



## Perpetual Infratil Infrastructure Bonds (PiiBs)

This page updated March 2018

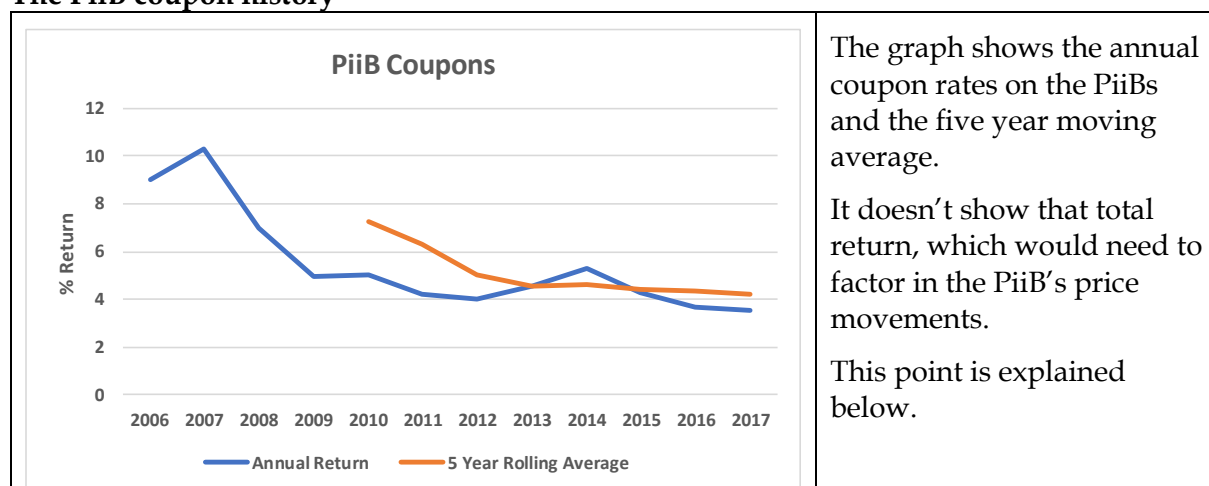
At present Infratil has ten bonds outstanding and a number of bank loans. All but one of these debt obligations has a market value of at least par. The exception is the PiiBs which have a current market price of about \$0.80 per \$1.00 (and a price range over the last year of \$0.62 to \$0.81).

Outlined below is an explanation of why the PiiBs price ranges so much and why it is less than the issue price (which was \$1.00). Also noted is a little of the history of this security and the question of Infratil's moral commitment to PiiB-holders.

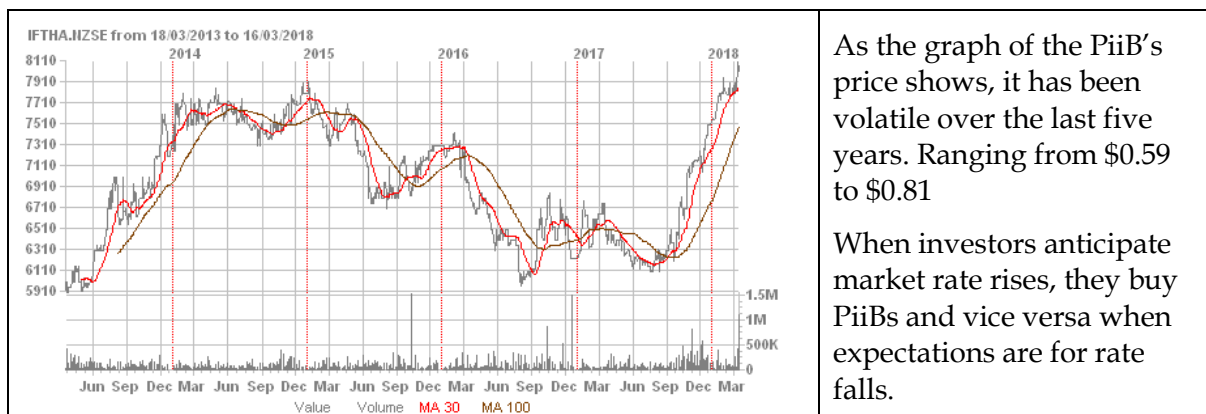
### What are PiiBs ?

