

# **Shipping Legislation Amendment Bill 2015**

Review of regulation impact statement

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## Executive Summary

The Senate Rural and Regional Affairs and Transport Legislation Committee is currently examining the Shipping Legislation Amendment Bill 2015. The purpose of the Bill is to increase access to Australian coastal shipping for foreign crewed ships in an attempt to make coastal shipping cheaper.

The Regulation Impact Statement (RIS) and Cost Benefit Analysis (CBA) of the Bill largely ignore the challenging economic reality faced by Australian coastal shipping. It must compete with subsidised land freight sectors and international ships which use cheaper foreign labour.

Land freight is heavily subsidised in Australia. Heavy road freight imposes costs on governments through road use that are not fully recovered through taxes and charges. In NSW alone this under-recovery has been estimated at \$1.5 billion for one year. Trucks further impose unpriced costs through congestion, pollution and accidents. Rail freight imposes fewer external costs but also benefits from taxpayer support - the Queensland Competition Authority estimates that the Queensland Government subsidises rail freight by around \$213 million per year in that state alone.

Foreign flagged and crewed ships already have considerable access to the Australian coastal shipping market, making Australian coastal shipping possibly the only service sector facing competition that can use foreign labour while actually operating in Australia. By contrast it is impossible for foreign trucking companies, rail companies or any other service provider to operate in Australia using international labour paid at international rates. As crewing costs make up between 36 per cent and 42 per cent of ship operating costs, this puts Australian crews at a 15-20 per cent disadvantage against international ships in terms of operating costs.

The RIS estimates that the current arrangements will reduce GDP by between \$242 million and \$466 million, implying that substantial economic gain can be made by the reforms. Points to note:

- These estimates are in present value terms over 13 years, representing \$29 million to \$56 million per year. The RIS itself estimates the annual saving to businesses at \$21.4 million per year.
- The industries that commissioned this modelling have an annual production value of \$85 billion. The changes represent a fraction of one percent of their turnover. At an industry-wide or national level, these changes are economically insignificant, although they may be material for particular sectors and particular operators.
- The RIS does not disclose that these estimates are based on modelling commissioned by the Cement Industry Federation and other interest groups.

Employment impacts are not considered in depth in the RIS, which only notes that the preferred option has “the potential for some Australian seafarer jobs to be lost”. The CBA estimates that under this option Australian-crewed ships will be entirely eliminated other than the Spirit of Tasmania ships in the Bass Strait trade. “Mixed crew” ships with two Australian senior crew will exist on some trades.

In total, the CBA estimates only 88 Australian seafarer jobs will remain under the Department’s preferred option for policy change. This represents a loss of 1,089 Australian seafarer jobs, or 93 per cent of the current workforce. This would result in the likely loss of these skills from the country altogether in the longer term. In contrast, the industry-commissioned models suggest employment gains in other industries of only 200 jobs.

In addition the CBA has serious technical shortcomings:

- It fails to appropriately set the scope of the assessment – in other words, whose costs and benefits count. It appears to include millions in benefits to foreign-owned companies, with little consideration of Australian workers.
- It adopts an unorthodox approach to the value of labour, without adequate justification, or quantification of losses to seafarers. While the methodology is unclear, there appears to be an unstated \$74 million present value loss to Australian seafarers in the CBA.
- It is based on very high exchange rates of AUD0.90 and 1.00 to the US dollar. This overstate the benefits of the reform to users of shipping by up to 35 per cent.

In summary, the proposed Shipping Legislation Amendment Bill 2015 is likely to reduce employment for relatively little economic benefit. What little benefit that is generated will accrue largely to foreign owned shipping and bulk freight using companies. Rather than increasing access for foreign-crewed ships, coastal shipping would benefit from a policy approach that sought to level the playing field for Australian-crewed ships.

## Introduction

The Senate Rural and Regional Affairs and Transport Legislation Committee is currently examining the Shipping Legislation Amendment Bill 2015. The purpose of the Bill is to replace the existing licencing system and regulations around coastal shipping “with a single permit, available to both Australian and foreign vessels, which will provide access to the Australian coast for a period of 12 months.”

A Regulation Impact Statement (RIS) of the Bill was written by the Department of Infrastructure and Regional Development. The RIS draws on a cost benefit analysis (CBA) written by Predictive Analytics Group (PAG), published in April 2015. The Maritime Union of Australia (MUA) has commissioned The Australia Institute to assist with a submission relating to the Regulatory Impact Statement and a related Cost Benefit Analysis.

Neither the RIS nor the CBA are documents that provide a sound basis for decision making and policy development. Both largely ignore the economic context of the coastal shipping industry and contain various omissions and technical flaws that reduce their usefulness.

