

LICENCES IN THE MSF

VALUATIONS REPORT

12 SEPTEMBER 2019

PRIVATE AND CONFIDENTIAL



Executive Director Fisheries and Aquaculture
PIRSA
Level 14
25 Grenfell Street
ADELAIDE SA 5000

Dear Sir

In accordance with the Draft Terms of Reference PIRSA have engaged BDO Advisory (SA) Pty Ltd (BDO, we, us or our) to prepare this valuation report (Report).

We have considered and relied upon information provided by PIRSA. We consider, on reasonable grounds, that this information is reliable and not misleading. In this regard, PIRSA has represented to us that all information held by PIRSA that may influence our analysis has been provided to us and is accurate and complete.

The information used by BDO in preparing this Report has been obtained from a variety of sources as indicated within the Report. While our work has involved analysis of financial information and accounting records, it has not included an audit or review in accordance with generally accepted auditing and assurance standards.

Accordingly, we assume no responsibility for and make no representations with respect to the accuracy or completeness of any information provided to us by and on your behalf.

PIRSA have reviewed a draft version of this Report and has confirmed that the information provided to us and as presented in this Report is accurate and that no other available information that would be essential to our Report has been withheld.

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Please do not hesitate to contact us if you have any questions about this Report or if we may be of any further assistance. This letter should be read in conjunction with our Report, which is attached.

Yours faithfully

BDO Advisory (SA) Pty Ltd

David Fechner

Partner

MESSAGES

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- ▶ This Report is not to be referred to or quoted, in whole or in part, in any other document or made available to any third party.

DEFINITIONS, ABBREVIATIONS AND GLOSSARY OF TERMS

Abbreviation	Meaning
AUD	Australian dollars
BDO EconSearch 2019	Economic and Social Indicators for the South Australian Marine Scalefish Fishery 2017/18, report prepared for PIRSA Fisheries and Aquaculture, Adelaide, July 2019
CAPM	Capital asset pricing model
CMSFRAC	Commercial Marine Scalefish Fishery Reform Advisory Committee
CPI	Consumer price index
CPUE	Catch per unit effort
DCF	Discounted cash flow
EBITDA	Earnings before interest, tax, depreciation and amortisation
FRDC	Fisheries Research and Development Corporation
FYXX	Actual results at 30 June 20XX, or for the accounting year then ended
Licence Holder	Owner of a licence in the MSF
MSF	Marine Scalefish Fishery
PIRSA	Primary Industries and Regions South Australia
Q1	1st quartile
Q2	2nd quartile
Q3	3rd quartile
Q4	4th quartile
R&M	Repairs and maintenance
SA	South Australia

Abbreviation	Meaning
SARDI	South Australian Research and Development Institute
TAC	Total allowable catch
TACC	Total allowable commercial catch
WACC	Weighted average cost of capital

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SECTION 1

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Purpose and scope

- ▶ The Government of South Australia is committed to delivering reform in the commercial Marine Scalefish Fishery. The Commercial Marine Scalefish Fishery Reform Advisory Committee (CMSFRAC) has been established by the Minister for Primary Industries and Regional Development to develop, in consultation with licence holders and key stakeholders in the South Australian Marine Scalefish Fishery, recommendations on a reform package for the fishery that include:
 - Introducing zones of management within the fishery that recognise the economic, ecological and social diversity within the fishery;
 - Achieving fleet rationalisation that secures a minimum of 30% reduction in the total number of licences;
 - Implementing key management reforms, including a system of regional individual transferable quotas, that will achieve a more sustainable and commercially viable fishery and a mechanism to facilitate on-going autonomous adjustment;
- ▶ The CMSFRAC is required on or before 31 July 2019 to deliver to the Minister a report that includes, among other things:
 - A recommended approach, detailing the method, timeframes and estimated expenditures, to achieve a minimum 30% reduction in the total number of licences in the Marine Scalefish Fishery.
- ▶ To assist the CMSFRAC to deliver on this aspect of the reform package, in particular the estimated expenditure required to rationalise the number of licences, estimated current values of licences are required.

Terms of reference

- ▶ To provide to the Executive Director Fisheries and Aquaculture:
 1. A review of possible methods to value a South Australian commercial fishing licence
 2. The most suitable method to be used and the information required, to estimate the value of alternative licence categories in the MSF.
 3. An estimate of the current minimum and maximum values of alternative licence categories taking into account the factors that may differential the value of licences in the MSF including registered fishing gear, amalgamation points, and any other entitlements that may differ between licences.
- ▶ The Executive Director Fisheries and Aquaculture will provide required information and statistics available in databases held by PIRSA Fisheries and Aquaculture and SARDI Aquatic Sciences
- ▶ Consideration should be given to the fishing gear that is registered on licences, in particular Hauling Net, Gill Net, Longline and Dropline, and any other gear type that may influence the market value of a licence.
- ▶ Any catch quota entitlements held by individual licence holders in the Marine Scalefish Fishery, including those associated with Sardine, Vongole, Blue Swimmer Crabs, Goolwa Pipis and Western Australian Salmon are not to be included in the valuations.
- ▶ Appropriate consultation with the Marine Fishers Association is expected to seek industry input and feedback on the approach to be taken to estimate the current value of licences, and with industry brokers commonly used for the trading of fishing licences.
- ▶ A report is requested to be delivered to the Executive Director Fisheries and Aquaculture by COB Wednesday 31 July 2019.

EXECUTIVE SUMMARY (CONT.)

Definition of value

- ▶ The definition of value we have adopted is set out below:
 - Business valuers typically define fair market value as “... the price that would be negotiated in an open and unrestricted market between a knowledgeable, willing but not anxious buyer and a knowledgeable, willing but not anxious seller acting at arm’s length.”
 - Fair market value, as defined above, is a concept of value which may or may not equal the “purchase/sale price” that could be obtained if the shares were sold to a special purchaser in an actual transaction in the open market. Special purchasers may be willing to pay higher prices to gain control or obtain the capacity to reduce or eliminate competition, ensure a source of material supply or sales, achieve cost savings arising on business combinations following acquisitions or other synergies which could be enjoyed by the purchaser. Our valuation will not be premised on the existence of a special purchaser.
- ▶ We have included separate valuation information for line only licences and for net and line licences.

Adjustments to value

- ▶ In considering licence endorsements we have included separate valuation information for line only licences and for net and line licences. We have seen no evidence to suggest that the valuations should be adjusted for other licence endorsements.
- ▶ In considering a valuation of licences where the value falls above the productive value of a licence to an average licence holder and the amalgamation points associated with the licence falls in the range of 11 to 18 points we would recommend the reduction of the value by half to reflect that two non-amalgamated licences would be required to achieve one transferable amalgamated licence.

Valuation method

- ▶ To determine the productive value of a licence held by the average Licence Holder we have calculated the value of the business of an average Licence Holder using the Discounted Cash Flow (DCF) method from which we have deducted the value of tangible assets employed.
- ▶ In determining our discount rates for the discounted cash flow method, we have analysed the trading results of broadly comparable listed companies (Comparable Listed Companies) and publicly available transactions involving companies with similar operations to the licence holders.

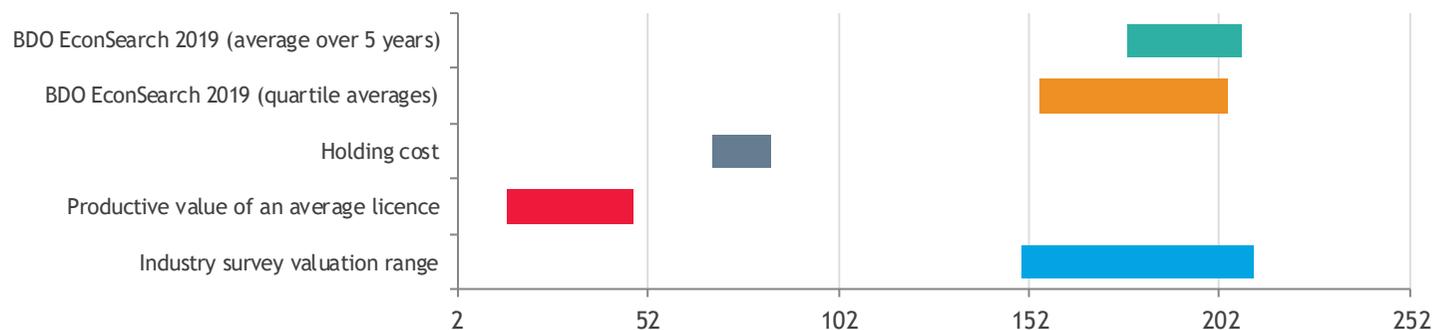
EXECUTIVE SUMMARY (CONT.)

Net and line licence valuation summary

- ▶ Financial returns for net and line licence holders is on average low.
- ▶ The productive value of a licence of an average licence holder is significantly lower than the transfer values, broker data and licence holder survey valuations.
- ▶ In our opinion a buyback at the productive value of a licence to an average licence holder would result in few, if any, buybacks.
- ▶ A buyback in the range of \$150,000 to \$211,000 would be greater or equal to the productive value achieved by the bottom 50% of the number of active net and line licence holders.

