

Recent trends in foreign exchange turnover

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We examine recent trends in the global foreign exchange market using the 2004 BIS triennial foreign exchange turnover survey. The survey shows trading in the New Zealand dollar has increased significantly over the past three years. This reflects increased offshore capital investment into New Zealand and the associated higher global profile of the New Zealand dollar. Foreign exchange trading in New Zealand has also increased, largely in line with global trends. The survey gives new insights into the global nature of the New Zealand dollar market.

1 Introduction

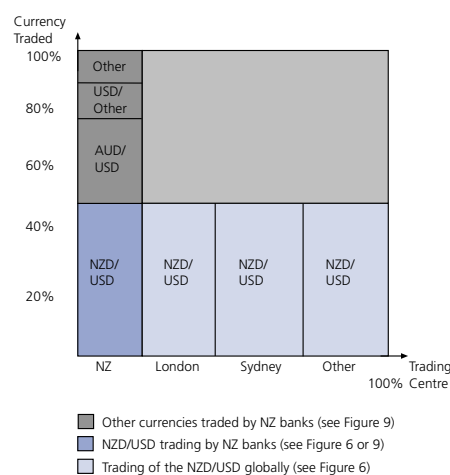
A well functioning foreign exchange (FX) market is important to the New Zealand economy. The FX market facilitates international trade flows and enables domestic banks to access capital in offshore markets, which lowers the costs of borrowing for New Zealand businesses and households.

The Reserve Bank is interested in ensuring the FX market continues to provide these services to New Zealanders. Should the New Zealand dollar market become disorderly, potentially disrupting important cross-border transactions, the Reserve Bank is charged with the role of restoring confidence in, and maintaining the functioning of, the market through the implementation of its FX intervention policy.²

Every three years the Bank for International Settlements (BIS) conducts a survey of central banks and monetary authorities that provides a comprehensive breakdown of global FX turnover.³ The survey gives us a formal opportunity to update our knowledge of the FX market. In March 2005, the BIS released the final results of its 2004 survey. This article summarises key findings of this survey, concentrating on trading in the New Zealand dollar and trading in the New Zealand market. Figure 1 shows how the New Zealand dollar and New Zealand FX markets relate.

Figure 1

A stylised representation of FX turnover in the New Zealand dollar market and the New Zealand market*



* Outside New Zealand, almost all NZD trading takes place against the USD.

2 Global foreign exchange market trends

Size of the market

The global FX market is large. Around USD 1,800 billion is traded in the global FX market on an average day (see box 1).⁴ The amount of FX trading dwarfs the needs of the end-users of the FX market, such as importers, exporters, and investors in physical capital (such as plant or machinery).

Most of the turnover in the FX market reflects international capital flows into other financial markets, for instance, money markets or bond markets.⁵ Investors in international

¹ The author would like to thank Ian Nield, Kelly Eckhold, Bruce White and Ofer de Mayo, for their assistance with this article.

² See "Foreign reserves for crisis management" by Michael Gordon, Reserve Bank of New Zealand *Bulletin*, Vol. 68, No. 1 for more on the Reserve Bank's intervention policy to calm disorderly markets.

³ The full results can be viewed on the internet, <http://www.bis.org/publ/rpfx05.htm>

⁴ Throughout this article, all the FX turnover figures we quote are net of double counting among reporting dealers.

⁵ Market participants estimate that FX trading related to international capital flows is around five to ten times that related to end-user flows.

capital markets tend to transact much more frequently, often many times a day. Another reason FX trading is high is because price-making dealers in the FX market trade with each other constantly to clear currency positions they don't want to hold.⁶

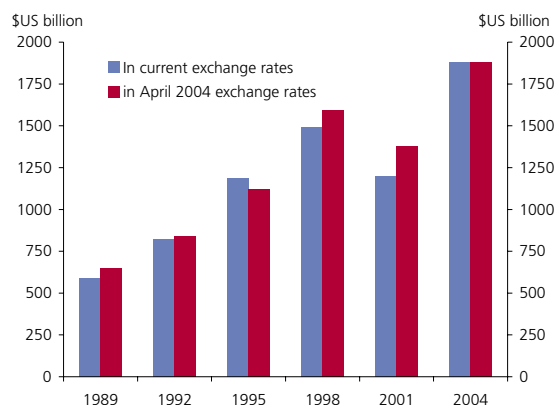
Recent trends

FX turnover has been trending higher since the BIS began its survey of the global FX market in 1989. There are two main reasons for this:

- The world economy and international trade continue to grow.
- The global financial markets continue to become more integrated.