## Economic context of coastal shipping

From an economic perspective, coastal shipping faces a difficult task in competing with land-based freight and international shipping. Both of these competing sectors have significant advantages over Australian coastal shipping and as a result, Australian coastal shipping has declined in terms of numbers of Australian-flagged vessels and numbers of Australian seafarers.

### Subsidised land freight

Land-based freight receives considerable subsidy through non-recovery of costs and non-priced impacts. Road freight, particularly B-Doubles and other articulated trucks, do not pay as much in registration and fuel taxes as the damage they cause to roads. In NSW alone this under-recovery has been estimated at \$1.5 billion for one year.<sup>1</sup>

Road freight also imposes considerable wider costs on the community through impacts such as:

- *accident costs (borne largely, though not entirely, by users);*
- *environmental impacts, including noise, pollution and degraded amenity, as well as so-called intrusion impacts (borne by local communities and other road users);*
- *greenhouse gas emissions (which have global impacts); and*
- *congestion (borne by infrastructure users, including those who take action to avoid peak periods).<sup>2</sup>*

While rail freight reduces these external costs, it is also often subsidised through non-recovery of costs by government. For example, the Queensland Competition Authority

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<sup>1</sup> Laird P, 2015, *Freight Transport Cost Recovery in Australia*, paper prepared for 29<sup>th</sup> Australasian Transport Research Forum, Sydney, Australia 30 September to 2 October 2015. This figure is estimated for the 2005-06 year.

<sup>2</sup> Productivity Commission, 2006, *Road and Rail Freight Infrastructure Pricing Overview*, <http://www.pc.gov.au/inquiries/completed/freight/report/freightoverview.pdf>

estimates that the Queensland Government subsidises rail freight by around \$213 million per year in that state alone.<sup>3</sup>

## Labour cost disadvantage to international shipping

In addition to competing against land freight subsidised by billions every year, Australian coastal shipping is possibly the only service sector facing competition that can use foreign labour paid at foreign rates while actually operating in Australia. Foreign flagged and crewed ships have considerable access to the Australian coastal shipping market. By contrast it is impossible for foreign trucking companies, rail companies or any other service provider to operate in Australia using international labour at international labour rates and being largely regulated by home country standards.

This is a material difference in ship operating costs. Data provided by the Maritime Union of Australia (MUA) estimates overseas crew wages at 67 per cent of Australian wages for a Master seaman (US\$2,864 per month compared to \$US4,281) and just 31 per cent for an Able seaman (\$US850 compared to US\$2,742). As crewing costs make up between 36 per cent and 42 per cent of ship operating costs, this puts Australian crews at a 15-20 per cent disadvantage against international ships in terms of operating costs.<sup>4</sup>

Internationally, many governments have responded to this dilemma with policies to assist domestic shipping. Many countries have cabotage laws that prevent foreign vessels from undertaking coastal shipping if a domestic vessel is available for the task. Even countries with relatively low labour costs have moved to assist their coastal shipping industries.

- India currently has cabotage laws that make it mandatory to use domestic ships for cargo transport between Indian ports unless an Indian vessel is not available.<sup>5</sup> These laws are currently being reviewed and proposed changes include increasing access for some vessels and a tax on foreign vessels that operate along the east coast of India.<sup>6</sup>
- In Brazil, coastal shipping laws are designed to protect domestic interests and foreign vessels can only transport cargo in certain situations. Foreign vessels can only be used if they are carrying Brazilian tonnage or if they have been built in a Brazilian shipyard. The majority of foreign vessels transport cargo on the grounds that the ship was built in Brazil.<sup>7</sup>
- Similar cabotage laws exist in Canada where a foreign vessel cannot transport cargo within domestic waters if a Canadian vessel is available. However, negotiations of a trade agreement between Canada and the European Union could see changes to cabotage laws and Canadian waters may be opened up to European vessels. There is currently debate within Canada about these changes and strong opposition from the domestic shipping industry.<sup>8</sup>

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<sup>3</sup> Queensland Competition Authority 2015 *Industry Assistance in Queensland Volume II*, p46

<sup>4</sup> Drewry Maritime Research 2013, *Ship Operating Costs 2013-14: Annual Review and Forecast*. Based on average across dry bulk sizes.

