

Recent trends and developments in currency 2011/2012

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This article looks at trends and developments in New Zealand's currency over the year to June 2012. The total value of currency in circulation has continued to grow, as it has over the past several years. Every denomination of banknote and coin has seen increases, although at varying rates. The Reserve Bank undertakes note processing to maintain a high quality of notes in circulation. New Zealand has a low rate of counterfeiting by international standards, and the level of counterfeiting has fallen this year.

1 Introduction

The Reserve Bank has the sole right to issue currency (banknotes and coins) in New Zealand. Maintaining the supply, quality and integrity of the currency is one of the Reserve Bank's core functions. To fulfil this function, the Reserve Bank closely monitors trends in the demand for notes and coins, and undertakes banknote processing operations to maintain the quality, and to check the authenticity, of notes in circulation.

This article looks at trends and developments in New Zealand's currency. Section 2 looks at the growth in currency in circulation as a whole, sections 3 and 4 look at the composition of, respectively, banknotes and coins in circulation, and section 5 covers the note-processing function of the Bank. Section 6 discusses the level of counterfeiting in New Zealand, and section 7 summarises.

2 Currency in circulation

Currency in circulation comprises notes and coins held by the general public (businesses and households), and held by banks and other financial institutions. Figure 1 shows that currency in circulation has grown steadily over the last several years. Figure 1 also illustrates the peak in demand at Christmas each year when banks order additional cash from the Reserve Bank to meet their customers' needs. In the year to June 2012, total currency in circulation grew by 4.9 percent, as shown in table 1 below, and as at 30 June 2012 the value of currency in circulation was \$4.4 billion. Of this total, the general public held \$3.8 billion and banks held \$580 million. Total currency in circulation has risen by 30 percent over the last five years, currency held by the general public has grown by 32 percent and that held by banks has grown by 18 percent.

Table 1
Value of currency in circulation (\$m) and annual growth

| | General public | General public - annual growth | Banks | Total | Total - annual growth |
|----------------------------|----------------|--------------------------------|-------|-------|-----------------------|
| Jun-07 | 2,871 | | 490 | 3,360 | |
| Jun-08 | 2,948 | 2.7% | 499 | 3,447 | 2.6% |
| Jun-09 | 3,328 | 12.9% | 594 | 3,922 | 13.8% |
| Jun-10 | 3,374 | 1.4% | 564 | 3,937 | 0.4% |
| Jun-11 | 3,583 | 6.2% | 588 | 4,171 | 5.9% |
| Jun-12 | 3,793 | 5.9% | 580 | 4,374 | 4.9% |
| 5 year growth ¹ | 32% | 5.7% | 18% | 30% | 5.4% |

¹ The 5 year growth figure for General Public, Banks & Total is the total growth rate over 5 years. For General Public - Annual Growth and Total - Annual Growth the figure is the average annual growth over 5 years.

Figure 1
Currency in circulation

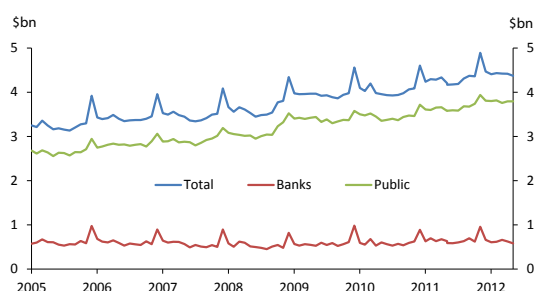
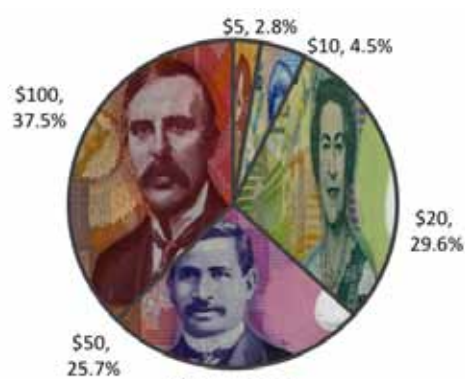


Figure 2
Number and value of notes in circulation



Number of notes



Value of notes

3 Composition of banknotes in circulation

Figure 2 and table 2 show the composition of banknotes in circulation at 30 June 2012. Figure 2 shows the number of notes and value of notes in circulation by denomination. The \$20 note has the largest share of notes in circulation at 43.8 percent. However, the \$50 note saw the largest growth in value over the year to June 2012, at 7.9 percent, and has continued to increase its share of notes in circulation by number, now accounting for 15.2 percent.

