Business and Economic
Research Limited

Report to:

Crown Forestry Rental Trust

COST BENEFIT ANALYSIS OF ALTERNATIVE SETTLEMENT STRATEGIES

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Cost Benefit Analysis of Alternative Settlement Strategies

1 Introduction

Some observers have argued that an additional 1-2% dollar value increase in the quantum over a further one to two years of negotiation represents a considerable opportunity cost to claimants.

This project will, by way of a case study, complete a cost benefit analysis of alternative settlement strategies for a settlement offer of $15 million.

This project will do this by:

1. Constructing a simple spreadsheet model to show the annual return on investment foregone, and the gross and net financial costs of continuing negotiations.

2. Calculating the marginal costs of extra time in negotiations versus accepting the settlement earlier.

3. Identifying the non-financial considerations that may have an economic impact on the settlement such as the opportunity costs and benefits of embarking on an economic development earlier, or direct participation in the governance of taonga, particularly forestry and fisheries.

4. Comparing and contrasting the financial balance between an earlier settlement with a lesser quantum and a later settlement with a higher quantum.

It is important to remember that most non-financial considerations cannot be quantified. That is, a financial value cannot be placed on them.

It is also important to note that the case study shown in this report is for illustrative purposes only. It does not imply that any of the events or opportunities suggested will or could occur.

2 What are we negotiating for?

As part of assessing the costs and benefits of continuing negotiation there needs to be a parallel process that considers what could be achieved through further negotiation. This process should have initially been undertaken before the outset of negotiations.

This assessment should cover three areas:

1. What is the amount we need for an effective settlement?
2. What is the potential claim increase that could be negotiated?
3. Is there any way we can restructure the settlement to maximise the benefits?

Claimants need to ascertain what is the minimum amount needed for settlement. This amount needs to take into account an assessment of the financial and commercial redress, any obligations the claimant community must meet, and the operational costs of a Post Settlement Governance Entity (PSGE). Claimants also need to consider what is the settlement required for intergenerational relevance. That is, a prudent amount that with proper management will remain relevant for future generations.

Some observers have argued that an additional 1-2% dollar increase in the quantum over a further one to two years of negotiations represents considerable opportunity costs to the claimants.

Claimants need to consider if there are any other items (such as Crown land or rights of first refusal of Crown land) or ways that the settlement could be restructured to gain maximum value. While the Crown is negotiating the total quantum value, there may be ways to include items in the quantum that have real value to the claimants.

Claimants need to decide at what stage they should seriously consider finalising a deal with the Crown. The current offer may be above or below their predetermined minimum level of settlement, and claimants need to consider all of the factors contained in this report. It would be preferable to regularly re-evaluate the current status of negotiations to determine if the point where they should enter into a deal has been reached.

3 Issues to be considered

This section looks at a number of items that should be considered when valuing alternative settlement strategies.

3.1 Initial settlement sum

The initial settlement sum refers to the settlement offered by the Crown at the Agreement-In-Principle (AIP) stage of negotiations.

This settlement sum may be made up of a combination of[1]:

- Cultural redress. Cultural redress provides claimants with a range of mechanisms that aim to:
  - Safeguard the claimant's rights and access to customary food-gathering sources.
  - Provide opportunities for input into the management, control or ownership of sites, areas or customary resources on Crown-owned land that the claimants have traditional and/or cultural associations with.
  - Provide opportunities for developing relationships with government departments in areas of importance to the claimants.
  - Facilitate the development of relationships with other agencies, such as local bodies, that play a significant role in the area the claimants have traditional and/or cultural associations with.
  - Provide recognition of traditional place names by facilitating name changes to sites.
- Financial and commercial redress
  - This is made up of an overall quantum or value in dollar terms agreed on between the Crown and the claimants in the settlement of historical claims against the Crown.

[1] This information is sourced predominantly from the Office of Treaty Settlements website. (www.ots.govt.nz).

- The quantum accepted by claimants is in the form of cash or Crown-owned property or a combination of the two. For example, from a total quantum of $10 million, a claimant group may receive $5 million in cash and the remainder in Crown-owned property.

