Too much risk for the reward – an analysis of the pulp mill returns to the people of Tasmania

Submission to the Resource Planning and Development Commission

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The Submission at a glance:

The IIS has not addressed the very real possibility that this pulp mill will not be able to compete internationally. It has not addressed:

1. The very high "cost per installed tonne" to build the pulp mill.
2. The uncompetitive cost positioning of Bell Bay relative to the future market makers (Chile, Brazil, Uruguay, Indonesia).
3. The increasing oversupply of BHKP relative to demand (despite growing demand from China).
4. The 'gruesome' volatility of world pulp prices.
5. The linkage of economic returns on state native forests to these prices, through the supply contract.
6. The high likelihood of government bail-out subsidies, negative stumpage and other protections to keep the pulp mill afloat in light of these inherent economic problems.

1. Executive summary

1. The IIS economic assessment of the pulp mill has not addressed fundamental issues relevant to the question of 'how people and communities provide for their economic well being', as required in the Resource Planning and Development Commission's terms of reference.

2. In particular, the report prepared for Gunns by Allens Consulting Group ('the Economic Report') has failed to meet Australian Treasury guidelines for economic appraisal, by addressing only economic benefits but ignoring economic costs of the pulp mill. The Economic Report therefore fails to clarify whether the pulp mill will actually generate a net economic benefit for Tasmania.

3. The Economic Report ignores crucial global pulp and paper industry market realities that seriously jeopardise the long-term commercial viability of any export-oriented pulp mill and exposes the Tasmanian public to the risk of on-going and significant 'bailing out' subsidies. Private enterprise (Gunns) can choose to compete in a 'gruesome market' but government is responsible for ensuring the public and its purse is not brought down by its involvement with private enterprise.

4. Far from being one of the 25% most competitive producers, Gunns' costs (both project build and ongoing) are significantly higher than the emerging powerhouse of South American pulp producers. These countries, including Chile, Brazil and Uruguay, are making massive investments in cheap, high volume pulp production. Increased demand from China is expected to be outstripped by increased supply from these countries.

5. The pulp mill will lock Forestry Tasmania into continued poor economic performance through its tightening dependence on a monopoly wood buyer (Gunns). This submission shows that, to survive the global roller–coaster export pulp cycle, Gunns will have to aggressively manage its labour costs (including harvesting contractors) and its wood costs. The wood supply contract between Forestry Tasmania and Gunns already shifts the burden of slumps in global pulp prices onto the Tasmanian public.

6. Major government subsidies to the pulp mill and forestry industry have been ignored in the economic assessment, including over $200 million of one-off subsidies in the last two years and ongoing subsidies of at least $54 million each year into the future (excluding any subsidies associated with Point 5 above). This has an economic cost of over $700 million over 20 years and will take government attention and facilitation away from other potential forest products with less commercial risk and greater employment stability.

7. At a minimum, 30% or so of new plantations required to feed the pulp mill will be established on agricultural land (Class 1- 5). This will cause a loss of $85 million (over 20 years), again omitted from the Economic Report. It is likely that the percentage will be much higher than this.

8. The pulp mill will reverse the current declining trend in exports of Tasmanian wood fibre (with associated reducing land clearing) and increase it by some 40%. Irrespective of the environmental arguments, Tasmania's economy and its work force will become even

more dependent on uneconomic wood production and more exposed to a single, high risk investment.

9. If only 10% of the holiday visitors to Launceston and Georgetown each year are lost because of the pulp mill, this submission estimates a direct economic loss to Tasmania of $735 million over twenty years. The Economic Report did not survey local tourism operators to assess their concerns regarding the mill, but anecdotal evidence suggest that it is very high and that the 10% figure used in this assessment may be conservative.

Recommendations to the RPDC

In order to address its terms of reference, I recommend that the RPDC carry out the following additional tasks:

1. Commission another economic report which estimates the public economic losses associated with the pulp mill, including government subsidies, the cost of the monopsony and the cost of the supply contract risk sharing mechanism. The report should also address the global pulp market reality, including Gunns' likely position on the cost curve.

2. Rerunning of the economic model with the stumpage price Gunns includes in its MIS plantation prospectuses and sensitivity analysis on global pulp prices.

3. Public release of the wood supply contract between Forestry Tasmania and Gunns, and in particular what is the stumpage floor price and the extent Forestry Tasmania shares in price upsides, and whether this is a fair sharing given its acceptance of price risk in the contract.

4. Investigation of the potential damage to Tasmania's brand value, carried out by a brand value specialist such as Interbrand Ltd.

2. Assessment of the Economic Report

The Allen Consulting Group in its report, *The Bell Bay Pulp Mill – Economic Assessment* assessed the economic impact of the pulp mill for Gunns in May 2006. This submission refers to the report as "the Economic Report".

The RPDC is required to assess the pulp mill proposal for its ability to 'facilitate economic development in a way, or at a rate, which enables people and communities to provide for their …economic well-being'. This requires that the assessment examines the impact of the pulp mill on all Tasmanians, not just those directly involved with it. It also requires that the pulp mill's impact on other industries (such as tourism and agriculture) be considered.

A problem arises when the only economic impacts being considered by the RPDC relate to figures commissioned by the project proponent (Gunns, in this case). The problem, which is extremely common, is that the economic report deals only with economic benefits, but not with economic costs. Such is the problem that the New South Wales Guidelines on Economic Appraisal[1] state that:

> **'9.3.5 Parallel treatment of costs and benefits.** When considering benefits and costs which either cannot be valued or cannot be quantified, there can be a tendency to concentrate on the benefits and ignore the costs. This should be resisted. Costs which cannot be valued are just as important as benefits which cannot be valued, and should be accorded an equal treatment.'

The table below summarises the major economic costs, benefits and risk issues associated with the pulp mill, and whether the issue has been addressed by the Economic Report.

Table 1.1 Coverage of Economic Issues by the Economic Report

	Addressed by the Economic Report?	Likely economic impact on Tasmania
Strengthening of Gunns' monopsony (buyer's monopoly)	No	Negative
Relative cost positioning of the pulp mill	No	Negative
Volatility of pulp prices	No	Negative
Government subsidies to the pulp mill (current and future)	No	Negative
Conversion of agricultural land to plantations	No	Negative
Loss of tourism, food and wine revenue near pulp mill, and brand damage generally	No	Negative
Lock-in of native forest clearing	No	Mixed
Net economic wealth for Tasmania	No	Unknown
Short term job creation	Yes	Positive
Long term job creation	Yes	Positive
Additional exports	Yes	Positive

1 NSW Treasury, Economic Appraisal Principles and Procedures, March 1999.

As foreseen by the NSW Guidelines, the Economic Report has identified, and quantified, all economic impacts of the pulp mill which might have a *positive* economic benefit. It has failed to identify and discuss very important economic impacts which will be *negative or expose the state to high risk*. In fact, the inclusion of positive impacts and the exclusion of negative impacts from the Economic Report is striking.

It is not possible in this submission, with limited time, no budget, and no mandate, to adequately address the negative economic issues listed above. The rest of my submission attempts to give the RPDC a broad overview of what each economic issue is and how it could be properly assessed.

