

Australian Health Insurance

Macquarie Hospital Claims Index - August '23

Key Points

- May '23 was the first clean month of data since COVID-19. The question from here is "how many points in a trend?".
- Our analysis suggests this should be benchmarked against a +4.7% underlying claims growth trend (3 months to Feb '20 i.e. pre-COVID-19).
- 50bps margin expansion equates to 4-5% EPS impact for MPL and NHF.

Event

- We have created a proprietary index to track private hospital admission volumes and outlays as a proxy for PHI claims growth (Hospital only). This report updates this index, utilising Medicare's monthly industry data to August '23, with analysis by procedure type, by state, by insurer.
- May '23 was the first clean month of data since the beginning of COVID-19. The question from here is "how many points in a trend?".

Impact

- **Claims growth:** Our proprietary index (replicating the Hospital claims mix of health insurers by procedure type and state) shows claims are finally starting to return, and compare with the trend pre-COVID-19 of +4.7%. The figures below represent the month of August '23 and 1H24PTD respectively.

⇒ Unadjusted volume growth: +7.4% / +6.6%;

⇒ Adjusted volume growth: +7.4% / +6.6%;

⇒ Unadjusted outlays growth: +12.0% / +11.5%; and

⇒ Adjusted outlays growth: +12.0% / +11.5%.

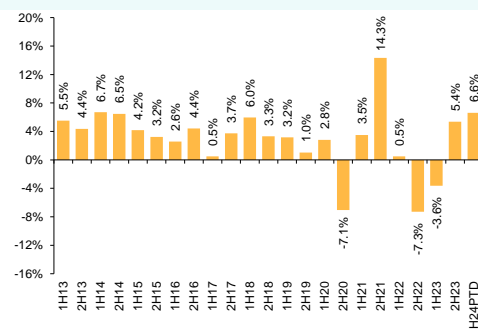
- **Deferred Claims Liability impact:** We expect a decline in DCL balances in 1H24 (MRE ~\$0.3b vs. the industry's provision balance of \$0.7b at Jun '23).
- **Margin Impact:** We forecast industry Net Margins to expand ~40bps this half (vs. 2H23) before falling in 2H24. We note the various methodologies of give-backs are making these figures increasingly difficult to compare across funds, as will the change in accounting standards in FY24.

Outlook

- Despite PHI being a relative safe haven in a tougher economic environment, we now have multiple data points indicating claims catch-up.
- 1H24 will be assisted by lower claims related to the Rugby World Cup, however over the medium term the DCL definitions changing with the new accounting standards from 1 July '23, any catch-up will now be funding from equity.

Insurance Australia

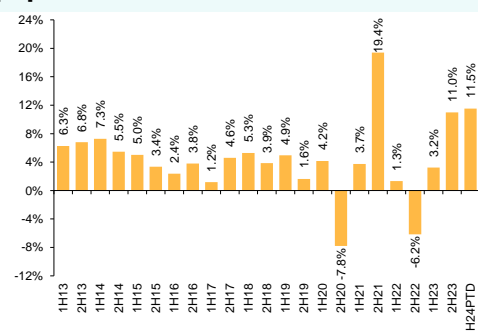
Index: Hospital Volume growth vs. pcp 6.6%



Source: Medicare, Macquarie Research, September 2023

Note: Unadjusted for working days

Index: Hospital Outlays growth vs. pcp: +11.5%



Source: Medicare, Macquarie Research, September 2023

Note: Unadjusted for working days

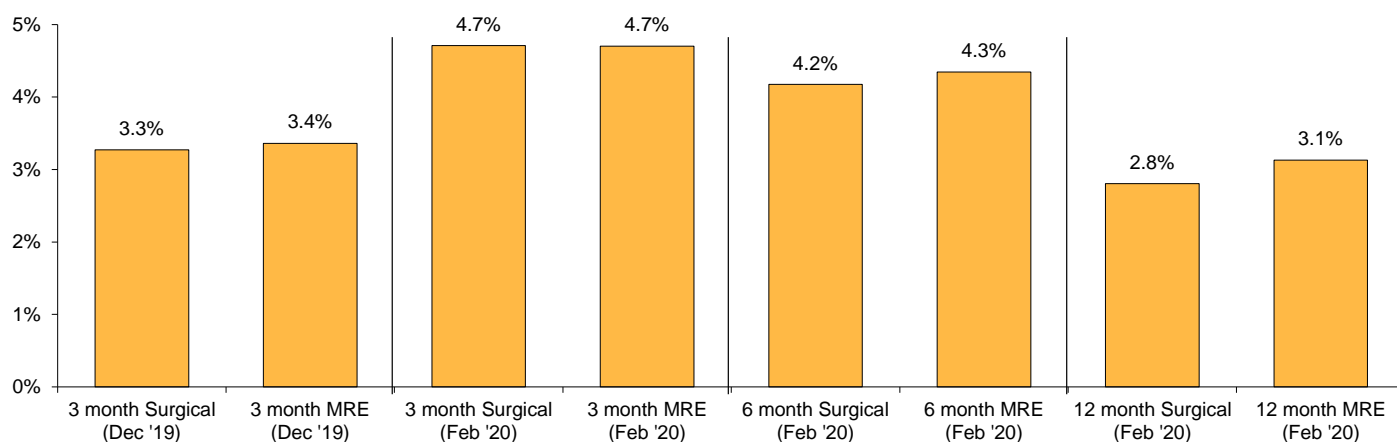
Medibank Private (MPL AU)	
Recommendation	Neutral
Price (CLOSE, 20 September '23)	\$3.48
Target Price	\$3.75
Valuation methodology	DCF
WACC (Beta 1.23x, ERP 5%, RFR 3.07%, TGR 3.07%)	9.2%
NIB Holdings (NHF AU)	
Recommendation	Neutral
Price (CLOSE, 20 September '23)	\$7.67
Target Price	\$8.65
Valuation methodology	DCF
WACC (Beta 1.15x, ERP 5%, RFR 3.1%, TGR 3.1%)	8.9%

Source: FactSet, Macquarie Research, September 2023

Bringing it all together

- **What is happening?** 1H24PTD Outlays (claims) growth is +11.5% (or +11.6% for surgical only) using MRE's PHI claims mix. Given we are now through COVID-19 affected periods thus believe the raw numbers are again the best guide for underlying trends.
- **What is the best comparable trendline?** Utilising Medicare data, claims growth for the three months to Feb '20 (leading into COVID-19) was +4.7% using MRE's PHI claims mix (and +4.7% for surgical outlay trends only). We use Outlays rather than Volumes to account for the differing procedural mix and utilisation trends post COVID-19, as well as the differing average cost of procedure. Alternate methods to determine an underlying trend could be:
 - ⇒ #1) Dec '19 quarter vs. pcp, being the last complete quarter pre-COVID-19 (+3.4% for the MRE PHI claims mix or +3.3% for surgical only);
 - ⇒ #2) 6 months to Feb '20 vs. pcp (+4.3% for the MRE PHI claims mix or +4.2% for surgical only); or
 - ⇒ #3) 12 months to Feb '20 vs. pcp (+3.1% for the MRE PHI claims mix or +2.8% for surgical only).

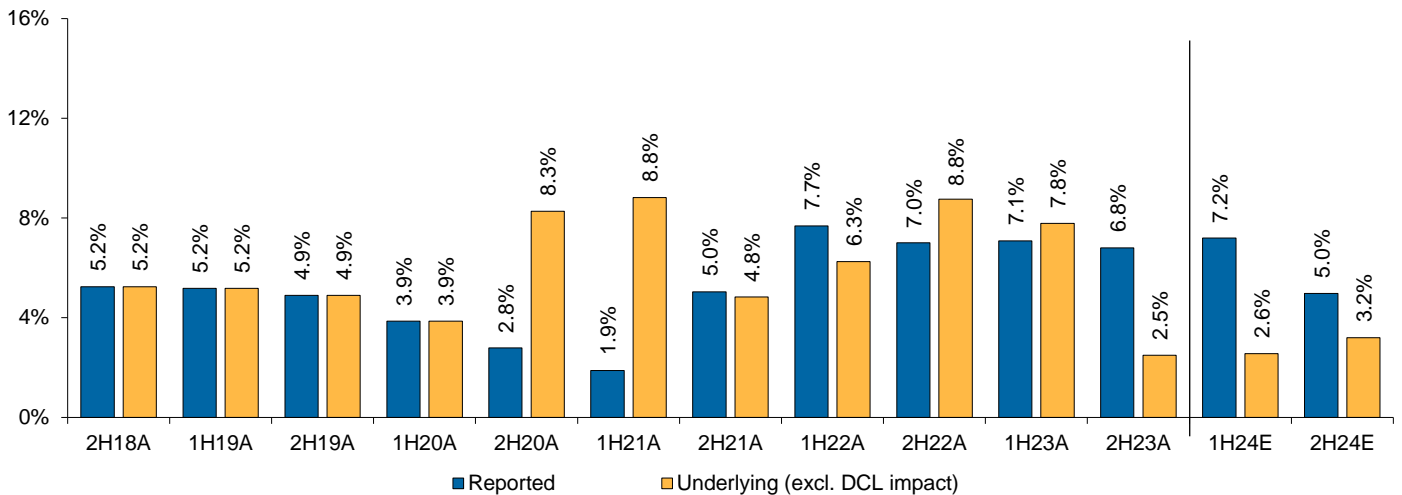
Figure 1 - Claims outlay growth rates leading into COVID-19



Source: Medicare, Macquarie Research, September 2023

- **Bringing it together:** The 1H24PTD growth was +11.5% vs. the +4.7% claims growth for the three months leading into COVID-19 (Feb '20). Using these trends, we forecast industry Net Margins (as disclosed by APRA) to expand ~40bps in 1H24 (vs. 2H23). This outlook includes the following assumptions:
 - ⇒ ~\$1.3b Deferred Claims Liability net decrease for the industry (12-month rolling), equating to ~463bps of Margin impact;
 - ⇒ +170bps policyholder growth (+0.5% for ancillary and +2.0% for Hospital) as reported in APRA data; and
 - ⇒ -0.9% downgrading (compared with long-term averages of -1.4%).

Figure 2 - Industry Net Margin outlook



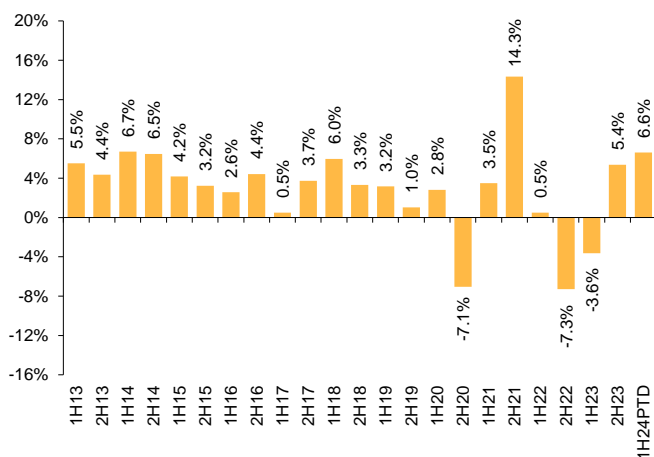
Source: APRA, Medicare, Macquarie Research, September 2023

Note: "DCL impact" includes strengthening and releases

Macquarie Private Hospital Claims Index

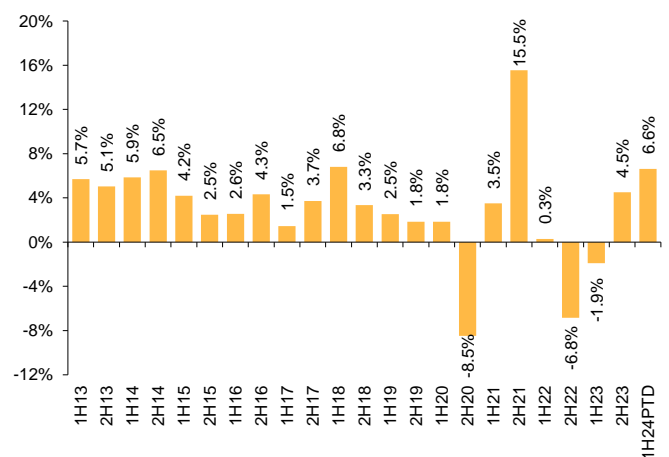
- Medicare data tracks procedures paid out of the MBS (by the national government) in both private and public hospitals, but for private patients only. Utilising this monthly data and combined with the procedure mix of Private Health Insurers, we have constructed a proxy for PHI Hospital Claims growth. Highlights for 1H24PTD are summarised below.
⇒ For more detail behind the composition of the index see Appendix A.
- **1H24PTD Volumes:** +6.6% Unadjusted for workdays (+6.6% adjusted). This compares with +7.4% in the month of August '23 (+5.8% in Jul '23 and +2.1% in Jun '23).