<sup>5</sup> <http://www.hellenicshippingnews.com/indian-governments-move-to-ease-cabotage-law-on-east-coast-could-hurt-adani/>

<sup>6</sup> <http://www.heavyliftpf.com/news/india-makes-cabotage-relaxation-step.html>

<sup>7</sup> <http://www.valueinvestasia.com/2014/08/23/understanding-cabotage-laws-shipping-business/>, <http://www.internationallawoffice.com/newsletters/detail.aspx?g=958e3911-ecbe-44f1-83e9-b0469a513941&redir=1>

<sup>8</sup> <https://www.bht.com/resources/ceta-%E2%80%93-opening-canadian-waterways-foreign-vessels>  
<https://www.bht.com/resources/ceta-%E2%80%93-opening-canadian-waterways-foreign-vessels>

Australia's policy response has been different, with the Howard Government removing shipping support measures in 1996, privatising the Australian National Line in 1998 and opening coastal shipping to international ships at unprecedented levels. The resulting decline in Australian coastal shipping has not been arrested by 2012 reforms that aimed to revitalise the industry.

The current reform proposals via the Shipping Legislation Amendment Bill 2015 are unlikely to strengthen Australia's coastal shipping industry. The preferred reform option will provide little overall economic benefit, eliminate many of the remaining Australian coastal trading ships and reduce employment according to the assessment presented in the RIS and the CBA.

## **Regulatory Impact Statement (RIS) of Shipping Legislation Amendment Bill 2015**

The Regulatory Impact Statement (RIS) of the proposed bill does not address the complex economic reality of the Australian coastal shipping industry, or what policy response might maximise the national interest. The RIS seeks a framework to:

*provide shippers with access to cheaper shipping services and would assist in making shipping more attractive when compared to land transport options. (p49)*

The RIS makes no consideration of the advantages land transport enjoys, and makes brief mention of "three central issues to the current situation" (p49), which it identifies as:

- Declining ship size and capacity of the Australian fleet.
- An aging Australian fleet.
- Australian labour is more expensive.

Neither the policy proposal nor the RIS discuss how any of these issues could be resolved, other than by the increased use of international ships and labour.

The RIS states that the economic benefit of the regulatory change is a \$21.4 million annual saving to business (p76). However another section of the RIS estimates the "size of the problem" with reference to a 2012 study by Deloitte Access Economics.<sup>9</sup> Key points from the Deloitte report relate to impacts of legislation changes on economic output and employment, with estimates that the 2012 legislation changes would:

- reduce Gross Domestic Product (GDP) by between \$242 million and \$466 million from 2012 to 2025 in 2012 Net Present Value terms.
- Reduce full time equivalent (FTE) employment by 200 over the long term, with an initial peak of 570 FTE employees.

The RIS does not mention that this study was commissioned by the Cement Industry Federation, Minerals Council of Australia, the Fertiliser Industry Federation and various companies that use coastal shipping services. These stakeholders have little interest in maintaining an Australian coastal shipping industry and gain from increased access by foreign-crewed ships.

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<http://www.canadianshipper.com/features/ceta-shortsea-shipping/>

<sup>9</sup> The Deloitte report is available on the Cement Industry Federation's website: <http://www.cement.org.au/Portals/0/Documents/CIF%20Publications/DAE%20Shipping%20Reform%20Analysis.pdf>

Economic modelling commissioned by interest groups should be subject to close scrutiny, as small changes to modelling assumptions can make a major difference to results, and the communication of results can be easily manipulated. For example, a similar study by Deloitte was used by the gas industry to claim it had created 100,000 jobs in 2012, despite the Australian Bureau of Statistics reporting oil and gas industry employment had increased by only 9,400.<sup>10</sup>

The Deloitte report referred to in the RIS explains very few of its modelling assumptions and, surprisingly, presents few of the model's results. As such it is difficult to substantiate the figures quoted in the RIS. Despite this the numbers should be put in context.

## *Economic output*

The Deloitte report estimated that the change in regulation adopted in 2012 resulted in a reduction of GDP of between \$242 million and \$466 million. Such figures seem large when presented without context. This is a present value over 13 years, so represents between \$29 million and \$56 million per year, somewhat higher than the RIS estimate of average annual regulatory cost of the preferred option as \$21.4 million (RIS p76).

Given Australia's GDP is over \$1.5 trillion per year, this is clearly not an issue at a national scale, as Deloitte point out:

*While these figures may be modest in the context of the overall size of the Australian economy, they are considerably more significant relative to the size of the affected industries. For example, the combined annual revenue of the three members of the Cement Industry Federation is \$2.1 billion.*

So the impact of the reform on value added from *all industries* was estimated at 1.4 per cent to 2.6 per cent of the revenue of the cement industry. The cement industry is not the only industry impacted by the reform, however, as demonstrated by others participating in the commissioning of the Deloitte report. By omitting the other industries in their comparison, Deloitte make the impact of the change seem larger than it is. The table below lists the value of production for most commodities listed by Deloitte as being impacted by changes to coastal shipping. Combined, they dwarf the impact of the regulation change.