- The combination of cash and property is a matter for the claimants to decide. However, this decision may depend on the amount of suitable Crown-owned property in an area relevant to the claimants.

- There are a number of other items that might be included in the settlement sum. These include:

    - Forest related assets such as:
        - Land
        - Accumulated rentals
        - Compensation.
    - Rights of first refusal.
    - Commercial property.
    - Residential property.
    - Deferred selection for six months (or longer) after settlement on property with values fixed at valuations set by the Deed of Settlement.
    - Statutory concessions.
    - Taonga.

The combination and size of each of these items will determine the nature and size of the actual and potential impacts of continuing negotiation rather than accepting the initial settlement.

For the purpose of calculating the potential income that could be earned, if the settlement was invested at a risk-free rate, we have assumed that all of the initial settlement is cash or cash equivalent.

3.2 Inflation

Inflation is the term used to describe a rise in average prices throughout the economy. It means that money is losing its relative value. If the value of an asset such as cash remains the same but price levels rise, then the purchasing power of the asset has been reduced.

By including an adjustment for inflation we recognise the changes that occur in the purchasing power of a settlement in the future versus a settlement now.

Over the last 10 years the average official inflation rate in New Zealand was 2.1% per annum. [2] By comparison over the last three years, the inflation rate has averaged 2.86% per annum. [3]

In New Zealand, the average level of price inflation over the forecast period is expected to remain consistent with the current Policy Targets Agreement between the Minister of Finance and the Governor of the Reserve Bank. The relevant phrase in this agreement, which targets inflation as measured by the Consumer Price Index (CPI), states:

"… the policy target shall be to keep future CPI inflation outcomes between 1 per cent and 3 per cent on average over the medium term."

Our assessment of a conservative inflation rate is of 2.5% per annum.

3.3 Real risk free interest rate

The real risk free interest rate is the risk free interest rate after inflation has been removed.

The risk free interest rate is the theoretical rate of return of an investment with zero risk. The risk free rate represents the interest an investor would expect from an absolutely risk free investment over a specified period.

In theory, the risk free rate is the minimum return an investor expects for any investment. They would not bear any risk unless the potential rate of return is greater than the risk free rate.

In practise, the risk free rate does not exist since even the safest investments carry a very small amount of risk. The interest rate on a government 10 year bond is often used as the risk free rate because of this.

Over the last 10 years, the average interest rate on 10 year government bonds was 6.29%. We have used 6.3% per annum as the risk free rate, which equates to 3.8% per annum after the removal of inflation.

[2] In New Zealand the official inflation rate is measured by the Consumer Price Index (CPI).

[3] This three year period is from March 2004 to March 2007.

3.4 Tax rate on interest

There is some discussion around what type of entity the Crown will settle with. The Crown has previously accepted two entities as suitable PSGEs - common law trusts and statutory bodies.

The Crown will not settle with an entity that has charitable status. However, this does not prevent the entity changing it's taxable status post settlement. The most conservative approach to take for this project is to assume that tax will be paid at 19.5%, as with other Maori authorities.

3.5 Financial costs for future settlement

As part of continuing negotiations there will be further costs incurred. These costs could include:

- Legal fees.
- Research fees.
- Meeting fees.
- Travel and accommodation.
- Administration.

In general, the costs of continued negotiation are borne by the Crown Forestry Rental Trust (CFRT) not the claimants (at least for those with claims on Crown forest licensed land). Therefore, the costs of continued negotiation are not completely carried by the negotiating claimant group.

While there may be no direct costs to the negotiating claimant group, indirectly other factors could impact on the group. Claimants need to be aware of these issues when considering the costs and/or opportunities associated with accepting an earlier settlement offer or continuing with negotiations.

On the one hand CFRT continues to get the rental from unsettled Crown forest licensed land, and can use the accumulated interest to fund claimant groups.

On the other hand CFRT could continue funding groups to try to reach settlement. But Trustees are also responsible for the prudent expenditure of Trust funds, and in recent months have declined requests to continue funding claimant negotiating teams and supporting administrative services if there appears to be little prospect of a settlement outcome. The Trust does not want to expend funds to groups without the prospect of a result.

