

# Discovery Health Medical Scheme

## South Africa Medical Scheme Analysis

March 2017

Rating class	Rating scale	Rating	Rating outlook	Review date
Claims paying ability	National	AA <sup>+</sup> (ZA)	Stable	April 2018

### Financial data:

(USD'm comparative)

	31/12/15	31/12/16
R/USD (avg.)	12.77	14.71
R/USD (close)	15.54	13.74
Total assets	1,216.1	1,519.0
Members surplus	832.0	1,036.0
Cash & equiv.	707.3	832.1
Gross contributions	3,896.6	3,674.8
Net h/c. result	39.7	7.0
Net result	99.4	70.8
Op. cash flow	(93.7)	91.5
Market share*		55.3%

\*Share of open medical schemes in terms of principal membership as at 3Q 2016.

### Ratings history:

#### Initial rating (April 2000)

Claims paying ability: AA<sup>-</sup>(ZA)  
Rating outlook: Stable

#### Last rating (April 2016)

Claims paying ability: AA<sup>+</sup>(ZA)  
Rating outlook: Stable

### Rating methodologies/research:

Criteria for Rating South African Medical Schemes, updated July 2016

DHMS rating reports 2000-2016

### GCR contacts:

#### Primary Analyst

Vinay Nagar  
Credit Analyst  
vinay@globalratings.net

#### Committee Chairperson

Marc Chadwick  
Sector Head: Insurance Ratings  
chadwick@globalratings.net

**Location:** Johannesburg, ZA

**Tel:** +27 11 784 - 1771

**Website:** <http://globalratings.net>

### Summary rating rationale

- Discovery Health Medical Scheme's ("DHMS") membership base is viewed to reflect a material rating strength, stemming from the risk pool's exceptionally large scale and diversification. DHMS is the largest medical aid scheme in the open industry, covering just over 2.7m total lives (accounting for a sizeable 55% of total open industry scheme principal members). This is supported by the scheme's sustained high membership retention rates, while intermediary and client concentrations are contained at very low levels. Furthermore, the member pool displays a favourable risk profile, with the average principal and beneficiary member ages remaining stable at 44 years and 34 years respectively.
- The scheme exhibits extremely strong risk profile management. Strong alignment of pricing and benefit design, coupled with a high level of claims predictability, has allowed for an extremely competitive operational profile to be sustained throughout the review period. This is supported by the entrenched membership base within the scheme's framework. Accordingly, GCR expects DHMS to evidence continued operational control over the rating horizon, with capacity to manage the tight market that is likely to persist over the coming 12 months.
- DHMS continues to generate sufficient earnings and manage earnings volatility to support its reserve management strategy. In this respect, the claims ratio remained relatively well contained at 87% in FY16 (FY15: 86%), facilitating a positive net healthcare margin of 0.2%. This is also viewed favourably in the context of the open industry scheme 3Q F16 average net healthcare margin (-2.5%). This has been supplemented by a 24% increase in investment inflows, with the overall net surplus reported at a healthy R1bn in FY16. The claims ratio is expected to remain stable at 87% in FY17, with positive net healthcare results projected to be sustained over the rating horizon.
- Solvency is viewed to be well managed, with the statutory solvency margin trending around 26% over the past three years (in line with management's targets). In this regard, DHMS displays strong reserve generative capacity, with the three year CAGR of accumulated funds amounting to a sound 13%, ending the year on R14.2bn. Going forward, the statutory solvency margin is expected to be maintained at 26%, with sound reserve generation anticipated to uphold targeted levels of solvency.
- DHMS displays sound levels of liquidity, with the investment portfolio weighted towards cash and equivalents (FYE16: 61%). Of late, DHMS has gradually increased its exposure to equity and bond securities in line with the strengthening in solvency relative to historical levels. Nonetheless, liquidity strength is expected to be upheld by the large and highly tradable nature of the investment base (FYE16: R18.8bn), and supplemented by strong operational cash inflows. Note is also taken of the aggregated credit strength of the underlying bond portfolio, which supports the strong liquidity profile.

### Factors that could trigger a rating action may include

**Positive change:** In consideration of prevailing characteristics in the South African medical schemes arena, the industry rating ceiling remains capped at AA<sup>+</sup>(ZA). In the absence of a revision thereof, an upward adjustment of the scheme's rating (which constitutes the highest rating an open or closed medical scheme currently can be accorded by GCR) is considered unlikely over the short to medium term.

**Negative change:** Conversely, downward rating pressure may arise from a severe weakening in key operating and solvency metrics and/or a marked loss in membership within the 24-month rating horizon.

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## Corporate profile

DHMS was incorporated in 1994 and has since grown to become the largest scheme in the domestic medical scheme industry, covering in excess of 2.7m beneficiaries as at year-end 2016. The scheme is administered by Discovery Health (Pty) Ltd (“Discovery Health”), an established administrator, which in addition to DHMS provides administrative services to a number of closed medical schemes in the market. Discovery Health in turn is wholly owned by Discovery Limited, one of South Africa’s leading insurance groups.