Although FX turnover has been trending higher, the extent of the rise in turnover between 2001 and 2004 was unprecedented. Global FX turnover increased by over 50 per cent between 2001 and 2004, from an average daily turnover of USD 1,173 billion to USD 1,773 billion (see figure 2).⁷ This increase in turnover more than reversed the decline between the 1998 and 2001 surveys.

Figure 2
Global foreign exchange turnover



Note: Includes spot, outright forwards, FX swaps transactions as well as estimated gaps in reporting

Why did global FX turnover increase so much between 2001 and 2004?

The rise in turnover partly reflects base currency effects. The US dollar is the standard currency against which others are traded (see figure A in box 1). If we take account of the depreciation in the US dollar (and changes in the other remaining base currencies) between 2001 and 2004, FX turnover increased by 36 per cent.

The rise in turnover also reflects some 'catch-up' from unusually low levels in 2001. At that time, commentators pointed to growth in electronic broker systems, financial industry consolidation, and the introduction of the euro currency as reasons behind the decline in turnover in 2001.⁸ These special factors have been less important in the last few years.

Similarly, a number of disruptive events in financial markets in the late 1990s contributed to the decline in turnover in the 2001 survey. The Asian crisis, the collapse of Long-Term Capital Management, the Russian debt crisis, and the fall-out from the 'dotcom' equity bubble triggered a general decline in risk taking and a drift away from FX trading. Recent years have seen more stable market conditions, a greater appetite for risk among global investors, and the growth in FX trading as an 'asset class' in much the same way investors trade bond and equity markets.

The growth of hedge funds is an example of the growth in speculative investment.⁹ Hedge funds tend to trade more actively than many participants in the FX market. Hedge funds, and other similar investment funds like commodity trade advisers, have devoted a greater proportion of their funds to speculating on currencies, leading to growth in FX markets.

In an environment where global bond yields were at historically low levels and major sharemarkets were performing modestly, investors paid more attention to alternative investment strategies in the search for higher returns. Between 2001 and 2004, trading currencies

⁶ This interbank trading process is also referred to as "pass-the-parcel" trading. See Rosborough (2001) for a fuller description of how this process can multiply total FX turnover.

⁷ The figures referred to here are net of double counting, and include only transactions where at least one of the counterparties is located in the country of the currency traded.

⁸ See Rosborough (2001) for a more complete description of these factors and why they affected foreign exchange turnover.

⁹ See 'Why has FX trading surged?', *BIS Quarterly Review* (2004)

Box 1

A brief snapshot of the global foreign exchange market

The BIS survey shows that USD 1,773 billion is traded on average each day in the global FX market. The USD is still by far the most frequently traded currency – the US dollar is on one side of nearly 90 per cent of all FX transactions (see Table 1). The euro is the next most traded currency, accounting for 37 per cent of all transactions. The New Zealand dollar is the eleventh most traded currency.

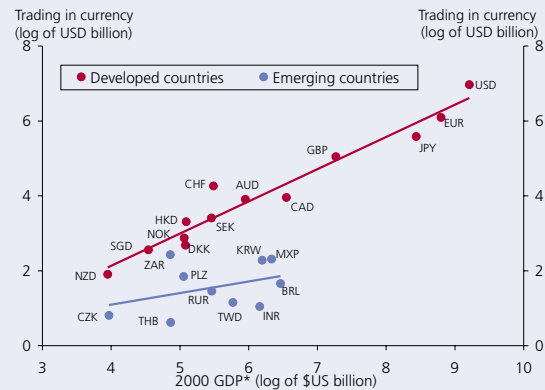
The currencies of larger developed economies naturally are more heavily traded than those of smaller developed economies. Turnover in the New Zealand dollar is around what we might expect based on the size of the New Zealand economy and its trade.

