

# 7.Bond Market

In 2007, new issues of bonds hit a record high of NT\$1,376.9 billion, and the outstanding amount also reached a new high of NT\$6,042.8 billion at the year-end. Among them, issues of asset securitization registered the largest increase owing to its low risk and steady returns. Issues of government bonds shrank, reflecting higher-than-expected tax revenues. Issues of bank debentures increased (especially near the end of each quarter) as domestic banks enhanced capital adequacy to meet the Basel II Capital Accord. Issues of corporate bonds declined rapidly due to an increasing cost of bond issuance, and were mainly made by medium- and large-sized enterprises. In addition, only one foreign currency-denominated bond was issued in Taiwan, i.e. an AUD-denominated international bond issued by BNP Paribas Bank.

In the secondary market, bond transactions amounted to NT\$193.68 trillion in 2007, a decrease of NT\$81.99 trillion or 29.7 percent from the previous year. The decline came as rising long-term interest rates discouraged transactions by bond dealers, issues of government bonds decreased, and some bondholders locked in their positions to park funds. Bond yields first declined and then picked up in the first half of the year, and consolidated upwards in the second half.

Domestic bond funds continued to shrink this year. The outstanding amount of domestic bond funds fell from NT\$1.1 trillion at the end of 2006 to NT\$0.8 trillion at the end of 2007. It was mainly because the Financial Supervisory Commission (FSC) required quasi money market funds to lower the ratio of bonds in their portfolio allocations and not to purchase additional structured bonds, and because bond funds are subjected to a 10 percent separate tax on interest income from repurchase agreement transactions.

### **Decrease in Government Bond Issues**

The Ministry of Finance (MOF) and the Taipei City Government issued government bonds to a total value of NT\$402.2 billion in 2007, a significant decrease of 14.1 percent from the previous year. The outstanding amount of government bonds reached a historic high of NT\$3,519.8 billion at the end of 2007, up 3.9 percent from the previous year.

The MOF issued re-open government bonds 5 times in order to extend the duration of benchmark bonds and to prevent price-setting monopoly. Moreover, the government issued two stripped government bonds with a maturity of 5 years to help build an effective bond yield curve and to promote principal guaranteed products. Almost all bonds in 2007 were



Unit: NT\$ Billion

Year/	Total		Central Government Bonds		Local Government Bonds		Corporate Bonds		Bank Debentures		Beneficiary Securites**		Foreign Bonds*	
Month	Issues	Outstandina					Issues	Outstandina	Issues	Outstandina			Issues	Outstanding**
2005	986.8	Ŭ		Ŭ	24.0	Ŭ	203.9	· ·		•		- ·		104.0
2006	1,220.1	5,887.6	440.0	3,239.3	28.0	145.4	230.1	1,151.4	172.5	925.9	337.8	342.4	11.7	83.2
2007	1,376.9	6,042.8	393.2	3,410.0	9.0	109.8	156.2	1,099.5	192.5	917.4	617.5	426.2	8.5	79.9
2007/1	109.1	5,874.3	40.0	3,199.0	_	145.4	5.4	1,135.0	0.0	923.8	63.7	387.9	-	83.2
2	108.5	5,869.3	30.0	3,178.9	_	145.3	8.4	1,136.4	7.2	930.1	62.9	396.4	-	82.2
3	94.5	5,910.4	40.0	3,218.8	_	143.3	6.7	1,134.3	24.2	942.0	23.6	392.4	-	79.6
4	79.1	5,927.7	30.0	3,248.8	9.0	143.3	10.3	1,123.4	3.9	934.8	26.4	391.3	8.5	86.1
5	128.5	5,934.9	30.0	3,278.7	-	143.5	9.2	1,113.5	1.5	904.2	78.8	409.9	-	85.1
6	139.1	6,018.7	40.0	3,318.3	-	143.4	13.8	1,113.1	15.7	927.5	69.6	431.7	-	84.7
7	86.9	5,977.1	20.0	3,308.2	_	133.4	24.2	1,109.2	0.0	901.5	42.7	440.6	-	84.2
8	86.8	5,969.4	9.9	3,318.1		125.9	5.1	1,102.1	5.0	897.1	66.8	443.0		83.2
9	130.5	5,991.7	40.0	3,328.0	_	118.1	10.8	1,102.2	33.1	919.7	46.6	440.9	-	82.8
10	95.7	5,974.8	58.3	3,355.1		118.0	5.2	1,096.6	0.0	884.6	32.2	439.2		81.3
11	122.5	6,015.1	30.0	3,385.1	_	117.9	21.7	1,107.8	12.1	888.8	58.7	435.2	-	80.3
12	195.7	6,042.8	25.0	3,410.0	-	109.8	35.4	1,099.5	89.8	917.4	45.5	426.2		79.9