- PiiB are perpetual; like a share rather than a fixed-maturity bond. Infratil is only obliged to repay them in certain exceptional situations, for instance if Infratil is taken over or is required by its loan covenants to repay all of its debt.  
Like a share, holders of PiiBs can get their money out of the investment by selling them via the NZDX market.
- The PiiB interest coupon is set each 15 November at 1.5% over the one year bank base rate as at that day. Interest is then paid quarterly.
- Since their issuance in 2006-2007 the PiiB annual coupon rates have been, respectively, 9.00% 10.27% 6.95% 4.97% 4.99% 4.22% 3.97% 4.53% 5.26% 4.26% 3.63% 3.50% (giving an average of 5.46%pa. over the twelve years).
- As noted, PiiBs are traded on the NZDX market. Recently the price range has been between \$0.62 and \$0.81 per \$1.00 face value.
- At a price of \$0.80 per \$1.00 face value and with a coupon of 3.50% they are yielding about 4.5% in the secondary market ( $3.5/80 = 4.4\%$ ).
- A yield of 4.4% is not exactly generous, but investors are presumably anticipating that market rates will rise and therefore that the PiiB coupon will too. A floating rate security is unattractive when rates are falling, but starts looking better when market rates rise.

### The PiiB coupon history



PiiB total returns



As the graph of the PiiB's price shows, it has been volatile over the last five years. Ranging from \$0.59 to \$0.81

When investors anticipate market rate rises, they buy PiiBs and vice versa when expectations are for rate falls.

With the PiiBs, an investor's total return will depend on the coupon and the purchase and sale price.

- Someone who purchased the PiiB back in 2006 at \$1.00, earned 5.5% in average coupon for twelve years and then sold for \$0.80, will have a total return of only 4.2% pa.
- Someone who purchased them five years ago at \$0.59, earned an average coupon of 4.2% and now sells at \$0.80, will have a total return of 12.9% pa.

As will be apparent from the coupon and price fluctuations, there is plenty of potential for the total return to fluctuate too.

### The initial investors & their disappointment

At the time of their issue, investors purchased PiiBs because they were a high yielding bond, but as the coupon declined (because the Reserve Bank lowered short term interest rates) this ceased to be the case. PiiB-holders who then wished to sell their PiiBs found that the price had fallen.

There was clearly a level of surprise (shock and disappointment) amongst many investors. Most bonds provide a fixed coupon and a fixed maturity date. From a great deal of interaction with people who had purchased PiiB, it became very obvious that at least some investors had not appreciated the potential for the coupon and the capital price to decline to the extent they did.

It is fair to say that Infratil management were also shocked by what transpired. But, given that monetary authorities (including the Reserve Bank of New Zealand) have pushed interest rates to their lowest ever levels, surprise is natural. No one foretold New Zealand interest rates at such levels?

It is worth also noting that the people who purchased the PiiBs back in 2006 and 2007 were not alone. There were a total of six issues of similar securities (ASB, Credit Agricole, Fonterra, Infratil, Origin Energy and Rabobank) amounting to \$1,935 million. There were worse investments too. After that period sixty seven finance companies failed leaving over 150,000 New Zealand depositors with \$3,000 million of losses.

### Could Infratil bailout the PiiB-holders?

The investment performance of the PiiBs has disappointed investors and issuer alike. The nature of the New Zealand capital markets makes it generally undesirable for a company such as Infratil to have disappointed investors, and the investors' advisers who originally recommended the PiiBs would also like to see the lot of their clients improved.

Two ways are suggested to bring this about. The PiiBs could be repurchased or the PiiBs could be swapped for a "better" instrument. These suggestions have not been taken up, for reasons noted below:

## 1. Repurchase

Over the last few years, Infratil has repurchased approximately \$7 million face-value of PiiB for about \$4 million. These repurchases have occurred with the intention of ensuring that the market is liquid. At times in NZ there can be more sellers than buyers for a security and a determined seller could be obliged to accept an absurdly and unfairly low price. To avoid this situation, Infratil has occasionally purchased PiiBs to ensure a relatively orderly market.

