

Australian construction outlook

Forecasting service

EXTRACT

Resources – April 2017



macromonitor

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Table 1**Value of Resources Construction Work Done - Australia**

Chain Volume Measures - 2014/15 Prices

Year Ended June	Oil, Gas & Other Hydrocarbons		Bauxite, Alumina & Aluminium		Coal & Coal Handling		Other Minerals		Other Heavy Industry		Total	
	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
2012												
2013												
2014												
2015												
2016												
Forecasts												
2017												
2018												
2019												
2020												
2021												
2022												
2023												
2024												
2025												
2026												
Average Annual Growth Rates												
2006-2011												
2011-2016												
Forecasts												
2016-2021												
2021-2026												

All data available in report

All data available in report

Source: ABS & Macromonitor

1.2 NOTE ON MARKET ESTIMATES

The total value of resources construction activity is best measured by data from the ABS Engineering Construction Survey, published in *Engineering Construction Activity, Australia*, catalogue number 8762.0. The specific categories of engineering construction which relate to resources construction are as follows:

- **Oil, gas and other hydrocarbons** – includes on-site assembly and erection of industrial plant and equipment associated with the oil industry – also various services associated with crude petroleum and natural gas production are included e.g. oil and gas rig assembly, casing and erecting,
- **Coal and coal handling** – includes on-site assembly and erection of industrial plant and equipment associated with coal mining – also various services associated with coal mining are included e.g. shaft sinking, tunnelling, initial overburden removal,
- **Bauxite, alumina and aluminium** – includes on-site assembly and erection of industrial plant and equipment associated with aluminium production – also various services associated with bauxite mining, underground or open cut, are included e.g. shaft sinking, tunnelling, initial overburden removal,
- **Other minerals** – as for the above two categories, but related to other minerals e.g. gold, iron ore, and
- **Other Heavy Industry** – includes construction of chemical plants; blast furnaces; steel mills; other industrial processing plants; ovens.

The value of construction activity in these categories in 2015/16 is provided in Chart 5.