Explanation of terms in this report

Throughout this report, I use the convention that:

- 4 tonnes of green logs equals 1 tonne of pulp
- 2 tonnes of green logs equals 1 tonne of bone dry woodchips
- BHKP Bleached Hardwood Kraft Pulp

3. A monopsony destroys its suppliers

What is a Monopsony?

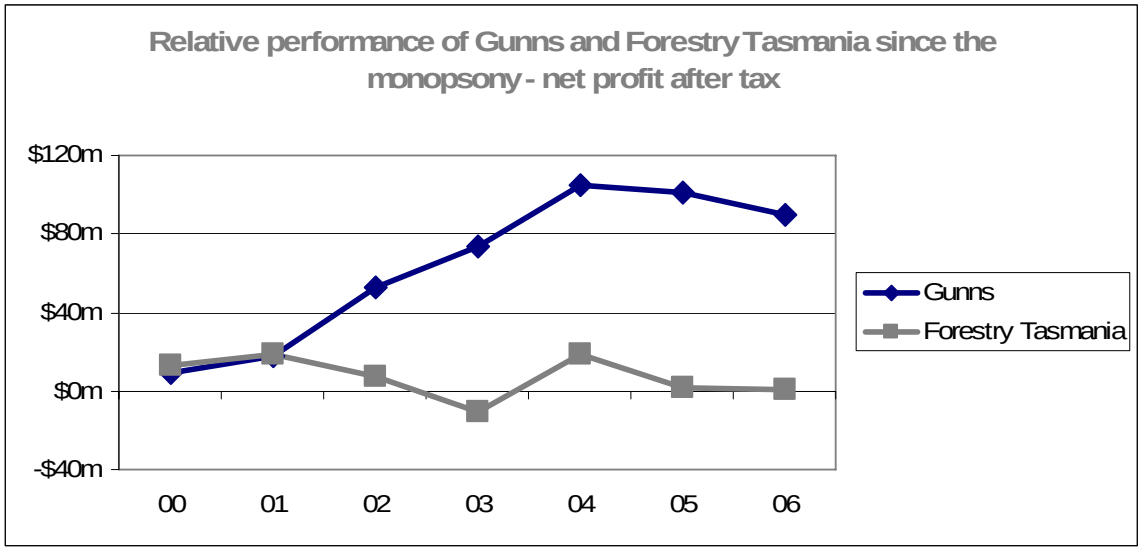
The monopsony situation between Gunns and Forestry Tasmania is perhaps the most important economic aspect of the pulp mill proposal because of its effect on public economic returns. The Economic Report does not address it.

> *Monopsony is a state in which demand comes from one principal source. If there is only one customer for a certain good, that customer has a monopsony in the market for that good. Monopsony is analogous to a buyer's monopoly.*

Monopsony arises when a firm (in this case, Gunns) captures the ability to dictate price to its suppliers (in this case, Forestry Tasmania), because the suppliers have no real choice other than to deal with that buyer. The ultimate danger of monopsony is that it deprives the firms that actually supply resource from obtaining an adequate return on their investment. A common theoretical implication is that the price of the good is pushed down near the cost of production. The public understand the implication of monopsony in regard to potato growers and Simplot. Many potato growers have seen their potato prices fall to or below cost, while Simplot and Woolworths achieve record profits.

Forestry Tasmania currently sells some 80% of its output to Gunns, including most of its pulplogs (small volumes are sold to Artec and TasFibre). The monopsony started in 2001 when Gunns purchased North Forest Products and Boral. This has resulted in classic monopsony symptoms, where Forestry Tasmania has been unable to lift its profitability since 2001, whereas Gunns has experienced phenomenal growth over that period. Forestry Tasmania is unable to raise its stumpage prices because it has no choice but to sell to Gunns (Figure 3.1).

Figure 3.1. Gunns monopsony driving down public returns



Source: Gunns Ltd Annual Reports 2000-2006. Auditor General Report on Forestry Tasmania 2005. 2006 Forestry Tasmania NPAT estimated using budget figures.

As expected by the monopsony situation, Forestry Tasmania's returns have fallen very close to zero, implying that its stumpage prices have fallen close to cost.

Forestry Tasmania is well aware of the difficulties of Gunns' economic monopsony, as this exchange at the 2003 Government Business Enterprise Hearings into Forestry Tasmania's performance show[2]:

> 'Mr ROLLEY - There are two issues about that. You are dead right and the fact that now 70 per cent of our log transaction is with one major customer has been, I guess, in some ways both a benefit -
>
> Ms PUTT - It's 80 per cent. I was going to ask you that.
>
> Mr ROLLEY - 70 per cent of our bulk transactions are with one principal customer and that is Gunns, a Tasmanian business. That has changed. In the last 18 months, where previously we had effectively three major corporate customers - Gunns, Boral and North - there is now one. There are advantages in this as well as risks. The advantages are that there is an opportunity to try to get some efficiency in the supply chain and we can move more quickly to other markets. But you are right, ***there is a disadvantage and there is a risk*** [my emphasis], which is precisely why we pushed so hard on the Southwood projects.'

I discuss later in this section the impact of the pulp mill on the monopsony situation.

Monopsony distorts production patterns

In a monopsony, the buyer dictates not only the price, but also the type and quantity of goods produced. This has been a feature of the relationship between Forestry Tasmania and Gunns since 2001.

Forestry Tasmania claims that its pulplog production is a by-product of its legislated requirement to produce at least 300,000 m^3 of sawlogs and veneer on a sustainable basis. If this were the case, then we might expect the volume of pulplogs produced to move proportionately to the volume of sawlogs and veneer produced. The table below shows the actual volumes produced since 2001.

Table 3.1 Forestry Tasmania production volumes linked to Gunns' pulp requirements

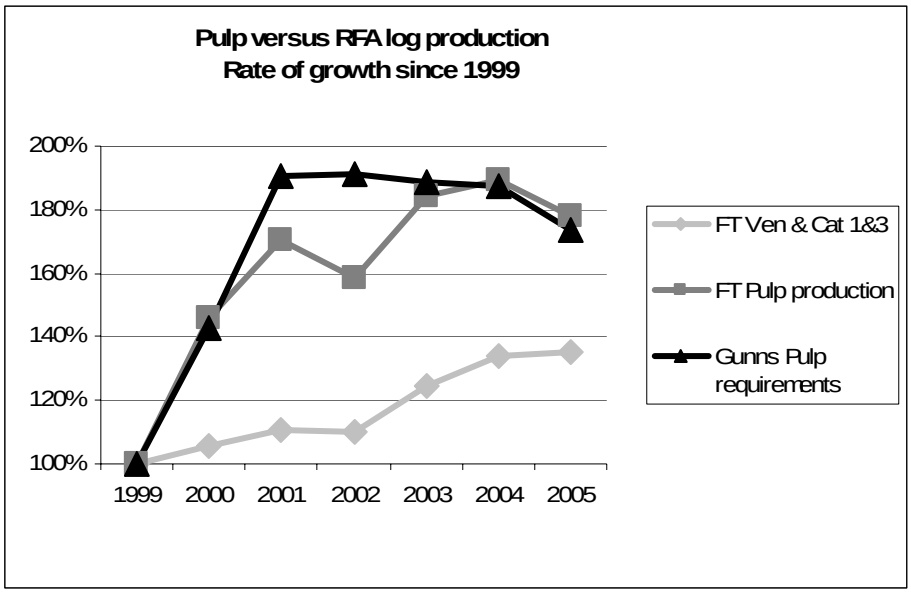
	1999	2000	2001	2002	2003	2004	2005	Growth since 1991
Forestry Tasmania Category 1&3, first grade saw and veneer log production (000's cum)	266	281	295	293	332	357	359	35%
Forestry Tasmania pulplog production (000's tonnes)	1,532	2,237	2,608	2,424	2,828	2,903	2,724	78%
Gunns pulpwood requirement (000's tonnes)	2,520	3,600	4,800	4,816	4,750	4,730	4,370	73%

Source: Forestry Tasmania Annual Reports 1999 to 2005 – Producing the Goods. Gunns pulpwood volumes from Citigroup Research Report 1 June 2006

[2] Parliament of Tasmania, Hansard, GBE Hearings, 18 February 2003.