Figure 3 - Macquarie Private Hospital Claims Index: Volume growth (Unadjusted for working days)



Source: Medicare, Macquarie Research, September 2023

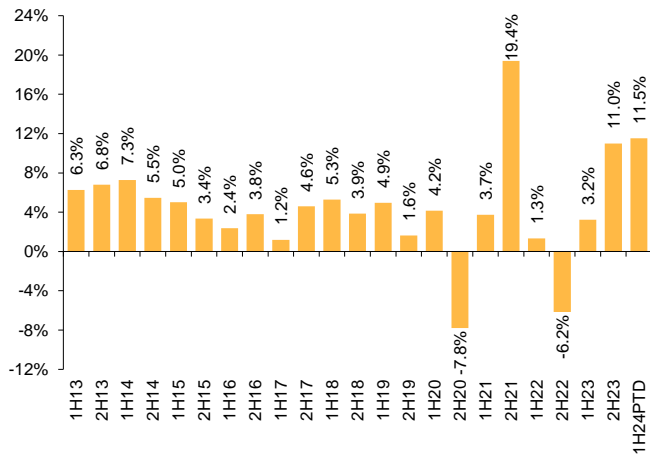
Figure 4 - Macquarie Private Hospital Claims Index: Volume growth (Adjusted for working days)



Source: Medicare, Macquarie Research, September 2023

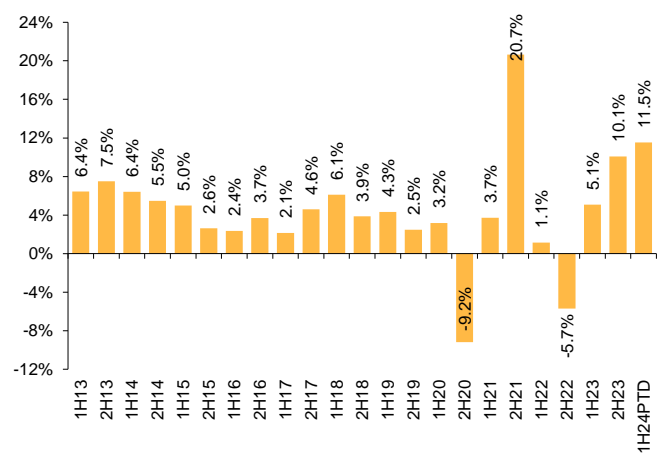
- **1H24PTD Outlays:** +11.5% Unadjusted for workdays (+11.5% adjusted). This compares with +12.0% in the month of August '23 (+11.0% in Jul '23 and +6.2% in Jun '23).

Figure 5 - Macquarie Private Hospital Claims Index: Outlays growth (Unadjusted for working days)



Source: Medicare, Macquarie Research, September 2023

Figure 6 - Macquarie Private Hospital Claims Index: Outlays growth (Adjusted for working days)

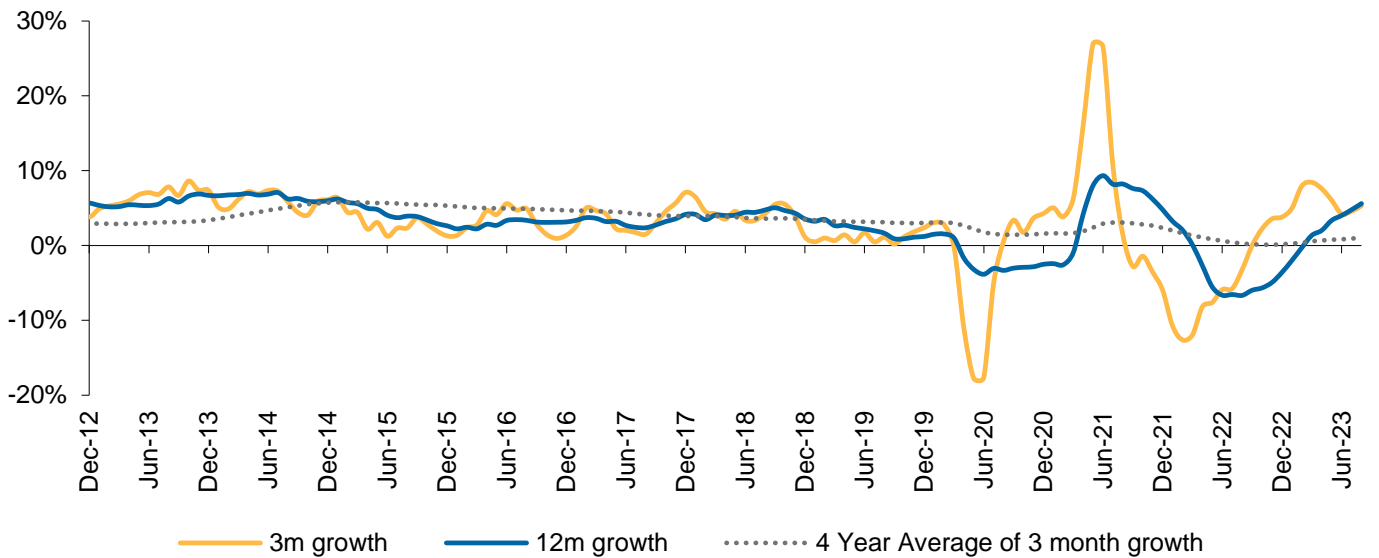


Source: Medicare, Macquarie Research, September 2023

Trends deep dive: Surgical

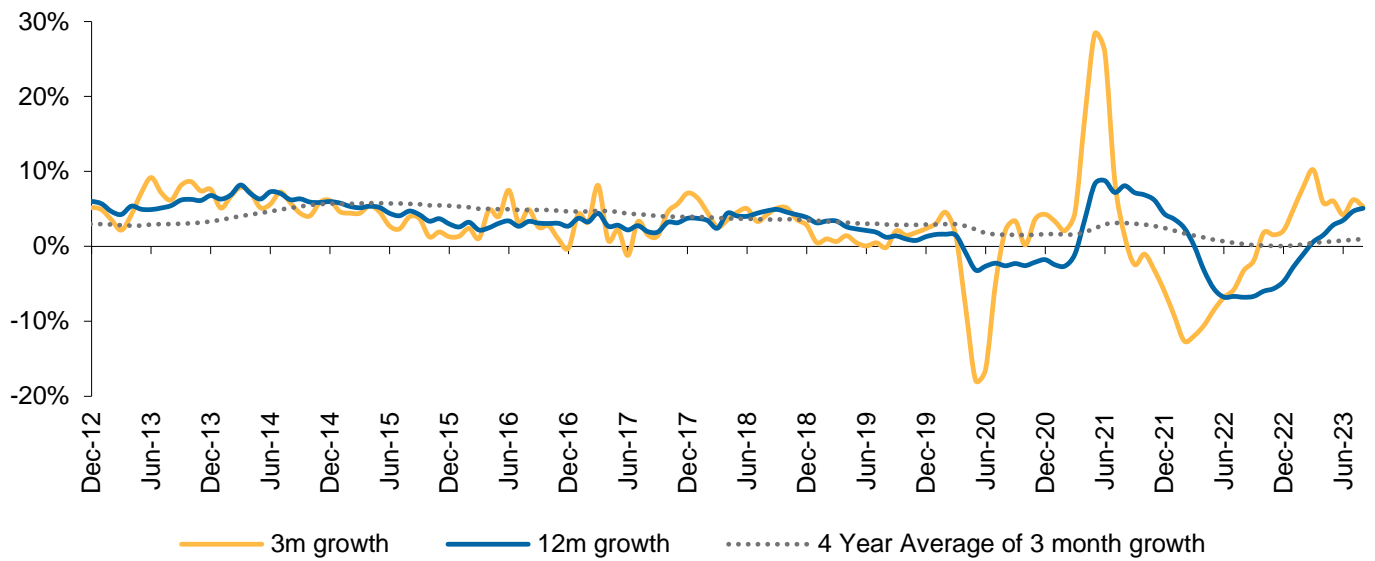
- +7.0% for the month of August '23 (unadjusted for workdays) vs. pcp.
- +5.3% three-month rolling to August '23 (unadjusted for workdays) compares with peak volume declines of -17.9% in May '20 (driven by COVID-19).
- +5.1% 12-month rolling to August '23 (unadjusted for workdays) is ~410bps above the four-year rolling average of +1.0% (+3.0% to February '20 i.e. pre COVID-19).

Figure 7 - Private Hospital Surgical Admissions volume growth (unadjusted for working days)



Source: Medicare, Macquarie Research, September 2023

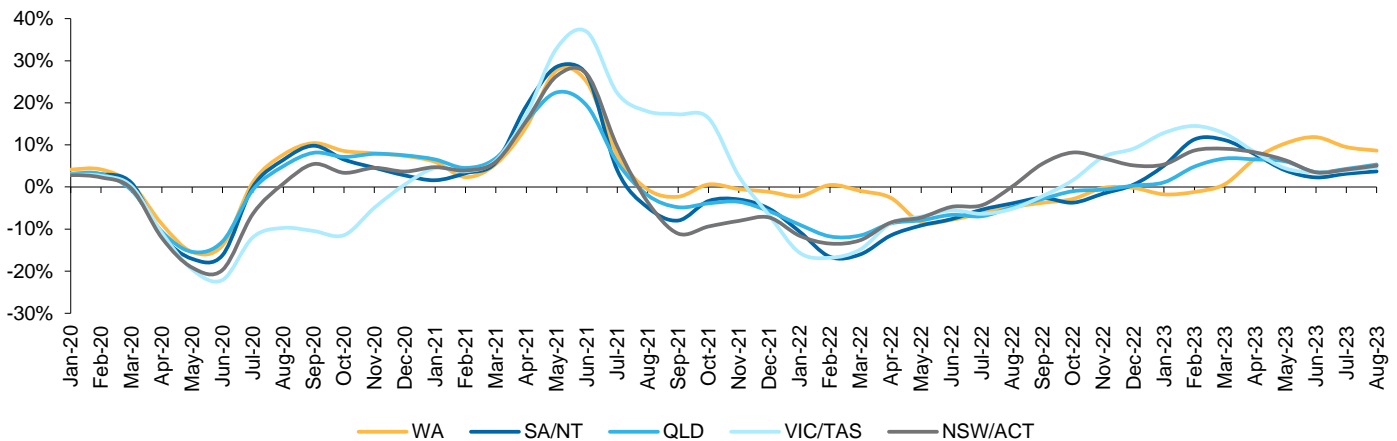
Figure 8 - Private Hospital Surgical Admissions volume growth (adjusted for working days)



Source: Medicare, Macquarie Research, September 2023

- State-based volume analysis:** Assessing volume data on a state-by-state basis provides additional information on which insurers are likely being affected the most by these claims trends.
 - ⇒ **One-month rolling volume growth (adj. for working days):** NSW: +6.8%, VIC: +4.7%, QLD: +9.0%, SA: +4.9%, WA: +9.3%.
 - ⇒ **Three-month rolling volume growth (adj. for working days):** NSW: +5.1%, VIC: +4.7%, QLD: +5.3%, SA: +3.7%, WA: +8.6%.

