

5. Foreign Exchange Market

Slight Appreciation of the NT Dollar

On a daily average basis, the trade-weighted nominal effective exchange rate index of the NT dollar slightly increased by 0.28 percent in 2012. The exchange rate movements of the NT dollar against the US dollar, the euro, the Japanese yen, the Chinese renminbi (RMB), and the Korean won are analyzed as follows.

The NT dollar appreciated against the US dollar for the most part of the year. Because of the moderate recovery of the US economy and a rebound in global stock markets at the beginning of the year, international capital returned to Asian countries, leading the NT dollar to appreciate against the US dollar during this period to reach a high of 29.232 on April 30. In May, international stock markets slid as the European sovereign debt crisis worsened again. Foreign investors sold off in Taiwan's stock market, weakening the NT\$/US\$ exchange rate to a new yearly low of 30.206 on July 25. Thereafter, as a result of the third round of quantitative easing (QE3) announced by the US Federal Reserve and the unresolved US "fiscal cliff" problem, foreign capital flowed into Asia's emerging economies. The US dollar depreciated and the NT\$/US\$ exchange rate soared to a yearly high of 29.090 on November 12. Compared with the end of 2011, the NT dollar appreciated by 3.96 percent against the US dollar at the end of 2012. However, on a daily average basis, the NT\$/US\$ exchange rate depreciated by 0.51 percent in 2012.

With respect to the NT dollar exchange rate against the euro, it first appreciated and climbed to 38.069 on January 16 after S&P downgraded the credit ratings of nine member states of the eurozone. Then the NT\$/€ exchange rate hovered between 38.277 and 39.605 from mid-January to April. After May, there were concerns that Greece might leave the eurozone, and the government bond yield rate in Spain and Italy also rose sharply. Meanwhile, Moody's downgraded Germany's,

Percentage Changes of NTD Exchange Rate Against Major Currencies

	NTD/USD	NTD/EUR	NTD/JPY	NTD/RMB	NTD/KRW
Exchange Rate (2012/12/28)	29.136	38.610	0.33753	4.6741	0.027215
Exchange Rate (2011/12/30)	30.290	39.200	0.39049	4.8125	0.026298
Percentage Change	3.96%	1.53%	15.69%	2.96%	-3.37%
Average Exchange Rate (2012)	29.614	38.068	0.37115	4.6914	0.026288
Average Exchange Rate (2011)	29.464	40.959	0.36919	4.5599	0.026585
Percentage Change	-0.51%	7.59%	-0.53%	-2.80%	1.13%

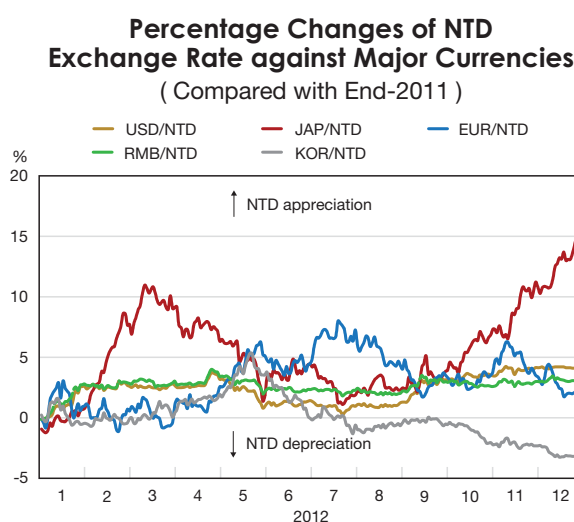
Source: Department of Economic Research, CBC.

Netherlands' and Luxembourg's credit ratings, and the market confidence in the euro deteriorated. Consequently, the NT\$/€ exchange rate rose to a yearly high of 36.391 on July 23. After that, the European Central Bank pledged to defend the euro, and member states also declared that they would safeguard the integrity of the eurozone. Thus, the euro appreciated and the NT\$/€ exchange rate declined to 38.536 on September 17. After October, the mixed messages of the eurozone economic outlook caused the NT\$/€ exchange rate to fluctuate between 36.960 and 38.610. Compared to the end of the previous year, the NT dollar appreciated against the euro by 1.53 percent. On a daily average basis, the NT dollar appreciated against the euro by 7.59 percent.

