



Australian Government

Department of Transport and Regional Services

Bureau of Transport and Regional Economics

Information sheet 22

FREIGHT *between Australian* IS 22 **CITIES** 1972 to 2001

The BTRE has recently completed estimates of non-bulk freight flows over seven inter-city corridors for three decades from 1972 to 2001. Earlier estimates to 1995 were published in Information Sheet 17.

An examination of this data shows some interesting patterns emerging.

- (1) Inter-capital non-bulk freight flows have grown faster than national income. Over the periods 1972 to 1980 and 1980 to 1990, the freight growth rate was on average 1.3 times the growth rate for the economy as a whole. Between 1990 and 2000 inter-capital freight grew at 1.5 times the growth rate of the economy.
- (2) Non-bulk sea freight has declined on most corridors, but since the mid 1990s has come back strongly on the Eastern Capitals to Perth's route (at the expense of road).
- (3) Although total inter-capital non-bulk rail freight has increased since the early 1970s, it has not grown as quickly as road freight. Rail's share of the inter-capital non-bulk task has fallen on almost all the corridors. The effect is more pronounced the shorter the corridor.
- (4) If the relationship between freight flows and national income of the recent past holds, then there will be substantial future growth in **total non-bulk freight** in all of the corridors considered (2020 freight flows forecast to average **twice** their 2000 levels). If road continues to slowly increase mode share relative to rail, the growth in **road freight** will be even greater (**2.2 times**). (The growth of inter-capital freight is higher than the growth in total non-bulk freight, which includes slower-growing traffics.)
- (5) The trend for rail to lose mode share could only be reversed by a significant reduction in costs or a major improvement in rail's quality of service, relative to continually improving road service levels.
- (6) Local truck traffic often outnumbers intercity truck traffic on the National Highway System, especially along sections of the highway with substantial local populations and industries.

Turning to the individual corridors:

Sydney–Canberra is a short route (315 km). Over short distances, where pick-up and delivery costs will necessarily comprise a higher share of total rail costs, line-haul rail has the greatest difficulty competing. Since 1980, non-bulk rail traffic has almost totally died away, although there is still sizeable movements of bulk freight by rail into the ACT.

Melbourne–Adelaide (740 km) road freight has benefited from the opening of the freeway through the Adelaide Hills and from the progressive introduction of B-doubles, turning this route into one where road is favoured.

Melbourne–Sydney (930 km) has by far the largest freight flow. Non-bulk sea traffic is minimal (steel is counted as bulk). Road and rail shares have been mirror images, with rail not sharing in growth, and thus steadily losing mode share.

Sydney–Brisbane (1000 km) has a similar pattern. After gaining share in the early 1970s due to the decline in coastal shipping, rail has been losing mode share.

On the Sydney–Adelaide (1550 km) corridor, rail gained some rail-specific traffics in the late 1980s. However, this temporary boost to its mode share has since given way to a resumed decline in share.

On the Melbourne–Brisbane corridor (1850 km), which has a market size about half of Sydney–Brisbane, the decline in rail's share has reversed in the late 1990s with a new rail link to the port of Brisbane and with the introduction of non-stop trains and other improvements to the service. This is an important illustration that it is not impossible for rail to make the kind of improvements necessary to regain share from road.

The Eastern Capitals to Perth route (3400 km) is the most favourable of the seven corridors for rail. Pick-up and delivery costs are a smaller proportion of total rail freight costs than on shorter routes. Rail has largely retained its share, due to an historical legacy of good infrastructure, complemented in recent years by strategically targeted investment that has enabled significant reductions in freight tariffs to be introduced. Since 1997, there has been a large increase in coastal shipping under Single and Continuous Voyage Permits. This increase in shipping share has come mainly at the expense of road.

Data Issues

Rail data for the 1998 to 2001 years was derived from the ABS Freight Movements Survey State-State origin destination data, with City–City traffic assumed in most cases to be a similar fraction of the State-State traffic as in 1995 to 1997 (for which actual City–City data was available). After 1997 the recently privatised railways have declined to permit public release of City–City data. This raises difficulties for any future estimates of what are important rail traffics on the Australian rail network. The 2001 road freight estimates were based on a one-off ABS Freight Movements Survey of articulated trucks in that year.

