

AN ASSESSMENT OF THE FINANCIAL SUSTAINABILITY OF RHODES UNIVERSITY

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(Contributions of Dr Brian Rayner, Mr Tony Long, Ms Desiree Philipson & Ms Natalie Ripley are gratefully acknowledged)

A. Introduction

In a recent paper addressing the financial sustainability of higher education institutions in the United States, Denneen & Dretler comment “if you are the president of a college or university that is not among the elites and does not have an endowment in the billions, chances are cash is becoming increasingly scarce – unless you’re among the most innovative. The reason is simple: Approximately one-third of all colleges and universities have financial statements that are significantly weaker than they were several years ago. On the balance sheet side, the equity ratio (equity as a percentage of assets) is down. On the income statement side, the expense ratio (expenses as a percentage of revenue) is significantly up.....the translation: Institutions have more liabilities, higher debt service and increasing expense without the revenue or the cash reserves to back them up” (Denneen & Dretler 2012:1).

They go on to comment that in the past, such problems were addressed by passing on the additional costs to students or by obtaining more funding from state sources.

A similar situation is reflected in the report “Too Good to Fail: The financial sustainability of higher education in England” in the foreword: “To create a financially sustainable HE system, either graduates and students have to pay, or the Government has to pay, or universities have to do more with the same (or less)...there is no silver bullet solution to solve the funding problems facing English higher education” (Norton & Thompson 2014: 9).

In his foreword to the Report of the Ministerial Committee for the Review of the Funding of Universities, the Minister of Higher Education states that “It is therefore not surprising that, without exception, all of the country’s universities cite inadequate funding as the main cause of the higher education system’s failure to measure up to its potential and fully realize the transformation agenda of our country” (DHET 2014:1). The report goes on to state that “the average growth rates show that in real terms, government funding per full-time equivalent enrolled student fell by 1.1% annually between 2000 and 2010, while student tuition fees per FTE increased by 2.5% per year. Based on the differential increases in fee income and government grants, *it can be concluded that the amount of government funding is not sufficient to meet the needs of the public university system*” (italics mine - DHET 2104:19).

In his 2015 subsidy allocation letter, as well as in the Ministerial Statement on University Funding for 2015/16 and 2016/17, the Minister wrote

“Given the economic forecast for government as a whole and the constraints on the current budget allocations, all government departments are having to reprioritise and find efficiencies in the system as additional funding in next MTEF cycles will be very limited. There is an appeal to universities to put in place efficiency measures that will generate extra

funding for the university. The measures could include:

- reduce overheads relative to the core functions of universities;
- collaboration amongst universities in order to save on spending;
- improve debt collection;
- source donor funding;
- put in place processes to generate additional third stream funding to assist with cross-subsidising the finances of the core functions of the institution.”

Finweek (25 June 2015) reports that education’s share of the national social services budget has dropped from 49% in 1994/5 to 35% in 2014/15 (statistics sourced from National Treasury).

In his document *Critical Reflections on Rhodes, 2006-2011* the former Vice Chancellor Saleem Badat comments that “It is debatable whether there is as yet a full grasp among Rhodes staff of its vulnerabilities arising from its size and shape, the intensely competitive higher education environment, its extremely modest investment reserves, and other factors”.

This assessment explores the extent of this vulnerability from a financial perspective referred to by the former VC. Section A of this document sketches the global and local economic reality in which higher education finds itself. Section B provides a summary of the key issues requiring attention and implementation in order to maintain and enhance the academic project of the University over the next ten years as identified by the Vice Chancellor. Section C, takes the financial pulse of the University since 2006 with a view to identifying strengths and vulnerabilities in the finances of the University, and Section D provides options for consideration for improving the financial sustainability of the University. Section E offers brief concluding remarks, and a non-exhaustive list of questions pertaining to financial sustainability is provided in Section F for the leadership of the University to grapple with.

The detailed financial data used for this assessment is provided in the accompanying Excel workbook. This is provided for reference purposes.

B. Vice Chancellor’s Inauguration Vision

1. We must enhance the quality of education and overall experience of our students.
2. We must make Rhodes University accessible to academically talented students from diverse racial, social, cultural, economic and class backgrounds and provide them with the support they need to succeed
3. We must attract, nurture and retain academic, administrative and support staff of high caliber
4. We must create and maintain an inclusive, welcoming, affirming and positive institutional environment.
5. We must advance the transformation imperative of our University
6. We must maintain and grow the intellectual outputs and scholarly reputation of our university
7. We must provide the best academic infrastructure, equipment and facilities to support our academic project.