Net and line licence

Valuation Methodology	Low	High	Page
Industry survey valuation range	150	211	32
Productive value of an average licence	15	48	25
Holding cost	69	84	31
BDO EconSearch 2019 (quartile averages)	155	204	15
BDO EconSearch 2019 (average over 5 years)	178	208	30



Note: AUD in thousands
Source: BDO analysis

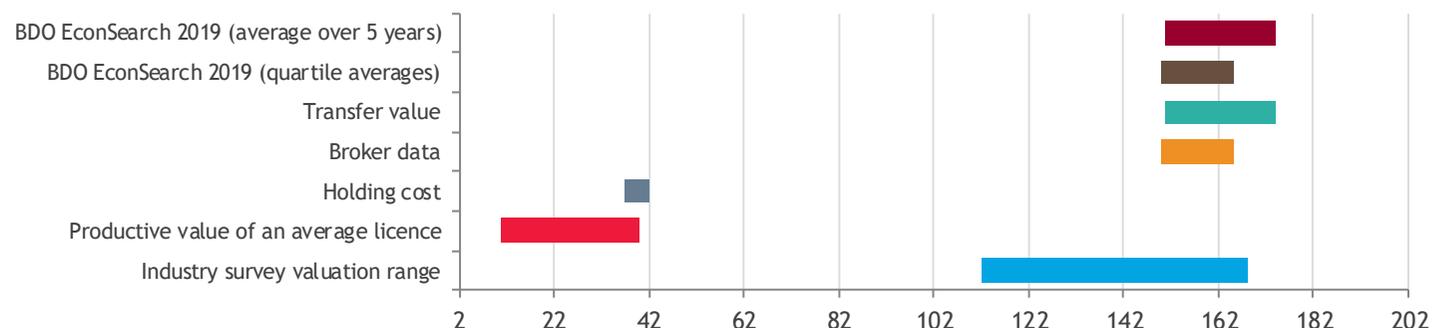
EXECUTIVE SUMMARY (CONT.)

Line only licence valuation summary

- ▶ Financial returns for line only licence holders is on average low.
- ▶ The productive value of a licence of an average licence holder is significantly lower than the transfer values, broker data and licence holder survey valuations.
- ▶ In our opinion a buyback at the productive value of a licence to an average licence holder would result in few, if any, buybacks.
- ▶ A buyback in the range of \$112,000 to \$168,000 would be greater or equal to the productive value achieved by the bottom 70% of the number of active line only licence holders.

Line only licence

Valuation Methodology	Low	High	Page
Industry survey valuation range	112	168	32
Productive value of an average licence	11	40	26
Holding cost	37	42	31
Broker data	150	165	30
Transfer value	151	174	30
BDO EconSearch 2019 (quartile averages)	150	165	30
BDO EconSearch 2019 (average over 5 years)	151	174	30



Note: AUD in thousands
Source: BDO analysis

SECTION 2

BACKGROUND



BACKGROUND

Data

Overview

- ▶ The 2017/18 data for licence holders in the MSF were derived using a range of primary and secondary data and survey-based FY16 indicators from the Economic and Social Indicators for the South Australian Marine Scalefish Fishery FY18 report (BDO EconSearch 2019). The following information was used to adjust the FY16 indicators to reflect the fishery's performance in FY18.
 - SARDI data were used to reflect changes in catch and its value between FY16 and FY18. Catch and value data were used to estimate the average total boat income in the fishery.
 - Information on change in fishing effort (number of days fished) between FY16 and FY18 was used to adjust the cost of inputs that were assumed to vary with fishing effort. These inputs included fuel, repairs and maintenance, ice and provisions.
 - The consumer price index (CPI) for Adelaide and components of the CPI were used to adjust the cost of inputs to reflect local levels of inflation (ABS 2018a).

Financial performance indicators

- ▶ Financial performance estimates for the MSF were estimated from a 2017 survey of licence holders (BDO EconSearch 2019) which represented 28% of the fishery.
- ▶ As a result of the large sample size in the 2017 survey it was possible to divide the survey responses into quartiles for all licences according to rate of return to capital.
 - line-only licence holders 47 in total
 - net licence holders 18 in total
- ▶ The first quartile comprises the 25% of boats with the lowest rate of return and the fourth quartile includes the 25% with the highest return to capital. The financial performance measures for 'return to capital' quartiles for FY18 are detailed for the whole fishery on page 13, line fishers on page 14 and for net fishers on page 15.

FINANCIAL PERFORMANCE

MSF licence holders

Financial performance of SA MSF licence holders by return to capital quartile, 2017/18 (average per boat)

[AUD]	Q1	Q2	Q3	Q4	Average
(1) Total Boat Gross Income	67,589	65,462	108,677	223,412	119,376
Variable Costs					
Fuel	7,478	7,504	8,742	13,679	9,563
Repairs & Maintenance	16,595	9,110	12,214	16,180	13,604
Bait/Ice	2,393	2,144	3,808	4,066	2,983
Provisions	853	2,275	1,858	1,084	1,548
Labour - paid	9,407	7,659	16,863	16,582	12,797
(2) Labour - unpaid	28,334	21,367	31,001	25,990	26,734
Other variable costs	2,038	1,119	1,624	3,318	2,222
(3) Total Variable Costs	67,097	51,180	76,109	80,897	69,451
Fixed Costs					
Licence Fee	8,304	6,603	9,334	7,732	7,908
Insurance	2,395	2,146	2,551	3,525	2,699
(4) Interest	2,165	2,009	690	9,302	3,715
(5) Labour - unpaid	10,052	2,330	5,726	5,447	5,749
(6) Leasing	-	-	1,043	9	230
Legal & Accounting	987	2,116	1,200	1,538	1,459
Telephone etc.	1,154	1,696	1,213	1,163	1,363
Slipping & Mooring	474	1,301	1,250	1,019	992
Travel	542	1,564	1,023	741	995
Office & Admin	5,563	3,107	2,710	8,806	5,425
(7) Total Fixed Costs	31,636	22,872	26,740	39,283	30,537
(8) Total Boat Cash Costs (3+7)	98,733	74,052	102,850	120,181	99,988
Boat Gross Margin (1-3)	492	14,282	32,567	142,514	49,925
(9) Total Unpaid Labour (2+5)	38,386	23,698	36,727	31,436	32,484
Gross Operating Surplus (1-8+9)	7,242	15,108	42,554	134,667	51,872
(10) Boat Cash Income (1-8)	(31,144)	(8,590)	5,827	103,231	19,388

[AUD]	Q1	Q2	Q3	Q4	Average
(10) Boat Cash Income (1-8)	(31,144)	(8,590)	5,827	103,231	19,388
(11) Depreciation	12,134	17,387	15,696	19,674	16,964
(12) Boat Business Profit (10-11)	(43,278)	(25,976)	(9,869)	83,557	2,424
(13) Profit at Full Equity (12+4+6)	(41,113)	(23,967)	(8,136)	92,868	6,370
Boat Capital					
(14) Fishing Gear & Equip	54,337	128,053	153,917	171,614	129,313
Licence Value	137,035	148,831	164,965	148,482	150,927
(15) Total Boat Capital	191,373	276,884	318,882	320,096	280,240
Rate of Return on Fishing Gear & Equip (13/14*100)	-75.7%	-18.7%	-5.3%	54.1%	4.9%
Rate of Return on Total Boat Capital (13/15*100)	-21.5%	-8.7%	-2.6%	29.0%	2.3%

Note: Financial performance estimates for 2015/16 to 2017/18 are based on the 2017 licence holder survey (BDO EconSearch 2018). Financial performance estimates may differ slightly from those reported in other BDO EconSearch reports (BDO EconSearch 2019) as different updating methods have been used in this analysis. Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance). Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses. Licence fee estimates are based on survey responses as individual fishing operations will pay different licence fees depending on their entitlements.