A similar relationship between economic size and currency turnover is now apparent for emerging markets. In fact, figure 3 shows that the linear relationship between turnover and GDP in emerging markets is now quite

Figure 3

Currency turnover versus nominal GDP

2001 survey



2004 survey

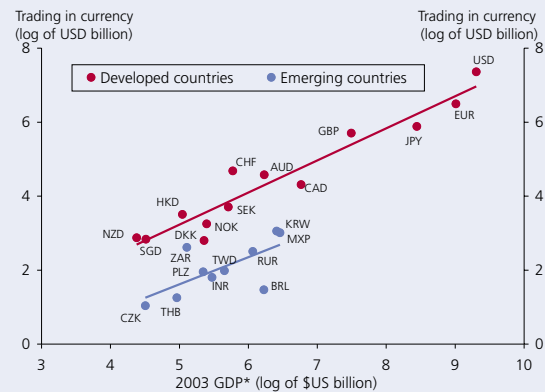


Table 1

Currencies and currency pairs traded in 2004

Currency	USD billion	As a % of total	Currency pair	USD billion	As a % of total
US dollar	1,573	88.7	EUR/USD	501	28.2
Euro	659	37.2	USD/JPY	296	16.7
Yen	359	20.3	USD/Other	293	16.5
Pound sterling	299	16.9	GBP/USD	245	13.8
Swiss franc	108	6.1	AUD/USD	90	5.1
Australian dollar	97	5.5	USD/CHF	78	4.4
Canadian dollar	75	4.2	USD/CAD	71	4.0
Swedish krona	41	2.3	EUR/JPY	51	2.9
Hong Kong dollar	33	1.9	GBP/EUR	43	2.4
Norwegian krone	26	1.5	EUR/CHF	26	1.5
Won	21	1.2	EUR/Other	26	1.4
Mexican peso	20	1.1			
New Zealand dollar	18	1.0			
TOTAL	1,773	200.0	TOTAL	1,773	100.0

Note 1: All turnover is net of double counting

Note 2: For currencies traded, total percentage adds to 200% because there are always two currencies in each FX transaction

Table 2

Trading centres

2004 Ranking	2001 Ranking	Country	USD billions	As a % of total
1	1	United Kingdom	753	31.3
2	2	United States	461	19.2
3	3	Japan	199	8.3
4	4	Singapore	125	5.2
5	5	Germany	118	4.9
6	7	Hong Kong SAR	102	4.2
7	8	Australia	81	3.4
8	6	Switzerland	79	3.3
:	:	:		
26	29	New Zealand	7	0.3

similar to the relationship in developed countries. This indicates that the FX markets of larger emerging market economies are becoming deeper and more similar to those of more advanced economies.

London remains the dominant world FX trading centre – nearly a third of all trading takes place in the UK (see table 2). New York and Tokyo, the major trading centres in the

American and Far-East time-zones respectively, account for another quarter of global turnover.

Table 3 shows that slightly more than half of all transactions are FX swaps and just over a third are spot transactions.

Table 3

Foreign exchange instruments

	1995		1998		2001		2004	
	USD billion	%	USD billion	%	USD billion	%	USD billion	%
Spot	494	43	568	40	387	33	621	35
Outright forwards	97	9	128	9	131	11	208	12
FX swaps	546	48	734	51	656	56	944	53
TOTAL	1,137	100	1,430	100	1,174	100	1,773	100

Box 2

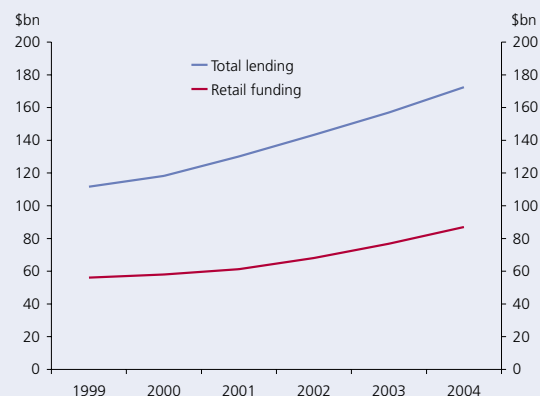
Bank funding and foreign exchange swaps

Banks in New Zealand make significant use of overseas borrowings to fund their balance sheets (see *Financial Stability Report*, May 2005). Typically about a third of a New Zealand banks' funding is sourced offshore from the issuance of either commercial paper or medium-term note issues in the major financial centres, or a bank's parent. In March 2001, total funding among the major banks was about \$160bn and this rose to \$196bn in March 2004. The offshore sourced funds were approximately \$53bn and \$65bn respectively.

To eliminate the risk to the banks of exchange rate fluctuations these borrowings are converted to New Zealand dollars as foreign exchange swaps, rather than outright purchases of the domestic currency.

The banks have a number of natural counterparties for such transactions, including, but not restricted to New Zealand fund management organisations; the New Zealand government; and offshore issuers of NZD denominated debt (eg, 'Uridashi' and 'Eurokiwi' issues).

