Infratil

Perpetual Infratil Infrastructure Bonds (PiiBs)

Updated July 2016

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 $0.65 per $1.00 (and a price range over the last year of $0.60 to $0.70).

Outlined below is an explanation of why the PiiBs are such a poorly performing security, why Infratil is constrained in its ability to "bailout" PiiB-holders, and what may happen in future to their yield and value.

Also addressed is the fairness of what has happened and the question of Infratil's moral commitment to assist 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% (giving an average of 5.94%pa. over the ten years).
- As noted, PiiBs are traded on the NZDX market. Recently the price range has been between $0.60 and $0.70 per $1.00 face value.
- At a price of $0.65 per $1.00 face value and with a coupon of 4.26% they are yielding about 6.55% in the secondary market, but only 4.26% to an original investor who paid $1.00 for them.
  - Secondary market yield calculation $4.26/$65 = 6.55%pa.
  - Purchased at par yield calculation $4.26/$100 = 4.26%pa.

What went wrong?

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.

The fall in price probably reflects two factors. One is the lower coupon; the other is uncertainty about future returns. The following calculation illustrates the two factors at work.

An investor with $20,000 face value of PiiBs will receive $852 of interest over the year to 15 November 2016. Sale of those PiiBs at $0.65 per $1.00 of face value would realize $13,000. If that $13,000 were invested in 5% bonds the return would be $650 of interest over the year.

Looked at from the perspective of a "new investor", the cash earnings from buying PiiBs is substantially better than the return on a new issue bond with a 5% coupon. By way of comparison, if the secondary market price of the PiiB were $0.85 ($17,000 for our $20,000 holding) the yield would be 5%pa.

So it is seems that the secondary-market price of the PiiBs is "too low" and the yield they are offering is "too high". At least in part this low price is probably explained by the PiiB coupon rising and falling. The PiiBs' coupon will be reset on 15 November 2016 and if one year bank rates do not change from where they are now, the next coupon reset will be to 3.60%. On the $65 purchase price, a coupon of $3.60 gives a yield of 5.5%pa.

Very low interest rates and the potential for rates to go even lower have discouraged buyers and reduced the market price for the PiiBs to levels which are lower than seems logical. Perhaps the prices indicate that investors are only interested in a bond such as the PiiBs when the price is very low (ie. they are cheap).

Over 2006/7 when Infratil issued $240 million of PiiBs, five other banks/corporates issued $1,935 million of similar perpetual bonds. While none of the returns on these bonds have been great, investors can at least take comfort that the issuers (ASB, Credit Agricole, Fonterra, Infratil, Origin Energy and Rabobank) remained solvent and have met all obligations. By comparison, over the period when perpetual bond yields and prices fell, 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 a large group of 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 $0.65. 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 $151 million?

   To date it has not been possible to identify how Infratil's shareholders would benefit to an extent that a substantially "above market" bid for the PiiBs would be warranted. 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**