8. We must ensure financial sustainability and long-term viability of our University
9. We must make our contribution in building a vibrant and sustainable Grahamstown community
10. We must cooperate and collaborate with the other three institutions of higher learning in the region to address pressing development challenges facing our province.

C. Key financial indicators/benchmarks

The ratio analysis performed in this section makes use of the higher education strategic financial analysis methodology developed by KPMG; Prager, Sealy & Co; and Bearing Point (2005). Four key questions form the basis of the assessment of the University's financial performance from 2006 to 2014:

- Are resources sufficient and flexible enough to support the strategic objectives of the University (Liquidity)?
- Are resources, including debt, managed strategically to advance the strategic objectives of the University (Debt management)?
- Does asset performance and management support the strategic direction of the University (Asset performance & management)?
- Do operating results indicate the University is living within available resources (Operating results)?

The financial performance of the University is reflected in the Excel spreadsheet entitled RU Annual Financials (2006-2014) – balance sheet, income statement, cash flow projections and university and residence budgetary control statements or management accounts.

1. **Liquidity:** Does the University have adequate resources and access to sufficient funds to meet current and future operating and capital requirements?

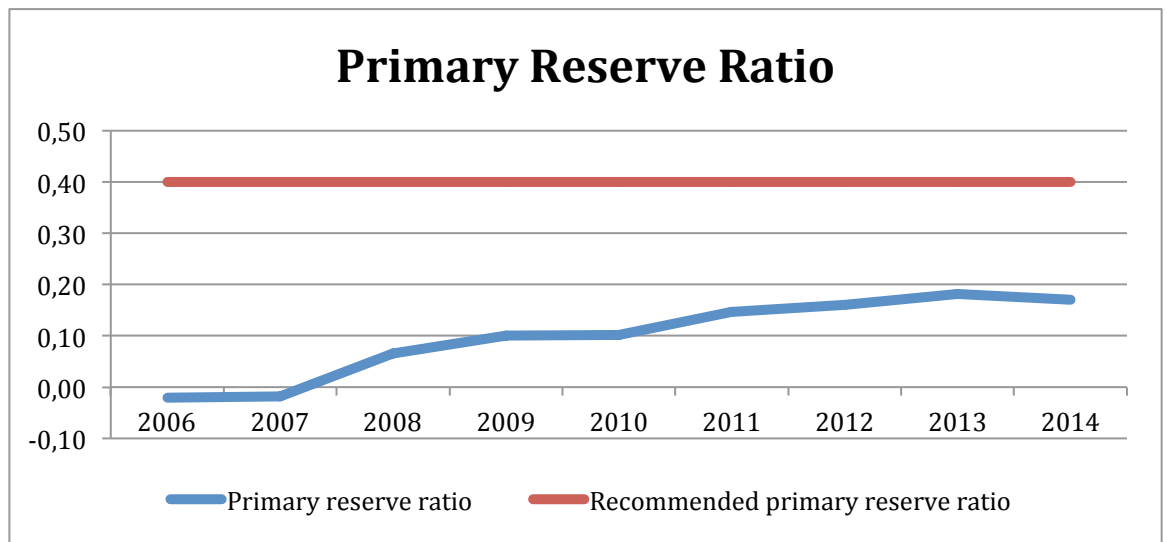
The primary metric is the primary reserve ratio.

This ratio helps to answer the question “How long can the institution operate using its expendable reserves without relying on additional net assets generated by operations?; and provides a snapshot of financial strength and flexibility by indicating how long the institution could function using its expendable reserves without relying on additional net assets generated by operations.

This ratio is calculated as Total Unrestricted Net Assets (Total net assets- Restricted net assets-PPE+L/T debt) divided by Total Expenses.

This ratio should ideally, according to KPMG, be above 0.4X.

The RU ratio for the period 2006 to 2013 is reflected in the graph below.



The upward movement of the ratio for the period 2010 to 2013 was reversed in 2014 with a decline from 0.18 to 0.17 in 2014. The ratio in 2014 is less than half of the recommended value which means that the University has funds in reserve for about two months of operation. In this case the institution will probably need to borrow short-term to make payments, and it does not have the resources it needs to maintain the physical plant and to invest in the future. To bring reserve funds to the recommended level at the current levels of expenditure, the “free” or unencumbered reserves of the University needed to be at R540m. They stood at R185m in 2014.