**Table 1: Value of main impacted commodities, 2014<sup>11</sup>**

	Value of production (\$ millions)
<b>Iron ore</b>	\$74,717
<b>Manufactured steel</b>	\$724
<b>Sugar</b>	\$1,384
<b>Cement</b>	\$2,300
<b>Gypsum</b>	\$8
<b>Alumina and bauxite</b>	\$5,711
<b>Total</b>	<b>\$84,844</b>

<sup>10</sup> <http://www.theaustralian.com.au/business/mining-energy/gas-spruikers-inflate-job-creation-numbers/story-e6frg9df-1226741997718>

<sup>11</sup> Sources: Office of Chief Economist, 2014, Resource and Energy Statistics, <http://www.cement.org.au/>, [http://www.agriculture.gov.au/abares/publications/display?url=http://143.188.17.20/anrd/DAFFService/display.php?fid=pb\\_agcomd9abcc20150616\\_11a.xml](http://www.agriculture.gov.au/abares/publications/display?url=http://143.188.17.20/anrd/DAFFService/display.php?fid=pb_agcomd9abcc20150616_11a.xml)

We see from Table 1 that the production value of these commodities is vastly higher than the impacts of the regulation change. The RIS estimates the regulation change will save industry \$21.4 million per year, a fraction of one per cent of industry revenue. While changes to coastal shipping regulation may well be material for certain producers or certain sectors, it is not a material issue for these dry bulk commodity industries overall.<sup>12</sup>

If the goal of the policy change is to assist particular producers or sectors, then the policy should be aimed at those beneficiaries directly. Simply making shipping cheaper by increasing access for foreign-crewed vessels is not the most efficient way to assist particular industries and clearly has an impact on employment of Australian seafarers.

### Employment

The RIS states that the costs of their preferred policy options are:

*Under this option there is the potential for some Australian seafarer jobs to be lost...[However], The modelling undertaken for the cost-benefit analysis did not include the cost of the potential loss of Australian seafarer jobs. (p75)*

The above quote from the RIS is correct - the CBA does not quantify how many Australian seafarer jobs would be lost under its preferred option. This omission is surprising given that considerable detail is provided on how crew composition changes under each option in the CBA. Table 2 below shows the CBA estimates for Australian crewed and “mixed crew” ships under the base case and preferred option.

**Table 2: Australian and mixed crewed ships in major coastal shipping trades under base case and preferred option<sup>13</sup>**

Trade	Australian crewed		Mixed crew	
	Base case	Preferred option	Base case	Preferred option
<b>Bauxite Weipa to Gladstone</b>	100%	0%	0%	80%
<b>Bauxite triangular route</b>	0%	0%	0%	0%
<b>Iron ore</b>	30%	0%	0%	0%
<b>Other dry bulk</b>	7%	0%	0%	10%
<b>Crude oil</b>	0%	0%	0%	0%
<b>Petroleum</b>	10%	0%	0%	10%
<b>Other liquid bulk</b>	0%	0%	0%	0%
<b>Cruise shipping</b>	40%	0%	0%	0%
<b>Bass Strait</b>	100%	35%	0%	65%

**Note:** Mixed crewed means 2 Australian crew and 15-16 foreign crew on each ship i.e. each mixed crew ship is around 78% foreign crewed

From the estimated change in Table 2 an estimate of seafarer job losses can be obtained. The RIS estimates Australia’s coastal seagoing workforce at 1,177 jobs (p69).

<sup>12</sup> While the comparison of production value to change in GDP is awkward and the vast bulk of the iron ore production is exported, the point remains – coastal shipping regulation changes are of marginal importance to these industries as a whole.

<sup>13</sup> Source: Predictive Analytics Group 2015 Cost Benefit Analysis of Regulatory Coastal Shipping Options, Tables 5.5 to 5.15

Table 2 shows that the CBA expects Australian crewed ships to be eliminated from all trades except the Bass Strait trade where they will go from 100 per cent of the trade to 35 per cent. This represents the two *Spirit of Tasmania* ships, owned by the Tasmanian Government. The Bass Strait trade represents around 8 per cent of coastal freight flows.<sup>14</sup> Assuming employment is proportional to the size of the trade, this represents 98 workers currently, which would reduce to 34 workers under the CBA's analysis.

The CBA expects that some ships will be crewed by a "mixed" crew of Australian and foreign seafarers. While no clear explanation is given as to what the authors mean by mixed, on p55 of the CBA it appears that it consists of just two senior Australian crew, with the remainder being foreign.