Another consideration is that CFRT is merely the kaitiaki of the funds. It is in the best interests of claimants (and CFRT's desire that claimants do so) to settle claims and receive the benefits of Crown forest rental money and other aspects of the settlement package. There is no benefit to CFRT to delay settlements. The sooner all forests are settled the sooner funds can be put to work in claimant communities.

Our assumption in this case study is that the first three years of negotiations may be covered by CFRT then claimants need to fund any additional negotiations themselves.

3.6 Financial/Opportunity costs of future settlement

There are a number of possible financial/opportunity costs of continuing negotiations. These opportunity costs could include:

- Returns above the risk free interest rate.
- Capital gains on property value.
- Timing of economic development opportunities.
- Time involved in working on negotiations.
- Rights of first refusal.
- (Statutory) concessions.
- Goodwill, branding and other intangibles.

The risk free rate discussed earlier in the report represents the minimum that someone could expect to earn on a cash investment. With an earlier settlement, claimants have the opportunity to invest that settlement. There are a wide range of investment options, such as trading banks and finance companies, and each of these options carry a balance of risk and reward. This means an investment with a higher risk usually offers a higher return. There are also options between short and long-term investments, with longer term investments usually providing a higher return. The amount claimants could possibly earn above the risk free interest rate depends on the risk profile they wish to accept and the current economic environment.

By accepting an earlier settlement, claimants may benefit from capital gains on the value of property (land and buildings) included in the settlement. The amount of capital gains above the risk free interest rate (if any) will depend on the location and type of property, and current market conditions.

Claimants may have identified (or might identify during further negotiations) economic development opportunities they wish to be involved in. If these opportunities require financial input, issues may arise for claimants. Because some opportunities are time sensitive, for example a tourism opportunity that would have a one year leap over competitors, then any delay in settlement may result in the claimants missing this opportunity.

If claimants decide to continue negotiations there is an associated cost related to time spent working on the negotiations unpaid. There should be some recognition of the potential loss of earnings these individuals are foregone to help negotiations.

A delay in settlement could mean that claimants may lose potential use and/or value of any rights of first refusal that might be included in the initial settlement. There may also be certain rights of first refusal that are time sensitive, such as the right to purchase forestry land and convert it to dairy land and vice versa.

A delay in settlement could also mean claimants lose the potential use and/or value of any statutory concessions that might be included in the initial settlement. There may be certain concessions that are time sensitive, such as tourism operations.

Claimants will have to consider any possible impact on their goodwill and branding from continuing negotiations. There is a possibility that some of this value might be lost because of the perception of continued negotiations. Alternatively, value may be lost because claimants did not have the funding available to take advantage of opportunities.

3.7 Non financial costs

There are a number of non financial costs that claimants need to consider before continuing negotiations. Some items to consider include:

- Issues of mortality. Some older members of the claimant community die before the claims process is completed and/or commence the process of reconciliation.

- Relationships with the non-claimant community deteriorate as non-claimants can view claims as being vexatious, unnecessary and divisive to a single New Zealand/Aotearoa identity.

- Individual, whanau, hapu and iwi time, relationships are fractious and wealth is sacrificed while claims are pursued.

- Challenges to iwi structures and representation can be made. This can result in further losses in economic opportunities and the fractionalisation/disestablishment of settlement arrangements and representatives.

- Political pressure could change the settlement environment (i.e. legislation halts the negotiations process) and claimants could miss out.

- A change of government and potential new policy could compromise negotiations.

- Hapu settlements as opposed to iwi settlements.

- Iwi leadership may be compromised.

3.8 Non financial benefits

There maybe a number of non financial benefits for claimants continuing negotiations. Some items to consider include:

- Generating non-claimant community awareness that results in a slow body of support for the settlement process.

- Exploring community capital ideology in depth, and claimant communities are given time to digest the implications of the settlement package.

- Increasing the pool of settlement activities and assets as political pressure could swing the settlement environment positively.

- Negotiating as hapu as opposed to working as an iwi. This could result in bigger buy-in from whanau.

- Establishing a holding pattern if the PSGE is not ready and/or up to full operational capacity.