Chart 5

Annual Value of Resources Construction Australia - 2015/16

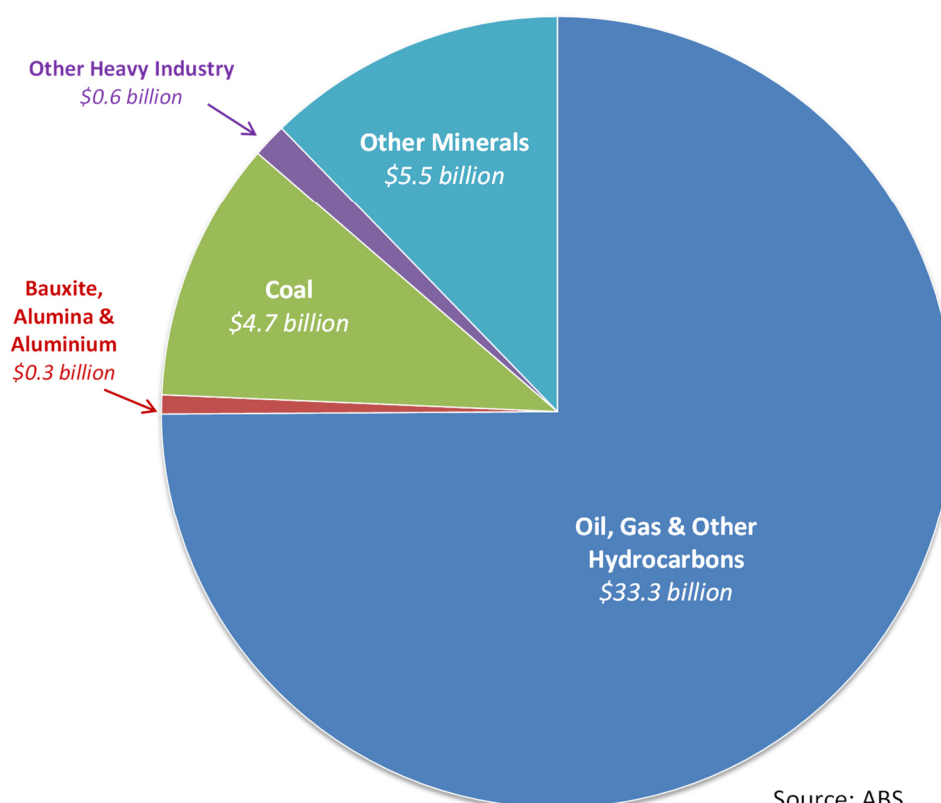


Table 2**Value of Total Resources Construction Work Done - Australia & States**

Chain Volume Measures - 2014/15 Prices

Year Ended June	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
Forecasts								
2017								
2018								
2019								
2020								
2021								
2022								
2023								
2024								
2025								
2026								
Annual Percentage Change								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
Forecasts								
2017								
2018								
2019								
2020								
2021								
2022								
2023								
2024								
2025								
2026								

All data available in report

All data available in report

Source: ABS & Macromonitor

Table 3**Value of Total Resources Construction Commencements - Australia & States**

Chain Volume Measures - 2014/15 Prices

Year Ended June	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
Forecasts								
2017								
2018								
2019								
2020								
2021								
2022								
2023								
2024								
2025								
2026								
Annual Percentage Change								
2012								
2013								
2014								
2015								
2016								
Forecasts								
2017								
2018								
2019								
2020								
2021								
2022								
2023								
2024								
2025								
2026								

All data available in report

All data available in report

Source: ABS & Macromonitor

Table 4**Value of Resources Construction Commencements - Australia**

Chain Volume Measures - 2014/15 Prices

Year Ended June	Oil, Gas & Other Hydrocarbons		Bauxite, Alumina & Aluminium		Coal & Coal Handling		Other Minerals		Other Heavy Industry		Total	
	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
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2015												
2016												
Forecasts												
2017												
2018												
2019												
2020												
2021												
2022												
2023												
2024												
2025												
2026												
Average Annual Growth Rates												
2006-2011												
2011-2016												
Forecasts												
2016-2021												
2021-2026												

All data available in report

All data available in report

Source: ABS & Macromonitor

1.5 BAUXITE, ALUMINA & ALUMINIUM

Bauxite, alumina and aluminium construction in Australia is highly cyclical. Construction is associated with major alumina refinery and smelter expansions (as well as new projects), and bauxite mine developments.

After almost a decade of very strong construction work in the sector, work done has fallen sharply since 2011/12. The value of work has fallen from \$2.7b in 2010/11 to \$345m in 2015/16, reaching lowest levels in over a decade. Activity is now on the rise, rising in the second half of 2016. We expect work done to trend upwards over the forecast horizon, although remaining well below the highs of recent years.

