

ENVIRONMENT FUTURE FREIGHT TASK

PRODUCTIVITY COMMISSION – DRAFT REPORT

OBSERVATIONS: Firstly – well done on the report, very interesting

1. AD VOLERUM SEA FREIGHT COSTS

Interesting to see the change, I wonder what the weighting factors are in regard to increasing sale value of NZ exports over this period similarly for imports. The other factors that likely weigh are the increased total volumes moved which has enabled larger vessels to ply the trade with lower slot and operating costs. As this change is so marked, work to determine the drivers of this are likely to be important for future decision making.

2. KEY CHARACTERISTICS OF INTERNATIONAL TRANSPORT

Another area that also adds costs to the NZ supply chain is container imbalance. For example, due to population (and to an extent vessel operational constraints), most vessels tend to disport the majority of imports at first port (mainly Auckland but secondly Tauranga with use of Metroport). This then leaves empty container stock there, while the majority of exports require them elsewhere. In our current environment these empty containers, even though there is still an excess, tend to be relocated as empty moves (adds significant cost) or by using them for domestic cargo carriage (less potential costs perhaps but longer unavailability of equipment and potential damage).

One could make a case where there are potential freight savings to move some cargos (milk powder and timber comes to mind) northbound on specialist CONRO vessel/s for consolidation into containers where the empty containers are located, with the consequent savings on empty moves.

It is also interesting that in the diagram no link shows from [Investment Co-Ordination and Planning] to Coastal Shipping. This is interesting in that it highlights a major oversight. There is little doubt that coastal hubbing and feeding will become an increasingly important medium, but currently most if not all investment planning effort is focused elsewhere. This seems a glaring omission. As a number of senior industry figures are calling for the deployment of larger international vessels to NZ trade lanes (to enable lower slot costs and thereby further reduced freight component), by necessity this will obviate calls to a number of ports and require a heightened activity and resource for coastal hubbing and feeding. And of course, there are numerous downstream benefits allied to this.

Suffice it to say, this is one area where we believe NZ is “missing the boat” and yet the funding required is miniscule by comparison to that being spent in other areas of transport and infrastructure.

In the area of the report about cabotage, there is no doubt that in NZ, we have an uneven playing field. Over time we need to support and assist the development of crucial hubbing networks. Allowing free rein to international Carriers is in direct conflict with this as they have to meet none of the costs a domestic operator has to. Yet the NZ Law requires NZ based coastal operators to undertake a much higher threshold of compliance (e.g. ETS, OSH, statutory & annual leave etc.). The report frequently makes comparisons with Australia. Perhaps it should be considered in this area as well, where various components of local costs, must be met by an international Line carrying domestic cargoes. This could assist in reducing the tilt that favours international Carriers somewhat. In turn this allows the creation of retaining services through regional ports which could become abandoned over time with the consequential disruption to adjacent catchment industry and population. The dynamic tensions in this are already becoming apparent e.g. Nelson Port is unable to accommodate the large ships now plying a number of key trade routes, and can only be linked economically by coastal hubbing. This year's example of late undertakings of various Lines for extra loaders in the primary export season underlines the issue. There is further

evidence of even further exacerbation for our key production area in Marlborough where it can easily be calculated, what costs and environmental dis-benefits exist due to no coastal ship service there.

COMMISSIONS FRAMEWORK

We note that observations are made that some isolated producers may cite a lack of cost competitive access, and such operators may not fulfill proper international freight access requirements. We need to be careful that already existing producers do not find themselves in this predicament as international Lines embrace larger vessels and reduced port coverage, e.g. Nelson and Timaru.

ROLES OF GOVERNMENT IN FREIGHT TRANSPORT

One of the interesting areas here is GST. The Goods and Service Tax in NZ is meant to be a tax on consumption not on business. But because the tax tries to be a "catch all" it also captures some transactions that it shouldn't. A prime example is if you want to bring a vessel into NZ to trade on the coast, you are obliged to cover a GST component of 15 % of the vessel's value. For a reasonably modern vessel of about US\$25 million, this equates to funding requirement of approximately NZ\$5 million. Now this of course is claimed back and returned to the Enterprise, but it still has to be funded. A tax anomaly that should be dealt with.