The fact that Forestry Tasmania's pulplog production is linked to Gunns' requirements, and is not a by-product of sawlog production, is shown more clearly if we consider the year-on-year growth of the numbers above. In the graph below, production in normalised to 100% in 1999. The statistical correlation between Forestry Tasmania's pulplog production and Gunns' needs is striking: as is the absence of correlation between pulplog production and saw and veneer log production. It is possible that some of the increase in pulpwood relative to sawlogs is related to more difficult access to sawlogs, but this is clearly not the full explanation.

Figure 3.2 Forestry Tasmania delivering to Gunns' export needs only



Source: derived from Table 3.1 values above, normalised to 100% in 1999

As predicted under a monopsony, Forestry Tasmania is producing pulplogs to meet its major customer's export needs, not as a by-product of its legislated requirements.

Impact of the pulp mill on the monopsony

Forestry Tasmania has for the past five years sought to reduce its dependence on Gunns, with little success. The impact of the pulp mill will seriously strengthen and lock-in the monopsony. This is because:

- The pulp mill diverts government funding for investment away from other potential projects and buyers (customers), and back to the monopsonist (Gunns).

- The pulp mill diverts government attention and facilitation of investment away from other non-forest based industries which further entrenches Tasmania's dependency on Gunns for employment and economic wealth.

- The pulp mill contract locks in over two million tonnes of state forest resource annually to the pulp mill, for a twenty year period, which locks in Gunns as a 70% plus monopsonist. Even if Forestry Tasmania is able to find a second customer producing a higher value product, it will not be possible to divert the wood resource away from the pulp mill. Further, Forestry Tasmania has existing contracts of supply in regard to woodchips, and Gunns has stated that it will need to continue with these woodchip exports in order to finance the pulp mill.[3]

Consequences of a strengthened monopsony

Hardwood chip exports from Tasmania have been on a declining trajectory since 2002, when they peaked at 4.8 million green tonnes. Since then exports have fallen to 3.5 million green tonnes (2006), an average annual fall of 6.2%. The reasons for this decline have been well documented, including:

- The establishment of eucalypt plantations in Chile, South Africa, Uruguay, Australia etc, some of which are Japanese-owned and from which Japanese pulp mills prioritise their wood purchases.

- Plantation wood's lower lignin content means it is more economic to process .

- Woodchip oversupply.

- Exchange rate movements.

- Lack of adequate environmental certification.

The Tasmanian resource supply profile thus no longer matches the Japanese import demand profile. In particular, plantation-sourced chips have rapidly displaced native forest sourced chips in the Japanese market. In less than 15 years the proportion of plantation sourced chips has risen from less than 20% to around 80% of imports in 2004[4]. The Tasmanian resource has not kept pace with this change.

To achieve the same proportion of native to plantation for Tasmanian wood chip exports would require Gunns to have sourced only 800,000 tonnes of native forest wood in 2006 and 2.8 million tonnes of plantation wood. Gunns does not have this access to plantation wood and hence is out of step with its customer, and likely to experience continue declining woodchip sales.

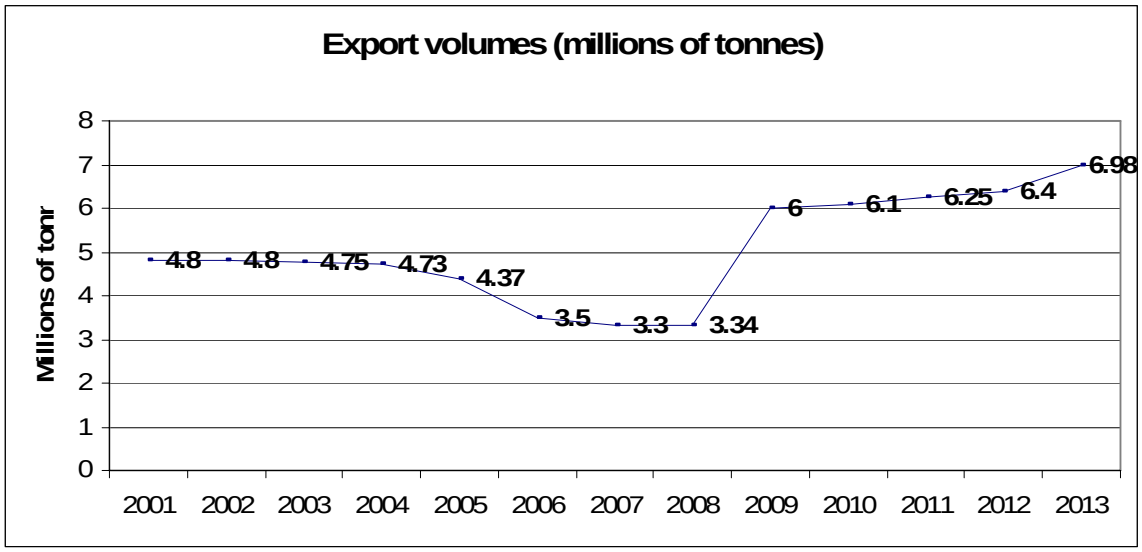
The pulp mill will reverse this trend and increase the intensification of native forest clearing and plantation planting. Gunns has stated that it expects to increase export volumes to the equivalent of 7 million green tonnes per annum.[5] This is a simple economic necessity, as Gunns' ability to finance the pulp mill will be dependent on parallel large-scale woodchip exports.[6] While The Economic Report claims that this represents 'business as usual' and is not an intensification, it is actually an average increase of 10% per annum compound, every

[3] The Mercury, August 04 2006.
[4] Wood Resources International
[5] The Mercury, August 04 2006.
[6] Mr Brian Hayes, Gunns Regional Manager.

year for the next seven years. This contrasts to the current trajectory of a 6.2% average annual decrease.

The situation is illustrated by the figure below where actual volumes of Gunns' export woodchip sales are shown up to and including 2006. 2007 and 2008 use Citigroup forecasts (Research Report 1 June 2006) for export woodchip volumes. Forecast values from 2009 use pulplog volumes from the IIS combined with export woodchip volumes to reach Gunns' target 7 million green tonnes total.