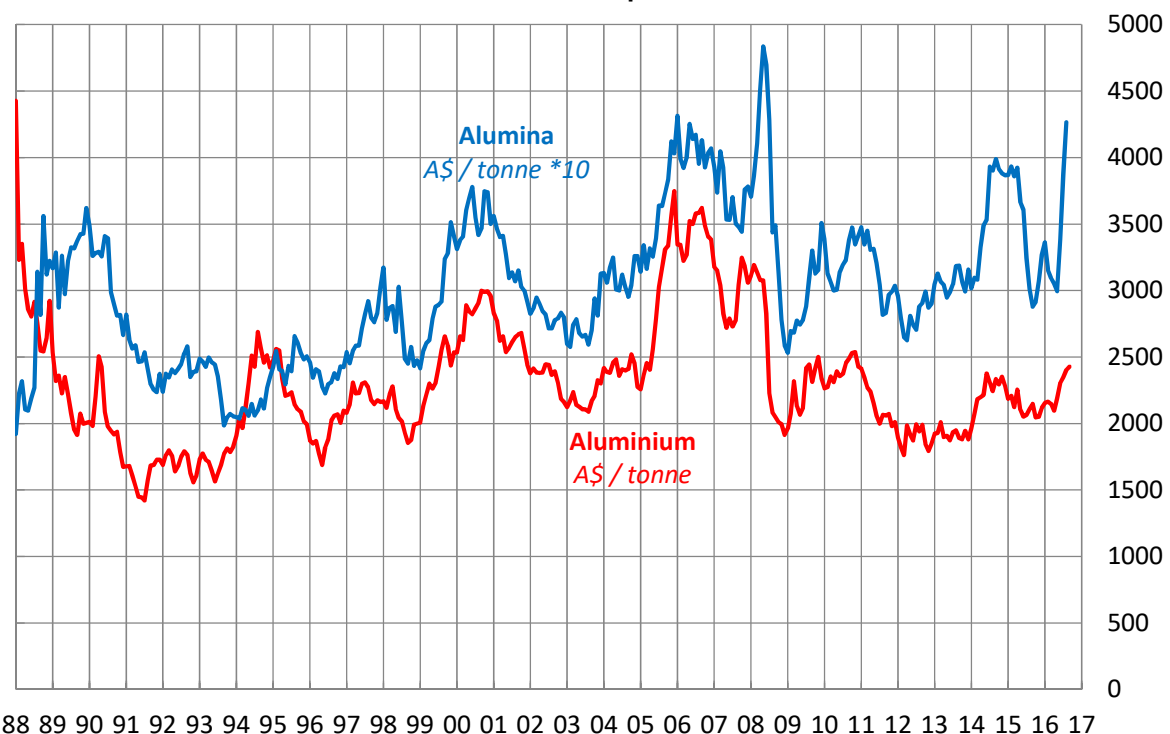
Construction activity in this sector was especially strong from 2004/05 to 2011/12, coinciding with a boom in aluminium demand, particularly from China, and a lift in prices. The strong growth in construction activity over 2004/05 and 2005/06 was primarily driven by the \$2.3 billion Gove Alumina refinery expansion, and expansions at the Worsley and Pinjarra refineries in WA.

Another jump in activity occurred in 2008/09, associated with expansions at the Yarwun refinery and Boyne Island smelter in Queensland, and also at Worsley in WA. These projects, combined with some smaller projects such as the Darling Range DSO project in WA, sustained strong levels of construction in 2009/10, 2010/11 and 2011/12. The completion of these projects has seen activity fall to its lowest levels in a decade.

Looking ahead, activity is expected to be supported by Rio Tinto's \$1.9bn South of Embley (Amrun) expansion at its Weipa mine. After that, the \$1.5bn BAJV Alumina refinery in Western Australia is forecast to get underway from 2019/20.