## Membership base

### Membership scale

Table 1: Membership	Actual FY16	Budget FY16	Budget FY17
Principal members	1,297,466	1,319,541	1,315,506
Beneficiaries	2,735,191	2,771,495	2,769,964
<b>Key ratios (%)</b>			
Principal member growth	2.3	4.1	1.4
Beneficiary growth	1.6	2.9	1.3

DHMS’ exceptionally large and diverse membership base remains a key rating strength. DHMS is the largest medical scheme in the open scheme arena, accounting for a sizeable 55% (FY15: 54.5%; FY14: 53.6%) of total open industry scheme principal members (based on 3Q F16 industry data). The scheme’s market presence has consistently increased over the past three years, attesting to its entrenched position within the open schemes arena.

The principal member base grew by 2.3% to 1,297,466 members in FY16, while total lives covered increased by 1.6% to just over 2.7m. Despite membership growth falling below expectations, the scheme added a further 29,589 principal members in FY16, which outpaced the 18,459 members added by the total open scheme industry. Principal member growth is budgeted at 1.4% for FY17, as continued economic pressures, and a competitive market environment serve to limit growth prospects.

### Membership retention

Membership retention remained high with a 89.6% principal member retention rate in FY16 (FY15: 89.5%). One of the key products that has contributed to high member retention is the voluntary participation by members in Discovery Limited’s Vitality (“Vitality”) programme. The programme incentivises participants to make positive behavioural changes in lifestyle and approach to overall health. Management indicated that the scheme continues to observe a strong negative correlation between a member’s engagement level on the programme (measured as the Vitality status) and the associated claiming pattern. With an estimated 50% of total DHMS members participating in the programme, Vitality is also regarded as a very valuable tool with respect to risk management, by changing members’ behaviour, in view of the growing burden of non-communicable disease in the population.

## Membership distribution

Corporate business continues to dominate the membership base, accounting for a fairly stable 63% of total members in FY16. The share of private individuals in the member pool increased slightly to 35% (FY15: 34%). Despite the strong corporate focus, the membership base remains well diversified, with the 10 largest clients collectively representing a low 6% of the total (single largest: 2%). Similarly, broker concentration is fairly limited, with the single largest and three largest intermediaries combined accounting for 12% (FY15: 10%) and 22% (FY15: 20%) of total members respectively.

## Membership profile

The scheme’s membership profile was relatively unchanged from the previous year, with the average age of principal members and beneficiaries equating to 44 years and 34 years respectively in FY16. The pensioner ratio tracked in line with the open scheme industry average at 8.9%. The membership risk pool has evidenced some ageing over the past two years, with the average beneficiary age rising gradually, albeit in rather small increments. This is to be expected, as subdued member growth in conjunction with fairly high member retention, limits the scope for risk pool rejuvenation. As such, DHMS’s membership profile is likely to remain stable, with slight year on year ageing expected over the medium term.

## Operations

### Contributions

Table 2: Income statement (R’m)	FY16		FY17
	Actual	Budget	Budget
Gross premium income	54,056.2	54,428.5	59,479.3
Member savings	(10,429.8)	(10,511.1)	(10,919.6)
Net premium income	43,626.4	43,917.5	48,559.7
<b>Key ratios (%)</b>			
GPI growth	8.6	9.4	10.0
NPI growth	8.9	9.6	11.3
Contribution rate increase	8.6	-	10.2

Gross premium income (“GPI”) amounted to R54.1bn in FY16, and represented 56% of the total annualised open industry premiums. The 8.6% growth in GPI achieved in FY16 lagged the projected 9.4%, which was a function of lower than expected principal member growth.

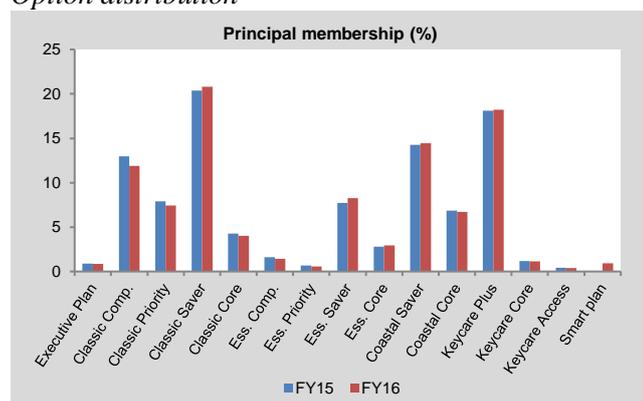
GPI is forecast to grow by 10% to R59.5bn in FY17, aided by a comparatively higher weighted average annual contribution increase of 10.2% (FY16: 8.6%). The latter represented a year on year rise in the contribution increase, with the prior four year average equating to approximately 9.3%. The comparatively higher increase was ascribed to a deteriorating claims experience evidenced towards the first half of the year, at the time when the pricing schedule was being finalised. According to management, this was spurred on by an increased supply of hospital beds, which subsequently resulted in higher frequency of hospital admission cases, and higher length of stay. Various risk management initiatives were implemented to

contain these costs, which led to a less severe predicted claims outcome by the end of the year. Given this, management feel that the higher contribution increase for FY17 will provide greater operational flexibility for the year, while also allowing for some headroom for FY18 option pricing (pending FY17 claims development).

Positively, GCR views DHMS' historical contribution rate increase strategy to have provided the scheme with a healthy level of pricing capacity. The increased pricing response to the challenging claims environment in FY17 enables the scheme to actively manage the likely continuation of claims pressures.

