

FY11 – a year of transformation

MSB continues to find new opportunities for its platform technology

August 24, 2011

Rating Remains	Buy
Target price Remains	AUD 10.45
Closing price August 23, 2011	AUD 7.17
Potential upside	+45.7%

Action: a transformational FY11 result

MSB reported FY11 NPAT of A\$90.6mn. The result was above our forecasts due to lower-than-expected tax payable as a result of accounting adjustments from the privately owned Angioblast acquisition.

Catalyst: Phase III trial for bone-marrow transplantation underway

Recently, MSB has received clearance from the US Food and Drug Administration to start a Phase III trial for bone-marrow transplantation. We believe the trial should run for 12 months, with results available c6 months after that. These timelines are within our forecasts for timing of potential revenues for MSB.

FY12F EPS declines due in part to adjustments to the timing of commercialisation revenue

Changes to our FY12+ forecasts include: 1) adjustments to the timing of commercialisation revenue taken from the deferred revenue account; 2) increase in management and administration expenses; 3) increase in R&D expenditure; 4) FY12F lower interest income in line with FY11A interest rate; and 5) higher tax rate of 35%.

Valuation: TP unchanged at A\$10.45, BUY recommendation

We calculate that the NPV of the potential opportunities developed by MSB is A\$17.14. We believe the probability of MSB getting its product onto market is 61.2% (according to data from Tufts University, USA). Hence, our risk-weighted valuation is A\$10.45 (=0.61xA\$17.14). We maintain this as our target price.

30 Jun	FY11	FY12F		FY13F		FY14F	
Currency (AUD)	Actual	Old	New	Old	New	Old	New
Revenue (mn) 116		154	31	183	32	208	134
Reported net profit (mn) 91		95	-37	116	-27	135	41
Normalised net profit (mn) 91		95	-37	116	-27	135	41
Normalised EPS 41.79c		33.84c	-13.29c	41.38c	-9.49c	48.32c	14.67c
Norm. EPS growth (%) na		9.1	-131.8	22.3	na	16.8	na
Norm. P/E (x) 18.0		N/A	na	N/A	na	N/A	50.8
EV/EBITDA (x)							
Price/book (x) 3.9		N/A	4.2	N/A	4.4	N/A	4.1
Dividend yield (%) na		N/A	na	N/A	na	N/A	na
ROE (%) 32.7		17.3	-7.5	17.7	-5.7	17.4	8.7
Net debt/equity (%) net	cash	net cash	net cash	net cash	net cash	net cash	net cash

Source: Nomura estimates

Key company data: See page 2 for company data and detailed price/index chart.

Rating: See report end for details of Nomura's rating system.

Anchor themes

As the aged population is having more operations, we believe there will be more demand for treatments, which MSB can deliver.

Nomura vs consensus

There is minimal consensus data available.

Research analysts

Australia Health Care & Pharmaceuticals

See Appendix A-1 for analyst certification and important disclosures. Analysts employed by non US affiliates are not registered or qualified as research analysts with FINRA in the US.

Key data on Mesoblast

Income statement (AUDmn)

Year-end 30 Jun	FY10	FY11	FY12F	FY13F	FY14F
Revenue	0	116	31	32	134
Cost of goods sold	0	0	-1	-1	-4
Gross profit	0	116	30	30	130
SG&A -11		-27	-58	-64	-74
Employee share expense					
Operating profit	-11	89	-29	-33	56
EBITDA	-11	89	-27	-32	62
Depreciation 0		0	-2	-1	-5
Amortisation 0		0	0	0	0
EBIT -11		89	-29	-33	56
Net interest expense 1		5	8	7	7
Associates & JCEs					
Other income	-4	-2	0	0	0
Earnings before tax	-15	92	-21	-27	63
Income tax	0	-2	-16	0	-22
Net profit after tax	-15	91	-37	-27	41
Minority interests	0	0	0	0	0
Other items					
Preferred dividends					
Normalised NPAT	-15	91	-37	-27	41
Extraordinary items	0	0	0	0	0
Reported NPAT	-15	91	-37	-27	41
Dividends 0		0	0	0	0
Transfer to reserves	-15	91	-37	-27	41