Early in the year, because Japan's trade deficit widened, the Japanese yen weakened. The NT dollar against the Japanese yen appreciated to 0.353 on March 15. Then, owing to the prolonged European debt crisis, the inflows of global hedge funds pushed the yen up. The NT\$/¥ exchange rate thus depreciated to 0.385 on June 4. From July to September, the yen fluctuated between 0.372 and 0.386. Towards the end of the year, market expectations of a weaker yen rose because Japan's incoming prime minister Abe asked the Bank of Japan to implement a more aggressive and easing monetary policy. This sent the yen lower, and the NT dollar against the yen rose to a yearly high of 0.338 on December 28. At the end of 2012, the NT dollar appreciated by 15.69 percent against the Japanese yen compared to the end of 2011. However, on a daily average basis, the NT\$/¥ exchange rate depreciated by 0.53 percent compared with 2011.

Owing to a decrease in the export surplus and the slowdown of China's economy, the RMB retreated to a yearly low of 6.389 against the US dollar on July 25. Thereafter, as a consequence of the Fed's QE3, the RMB climbed to a yearly high of 6.222 against the US dollar on November 27. Compared to the end of the previous year, the NT dollar strengthened against the RMB by 2.96 percent. However, on a daily average basis, the NT dollar depreciated by 2.80 percent against the RMB when compared with the previous year.

The NT dollar against the Korean won hovered between 0.0258 and 0.0265 from January to April. In May, as a result of the intensified European debt crisis and foreign capital outflows from the Korean stock market, the won went down, and the NT dollar appreciated against the won to a yearly high of 0.0250 on May 25. Afterwards, because Fitch upgraded Korea's credit rating, coupled with



the effect of the US QE3, foreign capital returned to Korea, attracted by the country's bright outlook for both exports and the economy. The won appreciated sharply against the US dollar, and the NT dollar declined to a yearly low of 0.0272 against the Korean won on December 28. The NT dollar against the Korean won depreciated by 3.37 percent between the end of 2011 and 2012. However, on a daily average basis, the NT dollar rose by 1.13 percent against the Korean won in 2012 compared with the previous year.

Mild Market Contraction

Trading in the Taipei foreign exchange market contracted in 2012. Total net trading volume for the year decreased by 2.0 percent from the previous year to US\$5,893.2 billion. The daily average turnover stood at US\$23.4 billion. The decline in turnover mainly resulted from shrinking international trade.

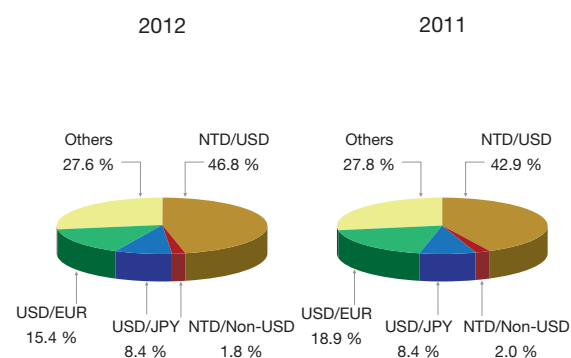
Turnover of Major Products in the Taipei Foreign Exchange Market

Unit: US\$ Million

Year	Spots	Forwards	Forex Swaps	Margin Trading	Options	Cross Currency Swaps	Total
2008	2,455,394	459,393	1,548,763	34,871	307,857	40,097	4,846,375
2009	1,841,951	283,233	1,627,020	20,809	311,353	26,927	4,111,293
2010	2,192,719	290,075	2,166,897	18,295	423,261	23,848	5,115,095
2011	2,570,319	415,459	2,454,626	19,016	529,351	24,587	6,013,357
2012	2,249,684	406,831	2,558,288	19,419	627,958	30,993	5,893,172
2011-2012 Growth Rate (%)	-12.5	-2.1	42	2.1	18.6	26.1	-2.0