Figure 3.3 The current trajectory of pulpwood volumes will be reversed by the pulp mill



Under the current situation, Tasmania's pulpwood volumes (as woodchips) are decreasing back to their pre 1999 levels. Once the pulp mill is in operation, the combined pulpwood export volumes, as woodchips or as pulp, will be the equivalent to 7 million green tonnes. In order to meet this increased demand for chip exports and logs for the pulp mill, Tasmania will have to:

- Place greater demands on native forests, as the first priority for plantation resource will be export woodchips to Japan.
- Lock in the existing hardwood plantation resource to woodchips and pulp exports – i.e. lock in its product range to two commodity products.
- Increase hardwood planting with more clearing of native forests (because the Tasmanian Community Forest Agreement's provision to stop the clearing has a phase in provision).

The Economic Report has not considered these crucial economic and environmental issues.

4. The economics of the Bell Bay pulp mill – not competitive and a pulp price roller coaster

Competitiveness of the Pulp Mill

Numerous broker research papers have documented the relative cost positioning of the pulp mill. These papers have identified the general cost issues – i.e. that the pulp mill will be much less cost competitive than the major new South American mills – but have failed to address other important economic issues, such as the competitiveness of the project cost (the $1.4 billion) or the supply / demand issues.

These issues are extremely important for the RPDC to understand, because if the pulp mill is not internationally competitive then it will require ongoing support through government subsidy and nil or negative residual stumpage for Tasmanian native forests.

Cost to build the pulp mill

At a cost of $1.4 billion to build, the pulp mill will have a 'cost per installed tonne' of AUD$1,700 per tonne (i.e. $1.4 billion divided by 820,000 tonnes of pulp). In US dollars, this is a cost per installed tonne of $1,280 per tonne.

The current benchmark for cost per installed tonne for pulp mills is less than US$1,000 per tonne[7]. For example, at the Barro do Riacho new operation being built in Brazil, installed cost per tonne is expected to be US$960[8]. Thus before it begins, the pulp mill will be carrying a significant additional cost per tonne of pulp. Many analyst research reports are also discussing the likelihood of the project cost rising to $1.5 billion. Using a weighted average cost of capital (WACC) of 8.7% this additional US $270 million is equivalent to an additional US $40 cost of capital per tonne.

Cost to run the pulp mill

The most important competition for the pulp mill will come from South America, which is predicted to grow from 17% of the global pulp market in 2004 to 25% by 2009, and from South East Asia (another 10% of the global pulp market)[9]. These pulp mills will have significant cost advantages over the Bell Bay pulp mill, including:

1. More sunshine and more rainfall, more evenly distributed.
2. Genetic research and development means that hardwood pulpwood matures in 7 years in South America (c.f. minimum 13 years in Tasmania).
3. Eucalyptus plantation began in Brazil in 1964 so there is deep experience in genetic development: mean annual increment growth of 50 cubic metres per hectare[10] as opposed to 20 to 25 in Tasmania.

[7] Paperloop - RISIS
[8] Aracruz Cellulose Form 20F Filing to the US SEC
[9] CMPC Pulp. *'Tomorrow's pulp markets – a New World Perspective*' PPI Transport Symposium September 2005
[10] As above

4. The rapid rate of expansion of plantation in Chile and Brazil gives economies of scale.
5. The countries are still developing economies with low per capita incomes and hence low labour costs.

The IIS and other Gunns promotional material states that the pulp mill will be a "bottom 25% producer" however this is clearly not possible, given that the pulp mill will be much more expensive to run than all of the South American and South East Asian pulp mills, which will alone account for 35% of global pulp production.

The following table compares the cost to produce pulp at the Bell Bay pulp mill, with the costs to produce pulp in Indonesia, Brazil and Chile. Recall that, between them, these three countries will comprise some 35% of the global pulp market by 2009.

Table 4.1 Input cost per tonne of delivered pulp - $US per tonne

Input cost	Bell Bay	Indonesia	Brazil	Chile
Wood costs	$167	$102	$71	$91
Labour	$37	$13	$8	$18
Chemicals	$28	$17	$28	$25
Freight	$57	$37	$70	$65
Other costs	$41	$65	$63	$60
Total costs	**$330**	**$234**	**$240**	**$259**

Source: Indonesia, Brazil and Chile costs from DBS Vickers Securities / Hawkins Wright. Brazil and Chile freight costs increased to China ports. Bell Bay costs represent an average of Citigroup and Commsec Research Reports

Thus despite having some location advantages, the Bell Bay pulp mill will be uncompetitive against its major new world competitors. Consider, for example, Bell Bay compared to Aracruz, which considers itself to be one of the lowest cost producers of bleached kraft market pulp in the world due to the following factors[11]:

- Economies of scale (2 million tonnes output from a single plant).
- Advanced forestry techniques in managing the processes of planting.
- Growing and harvesting of trees (mean annual increment growth of 50 cubic metres per hectare).
- A comparatively short harvest cycle of its trees (seven year harvest rotations).
- Lower energy and chemical costs (99% self sufficient in energy)

At the Forestry Tasmania GBE Scrutiny Committee Hearing held 25 July 2007, Mr Evan Rolley repeatedly stated that Gunns will be a bottom 25% producer. For example:

> ***'The best security they [Gunns] can have really is around two things; one, being in that bottom 25 per cent quartile of the cost of production'.***

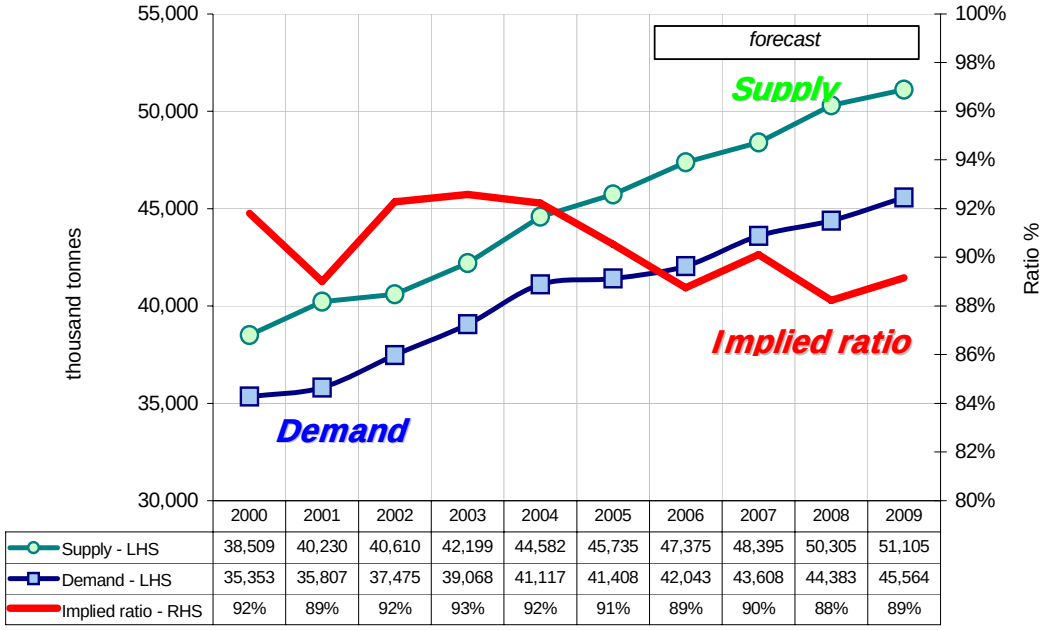
The table above makes it clear that the pulp mill will be at least US$70 per tonne more expensive that the bottom 25% producers. This rises to US$110 per tonne more expensive when the extra cost to build is factored in.