Valuation and ratio analysis

FD normalised P/E (x) na		18.0	na	na	50.8
FD normalised P/E at price target (x) na		26.3	na	na	74.0
Reported P/E (x) na		17.2	na	na	48.9
Dividend yield (%) na		na	na	na	na
Price/cashflow (x) na		14.7	na	na	44.4
Price/book (x) 29.3		3.9	4.2	4.4	4.1
EV/EBITDA (x)					
EV/EBIT (x)					
Gross margin (%) 100.0		100.0	97.1	95.9	97.2
EBITDA margin (%) -199,515	.4	76.8	-88.6	-100.4	46.0
EBIT margin (%) -202,302	.4	76.6	-93.6	-104.9	42.0
Net margin (%) -268,743	.5	77.9	-122.1	-83.8	30.7
Effective tax rate (%) na		1.8	na	na	35.0
Dividend payout (%) na		0.0	na	na	0.0
Capex to sales (%) 1,583	.9	0.4	5.0	4.5	4.1
Capex to depreciation (x) 0.8		3.4	1.0	1.0	1.0
ROE (%) -46.4		32.7	-7.5	-5.7	8.7
ROA (pretax %) -124.2		35.1	-5.7	-6.7	11.2

Growth (%)

Revenue -97.0		2,113,948.2	-73.8	4.1	322.4
EBITDA na		na	-130.3	na	na
EBIT na		na	-132.0	na	na
Normalised EPS	na	na	-131.8	na	na
Normalised FDEPS	na	na	-132.1	na	na

Per share

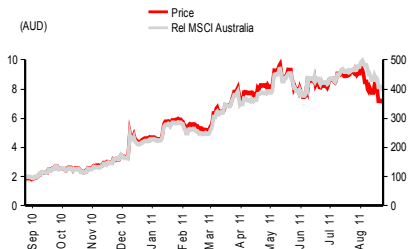
Reported EPS (AUD) -10.51	c	41.79c	-13.29c	-9.49c	14.67c
Norm EPS (AUD) -10.51	c	41.79c	-13.29c	-9.49c	14.67c
Fully diluted norm EPS (AUD) -10.51	c	39.78c	-12.79c	-9.13c	14.12c
Book value per share (AUD) 0.24		1.84	1.71	1.61	1.76
DPS (AUD) 0.00		0.00	0.00	0.00	0.00

Source: Nomura estimates

Notes

We forecast the start of milestone payments for MSB in FY12

Price and price relative chart (one year)



(%)	1M	3M	12M
Absolute (AUD)	-22.3	-16.9	277.4
Absolute (USD)	-24.9	-17.0	342.6
Relative to index	-13.0	-6.4	284.1
Market cap (USDmn)	2,194.8		
Estimated free float (%)	55.0		
52-week range (AUD)	9.95/1.8		
3-mth avg daily turnover (USDmn)	6.47		
Major shareholders (%)			
Silviu Itescu	25.0		
Cephalon Inc	20.0		

Cashflow (AUDmn)

Year-end 30 Jun	FY10	FY11	FY12F	FY13F	FY14F
EBITDA -11		89	-27	-32	62
Change in working capital -1		28	0	0	0
Other operating cashflow	3	-7	-9	7	-15
Cashflow from operations	-9	111	-35	-25	47
Capital expenditure 0		0	-2	-1	-5
Free cashflow	-9	111	-37	-26	42
Reduction in investments	4	5	0	0	0
Net acquisitions 0		3	0	0	0
Reduction in other LT assets	0	-22	0	0	0
Addition in other LT liabilities	0	217	0	0	0
Adjustments -5		-201	0	0	0
Cashflow after investing acts	-10	113	-37	-26	42
Cash dividends	0	0	0	0	0
Equity issue	26	126	0	0	0
Debt issue	0	0	0	0	0
Convertible debt issue					
Others 0		-8	0	0	0
Cashflow from financial acts	26	118	0	0	0
Net cashflow	16	231	-37	-26	42
Beginning cash	17	32	263	226	200
Ending cash	32	263	226	200	242
Ending net debt	-32	-263	-226	-200	-242