3. INTERNATIONAL FREIGHT TRANSPORT

There is also mention of studies conducted over 6 major ports, but nothing about regional ports? This seems a bit surprising as there are considerable volumes of cargo existing as part of regional port catchments, e.g. Timaru 150,000 TEU, Marlborough 25,000-30,000 TEU and so on. The study should try to ensure these areas are inclusive in analysis and planning to achieve "best use cost" for transport infrastructure as it is very important to cover all areas, not just main ports.

With NZ's volume exports generally having a larger volume to value ratio, the cheapest and most efficient links to major export ports are critically important to these areas. While the examples cited of flowers to market by air can be understood, larger value earners such as wine, fish, shellfish, dairy and forestry products are rather a different element. A number of them also demand refrigerated sea container resource with its consequent requirements when it is long haul.

4. FUTURE FREIGHT TASK

a) PORTS

We wonder why we have different ports all separately developing systems and software with little sharing, even though, some ports do not compete with all others. One could make a case for mentoring assistance of some regional ports by other larger entities.

The report focuses quite a lot of ports, but relatively little on key elements that can bring greater returns for money already invested. In most cases, there is resource available in each port to handle forecast increases in volumes for some time into the future.

b) CARGO

We still have a scenario where our volumes of domestic cargo and its forecast growth are founded on best guess' data, yet a lot of this cargo is or has an international freight component (re-manufacture, redistribute etc.). These are derived from a myriad of sources. There should be a mandated reporting structure gathering all volumes, cargo types, seasonality, origins and destinations as this is imperative in forecasting our future freight task. Such a facility would also undoubtedly assist commodity and regional demand curve forecast certainly. Similarly, there is no available growth data for the industry, covering imports and

exports assessed regionally by commodity type e.g. there is dairying growth in Southland, but how much? What is available is disparate, and does not assist anyone to plan or consider investment and provision of infrastructure. Overseas this reporting is legislated and mandatory in a number of countries

- c) It was a shame that the Sea Fund created by the previous Labor government was disbanded by the incoming National government. While the fund was greater than needed, as a quantum, it was very modest compared to monies allocated for road and rail expenditure,

There does not need to be an ongoing subsidy for coastal shipping, but assistance with start up costs could smooth the funds projections requirements. Positioning costs for a vessel to start are about a NZ\$1 – NZ\$1.5 million and advance fuel fill up comes to a similar amount.

The uneven applications of Government expenditure on Rail and Road coupled with free access for international Lines to carry domestic cargo (with no need to address local pay conditions, OSH, taxes, or ACC and other levies), has ensured a lack of contestability for existing coastal operators as well as constraining new start innovation. Yet it seems obvious, that to get efficient movement of our exports from regional ports to key hub ports, in many cases, rail and road cannot do it at best cost, particularly as the size of the task grows.

5. ENVIRONMENT

Cases used for comparison of sea/rail/road CO₂ expelled for tonnes/km moved, all seem to base their research on overseas base data. Yet our country has very different topography to developed nations from where the comparative data has been compiled. We also have older less efficient trains, tracks and trucks. As far as we are aware, there has been no independent measuring system applied on our trains or trucks to assess the reality of the data being applied in these calculations. Even so, a case for serving directly by coastal feeder Port Marlborough (catchment somewhere greater than 20,000 TEU) follows (see attached).

Another aspect largely unidentified is the coupling of visiting vessels to our national power grid (process known as 'cold ironing'). Instead we rely on the vessels running their own fossil fuel generators with no control over particulate and sulphur expelling.

This together with control of exhaust pollution from vessels is something that should be considered as well, e.g. coastally operated vessels equipped with scrubbing fitment may be given credit value over international Lines on the coast not so equipped.

6. INVESTMENT CO-ORDINATION AND PLANNING

We note that the Commission states that the Government should be wary of calls for it to assume the normal commercial risks of other parties. And yet, one could argue that the size and nature of the investments being made by the Government in rail and road, is in reality un-commercial and has been to the detriment of commercial enterprises in coastal sea provision.

We also note the Commission calls for such investment to be much more rigorously screened, but the issue is that the investment has already been made, and there has been no countervailing activity or funding approved in any form for coastal shipping. This is indeed unbalanced.

The recent earthquakes that have affected Christchurch and Lyttelton port aptly demonstrate that having a balanced regional port coverage, is very much in the interest of NZ et al and our commercial industries.

7. PLANNING FOR LARGER SHIPS

We would contend a different scenario to the NZ Shippers Council. Rail struggles to be competitive inter island and even sometimes intra island. We would therefore see larger vessels necessitating hub ports and thereby greater demand for coastal shipping. This has proven already to be the case for Nelson port where greater reefer cargo, necessitates vessels carriage for its chilled cargoes.