Naturally it has been suggested that Infratil could (or should) buy back the PiiBs at a much higher price. There are impediments to the Infratil board endorsing this. Today, the market price of the PiiBs is \$0.81. If Infratil offered to acquire them for \$1.00 it would represent a material transfer of value from Infratil's shareholders to its bondholders. In such a situation, would the directors be fulfilling their duty to act in Infratil's best interest? What would be the overall merits of offering to pay \$233 million to acquire securities with a market value of \$189 million?

Any value transfer between one class of Infratil security holders and another must pass the test of leaving neither worse off. The repurchase of PiiBs at an above-market price would be transferring value from shareholders to bondholders rather than creating a win/win.

## 2. Security swap

As an alternative to buying back the PiiBs it has been suggested that Infratil could offer to swap them, for conventional fixed-maturity bonds, or shares, or a mixture of bonds and shares. This proposal suffers from two flaws. It tends to require that Infratil offers a new security (share or bond) worth \$1 to repurchase a PiiB with a market price of \$0.81. This has the same problem as the repurchase outlined above. Or it would entail Infratil offering to issue shares or bonds also worth \$0.81 in exchange for the PiiBs, but suggestions along these lines are either very complex or something holders of PiiB can do themselves. Ie. there is nothing to stop a PiiB-holder today selling their PiiBs and using the proceeds to buy other shares or bonds.

Someone once said "for every complex question there is often a simple answer, but it is usually wrong"; that is the predicament created by the PiiB. But, as noted below, the situation for holders is not hopeless, even if it is very disappointing.

### **PiiB returns from here?**

As outlined above, an investor who buys PiiBs today at \$0.81 per \$1.00 will receive an overall return determined by both the annual coupon rate and the price at which they later sell the PiiBs.

In past versions of this explanatory note we have included bank forecasts of interest rates. We are leery to do so again because it seems the even the banks are largely guessing, or basing forecasts of a long list of assumptions (as in "if rates in the US, Japan, UK, Europe and Australia stay down and inflationary pressures remain quiescent then we expect NZ rates to also not rise").

In the absence of clarity about future interest rates in New Zealand, we can say that higher rates are likely to improve the total return provided by the PiiBs (ie the coupon and price are likely to rise) and vice versa.

The following table gives a matrix of possible returns for the next three years. It assumes someone buys PiiBs at \$0.81. A range of scenarios are then given involving rising and falling coupons and rising and falling PiiB prices.

Sale Price After 3 Years	Average Coupon 3.0%pa.	Average Coupon 4.0%pa.	Average Coupon 5.0%pa.
Price=\$0.71	-0.4%pa.	0.9%pa.	2.1%pa.
Price=\$0.81	3.0%pa.	4.9%pa.	6.2%pa.
Price=\$0.91	7.5%pa.	8.7%pa.	9.9%pa.

This is not intended to suggest that investors should buy PiiBs or sell them. It merely shows the two factors (coupon and future price) which set the total return and gives an idea of a likely range.

Given that market interest rate on three year bonds or bank deposits are about 3%pa. it's not difficult to understand the attraction of the higher risk and higher return from PiiBs.

### Compliance With Legal Obligations

When the PiiBs were issued Infratil naturally took steps to ensure the issue complied with the law and that investors were not misled. The issue terms promised investors a margin above the one year bank wholesale rate and the offer documents warn that the price and coupon on the bonds could vary depending on market conditions.

However, it is still fair to ask "Since the issue occurred there have been developments that were not foreseen. Does this have any consequences for the legal efficacy of the issue documents?". Or put simply, things have happened to the price and coupon of the PiiB which were not anticipated in 2006, do these developments change Infratil's legal obligations to holders of the PiiBs? This was very carefully considered and management concluded that Infratil continues to be in full compliance with the law.