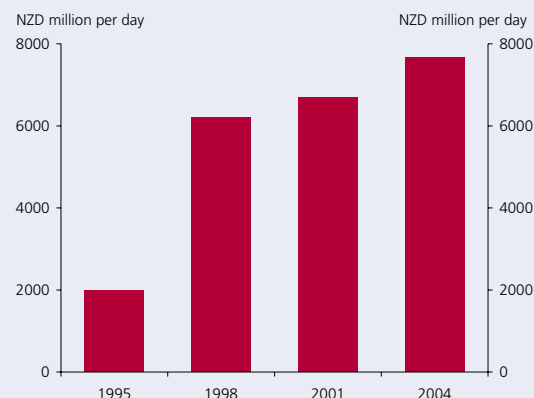
Figure 4
Funding 'gap' for systemically important New Zealand banks (following May FSR)



The total volume of all FX swaps transacted in the New Zealand market in April 2004 was about \$7.7bn per day, of which \$4.9bn was NZD swaps. This was an increase of about \$1bn per day over the 2001 survey.

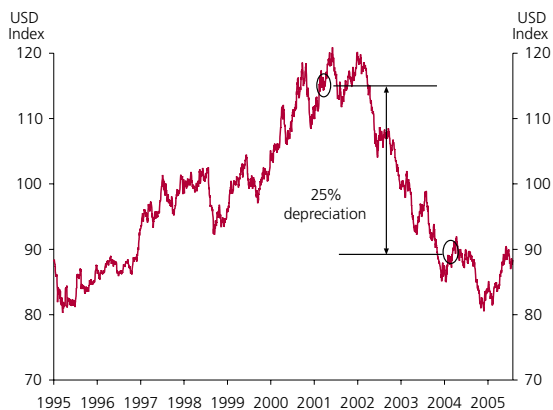
Bank funding was an important contributor to this rise. Based upon estimates of the median term of bank funding (80 days) and the amount of offshore funding (\$65bn), it is likely that about \$820m of the \$4.9bn transacted, on average, each day in April 2004 was due to banks swapping the proceeds of foreign borrowings into New Zealand dollars. Similar estimates for April 2001 indicate that the turnover was about \$670m per day – indicating that bank funding contributed some \$150m per day to the overall rise of \$1bn in swaps business in the New Zealand market.

Figure 5
Daily NZD FX swaps turnover



grew in popularity as an investment strategy because the US dollar exhibited a clear and persistent downward trend (see figure 6) whereas bonds and equities tended to move within established ranges.

Figure 6
US dollar index

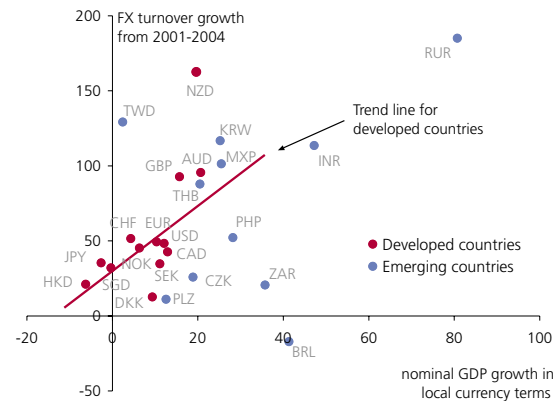


Many speculative investors sold the US dollar with a view that this trend would continue. Some investors believed the US dollar would depreciate to encourage financing of the US current account deficit. Meanwhile, trend-following and momentum investors were willing simply to sell the US dollar until the trend finished. This trade was particularly attractive because US interest rates fell to historically low levels, which made it relatively inexpensive for investors to sell the US dollar in order to purchase higher-yielding currencies.¹⁰

Speculative investors favoured selling the US dollar and investing in high-yielding currencies (the New Zealand and Australian dollars and the British pound) and some emerging market currencies – so called ‘carry trades’. Robust economic growth, higher interest rates, and rising asset prices in these regions made them attractive investment destinations (figure 7 shows turnover in high-yielding and emerging market currencies grew rapidly between 2001 and 2004).

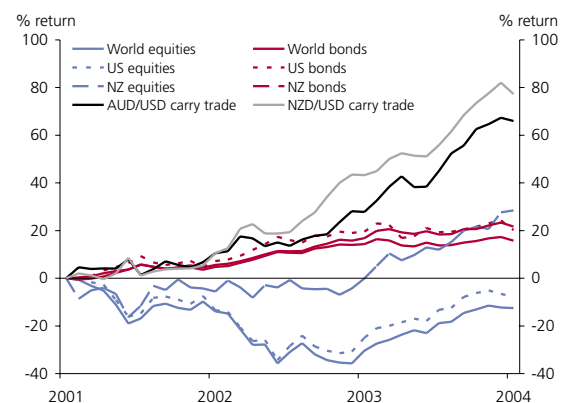
¹⁰ There is either an explicit or an opportunity cost to selling a currency. This is equal to the interest rate on the currency being sold.