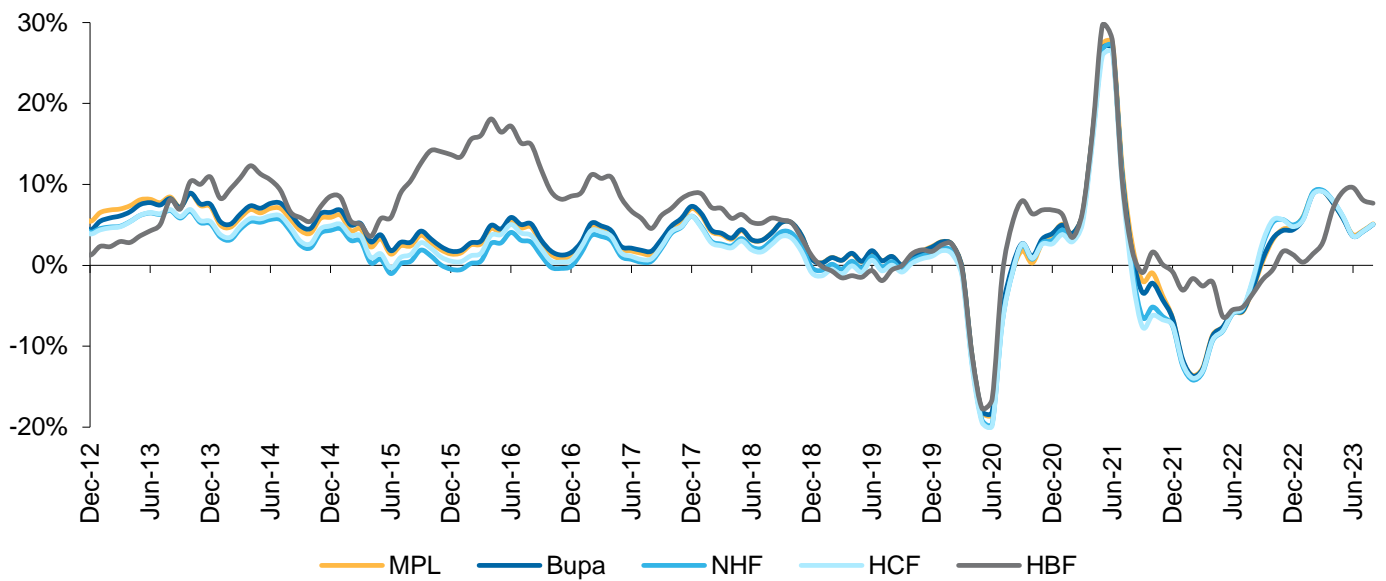
Figure 9 - Surgical Volume growth: by State three-month rolling



Source: Medicare, Macquarie Research, September 2023

- We have reconstructed private hospital volume growth trends for MPL, NHF, Bupa, HCF and HBF based upon their respective geographic exposures. We provide more detailed analysis by state by fund in Appendix B.

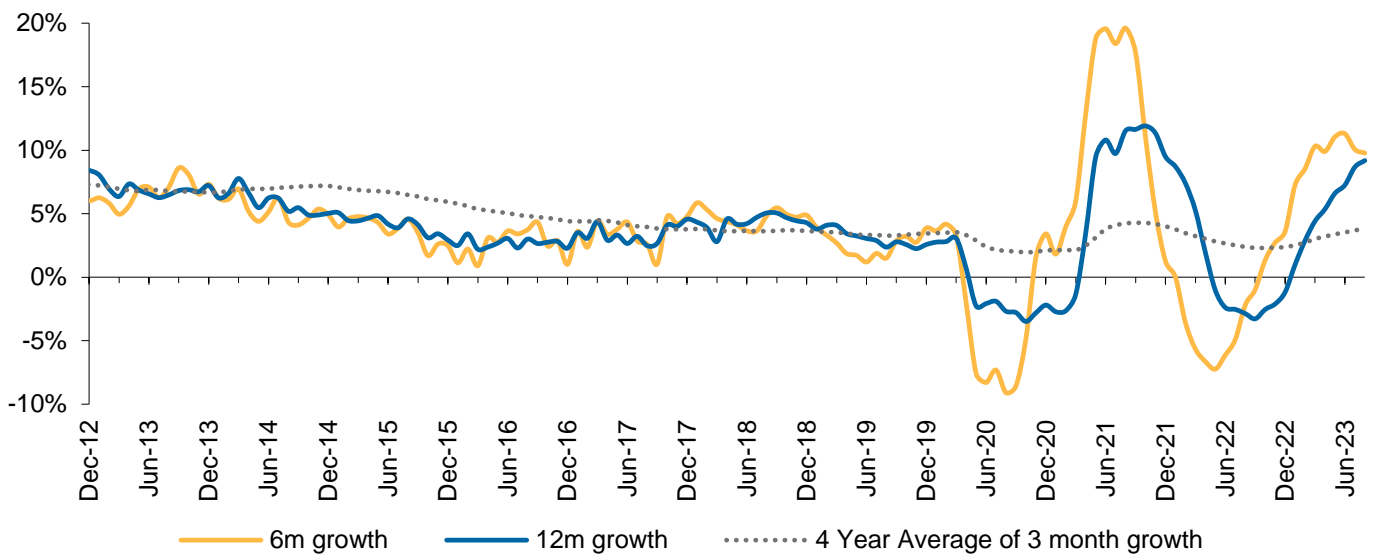
Figure 10 - Surgical Volume growth: State weighted by fund three-month rolling



Source: APRA, Medicare, Macquarie Research, September 2023

- **Surgical Outlays growth:** Unadjusted outlays for six- and 12-month rolling are now +9.8% and +9.2%, respectively, which compares with +4.2% and +2.8% in February 2020 (pre COVID-19).

Figure 11 - Surgical Outlays growth (unadjusted for working days)

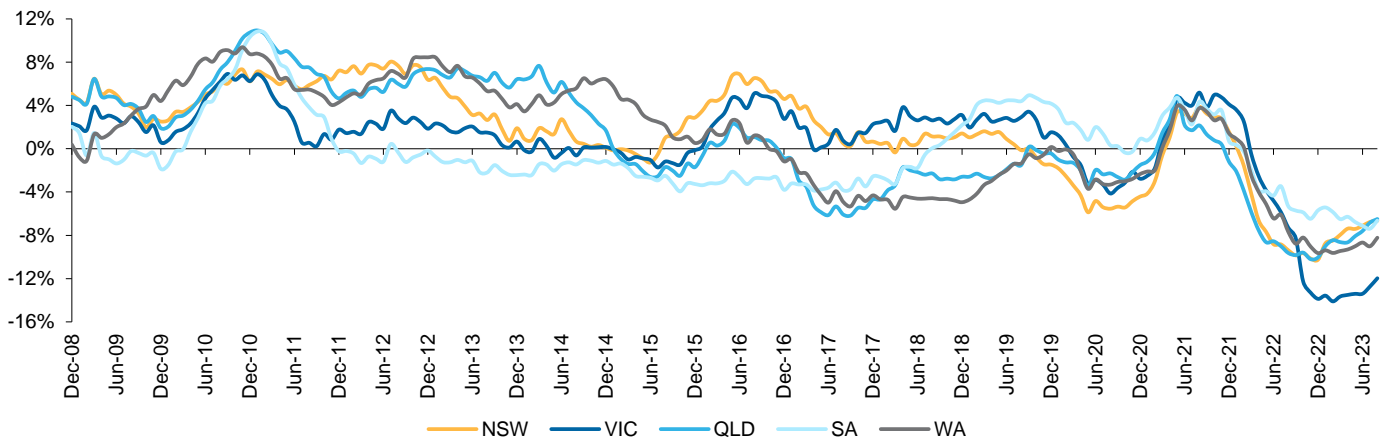


Source: Medicare, Macquarie Research, September 2023

Trends deep dive: Obstetrics

- Obstetrics is a strong lead indicator of the perception of value in the PHI sector. Volume growth of -8.0% was experienced in the 12 months to August '23, vs. -1.0% to Feb '20 (pre-COVID-19). All states are currently experiencing negative growth (on a 12m rolling basis) but cycling strong comparative periods.

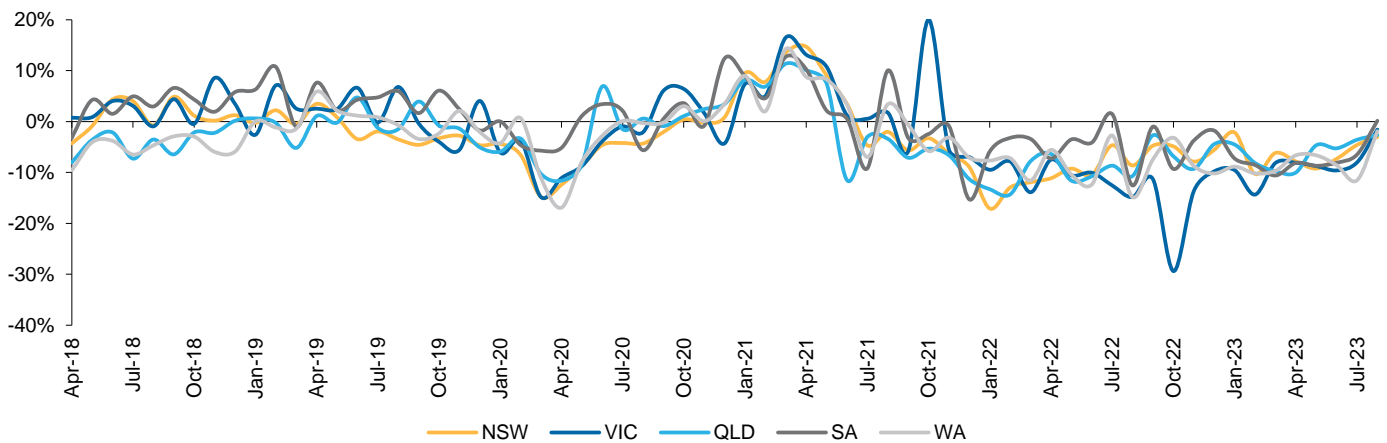
Figure 12 - Obstetrics volumes growth by State: 12-month rolling



Source: Medicare, Macquarie Research, September 2023

- Looking at the same data but adjusted for workdays, we can see the monthly impact from COVID-19 on all States. On this much shorter-term measure, growth is recovering.