[11] Aracruz website and promotional material

Supply and Demand Issues in Pulp

While demand for pulp is increasing, mainly due to China, supply of pulp is increasing at an even faster rate. This is illustrated by the following table, again part of the CMPC Pulp presentation referenced earlier.

Figure 4.1 Bleached Kraft Pulp Supply and Demand Forecast to 2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Supply - LHS	38,509	40,230	40,610	42,199	44,582	45,735	47,375	48,395	50,305	51,105
Demand - LHS	35,353	35,807	37,475	39,068	41,117	41,408	42,043	43,608	44,383	45,564
Implied ratio - RHS	92%	89%	92%	93%	92%	91%	89%	90%	88%	89%

The implication is that capacity is increasing faster than demand, mainly due to the large number of new South American projects coming on line. The CMPC Pulp presentation referenced above has forecast that the BHKP market (the type produced by Bell Bay) will need to contract by two million tonnes per year, by 2009. As a result of this imbalance, many commentators are forecasting a continued long-term decline in real pulp prices (see, for example, Defining the China Market for Pulp Paper and Board, Hawkins Wright September 2004).

The supply and demand situation for pulp is neatly summarised in a recent research paper by DBS Vickers Securities[12]:

> 'Pulp prices are on a long-term downward trend, primarily the result of larger mills being built. These mills are more efficient and technologically advanced, thereby lowering costs. At the same time, with most of the investments in low cost regions such as Latin America and Southeast Asia focused on Fast-Growing, High Yield plantations such as eucalyptus and/or acacia, costs of production are also falling. Going forward, producers from low-cost regions like Brazil and Indonesia could displace higher cost producers from North America and Europe, ***especially since supply is expected to exceed demand over the next few years.***'

[12] Singapore Equity research – Wood Pulp Issues – DBS Vickers Securities September 2005

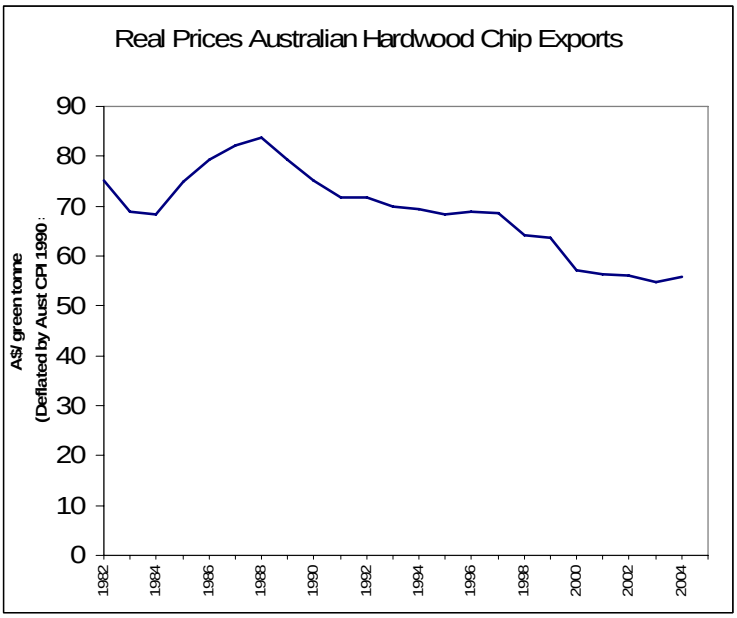
Pulp price volatility

Commodities normally have two main features:

- Price tends to fall over time, in real terms
- Price does not bear a direct relation to production costs, but moves according to market dynamics.

Some commodities are relatively stable in price and simply show a decreasing price in real terms over time. Woodchips are a good example of this type of commodity, as shown by the graph below.[13] This graph shows the real (i.e. inflation adjusted) price of Australian woodchips since 1982 (1990 = 100 CPI).

Figure 4.2 Woodchip exports have not been a 'volatile' commodity for Tasmania



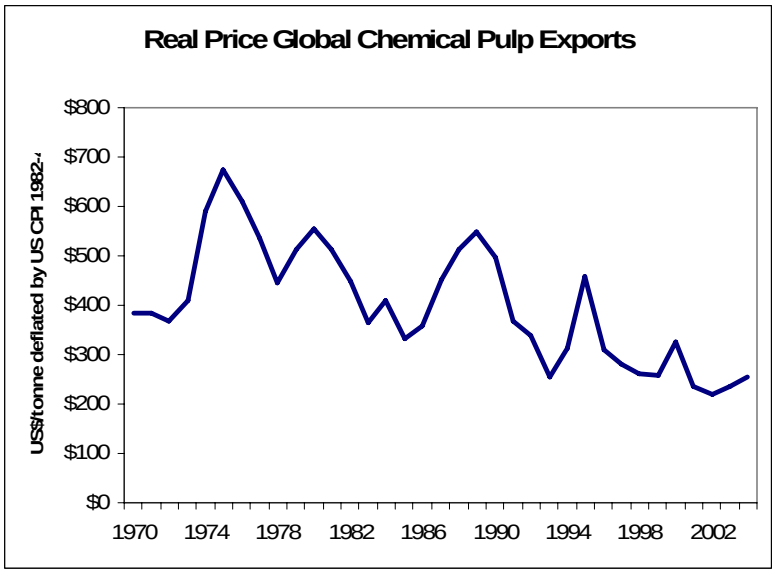
Source: ABARE, Australian Forest and Wood Products Statistics.

An economy that is heavily dependent on woodchip exports, will experience declining economic prosperity, year on year, but will not be subject to major shocks in any one year.

Some commodities have both a falling price *and* an extremely unstable price. Pulp is a good example of this type of commodity. The graph below shows the real price (i.e. inflation adjusted by US CPI, with 1982-84 = 100) for internationally traded pulp since 1970.

[13] ABARE , Australian Forest and Wood Products Statistics.

Figure 4.3 Pulp exports will be a very volatile commodity for Tasmania



Source: FAOSTAT

Like the graph of woodchip prices, the price of pulp is falling (by an average 2.1% per annum in real terms). However, unlike woodchips, the price is extremely volatile, with an average annual standard deviation (a measure of the price volatility) of $121.

What causes the pulp price roller coaster?

Its very high volatility, with deep peaks and troughs, make pulp one of the toughest commodity markets to survive in. But why are pulp prices so volatile?

Much of the worlds pulp is tied pulp – where pulp mills are vertically integrated with paper manufacturers. This can be through a joint venture, through co-ownership or simply a long term contract of supply. Tied pulp producers are not exposed to pulp price fluctuations, because they sell their pulp to their own paper manufacturer. Now consider a time when demand for the paper manufacturers' product drops off (e.g. due to a national recession or a growth in recycled paper volumes).