Figure 7
Economic growth versus FX turnover growth



The New Zealand dollar was reportedly one of the most popular investment destinations for the carry trade. Between 2001 and 2004, investors profited from the difference between the New Zealand and US interest rates – referred to as the ‘carry’ – and the extended appreciation of the NZD/USD. Figure 8 shows the relatively high return to the NZD/USD and AUD/USD carry trades compared to world bond and equity markets over this time.¹¹

Figure 8
Relative returns from equity markets, bond markets, and carry trades¹²



¹¹ The carry trade does not always produce such high returns. Between 1998 and 2001 the NZD/USD carry trade would have produced negative returns.

¹² The carry trade return is calculated as the product of the cumulative return in the overnight interest rate differential and the cumulative return from spot exchange rate changes. Returns are in local currency terms.

3 Global trends in New Zealand dollar turnover

Global daily turnover in the New Zealand dollar (foreign exchange swaps, spot and forwards) in 2004 was around USD 25 billion.¹³ Of this, most trading took place in London, while around 17 per cent took place within New Zealand (see table 4). New Zealand is not unusual in that its currency is largely traded in offshore markets. For example, only 18 per cent of Swiss franc trading takes place in Switzerland while 30 per cent of Australian dollar trading takes place in Australia.¹⁴ Although most New Zealand dollar trading takes place outside New Zealand, a substantial proportion takes place in other centres in our time-zone (particularly Australia).

According to the BIS, New Zealand dollar turnover increased 150 per cent between 2001 and 2004. However, the

true growth in New Zealand dollar turnover is probably lower than this figure because several trading centres did not report New Zealand dollar trading in the 2001 survey. Some of the increase in New Zealand dollar turnover can be explained by base currency effects (ie, changes in the value of the NZD/USD).

Foreign exchange swap activity

Foreign exchange swaps (FX swaps) are the most traded New Zealand dollar instrument (see Box 3). Average daily turnover in FX swaps is around USD 17 billion, or 70 per cent of total FX transactions (see table 5).

FX swap turnover increased significantly between 2001 and 2004. To some extent, the increase in FX swap turnover can be attributed to domestic banks increasing the amount of funds they raise offshore, which are then converted to

Table 4
Foreign exchange trading of New Zealand and Australian dollars

Trading centre	New Zealand dollar		Australian dollar	
	Total - in USD	as a % of total	Total - in USD	as a % of total
London	6,841	28	28,924	22
Australia	5,320	21	39,397	29
New Zealand	4,202	17	1,889	1
Asia	3,551	14	31,354	23
New York	3,298	13	20,855	16
Other	1,556	6	11,880	9
TOTAL	24,767	100	134,300	100

Source: BIS (confidential report obtained by request)

Table 5
Breakdown of NZ dollar turnover by transaction type

Transaction type	2004		2001	
	Total - in USD	as a % of total	Total - in USD	as a % of total
Spot	5,534	22	1,635	15
Outright forward	1,755	7	846	8
FX swaps	17,478	71	8,169	77
Total	24,767	100	10,650	100

Note: 2001 figures exclude New Zealand dollar trading in some trading centres

¹³ Total turnover in this section differs from other parts of the article because it involves all FX transactions involving the NZD, irrespective of where in the world they occurred. In the published BIS statistics, the BIS only counts trades when at least one party is connected to the country of the currency traded. This data was obtained by request from the BIS.

¹⁴ The Reserve bank of Australia estimates that about 40 per cent of turnover in Australian dollars occurs in the Australian market ('The Australian Foreign Exchange and Derivatives Market', Reserve Bank of Australia Bulletin, June 2005, p. 6). This is because of the difference in netting methodology in calculating domestic turnover between the BIS and RBA. The RBA adjusts for cross-border double counting in the global data, but do not adjust the local data whereas the BIS adjusts both cross-border and local data for double counting. The RBNZ follows the BIS methodology.

New Zealand dollars (by using FX swaps for on-lending to New Zealand borrowers).