Figure 13 - Obstetrics volumes growth by State vs. pcp (adjusted for workdays)

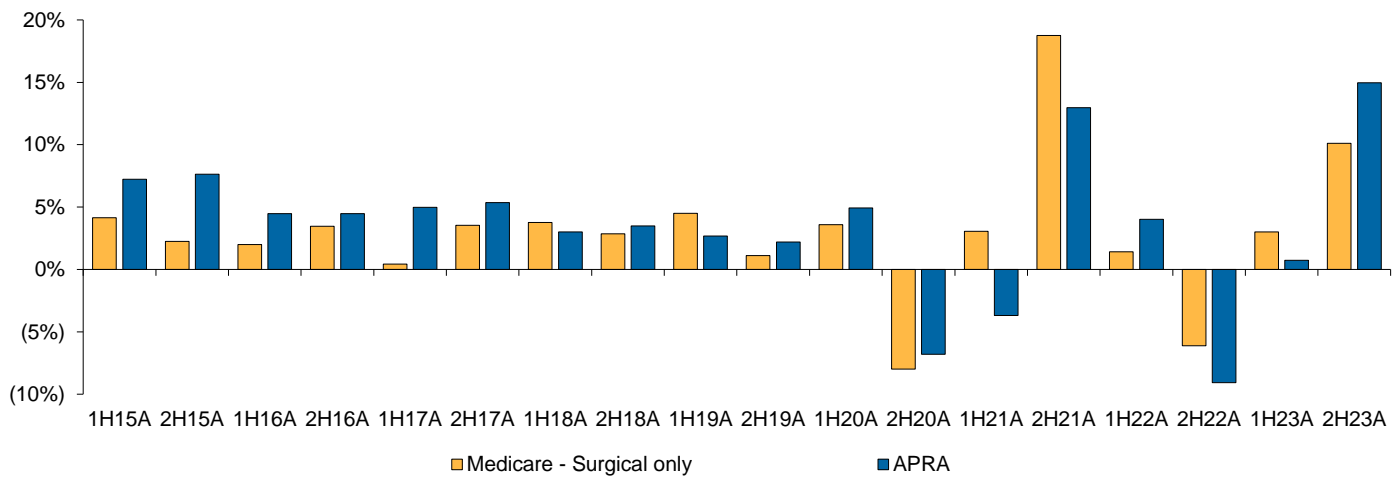


Source: Medicare, Macquarie Research, September 2023

Appendix A: Composition of Macquarie Private Hospital Claims Index

- To give us confidence in the predictive strength of the Medicare data, we have compared growth of Hospital Claims Outlays between Medicare (Surgical only) and APRA. Prior to COVID-19 there was a strong positive correlation between sources.

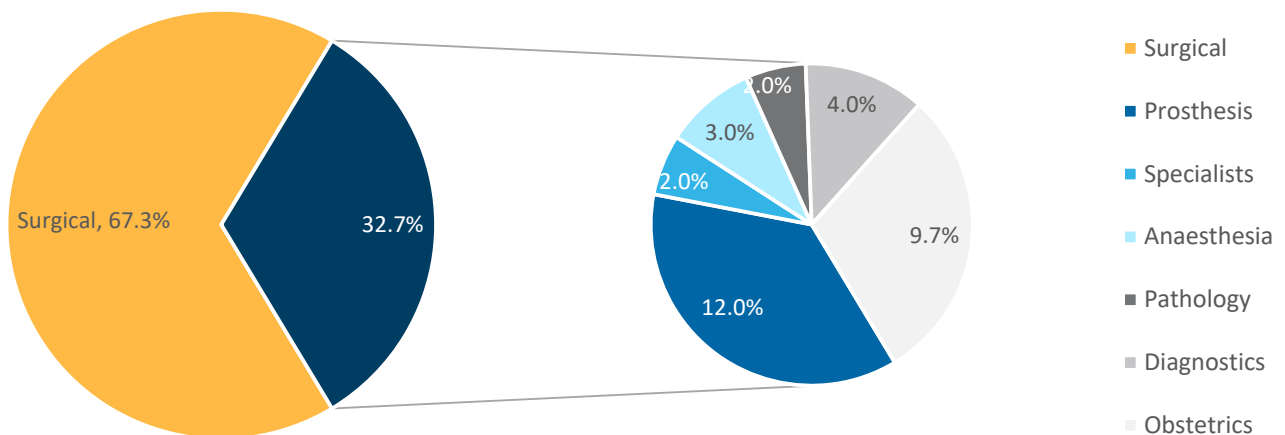
Figure 14 - Hospital Claims Outlay growth - Macquarie Private Hospital Claims Index vs APRA



Source: APRA, Medicare, Company data, Macquarie Research, September 2023

- To improve the correlation between the two data sets, we have created an index for the Medicare data which is more representative of the Hospital claims mix for Private Health Insurers. The Macquarie Private Hospital Claims Index is heavily weighted towards Surgical and Obstetrics trends, with smaller contributions from Specialists, Anaesthesia, Pathology and Diagnostic Imaging.

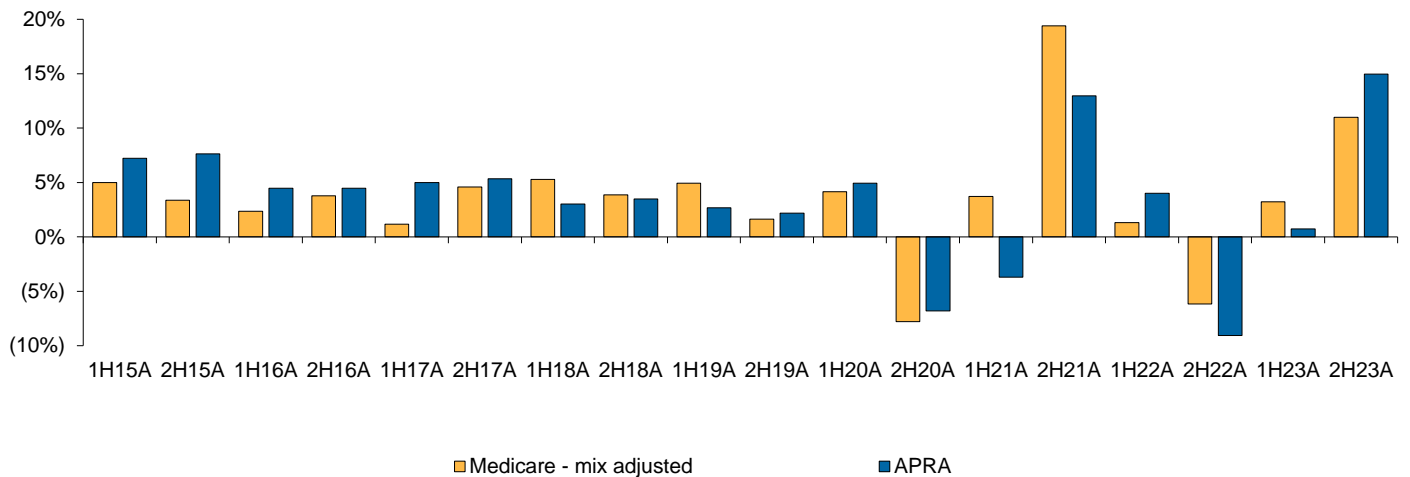
Figure 15 - Composition of claims index



Source: Company data, Macquarie Research, September 2023

- After adjusting for the mix above, the Hospital Claims Outlay growth rates between the Macquarie Private Hospital Admissions Index and APRA are even more correlated (though we recognise the anomaly in 1H21 owing to COVID-19). Hospital Claims Volumes have observed similar trends.

Figure 16 - Hospital Claims Outlay growth - Medicare (surgical only) vs APRA



Source: APRA, Medicare, Macquarie Research, September 2023

Appendix B: State-by-State data

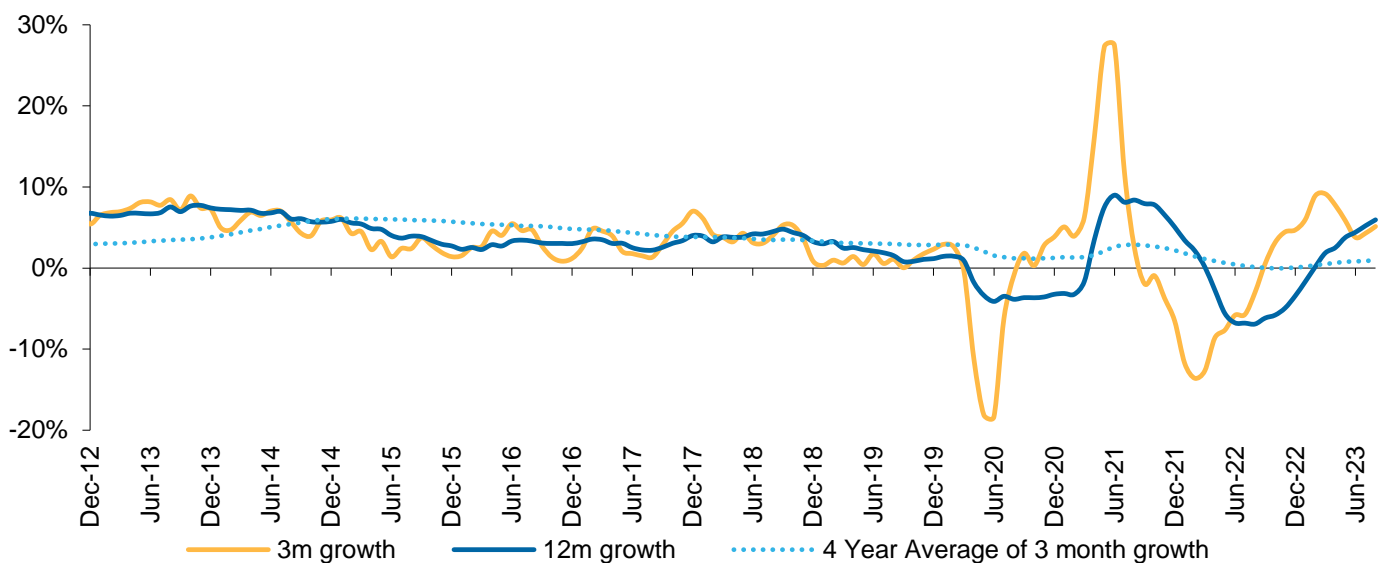
Figure 17 - Market Shares by State: FY22

2022	HIB Revenue	Industry	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
MPL	6,713,102	25.6%	21.4%	30.5%	29.5%	21.1%	19.0%	24.1%	27.2%	38.7%
BUPA	6,590,053	24.8%	22.5%	23.1%	30.9%	10.4%	45.5%	29.0%	18.3%	36.2%
HCF	3,463,911	12.7%	22.1%	8.9%	9.6%	5.5%	9.7%	6.1%	17.8%	5.6%
NHF	2,286,176	8.7%	13.7%	8.0%	6.1%	3.7%	4.0%	2.7%	13.6%	3.2%
HBF	1,727,033	6.5%	0.7%	1.2%	0.8%	49.8%	0.5%	0.7%	0.9%	1.3%
AU	683,119	2.6%	1.4%	6.6%	1.7%	0.5%	1.4%	0.9%	1.3%	0.4%
Other	5,123,157	19.0%	18.2%	21.8%	21.5%	9.1%	20.0%	36.5%	20.9%	14.5%
State Premium Weight			32.1%	24.2%	19.8%	11.5%	7.6%	2.3%	1.9%	0.5%