Source: Nomura estimates

Notes

We assume a successful Phase III bone marrow trial in our forecasts

Balance sheet (AUDmn)

As at 30 Jun	FY10	FY11	FY12F	FY13F	FY14F
Cash & equivalents 32		263	226	200	242
Marketable securities	0	0	0	0	0
Accounts receivable	1	2	3	3	4
Inventories 0		0	0	0	0
Other current assets	0	0	0	0	0
Total current assets	34	265	229	203	245
LT investments	5	0	0	0	0
Fixed assets	0	1	1	1	1
Goodwill 0		110	110	110	110
Other intangible assets	0	366	366	366	366
Other LT assets	0	22	22	22	22
Total assets	40	763	727	701	743
Short-term debt	0	0	0	0	0
Accounts payable 2		4	4	5	6
Other current liabilities	0	27	27	27	27
Total current liabilities	2	31	32	32	33
Long-term debt	0	0	0	0	0
Convertible debt					
Other LT liabilities	0	217	217	217	217
Total liabilities	2	247	248	249	250
Minority interest	0	0	0	0	0
Preferred stock 0		0	0	0	0
Common stock 88		477	477	477	477
Retained earnings -56		35	-2	-29	12
Proposed dividends					
Other equity and reserves	6	4	4	4	4
Total shareholders' equity	38	516	479	452	493
Total equity & liabilities	40	763	727	701	743

Notes

MSB had A\$263mn in cash at end FY11

Liquidity (x)

Current ratio	21.01	8.62	7.26	6.27	7.33
Interest cover na		na	na	na	na

Leverage

Net debt/EBITDA (x)	na	net cash	na	na	net cash
Net debt/equity (%)	net cash	net cash	net cash	net cash	net cash

Activity (days)

Days receivable	55,780.0	5.5	27.7	31.9	9.1
Days inventory na		na	0.0	0.0	0.0
Days payable na		na	1,686.5	1,345.5	556.4
Cash cycle na		na	-1,658.8	-1,313.6	-547.3

Source: Nomura estimates

FY11 – a year of transformation

MSB reported FY11 net profit post-tax (NPAT) of A\$90.6mn. The result was above our forecasts due to lower-than-expected tax payable as a result of accounting adjustments from the privately owned Angioblast acquisition.

Recently, MSB has received clearance from the US Food and Drug Administration to start a Phase III trial for bone-marrow transplantation. We believe the trial should run for 12 months, with results available c6 months after that. These timelines are within our forecasts for timing of potential revenues for MSB.

Changes to our forecasts include: 1) adjustments to the timing of commercialisation revenue taken from the deferred revenue account; 2) increase in management and administration expenses; 3) increase in R&D expenditure; 4) lower FY12F interest income on current MSB's A\$263mn cash balance; and 5) higher tax rate of 35%. Changes to our forecasts are shown below.

Fig. 1: MSB – changes to forecasts

	FY11A			FY12F			FY13F		
	Fcast	Actual	Diff	Prev	Rev	Diff	Prev	Rev	Diff
EBIT (A\$mn)	90.7	89.1	(1.8)	120.3	(28.6)	nm	145.4	(33.3)	nm
NPAT (A\$mn)	67.4	90.6	34.4	94.7	(37.3)	nm	115.8	(26.6)	nm
EPS (c)	31.0	41.8	34.7	33.8	(13.3)	nm	41.4	(9.5)	nm
DPS (c)	0.0	0.0	nm	0.0	0.0	nm	0.0	0.0	nm
Net op cash flow (A\$mn)	133.2	108.2	(18.8)	129.8	(26.7)	nm	156.7	(31.5)	nm

Source: Nomura estimates, company data

What are MPCs?