In addition it must be emphasized that some R90 million of the reserves are currently underwriting the loans made by the University for the construction of new residences. This effectively reduces the unencumbered reserves of the University to R95m, reducing the effective reserve ratio to below 0.1, which means we have sufficient “free” reserves to fund recurring operations for 1.3 months. This “free” reserve will be further reduced if the situation arises that requires that the R30 million University co-funding component of the DHET Infrastructure & Efficiency grant cannot be raised.

Recommendations/strategies

- i. Increase unencumbered or “free” reserves
The upward movement of the unrestricted reserves of the University is solely due to the fine performance of the investment portfolio over the past number of years. This investment return has prompted the creation of annual “draw-downs” of funds from the reserves, viz., VC’s discretionary fund, the research capital equipment fund and the *Sandisa Imbewu* fund - a total draw-down expense of R8 million per annum. These funds are used to stimulate new and innovative academic programs and projects and to provide funding for the purchase of new/replacement academic equipment.

Given the considerable reserve shortfall, it is recommended that the return on investment (both intellectual and financial) achieved from the “seed” funding is assessed against the need to grow the reserves particularly as the fund managers have indicated that the rate of return of

the reserve fund investments is going to decline due to global and in particular local market economic slowdowns.

- ii. Increase cash generated from operations
See Section C 5 – cash flow analysis below.
- iii. Reduce pension liabilities
Following the introduction of IAS19 in 2012 and the apparently significant impact upon the University's balance sheet it has become apparent that the terms of IAS19 are unreasonable as they have been designed for application in profit-making entities and organisations. Consequently the University Council has decided to explain the liability valuation fully as an accounting convention rather than a valuation that significantly impacts the going-concern status of University in the notes to the annual financial statements. Thus whilst the pension & medical aid fund liability valuation should not be ignored completely, its impact on the financial statements should be viewed with due caution and full understanding of the real impact of the regulation on the balance sheet of the University.

There have been proposals recently to seek to increase the cash component of active pension fund members by reducing the level of the pension fund contribution. It must be emphasized that until the pension fund has accumulated sufficient capital to satisfy the solvency reserve requirements set by the FSB, the fund cannot be regarded to be "fully funded". Until the solvency reserve level has been attained, the fund will continue to have to restrict annual pension increases to 60% of inflation, a situation that is causing significant hardship to the University's pensioners.

- iv. Reduce post-retirement medical aid liabilities
The impact of the medical aid liability on the financial statements is of greater consequence, but there is very little the University can do to reduce this liability as the post-retirement benefit option has been closed since 1991. The University does not have the financial capacity to "buy-out" the liability. The liability should plateau within a few years and then start declining.

2. **Debt Management:** Has the financial burden of debt outweighed its strategic usefulness to achieve the University's mission?

Rhodes University is in the very fortunate position that it has virtually no long-term debt on its balance sheet other than retirement funding liabilities.

3. **Asset Performance & Management:** Are past investments (human, financial and fixed) providing adequate returns?

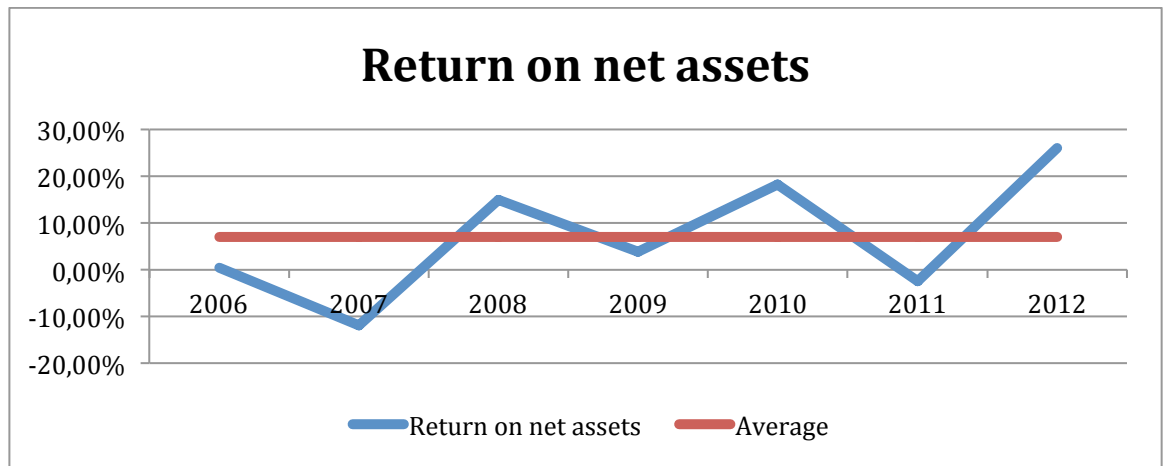
Metrics:

- a. Return on net assets ratio – this primary metric helps answer the question "How has the institution performed in terms of generating net assets (institutional equity) compared to its capital base? Are we

increasing our net assets and thereby able to set aside financial resources to strengthen our future financial flexibility?"