Furthermore, the scheme is viewed to have displayed strong alignment of pricing and benefit design, aided by fairly predictable overall claims cost patterns. This has allowed for an extremely competitive operational profile to be sustained throughout the review period. Accordingly, GCR expects DHMS to evidence continued operational control over the rating horizon, with capacity to manage the tight market that is likely to persist over the coming 12 months.

#### Option distribution



Membership spread across options was relatively stable, with year on year member movements not having a significant impact on the overall membership distribution. Accordingly, the majority of principal members continue to be housed in four options, namely Classic Saver (21%), KeyCare Plus (18%), Coastal Saver (14%) and Classic Comprehensive (12%). Collectively, these options covered 65% of total principal members in FY16 (FY15: 66%).

The observed membership growth pattern across options indicates member gravitation towards mid-lower tier options. In this regard, a reduction in members was evidenced across the higher end of the option spectrum, with Executive Plan, Classic Comprehensive, Classic Priority, Essential Comprehensive and Essential Priority shedding a collective 17,411 principal members in FY16 (FY15: 14,534). Conversely, all of the scheme's Saver options reported sound member growth, collectively housing an additional 27,321 members. The Saver options are seen as a natural entry point for new members joining the scheme.

The Smart plan (introduced in FY16) was rather well received, with 11,807 members opting for this option. The plan is designed to attract digitally engaged members to the scheme, and offers increased levels of technology utilisation. The Smart plan is expected to gain further member traction in FY17, with the scheme now offering two choices within this option, which are Essential Smart and Classic Smart. This was done to provide a degree of differentiation within the option, while also counteracting the impact of anti-selection.

Year on year member movement across options is largely attributable to the prevailing economic cycle, in which affordability constrains continue to drive underlying choices. Accordingly, negative member movements away from the higher-benefit options has resulted in a dilution in the premium volumes available to cover the corresponding options' claims (which are rising by an average of approximately 11%). This gives rise to a narrowing in the net healthcare surplus available from these groupings, and consequently represents a focal area for the scheme going forward, as a means of stemming surplus leakage. Furthermore, potential anti-selection behaviour will represent a key risk for DHMS to continue to monitor and manage, in order to preserve the efficacy of benefit and pricing matching.

Contribution by option (R)	Principal		Beneficiaries	
	FY16	FY17	FY16	FY17
Executive	4,953	5,544	4,953	5,544
Classic Comp.	4,026	4,506	3,809	4,264
Ess. Comp.	3,383	3,787	3,198	3,580
Classic Priority	2,700	2,968	2,125	2,337
Ess. Priority	2,321	2,551	1,822	2,004
Classic Saver	2,344	2,577	1,846	2,029
Ess. Saver	1,862	2,047	1,397	1,536
Coastal Saver	1,862	2,007	1,397	1,506
Smart Plan	1,397	1,535	1,099	1,209
Classic Core	1,745	1,918	1,373	1,510
Ess. Core	1,499	1,648	1,123	1,124
Coastal Core	1,302	1,496	976	1,122
KeyCare Plus*	290 - 1,734	914 - 1,906	290 - 1,734	914 - 1,906
KeyCare Core*	665 - 1,281	731 - 1,408	665 - 1,281	731 - 1,408
KeyCare Access*	586 - 1,695	644 - 1,863	586 - 1,695	644 - 1,863

Note: Contributions are inclusive of MSA amounts.

\*Contributions are income related.

#### Options 2017

DHMS's product portfolio comprises of 16 options in 2017, which can be categorised into 7 option series (See annexure 1 for summarised option descriptions).

Structurally, the Comprehensive, Priority, Saver and Core series are further divided into sub-categories, which provide varying levels of cover. In this regard, the Classic plans boast the most extensive benefits within each option series, whilst the Essential range of options contain lower limits and sub-limits. Furthermore, members may opt to utilise the Delta Efficiency Network, which serves as a designated provider for the Comprehensive, Saver and Core series' Classic and Essential plans. In turn, this entitles the respective members to contribution discounts of

between 10% and 20% (depending on the option chosen). Coastal sub-plans (offered only on the Saver and Core series) are subject to the use of one of the coastal network hospitals. Discretionary procedures at non-contracted facilities are allowable, however, these typically attract varying co-payments by the respective member.

### Earnings capacity

DHMS' earnings capacity continues to represent a strong element within the scheme's financial profile. The scheme's targeted performance centres on its reserve management strategy. In this regard, the scheme's targeted solvency margin (hovering around the 26% mark over the short term) feeds into net result projections. GCR views the scheme's very strong operational control and elevated contribution scale to facilitate a well contained net healthcare result, and absorbance of operational volatility.

### Claims experience

option	Member growth (%)	Claims/NPI (%)*		Net healthcare result (R'm)	
	FY16	FY15	FY16	FY15	FY16
Executive	(3.0)	133.2	133.9	(327.9)	(350.5)
Classic Comp.**	(6.3)	99.4	101.2	(706.1)	(874.5)
Ess. Comp.	(9.9)	82.8	84.7	84.8	64.2
Classic Priority	(3.8)	81.8	83.1	274.3	240.9
Ess. Priority	(10.0)	64.5	72.1	69.7	46.8
Classic Saver	4.5	75.6	77.7	836.0	770.4
Ess. Saver	9.7	65.5	66.5	447.1	494.9
Coastal Saver	3.4	85.8	87.2	(110.6)	(184.6)
Classic Core	(3.5)	72.6	75.2	252.6	222.3
Ess. Core	7.8	70.4	69.1	116.0	150.8
Coastal Core	0.2	82.7	85.2	12.8	(32.9)
Smart plan	n.a.	n.a.	54.6	n.a.	62.6
KeyCare Plus	3.0	99.5	99.4	(529.5)	(579.6)
KeyCare Core	0.5	51.6	64.5	77.6	54.7
KeyCare Access	(2.4)	64.2	54.8	10.2	17.0
<b>Total</b>	<b>2.3</b>	<b>86.1</b>	<b>87.2</b>	<b>507.0</b>	<b>102.5</b>

\* Includes managed care fees.