Mesenchymal precursor cells (MPCs, also known as mesenchymal stem cells) are adult stem cells that have the ability to become solid organs and tissues such as bone, heart muscle and cartilage. They do not have immunological markers and will therefore cause no immune reaction when injected into a foreign host. This means MPCs can be harvested as a generic product for any recipient from any donor. The proprietary technology being commercialised by MSB enables the efficient extraction, isolation and scale-up of MPCs. This technology has allowed for the potential application of commercial, off-the-shelf MPCs harvested from relatively few, non-specific donors in a wide range of serious medical issues. MSB aims to capitalise on its patents that relate to the identification, extraction and culture of adult mesenchymal precursor cells.

Mesenchymal precursor cells (MPCs, also known as mesenchymal stem cells) are adult stem cells that have the ability to become a number of tissues

Key insights

- **Timelines** – We enclose our near-term timelines for MSB below. By the end of CY11, MSB should have started trials to test the efficacy of MSB's Mesenchymal Precursor Cell (MPC) products in angina and Type II Diabetes;

Fig. 2: MSB – timelines for AMI and DM

Date (CY)	Date (FY)	Trial	Nomura comment
Nov-11	4QFY12	Release of Phase 2a Congestive Heart Failure (CHF) Clinical Trial	Interim Phase 2 trials results were significant
End CY11	End 1HFY12	Beginning of Phase 2 trial in Cardiac Disease (Angina)	Phase I trials have been promising
End CY11	End 1HFY12	Beginning of Phase 2 trial in Diabetes Mellitus (DM)	Progression to Phase 3 trial based on final results of this trial
End 1HCY12	End FY12	End of Phase 2 trial in Cardiac Disease (AMI)	Phase I trials have been promising

Source: Nomura estimates

- **Lumbar Disc Trial** – Recently, MSB announced that the first minimally invasive lumbar disc procedure had been successfully performed in the Phase 2 clinical trial of its proprietary adult MPC product for the treatment of low back pain and degenerative disc disease. Degeneration of the intervertebral disc, also known as degenerative disc disease (DDD), is a common condition that occurs naturally with age. Intervertebral discs are the pillow-like cushions between the spinal vertebrae that allow their slight

relative movement and aid in shock absorption. Natural daily wear and tear slowly degrade these discs over time, such that clinical signs of DDD coming with age are almost inevitable. Of the 50 year olds in the US, 85% show signs of DDD, but most are asymptomatic. Severe degeneration, suffered by around 1m Americans, can lead to spinal fusions (less than 20%) and severe chronic back pain. There is no current treatment to rebuild these discs, with spinal fusion or disc replacement the only real treatment options for advanced cases; and

- **Bone-marrow transplant timelines** – We believe the trial should run for 12 months, with results available 3-6 months after that. These timelines are within our forecasts for timing of potential revenues for MSB. We continue to forecast first potential sales for MSB from bone-marrow transplant in FY14. There are 12,500 unrelated allogeneic bone-marrow transplants per year in the US. In the US, MSB believe that an additional c20,000 potential patients do not receive transplants because of a lack of matched donors in current donor registries. MSB's MPCs could allow these patients to potentially receive a transplant from donors who have lower levels of matching. In effect, MSB's MPCs could expand the donor pool for unrelated allogeneic bone-marrow transplants. Although few in number, bone-marrow transplants are very expensive procedures, with the potential price for the MSB stem cells ranging from US\$50K to US\$100K. Hence the market size is US\$2.4bn. We enclose our timelines for the release of bone marrow transplant data.