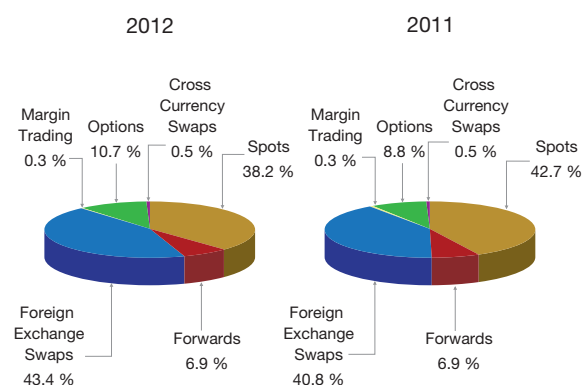
Source: Department of Foreign Exchange, CBC.

Composition of Foreign Exchange Transactions by Traded Currency



Source: Department of Foreign Exchange, CBC.

Composition of Foreign Exchange Transactions by Product



Source: Department of Foreign Exchange, CBC.

Turnover of Other Products in the Taipei Foreign Exchange Market

Unit: US\$ Million

Year	Interest Rate-Related Products					Commodity-Related Products	Stock Index Options	Credit Derivatives	Total
	Forward Rate Agreements	Interest Rate Swaps	Interest Rate Options	Foreign Currency Interest Rate Futures	Subtotal	Commodity Options			
2008	18,799	205,911	8,860	172,918	406,488	17,875	126	3,586	428,075
2009	5,715	469,003	4,999	208,566	688,283	18,360	51	3,312	710,006
2010	842	125,541	6,043	392,368	524,794	18,060	105	10,126	553,085
2011	902	76,153	3,569	254,703	335,327	22,728	421	5,204	363,681
2012	1,069	51,887	4,320	142,310	199,586	15,440	955	2,243	218,223
2011-2012 Growth Rate (%)	18.5	-31.9	21.0	-44.1	-40.5	-32.1	126.7	-56.9	-40.0

Source: Department of Foreign Exchange, CBC.

In terms of trading partners, transactions between banks and non-bank customers accounted for 26.9 percent of the total net turnover, while inter-bank transactions made up 73.1 percent, including 26.7 percent for transactions among local banks and 46.4 percent for those between local banks and overseas banks.

As far as traded currencies were concerned, NT dollar trading against foreign currencies accounted for 48.6 percent of the total trading volume, of which trading against the US dollar made up a dominant 46.8 percent. Transactions in third currencies contributed to 51.4 percent of the total trading volume, with trading in currency pairs of US dollar-euro and US dollar-yen accounting for respective shares of 15.4 percent and 8.4 percent. Compared with 2011, NT dollar trading against foreign currencies increased by 6.1 percent, and transactions in third currencies decreased by 8.6 percent.

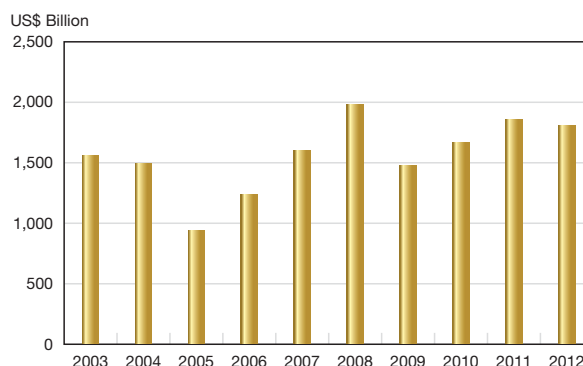
With respect to types of transactions, the major types were foreign exchange swaps and spots, accounting for 43.4 percent and 38.2 percent of total turnover, respectively. Compared with 2011, except for a decrease in spots and forwards, the trading volume and the share in the total turnover of all the other types of transactions increased.

In 2012, the total turnover of forwards, swaps, and options based on foreign currency interest rates, stock price indices, commodity prices, and credit derivatives amounted to US\$218.2 billion. Of this amount, interest rate-related derivatives accounted for the lion's share with US\$199.6 billion, or 91.5 percent, with a negative annual growth rate of 40.5 percent. Interest rate futures accounted for the majority of this decline, with a decrease of US\$112.4 billion. The main reason was that most countries maintained a lower interest rate environment, causing investor enthusiasm to cool on the contracted volatility of market interest rates.