Source: BDO EconSearch analysis

FINANCIAL PERFORMANCE

Line entitlement only licence holders

Financial performance of line entitlement only licence holders by return to capital quartile, 2017/18 (average per boat)

[AUD]	Q1	Q2	Q3	Q4	Average
(1) Total Boat Gross Income	52,206	53,216	87,060	210,595	104,087
Variable Costs					
Fuel	7,516	6,833	7,852	13,283	9,022
Repairs & Maintenance	11,722	8,932	13,325	13,113	11,588
Bait/Ice	1,849	1,439	4,904	4,674	3,238
Provisions	1,117	413	1,573	1,713	1,189
Labour - paid	2,014	4,584	18,331	16,147	10,253
(2) Labour - unpaid	28,086	24,079	16,157	29,750	24,631
Other variable costs	2,297	1,520	1,139	807	1,373
(3) Total Variable Costs	54,602	47,799	63,280	79,488	61,293
Fixed Costs					
Licence Fee	6,819	6,196	7,126	5,177	6,310
Insurance	2,873	1,910	2,213	3,187	2,584
(4) Interest	2,670	1,661	864	8,091	3,434
(5) Labour - unpaid	7,577	1,625	2,246	3,901	3,829
(6) Leasing	-	-	1,217	11	314
Legal & Accounting	824	1,247	2,202	1,461	1,411
Telephone etc.	1,144	1,378	1,415	1,223	1,208
Slipping & Mooring	263	1,630	1,511	1,226	1,169
Travel	645	1,355	689	936	898
Office & Admin	5,676	3,207	2,560	9,324	5,241
(7) Total Fixed Costs	28,492	20,209	22,043	34,538	26,399
(8) Total Boat Cash Costs (3+7)	83,094	68,008	85,323	114,025	87,693
Boat Gross Margin (1-3)	(2,396)	5,417	23,781	131,107	42,793
(9) Total Unpaid Labour (2+5)	35,664	25,704	18,403	33,651	28,460
Gross Operating Surplus (1-8+9)	4,776	10,912	20,141	130,221	44,854
(10) Boat Cash Income (1-8)	(30,888)	(14,792)	1,737	96,570	16,394

[AUD]	Q1	Q2	Q3	Q4	Average
(10) Boat Cash Income (1-8)	(30,888)	(14,792)	1,737	96,570	16,394
(11) Depreciation	10,703	11,851	16,328	19,079	14,829
(12) Boat Business Profit (10-11)	(41,592)	(26,643)	(14,590)	77,490	1,565
(13) Profit at Full Equity (12+4+6)	(38,921)	(24,982)	(12,509)	85,592	5,312
Boat Capital					
(14) Fishing Gear & Equip	50,556	101,564	160,612	185,052	127,046
Licence Value	129,253	129,922	168,679	135,242	142,157
(15) Total Boat Capital	179,808	231,486	329,291	320,294	269,202
Rate of Return on Fishing Gear & Equip (13/14*100)	-77.0%	-24.6%	-7.8%	46.3%	4.2%
Rate of Return on Total Boat Capital (13/15*100)	-21.6%	-10.8%	-3.8%	26.7%	2.0%

Note: Financial performance estimates for 2015/16 to 2017/18 are based on the 2017 licence holder survey (BDO EconSearch 2018).
Financial performance estimates may differ slightly from those reported in other BDO EconSearch reports (BDO EconSearch 2019) as different updating methods have been used in this analysis.
Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance).
Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses.
Licence fee estimates are based on survey responses as individual fishing operations will pay different licence fees depending on their entitlements.

Source: BDO EconSearch analysis

FINANCIAL PERFORMANCE

Net licence holders

Financial performance by net licence holders by return to capital quartile, 2017/18 (average per boat)

[AUD]	Q1	Q2	Q3	Q4	Average
(1) Total Boat Gross Income	122,919	138,386	185,083	168,822	155,551
Variable Costs					
Fuel	14,209	12,827	12,351	10,004	12,403
Repairs & Maintenance	29,945	7,475	21,966	19,570	19,403
Bait/Ice	6,405	1,007	342	2,109	2,823
Provisions	1,007	8,935	1,369	230	2,679
Labour - paid	33,591	20,645	23,565	11,509	20,968
(2) Labour - unpaid	32,549	38,324	30,899	24,300	31,991
Other variable costs	643	2,998	6,862	6,659	4,373
(3) Total Variable Costs	118,349	92,211	97,354	74,381	94,640
Fixed Costs					
Licence Fee	13,307	14,068	10,453	10,491	12,285
Insurance	1,364	3,441	4,463	3,045	2,849
(4) Interest	622	1,243	4,236	7,116	4,244
(5) Labour - unpaid	19,886	9,632	13,796	7,724	12,170
(6) Leasing	-	-	-	-	-
Legal & Accounting	3,233	1,043	1,335	1,478	1,852
Telephone etc.	1,780	1,277	2,388	1,676	1,807
Slipping & Mooring	1,302	261	438	432	588
Travel	-	2,737	1,376	776	1,194
Office & Admin	4,570	3,806	9,281	4,592	5,801
(7) Total Fixed Costs	46,063	37,508	47,766	37,330	42,789
(8) Total Boat Cash Costs (3+7)	164,413	129,719	145,120	111,710	137,429
Boat Gross Margin (1-3)	4,570	46,175	87,728	94,441	60,912
(9) Total Unpaid Labour (2+5)	52,436	47,957	44,695	32,023	44,161
Gross Operating Surplus (1-8+9)	10,942	56,624	84,658	89,134	62,283
(10) Boat Cash Income (1-8)	(41,494)	8,667	39,963	57,111	18,122

[AUD]	Q1	Q2	Q3	Q4	Average
(10) Boat Cash Income (1-8)	(41,494)	8,667	39,963	57,111	18,122
(11) Depreciation	16,786	31,030	26,906	16,878	22,595
(12) Boat Business Profit (10-11)	(58,280)	(22,363)	13,057	40,233	(4,472)
(13) Profit at Full Equity (12+4+6)	(57,658)	(21,120)	17,292	47,349	(229)
Boat Capital					
(14) Fishing Gear & Equip	110,199	188,107	186,111	118,064	140,399
Licence Value	192,170	204,223	171,726	155,396	182,478
(15) Total Boat Capital	302,369	392,330	357,837	273,460	322,877
Rate of Return on Fishing Gear & Equip (13/14*100)	-52.3%	-11.2%	9.3%	40.1%	-0.2%
Rate of Return on Total Boat Capital (13/15*100)	-19.1%	-5.4%	4.8%	17.3%	-0.1%

Note: Financial performance estimates for 2015/16 to 2017/18 are based on the 2017 licence holder survey (BDO EconSearch 2018). Financial performance estimates may differ slightly from those reported in other BDO EconSearch reports (BDO EconSearch 2019) as different updating methods have been used in this analysis. Repairs and maintenance costs have been classified as a variable cost although it is noted that some of these costs may be fixed (e.g. regulated maintenance). Unpaid labour was divided between variable (time spent fishing and on repairs and maintenance) and fixed (management and administrative duties) based on survey responses. Licence fee estimates are based on survey responses as individual fishing operations will pay different licence fees depending on their entitlements.

Source: BDO EconSearch analysis

ECONOMIC RENT

- ▶ Economic rent is defined as the difference between the price of a good produced using a natural resource and the unit costs of turning that natural resource into the good. In this case the natural resource is the MSF and the good produced is the landed fish.
- ▶ The unit costs or long term costs all need to be covered if the licence holder is to remain viable in the fishery. These long-term costs include direct operating costs such as fuel, labour (including the opportunity cost of a self-employed fisher’s own labour), ice, overheads such as administration and licences and the cost of capital invested in the boat and gear (excluding licence). Capital cost includes depreciation and the opportunity cost of the capital applied to the fishery. The opportunity cost is equivalent to what the fisher’s investment could have earned in the next best alternative use. What remains after the value of these inputs (labour, capital, materials and services) has been netted out is the value of the natural resource itself.
- ▶ Determining the opportunity cost of capital involves an assessment of the degree of financial risk involved in the activity. For a risk-free operation, an appropriate opportunity cost of capital might be the long-term real rate of return on government bonds. The greater the risks involved, the greater is the necessary return on capital to justify the investment in that particular activity. For this analysis the long term (10 year) real rate of return on government (treasury) bonds of 5% has been used and a risk premium of 5% has been applied.
- ▶ In the case of the SA MSF, there is evidence that a 5% risk premium (a component of the opportunity cost of capital) may be too high. The evidence includes the significant number of part-time fishers (who are less vulnerable to price fluctuations) and the existence of local markets (which are less vulnerable to exchange rate fluctuations). There is also evidence that the opportunity cost of labour (used to calculate the total value of unpaid labour) may be overestimated in the SA MSF as the average length of licence ownership was estimated at 20 years (BDO EconSearch 2019). Long-term ownership can create a barrier to exit and therefore licence holders could have a lower opportunity cost for time spent fishing.

- ▶ Economic rent (and its components) in the MSF between FY14 and FY18 is presented in **Table X [To Be Updated]** Economic rent has been estimated to be negative in the fishery over this period, with a sustained negative economic rent, licence values can be expected to decrease over time, however, estimated licence values have remained high (**Table Y and Table Z [To Be Updated]**) while rent has been negative. The table also presents a sensitivity analysis in the far-right column to show the effect of adjusting the opportunity cost of capital (using a risk premium of zero) and labour (valuing unpaid labour at two thirds of the standard estimate) on economic rent representing a positive, yet still low economic rent for the period.