In box 2 we estimate the likely extent of this increase in foreign borrowing by local banks on New Zealand dollar FX swaps turnover to be around NZD 150 million per day. However, when we take account of the “pass-the-parcel” trading process in the interbank market, this factor could conceivably have increased turnover by much more.

The remaining growth in FX swap activity can be put down largely to greater foreign investment in New Zealand. Foreign investors use FX swaps to convert foreign currency to New Zealand dollars, to finance purchases of New Zealand assets. Foreign investors using FX swaps are not exposing themselves to movements in the exchange rate, only movements in the interest rate differential between New Zealand and their home country.

Spot and outright forwards trading

Spot turnover more than doubled between 2001 and 2004 (see table 5). The bulk of the increase in spot turnover reflects greater offshore investment in New Zealand assets. Offshore investors have been attracted to New Zealand assets because of the strong performance of the New Zealand economy and the relatively high level of New Zealand interest rates.¹⁵ Offshore investment in New Zealand was also supported by the global recovery in risk appetite (New Zealand is still a small and peripheral market for most offshore investors).

Forwards turnover also increased, but at a lesser rate than spot turnover. The increase in forwards turnover was likely due to an increase in New Zealand export receipts, given that exporters are the main end-users of forward contracts.¹⁶ Exporters use outright forwards to protect themselves

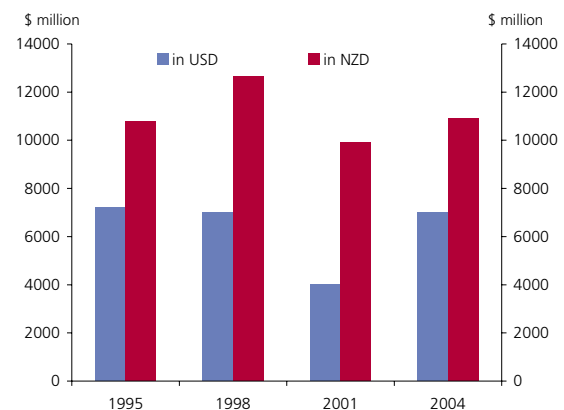
against an appreciation in the New Zealand dollar, which would reduce the value of future foreign currency receipts.

Forwards turnover also tends to generate swap and spot trading. Because interbank price-makers do not generally quote forwards prices, an interbank participant wanting to hedge a forward contract it has just sold to an exporter will pass its position on in the interbank market by transacting two separate swap and spot transactions.

4 The New Zealand foreign exchange market

A smooth functioning domestic FX market is an important foundation for a vibrant financial system. New Zealand is a core trading centre for the New Zealand dollar in a way that goes beyond its share in total trading centre contribution – especially in times of stress or vulnerability. While New Zealand accounts for roughly one fifth of New Zealand dollar trading (see table 4), were a serious economic ‘shock’ to hit the New Zealand economy, domestic banks would be relied upon heavily to provide price-making in the New Zealand dollar. Domestic banks are more incentivised to play this role, given their existing relationships with New Zealand clients and significant franchise value at risk. Thus, we might expect domestic banks to be more committed to providing price-making services in the New Zealand dollar than offshore institutions in the event of a serious shock. Although such a severe shock is a low probability event, it could also come at a high cost, and as such the Bank takes

Figure 9
Turnover in the New Zealand market



¹⁵ Another article in this *Bulletin*, ‘An update on Eurokiwis and Uridashi’, describes a particular form of offshore investment that has received some publicity recently, namely Uridashi and Eurokiwi bond issuance. Uridashi and Eurokiwi bonds are denominated in New Zealand dollars and sold to offshore investors.

¹⁶ Recent work by the Bank (see Phil Briggs, ‘Currency Hedging by Exporters and Importers’, Reserve Bank of New Zealand *Bulletin*, Vol. 67, No. 4, December 2004) suggests that exporters were hedging a lower proportion of foreign currency receipts in 2004 than in 2001. This means the increase in outright forward turnover was presumably driven by increases in export receipts.

a particularly close interest in monitoring the New Zealand market.

Total trading in New Zealand

The 2004 survey shows a recovery in FX turnover in the New Zealand market. FX turnover in New Zealand grew from around USD 4 billion to over USD 7 billion between 2001 and 2004, near its historical average (see figure 9). In local currency terms the increase was slightly less pronounced.