Chart 10

Alumina & Aluminium Prices - A\$



June

Source: BREE, LME & Macromonitor

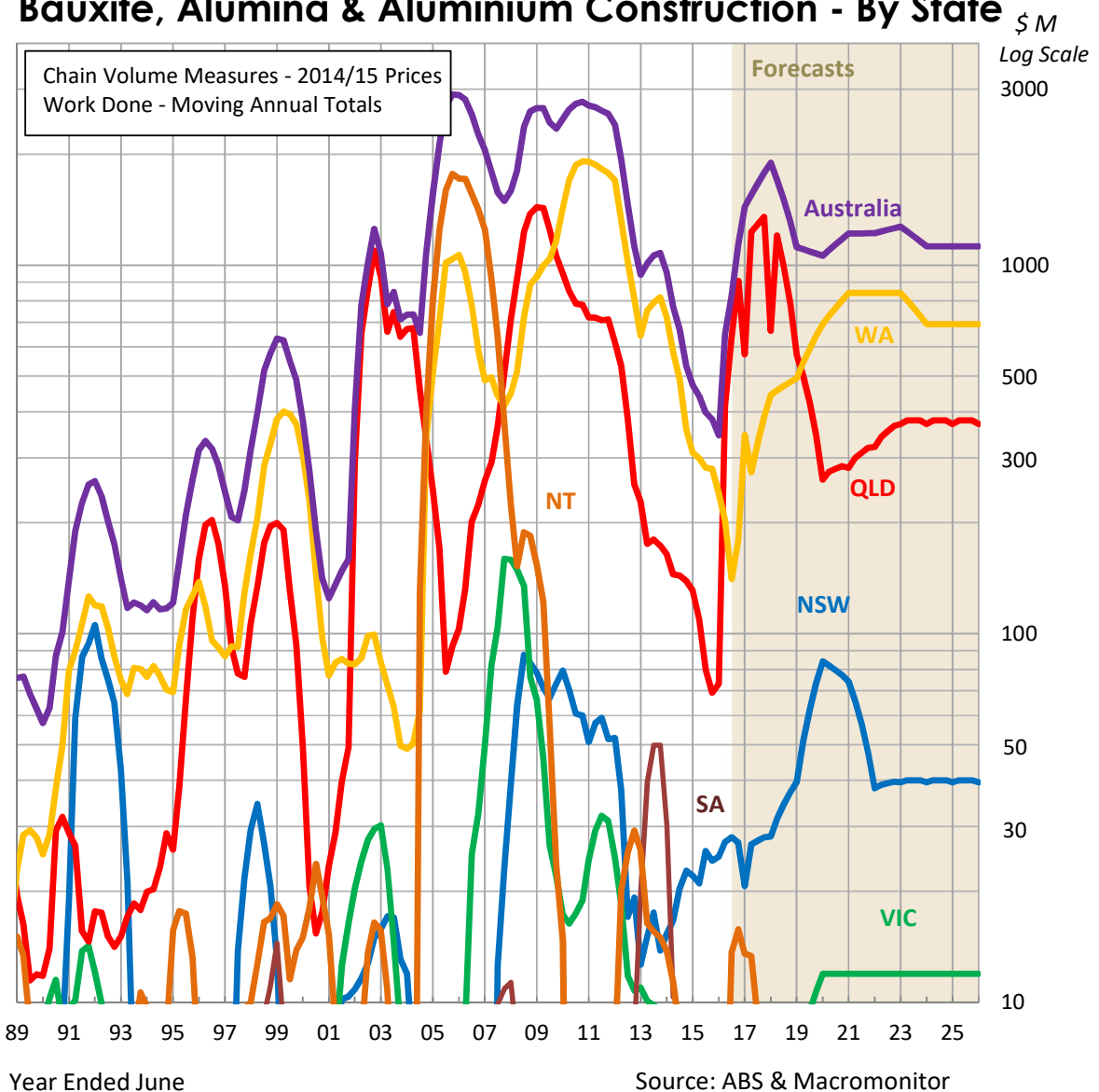
Chart 11**Bauxite, Alumina & Aluminium Construction - By State**

Table 8
Selected Major Projects Included in Forecasts - Australia
Bauxite, Alumina & Aluminium

Project	Company	Cost (\$M)* 2006-26	2006-2016	Assumed Work Done by Year (Year Ended June)											
				2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		
New South Wales															
Goulburn South Bauxite Project	Australian Bauxite Ltd	20				10	10								
Goulburn North Bauxite Project	Australian Bauxite Ltd	90					45	45							
Queensland															
South of Embley (Amrun) including expansion	Rio Tinto Alcan	2900		1100	1300	500									
Binjour bauxite mine	Australian Bauxite Ltd	50					25	25							
Bauxite Hills	Metro Mining Ltd	46			46										
Western Australia															
BAJV Alumina refinery	Bauxite Resources/Yankuang	1500					250	450	450	350					
Fortuna Project	Bauxite Resources	100			50	50									
Felicitas Bauxite Mining Project	Bauxite Resources/Yankuang	100				50	50								
* Mining construction component											Source: Macromonitor				