4 Conclusions

This report provides a basis for claimants to consider and calculate the potential costs and benefits of continuing negotiations rather than accepting an earlier settlement.

Claimants need to decide at what stage they should seriously consider entering a deal with the Crown.

There are a number of important considerations in making this decision. These include:

- The annual return on investment foregone.
- The net financial costs of continuing negotiations.
- The financial benefits of further negotiations.
- The financial/opportunity costs of continuing negotiations.
- The non-financial costs and benefits of continuing negotiations.

At the same time as this process is happening there needs to be a parallel process that considers what could be achieved through further negotiation.

This assessment should cover three areas:

1. What is the amount needed for an effective settlement?
2. What is the potential claim increase that could be negotiated?
3. Is there any way the settlement could be restructured to maximise the benefits received?

At the end of this process claimants should be able to answer the following question:

> *What is the benefit that you need from future settlement to exceed net non financial costs and benefits?*

To assist claimants in making their decision we have constructed a simple spreadsheet model. This model allows them to enter and adjust a number of financial variables, and to view the impact of these assumptions over the horizon of future negotiations.

To illustrate the use of the spreadsheet model we have inputted dummy variables. Some of these, such as the rate of inflation and the risk free rate of return are our professional assessment of a prudent assumption.

For this case study we have assumed that on top of the historical account, acknowledgements, crown apology and cultural redress, the following was offered for commercial redress:

Type	Value ($m)	Proportion of total
General i.e. cash	6	40%
Forest related		
Land	8	53%
Accumulated rentals	1	7%
Total	**15**	**100%**

To illustrate the use of our model we have made the following assumptions:

1. The costs of further negotiations are met by CFRT for the first three years, after which the claimants will bear the costs of $150,000 per annum.

2. The value of the forestry land and accumulated rentals grows at 10% per annum (i.e. 3.7% above the risk free rate).

3. There is an economic development opportunity such as tourism that the claimants cannot take advantage of. This opportunity would generate extra profits to the claimants of $50,000 in year one, $100,000 in year two, $200,000 in year three, $250,000 in year four and $300,000 in year five.

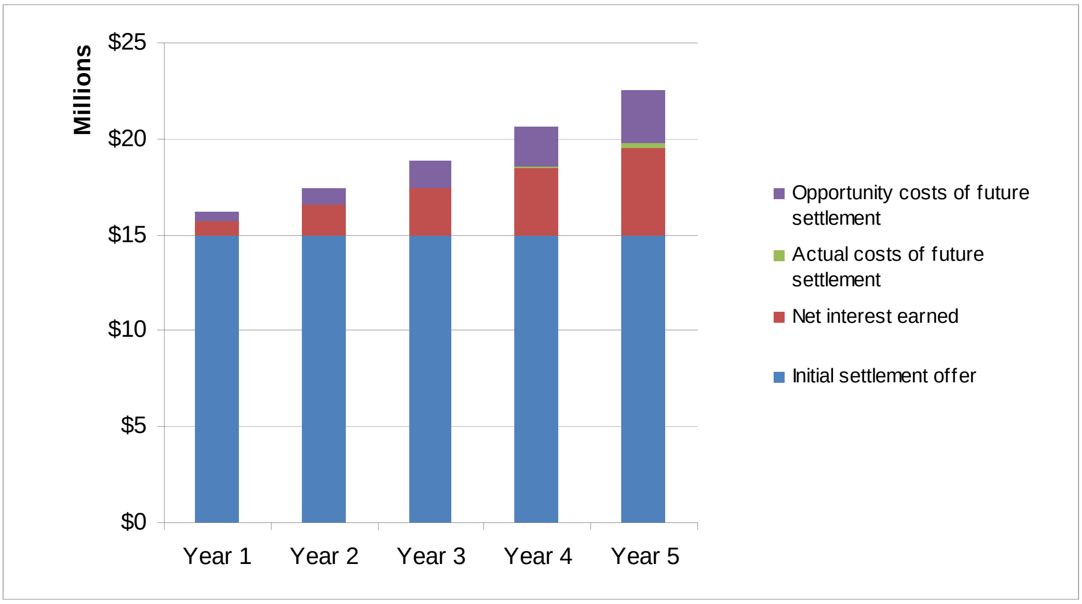
4. There are two claimant group members who each provide 1,000 hours of unpaid labour. We have included a national hourly rate of $25.

