APPENDIX 12

Competition Economists Group, *Historic labour costs growth, a report for Transend,* May 2008

Historic Labour costs growth

A report for Transend

Dr. Tom Hird

14 May 2008

Table of Contents

1. Introduction

Transend has asked CEG to advise on historical measures of the cost of labour in the segment of the Tasmanian labour market from which Transend draws its labour. We understand the purpose of this work is to establish a reasonable benchmark for labour cost increased faced by Transend without having to rely on Transend specific data.

2. Potential measures of labour costs

There are several different proxies for movements in market determined wage costs. At a high level the choice is between movements in a weighted average index of specific occupation costs (such as the ABS Labour Price Index (LPI)) or a measure of mean earnings per worker (such as the ABS published Average Weekly Ordinary Time Earnings (AWOTE) index). The primary difference between these is that the LPI attempts to measure the change in labour costs holding constant the composition (skill levels) of the workforce. It does so by applying constant weights to particular job classifications even if the actual composition of the workforce is changing. By contrast, AWOTE is estimated by dividing estimates of weekly total earnings of full time employees by estimates of the number of those employees. This means that changes in AWOTE will be influenced by changes in the mix of full time employment (eg, a higher proportion of low paid employees in the market will depress AWOTE even if wage levels for each skill level remain unchanged).

The ABS publishes each of these measures by industry (Australia wide) and by state. However, it does not publish the data for each industry within each state.[1] For example, it does not publish the data for the electricity gas and water sector (EGW) in each state. Nonetheless, it is possible to access the relevant data from the ABS by special request and Macromonitor has done so for AWOTE.

The compound annual movements in these measures from June 2003 to June 2007 are summarised in the below table.

Table 1: Historical measures of nominal wage growth

	AWOTE				LPI		
	All industries Australia	All industries Tas	EGW Australia	EGW Tas	All industries Australia	All industries Tas	EGW all Australia
2003 to 2007	4.5%	5.0%	4.0%	4.6%*	3.8%	3.9%	4.7%

Source: ABS

The above measures suggest that a range for nominal unit wage cost growth is 3.8% to 5.0% pa over the period. The question then becomes which of the above measures, or

[1] Note that the electricity sector represents 65% of the EGW sector by value added ABS 5206.0, Table 6 Gross value Added by Industry, Chain Volume Measures

which combination of the measures, is the best proxy for the actual unit wage cost inflation faced by Transend.

2.1. Tasmanian estimates are most relevant

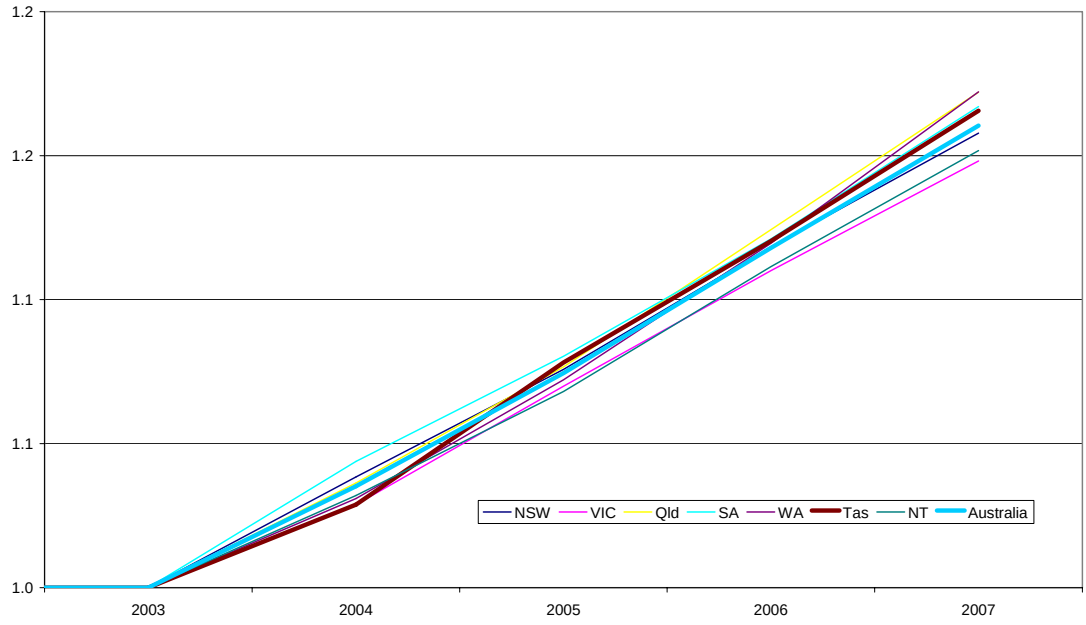
Transend sources its opex labour from within Tasmania so labour costs in Tasmania are most relevant when benchmarking opex costs.

We note that wage growth, as measured by AWOTE, in Tasmania has outstripped wages growth in Australia during this period – both at the level of 'all industries' and specifically in the EGW sector. Similarly, wages growth, as measured by LPI for all industries, has been higher in Tasmania than in the rest of Australia.