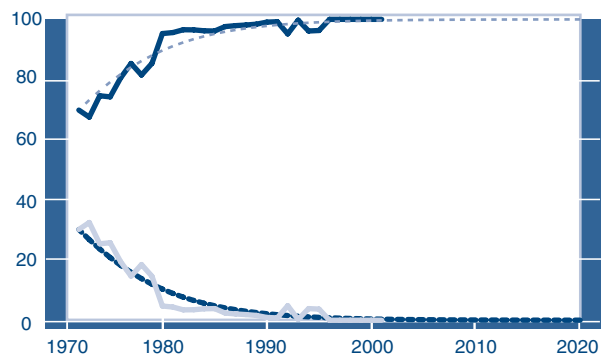
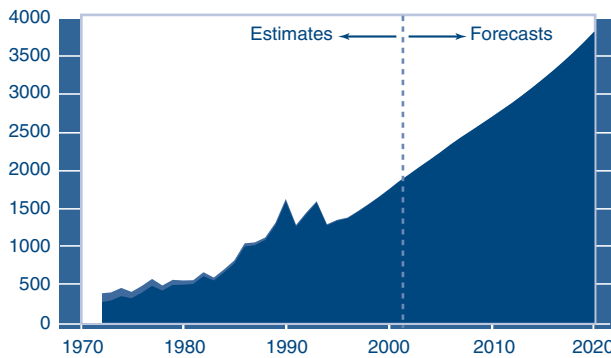
The seven corridors in graphs

ANNUAL TONNAGES (Kt)

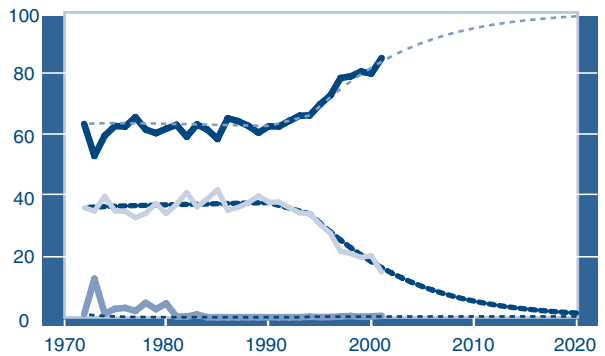
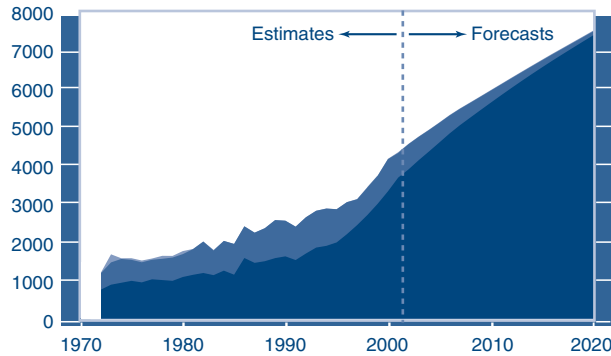
PER CENT SHARE

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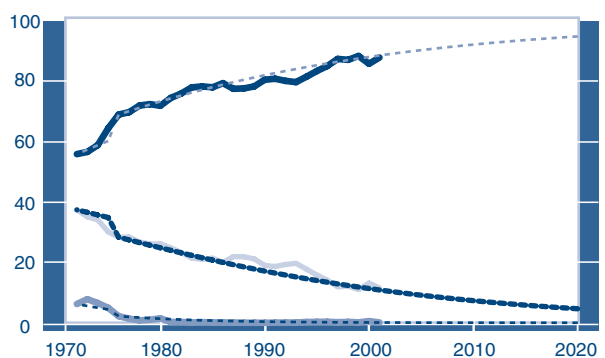
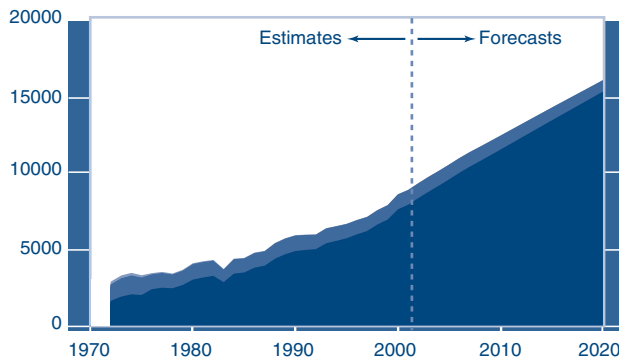
Canberra–Sydney (315 km)



