reaction imply that the information asymmetry problem for Taiwanese firms in China credit market might be alleviated through cross-border finance service integration and investors react positively to the cross-Strait banking.

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