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Assessing Direct Government Subsidies Paid to Tasmanian Industries

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Executive Summary

The aims of the study may be briefly stated as follows:

- To describe the general contributions of the following industries to the Tasmanian economy: forestry and timber processing, mining and mineral processing, energy, primary industry (agriculture and fishing) and tourism.
- Determine the value added by each of these five industries to Tasmania's Gross State Product (GSP). This provides a measure of the relative importance of each industry to the Tasmanian economy.
- Assess Australian and Tasmanian government direct subsidies paid to each of these five industries.
- Determine the relative value of industry support in each of the five sectors where the relative value is captured in the following Subsidy Intensity Index (SII_i):

$$SII_i = \frac{\$ \text{Support to Industry}_i}{\$ \text{Contribution to GSP by Industry}_i}$$

The SII_i is a pure number independent of any unit of measurement and so industries can be ranked according to their SII_i.

- The bang for buck for each industry is then determined. The larger the contribution for a given level of industry value added, the lower the SII_i and the more effective a subsidy paid to the sector. The higher the level of industry support in the numerator for a given value added in the denominator, the higher the SII_i index for the industry in question and the smaller bang for buck.
- Industry rankings from low to high are provided. The lower the SII_i, the greater the bang for buck invested.

Methods employed:

- The general contributions of each sector as distinct from their value added to GSP are gauged from expenditure and revenue patterns obtained from a survey of forestry companies, in the case of forestry from published financial accounts, and specific industry data as indicated in the text.
- Value added is calculated from individual company and sector records and is approximated by gross turnover in dollars minus intermediate sales and purchases. Industry support data, grants and subsidies are either not collected by the official statistical agencies or are not available in a form that allows comparison. This report provides the Australian Bureau of Statistics (ABS) industry breakdown of GSP for Tasmania, but for our purpose the ABS approach is deficient as it absorbs the contribution of mineral processing in manufacturing and conceals the value added of the mineral and mineral processing industries. A similar problem occurs in relation to forestry and timber processing and the value added for each of these sectors is re-estimated from primary records maintained by Minerals Resources Tasmania (MRT). The value added by forestry is determined from Forestry Tasmania (FT) for public forestry and from a survey of private forestry companies. The ABS industry classification does not provide a separate tourism industry category. An estimate of tourism's value added is derived from Tourism Tasmania's annual reports.
- Direct subsidies paid to each of the five industry sectors are derived from industry sources as clearly indicated in the text. However one particular obstacle warrants an explanation. The reference period for this study is the five year period 2004–2008, but the data about industry subsidies varies. Some government support is provided on an ongoing annual basis, for example, the Freight Equalisation Scheme payments are paid on a continuing annual basis, while in other cases grants are paid on a one off basis or over a three to five year period. This lack of uniformity leads to the notion of a “representative year” in the reference period 2004–2008. The representative year is described fully in the text.

The non uniformity of the data forced the following compromise. We took a five year time span from 2003/2004 to 2007/2008 and developed the notion of a “representative year” for purposes of calculating the SII_i for each industry. The method is fully described in the text.

Results:

- General contributions: forestry and timber processing paid \$55.356 million to the Tasmanian Government over the period 2003/2004 to 2007/2008, and \$37.9 million in personnel expenses in 2008. The minerals and mineral processing sector disbursed \$187 million to personnel, \$606 million to local suppliers, \$42 million to government and invested \$109 million in 2008. The energy sector distributed \$540 million to government, employees, contractors and suppliers in 2008. Agriculture and fisheries contribute \$1.2 billion to the Tasmanian economy annually and tourism \$1.4 billion pa to the general economy.
- SII_i Index and rankings from lowest to highest:

Table 5.1 The Relative Degree of Industry Support in a Representative Year				
Industry Support	Support level \$ million	Value added \$ million	SII_i	Bang for Buck \$
Forestry and wood process	25.24	1,408	0.018	56
Energy	6.13	918	0.007	150
Mining and minerals	10.94	1,892	0.006	167
Agriculture and fishing	50.5	1,190	0.042	24
Tourism (total)	92.3	1,430 ¹	0.065	15
Tourism (holiday)	92.3	1,005	0.09	11

- The value added by industrial sector is shown below at Table 3.2.

¹ Tourism (Total) encompasses holiday and other visitors

Table 3.2 Value Added by Industry Sector \$ million 2006/2007	
Industry	Value Added \$ million 2006/2007
Forestry and timber	1,408
Energy	918
Minerals and mining	1,892
Agriculture and fishing	1,190
Tourism: total, including holiday visitors	1,430
Tourism: holiday visitors only	1,005

- Subsidies paid to the five sectors is shown in the text as follows:

Table 4.4 Summary Industry Support Representative Year for the Period 2004-2008	
Industry	Support Level \$ million
Forestry and wood processing	25.24
Energy	6.13
Mining and minerals sector	10.94
Agriculture and fishing	50.50
Tourism	92.30

- Industry support for a “representative year”. Forestry and timber processing (25.24 million), energy (\$6.13 million), mining and minerals (\$10.94 million), agriculture and fishing (\$50.50 million), tourism (all visitors) and tourism (holiday visitors) is \$92.3 million for both industries.
- The best bang for a buck invested in industry support is in the energy sector followed by the mining and minerals processing, forestry and timber processing, agriculture and fishing, tourism (all visitors) and finally tourism (holiday visits only).

Table 5.2 Rank Order Tables (from less relatively subsidised to more relatively subsidised)			
Industry Sector	Rank	SII	BB (\$)
Mining and minerals processing	1	0.006	167
Energy	2	0.007	150
Forestry and timber processing	3	0.018	56
Agriculture/fishing	4	0.042	24
Tourism (all visitors)	5	0.065	15
Tourism (holiday makers only)	6	0.090	11