Melbourne–Adelaide (740 km)



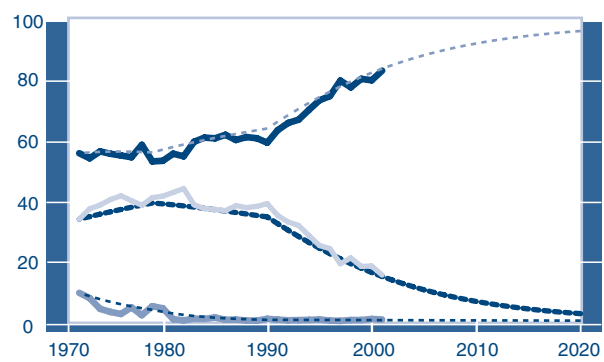
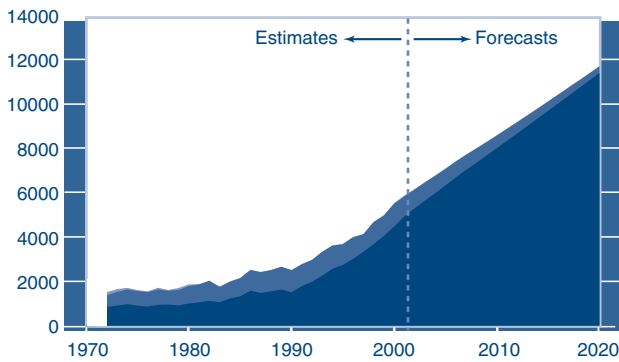
Melbourne–Sydney (930 km)



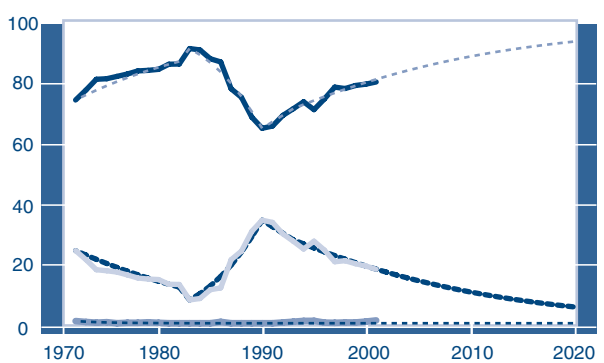
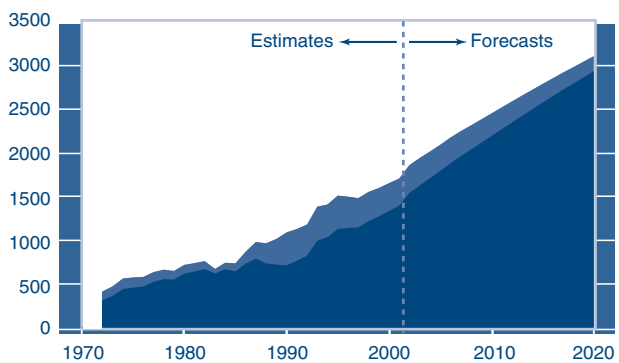
ANNUAL TONNAGES (Kt)