\*\*Includes Classic Comp. Zero MSA

Total claims were well contained, with the claims ratio amounting to 87% in FY16 (FY15: 86%). This compared favourably to the open scheme industry average of 91%, and continues to contribute to persistent net healthcare surpluses. Claims containment measures take the form of pricing agreements with suppliers, higher levels of member engagement (in particular the sensitisation to health-related aspects through Vitality), demographic profiling and forensic auditing & fraud detection/prevention. In this regard, the scheme's ability to contain the claims ratio at a favourable level throughout the review period, particularly in an environment with increasing rates of healthcare inflation, attests to the degree of success achieved in operational execution. Accordingly, the scheme is viewed to be very well positioned to absorb losses emanating from atypical claiming patterns and high severity claims. As such, the potential for financial performance to negatively impact the scheme's financial profile is viewed to be very low. This is viewed as a positive factor impacting the rating.

On a per option basis, the scheme's premium plans (namely Executive and Classic Comprehensive) remain loss making (at respective claims ratios of 134% and 101%). This is attributed to the fact that these options mainly house aged, higher claiming members, resulting in a high utilisation rate of costly benefits. Other large loss making options included Keycare Plus and Coastal Saver, which reported loss ratios of 99% and 87% respectively.

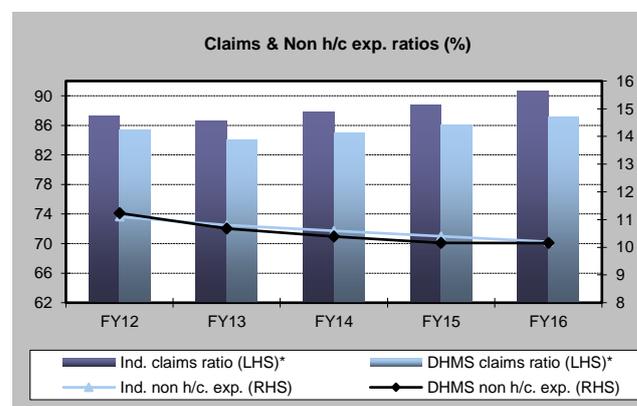
Keycare plus is an income banded option which is subject to competitive pricing, thereby making it vulnerable to anti selective behaviour. As a result, the option is projected to continue to report large net healthcare deficits over the rating horizon, with higher network utilisation viewed as a potential risk mitigant.

Positively, the claims ratios of the scheme's prominent mid-tier options remain well contained, allowing for a strong level of cross option subsidisation. The Smart plan also registered a low claims ratio of 55% in its first year of inclusion, which bodes well for medium term cross option subsidisation, given that the option is expected to gain in prominence over the period, with its loss ratio envisaged to trend at a favourable level.

Total claims are expected to increase by 11% (FY16: 10%) to R42bn in FY17. Given that the scheme has applied a weighted average annual contribution increase of 10.2%, DHMS is budgeting for a stable claims ratio of 87.2% for FY17, a level which is supportive of positive net healthcare margin attainment.

### Non healthcare expenditure

Total non-healthcare expenditure amounted to R5.5bn in FY16 (FY15: R5.1bn), and comprised of administration fees (R4.2bn), acquisition costs (R1.1bn) and operating expenses (R0.2bn). As a percentage of GPI, non-healthcare expenses equated to a stable 10.2%, which was in line with the open scheme industry average. Similarly, on a per average beneficiary per month basis, non-healthcare costs equated to R169 in FY16, trending in line with the corresponding annualised 3Q F16 open industry average of R167.



\*Includes managed care fees.

Source: Industry statistics based on annual CMS publications. Industry estimates for 2016 are based on the CMS 2016 3Q report.

Going forward, a degree of cost efficiency is anticipated to filter through in FY17, with non-healthcare expenses relative to GPI budgeted at 9.9%. This is expected to be achieved through scale benefits impacting positively on the administration fees to GPI ratio (FY17: 7.4% vs. FY16: 7.7%).

#### Net healthcare result

	FY16		FY17
	Actual	Budget	Budget
<b>Gross contributions</b>	<b>54,056.2</b>	<b>54,428.5</b>	59,479.3
Member savings	(10,429.8)	(10,511.1)	(10,919.6)
<b>Net contributions</b>	<b>43,626.4</b>	<b>43,917.5</b>	<b>48,559.7</b>
Claims paid*	(38,035.9)	(38,026.5)	(42,347.9)
<b>Gross U/w surplus</b>	<b>5,590.5</b>	<b>5,890.9</b>	<b>6,211.8</b>
Non healthcare expenditure	(5,488.0)	(5,492.2)	(5,879.0)
<b>Net healthcare result</b>	<b>102.5</b>	<b>398.7</b>	<b>332.8</b>
Investment & other inc.**	938.8	838.3	985.3
<b>Net result</b>	<b>1,041.2</b>	<b>1,237.1</b>	<b>1,318.0</b>

<b>Key ratios (%)</b>			
Claims ratio	87.2	86.6	87.2
Non h/c expenses / GPI	10.2	10.1	9.9
Net healthcare result / NPI	0.2	0.9	0.7
Net result / NPI	2.4	2.8	2.7

\*Includes managed care fees.