The role of the PiiB trustee and others involved with the bond issue is worth noting in this context. The trustee\* must exercise reasonable diligence to monitor whether or not the PiiBs are in compliance with the Trust Deed and the offer terms. This is not the same as ensuring compliance with securities law, but naturally a trustee with wide experience of both the law and the terms of different securities would be likely to be aware of legal issues. This is also true of the banks and brokers who arranged and distributed the bonds. None of these parties has raised any issues about the PiiBs' compliance with the law. Incidentally, this note and other relevant material placed on the Infratil website is widely available.

(\* The Financial Markets Conduct Act 2013 now designates trustees as "Supervisors".)

### "The Spirit" of Compliance

There is "word of the law" and there is "spirit of the law". When the PiiB's coupon/price slumped Infratil received a number of requests to "solve the problem" and two fairness points were often raised:

- "Infratil has had a windfall gain because of unexpected developments, Infratil has an obligation to look at the spirit of the transaction and address PiiB-holders' returns."
- "Investors expect to be paid 1.5% more than they could get from placing a deposit with a bank and do not accept that "bank rate" could mean a wholesale rate that could be lower than bank retail deposit rates."

Infratil has not had a windfall gain from the PiiBs. This may be disputed by a PiiB-holder who has seen coupon and price fall and may assume "I have lost, ergo you have gained". The reality is more complex because for Infratil the PiiB issue was one of many interrelated transactions as the funds were applied to various purposes and interest rates swaps were used to convert the funding to a fixed cost.

As the saying goes, “You cannot step twice into the same river; for other waters are ever flowing on to you”. It is not possible to go back and unpick one stitch of many, not least because of the nature of a company’s obligations. Ultimately a company’s many transactions result in gains and losses with the net benefit/cost taken by shareholders who would balk at a retrospective reallocation of one component.

The second “in the spirit” issue is whether Infratil should lift the PiiB coupon. Again, the complexity and difficulty of defining what investors expected in 2006 makes it impossible to reinvent investor expectations. It is correct that over the decade there has been a lot of change in the interest rates banks offer to different types of depositors, for different terms, and dependent on the different lender rights.

But Infratil clearly bears no responsibility for how trading banks change their borrowing rates or how Reserve Bank regulations flow through to market interest rates.

### **Summary**

Since the PiiBs were first issued in 2006 the financial markets have been significantly disrupted. A great many financial relationships which seemed enduring in 2006 have been recast. These market changes meant that the PiiB’s coupon and market price have not followed an expected course.

Infratil bears no responsibility for these market changes, nevertheless Infratil has considered if something could be done to improve the lot of PiiB-holders. Unfortunately, it was apparent that actions that would help holders of PiiBs would hurt shareholders, and this was deemed to be neither practical nor fair.

Someone contemplating buying or selling the PiiBs needs to take into account what could happen to New Zealand interest rates and any factors that could change the price of the PiiBs.

1. The very low short-term interest rates set by the Reserve Bank of New Zealand.
2. The relative rates offered by NZ banks to retail and wholesale depositors.
3. One-year interest rates versus five-year interest rates.
4. Credit spreads.

Each of these factors could change in future to either hurt or help the value and returns on the PiiBs. Regrettably it is extremely difficult to provide guidance. The last decade has been full of surprises.

### **Appendix: What is the “1 year swap rate”?**

Simply, this is the base rate a company such as Infratil would agree with a bank if borrowing on a fixed rate basis. If today Infratil were to ask one of its banks for a one year fixed rate loan, the bank would probably express the pricing as “1 year swap rate + margin”.

An explanation of how the rate is determined is more complex and is outlined below.