What do paper manufacturers do with the tied pulp that is being produced? They release it into the untied pulp market, flooding the market and depressing the price. Similarly, when demand for their paper picks up, they withdraw their pulp supply from the market altogether. There is a huge amount of literature available on the reasons for pulp price volatility, and no-one expects the price volatility to reduce in the future. Furthermore, this volatility attracts speculation which further drives pulp price volatility and complicates rational economic factors.[14]

It appears that the Economic Report does not understand that pulp is not only a commodity, but one that "fluctuates wildly", and is "a gruesome market", "exhibiting significant price

[14] Ackerman F. and Gallagher K., Mixed Signals, Market Incentives and the Price Spike of 1995, Global Development and Environment Institute, 2001.

volatility" (New York Board of Trade, 2005). In making the case for the pulp mill, the Economic Report says that:

> "Value-adding and the production of more complex differentiated products are important for economic growth in a number of ways, including that they result in ***less sensitivity to exchange rate fluctuations and price competition than the simpler commodity product (woodchips)"*** [Highlights mine].

This sentence illustrates a fundamental flaw in the Economic Report:

1. Pulp is much more sensitive to price competition that woodchips, as the price graphs above illustrate. The pulp market is continuously flooded then starved by paper manufacturers as part of their inventory management.

2. Pulp is barely more 'complex' than woodchips – the key aim of China's interest in offsite pulp production is to extract every last drop of water from the wood, in order to reduce weight and hence transport costs. The more complex (and hence labour intensive) products – writing papers and paper products etc will be manufactured on mainland China.

3. Pulp exports provide no protection from exchange rate fluctuations. It is likely that, in negotiating terms with Chinese buyers, Gunns will not be able to have a $AUD contract as it has negotiated with its Japanese woodchip buyers. Exchange rate exposure will increase, not reduce.

Returns on state resources will be dependent on this roller coaster

As with its current export woodchip contract, Forestry Tasmania's pulp supply contract links the price Tasmanians will receive for their native forest resource to world commodity prices. The terms of the contract were described by Forestry Tasmania at the 2006 GBE Hearings into Forestry Tasmania:

> "Mr ROLLEY - In the case of the original ones, they were 70 to 80-year agreements, so a 20-year agreement for a $1.2 billion pulp mill is a relatively modest contribution when you look at the nature of wood supply agreements that have been necessary to attract investment in pulp and paper making to Tasmania. They are multibillion dollar investments, bankers need to secure them against reliability of supply, and a 20-year agreement is well within the sort of normal scope of these matters.
>
> As to price, the average prices for Tasmanian pulpwood are not secret, the native forest average price is $12 to $14 per green metric tonne. The average prices today out there for hardwood pulpwood from private property or from our forests are $20 to $25 GMT from a plantation, which you would expect, as a plantation is a higher pulp-yielding product. ***We would expect to negotiate final prices that would then have an index that reflects*** changes that are occurring in the CPI, but also on the market side ***changes that are occurring in the international pulp and paper market***, as we do with companies like Norske Skog for wood supply to the mill at Boyer. " [Highlights mine].

What will it mean to have the state forests dependent on the pulp price roller coaster? Since Forestry Tasmania's returns have been linked to export woodchip prices, they have stayed fairly stagnant, falling over the long term in real terms as we would expect. But what does it mean for a $12 stumpage price to be linked to a commodity that swings by $121 in the blink of an eye? (Noting, of course, that the relevant comparison is $48 of stumpage – four tonnes – that is required to produce one tonne of pulp).

In order to stay solvent, let alone a "bottom 25% producer", Gunns will need to tweak every single input lever as hard as it can when pulp swings into a trough. What levers can Gunns pull? Consider the table below of input costs to the pulp mill. The input cost breakdowns are based on the average input costs assumed in the major research reports covering the pulp mill (Commsec and Citigroup).

Table 4.2 Pulp mill input costs, and Gunns' ability to control

Input cost	Cost $US[15] per tonne of pulp		Gunns' ability to control
Wood costs (comprised of:)	$167		Partial
Stumpage		$45[16]	Yes
Road toll		$20[17]	Yes
Harvesting		$61	Partial
Haulage (to mill)		$41	No
Labour	$37		Partial
Chemicals	$28		No
Transport (Aust to N Asia)	$57		No
Other costs	$41		No
Total costs	$330		

The table shows that Gunns will have to manage its labour costs (including harvesting contractors) and its wood costs down very aggressively to survive the pulp cycle. The lever that it can pull most easily is the stumpage price paid to Forestry Tasmania. The state or Commonwealth can be expected to come under pressure to provide survival grants which are an opportunity cost for other uses of the public purse. This is most likely to be expressed through negative residual stumpage (i.e. *Forestry Tasmania paying $5 per tonne to Gunns to take the wood*).

It will be impossible for the RPDC to assess the IIS unless it has full details of the wood supply contract between Forestry Tasmania and Gunns , including:

1. Whether there is a floor price for the stumpage that Forestry Tasmania receives, or whether stumpage can fall to zero or below (i.e. so that Forestry Tasmania only receives direct costs of harvesting and haulage, or even pays for the wood to be taken away).

2. Whether the floor price is at least $12 per tonne, to at least maintain Forestry Tasmania's current low profitability.

[15] Conversion rate AUD$1 = US$72.5

[16] Assuming $12 per green tonne of native wood (75% of total) and $25 per green tonne of plantation wood (25% of total)

[17] Assuming $7 per green tonne

3. To what extent Forestry Tasmania shares in price upsides, and whether this is a fair sharing given its acceptance of price risk in the contract.

By accepting a share of the pulp price risk, the Tasmanian public are effectively 'under-writing" a large part of Gunns' profits. While Governments do underwrite exports, (through, for example, the Export Finance Insurance Corporation), this is largely only for country risk and client risk for export payments. Underwriting through sharing a great deal of the commodity price risk is unusual and highly risky for a small economy like Tasmania. This cost has not been quantified in the economic report, or even alluded to.

Summary of key economic issues not addressed by the Economic Report

To summarise, the Economic Report has not addressed the very real possibility that this pulp mill will not be able to compete internationally. It has not addressed:

1. The very high "cost per installed tonne" to build the pulp mill.

2. The uncompetitive cost positioning of Bell Bay relative to the future market makers (Chile, Brazil, Uruguay, Indonesia).

3. The increasing oversupply of BHKP relative to demand (despite growing demand from China).

4. The 'gruesome' volatility of world pulp prices.

5. The linkage of economic returns on state native forests to these prices, through the supply contract.

6. The high likelihood of government bail-out subsidies, negative stumpage and other protections to keep the pulp mill afloat in light of these inherent economic problems.

5. Mounting costs to the state

Subsidies from the state

As with the important issues of monopsony, poor competitiveness and pulp price volatility, the issue of the very high levels of government subsidy required to make the pulp mill financially feasible is omitted from the Economic Report. The issue of actual and likely government subsidies is dismissed in two sentences:

> "As nothing has been agreed with Government ***it is not possible to comment*** on the potential level of Government expenditure. This economic impact assessment is ***presented independent*** of any Government assistance, from either the State or the Commonwealth."[18] [My emphasis]

The omission of the quantification of government subsidies is breath-taking, given that the Economic Report *has* been able to quantify (to the nearest dollar) second and third order economic benefits arising from export sales contracts and possible employment scenarios that also have not yet been agreed, may never arise, and are the outcome of a highly theoretical and unproven mathematical model.