\*\*Excludes unrealised investment gains.

Overall, DHMS continues to generate sufficient earnings and manage earnings volatility to support its reserve management strategy. In this respect, the net healthcare result was reported at R103m in FY16 (FY15: R507m), translating into a 0.2% net healthcare margin, which is viewed favourably in the context of the overall open scheme 3Q FY16 average (-2.5%). The scheme has consistently reported positive net healthcare results, cumulatively amounting to R2.4bn over the review period.

From an option perspective, the net healthcare result remains underpinned by strong mid-tier plan performances (in particular Classic Saver and Essential Saver at respective net healthcare surpluses of R770m and R495m), countering sizeable deficits for Executive (R351m loss), Classic Comprehensive (R875m loss) and KeyCare Plus (R580m loss).

The net healthcare result is forecast at R333m for FY17, which is expected to be achieved on the back of stability within the claims ratio and non-healthcare cost base.

#### Net result

The net result equated to R1bn in FY16, supported by strong investment income which grew by a robust 24% to R936m in FY16. This came off the back of a slightly more aggressive investment strategy as well as a higher average interest rate achieved during the year. Relative to net premium income, the net margin was reported at a strong 2.4% (three year average: 3.1%), resulting in a cumulative R5.8bn being added to reserves over the review period. With investment income forecast at R985m, the net surplus has been budgeted at R1.3bn in FY17.

## Asset management

### Investment strategy

The scheme's investment strategy aims to provide sufficient liquidity to meet ongoing liabilities and simultaneously maximise investment returns over the long term whilst assuming a minimal degree of risk. The investment function is undertaken internally, while the scheme engages a specialist asset management firm to provide investment advice and facilitate the placement of funds (within the investment framework endorsed by the CMS and the scheme's investment policies stipulated by the Board of Trustees).

### Liquidity

DHMS displays sound levels of liquidity, with the investment portfolio weighted towards cash and equivalents (FYE16: 61%). Of late, DHMS has gradually increased its exposure to equity and bond securities in line with the strengthening in solvency relative to historical levels. Nonetheless, liquidity strength is expected to be upheld by the large and highly tradable nature of the investment base (FYE16: R18.8bn), and supplemented by strong operational cash inflows. Note is also taken of the aggregated credit strength of the underlying bond portfolio, which supports the strong liquidity profile.

	FYE15		FYE16	
	R'm	%	R'm	%
Member savings balances	3,667.5	21.2	4,142.7	22.0
DHMS cash balances	842.1	4.9	941.0	5.0
DHMS money market instr.	6,482.0	37.5	6,348.7	33.8
<b>Cash and equivalents</b>	<b>10,991.5</b>	<b>63.7</b>	<b>11,432.4</b>	<b>60.8</b>
Listed equities	1,415.6	8.2	2,049.8	10.9
Bonds	4,857.7	28.1	5,269.9	28.0
Derivatives	0.0	0.0	54.8	0.3
<b>Other investments</b>	<b>6,273.4</b>	<b>36.3</b>	<b>7,374.5</b>	<b>39.2</b>
<b>Total investments</b>	<b>17,264.9</b>	<b>100.0</b>	<b>18,806.9</b>	<b>100.0</b>

Within the cash portfolio, a stable R6.4bn pertained to low risk money market instruments, which are placed with a number of reputable asset managers, returning an average yield of 7.4% in FY16 (FY15: 6.1%). Personal member savings balances amounted to a higher R4.1bn at FYE16 (FYE15: R3.7bn) and remain ring-fenced from other scheme assets (as per CMS circular 38). The corresponding funds are managed on behalf of the members by two contracted, independent asset managers (namely Aluwani Capital Partners (Pty) Limited and Taquanta Asset Managers), with an equal portfolio allocation of R2.1bn each at FYE16. The remaining cash balance (R941m) is held in short term deposits and call accounts.

### Non-cash investments

Non-cash investments increased by 18% to R7.4bn at FYE16, representing a higher 39% (FYE15: 36%) of total investments. The portfolio is primarily comprised of bonds (71%) and listed equity (at 28% of total non-cash investments at FYE16), with a small derivative portfolio rounding out the remainder.

Overall, total non-cash investments represented a higher 52% of accumulated funds at FYE16 (FYE15: 49%). However, in the context of the underlying risk profile, this is still viewed as reasonable. Management indicated that potential increases in non-cash investments will be considered in line with risk appetite, which is based on improved solvency levels.

## Solvency

### Reserves

Total cumulative net surpluses (including unrealised movements) over the review period amounted to a high R6.4bn. Reflective of the strong degree of reserve accumulation, accumulated funds per principal member rose from R8,240 in FY12, to R10,971 in FY16 (FY15: R10,197 ; open scheme industry average of R11,369). Coverage of accumulated funds over aggregate monthly claims was maintained at a healthy level over the review period, trending between 4.1x in FY12 and 4.5x in FY16 (FY15: 4.5x).