This ratio is calculated as Change in Net Assets divided by Net Assets at year end.

The RU ratio for the period 2007 to 2013 is reflected in the chart below.

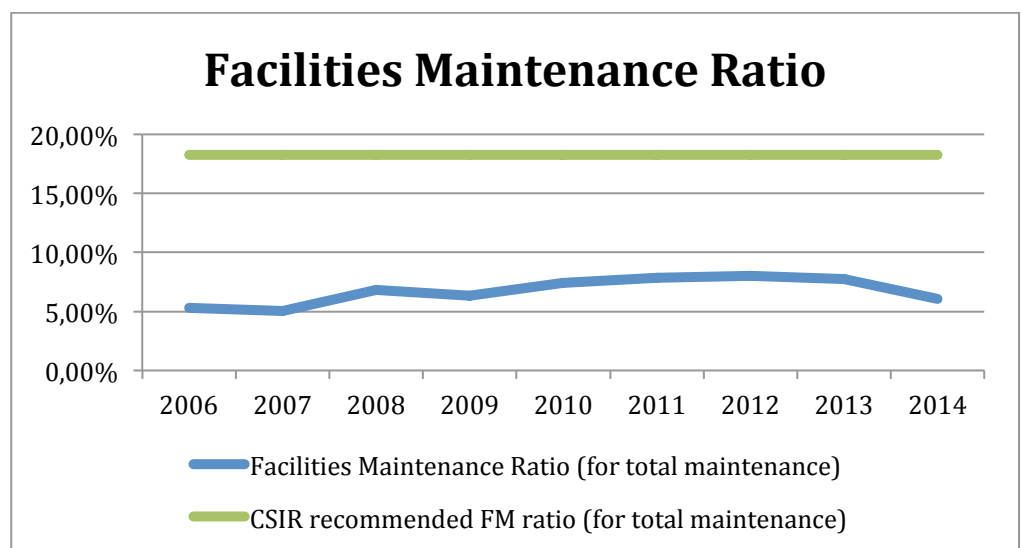


The recommended target is a 4 – 6% return over the long term. The RU average return for this period is 7%, but the return rate fluctuates quite significantly from year to year. This fluctuation is caused by *inter alia* the large cash funds reflected in the balance sheet as a result of DHET infrastructure and efficiency funding as well as other earmarked grant money. *Without these earmarked cash amounts, the average real return is 2.08%.*

b. Facilities Maintenance ratio

This ratio helps answer the question “Is the institution generating sufficient income to support its operations and maintain its plant?”

This ratio is calculated as the Total Maintenance & Operations Expenses divided by Total Operating/Recurrent Revenues.