Source: APRA, Macquarie Research, September 2023

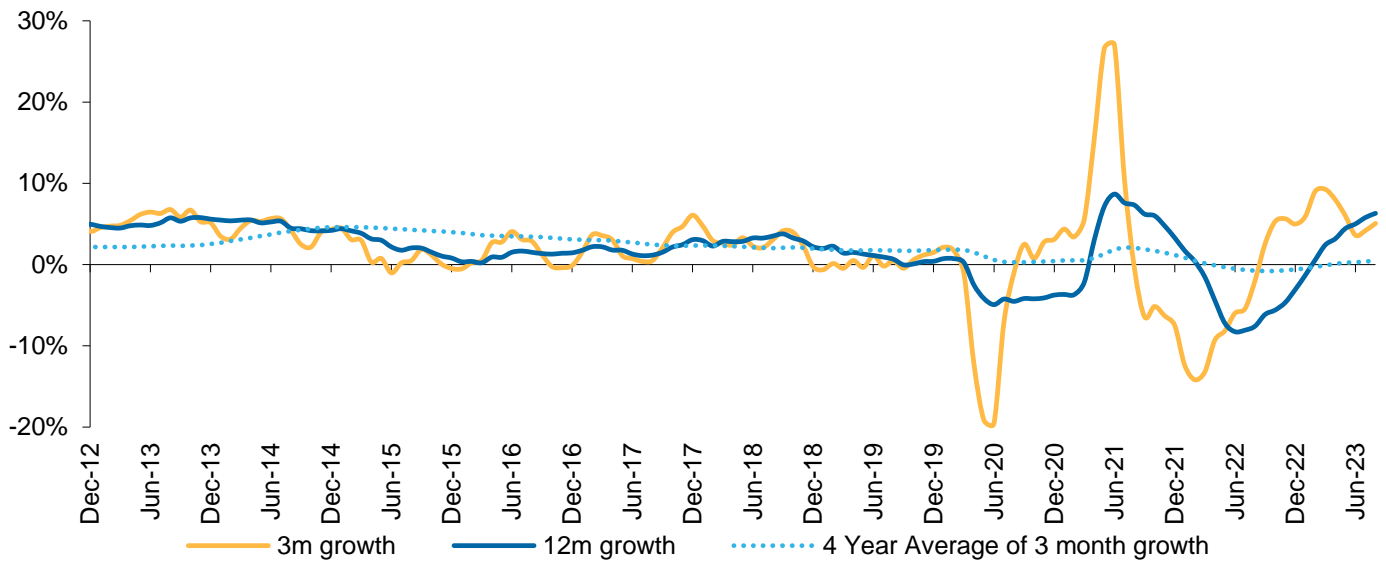
- Below we have reconstructed private hospital admission volume trends for MPL and NHF based upon their respective geographic exposures by state. Note, scales vary by chart.

Figure 18 - Surgical Volume growth: State weighted - MPL



Source: APRA, Medicare, Macquarie Research, September 2023

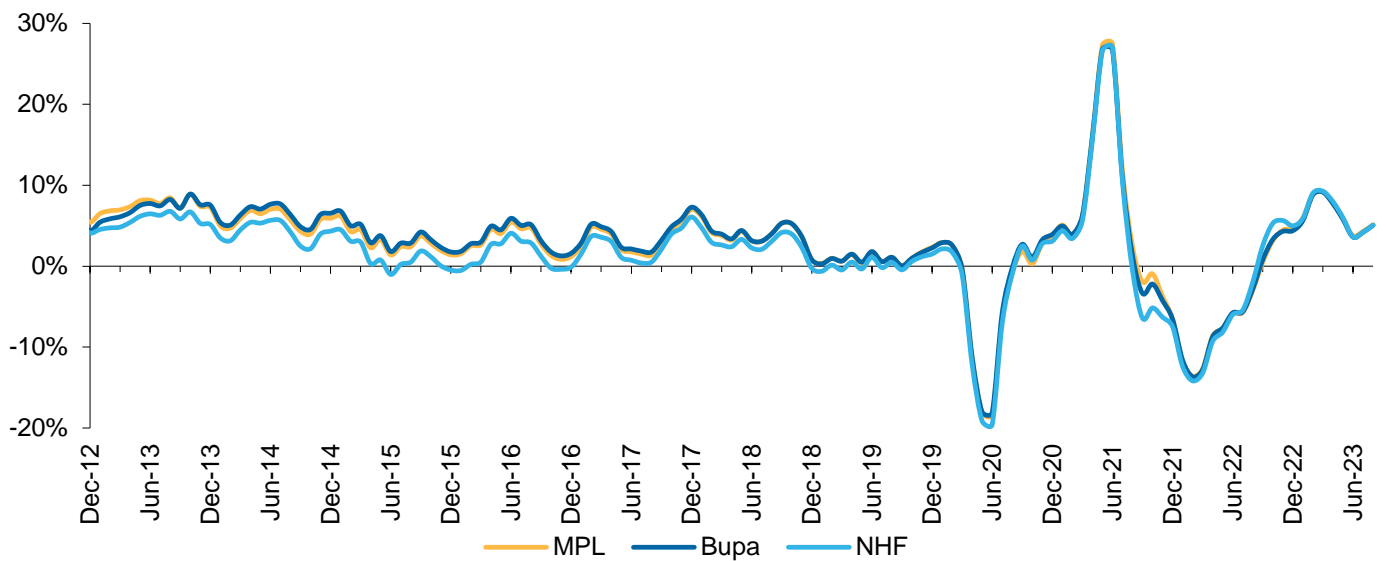
Figure 19 - Surgical Volume growth: State weighted - NHF



Source: APRA, Medicare, Macquarie Research, September 2023

- Below we show NHF’s state-based advantage has contracted over the last five years, when measured on a three-month rolling basis.

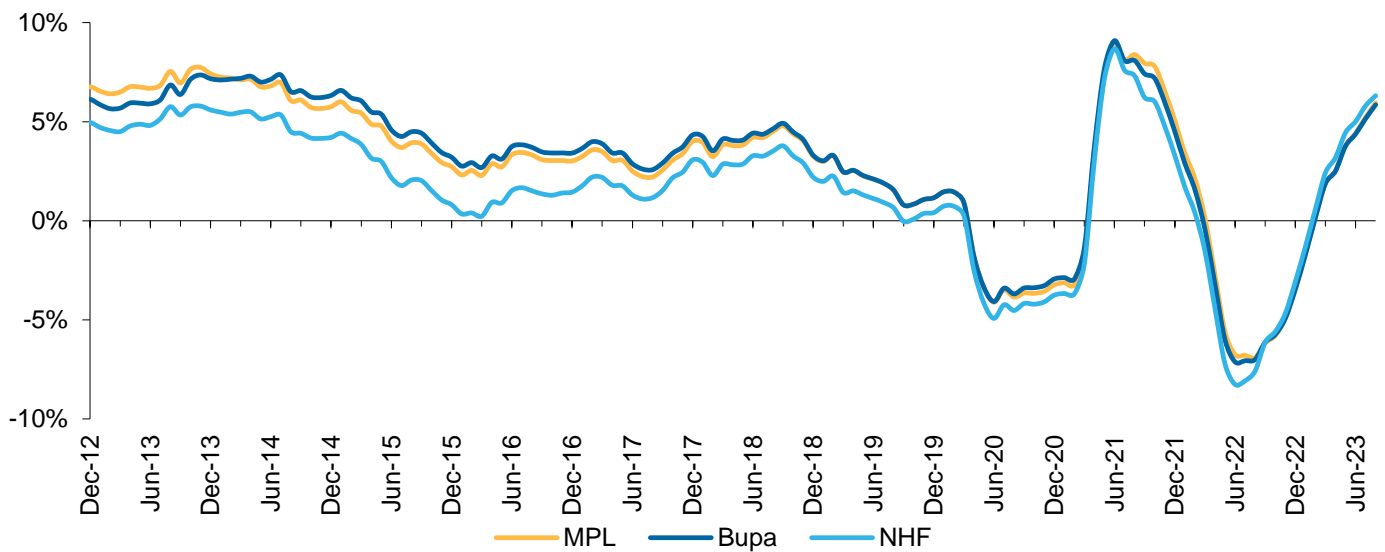
Figure 20 - Growth of hospital admission volumes three-month rolling growth: State-weighted by insurer



Source: APRA, Medicare, Macquarie Research, September 2023

- The advantage has rebounded on a 12-month rolling basis. Given the size of recent volatility of claims volumes, we believe this thesis is moot for the near term but should provide useful context for the underlying geographical footprint of each business as different states rebound from COVID-19 at different paces.

Figure 21 - Growth of hospital admission volumes 12-month rolling growth: State-weighted by insurer

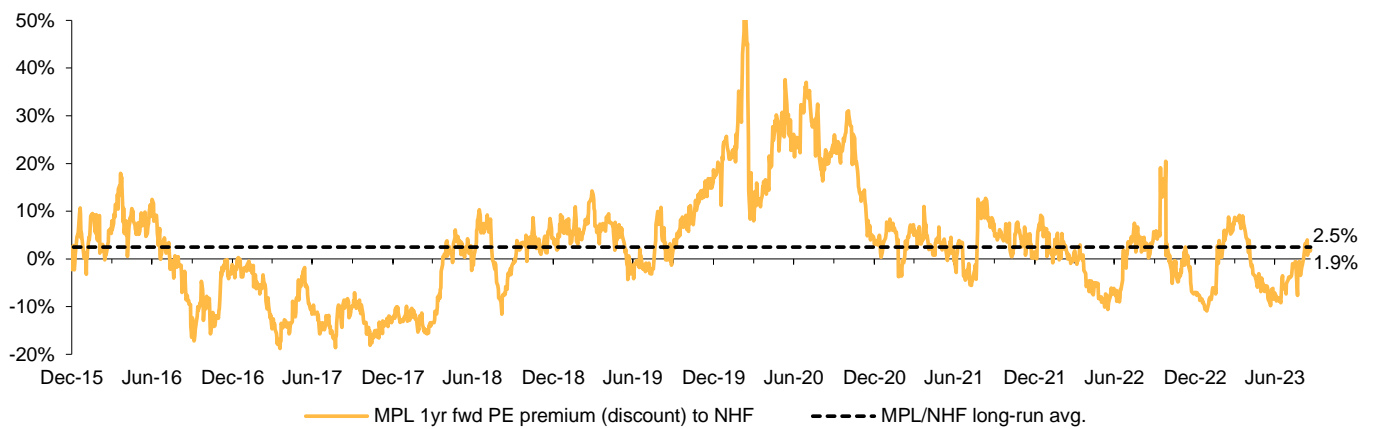


Source: APRA, Medicare, Macquarie Research, September 2023

Appendix C: Comparative valuation metrics

- MPL is trading at a ~1.9% premium vs. NHF (vs. a ~2.5% long term premium).

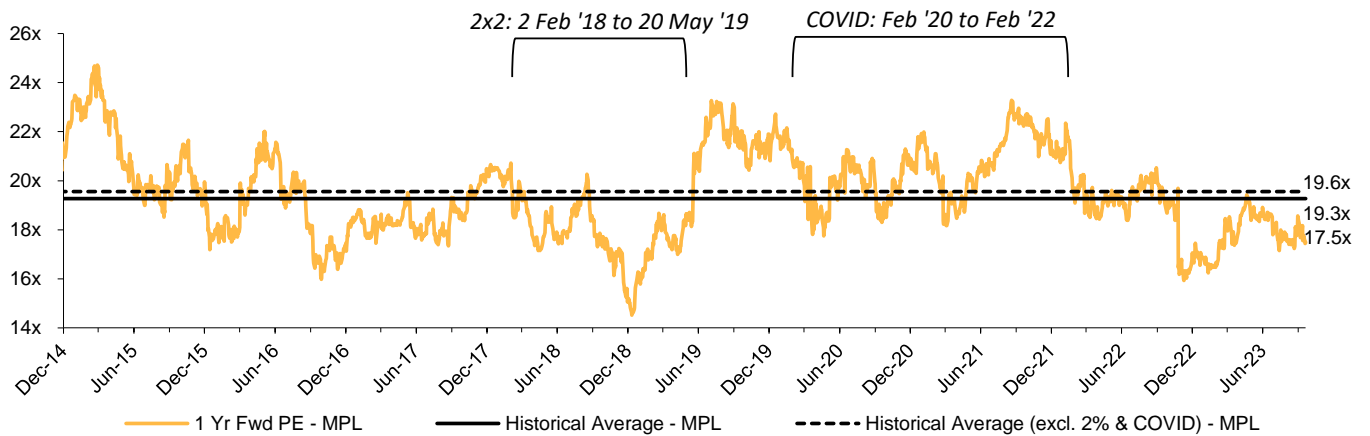
Figure 22 - One-Year Forward PE Rel: MPL vs. NHF



Source: FactSet, Macquarie Research, September 2023

- MPL's one-year forward PE is ~210bps below its five-year average (excl. the period of concern relating to COVID-19 and the 2% price caps) and ~180bps below its long-term unadjusted average.