# Issues and Outstanding Values in Bond Market by Category

Notes: \* Including NT dollar and foreign currency-denominated bonds issued in Taiwan by international financial institutions. \*\* Including those purchased back by originators for credit enhancement. Source: Financial Statistics Monthly, CBC.

issued at a higher interest rate than those in the previous year, reflecting a bearish trend of the bond market.

#### Sharp Decline in Corporate Bond Issues

The total value of corporate bond issues in 2007 was NT\$156.2 billion, a decrease of 32.1 percent from the previous year. The issues were remarkably sluggish in the first quarter due to the Rebar fraud case. In the second quarter, enterprises turned to bank loans or other funding sources due to a rising cost of issuing corporate bonds. In the third quarter, securities companies increased issues of bonds to meet their funding needs from a robust stock market. In the fourth guarter, issues of corporate bonds grew again in fear of possible short-term interest rate hikes.

In terms of issuing rates, those on 5-year and 7-year corporate bonds averaged 2.279 percent and 2.928 percent, rising by 13 and 58 basis points, respectively, from the previous year. The top five industries that issued corporate bonds this year were electric power supply, financial holdings, electronic parts & components, semiconductor, and air & rail transportation.

#### Large Increase in Bank Debenture Issues

In 2007, domestic banks issued bank debentures to a sum of NT\$192.5 billion, an increase of 11.6 percent from the previous year. More than 90 percent of them were subordinated debentures. Issues of bank debentures sharply increased near the end of each quarter in response to the quarterly disclosure of capital adequacy ratios required by the Basel II Capital



Accord. Issues of bank debentures slightly declined in the second quarter, as several banks suffered credit rating downgrade. Issues of bank debentures further decreased in July and August, due to the easy funding conditions of banks. In September, banks increased their issues of bank debentures to meet the capital adequacy requirements. Bank debenture issues reached a peak in November and December with a total value of NT\$101.9 billion.

The weighted average issuing rates on 5-year and 7-year bank debentures were 2.339 percent and 2.745 percent, rising by 20 and 30 basis points, respectively. In addition, the main investors of bank debentures this year were banks, life insurance companies, securities investment trust companies and general corporate entities.

#### **Continuous Increase in Asset Securitization**

In 2007, issues of beneficiary securities on asset securitization amounted to a record high of NT\$617.5 billion, a drastic increase of 82.8 percent from the previous year and accounting for 44.9 percent of total bond issuance. Of the components, the issues of financial asset securitization reached NT\$604.5 billion, and those of real estate securitization amounted to NT\$13.0 billion. This radical growth was primarily because banks and securities companies securitized their bonds or corporate loan claims to enhance liquidity.

#### Second International Bond Issue

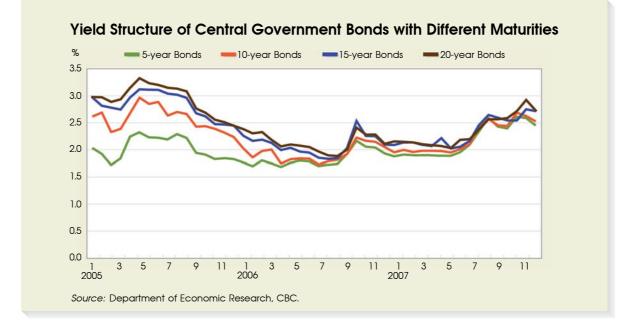
The second foreign currency-denominated bond issue was launched in Taiwan during 2007. The BNP Paribas Bank issued an AUD-denominated international bond with a sum of AU\$0.3 billion, a 6 percent issuing rate, and interest payment once a year. The bond's AA long-term credit rating, low threshold of minimum investment (AU\$10 thousand), and tax-free advantage made it popular among local individual investors.