- The mixed crews in the Bass Strait trade represent just four vessels with two Australian crew each, for a total of eight Australian seafarer jobs.
- The 80 per cent of the Weipa-Gladstone trade with mixed crews shown in Table 2 represent four vessels – another eight Australian seafarer jobs.
- The CBA says the 'Other dry bulk' trade consists of 112 vessels. If ten per cent remain 'mixed crew', this represents 24 Australian seafarer jobs (see CBA p49).
- The CBA says the 'Petroleum' trade consists of 69 vessels. If ten per cent remain 'mixed crew', this represents 14 Australian seafarer jobs (see p49).

Summing these estimates, we see that the CBA estimates only 88 Australian seafarer jobs will remain under the Department's preferred option for policy change. This represents a loss of 1,089 Australian seafarer jobs, or 93 per cent of the current workforce.

It is unlikely that with such a small demand for Australian seafarers that Australian maritime skills will be maintained.

The RIS suggests that Australian seafarer job losses will be offset by the expansion of other industries:

*The issue of any impact on Australian jobs must be considered in the broader context of increased domestic shipping activity - the increase in associated on-shore work and the impact lower shipping costs will have on onshore industries reliant on shipping services. The reforms may allow these industries to be more competitive and this may prevent further job losses in Australian manufacturing, resources and other industries.*

However the impact on onshore industries is precisely what is estimated by the Deloitte study that the RIS refers to, which suggested that the 2012 regulation change would result in a long term reduction of employment of 200 FTE:

*The associated loss of employment over the long term is, in net terms, relatively modest at up to 200 full time equivalent employees. (Deloitte study, p37)*

This estimate does not appear to include seafarer job losses, as it is based on increased costs incurred by the dry bulk industry. As most of the beneficiary industries are capital intensive, the gain in employment from cheaper shipping services is small.

To summarise, the modelling in the CBA suggests that 1,089 Australian seafarer jobs would be lost under the department's preferred option. The Deloitte study suggests a gain of 200 jobs in industries that use coastal shipping. Based on these sources, it is likely that the proposed policy change would result in a net decrease in employment. Perhaps more

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<sup>14</sup> See BITRE 2013, *Australian sea freight 2011-12*, Table 2.6, p31

importantly, it would result in a very small demand for Australian seafarers and a likely loss of these skills from the country altogether in the longer term.

## **Cost benefit analysis (CBA)**

As discussed above, the RIS draws on a CBA published by Predictive Analytics Group in April 2015. The CBA considers six separate options for changes to the Bill:

- Option 1 - Removal of all regulation of access to coastal trading. The RIS assumes that this repeal would trigger a need to technically “import” trading vessels, triggering customs duties and a need for crews to have skilled work visas. The RIS assumes this would heavily reduce the number of foreign seafarers working in Australian coastal shipping and end the coastal container trade.
- Option 2 – As for Option 1 but with “enactment of legislation to account for potential undesired effects” of the repeal. These undesired effects are mainly the reduction in foreign seafarers and the end of the coastal container trade.
- Option 3 – Maintain current coastal shipping system and make amendments to “minimise industry burden and costs”. Amendments relate mainly to extending access for foreign ships and seafarers to coastal shipping in Australia.
- Option 4 – Replacement of current system with a “single permit system”, with amendments that “create equal opportunity between Australian and foreign ship operators.” Amendments relate mainly to extending access for foreign ships and seafarers to coastal shipping in Australia.
- Option 5 – As for Option 4 with a variant that foreign ships must have an Australian Master and Chief Engineer if working in Australia for 120 days or more.
- Option 6 – As for Option 4 with a variant that foreign ships must have an Australian Master and Chief Engineer if working in Australia for 183 days or more.

The results of the CBA are similar for options 2-6, with estimated net present values (NPV) of between \$650 million and \$786 million over 20 years. Option 1 is the only option with a significant difference, with estimated NPV of negative \$2.5 billion.

The CBA breaks down costs and benefits between dry bulk, liquid bulk, inter-capital container, Bass Strait and cruise shipping. Options 2-6 were found to have broadly similar impacts across these sectors, with no impact on inter-capital container sector. Option 1, by contrast, was found to have negative impacts across all sectors except Bass Strait. Option 1 was estimated to impact inter-capital container shipping by negative \$1662 million, two thirds of its total NPV.

Confusingly, the RIS discusses only four options, which correspond to Option 1, Option 2, Option 3 and Option 6 in the CBA. Option 6 in the CBA, referred to as Option 4 in the RIS, is the preferred option. In this section we refer to the numbering in the CBA section written by PAG.