The key point (especially in the context of the UK bank LIBOR and Australian bank bill rate scandals) about swap rates is that they are used by commercial borrowers and banks because lenders and borrowers trust them. Details about which banks supply swap rate quotes, and the rules they are obliged to follow when providing swap bids and offers (which are used when the official “Swap Rate” is set each day), are set out on the NZ Financial Markets Association web site:

[http://www.nzfma.org/Site/practices\\_standards/reference\\_rate\\_rules.aspx](http://www.nzfma.org/Site/practices_standards/reference_rate_rules.aspx)

The more basic question “what is an Interest Rate Swap?” is addressed with the following example (NB for the sake of simplicity the following omits the roles of “bid” “offer” and “mid” rates):

- In NZ, bank loans are often priced relative to the bank bill rate. Bank bills are short term securities (6 month or less) and are actively traded in the money market. Today the 3 month bank bill rate is 2.29%. Past rates are available on: <http://www.rbnz.govt.nz/statistics/exandint/b2/data.html>
- A corporate borrower, such as Infratil, may pay a rate on a loan from ANZ priced as Bank Bill +1% with the bill rate reset every three months. (So today the coupon rate on the loan would be 2.29% + 1.0% = 3.29% and in three months the rate would be reset to reflect the then bill rate plus the 1% margin, etc.). The loan may be five years, but the bill rate would be reset every three months.
- Because Infratil prefers to have its borrowing cost fixed for a number of years rather than just three months, Infratil may “swap” its floating rate for a fixed rate with a bank (which can differ from the bank providing the loan). The swap could be for the whole five year term of the loan.
- Under the swap the bank, say BNZ, would pay the interest on Infratil’s loan from ANZ and Infratil would pay BNZ a fixed interest amount on the loan.

The net effect of this arrangement is that Infratil has a five year loan with a fixed rate. Infratil has “swapped” from paying “Bill + 1%” to paying “5 year Swap rate +1%”.

Of course Infratil could have just borrowed the money from the bank at the fixed rate of “5 year swap rate +1%”. The net effect would be the same.

### Historic Context

In January 2012 the following article appeared in the Financial Times written by columnist James Mackintosh. The article shows that Infratil’s perpetual bonds are not the only ones to cause problems for investors. By perverse irony, this article was written in response to a recovery in the value of the UK Government perpetual bonds (known as war loans). This wasn’t a coincidence; in 2012 interest rates were at all-time lows. The UK perpetual bonds pay a fixed coupon, so when market interest rates are very low that improves the relative attractiveness (hence value) of the bonds. Infratil’s perpetual bonds pay a coupon which is reset each year, so when those rates are very low, the yield on the bonds is low and that depresses their value.

Very low short-term interest rates are bad for holders of Infratil’s perpetual bonds and good for holders of UK government perpetual bonds. It is reasonable to anticipate that vice versa will also pertain.

The Financial Times 20<sup>th</sup> January 2012

The British government has a rare opportunity to save £10 million a year and gain positive PR at the same time, courtesy of the fearful bond market.

All the UK has to do is pay off its first world war debts, of which £2 billion is still outstanding thanks to an archaic bond with no redemption date.

This War Loan is little more than an historic curiosity to most investors. But the oddities of the bonds’ structure have combined with the lowest yields on long bonds since just after the second world war to create an opportunity for the government – one from which investors could profit too.

The history of the bonds is fascinating. In 1932 Britain managed to swap a 5 per cent War Loan, with a fixed maturity date, for undated bonds paying only 3.5 per cent. If this sounds as terrible as the debt swap Greece is proposing, it was – except that the UK deal was worse, in that it created bonds that never mature.

As postwar inflation took hold, War Loan suffered along with other government debt, hitting a low of 20p in the pound at the end of 1974.

But last year War Loan returned 26 per cent to its holders, who include 126,000 or so individuals, many thought to be descendants of the original patriotic buyers. Since the taming of inflation in the mid-1980s, its total return is well above that on UK equities.

The opportunity comes from the government's right to buy back with three months' notice. This puts a cap on the price. As a result War Loan yields a little more than its 3.5 per cent coupon, while the yield on the 2060 bond is only 3 per cent.

If the political triumph of paying for the first world war is not enough, the Treasury could save 50 basis points by refinancing with 50 year debt.

Bondholders can earn a higher yield than on long bonds, plus a little bit extra if the bonds are redeemed. The risk for investors are those of any gilt: if panic recedes a haven is less attractive, while if a true global crisis begins the UK's credit is likely to be damaged.