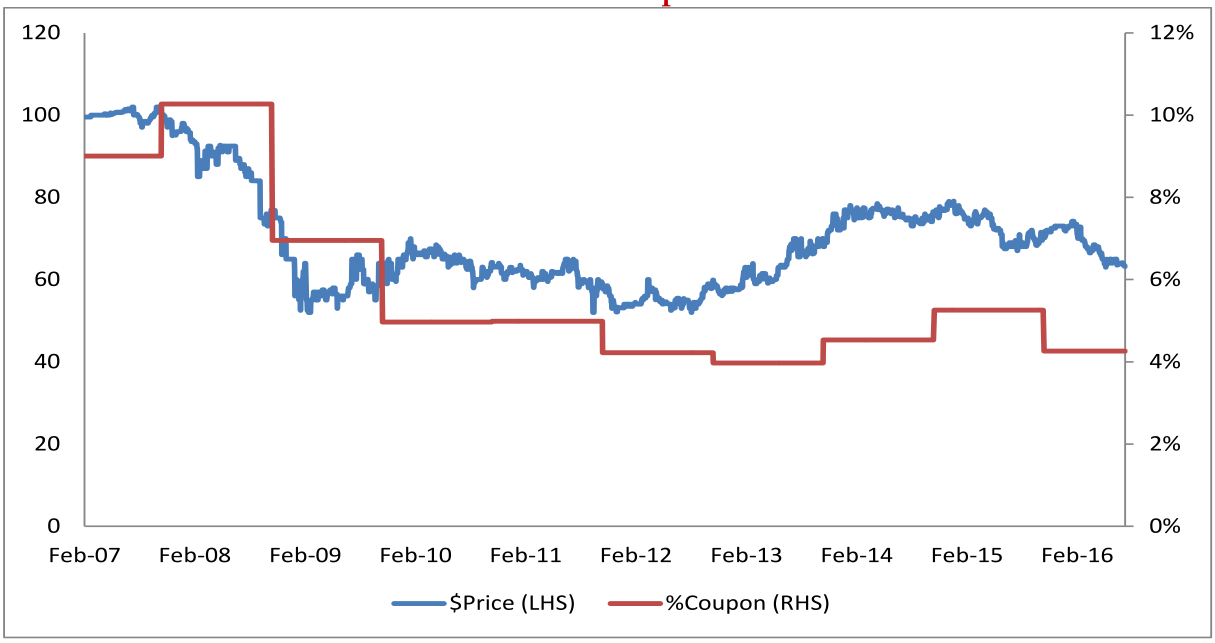
   As an alternative to buying back the PiiBs it has been suggested that Infratil could offer to swap them, for conventional fixed-maturity bonds, or shares, or a mixture of bonds and shares. This proposal suffers from two flaws. It tends to require that Infratil offers a new security (share or bond) worth $1 to repurchase a PiiB worth $0.65. This has the same problem as the repurchase outlined above. Or it would entail Infratil offering to issue shares or bonds also worth $0.65 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.

What next?

As described above, what matters for PiiB-holders is the coupon rate, while they are retaining ownership, and the secondary market price when they wish to sell out. If the coupon rate rises it will provide a better return, and it may also result in an increase in the PiiB market price. As shown below (see the graph) a low coupon and a low price have gone hand in hand, and probably the converse will also be true when the coupon rises.