(R'm)	FY16		FY17
	Actual	Budget	Budget
Net result	1,041.2	1,237.1	1,318.0
Accumulated funds	14,234.5	14,114.1	15,552.0
<b>Key ratios (%)</b>			
Net result / NPI	2.4	2.8	2.7
Stat. solvency	26.3	25.9	26.1

### Solvency

Solvency is viewed to be very well managed, with the statutory solvency margin trending at around 26% over the past three years, and in line with management's targets. In this regard, DHMS displayed strong reserve generative capacity, with the three year CAGR of accumulated funds amounting to a sound 13%, ending the year on R14.2bn. Going forward, the statutory solvency margin is expected to be maintained at 26%, with sound reserve generation anticipated to uphold targeted levels of solvency.

Whilst the statutory funding ratio constitutes a key measure in terms of DHMS' reserve/solvency management, the scheme internally manages solvency on a risk-based approach. According to management, on this basis, the scheme continues to display a comfortable level of reserve adequacy. The relevance of this internal assessment would be brought to the fore should the CMS adopt a risk based solvency approach (currently being debated by relevant stakeholders). However, management reiterated its intention to maintain statutory solvency at current levels over the rating horizon.

# Discovery Health Medical Scheme

(Rand in millions except as noted)

Year ended : 31 December	2012	2013	2014	2015	2016	
<b>Income Statement</b>						
Gross premium income	35,195.6	40,463.7	44,905.7	49,759.8	54,056.2	
Members' savings contributions	(6,969.9)	(7,953.9)	(8,794.7)	(9,693.0)	(10,429.8)	
<b>Net premium income</b>	<b>28,225.8</b>	<b>32,509.8</b>	<b>36,111.0</b>	<b>40,066.7</b>	<b>43,626.4</b>	
Net claims paid*	(24,084.6)	(27,331.5)	(30,692.2)	(34,503.6)	(38,035.9)	
<b>Gross underwriting surplus / (deficit)</b>	<b>4,141.2</b>	<b>5,178.3</b>	<b>5,418.8</b>	<b>5,563.1</b>	<b>5,590.5</b>	
Administration fees	(3,084.8)	(3,340.8)	(3,585.6)	(3,874.9)	(4,150.2)	
Acquisition costs	(755.8)	(825.3)	(918.9)	(982.9)	(1,101.6)	
Other management expenses	(113.4)	(152.5)	(161.1)	(198.4)	(236.2)	
<b>Net healthcare result</b>	<b>187.2</b>	<b>859.8</b>	<b>753.2</b>	<b>507.0</b>	<b>102.5</b>	
Investment income	499.5	532.9	659.6	755.2	936.4	
Other income	6.0	5.8	7.6	7.5	2.4	
<b>Net surplus / (deficit) for the year</b>	<b>692.7</b>	<b>1,398.5</b>	<b>1,420.4</b>	<b>1,269.6</b>	<b>1,041.2</b>	
<b>Unrealised investment movements</b>	<b>96.1</b>	<b>136.0</b>	<b>116.5</b>	<b>6.5</b>	<b>264.3</b>	
<b>Balance Sheet</b>						
<b>Members' surplus</b>	<b>8,240.8</b>	<b>9,970.1</b>	<b>11,652.8</b>	<b>12,929.0</b>	<b>14,234.5</b>	
Accumulated funds	8,240.8	9,970.1	11,652.8	12,929.0	14,234.5	
Revaluation reserve	0.0	0.0	0.0	0.0	0.0	
Members' savings accounts	2,291.6	2,776.7	3,250.7	3,736.7	4,204.0	
Provision for claims	768.7	812.2	845.8	985.1	1,121.4	
Other liabilities	774.7	973.5	1,031.2	1,247.8	1,310.6	
<b>Total Surplus &amp; Liabilities</b>	<b>12,075.8</b>	<b>14,532.6</b>	<b>16,780.6</b>	<b>18,898.6</b>	<b>20,870.5</b>	
Cash & cash equivalents**	8,903.0	10,502.8	11,702.0	10,991.5	11,432.4	
Other investments	1,713.2	2,530.1	3,472.5	6,273.4	7,374.5	
Debtors & prepayments	1,459.6	1,499.6	1,606.1	1,633.7	2,063.6	
<b>Total Assets</b>	<b>12,075.8</b>	<b>14,532.6</b>	<b>16,780.6</b>	<b>18,898.6</b>	<b>20,870.5</b>	
<b>Cash Flow Statement</b>						
Cash generated by operating activities	225.0	906.9	799.6	555.8	755.6	
Cash flow from investing activities	564.8	56.1	(67.8)	(1,943.7)	967.4	
Working capital requirements	128.1	111.1	(111.2)	191.4	(376.9)	
<b>Cash flow from operating activities</b>	<b>917.9</b>	<b>1,074.1</b>	<b>620.6</b>	<b>(1,196.5)</b>	<b>1,346.1</b>	
Cash flow from investing activities	0.0	0.0	0.0	0.0	(905.2)	
Cash flow from financing activities	393.8	525.8	578.6	486.0	0.0	
<b>Net cash inflow / (outflow)</b>	<b>1,311.7</b>	<b>1,599.9</b>	<b>1,199.2</b>	<b>(710.5)</b>	<b>440.8</b>	
<b>Key Ratios</b>						
<b>Solvency and Liquidity</b>						
Members' surplus : Net premium income	%	29.2	30.7	32.3	32.3	32.6
Financial base : Net premium income	%	40.0	41.7	43.6	44.1	44.8
Statutory funding ratio***	%	23.4	24.3	25.8	26.0	26.3
Net cash coverage ratio	months	3.4	3.5	3.4	2.6	2.3
Gross cash coverage ratio	months	3.6	3.7	3.7	3.1	3.6
<b>Membership Statistics</b>						
Principal members at year-end		1,140,090	1,191,987	1,231,116	1,267,877	1,297,466
Principal membership growth	%	6.0	4.6	3.3	3.0	2.3
Beneficiaries at year-end		2,469,023	2,564,313	2,634,819	2,691,852	2,735,191
<b>Underwriting and Efficiency</b>						
Claims incurred : Net premium income	%	85.3	84.1	85.0	86.1	87.2
Administration fees : Gross premium income	%	8.8	8.3	8.0	7.8	7.7
Acquisition costs : Gross premium income	%	2.1	2.0	2.0	2.0	2.0
Non healthcare expenses : Gross premium income	%	11.2	10.7	10.4	10.2	10.2
Net healthcare result : Net premium income	%	0.7	2.6	2.1	1.3	0.2
Gross average investment yield (excl. unrealised movements)	%	6.1	5.7	6.0	6.1	6.8
Net average investment yield (excl. unrealised movements) #	%	6.1	5.7	6.0	5.9	6.7