Source: Macromonitor

Chart 12

Australia - Bauxite, Alumina & Aluminium Construction

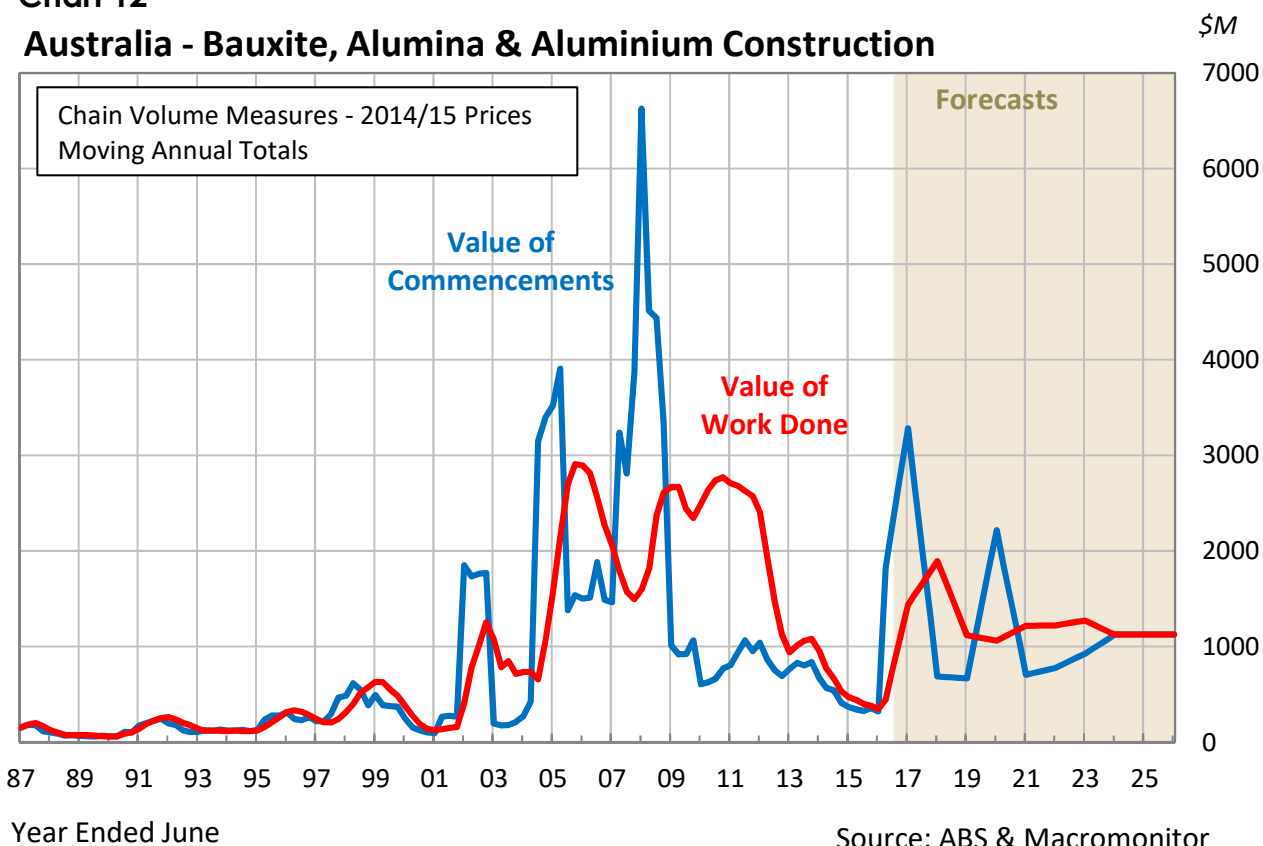


Table 9
Value of Bauxite, Alumina & Aluminium Construction Work Done - Australia & States