PiiB Price & Coupon Rate

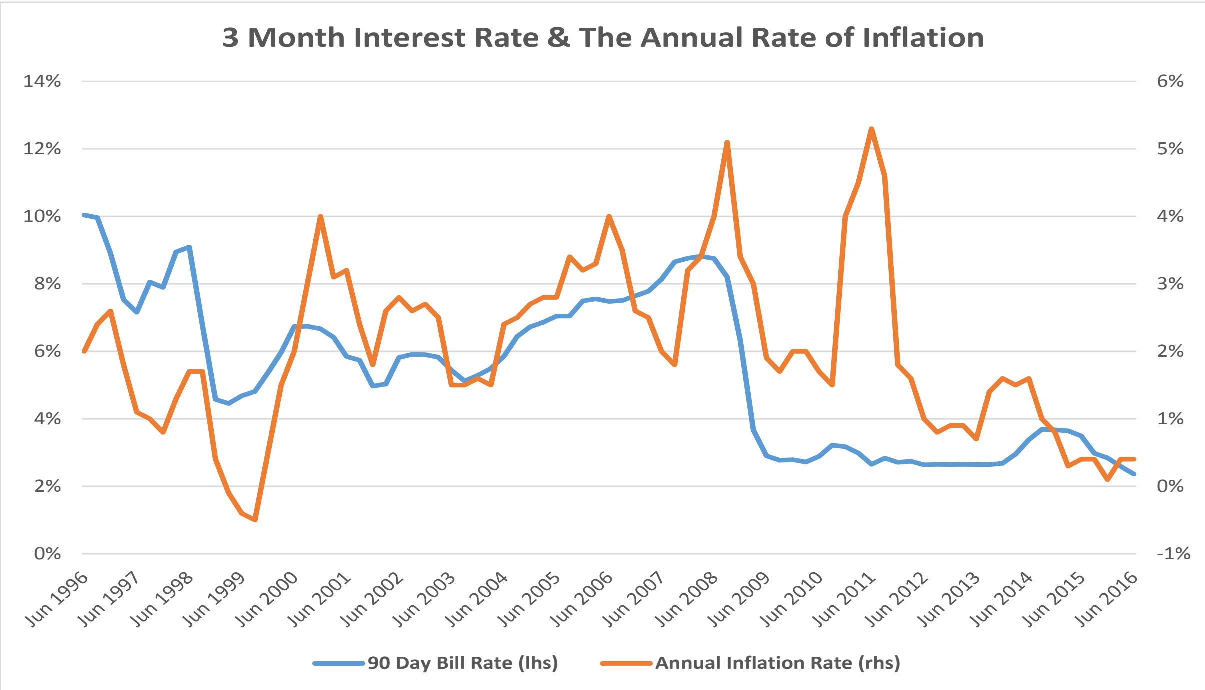


What coupon can PiiB-holders expect in future? The current financial environment does not allow confident forecasts. All economists and analysts are struggling to anticipate developments. With that proviso, the following table shows the forecasts of several banks for the PiiB coupon rate for the next two November resets. The "Actual" rate is the rate that is today available in the market for the relevant terms.

Forecasts Bank Base Rate + 1.5%	now	Nov 2016	Nov 2017
Actual market rate	3.6%	3.5%	3.6%
Reserve Bank (from the June 2016 Policy Statement)		3.6%	3.7%
Westpac		3.7%	3.7%
ANZ		3.6%	3.7%
BNZ		3.6%	3.8%
Average		**3.6%**	**3.7%**

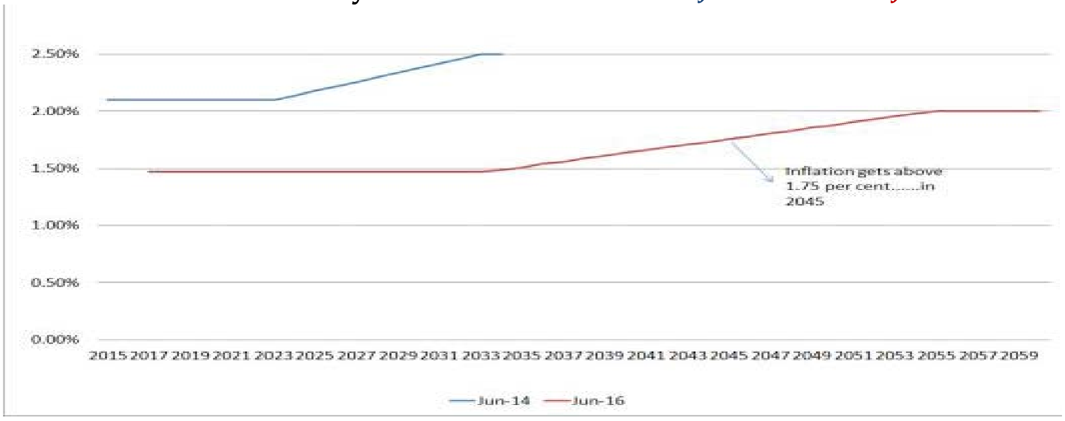
All forecasts have to be "taken with a pinch of salt". The coupon rate over the last five years has averaged 4.45%pa. and back in 2010 no one was forecasting rates to remain as low for as long as they have.

However, in New Zealand short term interest rates tend to move in line with inflation. It is regarded as highly likely that the Reserve Bank will raise interest rates when they become concerned about prices rising.



However, forecasting inflation rates has proven to be no easier than forecasting interest rates. The Treasury has recently updated its inflation forecast. The blue line in the following graph is their forecast of two years ago. The red line shows their forecast of June 2016. Treasury now forecasts that New Zealand's inflation rate will reach the Reserve Bank 2%pa. target in 2055. The rate of price inflation for the year ended 30 June 2016 was 0.4%.