\* Includes managed care expenses.

\*\* Includes Personal Medical Savings trust cash balances.

\*\*\*Excludes cumulative unrealised investment movements.

# Excludes cash balances and interest attributable to Member Medical Saving Trust accounts.

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## Annexure 1

Option series	Option summary
<b>Executive</b>	<ul style="list-style-type: none"> <li>• The most comprehensive option, targeting high income individuals and aged members.</li> <li>• Offers the most extensive cover for in-hospital and day-to-day benefits.</li> <li>• Guaranteed cover up to 300% of the DHR for out of network specialists.</li> <li>• Unlimited above threshold benefit (“ATB”) for day-to-day healthcare costs.</li> <li>• Full cover for chronic medication for all Chronic Disease List (“CDL”) conditions.</li> </ul>
<b>Comprehensive series</b>	<ul style="list-style-type: none"> <li>• This option sub-set is divided into two main plans (namely Classic and Essential), offering similarly extensive benefits, such as unlimited hospital cover at general wards, a medical savings account (“MSA”) and extensive dental and chronic illness benefits.</li> <li>• In addition, this series has an unlimited above threshold benefit, which covers a wide array of out-of-hospital procedures/services after the specified accumulation limit is reached.</li> </ul>
<b>Priority series</b>	<ul style="list-style-type: none"> <li>• This option series (made up of a Classic and Essential plan) includes an MSA and an above threshold benefit for out of hospital expenses (amounting to R10,180 per member and R7,250 for adult dependants).</li> <li>• In-hospital cover is unlimited, however, certain deductibles may apply for select procedures.</li> </ul>
<b>Saver series</b>	<ul style="list-style-type: none"> <li>• The saver series incorporate the scheme’s mid-tier options. In detail, these entail comprehensive in-hospital benefits and also include a MSA to cover day-to-day medical requirements.</li> <li>• Cover for chronic medication is subject to explicit approval by the scheme.</li> </ul>
<b>Smart Plan*</b>	<ul style="list-style-type: none"> <li>• The option provides unlimited private hospital cover within the Smart network of hospitals, and guaranteed full cover for contracted in-hospital specialists.</li> <li>• The option also offers unlimited GP consultations within the Smart Plan network (subject to a R50 co-payment per consultation).</li> </ul>
<b>Core series</b>	<ul style="list-style-type: none"> <li>• Options contained within this sub-set provide unlimited in-hospital cover (for general wards) and guaranteed full cover for contracted in-hospital specialists.</li> <li>• In the absence of a MSA for this series, out-patient medical expenses are entirely at the cost of the respective member.</li> </ul>
<b>Keycare series</b>	<ul style="list-style-type: none"> <li>• This option grouping constitutes DHMS’s market entry offering, with benefits designed to appeal to low-income earners in particular.</li> <li>• Contributions are income-band dependent.</li> <li>• Coverage for in-hospital procedures or specialist consultations is subject to the utilisation of contracted KeyCare network hospitals.</li> <li>• The KeyCare Plus and KeyCare Access options include a day-to-day benefit provided by select KeyCare network service providers.</li> <li>• The KeyCare Access option covers emergencies, trauma, childbirth and other select care at private network hospitals, while other conditions are covered at a contracted network of state facilities.</li> </ul>