### *Scope of the assessment – whose costs and benefits count*

A key step in CBA is deciding whose costs and benefits count. This is emphasised by PAG on p28 of the CBA, based on a guidance note from the Office of Best Practice Regulation,

itself based on a well-known text book of cost benefit analysis.<sup>15</sup> Unfortunately, PAG do not discuss whose costs and benefits they included in their analysis.

Office of Best Practice Regulation Guidance Note makes it clear that:

*For most regulatory proposals, measuring the national costs and benefits is appropriate, rather than measuring any international impacts. That is, as far as is practical, you should count the costs and benefits to all people residing in Australia.*  
(p3)

The CBA does not identify all costs and benefits to Australian residents as it does not include the costs to those whose jobs would be lost under the proposal. This omission is surprising given that PAG notes:

*There are other relevant costs associated with Options 2-6 that are not reflected in the NPV results. These include a loss of Australian seafarer jobs which may have ramifications for the shore-based maritime sector in general (p. 60).*

While the costs to Australian seafarers are not considered, the benefits accruing to foreign-owned companies are included:

*At present, there are 5 Rio Tinto vessels shipping Bauxite on the Weipa-Gladstone route...All 5 vessels are foreign flagged. The crew composition for all 5 vessels is 100 per cent Australian, paid EA waged rates. Given that these vessels are foreign flagged, the base case market share for the Weipa-Gladstone route is assumed to be 100 per cent foreign with Australian crew...*

*In relation to Options 2, 3 and 4, we assume that Rio Tinto will keep all vessels foreign flagged but may alter the crew composition of its vessels from 100 per cent Australian to 100 per cent foreign, in order reduce operating costs.(page 47)*

Rio Tinto is around 80 per cent foreign owned.<sup>16</sup> The Weipa to Gladstone route is dedicated to shipping bauxite from Rio Tinto's mines at Weipa, to its alumina refinery at Gladstone. The situation is that foreign-owned, foreign-flagged ships are transporting bauxite from foreign-owned mines to a foreign-owned refinery. Employment is one of the key benefits that Australia gets under these arrangements and jobs are emphasised in Rio Tinto's websites relating to the bauxite-alumina operations.<sup>17</sup>

We also note that while the CBA assumes all the Weipa-Gladstone bauxite trade uses Australian crews, this is contradicted in recent news reports showing some of this shipping already uses foreign-crewed ships, with allegations of underpayment and maltreatment of crew.<sup>18</sup>

The PAG analysis estimates the "benefit" of replacing Australian workers with foreign workers on this trade is between \$168 million and \$250 million depending on how many Australian workers are replaced under each Option. Clearly this benefit is accruing not to residents of Australia, but to Rio Tinto. This "benefit" is in fact a cost to Australia and should be considered as such in the cost benefit analysis.

<sup>15</sup> See Office of Best Practice Regulation, Guidance Note, Cost-Benefit Analysis, p 2, available here, <http://www.dpmc.gov.au/office-best-practice-regulation/publication/cost-benefit-analysis-guidance-note>, and (Boardman et al. 2006)

<sup>16</sup> (Edwards 2011)

<sup>17</sup> [http://www.riotintoalcan.com/ENG/ourproducts/1803\\_yarwum.asp](http://www.riotintoalcan.com/ENG/ourproducts/1803_yarwum.asp),  
[http://www.riotintoalcan.com/ENG/ourproducts/1803\\_weipa.asp](http://www.riotintoalcan.com/ENG/ourproducts/1803_weipa.asp)

<sup>18</sup> <http://www.miningaustralia.com.au/News/Bauxite-shipping-crew-underpaid-and-starved>

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There is no discussion in PAG's analysis as to who actually benefits from the options for changing the Bill. While CBA is often focused on quantification rather than distribution of benefits, the example of Rio Tinto above shows that beneficiaries are likely to be shipping companies, many of which are foreign owned. For example, the largest owner of Australian-registered vessels, CSR, is Canadian. The former Australian National Line is owned by a French company. With a substantial portion of "benefits" appearing to accrue at least initially to foreign-owned companies, the analysis should include extensive discussion on whether and how this will benefit Australian residents.