With regard to the above, it is reasonable to assume that if the ABS published an EGW LPI for Tasmania that would likewise be greater than the EGW LPI for Australia (ie, higher than 4.7%). In other words, Tasmanian EGW LPI (should it have been published) would most likely have been in excess of Tasmanian EGW AWOTE. That is, irrespective of the measure used, Tasmanian EGW labour costs between 2003 and 2007 would most likely have increased by 4.6% or more in nominal terms.

The difference in LPI across states is illustrated in the below figure.

Figure 1: LPI by state for all industries



2.2. EGW estimates are most relevant

We proceed on the assumption that, other things being equal, labour cost changes in the EGW sector are most relevant for Transend.

2.3. LPI is an underestimate

In our opinion, the LPI will tend to underestimate the true level of market wage inflation during high growth phases of the economic cycle (which includes the period 2003 to 2007). This is because adopting the LPI implicitly assumes that all promotions in the market place reflect changes in skills and productivity. In reality, in a strong labour market some promotions (or some part of the higher wages associated with promotion) will be made in order to retain or attract staff. For this reason, we believe that the LPI should set the minimum estimate of wages growth in the period 2003 to 2007.

By contrast, AWOTE's exposure to compositional effects may result in it over or underestimating true wage cost inflation. For example, if there is a relatively larger increase in the use of unskilled labour in the economy then this will tend to drag AWOTE down and movements in AWOTE will tend to underestimate the true increase in the cost of purchasing a constant basket of skilled labour. Similarly, if there is an increase in the proportion of skilled labour used in the workforce the opposite will be true and AWOTE will tend to overestimate the true increase in wage inflation. Changes in the composition of the workforce can occur for various reasons including changes:

- in the pattern of retirement and recruitment;
- in the level of economic activity (eg, in a boom the pool of relatively low skilled unemployed can be expected to be absorbed into the workforce);
- in the level of training and education spending; and
- in the number of hours worked (eg, if there is a shift between part-time and full-time employment and this changes the average skill level of full time employees).

It is also true that AWOTE does not capture the effect of increases in the use of more expensive overtime (which will often be efficient if a tight labour market has increased the difficulty and cost of sourcing new employees).

We are unaware of any studies on the net effect of these changes on AWOTE over the last four years. However, it appears reasonable to assume that the likely net effect has been for compositional changes to depress AWOTE in the EGW sector. As we understand it, the EGW sector has dealt with higher than usual retirement of older skilled workers and higher than usual recruitment of less skilled staff. Similarly, we understand that the tight labour market has led to an increase in the use of over-time by businesses in the EGW sector and greater use of external labour.

On the basis of the above analysis we believe that the most appropriate proxy for increases in nominal labour costs over the period 2003 to 2007 is 4.7% pa based on the movement in the LPI for Australia wide EGW over that period. Further, we consider that this proxy will be downward biased as it:

a. is likely to underestimate Tasmanian EGW LPI (for which the ABS does not publish estimates). This conclusion is based on the observation that Tasmanian wage growth was universally higher over the period than Australian wage growth (whether measured as EGW AWOTE, AWOTE all industries or LPI all industries); and

b. does not capture the likelihood that promotions have been used as a means of retaining staff rather than solely as a reward for improvements in skills/productivity.

2.4. Conclusion on historical proxies

The lowest reasonable estimate of wages growth in the market in which Transend competes for labour in the period 2003 to 2007 is 4.7%. This is based on the LPI for the Australian EGW sector. This is likely to be an underestimate because:

1. LPI tends to underestimate true wage cost growth because it treats 100% of all promotion related wage increases as offset by increased skill levels associated with promotion. In reality, promotions are also used to grant pay rises in order to retain staff in the absence of skill improvements. This is especially true in a tight labour market such as is currently being experienced in the EGW sector around Australia.

2. The 4.7% is based on measured growth in the Australian EGW LPI. Tasmanian wages have been rising faster than the national average. This is true of all measures of AWOTE (all industries and EGW industry specifically) and also LPI (all industries). It is highly likely that Tasmanian EGW would be similarly higher.

3. While measured Tasmanian EGW AWOTE growth is slightly lower (4.6%) this is likely to be artificially depressed by increases in the proportion of relatively low skilled and younger employees in the sector.

2.5. Forecasts

In our April 2008 companion report "Escalation factors affecting expenditure forecasts" we provide forecasts for real labour costs in the Tasmanian EGW sector. For completeness, these are provided below in conjunction with the historical annual nominal and real Australian EGW LPI figures (that averaged 4.7% nominal as described above).

Table 2: Historical and forecast real EGW labour escalation for Transend (year ended June)

	2003 (a)	2004 (a)	2005 (a)	2006 (a)	2007 (a)	2008 (f)	2009 (f)	2010 (f)	2011 (f)	2012 (f)	2013 (f)	2014 (f)
Nominal	4.3%	4.4%	4.3%	5.5%	5.0%							
CPI	2.7%	2.5%	2.5%	4.0%	2.1%							
Real *	1.6%	1.9%	1.8%	1.5%	2.9%	2.2%	3.2%	4.0%	2.7%	3.1%	3.9%	4.0%

** Historical actual figures are based on LPI EGW Australia wide deflated by actual CPI (no productivity adjustment). *Real forecasts are based on the average of Econtech and Macromonitor forecasts (where the latter are productivity adjusted) as per our companion report.*