Chain Volume Measures - 2014/15 Prices

Year Ended June	NSW	VIC	QLD	SA	WA	TAS	NT	AUSTRALIA
	\$M	\$M	\$M	\$M	\$M	\$M	\$M	\$M
1998	29	4	107	-	164	1	10	315
1999	13	3	200	14	383	1	18	632
2000	0	7	49	1	305	1	15	377
2001	5	4	23	-	77	0	15	125
2002	11	20	291	0	83	-	2	407
2003	16	30	929	-	84	-	16	1,074
2004	12	0	671	-	49	0	1	733
2005	-	0	244	0	513	0	800	1,558
2006	2	5	103	0	1,066	-	1,718	2,895
2007	1	50	259	5	486	2	1,252	2,055
2008	39	159	711	11	449	1	224	1,595
2009	78	66	1,437	0	930	4	154	2,669
2010	79	17	947	1	1,434	2	15	2,495
2011	51	24	721	0	1,909	3	0	2,709
2012	52	25	618	-	1,700	3	7	2,405
2013	13	11	227	20	644	2	26	942
2014	15	9	164	30	722	-	14	954
2015	22	2	131	-	309	4	4	472
2016	25	1	73	-	240	6	0	345
Forecasts								
2017	21	2	573	-	346	2	14	1,437
2018	28	7	663	-	445	1	-	1,894
2019	40	7	573	-	494	1	-	1,119
2020	84	12	262	-	692	1	-	1,060
2021	74	12	282	-	840	1	-	1,218
2022	38	12	321	-	840	1	-	1,221
2023	40	12	371	-	840	1	-	1,272
2024	40	12	371	-	692	1	-	1,124
2025	40	12	371	-	692	1	-	1,124
2026	40	12	371	-	692	1	1	1,125
Annual Percentage Change								
2008	4,888.9	218.3	174.2	-	- 7.6	- 29.0	- 82.1	- 22.4
2009	100.8	- 58.3	102.2	-	106.9	172.6	- 31.4	67.3
2010	1	- 74	- 34	-	54	- 38	- 90	- 7
2011	- 36	41	- 24	-	33	22	- 100	9
2012	2	2	- 14	-	- 11	- 3	-	- 11
2013	- 76	- 56	- 63	-	- 62	- 16	261	- 61
2014	21.1	- 20.2	- 27.8	-	12.1	- 100.0	- 46.6	1.2
2015	44.0	- 80.9	- 20.2	-	- 57.1	-	- 69.5	- 50.5
2016	12.4	- 63.3	- 44.2	-	- 22.3	-	- 89.1	- 26.9
Forecasts								
2017	- 16.6	238.5	684.1	-	43.9	- 62.0	2,869.5	316.2
2018	36.2	238.6	15.7	-	28.6	- 43.5	-	31.8
2019	40	-	- 14	-	11	-	-	- 41
2020	113	70	- 54	-	40	-	-	- 5
2021	- 12	-	8	-	21	-	-	15
2022	- 49	-	14	-	-	-	-	0
2023	3.9	-	15.4	-	-	-	-	4.2
2024	-	-	-	-	- 17.6	-	-	- 11.7
2025	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	0

Source: ABS & Macromonitor

7. Tasmania

Tasmania's resources construction sector is small; as a result activity is quite volatile driven by the timing of particular projects.

Over the past decade, activity averaged over \$100 million per year, which is historically very high. In 2013/14 and 2014/15, in particular, work done in both the other minerals and other heavy industry sectors ramped up, resulting in the total sector's overall activity jumping to \$163 million in 2014/15 (in constant 2014/15 prices). Activity fell temporarily in 2015/16, however is expected to ramp up over the next two years.

We expect an even stronger increase in activity of the next few years, reaching a forecast peak of \$233 million in 2017/18. This is due to the following projects; Venture Minerals' Mt Lindsay tin project, the Heemskirk tin project and the Dolphin Tungsten redevelopment.

