

## 4. Money Market

In 2016, the total turnover in the interbank call loan market decreased by 9.05%, whereas that in the short-term bills market increased by 6.89%. As the CBC lowered policy rates twice amid domestic growth deceleration and mild inflation, interest rates in both markets exhibited a downward trend in the first half of the year, but then remained broadly stable in the second half of the year.

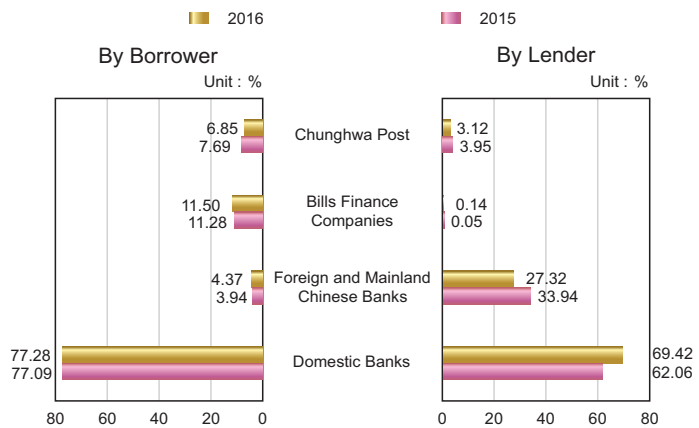
### Reduction in Interbank Call Loans

For the year 2016, on account of soft demand for funds from the private sector amid a slow domestic economic recovery, together with easy monetary conditions, banks' demand for call loans continued to slacken. Therefore, total annual turnover of interbank call loans for 2016 declined by NT\$4,406.4 billion, or 9.05%, to NT\$44,290.2 billion.

With regard to borrowers, domestic banks were still the largest player during the year, accounting for 77.28% of total transactions, followed by bills finance companies, Chunghwa Post, and foreign and Mainland Chinese banks, with shares of 11.50%, 6.85% and 4.37%, respectively. The amount borrowed by domestic banks decreased by NT\$3,312.3 billion, or 8.82%, compared with the previous year, mainly because banks had ample liquidity, which reduced their funding needs. On the other hand, the amount borrowed by bills finance companies decreased by NT\$399.5 billion or 7.28% during the year primarily owing to lower demand for funds as bills finance companies gained more funds by selling short-term bills and conducting repurchase agreement transactions. The borrowed amount of Chunghwa Post fell by NT\$711.2 billion or 18.98%, while that of foreign and Mainland Chinese banks grew by NT\$16.6 billion or 0.86%.

With respect to lenders, domestic banks continued to be the largest supplier of funds, accounting for 69.42% of total transactions in 2016. Following domestic banks were foreign and Mainland Chinese banks, Chunghwa Post, and bills finance companies, with respective shares of 27.32%, 3.12%, and 0.14%. The amount lent by domestic banks rose by NT\$524.8 billion, or 1.74%, compared with the previous

**Composition of Interbank Call Loan Market by Participant**



Source: *Financial Statistics Monthly*, CBC.

year. In contrast, the amount lent by foreign and Mainland Chinese banks dropped by NT\$4,426.6 billion or 26.79% from a year before as foreign and Mainland Chinese banks continued to reduce the size of lending in order to lower risks. Meanwhile, the amount lent by Chunghwa Post declined by NT\$538.7 billion or 28.03% compared with the previous year as it diverted more funds to purchase government bonds and commercial paper.

In terms of maturity, interbank overnight call loans remained the most actively traded instrument in the market with a predominant share of 54.50%, down by 9.21 percentage points from that of the previous year. Second were those with a maturity of 1 week, accounting for 35.19%, up by 5.57 percentage points from that of the previous year. The share of loans with a 2-week maturity increased by 2.92 percentage points to 8.30%. Shares for the trading of interbank call loans with maturities of 3 weeks, 1 month, 2-6 months, and above 6 months were negligible.