Table 2 gives figures for the number and value of notes in circulation by denomination at 30 June 2012. In June 2012, 136.6 million banknotes were in circulation with a combined face value of \$4 billion. The value of notes in circulation has grown on average by 4.8 percent per year for the last five years.

4 Composition of coins in circulation

Table 3 shows the number and face value of coins in circulation at the end of June 2012. The face value of coins in circulation was \$320 million, an increase of 5 percent on the June 2011 figure. This figure represents almost 8 percent of all currency in circulation. In the year to June 2012, the Reserve Bank issued 52 million coins.

Table 2
Number and value of banknotes in circulation – June 2012

| | Number (000) | Value \$(000) | Annual growth in value over 2011/2012 |
|-------|--------------|---------------|---------------------------------------|
| \$5 | 22,454 | 112,270 | 3.4% |
| \$10 | 18,225 | 182,252 | 0.3% |
| \$20 | 59,895 | 1,197,898 | 2.5% |
| \$50 | 20,824 | 1,041,209 | 7.9% |
| \$100 | 15,196 | 1,519,623 | 5.4% |
| Total | 136,595 | 4,053,253 | 4.8% |

Table 3
Number and value of coins in circulation – June 2012

| | Number (000) | Value \$(000) | Annual growth in value over 2011/2012 |
|-------|--------------|---------------|---------------------------------------|
| 10c | 193,020 | 19,302 | 9.3% |
| 20c | 167,726 | 33,545 | 7.7% |
| 50c | 74,021 | 37,011 | 6.9% |
| \$1 | 84,389 | 84,389 | 4.7% |
| \$2 | 73,115 | 146,231 | 3.6% |
| Total | 592,271 | 320,478 | 5.0% |

The most popular coin in circulation is the 10 cent coin, and this is also the coin with the fastest growth rate in demand, at 9.3 percent over the 12 months to June 2012.

5 Banknote processing

Another key function of the Reserve Bank's currency department is to maintain a high quality of notes and coins in circulation. It is important that banknotes are of a good quality to protect against counterfeiting. If banknotes were of a lower quality it would be more difficult for the general public to distinguish a counterfeit from a poor quality genuine banknote. To ensure a high quality of banknotes the Reserve Bank processes notes using a high-speed note-processing machine. The note-processing machine will sort low quality notes and destroy them automatically. The machine can also authenticate banknotes, acting as an important check for counterfeits.

In the year to June 2012, banks repatriated 70.5 million surplus and unfit notes to the Reserve Bank. Of these, more than 27 million notes were processed by the note-processing machine. Over this period the Bank destroyed 18 million notes which were deemed to be below the Reserve Bank's quality standard.

Banknotes are destroyed when they show signs of ink wear, staining, soiling, graffiti, or structural damage such as tears, holes, heat damage or missing corners. Table 4 shows destruction rates of the current polymer notes in comparison to those of the previous paper notes. Polymer notes have a far lower destruction rate than paper notes and hence have a longer life in circulation. Table 4 shows that in the year to December 1998, as an example, the Reserve Bank destroyed 60.9 percent of the paper notes in circulation at that time; while in the year to June 2012, the Reserve Bank destroyed only 13.9 percent of notes in circulation.