In such a scenario regional ports would not scale back, rather their deep sea vessel calls would be replaced by coastal ships. It is possible that in fact, increased volumes could move through these ports where in a number of cases it will be more viable to connect by feeder vessel than by rail or road.

Hubbing ports will in the end be chosen by the international Lines (unless they are given fait accompli). Currently, both Auckland and Tauranga receive feeder cargos. In the earlier stages of movement towards hub and spoke, it is quite conceivable that other ports may be hubs for a period.

It is our view, that a hub and spoke system with an increased coastal shipping link will be an advantage for importers and exporters. A number of vessels providing fixed day weekly calls (or 2x weekly for some ports), is likely to ensure that all deep sea Lines will contest for cargo, and in some cases, where the current transport links are expensive, show marked transport savings. Further, if Australian hubbing is a fear, why not extend the NZ hubbing to Singapore instead?

As an example, the Baltic (an area that encompasses Western Russia, Poland, Eastern Germany, Estonia, Latvia, Lithuania, Finland and Eastern Sweden), has no direct containerised shipping links with areas outside northern Europe and is completely serviced via short haul feeder services, mainly to ports like Hamburg, Rotterdam and Zeebrugge/Antwerp.

The total population base in this area is around 190 million people and although some cargo moves via rail and road connections direct to North European ports, it should be noted that all major international shipping lines have opted for feeder services to/from all these countries. As a comparison, New Zealand has approximately 6% of this areas exports and 5% of their imports by value.

Auckland with its large population base (and the fastest growing), attracts the significantly largest share of inbound cargo, and this will not change. Thereby if the Port works productively well, it is a logical choice to empty out inbound cargoes here.

By comparison, Tauranga is the largest export port and last load port for a number of Lines plying the NZ trade.

Thereby both today make a valid case for international vessel calls and being hub/feeder ports for both international and domestic cargoes.

In the end, it is NZ Inc.'s interest to have a dynamic, well resourced coastal shipping presence. It allows regular serving of regional ports, and maximizes available transport mode choices for importers, exporters and domestic cargo interests. It also still leaves individual Lines with the ability to choose to call regional ports if they wish. Additionally, it also gives insurance to ongoing calls at one or more main NZ ports and obviates hubbing over Australia.

8. FEEDING/HUBBING & DOMESTIC FREIGHT TRANSPORT

While there seems to be wide support for increased use of coastal shipping, industry wide, this is not reflected in current Government policy.

The contestable volumes advanced in your document are to some extent a value of existing coverage and services. An increased footprint for coastal shipping giving higher frequency and greater regional port coverage would no doubt have an effect on these. There is a little doubt that Governments' previous subsidies to rail, allowed rail to adopt a rapacious attitude to competing coastal shipping operators, but the picture going forward may change if rail is forced to provide a normal commercial return (excepting subsidised metro passenger requirements).

We also note the comments regarding transit times for coastal vessels compared to rail and road. However, it should be noted, if vessels are scheduled on key route task at optimum times (say, late Friday cut off Auckland for Sunday arrival Lyttelton/Timaru and thereby cargo availability Monday morning), then the comparison can be more favourable. We would have to question Kiwirails aim of targeting key, interisland cargo volumes, as it is likely that over time, as larger deep sea vessels call, and larger feeder vessels are deployed on the NZ coast, the slot costs these vessels can allow will no doubt further improve the economics of domestic cargo that is not time sensitive moving by sea. After all, for feeding operations, many of the international Lines spend up to one week on the coast here, so a feeder vessel that provides the furthest flung cargoes to a hub port (generally last port for the International Lines) inside 4-5 days does not disadvantage total transit anyway.

We do not advocate for the return of cabotage, but we do advocate international operators paying local levies consistent with NZ domiciled operators, so as in Australia, why not have them pay similar overheads. After all, local operators are supporting NZ Inc. and local labour force, yet get penalised for it. This is poor policy and leaves the control of too much of our destiny in foreign hands!

Thank you for the opportunity of input.



Noel Thompson

Email : noel@cargo.co.nz

Phone : Business +64 9 5241810, mobile +64 274 366169

Cargo Co-ordinators Shipping Agencies Ltd

Marine Feeders Ltd



CO2 emissions from various transport modes.