Economic Rent in the SA MSF, FY14 to FY18

[AUD] in thousands	FY14	FY15	FY16	FY17	FY18
Gross income	24,396	26,461	23,266	23,361	22,806
Less labour	9,589	10,190	8,307	8,265	8,063
Less cash costs	11,235	12,526	9,993	9,920	10,622
Less depreciation	4,113	3,870	3,698	3,377	3,099
Less opportunity cost of capital (@10%)	3,224	3,034	2,703	2,468	2,266
Economic rent	(3,765)	(3,158)	(1,434)	(669)	(1,243)

Note: Values are presented in real FY18 dollars.

Cash costs include costs of materials and services and exclude labour and interest costs

Source: BDO Econsearch Analysis

ECONOMIC RENT FOOTNOTE FROM ECONSEARCH REPORT PAGE 8 [To Be Updated]

RESULTS

- ▶ Average licence values have been derived from the adjacent table and discussions with brokers where \$150,000 was found for line only licences and \$180,000 for net and line licences.
- ▶ From these averages, the boat cash EBITDA threshold was calculated to be \$40,000 for line only and \$44,000 for net and line. This indicates that those fishers who, at full opportunity cost of labour (boat cash income plus interest), earn less than their EBITDA threshold would benefit from the buyout at this valuation.
- ▶ The table opposite and below sets out the percentage of Licence Holders who fall below their respective threshold.
- ▶ For line only licence holders, 85% fall below their threshold, for net and line licence holders, 78% fall below their threshold and for those fishing over 150 days, 82% fall below their respective thresholds.
- ▶ As most fishers do not take a wage or may not value their time at \$26 per hour, therefore a comparison was made against 50% of opportunity cost of labour (boat cash income plus interest and 50% of labour). This had 70% of line only licence holders below their threshold, 50% of net and line licence holders below their threshold and 46% of those fishing over 150 days below their respective thresholds.

Licence values for SA MSF, FY14 to FY18

[AUD]	Transfer values	Licence Holder Valuation	
	Line Only	Line Only	Net and Line
FY14	154,989	131,836	189,330
FY15	167,205	142,999	207,892
FY16	172,974	139,072	178,519
FY17	174,095	141,848	182,082
FY18	151,125	139,072	178,519

Note: Values are presented in real FY18 dollars
 Licence holder values for FY14 to FY15 are based on the 2013 survey and FY16 to FY18 are based on the 2017 licence holder survey (BDO EconSearch 2018).

Source: BDO EconSearch analysis

	Full opportunity cost of labour	50% opportunity cost of labour
Net and line	78%	50%
Line only	85%	70%
<150 days	82%	46%

Source: BDO analysis

SECTION 3

VALUATION METHODOLOGY



VALUATION METHODOLOGY

Overview

There are a number of methodologies available with which to assess the indicative market value of a business. Appendix D sets out the common valuation methodologies that have been considered for the valuation of Licences in the MSF. Common methodologies are outlined below:

- ▶ Discounted cash flow (DCF)
- ▶ Capitalisation of earnings (COE)
- ▶ Asset-based valuation (NAV)

Primary method - DCF method

- ▶ We have elected to use the DCF valuation methodology as our primary valuation methodology in valuing the Business for the following reasons:
 - the Business is in a high growth phase with irregular cash flows given its start up nature and the lack of track record in relation to its business operations and profitability
 - there is limited historical financial performance and it does not provide a reliable guide to future performance
 - the Business will require different rates of return during the initial years compared to the period from which growth rate stabilises and therefore requiring the application of varying discount rates.
- ▶ In applying the DCF valuation methodology, we have relied upon the cash flows from the Economic Indicators Report (BDO EconSearch 2019). We have used the cash flows to assist in building an appropriate model. We have relied on the assumptions of the Economic Indicators Report to build the Business cash flows.
- ▶ The DCF methodology allows the assessment of separate estimates of future earnings/ cash flows and varying levels of growth and so is well suited to determining the value of a Licence Holder Business.
- ▶ We do not consider that the NAV methodology is appropriate for a business valued as a going concern, particularly given that the methodology is being applied to determine the value of an intangible asset.

SECTION 4

DCF VALUATION



DCF VALUATION

Overview

- ▶ When performing a DCF valuation we must determine the following:
 - the expected future cash flows that the Licence Holder is expected to generate; and
 - an appropriate discount rate to apply to the cash flows to convert them to a present value equivalent.

Identification of future cash flows

- ▶ When performing a DCF valuation we must identify the nature, level and timing of the future cash flows expected to occur.
- ▶ In applying this method, the first step is to project the debt-free cash flow that the Licence Holder will generate in the future. Boat cash income for licence holders for FY18 (average per boat) was determined by BDO EconSearch (page 13).
- ▶ Interest costs have been added back to the boat cash income determined by BDO EconSearch to reflect the debt-free cash flow of a Licence Holder.
- ▶ PIRSA have asked us to assume that licences will be held in perpetuity for the purposes of the Report.
- ▶ Based on our assessment of economic and industry growth outlooks, no growth has been factored into the projected cash flows used in compiling our DCF valuation.
- ▶ The terminal year projections were prepared based upon a continuation of FY18 cash flows assuming no industry growth and no change in income tax rates.

DISCOUNT RATE

DCF valuation - discount rate

- ▶ The discount rate represents the following:
 - the time value of money
 - the required rate of return
 - the risk of achieving projected future cash flows.
- ▶ The discount rate is the rate at which future cash flows are discounted to arrive at the present day value of those cash flows.
- ▶ Future cash flow is converted to a present value equivalent using an estimated discount rate such as the cost of equity or the weighted average cost of capital (WACC), based on the type of cash flows being discounted.
- ▶ The discount rate or required rate of return is a combination of the opportunity cost (what an investor could earn from a risk-free investment such as a Government bond) plus a risk premium (a premium for the risk associated with obtaining the expected returns from the particular investment).
- ▶ The WACC is an average cost of capital consisting of two parts:
 - cost of debt
 - cost of equity

Cost of debt

- ▶ The Licence Holder’s capital structure is likely to include debt.
- ▶ A commercial rate for unsecured debt to the Licence Holder we would estimate at 5.75%

Cost of equity

- ▶ The Company has no commercial debt instruments at the Date of Valuation. The Licence Holder’s capital structure is likely to include debt.
- ▶ The cost of equity was assessed by applying the capital asset pricing model (“CAPM”).

$$CAPM = r_f + \beta(r_m - r_f)$$

Where:

- | | |
|---------------|--|
| r_f | represents the risk free rate; |
| β | represents the beta of the company; and |
| $(r_m - r_f)$ | represents the market risk premium and is equal to the additional return that an investor would require to invest in a fully diversified market portfolio rather than at the risk free rate. |

DISCOUNT RATE (CONT.)

Cost of equity

Risk free rate

- ▶ We note that Commonwealth Treasury bond yields are currently at historically low levels. It should be noted that the current low yield levels may not persist over the medium to long term.
- ▶ Having regard to the above, we have selected the risk free rate based on the 10 year Australian Government Bond rate on the Date of Valuation of 1.38%.

Beta estimation

- ▶ It is conventional practice to refer to comparable companies listed on stock exchanges to determine the appropriate equity beta to use in the CAPM. We have considered the equity betas of comparable companies against the S&P / ASX 200 Index using daily and weekly data over the past two to four years as at 31 December 2018. Further information on the comparable companies is in Appendix E.
- ▶ Equity betas are the commonly cited measure of the sensitivity of a company's share price to movements in the overall market. To ensure that the betas of these companies are comparable to the Licence Holders, the observed equity betas have been adjusted to remove the impact of the debt in their capital structures. Debt tends to increase the riskiness of a company's cash flows and will therefore increase the sensitivity of a company's returns to market movements. That is, debt serves to inflate equity betas.
- ▶ Adjustments to remove the impact of debt allow for the calculation of an ungeared beta. Ungeared betas provide a measure of the sensitivity of a company's returns to movements in the overall market, independent of a company's capital structure. These betas are more appropriate to consider when comparing companies with different capital structures.
- ▶ Appendix E sets out the equity betas and ungeared betas we have had regard to, which in our opinion, may be considered broadly comparable companies. The ungeared betas of the broadly comparable companies have been calculated having regard to the capital structures of each company.

- ▶ We have performed an analysis of the Betas of the broadly comparable companies with involvement in the aquaculture industry as at 31 December 2018. In our opinion, an ungeared Beta of 0.7 to 0.8 is appropriate for comparably listed companies within the Aquaculture industry

Market risk premium

- ▶ To assess an appropriate market risk premium ('MRP'), I have had regard to BDO's analysis of recent historic Equity Market Risk Premiums in Australia. This research indicates that market risk premiums can be estimated within the range of 6.0% to 8.0%.

Required Return on Equity Estimate

- ▶ The assumptions applied in the CAPM included the following:
 - a risk-free rate of 1.38%;
 - the expectation of 25% debt in the Licence Holder's capital structure; and
 - a market risk premium of 6% to 8%;
- ▶ Combining these assumptions yields a cost of equity of 6.6% to 9.3%
- ▶ We note that the comparable companies are considerably larger and more diversified companies than the business operations undertaken by the Licence Holders in the SA MSF.
- ▶ In our opinion, it is appropriate to apply an Alpha of 4.0% to account for the small size and lack of diversification of the Licence Holders in the SA MSF,
- ▶ The required return on equity for a Licence Holders in the SA MSF calculates a range of approximately 10.6% to 13.3%.