### Increase in Short-Term Bill Transactions

In 2016, newly issued short-term bills totaled NT\$12,778.5 billion. Of the new issues, commercial paper continued to account for the lion's share, at 88.99%. Second were negotiable certificates of deposit with a share of 9.17%. As market interest rates remained at relatively low levels, enterprises were more willing to issue commercial paper instead of borrowing from banks. Consequently, compared with the previous year, the amount of commercial paper issued grew by NT\$945.4 billion. Following commercial paper were negotiable certificates of deposit with an increase of NT\$339.2 billion. On the contrary, the Ministry of Finance decreased the issues of treasury bills by NT\$16.4 billion owing to increased tax revenue. Meanwhile, the amount of bankers' acceptances contracted by NT\$2.50 billion over the previous year. As of the end of 2016, total outstanding short-term bills amounted to NT\$1,873.5 billion, 11.67% more than that of the previous year end.

### Short-Term Bills Market

Unit: NT\$ Billion

Year	Total		Treasury Bills		City Treasury Bills		Commercial Paper		Bankers' Acceptances		Negotiable Certificates of Deposit	
	Issues	Year-end Outstanding	Issues	Year-end Outstanding	Issues	Year-end Outstanding	Issues	Year-end Outstanding	Issues	Year-end Outstanding	Issues	Year-end Outstanding
2007	6,495.1	925.3	88.0	28.0	-	-	5577.2	664.8	38.2	8.4	791.7	224.0
2008	6,948.6	969.8	240.0	106.8	-	-	6074.7	690.2	33.3	4.9	600.6	167.8
2009	6,293.4	1,043.1	435.0	215.0	-	-	5397.7	651.3	21.9	4.9	438.8	171.9
2010	7,140.8	1,167.5	365.0	240.0	-	-	5903.4	686.1	33.1	6.2	839.3	235.2
2011	7,424.0	1,192.6	321.2	180.3	-	-	6270.5	735.2	30.1	5.7	802.2	271.5
2012	8,187.7	1,454.0	265.0	195.0	-	-	7311.6	1023.6	24.2	4.3	586.9	231.1
2013	9,809.0	1,650.2	324.6	214.6	-	-	8827.4	1199.2	23.5	4.2	633.5	232.3
2014	10,840.6	1,641.2	244.9	130.0	10.0	0.0	9919.5	1306.8	24.1	4.3	642.2	200.2
2015	11,512.8	1,677.7	233.7	90.0	0.0	0.0	10426.0	1346.6	20.8	3.5	832.3	237.6
2016	12,778.5	1,873.5	217.3	90.0	0.0	0.0	11371.3	1480.1	18.3	4.1	1171.6	299.4
2016-2015 Change	1,265.7	195.7	-16.4	-0.1	0.0	0.0	945.4	133.4	-2.5	0.6	339.2	61.8

Source: Financial Statistics Monthly, CBC.

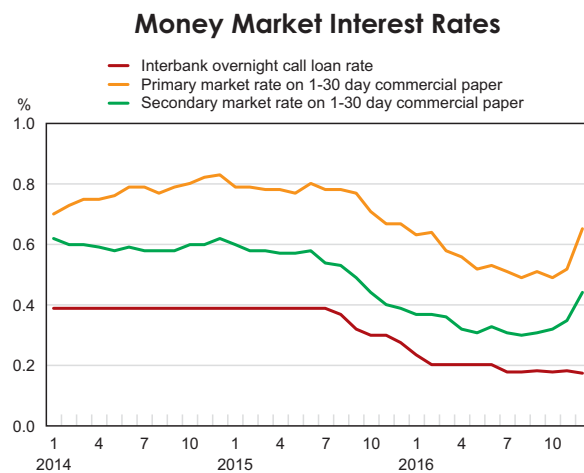
The total turnover of short-term bills in 2016 increased by 6.89% to NT\$35,556.1 billion. Of the total transactions, commercial paper still made up the largest share with 92.24%, representing a decrease of 1.55 percentage points from a year earlier. Negotiable certificates of deposit came in second with a share of 7.23%, showing an increase of 1.82 percentage points over 2015. Treasury bills and bankers' acceptances made up negligible shares of transactions. With respect to market participants, private enterprises were the largest player in the market with a share of 45.98%, followed by banks with a share of 27.87%.