### *Labour in the cost benefit analysis*

In many CBAs changes to employment and wages are not considered, as it is assumed that labour is priced at its opportunity cost. In other words, analysts assume that workers can easily get another job which pays the same wage. This approach is specified by some government guidelines:

*It can be argued that in times of unemployment the opportunity cost of labour employed on a project is less than the wage costs, and project costs and benefits should be adjusted accordingly. However, in practice such adjustments are not generally made and are not recommended.<sup>19</sup>*

PAG seem to echo these sentiments in the RIS:

*In competitive markets, employers hire additional labour until the incremental cost of an extra unit of labour is equal to the value of the marginal product of that unit of labour. The opportunity cost of labour represents the true cost, i.e. the value of the output a seafarer would produce if employed in their next best alternative use in the economy (that is foregone when their labour is utilised in seafaring). (Page 32)*

Confusingly, however, PAG group seem to adopt a different view, that Australian seafarer labour is priced at above its opportunity cost:

*Market wages for Australian seafarers are believed to be greater than the opportunity cost of labour and hence, the financial costs for Australian vessels of employing seafarers are multiplied by a shadow price factor of 0.9 to derive economic costs (p. 32).*

The role of this passage is not clear – it does not tell the reader how the 0.9 per cent factor is used in the assessment. It seems that PAG assume seafarers will immediately find alternative employment at 90 per cent of their previous wages. The 10 per cent of wages that are lost should be considered a cost to Australian residents and could have been easily quantified in the analysis. If all the savings of the Departments preferred option come from wage savings, this represents a \$74 million present value loss to Australian seafarers.<sup>20</sup>

It seems likely this is the approach that has been taken, as in section 6.2.2 (page 67) PAG alter this assumption to a "shadow price factor" of 0.7 – implying that seafarers would only find jobs paying 70 per cent of their current wages. This would result in a greater loss for Australian residents and indeed, NPV of each policy option is somewhat smaller suggesting that the reduced wages of redeployed Australian workers has reduced the NPV of the policy

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<sup>19</sup> (NSW Treasury 2007) page 48

<sup>20</sup> The preferred option has NPV of \$667 million. We assume that the difference between economic and financial costs of shipping wages as assumed by PAG has already been factored out of the CBA's overall results.  $\$667m \times 1/0.9 = \$741m$ , a difference of \$74 million, which is currently accruing to Australian seafarers.

options. Confusingly, the difference is smaller than a 20 per cent difference between the two scenarios, suggesting that our interpretation may not reflect the analysis carried out by PAG.

We recommend the committee clarify the PAG methodology on this point and have the losses to Australian seafarers in PAG's modelling quantified. In departing from a standard assumption of cost benefit analysis, the sources, calculations and results in terms of lost wages to Australian workers should be clearly presented in the analysis. This would also allow the independent evaluation of the merits of this particular approach and the sources used. It is also unclear why the standard assumption around opportunity cost of labour has been abandoned, while the assumption that workers are immediately re-employed has not.

While PAG provide minimal discussion around their labour assumptions, other analyses that have claimed a difference between wages and the economic value of labour have gone into considerable detail to justify their analysis. For example, Rio Tinto have used similar claims to lobby for approval of their Warkworth mine proposal in the Hunter Valley, NSW:

- Claiming that workers in the Warkworth mine will earn \$170,000 per year rather than the average Hunter Valley wage of \$59,000 per year, Rio Tinto estimate they will contribute an extra \$612 million in wages to the local economy. This is considered a benefit in the cost benefit analysis.
- This study provides considerable detail on assumptions around how the project workforce would be unemployed or redeployed over different time periods.<sup>21</sup>
- An earlier study of the Warkworth project estimated the NSW public would be willing to pay a "social value of employment" to ensure mining jobs, estimated at \$286 million.<sup>22</sup>

When mining companies want to claim increased wages as a benefit to the community, these estimates feature prominently in their government submissions and public relations material. It is surprising that when shipping companies want to decrease workers wages that the corresponding losses are not clearly stated in economic analysis commissioned by government.

## *Exchange rates*

There is minimal discussion of exchange rates in the CBA. This is surprising as the wage difference between Australian and foreign seafarers is directly linked to exchange rates. The main discussion on exchange rates appears in a footnote on p29. PAG refer to Federal Government budget papers and the exchange rate forecasts used in last the 2014-15 federal budget:

*According to [the Budget Papers] "the exchange rate is assumed to remain around its recent average level — a trade-weighted index of around 71 and a \$US exchange rate of around 93 US cents.". For the purposes of this CBA we have taken a slightly more conservative long-term view of 90 US cents given the recent downward trend in the exchange rate.*

PAG do not disclose that the forecast in this budget paper were made in early 2014 and only extended to 2016. PAG by contrast use this forecast out to 2035. This is inappropriate as an exchange rate of 0.90 is very high. The average since the start of 2014 has been 0.85.<sup>23</sup> The

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<sup>21</sup> (BAEconomics 2014)

<sup>22</sup> (Gillespie Economics 2009)

<sup>23</sup> Reserve Bank of Australia web site 10 August 2015, <http://www.rba.gov.au/statistics/historical-data.html#exchange-rates>

long term average since the float of the Australian dollar is 0.76 and the average since 2001 is 0.83.<sup>24</sup> The current exchange rate is 0.74.

