# Box 5 History and prospects of Taiwan's bond markets

Bond markets play an important part in a country's capital markets as a key channel for corporations and the government to raise medium- and long-term funds. The soundness of bond markets is closely related to financial stability and is always the focus of the Ministry of Finance, the CBC and bond market supervisors (the FSC and the Gre Tai Securities Market). This box discusses the history and present condition of Taiwan's bond markets, and analyzes their future prospects.

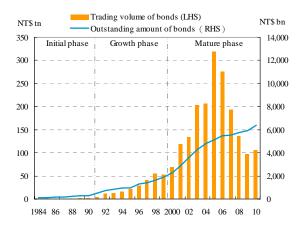
## 1. History

The history of Taiwan's bond markets can be divided into three phases (Chart B5.1):

### 1.1 1949~1990

On 1 August 1949, the central government issued the first public bond and established the first bond market in Taiwan. During this period, bond issuance volume was small and most bonds were held by financial institutions as liquidity

# Chart B5.1 History of Taiwan's bond markets



Note: The trading volume and outstanding amount before 1984 are excluded here for being too small.

Source: CBC.

reserves, resulting in an insufficient supply of traded bonds. Coupled with limited market participants, secondary bond markets were inactive.

#### 1.2 1991~1999

Since 1991, Taiwan's government issued more government bonds in order to raise necessary funds for the Six-year National Development Plan, leading to an increasing supply of government bonds in the market. Financial institutions also began to actively participate in bond markets. Furthermore, corporations started to raise funds through capital markets and issue corporate bonds. Beginning from 1997, government bonds were issued in book-entry form and the CBC implemented the real-time gross settlement (RTGS) mechanism for bond transactions. Transaction parties who conduct settlement through the same clearing bank are allowed to settle their transactions through the delivery versus payment (DVP) mechanism. These developments simplified government bond management and lowered settlement risks faced by market participants. As a result,

Taiwan's bond markets entered into a growth phase.

# 1.3 2000~present day

In July 2000, the Gre Tai Securities Market introduced the Electronic Bond Trading System (EBTS), providing bond dealers an online trading platform different from the price negotiations conducted via phone. The EBTS significantly improved trading efficiency and thus substantially increased the outright transaction volume. It was an important progress in Taiwan's bond market. Moreover, the Ministry of Finance, the CBC and bond market supervisors have continued to introduce measures regarding the improvement of bond issuance, trading and settlement. These included the introduction of a regular and moderate issuance system, reopening system, when-issued trading system, primary dealer system and lending facility for government bonds, the establishment of a corporate bond and financial debenture trading platform, as well as the opening of new bond-related financial products. They also introduced a delivery-versus-payment (DVP) mechanism for book-entry security transactions in order to reduce the settlement risk in bond markets.

The efficiency of Taiwan's bond markets improved substantially and both issuance and trading volume grew markedly. In particular, the bond trading volume hit a new high in 2005, making Taiwan's bond markets the second largest in Asia, only behind Japan's. In recent years, though, as Taiwan's bond markets have entered a mature phase, the trading volume has gradually decreased. Furthermore, during this phase, financial institutions bought and hoarded a great deal of bonds due to ample funds at hand, which resulted in an insufficient supply of bonds and an imbalance of supply and demand in the market, and in turn caused distortions of the government bond yield curve. Additionally, high volatility in the cost of bond borrowing also diminished the trading willingness of market participants. All these are crucial factors that have hindered the development of bond markets.

# 2. Current condition of bond markets

# 2.1 Primary market

Bond issuance outstanding at the end of 2010 amounted to NT\$6.48 trillion, an increase of 6.4% from a year ago. Government bonds accounted for the largest share of 66.8% of the total, followed by corporate bonds at 18.6% and financial debentures at 12.6% <sup>1</sup>. The market share of each kind of bond remained stable (Table B5.1).

Table B5.1 Outstanding amount of bonds by category

Unit: NT\$ Trillion, %

End of year or month	Total	Government bonds		Corporate bonds		Financial debentures		Beneficiary securities		Foreign bonds and international bonds	
		Outstanding amount	Ratio	Outstanding amount	Ratio	Outstanding amount	Ratio	Outstanding amount	Ratio	Outstanding amount	Ratio
2008	5.98	3.74	62.5	1.14	19.1	0.90	15.0	0.14	2.4	0.06	1.0
2009	6.09	3.97	65.2	1.14	18.7	0.81	13.3	0.11	1.8	0.06	1.0
2010	6.48	4.33	66.8	1.20	18.6	0.82	12.6	0.08	1.2	0.05	0.8
2011/2	6.45	4.32	66.9	1.22	18.9	0.81	12.5	0.06	1.0	0.04	0.7

Sources: CBC and FSC.

# 2.2 Secondary market

The amount of bonds traded in 2010 was NT\$106.31 trillion, an increase of 9.0% year on year. The market share of government bonds in trading volume was roughly 98% before 2009 and decreased to 89.5% in 2010, while that of corporate bonds increased from 1.3% to 9%. The changes were mainly due to an adjustment to bond categories. As for financial debentures, beneficiary securities, foreign bonds and international bonds, the trading volume only accounted for a small share of the whole market (Table B5.2).

Table B5.2 Trading volume of bonds by category

Unit: NT\$ Trillion, %

Year or month	Total	Government		Corporate		Financial		Beneficiary		Foreign bonds and	
		bonds		bonds		debentures		securities		international bonds	
		Trading	Ratio	Trading	Ratio	Trading volume	Ratio	Trading	Ratio	Trading	Ratio
		volume		volume	Ttutio			volume		volume	
2008	135.51	133.75	98.7	1.39	1.0	0.21	0.1	0.08	0.1	0.08	0.1
2009	97.54	95.99	98.4	1.34	1.3	0.15	0.2	0.00	0.0	0.06	0.1
2010	106.31	95.21	89.5	9.56	9.0	1.36	1.3	0.12	0.1	0.06	0.1
2011/1-2	15.32	13.19	86.1	1.89	12.3	0.21	1.4	0.02	0.1	0.01	0.1

Source: CBC.

### 3. Looking into 2011

# 3.1 Primary market

The government bond issuance program of 2011, announced by the Ministry of Finance, showed that the government bond issuance amount will be slightly larger than that of 2010. The issuance amount of Type A government bonds in 2011 Q1 will be NT\$185 billion, among which NT\$110 billion will be used to refinance existing debt. This indicates that the supply of government bonds will not increase too much. As for corporate bond issuance, escalating interest rates resulting from the recovering economy

will encourage firms to increase bond issuances to fix their interest expenses at low levels. In addition, the FSC elevated the risk weight for non-self-use residence loans from 45% to 100% in order to enhance banks' risk management on real estate-related loans. In response, banks also tended to increase subordinated financial debentures issuance to meet the new capital requirement.

# 3.2 Secondary market

Currently, domestic funds are ample, but the supply of bond instruments is insufficient and most of them are hoarded by financial institutions. As a result, a structural imbalance between the supply and demand of bonds still exists. Therefore, the outright transactions of bond markets in 2011 are estimated to remain at the low levels seen in recent years.

Note: Financial institutions started to issue subordinated financial debentures from 2002 to decrease their NPL ratios and increase their capital adequacy ratios.