Decreasing Transactions in the Foreign Currency Call Loan Market

The transaction volume in the foreign currency call loan market in 2012 was US\$1,807.3 billion, a decrease of 2.6 percent over the previous year. Of this amount, US dollar transactions made up a dominant share with US\$1,793.0 billion, making up 99.2 percent of the total and decreasing 2.3 percent from 2011. The decrease was mainly because banks had accepted plenty of foreign currency deposits, hence reducing their demand for foreign currency call loans. Japanese yen transactions reached ¥871.7 billion in 2012, a small share of only 0.6 percent and a decrease of 8.3 percent compared to 2011. The amount of euro transactions totaled €0.3 billion, a share of less than 0.1 percent. Other currencies accounted for 0.2 percent of the total transaction volume.

Transactions in the Taipei Foreign Currency Call Loan Market



Source: Department of Foreign Exchange, CBC.

Growing Assets of Offshore Banking Units

There were 62 offshore banking units (OBUs) at the end of 2012. Domestic banks operated 37 of these OBUs, while foreign banks ran the other 25. Owing to larger loans to non-residents, the total assets of all OBUs grew to US\$170.9 billion at the end of the year, representing an increase of US\$25.8 billion or 17.8 percent from the previous year end. Domestic OBUs made up 81.1 percent of these combined assets with an amount of US\$138.6 billion, and the OBUs of foreign banks accounted for US\$32.3 billion, or 18.9 percent of the total. In terms of the uses of funds, loans to non-financial institutions, at US\$67.8 billion, represented the majority share of 40.5 percent of OBU

Consolidated Balance Sheet of Offshore Banking Units in Banking System

Unit: US\$ Million

Year/Month	Loans to Non-financial Institutions	Portfolio Investment	Claims on Financial Institutions	Other Assets	Total Assets= Total Liabilities	Deposits of Non-financial Institutions	Due to Financial Institutions	Securities Issued	Other Liabilities
2008/12	32,481	10,851	48,141	7,159	98,632	31,133	60,198	724	6,577
2009/12	29,988	13,757	43,954	7,352	95,051	32,493	54,070	352	8,136
2010/12	40,752	15,952	55,878	10,348	122,930	35,587	75,270	364	11,709
2011/12	58,976	15,760	56,900	13,465	145,101	37,645	91,662	370	15,424
2012/12	67,811	18,240	60,200	24,655	170,906	44,102	100,389	364	26,051
2011/12-2012/12 Growth Rate (%)	5.0	15.7	5.8	83.1	17.8	17.2	9.5	-1.6	68.9

Source: Financial Statistics Monthly, CBC.

lending, mainly because many Taiwanese firms in Mainland China raised funds from OBUs. Claims on financial institutions were 35.2 percent of total OBU assets. In terms of the destination for funds, Asia accounted for the majority with 63.3 percent, followed by America at 24.7 percent.

The OBUs' main source of funds came from the due to financial institutions, which accounted for 58.8 percent of total liabilities. Among them, deposits of non-financial institutions reached a historical high, which increased 17.2 percent compared to the previous year. In recent years, OBUs have been the funding centers for overseas Taiwanese firms. By geographical origin, 71.2 percent of the funds came from Asia and 17.8 percent from America.

Owing to the growth of RMB-related business, the forex-trading turnover of all OBUs in 2012 increased by 39.4 percent and registered US\$376.1 billion, of which US\$193.4 billion went for spot transactions, US\$99.3 billion for forward transactions and US\$83.3 billion for foreign exchange swap transactions. Compared with the previous year, the growth rates of the trading of spots, forwards and foreign exchange swaps were 36.3 percent, 28.9 percent and 64.0 percent, respectively.

The total turnover of derivatives products amounted to US\$417.1 billion, a decrease of 12.3 percent over the previous year. Of this amount, interest rate futures recorded a decline of 43.3 percent from 2011. On the other hand, supported by an increase in currency options trading, transactions of options registered US\$248.4 billion, 33.6 percent higher than 2011.