The impact of this high exchange rate on the CBA results is likely to be significant and heavily overstate the cost savings to users of coastal shipping services. If the long term exchange rate is used rather than the 0.9 rate, it is likely the results will be lower by around 16 per cent.

At another point an exchange rate of one to one was used and the CBA says:

*For foreign Dry Bulk carriers, the annual average crew cost was slightly less than \$1.3 m. No figures are available for Liquid Bulk. Some respondents noted the incremental cost of operating on the Australian coast associated with complying with the Seagoing Industry Award. Estimates of the incremental annual cost are approx. \$0.2 m (assuming an exchange rate of 1AUD:1USD for 2012-13) for Container ships.*

That means at least two of the sets of calculations in the report are out by a factor of 22 and 35 per cent when we read the report early to mid-August 2015.

There is no discussion about how sensitive the model's results may be to movements in the exchange rate. We know the figures are out but not by how much and, more importantly, whether or not the difference would partially or completely nullify the conclusions.

### Capital costs

While labour costs are clearly a major issue, very little attention is paid to other costs in the cost benefit analysis. For example, changes in capital costs are discussed only briefly:

*Annualised foreign capital costs are estimated as \$0.0725 per dollar of ship yard cost ... This compares with financial capital costs of \$0.0751 and \$0.0688 for Australian ships attracting accelerated depreciation and an ITE respectively per dollar of ship purchase cost. (p 35)*

The implication is that there is very little variation between the capital costs assumed for Australian ships relative to foreign ships. Most other costs are assumed to be the same. For the figures quoted Australian capital costs are either plus \$0.0037 or minus \$0.0026 per dollar of the ship's value. On a \$100 million vessel that could be significant but the issue is not discussed in detail.

The PAG study contains some references to costs other than labour but it is not clear exactly how the information is put together. For example we are told the daily cost of a vessel on the Bauxite Weipa-Gladstone is so much lower under the preferred option with a difference of \$12,592 per day. But we are never told what that amounts to overall in the results. There is no way we can directly examine what contribution the crew costs make to the overall results. It is as if there is a conscious decision to put out all the information except any discussion of exactly how it was then put together. Neither are the other costs and benefits explicitly outlined. This is unfortunate since the reader is offered obscurity rather than transparency.

## Conclusion and recommendations

The proposed Shipping Legislation Amendment Bill 2015 is likely to reduce employment for relatively little economic benefit. What little benefit that is generated will accrue largely to foreign owned shipping and bulk freight using companies. According to the modelling

<sup>24</sup> <http://www.ozforex.com.au/forex-tools/historical-rate-tools/historical-exchange-rates>,

commissioned by the Department, Australian seafarer numbers are likely to be heavily reduced with long term implications for maintaining these skills in Australia.

The CBA of the proposal is heavily flawed. It fails to appropriately set the scope of the assessment – whose costs and benefits count. It appears to include millions in benefits to foreign-owned companies, with little consideration of Australian workers. The CBA is based on very high exchange rates which overstate the benefits of the reform to users of shipping.

The economic context of Australia's coastal shipping industry is that it must compete with both heavily subsidised land freight options and international shipping that can use foreign labour while in Australian waters. If an Australian coastal shipping industry is to survive, it needs policy support as is found in many other countries.

Four policies assist Australian shipping at present:

- Australian seafarer tax offset.
- Income tax exemption for eligible Australian vessels.
- Accelerated depreciation for eligible vessels.
- Exemption from royalty withholding tax for eligible vessels and charter arrangements.

The Australian seafarer tax offset, which provides a tax break for companies employing Australian seafarers on overseas voyages, is proposed to be scrapped by the Federal Government, but at time of writing is held up in the senate.

The effectiveness of the income tax exemption for Australian vessels is to some extent compromised by Australia's dividend franking system. Recipients of dividends in Australia often receive a tax credit if the company has paid income tax. Under this system, investors in shipping companies would not receive this credit as the company has not paid tax on the exempt income. This can make investment in Australian shipping somewhat less appealing than in other areas, making the policy less effective.

With much of the policy infrastructure aimed at assisting Australian shipping under threat or operating with reduced effectiveness, new policy direction is required. The current proposals in the Shipping Legislation Amendment Bill 2015 fail to provide this.

## References

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