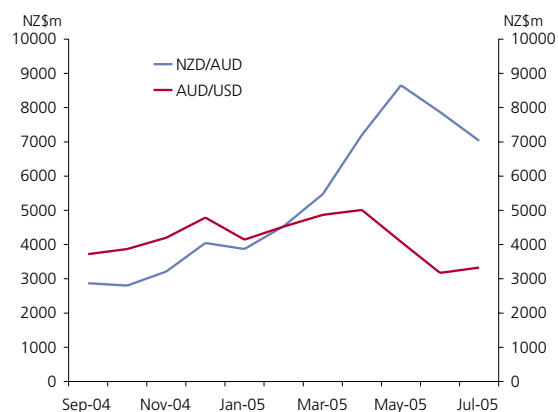
Currency pairs traded

The NZD/USD remains the most traded currency pair in New Zealand, accounting for more than half of all transactions (see table 6). However, NZD/USD trading now accounts for a relatively lower proportion of total turnover compared to the previous two surveys. This change mainly reflects a large increase in the proportion of Australian dollar trading in New Zealand (particularly the AUD/USD).

The increase in AUD/USD turnover has been driven by a growing interest in the NZD/AUD exchange rate, as investors generally trade the NZD/AUD indirectly by buying and selling the NZD/USD and AUD/USD. The NZD/AUD is a popular trade for many investors in the Australasian region who want to take a view on the New Zealand or Australian dollars (or future interest rates in these countries), but do not want to be exposed to US dollar trends. In addition,

many investors believe that the NZD/AUD tends to be driven by a few well-defined underlying factors, including interest rate differentials. Since the April 2004 survey, direct trading in the NZD/AUD in the New Zealand spot market has grown, while AUD/USD trading has stabilised (see figure 10).

Figure 10
Trading in the NZD/AUD and AUD/USD in the domestic spot market



Note: Three month moving average
Source: Reserve Bank of New Zealand

FX instruments traded in New Zealand

Turnover in all the major FX instruments in New Zealand rose between 2001 and 2004. FX swap turnover more than doubled between 2001 and 2004. As we outlined in section 2 and box 2, one important reason for this has been the increase in offshore borrowing by domestic banks (most of

Table 6
Currency pairs traded in the NZ market

	2004		2001		1998		1995	
	USD billion	%	USD billion	%	USD billion	%	USD billion	%
NZD/USD	3922	56	2630	65	4742	68	3740	52
AUD/USD	1696	24	500	12	655	9	881	12
EUR/USD	534	8	229	6	208	3	934	13
NZD/AUD	234	3	141	4	121	2	141	2
GBP/USD	202	3	137	3	154	2	228	3
USD/JPY	173	2	190	5	695	10	852	12
NZD/other	117	2	149	4	100	1	148	2
USD/other	69	1	23	1	245	4	194	3
All other	61	1	22	1	87	1	81	1
Total	7009		4021		7006		7200	

Box 3

Foreign exchange instruments

Spot transaction

A spot foreign exchange transaction is the exchange of one currency for another, at the spot (or today's) exchange rate. Although the exchange rate is agreed at the time of the transaction, market convention dictates that the exchange of funds (settlement) will occur two business days later (the spot date).

Forward transaction

A forward transaction is identical to a spot transaction, except that the settlement date (and the exchange of currencies) is more than two business days ahead.¹⁷ The forward transaction allows each party to lock in a known forward exchange rate today, with the outright exchange of currency amounts occurring at a future date.

Foreign exchange swap transaction

A foreign exchange swap (FX swap) is an agreement to exchange two currencies at the current spot date and to reverse the transaction at a specified future date.¹⁸ In fact, an FX swap is equivalent to a spot transaction and an offsetting forward transaction rolled into one.

Entering into an FX swap is equivalent to borrowing in one currency and lending in another, allowing management of cross-currency cash flows. The FX swap market can be a more efficient way of borrowing and lending currency amounts than using the relevant currency money markets directly. FX swaps carry no currency exposure because the exchange rate on the spot date and at the future settlement date is fixed at the time of the transaction.

Globally, FX swaps continue to be the most heavily traded FX instrument. A significant reason for this is due to market players' preference to repeatedly transact short-term FX swaps rather than transacting one longer maturity swap.