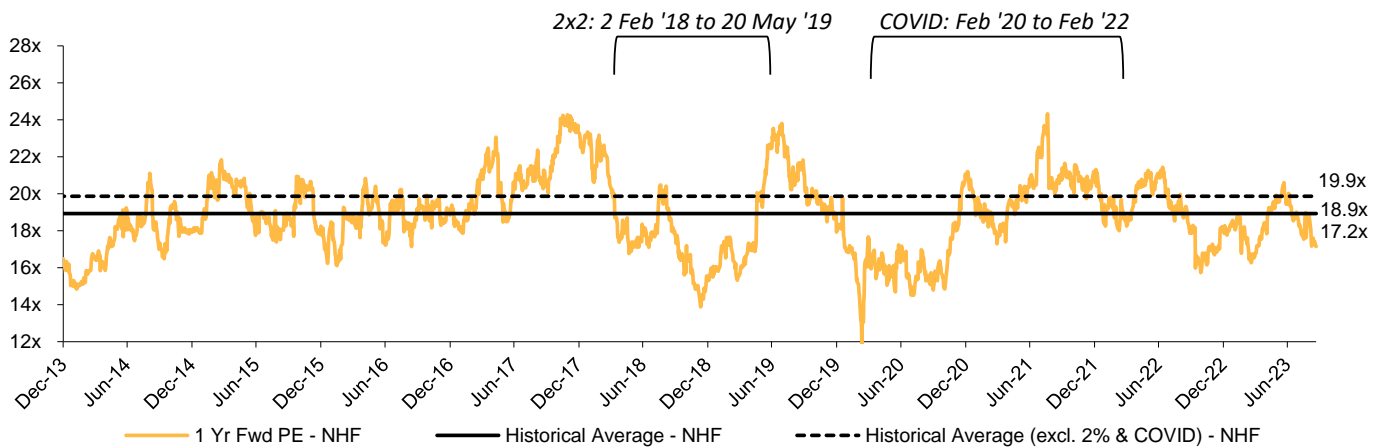
Figure 23 - One-year forward PE vs five-year average - MPL



Source: FactSet, Macquarie Research, September 2023

- NHF's one-year forward PE is ~270bps below its five-year average (excl. the period of concern relating to COVID-19 and the 2% price caps) and 170bps below its long-term unadjusted average.

Figure 24 - One-year forward PE vs. five-year average - NHF



Source: FactSet, Macquarie Research, September 2023

Medibank										Price: \$	3.48
Balance Date: June 30											
Medibank Group											
Group revenue from external customers	A\$m	1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E	
Health Insurance operating profit	A\$m	305.2	345.2	338.7	333.6	592.6	650.4	672.4	684.7	654.0	
Medibank Health operating profit	A\$m	24.6	19.6	23.1	26.6	45.5	44.2	49.7	69.0	83.1	
Segment Operating Profit	A\$m	329.8	364.8	361.8	360.2	638.1	694.6	722.1	753.7	737.1	
Corporate overheads	A\$m	(22.0)	(25.1)	(24.0)	(26.0)	(44.0)	(47.1)	(50.0)	(57.0)	(58.7)	
Group Operating Profit	A\$m	307.8	339.7	337.8	334.2	594.1	647.5	672.1	696.7	678.4	
Net Investment income	A\$m	55.9	82.7	73.0	71.4	(24.8)	138.6	144.4	129.7	126.1	
Interest Expense	A\$m	-	-	-	-	-	-	-	(1.3)	(5.0)	
Amortisation of intangibles	A\$m	(0.7)	(0.7)	(0.5)	(0.5)	(2.0)	(1.4)	(1.0)	-	-	
Cyber Costs	A\$m	(26.2)	(20.2)	(17.5)	(17.5)	-	(46.4)	(35.0)	(10.0)	-	
Other income/(expense)	A\$m	(4.7)	(6.5)	(6.7)	(6.7)	(7.3)	(11.2)	(13.4)	(13.4)	(13.4)	
Profit before tax	A\$m	332.1	395.0	386.1	381.0	560.0	727.1	767.1	801.8	786.0	
Income tax expense	A\$m	(98.8)	(117.2)	(115.8)	(114.3)	(166.1)	(216.0)	(230.1)	(240.5)	(235.8)	
NPAT - total operations	A\$m	233.3	277.8	270.3	266.7	393.9	511.1	537.0	561.3	550.2	
Underlying NPAT	A\$m	226.7	272.9	270.3	266.7	435.1	499.6	537.0	561.3	550.2	
Key ratios											
Financial ratios											
Reported EPS	cps	8.5	10.1	9.8	9.7	14.3	18.6	19.5	20.4	20.0	
Underlying EPS	cps	8.2	9.9	9.8	9.7	15.8	18.1	19.5	20.4	20.0	
EPS growth (underlying)	%	6.7%	22.5%	19.2%	-2.3%	9.1%	14.8%	7.5%	4.5%	-2.0%	
PER	x	20.5	17.2	17.7	18.0	24.3	18.8	17.8	17.1	17.4	
DPS (ordinary)	cps	6.3	8.3	6.5	8.5	13.4	14.6	15.0	17.9	17.5	
Dividend Yield (ordinary only)	%	3.6%	4.8%	3.7%	4.9%	3.9%	4.2%	4.3%	5.1%	5.0%	
Dividend Payout Ratio (Underlying / ordinary)	%	76.5%	83.8%	66.2%	87.8%	84.8%	80.5%	76.9%	87.8%	87.6%	
Franking	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
ROE (Reported, closing equity)	%	23.6%	26.7%	25.4%	24.1%	20.2%	24.5%	24.3%	24.0%	23.0%	
ROE (Underlying, closing equity)	%	22.9%	26.2%	25.4%	24.1%	22.4%	24.0%	24.3%	24.0%	23.0%	
NTA (Reported)	cps	58.3	62.2	63.1	65.8	56.6	62.2	65.8	68.8	69.3	
NTA (Underlying)	cps	57.1	60.9	61.6	64.0	55.6	60.9	64.0	67.0	67.4	
Group ratios											
PHI capital (capital/12m fwd premiums) pre-div	%	14.4%	15.7%	15.4%	15.2%	14.0%	15.7%	15.2%	15.3%	15.2%	
PCA Ratio	x	na	1.80	1.90	1.92	na	1.80	1.92	2.06	2.22	
Medibank Health contribution to operating profit	%	7.5%	5.4%	6.4%	7.4%	7.1%	6.4%	6.9%	9.2%	11.3%	
Revenue growth	%	1.3%	5.0%	7.6%	5.2%	3.2%	3.2%	6.4%	5.7%	6.3%	
Effective Tax Rate (continuing)	%	29.8%	29.7%	30.0%	30.0%	29.7%	29.7%	30.0%	30.0%	30.0%	
Gross Profit Margin	%	16.8%	18.1%	16.8%	17.2%	16.9%	17.5%	17.0%	16.7%	16.1%	
Operating Profit Margin	%	8.5%	9.1%	8.7%	8.5%	8.3%	8.8%	8.6%	8.4%	7.7%	
Reported NPAT growth	%	5.9%	59.9%	15.9%	-4.0%	-10.7%	29.8%	5.1%	4.5%	-2.0%	
Balance Sheet											
Cash and Equiv	A\$m	421	261	383	499	Valuation					
Financial Assets	A\$m	2,867	3,024	3,100	3,177	Valuation as at today		9,876			
Receivables	A\$m	248	235	248	264	Number of shares		2,754			
DAC	A\$m	79	84	84	88	Valuation		3.60			
PPE	A\$m	28	28	29	29	Share price target (12m)		3.75			
Intangible assets	A\$m	328	368	408	448						
Other	A\$m	419	494	652	612						
Total Assets	A\$m	4,389	4,494	4,905	5,118						
Payables	A\$m	368	354	373	395	Capital return		7.8%			
Claims Liabilities	A\$m	777	718	747	778	Dividend Yield		4.3%			
UEP	A\$m	909	954	1,013	1,077	Total Return		12.0%			
Other	A\$m	251	254	433	474	PER at Current share price (1yr fwd)		30.4			
Total Liabilities	A\$m	2,304	2,280	2,566	2,724	PER at Price Target (2yr fwd)		23.4			
Net Assets	A\$m	2,084	2,214	2,339	2,394	Recommendation		Neutral			