The next table summarises the income and expenses that affect the Tasmanian and Commonwealth Governments, concerning the pulp mill. It also describes whether the impact has been quantified in the economic benefit calculation of the pulp mill.

Table 5.1 Government subsidies at all levels

	Quantified by the Economic Report?	Subsidy or income to government?	Level of government
Pulp mill project development	No	Subsidy	State and Commonwealth
Supply of wood fibre at uneconomic prices (to the state)	No	Subsidy	State
East Tamar and other road upgrades	No	Subsidy	Commonwealth and State
Government subsidy to MIS schemes	No	Subsidy	Commonwealth
Tasmanian Community Forest Agreement May 2005	No	Subsidy	Commonwealth
Additional state taxes	Yes	Income	State
Additional federal taxes	Yes	Income	Commonwealth

Again, negative economic factors have been omitted from the Economic Report. Positive economic benefits have been included.

[18] The Economic Report, page 36.

Likely cost of known government subsidies

Table 5.2 attempts to quantify some of the subsidies that have been omitted from the Economic Report. The table lists whether each subsidy is likely to continue into the future, and who pays it.

Table 5.2 Cost of known government subsidies

	State cost $m	Commonwealth Cost $m	One off or ongoing?
Pulp mill project development	6	5	One off
Supply of wood fibre at uneconomic rates	24[19]	0	Ongoing
East Tamar and other road upgrades	20[20]	60[21]	One off
Government subsidy to MIS schemes	0	30[22]	Ongoing
Community Forest Agreement and other 'research' grants	60	110[23]	One off
Total ongoing costs	24	30	Annual

The annual cost of known *ongoing* government subsidies associated with the pulp mill is conservatively estimated to be in the order of $54m per annum. This ignores the more than $200m that has been spent in the last 24 months as funding either direct to the pulp mill or to Forestry Tasmania to intensify future wood delivery to the pulp mill. Continued government subsidy of this order has a NPV (net present value) of $0.8 billion over the lifetime of the pulp mill (at a real discount rate of 5%). Adding to this the $260m in one off subsidies gives a total cost of over $1 billion related to the pulp mill that has been omitted from the Economic Report.

Future (unknown) government subsidies

Because of the deep cycles in world pulp prices, combined with the inherent lack of cost competitiveness of this pulp mill, it is likely that ongoing government intervention will be required to support the pulp mill financially. The scale of the pulp mill (some $1.4 billion plus overruns) compared to the scale of Gunns (currently around $1 billion in market value) means that Gunns will not have the internal resources to withstand these fluctuations. There are some financial instruments (commodity futures and various debt instruments) that can mitigate the effects somewhat, but not fully.

The Economic Report has based its financial modelling on a central pulp price of around US$500, but has not carried out any sensitivity testing around pulp price movements. With such a major investment, Gunns' commercial viability will become extremely sensitive to pulp price movements, as illustrated by this table comparing Gunns' estimated share price value with pulp price assumptions:

[19] Based on the average annual shortfall against its 5% ROE target for Forestry Tasmania, over the last six years, after deducting Community Service Obligations.

[20] The Roading Infrastructure grant to Forestry Tasmania.

[21] Upgrade to the East Tamar Highway.

[22] In 2005 Gunns sold plantation MIS schemes worth $62.9m with corresponding tax exemptions of some $30m,Gunns Annual Report 2005, p. 47.

[23] Includes $66m for Intensive Forest Management grant and $42m as 'support for hardwood industry". Mercury Newspaper 14 October 2005.

Table 5.3 Gunns economic valuation – sensitivity to pulp price[24]

Input cost	Share price
Market value at 1 Sep 2006 (no pulp mill)	$2.76
Estimated value with pulp price at $455 (the break even price)	$2.76
Estimated value with pulp price at $450	$2.61
Estimated value with pulp price at $400	$1.21

The last line of the table indicates that, with a pulp price fall to $400, (as occurred in 2002 and 2003), or even if pulp prices continue their current fall in real terms, the share price of Gunns could halve.

In this situation, with such a politicised project at risk, it is likely that the Tasmanian government would intervene with subsidies to support Gunns. The likelihood of this happening is further strengthened by the long history of state and Commonwealth subsidisation of Tasmania's forest industry.

Opportunities lost - government support for high value use of wood

There are a large number of alternative industries involving use of the state's native forest and plantation resource, which, if given the level of financial subsidy that is being given to Gunns, would enable Tasmania to:

- Increase employment
- Break Gunns' monopsony control of state forests
- Reduce Tasmania's exposure to world commodity prices (particularly the most volatile commodities such as pulp)

These industries have been described in countless publications but have been ignored by the state government. They include:

- Laminated Veneer Lumber
- Elongated Strand Lumber
- Plywood

The forestry industry itself has developed a model involving the first two products above which would generate 1,320 direct new jobs[25] (as opposed to 292 for the pulp mill), and require less than 2 million green tonnes of wood, available in existing hardwood and softwood plantations. With the government directing all of its resources to support a single pulp mill, it is unlikely to be able to afford any support for these more diverse products opportunities which bring lower risk for Tasmania's economy and workers. The recent TA Ann investment is a notable exception to this.

[24] Derived from page 11, Citigroup Research Report on Gunns 1 June 2006.

[25] Green, G. *Plantation Forestry in Tasmania – The Current Resource, Current Processing and Future Opportunities*, Timber Workers for Forests 2004.

6. Lost returns to other industries

Lost returns to the agriculture industry in Tasmania

The pulp mill is dependent on the continued conversion of agricultural land to plantation land. In order to control costs, plantations will need to be developed that are:

- Within 50 to 70 km of the pulp mill
- Have soil and rainfall capable of achieving target mean annual increments in growth (MAI's).

Gunns' current target is to develop from 17,000 hectares to 20,000 hectares of new plantation each year. Its 2006 sales target of 20,000 hectares of new MIS plantation scheme sales was not reached, but, because of 10,000 hectares of deferred sales from the previous year, plantings will be close to 20,000 hectares. Analysts are now forecasting an average rate of new plantations of 17,000 hectares per annum.[26]

To date in Tasmania, most plantations have not been developed on prime agricultural land. However, given the constraints above, it is inevitable that an increasing proportion of agricultural land will be used. While the IIS claims that there will be no "intensification" of overall planting levels in Tasmania, it is clear that there will be intensification in the area within 100km of the mill.

The table below shows 2003 hardwood plantation by land classification. Clearly, the majority of plantations historically have not been planted on agricultural land. However, the average of 4% is a bottom limit for new plantings, as it includes many older plantations before appropriate land was becoming scarce.