### Lackluster Transactions in the OTC Market

For the first three months of the year, as a large number of government bonds matured and global stock markets declined, demand in the local bond market increased. Therefore, the yield on benchmark 10-year government bonds fell from 1.989 percent to 1.955 percent. From April to June, the bond market turned bearish because the Bank continued to auction CDs and because the legislation to raise the ceiling on life insurance companies' overseas investment from 35 percent to 45 percent of their working capital was passed. The yield thus climbed gradually from 2.019 percent to 2.428 percent.

The yield on benchmark 10-year government bonds went up further in July due to a boom in the local stock market, and went down in August and September owing to a plunge in the stock market affected by the subprime mortgage crisis in the U.S. In October, the Bank's interest





rate hike, rising bond yields in the U.S., and an upturn in the stock market brought about an increase in the yield to 2.694 percent. In the last two months of 2007, the yield fell to 2.529 percent due to a short supply of government bonds.

In 2007, the total amount of bond transactions in the market was NT\$193.68 trillion, a decrease of 29.7 percent from 2006. Of this amount, outright transactions amounted to NT\$93.79 trillion, a drastic decrease of 44.8 percent from 2006, and repurchase agreement transactions amounted to NT\$99.90 trillion, down 5.5 percent from 2006.

					Unit: NT\$ Billion		
Year/	Total	Outright Tr	ansactions	Repurchase Agreement Transactions			
Month	Ioidi	Amount	Share (%)	Amount	Share (%)		
2005	319,476.5	222,174.6	71.4	97,302.1	28.6		
2006	275,668.5	169,991.9	61.7	105,676.6	38.3		
2007	193,680.8	93,787.6	48.4	99,893.2	51.6		
2007/1	24,187.4	14,473.4	59.8	9,714.0	40.2		
2	9,960.9	4,838.9	48.6	5,122.0	51.4		
3	24,355.3	15,230.0	62.5	9,125.3	37.5		
4	18,367.9	9,407.3	51.2	8,960.6	48.8		
5	20,429.3	10,663.2	52.2	9,766.1	47.8		
6	14,932.2	5,665.2	37.9	9,267.0	62.1		
7	15,674.0	6,313.5	40.3	9,360.5	59.7		
8	15,262.9	6,473.6	42.4	8,789.3	57.6		
9	11,900.4	4,935.9	41.5	6,964.5	58.5		
10	13,551.8	5,914.2	43.6	7,637.6	56.4		
11	12,358.2	4,869.3	39.4	7,488.9	60.6		
12	12,700.5	5,003.1	39.4	7,697.4	60.6		

# Bond Transactions in the Over-the-Counter Market

Source: Taiwan Securities Exchange & GreTai Securities Market.