Source: Company data, Macquarie Research, September 2023

Divisional Results		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Health Insurance										
Premium revenue	A\$m	3,521.8	3,626.9	3,792.1	3,810.4	6,859.8	7,148.7	7,602.5	8,043.1	8,557.3
Claims	A\$m	(2,942.7)	(2,983.2)	(3,168.8)	(3,179.6)	(5,731.1)	(5,925.9)	(6,348.5)	(6,744.6)	(7,238.4)
Gross Profit	A\$m	579.1	643.7	623.3	630.8	1,128.7	1,222.8	1,254.0	1,298.5	1,319.0
Management Expenses	A\$m	(273.9)	(298.5)	(284.5)	(297.1)	(536.1)	(572.4)	(581.7)	(613.7)	(665.0)
Operating Profit	A\$m	305.2	345.2	338.7	333.6	592.6	650.4	672.4	684.7	654.0
Premium rate rise	%	3.1%	3.0%	3.0%	3.5%	3.2%	3.0%	3.5%	4.5%	5.0%
Premium growth	%	2.0%	6.4%	7.7%	5.1%	2.7%	4.2%	6.3%	5.8%	6.4%
Premium growth per policyholder	%	2.3%	2.1%	-1.5%	-1.1%	0.9%	2.6%	-1.8%	4.3%	5.2%
Closing Policyholder Growth vs. pp	%	0.1%	0.5%	0.8%	0.9%	3.2%	0.6%	1.8%	0.7%	1.1%
PSEU growth vs. pcp	%	2.8%	2.1%	2.1%	1.8%	3.0%	2.1%	1.8%	0.7%	1.1%
Claims growth	%	0.7%	6.2%	7.7%	6.6%	2.1%	3.4%	7.1%	6.2%	7.3%
Underlying Claims growth per policyholder	%	2.1%	1.7%	-3.1%	-1.3%	0.9%	2.4%	-2.1%	4.8%	6.2%
Gross Margin (reported)	%	16.4%	17.7%	16.4%	16.6%	16.5%	17.1%	16.5%	16.1%	15.4%
MER	%	7.8%	8.2%	7.5%	7.8%	7.8%	8.0%	7.7%	7.6%	7.8%
Operating Margin (reported)	%	8.7%	9.5%	8.9%	8.8%	8.6%	9.1%	8.8%	8.5%	7.6%
Operating Margin (underlying)	%	8.1%	9.1%	8.9%	8.8%	8.2%	8.6%	8.8%	8.5%	7.6%
Residents										
Premium revenue	A\$m	3,431.0	3,520.2	3,671.0	3,681.6	6,712.9	6,951.2	7,352.5	7,759.2	8,235.0
Claims	A\$m	(2,882.9)	(2,911.9)	(3,089.1)	(3,093.5)	(5,621.7)	(5,794.8)	(6,182.6)	(6,556.3)	(7,024.4)
Gross Profit	A\$m	548.1	608.3	581.9	588.0	1,091.2	1,156.4	1,169.9	1,202.9	1,210.5
Management Expenses	A\$m	(265.9)	(290.2)	(274.5)	(287.1)	(523.6)	(556.1)	(561.7)	(589.7)	(641.0)
Operating Profit	A\$m	282.2	318.1	307.4	300.9	567.6	600.3	608.3	613.2	569.5
Gross Margin (reported)	%	16.0%	17.3%	15.9%	16.0%	16.3%	16.6%	15.9%	15.5%	14.7%
MER	%	7.8%	8.2%	7.5%	7.8%	7.8%	8.0%	7.6%	7.6%	7.8%
Operating Margin (reported)	%	8.2%	9.0%	8.4%	8.2%	8.5%	8.6%	8.3%	7.9%	6.9%
Operating Margin (underlying)	%	7.6%	8.6%	8.4%	8.2%	8.0%	8.1%	8.3%	7.9%	6.9%
Overseas										
Premium revenue	A\$m	90.8	106.7	121.2	128.8	146.9	197.5	250.0	283.9	322.4
Claims	A\$m	(59.8)	(71.3)	(79.8)	(86.1)	(109.4)	(131.1)	(165.9)	(188.4)	(213.9)
Gross Profit	A\$m	31.0	35.4	41.4	42.7	37.5	66.4	84.1	95.5	108.5
Management Expenses	A\$m	(8.0)	(8.3)	(10.0)	(10.0)	(12.5)	(16.3)	(20.0)	(24.0)	(24.0)
Operating Profit	A\$m	23.0	27.1	31.4	32.7	25.0	50.1	64.1	71.5	84.5
Gross Margin (reported)	%	34.1%	33.2%	34.1%	33.2%	25.5%	33.6%	33.6%	33.6%	33.6%
MER	%	8.8%	7.8%	8.3%	7.8%	8.5%	8.3%	8.0%	8.5%	7.4%
Operating Margin (reported)	%	25.3%	25.4%	25.9%	25.4%	17.0%	25.4%	25.6%	25.2%	26.2%
Operating Margin (underlying)	%	25.3%	25.4%	25.9%	25.4%	17.0%	25.4%	25.6%	25.2%	26.2%
Medibank Health										
Revenue (gross)	A\$m	139.5	137.6	143.7	141.7	321.8	277.1	285.4	294.0	302.8
Cost of Sales	A\$m	(77.1)	(68.2)	(81.1)	(66.9)	(192.6)	(145.3)	(148.0)	(146.1)	(140.6)
Gross Profit	A\$m	62.4	69.4	62.6	74.9	129.2	131.8	137.4	147.9	162.2
Management Expenses	A\$m	(38.8)	(48.8)	(40.0)	(50.3)	(88.4)	(87.6)	(90.2)	(83.9)	(86.4)
Operating Profit	A\$m	23.6	20.6	22.6	24.6	40.8	44.2	47.2	64.0	75.8
Share of profit/(loss) from MyHealth	A\$m	1.0	1.1	1.0	1.0	2.9	2.1	2.0	2.0	2.3
Share of profit/(loss) from other investments	A\$m	-	(2.1)	(0.5)	1.0	1.8	(2.1)	0.5	3.0	5.0
Total Profit	A\$m	24.6	19.6	23.1	26.6	45.5	44.2	49.7	69.0	83.1
Revenue growth	%	-10.4%	-17.2%	3.0%	3.0%	13.4%	-13.9%	3.0%	3.0%	3.0%
Gross Margin	%	44.7%	50.4%	43.5%	52.8%	40.1%	47.6%	48.2%	50.3%	53.6%
MER	%	27.8%	35.5%	27.8%	35.5%	27.5%	31.6%	31.6%	28.5%	28.5%
Operating Margin	%	16.9%	15.0%	15.7%	17.4%	12.7%	16.0%	16.5%	21.8%	25.0%

Source: Company data, Macquarie Research, September 2023

nib holdings

Price: \$ 7.67

Balance Date: June 30

Group P&L (statutory view)		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Net Premium revenue	A\$m	1,434.1	1,477.4	1,530.6	1,575.3	2,703.4	2,911.5	3,105.9	3,303.5	3,467.8
Net Claims Incurred	A\$m	(1,119.2)	(1,104.2)	(1,191.5)	(1,208.2)	(2,085.0)	(2,223.4)	(2,399.6)	(2,554.2)	(2,701.3)
Gross underwriting result	A\$m	314.9	373.2	339.1	367.2	618.4	688.1	706.3	749.3	766.5
Other underwriting revenue	A\$m	3.3	3.2	2.9	3.0	6.4	6.5	5.9	6.7	7.5
Acquisition costs	A\$m	(85.0)	(114.9)	(92.4)	(114.0)	(183.4)	(199.9)	(206.3)	(219.4)	(229.9)
Other underwriting expenses	A\$m	(103.6)	(115.0)	(100.9)	(111.7)	(182.1)	(218.6)	(212.5)	(226.0)	(235.7)
Net underwriting result	A\$m	129.6	146.5	148.7	144.6	259.3	276.1	293.3	310.6	308.4
Other Income	A\$m	60.8	84.2	92.5	97.4	51.5	145.0	189.8	213.2	256.0
Other Expenses	A\$m	(62.5)	(91.0)	(93.3)	(95.4)	(68.2)	(153.5)	(188.7)	(199.6)	(225.8)
Share of Associates and JV	A\$m	(2.4)	(2.0)	(1.0)	(1.0)	(5.6)	(4.4)	(2.0)	-	-
Underlying Operating Profit	A\$m	125.5	137.7	146.9	145.5	237.0	263.2	292.4	324.2	338.6
Amortisation	A\$m	(3.4)	(7.3)	(3.0)	(3.0)	(7.7)	(10.7)	(6.0)	(6.0)	(6.0)
One-off M&A costs	A\$m	(3.1)	(5.8)	(3.0)	(3.0)	(0.1)	(8.9)	(6.0)	(4.0)	-
Gain on sale of JV	A\$m	-	-	-	-	-	-	-	-	-
Statutory Operating Profit	A\$m	119.0	124.6	140.9	139.5	229.2	243.6	280.4	314.2	332.6
Finance Income	A\$m	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2
Finance Costs	A\$m	(6.3)	(7.7)	(7.4)	(7.4)	(7.0)	(14.0)	(14.7)	(14.7)	(14.7)
Investment Income	A\$m	23.6	33.7	28.9	31.3	(27.3)	57.3	60.3	66.9	74.3
Investment Expenses	A\$m	(1.4)	(1.2)	(1.3)	(1.3)	(2.7)	(2.6)	(2.6)	(2.6)	(2.6)
PBT	A\$m	135.0	149.5	161.2	162.3	192.5	284.5	323.5	363.9	389.7
Income tax Expense	A\$m	(42.8)	(50.0)	(50.8)	(51.1)	(57.5)	(92.8)	(101.9)	(112.8)	(116.9)
Reported NPAT (continuing)	A\$m	92.2	99.5	110.5	111.2	135.0	191.7	221.6	251.1	272.8
Reported NPAT (discontinuing)	A\$m	(0.2)	(0.4)	-	-	(1.2)	(0.6)	-	-	-
Reported NPAT	A\$m	92.0	99.1	110.5	111.2	133.8	191.1	221.6	251.1	272.8

Investment Fundamentals		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
EPS (basic)	cps	20.1	21.3	23.5	23.5	29.6	41.4	47.0	52.6	56.4
EPS (diluted)	cps	20.1	21.3	23.5	23.5	29.6	41.4	47.0	52.6	56.4
EPS Growth (basic)	%	13.1%	78.0%	16.8%	10.4%	-16.0%	39.9%	13.4%	11.9%	7.4%
PER (Adjusted)	x	18.6x	17.0x	16.2x	16.1x	25.0x	17.8x	16.1x	14.4x	13.5x
Total DPS	cps	13.0	15.0	14.0	16.0	22.0	28.0	30.0	34.0	37.0
Dividend Yield	%	3.4%	3.9%	3.7%	4.2%	2.9%	3.7%	3.9%	4.4%	4.8%
Dividend payout ratio (reported)	%	64.7%	70.4%	60.0%	70.0%	74.3%	67.6%	63.9%	64.7%	65.5%
EFPOWA	#m	468.3	483.1	483.8	484.6	458.4	475.6	484.2	485.7	487.5
P/BV	x	3.8	3.8	3.6	3.4	4.8	3.7	3.4	3.1	2.8
P/NTA	x	4.6	4.3	4.1	4.0	5.6	4.2	4.0	3.6	3.2
Gearing Ratio	%	20.0%	20.2%	20.0%	19.3%	26.6%	20.2%	19.3%	17.7%	16.4%
ROA	%	9.7%	10.0%	10.7%	10.4%	7.6%	9.8%	10.5%	11.4%	11.6%
ROE	%	22.4%	21.3%	22.5%	21.5%	18.7%	21.9%	22.0%	22.3%	21.8%

Balance Sheet		FY23A	FY24E	FY25E	FY26E		
Assets							
Cash & cash equivalents	A\$m	243	258	288	368	Sum of distributable cash profits	1,100
Intangibles	A\$m	119	159	159	159	Terminal value	2,416
Other assets	A\$m	1,768	1,818	1,878	1,948	Franking Credits	213
Total assets	A\$m	2,130	2,235	2,325	2,475	Total valuation	3,729
Liabilities						Shares on issue	483
Unearned Premiums	A\$m	266	284	301	316	Value per share	A\$7.70
Outstanding claims	A\$m	268	239	196	207	Target price	A\$8.65
Borrowings	A\$m	246	256	256	256		
Other liabilities	A\$m	366	369	372	375	Capital Return	12.8%
Total liabilities	A\$m	1,146	1,148	1,124	1,154	Dividend Yield	3.8%
Retained Earnings	A\$m	673	760	860	965	Total Return	16.6%
Total shareholder equity	A\$m	984	1,087	1,201	1,321	Recommendation	Neutral