For the New Zealand coastal shipping calculation, we have tried to find the most relevant data among all studies that has been made in recent times mainly in Europe and USA. Almost all studies are based on a scientific number describing the emission of CO2 per KWh of power using standard fuels relevant for the type of transport, diesel oil for Rail and trucking and Heavy Fuel Oil for shipping.

This number has then been used calculating the emission per tonne km, using average numbers for load factors and size of transport vehicle. For trucking a standard 20t Eu cat 2 or 3 is used for EU numbers while an average Australian truck is used for their calculations. In regard to trains, we have not been able to find what size train it is based on, but would assume that it is a standard freight train, pulling 1000 - 1500 tonnes.

In shipping, the power used per unit is decreasing with increased size of the vessel, but for the vessels we intend to use, 1100 - 1200 teu vs. the difference is negligible.

To use the number in the tables below, each user will have to apply the numbers to their situation. If the user is using a combination of the modes, each mode has to be calculated separately and then added to the total and then compared to the total of any other combined transport.

Please note that due to the lack of standard NZ numbers, Marine Feeders will not take any responsibility for the accuracy of the numbers in the table, this responsibility belongs to each author at the source. We do believe, however, that these numbers represent a fair evaluation of the NZ transport environment.

From European sources - generally more modern equipment and more stringent regulations.

	CO2 (g/tkm)	
1500 TEU Container ship	12.9	Original Source: Kristensen, H.O. Cargo Transport by Original Source: Network for Transport and the Original Source: Network for Transport and the
Euro 2 / 3 truck (20t cargo cap.)	50.4	
Diesel rail, EU standard	17	

From Australian sources, likely to be similar to New Zealand conditions.

Source: Total Environment Centre, Sydney / AGO 2007, Department of the

	CO2 (g/tkm)
Air	1422
Road	
Light Commercial	1294
Rigid Trucks	183
Articulated Trucks	60
Rail	20
Coastal Shipping	13

Typical distances in New Zealand (No access to rail distances)

Sea		KM	Road		KM
Picton - Tauranga	952		Blenheim - Picton	28	
Picton - Auckland	1119		Blenheim - Nelson	116	
Lyttelton - Picton	396		Onehunga - Akl wharf	15	
Nelson - Onehunga	513		Onehunga - Tauranga	205	
Nelson - Auckland	1176		Blenheim - Lyttelton	328	
Nelson - Tauranga	1054		Blenheim - Port Otago	670	



VALUE OF DIRECT VESSEL CALL TO MARLBOROUGH - WINE ONLY

Calculations :

1. Extra domestic freight costs (Wine Product Only)

Empty Container Costs to Marlborough	Freight	Fuel 12.18%	Total
Lyttelton to Blenheim	\$850.00	\$103.53	\$953.53
Nelson to Blenheim	\$170.00	\$20.71	\$190.71
			\$1,144.24
			average = \$572.12

Full Container Costs to Export Port	Full Container Freight Costs	Fuel Levy 12.18%	Total	Empty Container Freight Costs	Total Existing Cost	Marine Feeders Ex Door	Difference That Can Be Saved
Blenheim to Nelson	\$515.00	\$62.73	\$577.73	\$572.12	\$1,149.85	\$1,275.00	-\$125.16
Blenheim to Lyttelton	\$1,231.00	\$149.94	\$1,380.94	\$572.12	\$1,953.05	\$1,275.00	\$678.05
Blenheim to Tauranga	\$1,488.00	\$181.24	\$1,669.24	\$572.12	\$2,241.36	\$1,275.00	\$966.36
Blenheim to Napier	\$1,359.00	\$165.53	\$1,524.53	\$572.12	\$2,096.64	\$1,275.00	\$821.64
Blenheim to Auckland	\$1,488.00	\$181.24	\$1,669.24	\$572.12	\$2,241.36	\$1,275.00	\$966.36
** Blenheim to Tauranga	\$1,488.00	\$181.24	\$1,669.24	\$190.71	\$1,859.94	\$1,275.00	\$584.94
** Blenheim to Lyttelton	\$1,231.00	\$149.94	\$1,380.94	\$190.71	\$1,571.64	\$1,275.00	\$296.64

**** This is a best case scenario where the empties are uplifted from Nelson port and then the finished wine is sent to export port**

3. Effects of Reduction Of Cartage With POM Direct Call

Mileage Nelson - Blenheim is 116km, mileage Picton - Blenheim is 28 km

No cost of shipping has been calculated, as this is purely what is saved by offering Picton port on the road haul portion. It does not show the other savings also won by the rail portion to Port Chalmers (or other ports) and the share of finished cargo moved by road to Auckland.