We continue to forecast first potential sales for MSB from bone-marrow transplant in FY14

Fig. 3: MSB AU – Bone-marrow transplant potential timeline

Date (CY)	Date (FY)	Trial	Nomura comment
3QCY11 - started	Start FY12	Beginning of Phase 3 trial in Bone Marrow Transplant	Recruitment has been progressing
End 1HCY12	End 2HFY12	Completion of Phase 3 Trial in Bone Marrow Transplant	CEPH will fund this Phase 3 trial
3QCY12	Start 2QFY13	Release of results of Phase 3 Trial in Bone Marrow Transplant	New Drug application (NDA) filing to be determined upon final results
End 1HCY13	1HFY14	US regulatory approval - NDA marketing authorisation for Bone Marrow Transplant	Start US revenues for MSB

Source: Nomura estimates, company data

Cord-blood transplants are still in their infancy stage, so far totalling just 8,000 worldwide, but they are finding greater appeal as experience grows. MSB's product will only help to increase this appeal, in our view. Growth rates for this product depend heavily on its efficacy. If useful, it will likely see significant growth given around 75% of patients who need a bone-marrow or cord-blood transplant do not receive one because of associated issues. If this product results in no significant improvement, its growth is likely to remain steady.

Other opportunities – Diabetes

Type-II diabetes is a major worldwide health issue affecting around 210mn people in the Western world and around 24mn in the US alone. The number of cases has been growing at around 6.5% per year, reflecting increasing obesity rates. Type-II diabetes occurs initially as a result of the body's ineffective use of insulin due to prolonged exposure to excess blood sugar levels. This deteriorates the cells' ability to properly store glucose and react with the insulin, leading to an increased insulin requirement and thus to excess stress on the insulin-producing pancreas. This stress eventually leads to progressive damage and a gradual decline in the pancreas' functional ability.

MSB is developing a product that uses MPCs to naturally enhance the ability of the pancreatic beta cells to produce more insulin. The pre-clinical trials in mice have shown promising early results with no complications. Of 35 mice, those treated with MPC injections showed a twofold increase in their pancreatic islet cells relative to the controls, resulting in a 29% higher insulin-producing to glucagon-producing cell ratio, a 34% increase in blood insulin levels and a 35% decrease in blood sugar levels. No subject's reduction in blood sugar went below normal healthy levels, indicating a lower risk of hypoglycaemia compared to insulin-injection treatment.

Revised model assumptions

We enclose an analysis of MSB's final result below.

Fig. 4: MSB result summary

Income statement (A\$m)	1H10A	2H10A	FY10A	1H11A	2H11A	FY11A	1H11 on 1H10 (%)	2H11 on 2H10 (%)	FY11 on FY10 (%)
Sales revenue	0.0	0.0	0.0	0.0	0.0	0.0			
Other revenue	0.0	0.0	0.0	103.0	13.2	116.3			
Operating EBITDA	(5.0)	(5.9)	(11.0)	93.7	(4.4)	89.3			
Depreciation	0.0	(0.1)	(0.1)	0.0	(0.1)	(0.1)			
Amortisation	0.0	(0.0)	(0.0)	0.0	0.0	(0.0)			
Operating EBIT	(5.0)	(6.1)	(11.1)	93.7	(4.6)	89.1			
Share of Associates	(1.5)	(2.9)	(4.4)	(1.5)	0.0	(1.5)			
Net interest expense	0.3	0.5	0.7	0.9	3.7	4.6			
Pre-tax profit	(6.2)		(14.8)	93.1		92.2			
Tax	0.0	0.0	0.0	0.0	(1.6)	(1.6)			
Profit after tax	(6.2)	(8.6)	(14.8)	93.1	(2.5)	90.6			
Minorities	0.0	0.0	0.0	0.0	0.0	0.0			
Normalised NPAT	(6.2)	(8.6)	(14.8)	93.1	(2.5)	90.6			
Non-recurring items	0.0	0.0	0.0	0.0	0.0	0.0			
Reported profit	(6.2)	(8.6)	(14.8)	93.1	(2.5)	90.6			
Other information									
Normalised EPS (cps)	(4.5)	(6.1)	(10.5)	47.2	(1.2)	41.8			
DPS (cps)	0.0	0.0	0.0	0.0	0.0	0.0			
Average shares (mn)	138.3	140.6	140.6	207.1	227.8	227.8			
Margin / ratio analysis (%)									
EBITDA margin	nm	nm	nm	nm	nm	nm			
EBIT margin	nm	nm	nm	nm	nm	nm			
Effective tax rate	nm	nm	nm	nm	nm	nm			