WACC

WACC calculation

- ▶ The formula used to calculate the WACC is:

$$WACC = r_e \times \frac{E}{V} + r_d \times \frac{D}{V} \times (1 - \tau)$$

Where:

r_e represents the required return on equity;

$\frac{E}{V}$ represents the portion of the capital that is equity;

r_d represents the required return on debt;

$\frac{D}{V}$ represents the portion of the capital that is debt; and

τ represents the tax rate

Balance sheet structure

- ▶ In determining the appropriate level of debt for a WACC calculation, the level of debt relates to the debt that can be secured by business income streams and business assets. Where debt is secured by personal guarantee or non-business assets, that debt would be considered equity for the purposes of the WACC calculation.
- ▶ A licence will provide a loan value ratio to a financier in the range of 20 to 25%. This is consistent with the survey results of interest expense as a proportion of boat cash income for Q2, Q3 and Q4 net and line licence holders. We consider that an appropriate proportion of the capital that is debt in undertaking the WACC calculation is 25%.
- ▶ Accordingly, the portion of capital that is equity is 75%.

Tax rate

- ▶ The small business entity company tax rate is 27.5%. In our opinion, a tax rate of 27.5% is appropriate.

- ▶ The inputs considered for the WACC calculation are summarised in the table below.

Description	Low	High
r_e	10.6%	13.3%
$\frac{E}{V}$	75%	75%
r_d	5.75%	5.75%
$\frac{D}{V}$	25%	25%
τ	27.5%	27.5%
WACC	9.0%	11.0%

Source: BDO analysis

VALUATION OF A LICENCE

Net and line licence

Business value

- ▶ To determine the productive value of a licence held by the average net and line Licence Holder we have calculated the value of the business of an average net and line Licence Holder from which we will deduct the value of tangible assets employed.
- ▶ To determine the value of the business of an average net and Licence Holder we have calculated the perpetual value of the after tax cash flow of the business as follows:
 - The interest cost for an average Licence Holder has been added back to the average boat cash income, determined by BDO EconSearch, to calculate average boat cash EBITDA for FY18 for an average net and line Licence Holder.
 - We calculated the effective taxes (at 27.5%) to determine the debt-free cash flow to be used in the DCF calculation.
- ▶ Our calculation of the boat debt-free cash flow for FY18 is set out below.

	[AUD] in thousands	Page Ref
Boat cash income for an average licence	18	13
Add: Interest cost for an average licence	4	13
Boat cash EBITDA	22	
Less: Effective taxes (27.5%)	(6)	
Boat debt-free cash flow	16	

Source: BDO EconSearch analysis and BDO analysis

- ▶ The inputs in the DCF calculation model are:
 - Average boat debt-free cash flow \$16,215;
 - 0% growth factor; and
 - Discount rate (WACC) 9.0% to 11.0% (see page 22).
- ▶ Based upon the above and our calculations set out in Appendix F, the value of the business of an average net and line Licence Holder is in the range of approximately \$155,300 and \$188,100.

Licence value

- ▶ Although the value of a business can comprise such things as reputation, customer loyalty, staff loyalty, proprietary processes, brand identity and recognition, for the purposes of the Report we have assumed that
- ▶ A Licence Holder's business generally consists of two major asset categories, fishing equipment and the licence(s).
- ▶ To determine the value of the licence in the Licence Holder's business, we have deducted the average value of fishing gear and equipment from the business value. This leaves the remaining value to be attributed to the remaining assets of the business, being the licence.
- ▶ The average value of fishing equipment for an average net and line Licence Holder provided by BDO EconSearch is \$140,000.
- ▶ The calculation of the implied value of an average net and line licence is set out below.

[AUD] in thousands	Low	High	Page Ref
Business value of an average net and line Licence Holder	155	188	23
Less: Average fishing equipment	(140)	(140)	24
Implied licence value	15	48	

Source: BDO analysis

- ▶ Based upon the above, we have determined the productive value of a net and line licence of an average net and line Licence Holder to be in the range of \$15,000 to \$48,000.
- ▶ In our opinion a buyback at the productive value of a net and line licence of an average net and line Licence Holder would result in few, if any, buybacks.

VALUATION OF A LICENCE (CONT.)

Line only licence

Business value

- ▶ To determine the average productive value of a line only licence we have calculated the value of the business of an average line only Licence Holder. **[To Be Updated]** .
- ▶ Our calculation of the boat debt-free cash flow for a line only Licence Holder for 2017/18 is set out below.

	[AUD] in thousands	Ref
Boat cash income for an average licence	16	13
Add: Interest cost for an average licence	3	13
Boat cash EBITDA	19	
Less: Effective taxes (27.5%)	(5)	
Boat debt-free cash flow	14	

Source: BDO EconSearch analysis and BDO analysis

- ▶ Based upon the above, the value of the business of an average line only Licence Holder is in the range of approximately \$137,700 and \$166,700.

Licence value

- ▶ The calculation of the implied value of an average line only licence is set out below.

[AUD] in thousands	Low	High	Page Ref
Business value of an average net and line Licence Holder	138	167	23
Less: Average fishing equipment	(127)	(127)	24
Implied licence value	11	40	

Source: BDO analysis

- ▶ Based upon the above, we have determined the productive value of a line only licence of an average line only Licence Holder to be in the range of \$11,000 to \$40,000.
- ▶ In our opinion a buyback at the productive value of a line only licence of an average line only Licence Holder would result in few, if any, buybacks.

VALUATION OF A LICENCE (CONT.)

Licence value

- ▶ The table opposite shows the calculated business value and average productive value of a licence for both net and line and line only Licence Holders.
- ▶ The Licence Holders have been divided into quartiles according to rate of return to capital by BDO EconSearch.

BDO comments

- ▶ Net and line Licence Holders in Q1 and Q2 have an average productive licence value of nil.
- ▶ Surprisingly, the >150 days fishers indicate an average productive licence value of nil.
- ▶ The financial returns of Q3 net and line Licence Holders would be more indicative of likely purchasers of a net and line Licence.
- ▶ Line only Licence Holders in Q1, Q2 and Q3 have an average productive licence value of nil.
- ▶ The financial returns of >150 days line only Licence Holders would be more indicative of likely purchasers of a Line Licence, albeit much higher than our crosscheck values.

Business and licence value by quartile

[AUD] in thousands	Revenue	Boat cash EBITDA	Business value		Fishing Equipment	Licence value	
			Low 9.0%	High 11.0%		Low	High
Net and Line							
Q1	123	(41)	-	-	110	-	-
Q2	142	10	69	83	188	-	-
Q3	182	44	307	372	181	125	190
Q4	190	64	446	540	100	346	440
Average	159	22	155	188	140	15	48
> 150 days	182	(17)	-	-	177	-	-
Line Only							
Q1	46	(28)	-	-	64	-	-
Q2	44	(13)	-	-	133	-	-
Q3	105	3	18	22	154	-	-
Q4	231	105	727	880	161	565	719
Average	104	20	138	167	127	11	40
>150 days	150	48	332	403	113	220	290
Q3 & Q4	168	54	372	451	157	215	294

Source: BDO EconSearch analysis and BDO analysis

ADJUSTMENTS TO VALUATION OF A LICENCE

Endorsements

- ▶ Based upon our discussion with Brokers and in reviewing the transfer information available the only licence endorsement that indicated a difference in valuation was a net endorsement.
- ▶ We have included separate valuation information for line only licences and for net and line licences. We have seen no evidence to suggest that the valuations should be adjusted for other licence endorsements.

Amalgamation

- ▶ Our discussion with brokers was that the only licence transfers that they had undertaken were for amalgamated licences.
- ▶ The productive value of a licence to an average licence holder will be the same regardless of whether the licence is an amalgamated licence or not.
- ▶ In considering a valuation of licences where the value falls above the productive value of a licence to an average licence holder and the amalgamation points associated with the licence falls in the range of 11 to 18 points we would recommend the reduction of the value by half to reflect that two non-amalgamated licences would be required to achieve one transferable amalgamated licence.

SECTION 5

VALUATION CROSSCHECK



VALUATION CROSSCHECK

In addition to considering the productive value of a licence to an average licence holder we have considered alternative indicators of value.