### Broad Downtrend in Money Market Rates

In the first half of 2016, as domestic economic growth remained sluggish, demand for funds from private enterprises weakened. Furthermore, the CBC continued to conduct open market operations to manage market liquidity and cut policy rates on March 25 and July 1, respectively, by a total of 25 basis points to foster economic growth. As a result, funding conditions in the money market remained easy. In the second half of the year, as the domestic economy gradually rebounded, the CBC decided to keep policy rates unchanged.

The weighted average interbank overnight call loan rate went down from 0.233% in January of 2016 to 0.178% in August, reflecting the CBC's successive policy rate cuts. Later, heightened volatility in global financial markets driven by the US presidential election led banks to adopt more conservative lending policies, which in turn caused the tightening of market liquidity. Consequently, the weighted average interbank overnight call loan rate moved upward to 0.183% in November. As the CBC injected liquidity through open market operations and maintained accommodative monetary conditions, the weighted average interbank overnight call loan rate dropped again to 0.174% in December of the same year.

The primary market rate on commercial paper with a maturity of 1-30 days trended down from 0.63% in January to 0.49% in August and then slightly moved upward to 0.65% in December of 2016. The secondary market rate on commercial paper with a maturity of 1-30 days also descended from 0.37% in January to 0.30% in August and trended up to 0.44% in December of the same year.



Source: Financial Statistics Monthly, CBC.

## Decrease in Money Market Funds

In recent years, investment trust companies employed a product diversification strategy, affecting their asset allocation. In addition, turmoil in major stock markets around the world in early 2016, the impact of Brexit, and the outcome of the US presidential election, as well as market expectations for a Fed rate hike, caused greater volatility in global financial markets and undermined investors' confidence. The above factors led to a decline in the size of money market funds. At the end of 2016, there were a total of 44 money market funds in Taiwan with total assets reaching NT\$848.3 billion, a decrease of NT\$145.2 billion or 14.61% over the previous year.

With regard to portfolio composition, the largest use of the funds was bank deposits with a share of 64.97% at the end of the year. The second largest was short-term bills with a share of 17.00%. Meanwhile, repurchase agreements decreased to 15.88% of total money market funds.

### Portfolio Composition of Money Market Funds

Unit: NT\$ Billion

Year/Month End	Total	Bank Deposits		Short-Term Bills		Repurchase Agreements		Bonds	
		Amount	Share (%)	Amount	Share (%)	Amount	Share (%)	Amount	Share (%)
2014	741.4	512.6	69.14	136.2	18.37	90.4	12.19	2.3	0.30
2015	993.5	655.2	65.95	161.2	16.23	165.6	16.67	11.4	1.14
2016	848.3	551.1	64.97	144.2	17.00	134.7	15.88	18.2	2.15
2016/ 1	975.6	647.4	66.36	152.9	15.68	157.9	16.19	17.4	1.78
2	938.0	644.5	68.71	138.4	14.76	135.6	14.45	19.5	2.08
3	926.5	631.1	68.12	146.7	15.84	127.8	13.80	20.8	2.25
4	1,049.9	668.1	63.63	198.3	18.89	160.5	15.29	23.0	2.19
5	1,044.2	681.8	65.29	183.8	17.60	152.8	14.63	25.8	2.47
6	939.4	655.8	69.81	146.2	15.57	113.6	12.10	23.8	2.53
7	931.2	653.9	70.23	132.5	14.23	119.7	12.86	25.0	2.68
8	941.7	654.1	69.46	133.3	14.15	129.9	13.79	24.5	2.60
9	842.7	616.2	73.12	113.3	13.45	91.8	10.90	21.3	2.53
10	873.0	617.8	70.76	121.8	13.95	109.0	12.49	24.4	2.80
11	818.8	576.1	70.36	132.7	16.21	88.5	10.81	21.5	2.62
12	848.3	551.1	64.97	144.2	17.00	134.7	15.88	18.2	2.15

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