Source: Company data

Revisions to our MSB forecasts are as follows:

- **Payments from Cephalon** – During FY11, MSB received a total of A\$130mn in upfront cash payments to commercialise its intellectual property. These payments have been recognised as deferred revenue in the balance sheet; and will be recognised as commercialisation revenue upon realisation of relevant development milestones, in line with accounting matching principles. We have made adjustments to our revenue forecasts to reflect our estimates on the timing of commercialisation revenue; We have forecast A\$28mn pa for FY12-13 and \$14mn for FY14;
- **R&D expense** – We have increased FY12F R&D to A\$31.8mn to account for higher costs due to incorporation of Angioblast;
- **Management and Administration expense** – We have increased this to A\$24.9mn to account for higher costs due to incorporation of Angioblast;
- **Net interest expense** – This has been calculated in line with period-end balances. We have reduced the effective cash rate from 4.75% to 3.15% for MSB's cash balance; and
- **Tax** – We have increased FY12F+ effective tax rate to 35%, as most earnings are currently generated in the US. In FY12F, MSB is expected to pay tax on the A\$130mn it received in upfront payments. We believe this liability will be reduced by its forecast loss this year and the utilisation of its deferred tax asset of A\$21.8mn.

Valuation and risks

As outlined above, we have updated our assumptions for MSB. As a result of our changes, our target price (TP) is unchanged. We continue to calculate that the NPV of the potential opportunities developed by MSB is A\$17.14. Outputs from our analysis are shown below. Our risk-weighted TP for MSB is A\$10.45 (=0.61xA\$17.14), in line with its clinical trial stage.

We continue to calculate the NPV of the potential opportunities developed by MSB is A\$17.14

Fig. 5: Outputs from MSB scenario analysis

Market opportunity	Estimated year of market entry	NPV per share (A\$)
Cardiac	2015	\$2.33
Diabetes	2016	\$7.70
OA of the knee	2016	\$0.66
Bone marrow regen.	2014	\$1.57
Macular degeneration	2016	\$0.99
Spinal Fusion	2016	\$0.61
Disc regeneration	2016	\$0.20
Bone repair	2015	\$3.06
	Total value	\$17.14
	61% risk weighting of portfolio (in line with trial stage)	\$10.45

Source: Nomura estimates

In terms of our DCF valuation, our assumptions include:

- **Equity beta** – Due to its inherent risks, MSB will have a higher beta than most other industrial companies. We assume that the company's equity (and asset) beta is 1.80, in line with the average beta for higher-risk biotech opportunities.
- **Nominal long-run growth rate** – Given the potentially high growth rate of this business, and in line with those of other high-growth companies in the market, we assume a nominal long-run growth rate of 5% and a real long-run growth rate of 2.5%.

Risks to our investment view

There is still a good deal of uncertainty around MSB's viability in most of its prospective markets. Pre-clinical trials, although positive, give no firm indication of a product's true viability, and full foresight on future market conditions is difficult to obtain. In its favour, MSB's base product is found naturally in the body, and we see little reason to believe that injections of concentrated numbers would cause serious health issues or be relatively less effective in doing their natural job. Cancer concerns arising from the use of embryonic stem cells have not been mirrored in the use of adult stem cells. Problems associated with overgrowth of bones or tissue in sensitive areas are more likely, but less of a concern. If this becomes an issue, we believe that potentially it could be controlled by appropriate dosage and thus would affect the product's viability only marginally. To date, all preclinical and Phase II trials have shown good indications for the products' viability. As it stands, there have been no significant adverse effects or health issues and all Phase II or pre-clinical trials indicate a product with market viability. Its distinctive technology platform and clinical progress probably also places it in the strongest position for its markets relative to its stem-cell competitors. Therefore, we believe this is an attractive investment opportunity for investors with a higher risk appetite.