Unit: NT\$ Billior											
Year/ Month		TSE Market	Gre Tai Market								
	Total	Corporate Bonds	Subtotal	Govemment Bonds	Corporate	e Bonds	Bank	Beneficiary Securities	Foreign Bonds		
		(Convertible)	Subiolai		Nonconvertible	Convertible	Debentures				
2005	319,476.7	0.4	319,476.3	314,099.4	3,198.7	364.7	1,413.3	80.2	320.0		
2006	275,668.5	0.1	275,668.4	273,496.1	960.9	450.2	518.8	133.9	108.5		
2007	193 <i>,</i> 680.8	0.0	193,680.8	192,241.6	412.1	608.0	170.9	162.2	86.0		
2007/1	24,187.3	0.0	24,187.3	24,042.0	50.5	58.5	17.0	13.5	5.8		
2	9,961.0	0.0	9,961.0	9,854.7	45.8	26.0	13.0	14.8	6.7		
3	24,355.3	0.0	24,355.3	24,223.3	32.6	43.6	25.7	22.9	7.2		
4	18,367.9	0.0	18,367.9	18,264.5	27.4	40.8	23.8	2.6	8.8		
5	20,429.3	0.0	20,429.3	20,309.4	42.6	41.4	18.1	11.7	6.1		
6	14,932.2	0.0	14,932.2	14,789.9	35.4	56.7	14.2	27.1	8.9		
7	15,673.9	0.0	15,673.9	15,515.0	47.6	76.4	11.4	14.6	8.9		
8	15,262.8	0.0	15,262.8	15,143.6	27.0	54.6	15.2	13.6	8.8		
9	11,900.5	0.0	11,900.5	11,804.6	21.1	42.3	6.0	20.9	5.6		
10	13,551.8	0.0	13,551.8	13,438.1	30.2	67.7	5.7	0.9	9.2		
11	12,358.2	0.0	12,358.2	12,264.8	25.5	56.5	8.0	0.2	3.2		
12	12,700.6	0.0	12,700.6	12,591.7	26.4	43.5	12.8	19.4	6.8		

# Turnover in Bond Market by Category

Source: Taiwan Securities Exchange & GreTai Securities Market.

### Continuous Shrinkage in Net Assets of Bond Funds

Since early 2006, the FSC had actively promoted the transformation of bond funds through portfolio adjustment. As of the end of 2007, 56 of domestic bond funds were quasi money market funds, and only 2 were fixed income funds. As the FSC required quasi money market funds to lower the ratio of bonds in their portfolios and not to purchase additional structured bonds, and interest income from bond funds' repurchase agreement transactions is subjected to a 10 percent separate tax, the size of domestic bond funds continued to shrink. As a result,

#### Unit:% ; NT\$ Billion **Outright Purchases Repurchase Agreements** Bank Deposits Short-term Securities Year / Total Month Amount Amount Share Share Amount Share Amount Share 2005 1,308.4 498.2 38.1 582.2 44.5 200.6 15.3 27.4 2.1 22.8 2006 1.101.5 261.0 23.7 608.5 55.2 209.2 19.0 2.1 2007 797.9 159.0 410.2 27.1 21.3 2.7 18.8 51.4 216.5 2007/1 22.6 1.086.2 249.1 22.9 627.2 57.7 187.5 17.22.1 2 1,077.6 249.4 23.1 619.3 57.5 188.8 17.5 20.1 1.9 3 1,032.4 248.6 24.1 579.9 56.2 183.4 17.8 20.6 2.0 4 1,021.7 228.4 22.4 590.2 57.8 188.3 18.4 14.8 1.5 5 958.7 226.5 23.6 523.2 54.6 192.9 20.1 16.1 1.7 825.9 220.1 26.6 416.7 50.5 175.2 21.2 13.9 1.7 6 7 855.8 203.8 23.8 492.9 57.6 151.4 17.7 7.7 0.9 8 195.9 875.3 22.4 532.8 60.9 139.2 15.9 7.3 0.8 9 859.2 189.5 22.1 521.1 60.7 140.1 16.3 8.5 1.0 10 845.3 176.6 20.9 464.1 54.9 190.8 22.6 13.8 1.6 11 860.7 170.5 19.8 460.6 53.5 214.3 24.9 15.3 1.8 797.9 12 150.0 18.8 410.2 51.4 216.5 27.1 21.3 2.7

### Portfolio Composition of Bond Funds

Source: Securities Investment Trust & Consulting Association of the R.O.C.



the net assets of domestic bond funds fell by NT\$303.6 billion to NT\$797.9 billion at the end of 2007 from the previous year-end.

With respect to portfolio allocation, local bond funds mainly invested in outright purchases of corporate bonds and bank debentures, repurchase agreements of government bonds and corporate bonds, bank time deposits, and short-term bills. At the end of 2007, their portfolio ratios were 18.8 percent, 51.4 percent, 27.1 percent and 2.7 percent, respectively. As the ratio of outright purchases of bonds has dropped successively, all quasi money market funds are expected to become money market funds by 2009.