PER CENT SHARE

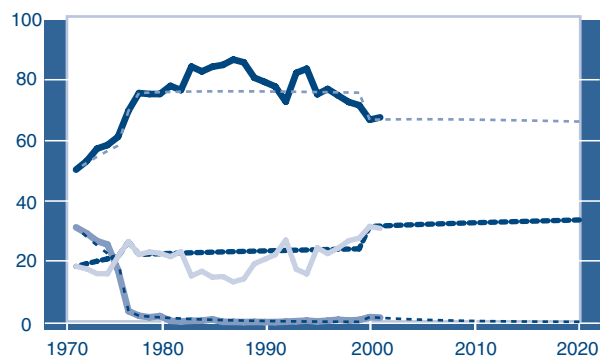
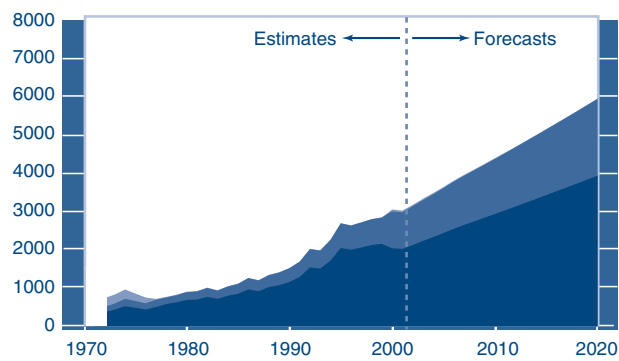
Sydney–Brisbane (1000 km)



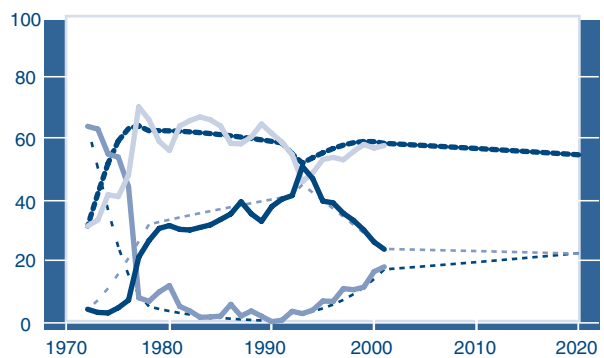
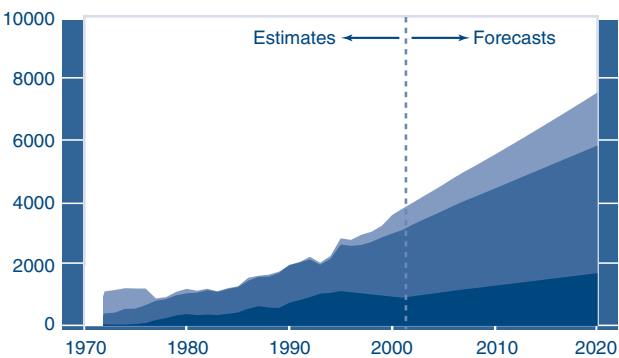
Sydney–Adelaide (1550 km)



Melbourne–Brisbane (1850 km)



Eastern Capitals–Perth (3400 km)



Annual tonnages (kilotonnes) for the seven corridors.