Appendix A-1

Analyst Certification

I hereby certify (1) that the views expressed in this Research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this Research report, (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this Research report and (3) no part of my compensation is tied to any specific investment banking transactions performed by Nomura Securities International, Inc., Nomura International plc or any other Nomura Group company.

Issuer Specific Regulatory Disclosures

Mentioned companies

Issuer name	Ticker	Price	Price date	Stock rating	Sector rating	Disclosures
Mesoblast	MSB AU	AUD 7.17	23-Aug-2011	Buy	Not rated	

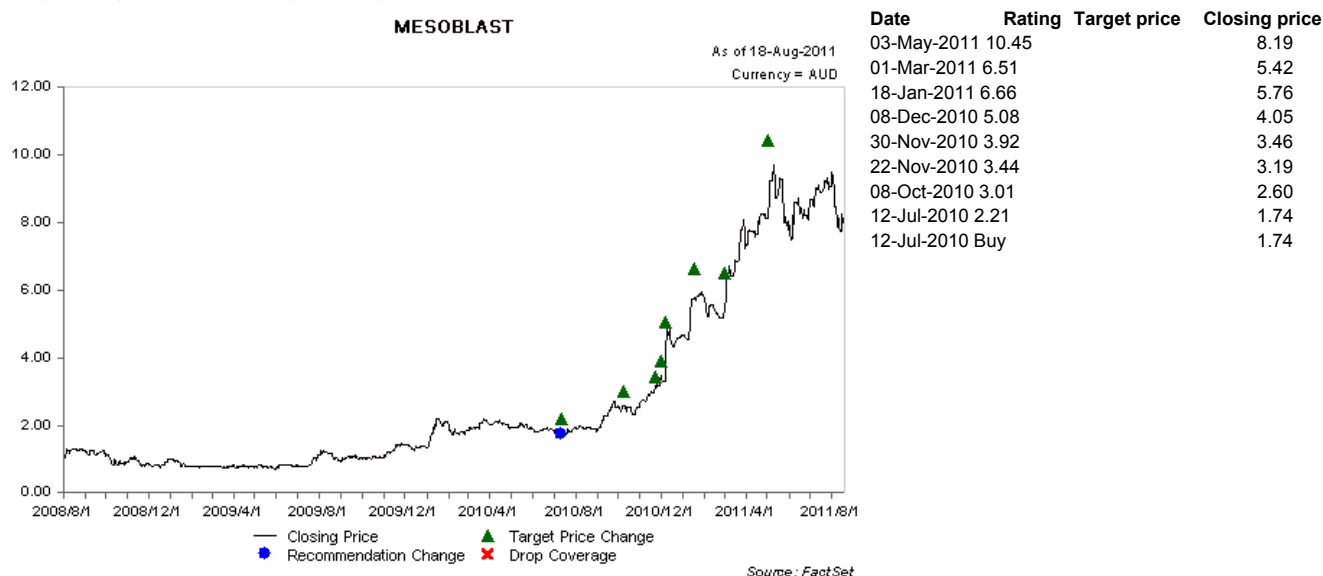
Previous Rating

Issuer name	Previous Rating	Date of change
Mesoblast	Not Rated	12-Jul-2010

Mesoblast (MSB AU)

AUD 7.17 (23-Aug-2011) Buy (Sector rating: Not rated)

Rating and target price chart (three year history)



For explanation of ratings refer to the stock rating keys located after chart(s)

Valuation Methodology We calculate that the NPV of the potential opportunities developed by MSB is A\$17.14. We believe the probability of MSB getting its product onto market is 61.2% (according to data from Tufts University, USA). Hence, our risk-weighted valuation is A\$10.45 (=0.61xA\$17.14).