Historic licence transfers and licence holder valuations

- ▶ The table opposite details average MSF licence transfer values against average licence holder valuation of their licences for the years FY14 to FY18. The transfer averages were derived from PIRSA data regarding SA MSF licence transfers, all of which have an amalgamation points value of 24 or above. All transfer values are for line only licences as there is no available data on the transfer value of net endorsed licences. Transfers with a value under \$100,000 were excluded from the calculations as many of the amounts clearly reflected an annual leasing value rather than a permanent transfer.
- ▶ The average reported transfer value for a line only MSF licence increased between FY14 and FY17 from \$155,000 to \$174,000.
- ▶ Licence holder valuations fluctuated throughout the period, reaching a peak of \$143,000 for line only licences and \$208,000 for net and line licences in FY15.
- ▶ Net and line licences were valued by licence holders \$40,000 to \$65,000 more valuable than line only licences.
- ▶ In FY18, the average reported transfer value for line only licences and licence holder valuations for net and line licences dropped to the lowest levels in the 5 year period.

Licence broker discussions

- ▶ In discussions with MSF Brokers, we received confirmation that licence transfer values are around the same price point that licences have been sold for over the same period.
- ▶ Licence values for line only licences ranged from \$150,000 to \$165,000 between FY14 and FY16 with no reported transactions after that time.
- ▶ Transfers of net and line licences had been as high as \$300,000 and had declined in recent years.

Aggregate value of MSF licences

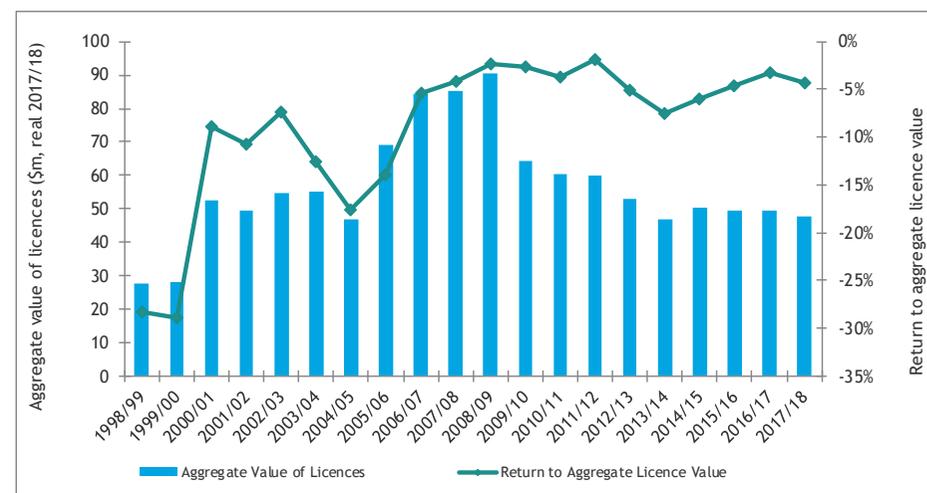
- ▶ The adjacent table indicates the aggregate value of licences based upon the BDO EconSearch analysis and we particularly note that the aggregate value for the period from 2001 through 2005 is similar to the value from 2014 through 2018.

Licence values for SA MSF, FY14 to FY18

[AUD]	Transfer values		Licence Holder Valuation	
	Line Only	Line Only	Net and Line	
FY14	154,989	131,836	189,330	
FY15	167,205	142,999	207,892	
FY16	172,974	139,072	178,519	
FY17	174,095	141,848	182,082	
FY18	151,125	139,072	178,519	

Note: Values are presented in real FY18 dollars
 Licence holder values for FY14 to FY15 are based on the 2013 survey and FY16 to FY18 are based on the 2017 licence holder survey (BDO EconSearch 2018).
 Source: BDO EconSearch analysis

Aggregate value of MSF licences and return



Source: BDO EconSearch analysis

VALUATION CROSSCHECK (CONT.)

Licence holding cost

- ▶ As a crosscheck to our primary methodology we have considered the holders of inactive licences to be investors that are looking to hold the licences for ultimate sale.
- ▶ We note that there are 22 licences held within the fishery that are not active.
- ▶ The annual cost of holding a line only licence is approximately \$5,000 pre annum.
- ▶ The annual cost of holding a net and line licence is approximately \$10,000 per annum.
- ▶ We considered that an alternative investment return in the current market place would be in the range of 6.0% to 8.0%.
- ▶ Alternatively we have considered the investment return using the discount rates that we have calculated for industry risk.
- ▶ The comparisons are set out in the tables below.

Licence holding cost - investment

[AUD] in thousands		8.0%	6.0%
Line holding cost	5,000	47,100	62,200
Net holding cost	10,000	94,200	124,400

Source: BDO analysis

Licence holding cost - industry

[AUD] in thousands		11.0%	9.0%
Line holding cost	5,000	37,400	42,000
Net holding cost	10,000	69,400	84,100

Source: BDO analysis

BDO Comments

- ▶ The expected capital returns to an investor in a non-active licence is likely indicative of a minimum value of a licence.
- ▶ The better indication of minimum value would be represented by the perpetual holding costs discounted for industry risk.

VALUATION CROSSCHECK (CONT.)

Industry values

- ▶ The Licence values for FY14 to FY15 based on the 2013 survey and FY16 to FY18 based on the 2017 licence holder survey (BDO EconSearch 2018) together with the values indicated by the transfer values and broker discussions suggest licence values approximating \$180,000 for net and line licences and \$140,000 for line only licences.

Implied Boat Cash EBITDA

- ▶ We have considered the implied level of Boat cash EBITDA based upon the licence values implied within the industry.
- ▶ The table below shows implied Boat Cash EBITDA for both line only and net and line licence holders.

[AUD] in thousands	Boat cash EBITDA	Business value			Industry survey licence value	
		Low	High	Fishing Equipment	Low	High
		9.0%	11.0%			
Net and Line	44	290	350	140	150	211
Line Only	40	263	317	150	112	168

Source: BDO analysis

- ▶ A net and line licence holder generating Boat Cash EBITDA of \$44,000 per annum calculates a licence value in the range of \$150,000 to \$211,000 with a midpoint value of \$180,000.
- ▶ A line only licence operator generating Boat Cash EBITDA of \$40,000 per annum calculates a licence value in the range of \$112,000 to \$168,000 with a midpoint value of \$140,000.

Licence Holders below average boat cash EBITDA

- ▶ We have reviewed the survey results for FY18 to determine the quantity of operators that fall below the implied Boat Cash EBITDA levels.
- ▶ We consider that these participants would be within the pool of licence holders likely to consider a buyback at the indicated value.
- ▶ The Boat Cash EBITDA includes an expense item for unpaid wages of a licence holder calculated at approximately \$28 per hour. We further considered the number of participants with a financial return less than the Implied Boat Cash EBITDA where the unpaid labour expense is halved to \$14 per hour.
- ▶ The results are summarised below:

	Full opportunity cost of labour	50% opportunity cost of labour
Net and line	78%	50%
Line only	85%	70%
<150 days	82%	46%

Source: BDO analysis

- ▶ Assuming an industry value of \$180,000 for a net and line licence we have assessed an implied Boat Cash EBITDA of \$44,000 and 78% of active net and line licence holders would generate a financial return below this level (50% when the expense for unpaid labour is reduced by half).
- ▶ Assuming an industry value of \$140,000 for a line licence we have assessed an implied Boat Cash EBITDA of \$40,000 and 85% of industry participants would generate a financial return below this level (70% when the expense for unpaid labour is reduced by half).

SECTION 6

APPENDICES



APPENDIX A

Draft Terms of Reference

Valuation of Licences in the Marine Scalefish Fishery

Draft Terms of Reference

1. Background

The Government of South Australia is committed to delivering reform in the commercial Marine Scalefish Fishery. The Commercial Marine Scalefish Fishery Reform Advisory Committee (CMSFRAC) has been established by the Minister for Primary Industries and Regional Development to develop, in consultation with licence holders and key stakeholders in the South Australian Marine Scalefish Fishery, recommendations on a reform package for the fishery that include:

- Introducing zones of management within the fishery that recognise the economic, ecological and social diversity within the fishery;
- Achieving fleet rationalisation that secures a minimum of 30% reduction in the total number of licences;
- Implementing key management reforms, including a system of regional individual transferable quotas, that will achieve a more sustainable and commercially viable fishery and a mechanism to facilitate on-going autonomous adjustment;

The CMSFRAC is required on or before 31 July 2019 to deliver to the Minister a report that includes, among other things:

- A recommended approach, detailing the method, timeframes and estimated expenditures, to achieve a minimum 30% reduction in the total number of licences in the Marine Scalefish Fishery.

To assist the CMSFRAC to deliver on this aspect of the reform package, in particular the estimated expenditure required to rationalise the number of licences, estimated current values of licences are required.

2. Terms of Reference

To provide to the Executive Director Fisheries and Aquaculture:

1. A review of possible methods to value a South Australian commercial fishing licence
2. The most suitable method to be used and the information required, to estimate the value of alternative licence categories in the MSF.
3. An estimate of the current minimum and maximum values of alternative licence categories taking into account the factors that may differentiate the value of licences in the MSF including registered fishing gear, amalgamation points, and any other entitlements that may differ between licences.