The outputs of the model based on these assumptions is shown below.

	Year 1	Year 2	Year 3	Year 4	Year 5
Initial Settlement offer	15,000,000				
Previous years breakeven value		16,156,725	17,433,065	18,885,492	20,623,357
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%
Real risk free interest rate	3.8%	3.8%	3.8%	3.8%	3.8%
Return (after tax)	760,725	819,388	884,118	957,778	1,045,914
Actual costs of future settlement	-	-	-	150,000	150,000
Minimum future settlement needed	15,760,725	16,976,113	18,317,183	19,993,270	21,819,270
Opportunity costs of future settlement	396,000	456,952	568,309	630,087	692,300
Non financial costs					
Non financial benefits					
Total minimum future settlement needed	16,156,725	17,433,065	18,885,492	20,623,357	22,511,570
% increase over initial settlement	7.7%	16.2%	25.9%	37.5%	50.1%

This table shows that if the initial settlement offer of $15 million was invested in 10 year Government Bonds, by the end of year five, it would have increased in value to nearly $22 million. Once the opportunity costs are added to this, that figure would increase to nearly $22.7 million. This is over 51% higher than the initial settlement offer. No monetary value can usually be assigned to these items, but they have been included in the table to ensure they considered as part of the decision-making process.

The figures below show the cumulative effect of the figures in the table above:



These figures show the net interest, actual costs and opportunity costs foregone from further negotiations.

5 How to use the spreadsheet model

The spreadsheet model that supports this report has two sheets labelled ‘inputs’ and ‘breakeven calculation’. The inputs sheet is where all of the claimants data is inputted which the breakeven calculation sheet then uses to provide the analysis.

This section focuses on the input sheet. We have included a copy of the input sheet used for the example in this report. The cells in this sheet are broken down into three colours.

coloured cells represent headings.

coloured cells represent calculation or summation of other input data.

coloured cells are input cells, where the user can input their specific variables.

The light blue input cells should be the only cells that the user needs to change. We have entered our view as to the most conservative estimates of inputs in the case of inflation and the risk free rate of return. For the other inputs we have entered data as part of an illustrative example to show the type of information that might be included.

Summary of inputs	Year 1	Year 2	Year 3	Year 4	Year 5
Initial Settlement Sum	15,000,000				
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%
Risk free interest rate	6.3%	6.3%	6.3%	6.3%	6.3%
Real risk free interest rate	3.8%	3.8%	3.8%	3.8%	3.8%
Tax rate on investment returns	19.5%	19.5%	19.5%	19.5%	19.5%
Actual costs for future settlement	-	-	-	150,000	150,000
Opportunity costs of future settlement	396,000	456,952	568,309	630,087	692,300
Non financial costs	-	-	-	-	-
Non financial benefits	-	-	-	-	-

Initial Settlement Sum	
General i.e. cash	6,000,000
Forest related	
Land	8,000,000
Accumulated rentals	1,000,000
Total	15,000,000

Actual costs of future settlement	Year 1	Year 2	Year 3	Year 4	Year 5
Legal fees				105,000	105,000
Research				25,000	25,000
Meeting fees				5,000	5,000
Travel and accommodation				5,000	5,000
Administration				10,000	10,000
Total	-	-	-	150,000	150,000

Opportunity costs of future settlement	Year 1	Year 2	Year 3	Year 4	Year 5
Land value grows at 10%	296,000	306,952	318,309	330,087	342,300
Lost economic development opportunity - tourism	50,000	100,000	200,000	250,000	300,000
Time of negotiators (2x 1000hrs x $25/hr)	50,000	50,000	50,000	50,000	50,000
Total	396,000	456,952	568,309	630,087	692,300

Non financial costs	Year 1	Year 2	Year 3	Year 4	Year 5
Total	-	-	-	-	-

Non financial benefits	Year 1	Year 2	Year 3	Year 4	Year 5
Total	-	-	-	-	-