Source: Company data, Macquarie Research, September 2023

arhi		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Premium revenue	A\$m	1,201.0	1,225.6	1,269.4	1,302.9	2,286.2	2,426.6	2,572.3	2,736.0	2,874.7
Claims	A\$m	(973.3)	(955.3)	(1,031.2)	(1,048.1)	(1,820.3)	(1,928.6)	(2,079.3)	(2,222.9)	(2,344.2)
Gross underwriting result	A\$m	227.7	270.3	238.2	254.8	465.9	498.0	493.0	513.1	530.5
Underwriting Expenses	A\$m	(122.5)	(155.4)	(119.1)	(141.8)	(227.9)	(277.9)	(260.9)	(277.8)	(292.1)
Net underwriting result	A\$m	105.2	114.9	119.1	113.0	238.0	220.1	232.1	235.2	238.4
Other income	A\$m	1.4	1.4	1.4	1.4	2.5	2.8	2.8	2.8	2.8
Underlying Operating Profit	A\$m	106.6	116.3	120.5	114.4	240.5	222.9	234.9	238.0	241.2
Premium revenue growth (pcp)	%	4.3%	8.0%	5.7%	6.3%	5.2%	6.1%	6.0%	6.4%	5.1%
Policyholder growth (pcp) - closing	%	4.2%	4.7%	4.1%	3.5%	3.2%	4.7%	3.5%	2.0%	2.0%
Policyholder growth (pcp) - average	%	3.7%	4.5%	4.4%	3.8%	3.7%	4.0%	4.1%	2.8%	2.0%
UOP growth	%	-14.6%	0.5%	13.0%	-1.6%	12.3%	-7.3%	5.4%	1.3%	1.3%
Reported Gross margin % - arhi	%	19.5%	22.5%	19.4%	20.1%	20.9%	21.0%	19.8%	19.3%	19.0%
MER % - arhi	%	10.9%	13.3%	10.1%	11.6%	10.7%	12.1%	10.9%	10.9%	10.9%
Reported Net margin % - arhi	%	8.6%	9.3%	9.3%	8.5%	10.2%	8.9%	8.9%	8.4%	8.1%
iihi		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Premium revenue	A\$m	71.3	80.1	83.0	85.0	123.7	151.4	168.0	177.0	187.0
Claims	A\$m	(46.1)	(45.4)	(45.2)	(44.5)	(89.2)	(91.5)	(89.7)	(92.5)	(108.7)
Gross underwriting result	A\$m	25.2	34.7	37.8	40.5	34.5	59.9	78.3	84.5	78.3
Underwriting Expenses	A\$m	(17.3)	(19.6)	(22.5)	(24.9)	(35.6)	(36.9)	(47.4)	(52.0)	(52.9)
Net underwriting result	A\$m	7.9	15.1	15.3	15.7	(1.1)	23.0	31.0	32.5	25.4
Other income	A\$m	-	-	-	-	-	-	-	-	-
Underlying Operating Profit	A\$m	7.9	15.1	15.3	15.7	(1.1)	23.0	31.0	32.5	25.4
Premium revenue growth (pcp)	%	19.0%	25.5%	16.4%	6.1%	7.1%	22.4%	11.0%	5.4%	5.6%
UOP growth	%	-206.8%	139.7%	93.8%	3.6%	-81.4%	-2190.9%	34.6%	4.9%	-21.9%
Reported Gross margin % - IIHI	%	38.3%	45.7%	48.0%	50.0%	30.6%	42.2%	49.0%	50.0%	44.0%
MER % - IIHI	%	29.0%	29.1%	31.0%	33.0%	33.6%	29.1%	32.0%	33.0%	31.7%
Reported Net margin % - IIHI	%	9.3%	16.6%	17.0%	17.0%	-3.0%	13.1%	17.0%	17.0%	12.3%
nzhi		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Premium revenue	A\$m	160.1	170.3	176.7	185.9	291.8	330.4	362.6	387.5	403.1
Claims	A\$m	(99.5)	(103.1)	(114.8)	(115.3)	(175.3)	(202.6)	(230.1)	(238.2)	(247.8)
Gross underwriting result	A\$m	60.6	67.2	61.8	70.6	116.5	127.8	132.5	149.3	155.3
Underwriting Expenses	A\$m	(43.9)	(51.1)	(47.6)	(54.8)	(93.8)	(95.0)	(102.5)	(106.6)	(110.9)
Net underwriting result	A\$m	16.7	16.1	14.2	15.8	22.7	32.8	30.0	42.7	44.4
Other income	A\$m	-	1.4	1.5	2.3	-	1.4	3.8	4.1	4.1
Underlying Operating Profit	A\$m	16.7	17.5	15.7	18.1	22.7	34.2	33.8	46.8	48.5
Premium revenue growth (pcp)	%	10.9%	15.5%	10.4%	9.2%	12.8%	13.2%	9.7%	6.9%	4.0%
Policyholder growth (pcp) - closing	%	5.2%	5.8%	4.4%	3.5%	4.5%	5.8%	3.5%	2.0%	2.0%
Policyholder growth (pcp) - average	%	4.8%	5.5%	5.1%	4.0%	3.4%	5.2%	4.6%	2.8%	2.0%
Underlying Operating Result growth	%	81.5%	29.6%	-5.8%	3.4%	-5.8%	50.7%	-1.1%	38.4%	3.7%
Reported Gross margin % - nzhi	%	38.7%	40.3%	35.0%	38.0%	40.8%	39.5%	36.5%	38.5%	38.5%
MER % - nzhi	%	28.3%	30.8%	26.9%	29.5%	33.0%	29.6%	28.3%	27.5%	27.5%
Reported Net margin % - nzhi	%	10.4%	9.5%	8.1%	8.5%	7.8%	9.9%	8.3%	11.0%	11.0%
Travel		1H23A	2H23A	1H24E	2H24E	FY22A	FY23A	FY24E	FY25E	FY26E
Other Income	A\$m	51.3	61.9	59.4	60.8	46.6	113.2	120.2	118.7	119.0
Acquisition costs	A\$m	(28.1)	(35.5)	(32.7)	(33.4)	(26.8)	(63.6)	(66.1)	(65.3)	(65.5)
Operating expenses	A\$m	(16.6)	(19.2)	(20.0)	(20.0)	(26.9)	(35.8)	(40.0)	(38.0)	(38.1)
Underlying Operating Profit	A\$m	6.4	7.6	6.8	7.4	(7.4)	14.0	14.3	15.6	15.7
Net Margin	%	67.6%	69.0%	66.3%	67.1%	42.3%	68.4%	66.7%	68.0%	68.0%

Source: Company data, Macquarie Research, September 2023

- For risks to our investment theses, please see our most recent reports: MPL, NHF.

Important Disclosures

Recommendation definitions	Volatility index definition	Financial definitions
<p>Macquarie – Asia and USA Outperform – expected return >10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie – Australia/New Zealand Outperform – expected return >10% Neutral – expected return from 0% to 10% Underperform – expected return <0%</p> <p>During periods of share price volatility, recommendations and target prices may occasionally and temporarily be inconsistent with the above definitions.</p> <p>Recommendations – 12 months Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>This is calculated from the volatility of historical price movements.</p> <p>Very high – highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.</p> <p>High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.</p> <p>Medium – stock should be expected to move up or down at least 25–40% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year.</p> <p>* Applicable to select stocks in Asia/Australia/NZ</p> <p>Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk</p>	<p>All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests</p> <p>EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit /average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>

Recommendation proportions for quarter ending 30 June 2023

	AU/NZ	Asia	USA	
Outperform	56.88%	63.90%	63.89%	(for global coverage by Macquarie, 2.58% of stocks followed are investment banking clients)
Neutral	36.88%	23.06%	33.33%	(for global coverage by Macquarie, 1.22% of stocks followed are investment banking clients)
Underperform	6.25%	13.04%	2.78%	(for global coverage by Macquarie, 0.00% of stocks followed are investment banking clients)

Company-Specific Disclosures

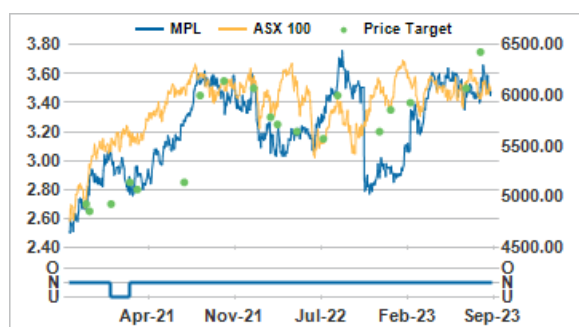
Company Name	Disclosure
<p>Medibank (MPL AU) Neutral 12-month target: AUD3.75 - DCF Valuation: AUD 3.60 - DCF (WACC 9.1%, beta 1.2, ERP 5.0%, RFR 3.1%, TGR 3.1%) Price: AUD3.48</p>	<p>Macquarie Group Limited together with its affiliates owns a net long of 0.5% or more of the equity securities of Medibank Private Ltd Macquarie Group Limited together with its affiliates beneficially owns 1% or more of the equity securities of Medibank Private Ltd.</p>
<p>nib (NHF AU) Neutral 12-month target: AUD8.65 - DCF Valuation: AUD 7.70 - DCF (WACC 8.9%, beta 1.2, ERP 5.0%, RFR 3.1%, TGR 3.1%) Price: AUD7.67</p>	<p>Macquarie Group Limited together with its affiliates owns a net long of 0.5% or more of the equity securities of NIB Holdings Ltd Macquarie Group Limited together with its affiliates beneficially owns 1% or more of the equity securities of NIB Holdings Ltd.</p>

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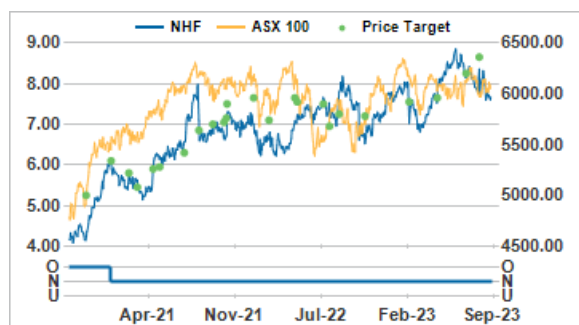
Recommendation history

Company name Related	Date	Recommendation	Target price
Medibank (MPL AU)	24-Aug-2023	Neutral	AUD 3.75
	18-Jul-2023	Neutral	AUD 3.50
	23-Feb-2023	Neutral	AUD 3.40
	3-Jan-2023	Neutral	AUD 3.35
	5-Dec-2022	Neutral	AUD 3.20
	18-Aug-2022	Neutral	AUD 3.45
	12-Jul-2022	Neutral	AUD 3.15
	4-May-2022	Neutral	AUD 3.20
	15-Mar-2022	Neutral	AUD 3.25
	25-Feb-2022	Neutral	AUD 3.30
	12-Jan-2022	Neutral	AUD 3.50



27-Oct-2021	Neutral	AUD 3.55
26-Aug-2021	Neutral	AUD 3.45
16-Jul-2021	Neutral	AUD 2.85
16-Mar-2021	Neutral	AUD 2.80
25-Feb-2021	Neutral	AUD 2.85
7-Jan-2021	Underperform	AUD 2.70
12-Nov-2020	Neutral	AUD 2.65
3-Nov-2020	Neutral	AUD 2.70

nib (NHF AU)



21-Aug-2023	Neutral	AUD 8.65
18-Jul-2023	Neutral	AUD 8.25
4-May-2023	Neutral	AUD 7.65
20-Feb-2023	Neutral	AUD 7.55
28-Oct-2022	Neutral	AUD 7.20
22-Aug-2022	Neutral	AUD 7.25
28-Jul-2022	Neutral	AUD 6.95
12-Jul-2022	Neutral	AUD 7.50
5-May-2022	Neutral	AUD 7.55
29-Apr-2022	Neutral	AUD 7.65
21-Feb-2022	Neutral	AUD 7.10
12-Jan-2022	Neutral	AUD 7.65
4-Nov-2021	Neutral	AUD 7.50
2-Nov-2021	Neutral	AUD 7.15
27-Oct-2021	Neutral	AUD 7.05
28-Sep-2021	Neutral	AUD 7.00
23-Aug-2021	Neutral	AUD 6.85
16-Jul-2021	Neutral	AUD 6.30
13-May-2021	Neutral	AUD 5.95
26-Apr-2021	Neutral	AUD 5.90
16-Mar-2021	Neutral	AUD 5.45
22-Feb-2021	Neutral	AUD 5.80
7-Jan-2021	Neutral	AUD 6.10
3-Nov-2020	Outperform	AUD 5.25

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