Risks that may impede the achievement of the target price There is still a good deal of uncertainty around MSB's viability in most of its prospective markets. Pre-clinical trials, although positive, give no firm indication of a product's true viability and full foresight on future market conditions is difficult to obtain. In its favour, MSB's base product is found naturally in the body, and we see little reason to believe that injections of concentrated numbers would cause serious health issues or be relatively less effective in doing their natural job.

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STOCKS

A rating of '**Buy**', indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months.

A rating of '**Neutral**', indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months.

A rating of '**Reduce**', indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months.

A rating of '**Suspended**', indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including, but not limited to, when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the company.

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SECTORS

A '**Bullish**' stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months.

A '**Neutral**' stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months.

A '**Bearish**' stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months.

Benchmarks are as follows: **United States**: S&P 500; **Europe**: Dow Jones STOXX 600; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published from 30 October 2008 and in Japan from 6 January 2009

STOCKS

Stock recommendations are based on absolute valuation upside (downside), which is defined as $(\text{Target Price} - \text{Current Price}) / \text{Current Price}$, subject to limited management discretion. In most cases, the Target Price will equal the analyst's 12-month intrinsic valuation of the stock, based on an appropriate valuation methodology such as discounted cash flow, multiple analysis, etc.

A **'Buy'** recommendation indicates that potential upside is 15% or more.

A **'Neutral'** recommendation indicates that potential upside is less than 15% or downside is less than 5%.

A **'Reduce'** recommendation indicates that potential downside is 5% or more.

A rating of **'Suspended'** indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the subject company.

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A **'Bearish'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

Explanation of Nomura's equity research rating system in Japan published prior to 6 January 2009 (and ratings in Europe, Middle East and Africa, US and Latin America published prior to 27 October 2008)

STOCKS

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A rating of '2' or **'Buy'**, indicates that the analyst expects the stock to outperform the Benchmark by 5% or more but less than 15% over the next six months.

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SECTORS

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A **'Neutral'** stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next six months.

A **'Bearish'** stance, indicates that the analyst expects the sector to underperform the Benchmark during the next six months.

Benchmarks are as follows: **Japan:** TOPIX; **United States:** S&P 500, MSCI World Technology Hardware & Equipment; **Europe,** by sector - *Hardware/Semiconductors:* FTSE W Europe IT Hardware; *Telecoms:* FTSE W Europe Business Services; *Business Services:* FTSE W Europe; *Auto & Components:* FTSE W Europe Auto & Parts; *Communications equipment:* FTSE W Europe IT Hardware; **Ecology Focus:** Bloomberg World Energy Alternate Sources; **Global Emerging Markets:** MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published prior to 30 October 2008

STOCKS

Stock recommendations are based on absolute valuation upside (downside), which is defined as $(\text{Fair Value} - \text{Current Price}) / \text{Current Price}$, subject to limited management discretion. In most cases, the Fair Value will equal the analyst's assessment of the current intrinsic fair value of the stock using an appropriate valuation methodology such as Discounted Cash Flow or Multiple analysis etc. However, if the analyst doesn't think the market will revalue the stock over the specified time horizon due to a lack of events or catalysts, then the fair value may differ from the intrinsic fair value. In most cases, therefore, our recommendation is an assessment of the difference between current market price and our estimate of current intrinsic fair value. Recommendations are set with a 6-12 month horizon unless specified otherwise. Accordingly, within this horizon, price volatility may cause the actual upside or downside based on the prevailing market price to differ from the upside or downside implied by the recommendation.

A **'Strong buy'** recommendation indicates that upside is more than 20%.

A **'Buy'** recommendation indicates that upside is between 10% and 20%.

A **'Neutral'** recommendation indicates that upside or downside is less than 10%.

A **'Reduce'** recommendation indicates that downside is between 10% and 20%.

A **'Sell'** recommendation indicates that downside is more than 20%.

SECTORS

A **'Bullish'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a positive absolute recommendation.

A **'Neutral'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a neutral absolute recommendation.

A **'Bearish'** rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

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