The Executive Director Fisheries and Aquaculture will provide required information and statistics available in databases held by PIRSA Fisheries and Aquaculture and SARDI Aquatic Sciences

Consideration should be given to the fishing gear that is registered on licences, in particular Hauling Net, Gill Net, Longline and Dropline, and any other gear type that may influence the market value of a licence.

Any catch quota entitlements held by individual licence holders in the Marine Scalefish Fishery, including those associated with Sardine, Vongole, Blue Swimmer Crabs, Goolwa Pipis and Western Australian Salmon are not to be included in the valuations.

Appropriate consultation with the Marine Fishers Association is expected to seek industry input and feedback on the approach to be taken to estimate the current value of licences, and with industry brokers commonly used for the trading of fishing licences.

A report is requested to be delivered to the Executive Director Fisheries and Aquaculture by COB Wednesday 31 July 2019.

APPENDIX B

Sources of information

- ▶ BDO EconSearch 2019, Economic and Social Indicators for the South Australian Marine Scalefish Fishery 2017/18, report prepared for PIRSA Fisheries and Aquaculture, Adelaide, July 2019.
- ▶ Publicly available information on comparable companies published by Capital IQ.
- ▶ Reserve Bank of Australia statistics www.rba.gov.au
- ▶ IBISWorld Industry Report - A0410 Fishing In Australia - July 2018

APPENDIX C

Consent and disclaimers

APES 225

This Report has been prepared in accordance with the requirements of APES 225 Valuation Services. The valuation is defined as a 'limited scope valuation' as per APES 225, given the extent of contemporaneous information at the respective valuation dates was limited, as well as the limited procedures BDO has undertaken in relation to management's normalisation adjustments to the earnings of the company.

Limitations

By its very nature, the formulation of a valuation opinion necessarily contains significant uncertainties and the conclusions arrived at, in many cases, will be subjective and dependent on the exercise of individual judgement. Therefore, there is no indisputable value, and we normally express our opinion as falling within a likely range.

Valuation Date

Our opinion is based on economic, market and other conditions prevailing at each Valuation Date. Such conditions can change significantly over relatively short periods of time.

Accordingly, changes in those conditions may result in the valuation becoming quickly outdated and in need of revision. We reserve the right to revise any valuation, or other opinion, in the light of material information existing at each Valuation Date that subsequently becomes known to us.

Use of Report

Our Report is prepared solely for the directors and management of Brett & Watson, and the purpose set out herein.

We do not accept any responsibility for the use of the Report outside this purpose or by any other parties. Except in accordance with the stated purpose, no extract, quote, or copy of our Report, in whole or in part, should be reproduced without our written consent, as to the form and context in which it may appear

No Verification

Our procedures in the preparation of this Report have involved an analysis of financial information and accounting records. As set out in this Report, the work undertaken does not include verification work nor constitute an audit or assurance engagement in accordance with Australian Auditing and Assurance Standards issued by the Australian Auditing and Assurance Standards Board (AUASB). Accordingly, we do not warrant that our inquiries have identified or verified all of the matters which an audit, extensive examination or "due diligence" investigation might disclose.

Reliance on Information

In preparing this Report, we have relied on information provided by Brett & Watson. We have not undertaken any verification of the financial or other information provided by them, or other parties, as set out in this Report. We believe the information provided to be reliable, complete and not misleading and have no reason to believe that any material facts have been withheld. The information provided was evaluated through analysis, inquiry and review for the purpose of satisfying ourselves that there were reasonable grounds for believing that the information was appropriate for use by us in forming our opinion. Where we have relied on the views and judgement of Brett & Watson, the information was also evaluated through analysis, inquiry and review to the extent practical. However, such information is often not capable of external verification or validation.

Brett & Watson has agreed to indemnify BDO and their partners, directors, employees, officers and agents (as applicable) against any claim, liability, loss or expense, costs or damage, arising out of reliance on any information or documentation provided by Brett & Watson, which is false and misleading or omits any material particulars, or arising from failure to supply relevant documentation or information.

APPENDIX D

Common business valuation methodologies

Overview

In conducting our assessment of the indicative market value, the following commonly used business valuation methodologies have been considered.

DCF Method

The DCF method is based on the premise that the value of a business or any asset is represented by the NPV of its future cash flows. It requires two essential elements:

- ▶ The forecast of future cash flows of the business asset for a number of years (usually five to 10 years); and
- ▶ The discount rate that reflects the riskiness of those cash flows used to discount the forecast cash flows back to the businesses' or project's NPV.

DCF is appropriate where:

- ▶ The businesses' earnings are capable of being forecast for a reasonable period (preferably five to 10 years) with reasonable accuracy;
- ▶ Earnings or cash flows are expected to fluctuate significantly from year to year;
- ▶ The business or asset has a finite life;
- ▶ The business is in a 'start up' or in early stages of development;
- ▶ The business has irregular capital expenditure requirements;
- ▶ The business involves infrastructure projects with major capital expenditure requirements; and
- ▶ The business is currently making loss but is expected to recover

COE Method

The COE method involves the capitalisation of estimated future maintainable earnings by an appropriate multiple.

Maintainable earnings are the assessed sustainable profits that can be derived by the business, excluding any one off profits or losses.

An appropriate earnings multiple is assessed by reference to market evidence as to the earnings multiples of broadly comparable companies.

This method is suitable for the valuation of businesses with indefinite trading lives and where earnings are relatively stable or a reliable trend in earnings is evident.

APPENDIX D

Common business valuation methodologies (cont.)

Net Realisable Value of Assets

Asset based valuations involve the determination of the fair value of a business based on the net realisable value of the assets used in the business.

Valuation of net realisable assets involves:

- ▶ Separating the business or entity into components that can be readily sold, such as individual business units or collection of individual items of plant and equipment and other net assets; and
- ▶ Ascribing a value to each based on the net amount that could be obtained for this asset if sold.

The net realisable value of the assets can be determined on the basis of:

Orderly realisation

This method estimates fair value by determining the net assets of the underlying business including an allowance for the reasonable costs of carrying out the sale of assets, taxation charges and the time value of money assuming the business is wound up in an orderly manner. This is not a valuation on the basis of a forced sale where the assets might be sold at values materially different from their fair value.

Liquidation

This is a valuation on the basis of a forced sale where the assets might be sold at values materially different from their fair value.

Going concern

This method estimates the market value of the net assets but does not take into account any realisation costs. This method is often considered appropriate for the valuation of an investment or property holding company. Adjustments may need to be made to the book value of assets and liabilities to reflect their going concern value.

These approaches ignore the possibility that a company's value could exceed the realisable value of its assets.

The net realisable value of a trading company's assets will generally provide the lowest possible value for the business. The difference between the value of the company's identifiable net assets (including identifiable intangibles) and the value obtained by capitalising earnings is attributable to goodwill.

The net realisable value of assets is relevant where a company is making sustained losses or profits but at a level less than the required rate of return, where it is close to liquidation, where it is a holding company, or where all of its assets are liquid.

It is also relevant to businesses that are being segmented and divested and to value assets that are surplus to the core operating business. The net realisable assets methodology is also used as a check for the value derived using other methods.

APPENDIX E

Comparable companies

Company	Ticker	Market cap (\$m)	Geared Beta	Gross Debt to Equity %	Ungeared Beta	Company Description	Beta source
Angel Seafood Holdings Limited (ASX:AS1)	ASX:AS1	18.298	0.779	8%	0.737	Angel Seafood Holdings Limited produces, manufactures, markets, and sells organic oysters in Australia and internationally. The company was incorporated in 2016 and is headquartered in Coffin Bay, Australia.	2 yr daily
Beston Global Food Company Limited (ASX:BFC)	ASX:BFC	66.497	0.893	18%	0.795	Beston Global Food Company Limited, together with its subsidiaries, engages in the manufacture and sale of food and beverage products in Australia and internationally. It operates in four segments: Dairy, Seafood, Health, and Meat. The company owns dairy farms that offer milk, cheese, and other dairy related products; harvests, processes, packages, and distributes live, chilled, and frozen seafood; and produces and processes meat products. It also develops and produces health and well-being focused food, beverage, and pharmaceutical products; processes high pH natural spring water; and develops and commercializes end-to-end food traceability and anti-counterfeit technology solutions, as well as a food e-commerce platform. In addition, the company markets and distributes dairy, seafood, meat, wine, water, health, and nutrition products. Beston Global Food Company Limited was incorporated in 2014 and is based in Adelaide, Australia.	2 yr weekly
Clean Seas Seafood Limited (ASX:CSS)	ASX:CSS	89.343	0.674	3%	0.659	Clean Seas Seafood Limited operates in the aquaculture industry in Australia and internationally. It operates through two segments, Finfish Sales and Tuna Operations. The company engages in the propagation, harvesting, production, and marketing of Hiramasa yellowtail kingfish; and production and sale of fingerlings, mullockys, and tuna. It is also involved in the research and development activities for the production of southern Bluefin tuna. The company serves seafood distributors and wholesalers. Clean Seas Seafood Limited was founded in 2000 and is based in Port Lincoln, Australia.	3yr daily