\$10 notes were destroyed at the highest rate over this period (25.1 percent of notes in circulation), as they are circulated frequently, passing through many hands and cash registers, causing their quality to deteriorate more quickly. The \$5 note is even more subject to deterioration and was the second most-destroyed note in the 12 months to June 2012 (19.5 percent of notes in circulation). It has a lower annual destruction rate than the \$10 note, despite being the lowest denomination banknote in New Zealand. This is because \$5 notes tend to circulate between members of the public and retailers, who do not return

Table 4
Destruction of polymer notes from July 2011 to June 2012 and of paper notes in 1998

| (000) | \$5 | \$10 | \$20 | \$50 | \$100 | Total |
|--------------------------------------|--------|--------|--------|--------|--------|---------|
| Polymer notes destroyed (2011-2012) | 3,573 | 3,981 | 8,563 | 1,517 | 400 | 18,034 |
| Average polymer notes in circulation | 18,360 | 15,857 | 60,643 | 20,366 | 14,763 | 129,989 |
| Notes destroyed as % in circulation | 19.5% | 25.1% | 14.1% | 7.5% | 2.7% | 13.9% |
| Paper notes destroyed (1998) | 7,871 | 12,599 | 18,024 | 1,951 | 870 | 41,315 |
| Average paper notes in circulation | 11,592 | 12,300 | 32,092 | 7,275 | 4,575 | 67,834 |
| Notes destroyed as % in circulation | 67.9% | 102.4% | 56.2% | 26.8% | 19.0% | 60.9% |

them to their banks but keep them as change. Therefore, poor quality \$5 notes are not returned to the Reserve Bank to be destroyed as soon as they should be, leading to a lower quality of notes in circulation.² The \$100 note is the note which is destroyed the least. Over 2011/2012, 2.7 percent of \$100 notes in circulation were destroyed. The \$100 note is used mainly as a store of value rather than for transactions and hence its quality does not deteriorate as quickly as other denominations.

6 Counterfeiting

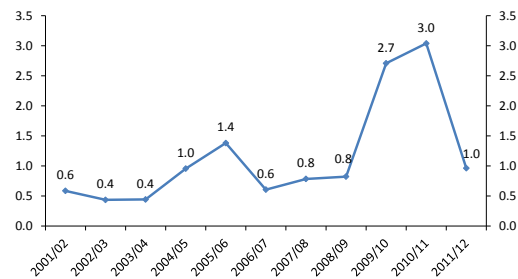
The third objective of the Reserve Bank's currency function is to maintain the integrity of the currency. The rate of counterfeiting is measured internationally by recording the amount of counterfeits found per million notes in circulation. The Reserve Bank has a target to have less than 10 counterfeits per million notes in circulation. Figure 3 shows the amount of counterfeits per million found in New Zealand over the last 10 years. In the year to June 2012 the rate of counterfeiting was 1.0 per one million notes in circulation.

The Reserve Bank discovers counterfeits in three ways: from note processing by cash-in-transit companies, from the Reserve Bank's own note processing, and from the police. The police either receive counterfeits passed on to them by members of the public, or they may come across them while performing their duties.

Figure 3 shows the level of counterfeiting in New Zealand over recent years. This rate has fallen to 1.0 per million notes in circulation over 2011/2012, from 3.0 per million in the previous year. The counterfeit level in New Zealand is low in comparison to international levels. It should be noted that this figure is likely to be understated, as not all counterfeits will be found by, or passed on to, the Reserve Bank or the police. The public are encouraged to inspect notes they suspect are not authentic. There are several security features that can be checked. The easiest feature to check is the embossed window: if the note is genuine, the window shows the value of the note, and no edges can be felt at the border of the window.

Although there is a very low counterfeiting rate in New Zealand, the Reserve Bank is committed to keeping the rate low and increasing the quality of notes in circulation. After around 15 years, it is now time to upgrade our banknote security features with a new series of notes scheduled to be progressively released from late 2014 at the earliest.

Figure 3
Counterfeits per million notes in circulation



7 Summary

Banknotes and coins remain an important means for making transactions in New Zealand. Currency in circulation continues to rise despite the increasing use of electronic payments. The Reserve Bank continues to satisfy the demand for currency, and note quality proves generally satisfactory. The Reserve Bank ensures that the needs for New Zealand's legal tender are met by supplying good-quality banknotes and coins and maintaining the currency's integrity.

² From time to time the Reserve Bank runs \$5 note swaps to replace the poor quality notes with new notes.