Chart 56
Resources Construction - Tasmania

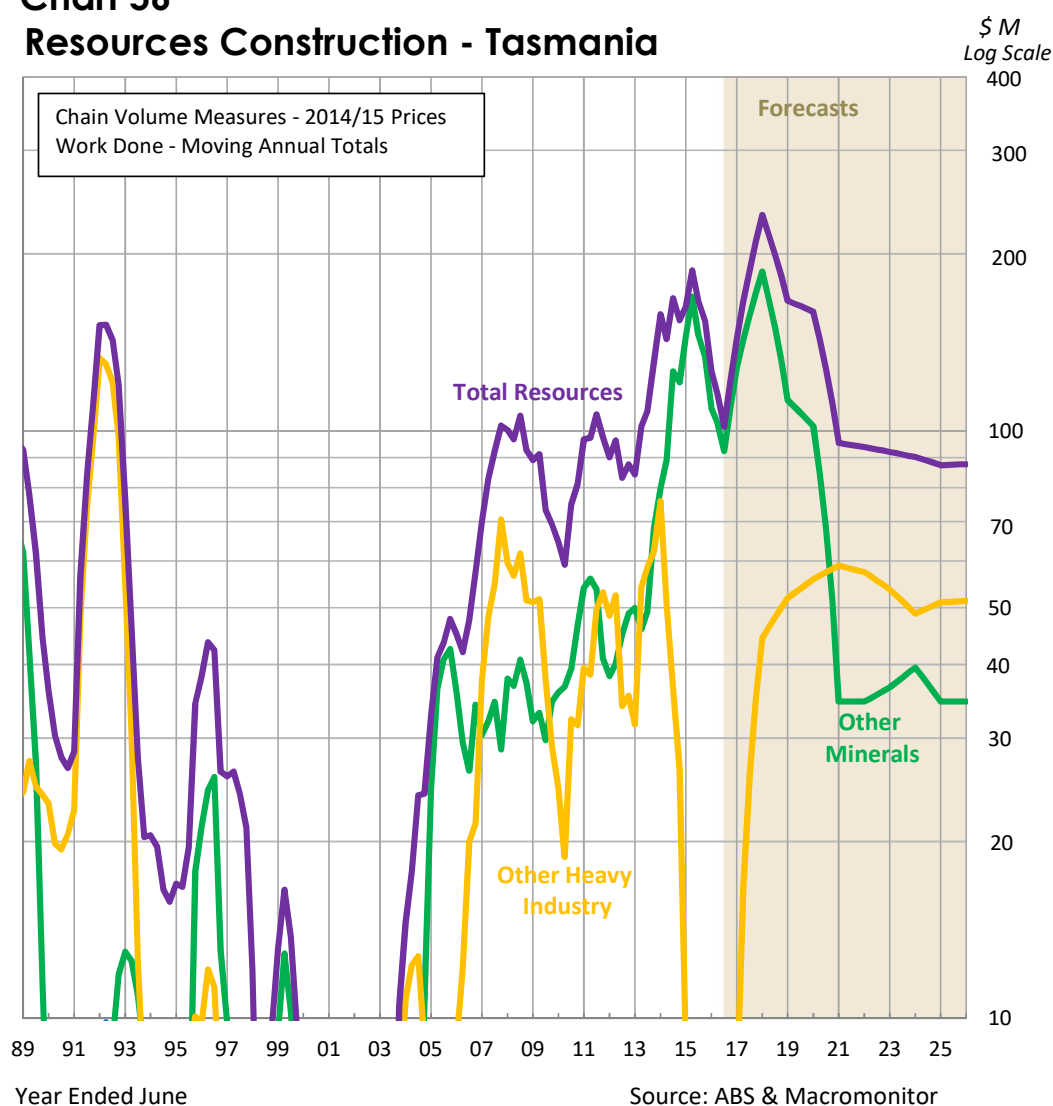


Table 35**Value of Resources Construction Work Done - Tasmania**

Chain Volume Measures - 2014/15 Prices

Year Ended June	Oil, Gas & Other Hydrocarbons		Bauxite, Alumina & Aluminium		Coal & Coal Handling		Other Minerals		Other Heavy Industry		Total	
	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch	\$M	Ann. %Ch
1998	-	-	1	-81.4	3	40.0	3	-64.5	5	-39.4	12	-53.2
1999	-	-	1	-43.1	3	20.4	9	171.7	-	-100.0	13	9.0
2000	-	-	1	-17.2	-	-100.0	3	-64.1	2	-	6	-58.1
2001	1	-	0	-97.1	-	-	5	32.2	3	69.7	8	52.8
2002	0	-79.4	-	-100.0	-	-	5	18.4	-	-100.0	6	-33.7
2003	0	-8.7	-	-	-	-	0	-98.0	4	-	4	-26.6
2004	0	23.1	0	-	3	-	0	192.8	11	186.6	15	254.9
2005	0	-98.9	0	72.2	3	12.4	25	7,878.6	5	-57.2	33	125.4
2006	0	-	-	-100.0	0	-99.4	36	45.9	9	97.4	45	37.4
2007	0	-8.5	2	-	0	280.9	30	-15.1	38	313.6	70	55.6
2008	1	391.2	1	-29.0	1	866.3	38	24.9	60	58.1	100	43.0
2009	2	209.2	4	172.6	0	-84.2	32	-15.5	51	-14.2	89	-11.1
2010	1	-44.3	2	-38.2	0	314.6	36	12.0	25	-51.9	64	-27.7
2011	0	-65.8	3	21.8	-	-100.0	54	50.7	39	60.5	97	50.0
2012	1	38.7	3	-2.6	0	#DIV/0!	38	-29.3	48	22.7	90	-6.8
2013	1	-15.9	2	-15.6	-	-100.0	50	30.5	32	-34.7	84	-6.5
2014	2	213.9	-	-100.0	0	#DIV/0!	80	60.0	76	139.9	158	87.3
2015	3	108.9	4	-	2	207.6	145	81.2	9	-88.3	163	3.0