APPENDIX E

Comparable companies

Company	Ticker	Market cap (\$m)	Geared Beta	Gross Debt to Equity %	Ung geared Beta	Company Description	Beta source
Huon Aquaculture Group Limited (ASX:HUO)	ASX:HUO	410.485	0.572	27%	0.481	Huon Aquaculture Group Limited, together with its subsidiaries, hatches, farms, processes, markets, and sells Atlantic salmon and ocean trout in Australia. It also exports its products internationally. The company was founded in 1986 and is headquartered in Dover, Australia. Huon Aquaculture Group Limited is a subsidiary of Surveyors Investments Pty Ltd.	2 yr weekly
Murray Cod Australia Limited (ASX:MCA)	ASX:MCA	76.623	0.828	3%	0.813	Murray Cod Australia Limited, together with its subsidiaries, engages in the breeding, growing, and marketing of Murray Cod fish in Australia. It also constructs and sells aquaculture equipment. The company serves restaurants, wholesalers, and Asian export markets. Murray Cod Australia Limited is headquartered in Griffith, Australia.	4 yr weekly
Mareterram Limited (ASX:MTM)	ASX:MTM	29.362	0.510	78%	0.331	Mareterram Limited engages in the integrated agribusiness in Australia and internationally. It processes, packages, snap freezes, sells, and markets western king prawns, brown tiger prawns, scallops, blue swimmer crabs, squids, and cuttlefishes. The company was formerly known as Style Limited and changed its name to Mareterram Limited in November 2015. Mareterram Limited was incorporated in 1987 and is headquartered in South Fremantle, Australia. Mareterram Limited is a subsidiary of Sea Harvest International Pty Ltd.	3yr daily
New Zealand King Salmon Investments Limited (ASX:NZK)	ASX:NZK	302.085	0.698	6%	0.668	New Zealand King Salmon Investments Limited engages in farming, processing, and selling premium salmon products. It operates through three segments: New Zealand Retail, New Zealand Foodservice, and Export. It offers whole fresh fish, pre-cut fillets, portions, and wood roasted and cold smoked products. The company sells its products to chefs, retailers, and wholesalers under the Ora King, Regal, Southern Ocean, Big Catch Salmon Burley, and Omega Plus brands. It serves customers in New Zealand, North America, Australia, Japan, Europe, and internationally. The company was incorporated in 2008 and is headquartered in Nelson, New Zealand. New Zealand King Salmon Investments Limited is a subsidiary of Oregon Group Limited.	3yr weekly

APPENDIX E

Comparable companies

Company	Ticker	Market cap (\$m)	Geared Beta	Gross Debt to Equity %	Ungear Beta	Company Description	Beta source
Ocean Grown Abalone Limited (ASX:OGA)	ASX:OGA	24.375	0.714	1%	0.707	Ocean Grown Abalone Limited owns and operates an abalone sea ranching business in Australia. It develops its sea ranching hardware design and processes for near-shore aquaculture. The company produces wild, ocean grown, and green lip abalones. The company offers its products under the Two Oceans Abalone brand name. Ocean Grown Abalone Limited was incorporated in 2011 and is based in Augusta, Australia.	2 yr daily
Seafarms Group Limited (ASX:SFG)	ASX:SFG	183.396	1.194	114%	0.665	Seafarms Group Limited, an aquaculture company, produces and sells seafood in Australia and Vietnam. The company operates in three segments: Aquaculture, Carbon Services, and Other. It is involved in the growing, processing, and distribution of farmed prawns under the Crystal Bay Prawns brand; and the development of land-based aquaculture projects. The company also establishes and manages carbon sinks and re-vegetation projects; provides abatement certificates generated from accredited forest carbon sinks; and trades in environmental credits. In addition, it offers carbon project management services; and environmental services, including advisory in ecosystem offsets and carbon farming projects. The company was formerly known as Commodities Group Limited and changed its name to Seafarms Group Limited in March 2015. Seafarms Group Limited is based in Perth, Australia.	2 yr daily
Tassal Group Limited (ASX:TGR)	ASX:TGR	783.506	1.111	23%	0.958	Tassal Group Limited, together with its subsidiaries, engages in the hatching, farming, processing, marketing, and sale of Atlantic salmon in Australia. The company offers fresh deli, fresh salmon, smoked salmon, and canned salmon. It also procures, processes, markets, and sells other seafood species. The company provides its products under the Tassal, Superior Gold, Tasmanian Smokehouse, and De Costi Seafoods brands through retail and wholesale channels. The company also exports its products. Tassal Group Limited was founded in 1986 and is headquartered in Hobart, Australia.	2 yr weekly

APPENDIX F

Discounted Cash Flow (DCF) analysis

[AUD] in thousands For the fiscal year ended [Day Month]	2016A	2017A	2018A	2019F	2020F	2021F	2022F	2023F	Terminal year	Common size analysis (% of revenue)							Terminal year	
										2017	2018	2019	2020	2021	2022	2023		
EBITDA	22,366.0	22,366.0	22,366.0	22,366.0	22,366.0	22,366.0	22,366.0	22,366.0	22,366.0	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less: Effective taxes	27.5%	-6,150.7	-6,150.7	-6,150.7	-6,150.7	-6,150.7	-6,150.7	-6,150.7	-6,150.7	-27.5%	-27.5%	-27.5%	-27.5%	-27.5%	-27.5%	-27.5%	-27.5%	-27.5%
Debt-free net income (excl. amort.)		16,215.4	16,215.4	16,215.4	16,215.4	16,215.4	16,215.4	16,215.4	16,215.4	72.5%	72.5%	72.5%	72.5%	72.5%	72.5%	72.5%	72.5%	72.5%
Depreciation				0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capital expenditure				0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Investment in net working capital				0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Debt-free cash flow (2)				16,215.4	16,215.4	16,215.4	16,215.4	16,215.4	16,215.4									
									Capitalised value (3)	162,153.5								
									Implied EBITDA exit multiple	7.3								
First period adjustment factor (4)				0.0														
Periods (months) (5)				0.0	6.0	18.0	30.0	42.0	42.0									
Present value factor (6)	10.0%			1.000	0.954	0.867	0.788	0.716	0.716									
Present value of future cashflows				0.0	15,461.3	14,055.5	12,777.7	11,616.7	116,166.8									
Sum of present value of cashflows and TY									170,077.9									
Implied Enterprise Value (controlling interest - rounded)									170,100.0									

	2018	2019	2020
EBITDA	22,366.0	22,366.0	22,366.0
Unusual/non-recurring items	0.0	0.0	0.0
Normalised EBITDA	22,366.0	22,366.0	22,366.0
Revenue multiple (implied)	7.6x	7.6x	7.6x
EBITDA multiple (Implied)	7.6x	7.6x	7.6x
EBITA multiple (implied)	7.6x	7.6x	7.6x

	Terminal year growth			
	170,100.0	-0.5%	0.0%	0.5%
8.0%	200,800	210,700	221,800	
9.0%	180,500	188,100	196,600	
11.0%	150,400	155,300	160,700	
12.0%	138,900	143,000	147,400	

WACC

[AUD] in thousands	Low	High	Midpoint
Discount rate (WACC)	11.0%	9.0%	10.0%
Implied Enterprise Value (EV)	155,300.0	188,100.0	171,700.0

Notes:

- (1) Based on information provided by BDO EconSearch
- (2) Reflects cash available to service debt obligations and make distributions to equity investors.
- (3) Applies Gordon Growth Formula. Assumes constant growth after explicit forecast.
- (4) Adjustment for time (and cash flows) between Valuation Date and the end of the first year year in the explicit forecast.
- (5) Reflects mid period discounting convention from Valuation Date.
- (6) Equal to the Weighted Average Cost of Capital (WACC)

APPENDIX G

Qualifications

Qualifications

This Report has been prepared by David Fechner a Director of BDO Advisory (SA) Pty Ltd, Level 7, 420 King William Street, Adelaide, South Australia.

He is a Chartered Accountant and holds a Bachelor of Arts (Accounting) degree obtained from the University of South Australia in 1993 and Public Practicing Certificate with Chartered Accountants Australia and New Zealand.

He has fellowship status with the Tax Institute of Australia.

He has over 25 years' experience in professional accounting services being employed in many areas of accounting including tax, business services, corporate advisory and forensic accounting services.

He specialises in Business and Corporate Advisory services undertaking valuations of businesses for purposes of compliance (CGT, stamp duty, probate, finance, etc.), mergers & acquisitions (business acquisitions, sales, mergers, partnership admissions/retirements, etc.) and expert reports (litigation support, IPO's, etc.) He has prepared over his tenure in excess of 125 valuation and expert reports.

He is a member of ASIC's Professional Liaison Group and subscribes to the Forensic Accounting and Business Valuation Specialist Interest Group of the Institute of Chartered Accountants in Australia.