Year	Melbourne-Sydney				Sydney-Brisbane				Melbourne-Brisbane				Sydney-Adelaide				Melbourne-Adelaide				Eastern States-Perth				Sydney-Canberra				Total all seven corridors						
	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea	Total	Road	Rail	Sea
1972	1616	1082	180	2878	850	516	143	1509	370	135	230	735	310	101	3	414	750	425	12	1187	50	352	714	1116	268	116	0	384	4214	2727	1282	8223			
1973	1864	1156	257	3277	900	620	127	1647	440	146	243	829	880	579	210	1669	880	579	210	1669	40	389	732	1161	268	129	0	397	4762	3120	1571	9463			
1974	2039	1183	227	3449	970	663	70	1703	550	154	257	961	460	101	1	562	930	619	18	1567	40	509	671	1220	340	116	0	456	5329	3345	1244	9918			
1975	2130	998	164	3292	900	654	49	1603	500	136	219	855	470	101	2	573	980	545	43	1568	60	498	653	1211	300	104	0	404	5340	3036	1130	9506			
1976	2378	977	76	3431	860	651	37	1548	460	163	129	752	480	99	0	579	940	522	46	1508	90	583	536	1209	388	94	0	482	5596	3089	824	9509			
1977	2461	1007	11	4298	940	691	79	1710	500	190	26	716	530	103	1	634	1020	508	32	1560	190	624	73	887	490	84	0	574	6132	3201	259	9592			
1978	2461	916	27	3404	950	624	32	1606	580	171	16	767	1000	553	77	1630	1000	553	77	1630	250	617	66	933	398	90	0	488	6198	3072	219	9489			
1979	2654	957	36	3647	910	704	85	1699	620	191	13	824	980	605	43	1628	980	605	43	1628	340	652	112	1104	480	82	0	562	6534	3287	291	10112			
1980	2948	1072	61	4081	1000	780	80	1860	680	205	18	903	1080	594	79	1753	1080	594	79	1753	380	673	146	1199	528	26	0	554	7226	3455	385	11066			
1981	3150	1049	10	4209	1051	808	12	1871	717	199	4	920	1137	668	3	1808	1137	668	3	1808	346	729	62	1137	533	24	0	557	7575	3573	91	11239			
1982	3280	1007	11	4298	1118	899	5	2022	772	234	2	1008	1184	814	5	2003	1184	814	5	2003	364	791	47	1202	639	23	0	662	8017	3867	70	11954			
1983	2900	798	4	3702	1058	686	14	1758	793	143	4	940	1128	639	16	1783	1128	639	16	1783	349	751	21	1121	571	21	0	592	7417	3090	59	10566			
1984	3450	925	9	4384	1227	751	15	1993	865	175	5	1045	1140	799	0	1939	1140	799	0	1939	433	805	24	1218	672	27	0	699	8527	3516	53	12096			
1985	3470	952	5	4427	1322	808	26	2156	939	165	10	1114	1140	799	0	1939	1140	799	0	1939	433	805	24	1218	786	32	0	818	8742	3661	70	12473			
1986	3810	961	5	4776	1573	932	11	2516	1072	190	1	1263	1140	799	0	1939	1140	799	0	1939	554	912	95	1561	1016	25	0	1041	10357	3946	116	14419			
1987	3810	1078	4	4892	1470	938	12	2420	1042	160	1	1203	1447	784	0	2396	1447	784	0	2396	640	946	37	1623	1032	22	0	1054	10211	4135	54	14400			
1988	4520	1188	1	5409	1548	954	5	2507	1149	191	0	1340	1447	784	0	2396	1447	784	0	2396	590	1005	65	1660	1097	21	0	1118	10823	4451	71	15345			
1989	4500	1217	2	5719	1629	1022	4	2655	1135	271	1	1407	1447	784	0	2396	1447	784	0	2396	581	1138	39	1758	1291	21	0	1312	11406	4969	46	16421			
1990	4790	1131	0	5921	1629	990	19	2513	1203	315	0	1518	1447	784	0	2396	1447	784	0	2396	578	1138	9	1975	1609	15	0	1624	12182	4970	28	17180			
1991	4840	1116	3	5959	1778	984	14	2776	1313	376	0	1689	1447	784	0	2396	1447	784	0	2396	834	1218	19	2071	1273	10	0	1283	12304	4951	36	17291			
1992	4810	1159	4	5973	1973	987	8	2968	1467	546	3	2016	1447	784	0	2396	1447	784	0	2396	928	1225	85	2238	1377	70	0	1447	13064	5283	103	18450			