2016	5	61.5	6	45.2	1	-16.7	109	-24.4	4	-49.6	126	-22.2
Forecasts												
2017	3	-35.5	4	-25.7	-	-100.0	128	16.7	7	64.8	143	13.1
2018	0	-85.7	1	-71.1	-	-	187	46.1	44	500.1	233	62.7
2019	0	-	1	-	-	-	113	-39.6	52	17.2	166	-28.5
2020	0	-	1	-	-	-	102	-9.6	56	7.6	159	-4.2
2021	0	-	1	-	-	-	35	-66.0	59	5.5	95	-40.2
2022	0	-	1	-	-	-	35	-	57	-2.5	94	-1.6
2023	0	-	1	-	-	-	37	5.7	54	-6.5	92	-1.9
2024	0	-	1	-	-	-	40	8.1	49	-9.0	90	-2.0
2025	0	-	1	-	-	-	35	-12.5	51	4.4	87	-3.1
2026	0	-	1	-	-	-	35	-	51	0.6	88	0.3
Average Annual Growth Rates												
2006-2011	21.6		-		-		8.6		34.1		16.5	
2011-2016	65.3		17.5		-		15.1		-35.3		5.5	
Forecasts												
2016-2021	-37.9		-26.5		-		-20.6		67.4		-5.5	
2021-2026	-		-		-		0.0		-2.7		-1.7	

Source: ABS & Macromonitor

Table 36
Selected Major Projects Included in Forecasts - Tasmania

Project	Company	Cost (\$M)*	2006-2016	Assumed Work Done by Year (Year Ended June)										
				2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Bauxite, Alumina & Aluminium														
Development work in Cambell Town and DL-130	Australian Bauxite Ltd	2	1	1										
Other Minerals														
Mt Lindsay	Venture Minerals	198		79	119									
Dolphin Tungsten redevelopment	King Island Scheelite	50		30	20									
Heemskirk	Stellar Resources	127				64	63							

* Mining construction component

Source: Macromonitor