NZ Treasury Inflation Forecasts as at June 2014 and June 2016



Interest rate forecasts. Good news looks to be some years off, but at least that long delay is factored in

When the PiiB coupon was reset on 15 November 2015 the rate was 4.26%pa. The reset this year is forecast to give a new coupon rate of 3.6%pa. And the reset on 15 November 2017 is forecast to give 3.7%pa.

The main source of possible "silver lining" to these grim figures is a burst of price inflation which obliges the Reserve Bank to lift interest rates, but there is no obvious reason for this to occur. In fact The Treasury is not forecasting CPI to hit Government's 2%pa. target rate until 2055 !!

The only positive that can be gleaned from these forecasts is that perhaps all the bad news is factored in and the market is expecting the worst. If history is a guide; when a large majority of market participants expect something to occur, that tends to mean that the "something" does not happen.

PiiB Returns From Here?

An investor who buys PiiBs today at $0.65 per $1.00 will receive an overall return determined by both the annual coupon rate and the price which they later sell the PiiBs. The following table shows a likely range of yields for a three year period from now. To explain the two highlighted squares:

- An investor could buys PiiB today at $0.65 and have the bad luck to receives the low average coupon over the next three years of 3.6% and to sell their bonds for $0.60. They will have an average return on the money they invest of 3.1%pa. for the three years.
- A fortunate investor who buys PiiB today at $0.65 and receives the high average coupon over the next three years of 4.6% and sells their bonds for $0.70, will have an average return of 9.4%pa. for the three years.

The actual yield may be outside of the 3.1%pa. to 9.4%pa. range. The table only shows outcomes consistent with bank forecasts of coupon rates over the period to mid 2019 and historic PiiB prices.

Sale Price After 3 Years	Average Coupon 3.6%pa.	Average Coupon 4.1%pa.	Average Coupon 4.6%pa.
Price =$0.60	3.1%pa.	3.8%pa.	4.6%pa.
Price=$0.65	5.5%pa.	6.3%pa.	7.1%pa.
Price=$0.70	7.9%pa.	8.7%pa	9.4%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 the likely range.

This return range is also pertinent to those who sell PiiBs today at $65. Over the next three years they are probably giving up a return of between 3.1%pa. and 9.4%pa. If market interest rates stay down then the return is more likely to be at the bottom end of the range. If market interest rise then a return towards the top end is more likely.

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 mislead. 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 circulated, including to the PiiB Trustee and brokers. (* 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". Infratil has received a number of requests which have raised two specific fairness points:

- "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 could not 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 to be "1.5% over retail deposit rates" as opposed to "1.5% over wholesale deposit rates". 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 bank credit contretemps or approach to funding, nor how the Reserve Bank's regulatory rules flow through to interest rates. Infratil has no responsibility to maintain the relationship between the coupon on the PiiBs and any particular bank retail deposit rate.

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 have meant that the PiiB's coupon and secondary market price has fallen markedly.

Infratil bears no responsibility for these market changes. However the question was asked if Infratil should nevertheless do something to improve the lot of PiiB-holders.

This is a complex issue as any such improvement would involve transferring value from shareholders to PiiB-holders. It was decided that such a transfer was neither practical nor fair.

Someone contemplating buying or selling the PiiBs should take into account the factors which reduced the PiiBs' yield, relative yield, and have created uncertainty about future yields:

1. The very low short-term interest rates set by the Reserve Bank of New Zealand. And the very low long-term rates set by central bank intervention in the bond markets of Japan, Europe and America.
2. The relative rates offered by NZ banks to retail and wholesale depositors.
3. One-year interest rates versus Five-year w 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 and increasingly a return to market norms looks to be a very long way off. There is little in the way of unbiased sensible forecasts available either. In 2006 no one forecast the financial market circumstances of 2016. There is no reason to see today's forecasts (such as they exist) as likely to be accurate.

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

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.

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.