*** This for a round trip, 12/mt gross with empty bottles and 4/mt (empty) return trip to Nelson averaged as 8/mt**

**** This for a round trip, 24/mt gross with bulk wine taktainer and 4/mt (empty) return trip to Nelson averaged as 14/mt**

Nelson - Blenheim	Road distance:	232 km	Ind area - wharf:	56 km
Auckland Lyttelton	Road distance:	1086 km	Ind area - wharf:	40 km

Year (1)	Cargo type	Av. Weight / container	Weekly volume	Net km - tonnes (2)	\$ / km - tonnes (3)	Benefits (4) = (2) x (3)	Discount factor (5)	Present value of benefits (6) = (4) x (5)
1	* Mty bottles	8	40	2,928,640	\$ 0.220	\$ 644,300.80	0.93	\$ 599,200
	** Tanktainer Wine	14	20	2,562,560	\$ 0.220	\$ 563,763.20	0.93	\$ 524,300
	Export wine	12	80	8,785,920	\$ 0.220	\$ 1,932,902.40	0.93	\$ 1,797,599
	Bulk Wine	25						
	Domestic sb cargo	12	20	13,054,080	\$ 0.220	\$ 2,871,897.60	0.93	\$ 2,670,865
	Totals year 1		160	27,331,200	\$ 0.220	\$ 6,012,864.00	0.93	\$ 5,591,964
2	* Mty bottles	8	40	2,928,640	\$ 0.220	\$ 644,300.80	0.86	\$ 554,099
	** Tanktainer Wine	14	20	2,562,560	\$ 0.220	\$ 563,763.20	0.86	\$ 484,836
	Export wine	12	80	8,785,920	\$ 0.220	\$ 1,932,902.40	0.86	\$ 1,662,296
	Domestic sb cargo	12	20	13,054,080	\$ 0.220	\$ 2,871,897.60	0.86	\$ 2,469,832
		Totals year 2		160	27,331,200	\$ 0.220	\$ 6,012,864.00	0.86
3	* Mty bottles	8	40	2,928,640	\$ 0.220	\$ 644,300.80	0.79	\$ 508,998
	** Tanktainer Wine	14	20	2,562,560	\$ 0.220	\$ 563,763.20	0.79	\$ 445,373
	Export wine	12	80	8,785,920	\$ 0.220	\$ 1,932,902.40	0.79	\$ 1,526,993
	Domestic sb cargo	12	20	13,054,080	\$ 0.220	\$ 2,871,897.60	0.79	\$ 2,268,799
		Totals year 3		160	27,331,200	\$ 0.220	\$ 6,012,864.00	0.79
4	* Mty bottles	8	40	2,928,640	\$ 0.220	\$ 644,300.80	0.74	\$ 476,783
	** Tanktainer Wine	14	20	2,562,560	\$ 0.220	\$ 563,763.20	0.74	\$ 417,185
	Export wine	12	80	8,785,920	\$ 0.220	\$ 1,932,902.40	0.74	\$ 1,430,348
	Domestic sb cargo	12	20	13,054,080	\$ 0.220	\$ 2,871,897.60	0.74	\$ 2,125,204
		Totals year 4		160	27,331,200	\$ 0.220	\$ 6,012,864.00	0.74
5	* Mty bottles	8	40	2,928,640	\$ 0.220	\$ 644,300.80	0.68	\$ 438,125
	** Tanktainer Wine	14	40	5,125,120	\$ 0.220	\$ 1,127,526.40	0.68	\$ 766,718
	Export wine	12	80	8,785,920	\$ 0.220	\$ 1,932,902.40	0.68	\$ 1,314,374
	Domestic sb cargo	12	20	13,054,080	\$ 0.220	\$ 2,871,897.60	0.68	\$ 1,952,890
		Totals year 5		180	29,893,760	\$ 0.220	\$ 6,576,627.20	0.68
						(11):		\$24,434,815

\$ 24,434,815 This figure is the calculation of savings that could be generated by substituting truck freight miles for carriage by sea of the above wine cargoes solely over a 5 year period. This only represents about 50% of the wine movements for the Marlborough area, thereby represents approx 30% of the catchment cargo