1993	5110	1263	6	6379	2255	1071	11	3337	1627	345	6	1978	1447	784	0	2396	1447	784	0	2396	1041	940	63	2044	1590	4	0	1594	14461	4959	93	19513			
1994	5540	1163	17	6720	2565	1039	15	3619	1886	358	11	2255	1447	784	0	2396	1447	784	0	2396	1067	1107	95	2269	1241	50	0	1291	15033	5034	154	20221			
1995	5590	1060	21	6671	2732	935	20	3687	2021	660	6	2687	1447	784	0	2396	1447	784	0	2396	1125	1509	203	2837	1300	50	0	1350	15826	5491	263	21580			
1996	5916	983	23	6922	3014	971	7	3992	2023	594	12	2629	1447	784	0	2396	1447	784	0	2396	1089	1501	196	2786	1379	0	0	1379	16738	5247	243	22228			
1997	6262	855	13	7130	3325	793	3	4121	2026	662	21	2709	1447	784	0	2396	1447	784	0	2396	1054	1566	330	2950	1463	0	0	1463	17730	4850	377	22957			
1998	6627	921	23	7571	3669	992	17	4678	2028	750	14	2792	1447	784	0	2396	1447	784	0	2396	1018	1702	331	3051	1553	0	0	1553	18806	5402	403	24611			
1999	7014	873	11	7898	4047	914	18	4979	2031	786	20	2837	1447	784	0	2396	1447	784	0	2396	982	1884	378	3244	1648	0	0	1648	19975	5501	436	25912			
2000	7423	1139	47	8609	4465	1022	39	5526	2033	961	50	3044	1447	784	0	2396	1447	784	0	2396	947	2043	600	3590	1749	0	0	1749	21245	6316	756	28317			
2001	7856	1032	10	8898	4926	905	31	5862	2036	932	45	3013	1447	784	0	2396	1447	784	0	2396	911	2192	694	3797	1856	0	0	1856	22625	6008	817	29450			
2002	8357	978	7	9342	5289	845	20	6155	2117	1008	39	3163	1447	784	0	2396	1447	784	0	2396	958	2323	706	3986	1943	6	0	1949	24074	6132	782	30988			
2003	8777	978	7	9762	5635	814	20	6469	2224	1063	35	3322	1447	784	0	2396	1447	784	0	2396	1003	2433	752	4189	2041	5	0	2046	25416	6211	825	32452			
2004	9174	974	6	10155	5969	778	20	6768	2325	1115	32	3473	1447	784	0	2396	1447	784	0	2396	1046	2537	798	4381	2134	5	0	2139	26693	6272	868	33833			
2005	9588	970	6	10564	6316	744	21	7081	2430	1170	29	3630	1447	784	0	2396	1447	784	0	2396	1091	2645	846	4582	2231	4	0	2236	28015	6343	914	35272			
2006	10018	966	5	10989	6676	711	21	7407	2540	1228	26	3793	1447	784	0	2396	1447	784	0	2396	1137	2758	898	4793	2333	4	0	2337	29385	6425	963	36773			
2007	10415	957	5	11376	7015	675	21	7711	2640	1281	23	3945	1447	784	0	2396	1447	784	0	2396	1180	2861	948	4988	2428	3	0	2431	30653	6486	1010	38149			
2008	10782	944	4	11730	7336	637	21	7994	2734	1331	21	4086	1447	784	0	2396	1447	784	0	2396	1219	2956	996	5171	2516	3	0	2519	31833	6531	1056	39420			
2009	11157	931	4	12091	7663	601	21	8285	2829	1383	19	4230	1447	784	0	2396	1447	784	0	2396	1259	3053	1047	5358	2606	3	0	2608	33031	6583	1105	40719			
2010	11537	917	3	12457	7995	567	21	8582	2925	1435	17	4377	1447	784	0	2396	1447	784	0	2396	1299	3151	1099	5549	2697	2	0	2700	34242	6642	1155	42039			
2011	11920	903	3	12826	8330	533	21	8884	3022	1488	15	4526	1447	784	0	2396	1447	784	0	2396	1340	3250	1154	5743	2790	2	0	2792	35460	6706	1208	43375			
2012	12303	888	3	13194	8665	501	21	9186	3119	1542	13	4674	1447	784	0	2396	1447	784	0	2396	1381	3348	1210	5939	2883	2	0	2885	36673	6774	1262	44709			
2013	12688	872	2	13563	9003	471	20	9494	3218	1597	12	4827	1447	784	0	2396	1447	784	0	2396	1422	3448	1267	6137	2984	1	0	2986	37899	6847	1319	46065			
2014	13070	856	2																																