\*Introduced in 2016

## GLOSSARY OF TERMS/ACRONYMS USED IN THIS DOCUMENT AS PER GCR'S INSURANCE GLOSSARY

Accounting	A process of recording, summarising, and allocating all items of income and expense of the company and analysing, verifying and reporting the results.
Acquisition Cost	The expenses incurred by an insurance company that are directly related to putting the business on the books of the company. The largest portion of this cost is usually the agent's or sales representative's commission or bonus.
Administrative Services	An arrangement under which an insurer or independent organisation will, for a fee, handle the administration of claims, benefits and other administrative duties for a group.
Assets	A resource with economic value that a company owns or controls with the expectation that it will provide future benefit.
Beneficiary	Nominated person or institution in the policy document that is entitled to receive the proceeds stated in the policy.
Benefits	Financial reimbursement and other services provided to insureds by insurers under the terms of an insurance contract.
Bond	A long term debt instrument issued by either: a company, institution or the government to raise funds.
Broker	One who represents an insured in the solicitation, negotiation or procurement of contracts of insurance, and who may render services incidental to those functions. By law the broker may also be an agent of the insurer for certain purposes such as delivery of the policy or collection of the premium.
Budget	Financial plan that serves as an estimate of future cost, revenues or both.
Capacity	The largest amount of insurance available from a company. In a broader sense, it can refer to the largest amount of insurance available in the marketplace.
Capital	The sum of money that is invested to generate proceeds.
Cash	Funds that can be readily spent or used to meet current obligations.
Claim	A request for payment of a loss, which may come under the terms of an insurance contract.
Contract	An agreement by which an insurer agrees, for a consideration, to provide benefits, reimburse losses or provide services for an insured. A 'policy' is the written statement of the terms of the contract.
Coverage	The scope of the protection provided under a contract of insurance.
Equity	Equity is the holding or stake that shareholders have in a company. Equity capital is raised by the issue of new shares or by retaining profit.
Experience	A term used to describe the relationship, usually expressed as a percent or ratio, of premiums to claims for a plan, coverage, or benefits for a stated time period.
Exposure	Exposure is the amount of risk the holder of an asset or security is faced with as a consequence of holding the security or asset. For an insurer, its exposure may also relate to the risk related to policies issued.
Forecast	A calculation or estimate of future financial events.
Income Statement	A summary of all the expenditure and income of a company over a set period.
International Scale Rating LC	International local currency (International LC) ratings measure the likelihood of repayment in the currency of the jurisdiction in which the issuer is domiciled. Therefore, the rating does not take into account the possibility that it will not be able to convert local currency into foreign currency or make transfers between sovereign jurisdictions.
Intermediary	A third party in the sale and administration of insurance products.
Interest	Money paid for the use of money.
Interest Rate	The charge or the return on an asset or debt expressed as a percentage of the price or size of the asset or debt. It is usually expressed on an annual basis.
Investment Income	The income generated by a company's portfolio of investments.
Investment Portfolio	A collection of investments held by an individual investor or financial institution.
Liabilities	All financial claims, debts or potential losses incurred by an individual or an organisation.
Liquidity	The speed at which assets can be converted to cash. The ability of an insurer to convert its assets into cash to pay claims if necessary. Market liquidity refers to the ease with which a security can be bought or sold quickly and in large volumes without substantially affecting the market price.
Loss	The happening of the event for which insurance pays.
Pool	An organisation of insurers or reinsurers through which particular types of risk are underwritten and premiums, losses and expenses are shared in agreed-upon amounts.
Portfolio	All of the insurer's in-force policies and outstanding losses, with respect to described segments of its business.
Premium	The price of insurance protection for a specified risk for a specified period of time.
Rating Horizon	The rating outlook period
Reserve	(1) An amount representing actual or potential liabilities kept by an insurer to cover debts to policyholders. (2) An amount allocated for a special purpose. Note that a reserve is usually a liability and not an extra fund. On occasion a reserve may be an asset, such as a reserve for taxes not yet due.
Retention	The net amount of risk the ceding company keeps for its own account.
Retention Rate	The net amount of risk the ceding company keeps for its own account as a percentage of GWP.
Risk	The chance of future uncertainty (i.e. deviation from expected earnings or an expected outcome) that will have an impact on objectives.
Risk Management	Process of identifying and monitoring business risks in a manner that offers a risk/return relationship that is acceptable to an entity's operating philosophy.
Securities	Various instruments used in the capital market to raise funds.
Short Term	Current; ordinarily less than one year.
Solvency	With regard to insurers, having sufficient assets (capital, surplus, reserves) and being able to satisfy financial requirements (investments, annual reports, examinations) to be eligible to transact insurance business and meet liabilities.
Statutory	Required by or having to do with law or statute.
Statutory Solvency Margin	Gives an indication as to whether the minimum regulatory solvency margin is being met, based on the net statutory assets to statutory net premiums ratio.
Yield	Percentage return on an investment or security, usually calculated at an annual rate

For a detailed glossary of terms please click [here](#)

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Discovery Health Medical Scheme participated in the rating process via face-to-face management meetings, teleconferences and other written correspondence. Furthermore, the quality of information received was considered adequate and has been independently verified where possible.

The credit rating has been disclosed to Discovery Health Medical Scheme with no contestation of the rating.

The information received from Discovery Health Medical Scheme and other reliable third parties to accord the credit rating included:

- The unaudited financial statements to 31 December 2016
- Four years of comparative audited financial statements to 31 December
- Full year budgeted financial statements to 31 December 2017
- Other relevant documents

The rating above was solicited by, or on behalf of, the rated client, and therefore, GCR has been compensated for the provision of the rating.

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