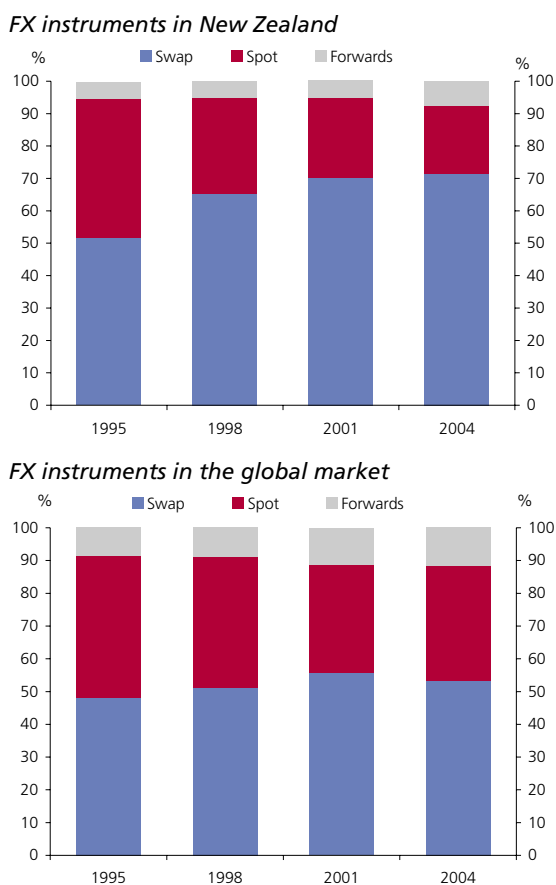
Currency options

A currency option gives the holder the right, but not the obligation, to buy or sell one currency against another at a specified exchange rate, over a specified period. Most currency options are 'over-the-counter', meaning they are written by financial institutions to meet the exact needs of the option buyer.

¹⁷ It is possible to have a forward transaction that settles sooner than a spot transaction. These are called value today and value tomorrow outright forwards, and settlement is either the current day or the next day respectively.

¹⁸ See Hawkesby (1999) for more on FX swaps and currency options.

Figure 11
FX instruments traded in New Zealand and the global market



which will have been exchanged into NZ dollars using FX swaps in the local market).

In line with the greater use of FX swaps by domestic banks, and a global trend towards greater emphasis on swap market activity, the share of FX swap market turnover in the New Zealand market has increased steadily over the past decade (see figure 11). FX swaps are now around 70% of the local FX market.

The proportion of spot turnover in New Zealand has correspondingly fallen over the past ten years, from around 45 per cent of all transactions in 1995 to only 20 per cent in 2004. This is a steeper decline than in the global FX market. One possible explanation is that offshore markets in spot New Zealand dollar have developed over recent years, and taken some business away from New Zealand (most spot New Zealand dollar transactions involve offshore market

participants who will not generally be active during the New Zealand trading day).

Forwards turnover in New Zealand also increased between 2001 and 2004, in line with the growth in exports. The share of forwards turnover in the New Zealand market has increased marginally since 1995.

Currency options turnover actually fell between 2001 and 2004, although this followed a large rise over the previous three years. Currency options turnover has fluctuated around 1 per cent of total turnover in the New Zealand market over the past ten years.

5 Conclusion

Global FX trading increased substantially between 2001 and 2004. This more than reversed the fall in trading between 1998 and 2001. Speculative trading in currencies increased, as investors took advantage of a persistent downward trend in the US dollar and large differences in interest rates between the US and other countries.

Trading in the New Zealand dollar grew at a faster pace than the global average, reflecting the performance of the New Zealand economy and the relatively high level of New Zealand interest rates. Much of this increase in New Zealand dollar trading was concentrated in offshore markets.

On the face of it, the increase in turnover suggests depth in the New Zealand dollar market has improved. However, depth is only one element of market liquidity. We intend to build on the results from the 2004 survey and examine liquidity in New Zealand dollar in the upcoming issue of the *Financial Stability Report*.

FX turnover in the domestic market grew largely in line with the global market between 2001 and 2004. Domestic FX turnover has now fully recovered from the period of financial consolidation in the late 1990s when several banks shifted wholesale operations to Australia.

Appendix

Currency mnemonics

These symbols for national currencies are those routinely used by foreign exchange traders

AUD	Australian dollar	KRW	Korean won
BRL	Brazilian real	MXN	Mexican peso
CAD	Canadian dollar	NOK	Norwegian krone
CHF	Swiss franc	NZD	New Zealand dollar
CZK	Czech koruna	PLZ	Polish zloty
DKK	Danish krone	RUR	Russian rouble
EUR	Euro	SEK	Swedish krone
GBP	Great Britain pound	SGD	Singapore dollar
HKD	Hong Kong dollar	THB	Thai baht
IDR	Indonesian rupiah	TWD	Taiwanese dollar
INR	Indian rupee	USD	United States dollar
JPY	Japanese yen	ZAR	South African rand