Table 6.1 Plantations already established on agricultural land

	Percentage of all hardwood plantations existing in 2003
Class 1-3 (Prime Agricultural Land)	5,000ha (4%)
Class 4 (Little or no suitability for cropping, but suitable for grazing)	20,000ha (15%)
Class 5-7 (Unsuitable for cropping but Class 5 is suitable for dairying and beef)	106,000ha (81%)
Total	131,000ha (100%)

Source: DIER 2004 Rural Land Use in Tasmania Davey & Maynard Agricultural Consultants

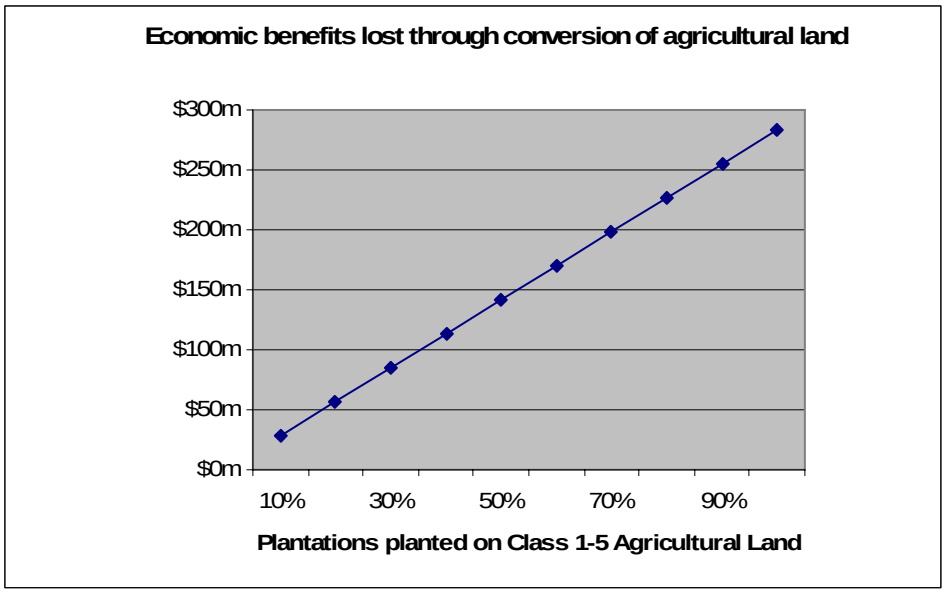
Based on DPIWE figures produced in 2003[27] for farmland close to the pulp mill target zone, we know that each hectare of agricultural land in Tasmania generates a NPV of income over 20 years of $5,700 (at a risk discount rate of 6% pa real). This calculation was based on a mix of dairying, beef and cropping, i.e. land classes 1-4 above, as well as Class 5 and some Class 6.

If we consider a conservative case – namely that 30% of the new plantations use Class 1-5 agricultural land, then the additional 50 hectares of plantations required for the pulp

[26] Citigroup Research Report 5 July 2006.
[27] DPIWE Tasmania Meander Dam Project Economic Analysis July 2003.

mill[28] leads to an economic loss of $85 million[29]. However, as the graph below shows, should a higher percentage of the new plantations take Class 1-5 land, then the loss would increase significantly.

Figure 6.1 Indicative agricultural income lost



Lost returns to the tourism industry in Tasmania

As in its general economic analysis, the Economic Report displays a bias in not addressing the negative economic effects of the pulp mill for tourism business.

Table 6.2 Impact of proposed pulp mill on tourism industry

	Discussed by the Economic Report?	Likely economic impact
Visitor numbers reduced due to increased log truck activity on the Tamar highway	No	Negative
Tourist operators leaving the area	No	Negative
Negative impact on Tasmania's 'nature' brand	No	Negative
Short term need for accommodation	Yes	Positive
Possibility of Industrial tourism	Yes	Positive

In a very familiar pattern, the Economic Report has included even remote positive benefits (industrial tourism) and ignored the very real harm posed to local nature, food and wine based businesses. Of particular importance is the fact that tourism operators in the area affected by the pulp mill (especially operators living within the 100km catchment radius for the pulp mill) have not been surveyed as to the potential impact of the pulp mill on their businesses.

[28] Section 6.2.5 IIS Volume 6 Project Description
[29] Based on 30% times 50,000H times $5,700 DPIWE estimate of value of agricultural income

In relation to tourism in Tasmania, the Economic Report has this to say:

> *"While tourism will continue to develop [in Tasmania] it does not offer such a potential for wealth creation and the ability to sustainably increase living standards [as the pulp mill]".*[30]

The statement that tourism does not offer the potential for wealth creation will be a surprise to the State Government's 'Tourism 21' Ten Year Strategic Plan. The plan targets (set in June 2004) for Tourism 21 are to grow the tourism sector in Tasmania to a $2.5 billion industry (annually) which employs 54,000 Tasmanian's by 2014[31]. There are currently 40,000 Tasmanians employed in tourism and related industries – the government believes that there is potential to increase this by 14,000 people over the next eight years. In contrast, the Economic Report believes that tourism will have a lesser impact than the 292 people employed in the pulp mill (or even the 1,600 indirect jobs that may arise).

While it is true that tourism jobs can be lower paid than those in forestry, the sheer volume of numbers of Tasmanians affected by tourism means that the tourism sector overall is of vital importance.

It is also important to understand the focus of tourist dollars in Tasmania. The $1.1 billion spent by tourists in Tasmania in 2005[32], was spent as follows[33] (the items exceed the total because there is some overlap in the groups):

- View wildlife $403 million
- Visit gardens $355 million
- Bushwalking $658 million

Industrial tourism – which is brand-conflicted with these activities - was not significant enough to appear on the tourism survey as one of its 35 categories.

The Economic Report states that the pulp mill will increase tourism in the Tamar valley, because Gladstone has generated up to 1,400 industrial tourists a year. It has no comment on how the massive industrial site will effect the:

- 49,400[34] visitors each year who visit Launceston and Tamar Valley wineries (including 37,200 holiday visitors)
- 101,000 visitors who visited George Town
- 201,000 visitors who came to Tasmania specifically to view wildlife.

[30] The Economic Report, p. 49.
[31] Tourism Industry Council Tasmania Website, 26 June 2006. specific URL?
[32] Tourism Tasmania Annual Report 2005 p. 6.
[33] Tourism Tasmania Annual Report 2005 p. 33.
[34] All visitation statistics are from the 2005 Tourism Tasmania report *Tasmanian Visitor Survey 2000 to 2004.*

Of the 298,300 holiday visitors who visited Launceston and the Tamar Valley in 2004, for every 1% who are negatively affected by the log truck activity, the intensive plantations, the pollution or the land clearing, then the tourist revenue lost in that year will be $4.65 million.

> ***If only 10% of the holiday visitors to Launceston and Georgetown each year are lost because of the pulp mill, the direct economic loss to Tasmania is $735 million[35]. This is direct tourism spending only and does not include down stream economic benefits.***

For The Economic Report to dismiss tourism as not offering the economic potential of the pulp mill is simply not correct. Given the number of Tasmanians employed in tourism and related industries (40,000) versus the 292 new jobs at the pulp mill, it is crucial that the RPDC investigate the issue of potential damage to Tasmania's tourist image, brand and visitor numbers. This vital aspect of Tasmania's economic wellbeing has been completely erased from the Economic Report.

[35] This calculation is simply 10% times 298,300 holiday visitors times $1,560 average per holiday visitor spending times 15.8 which is a NPV factor at a 5% real discount rate.

6. Further references

About the installed cost per tonne

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