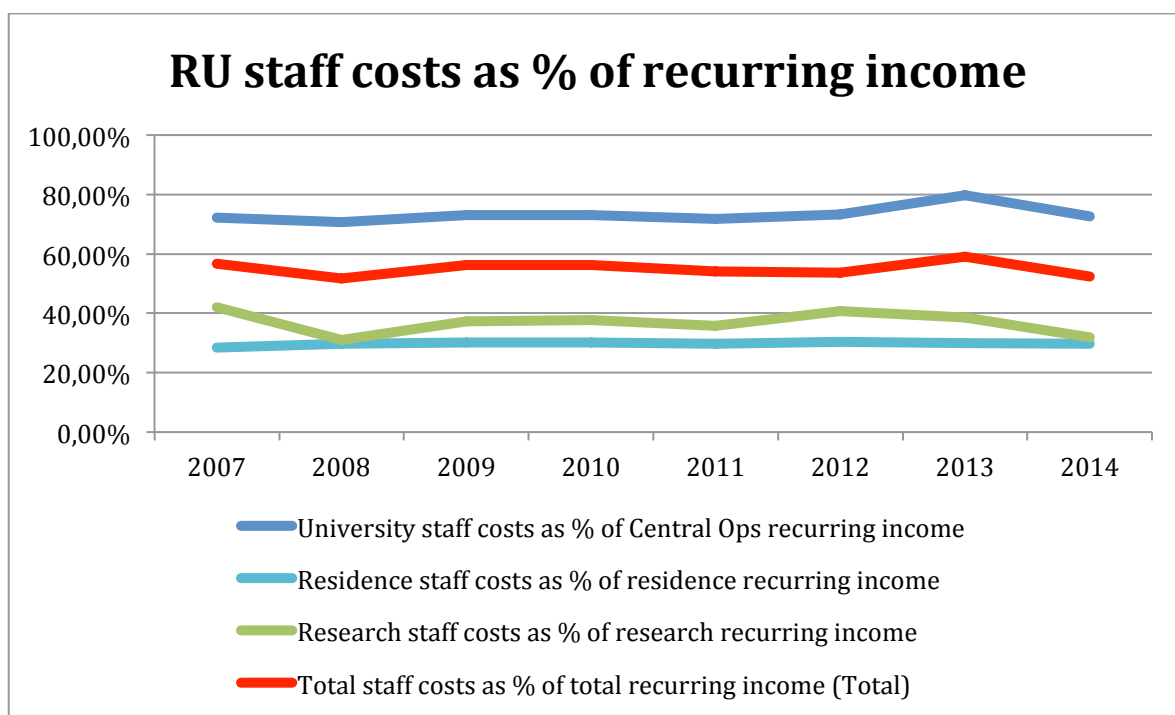
The University annual facilities maintenance ratio is consistently below the recommended or standard benchmark based on the replacement value of the University's fixed assets. In 2014 the University provided a maintenance budget of R64,058m whereas the recommended or benchmark allocation is R192,328m.

c. Deferred maintenance ratio

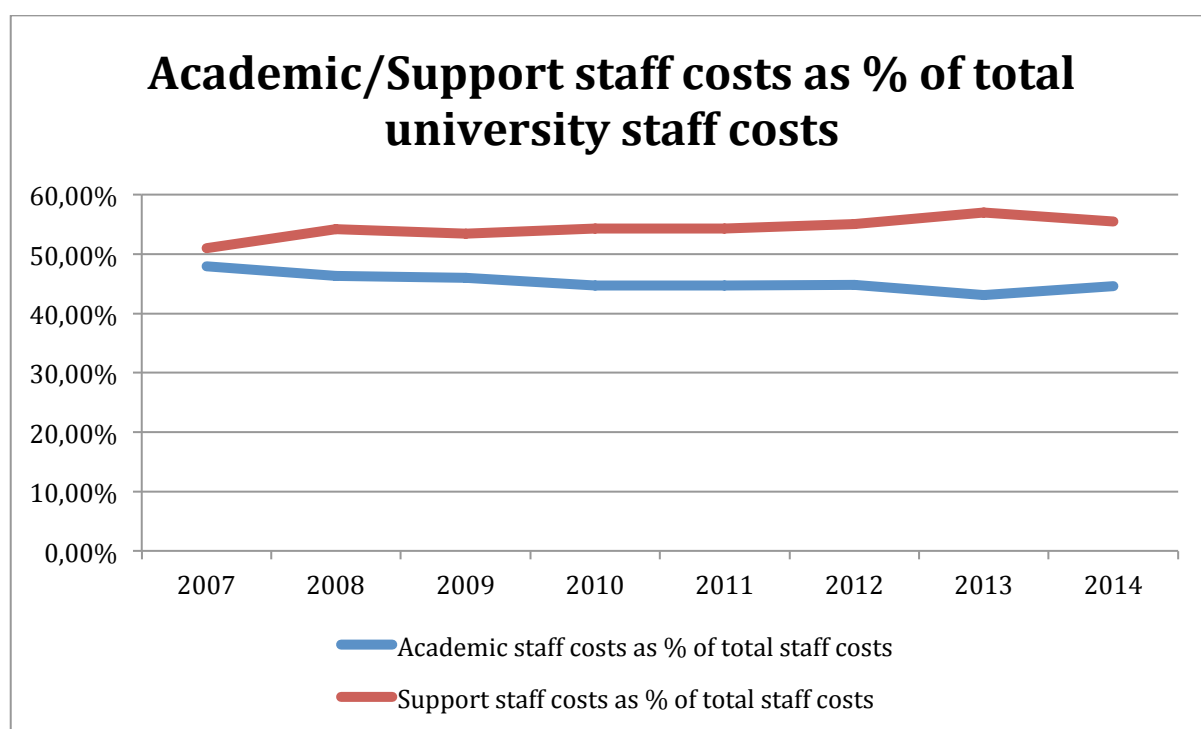
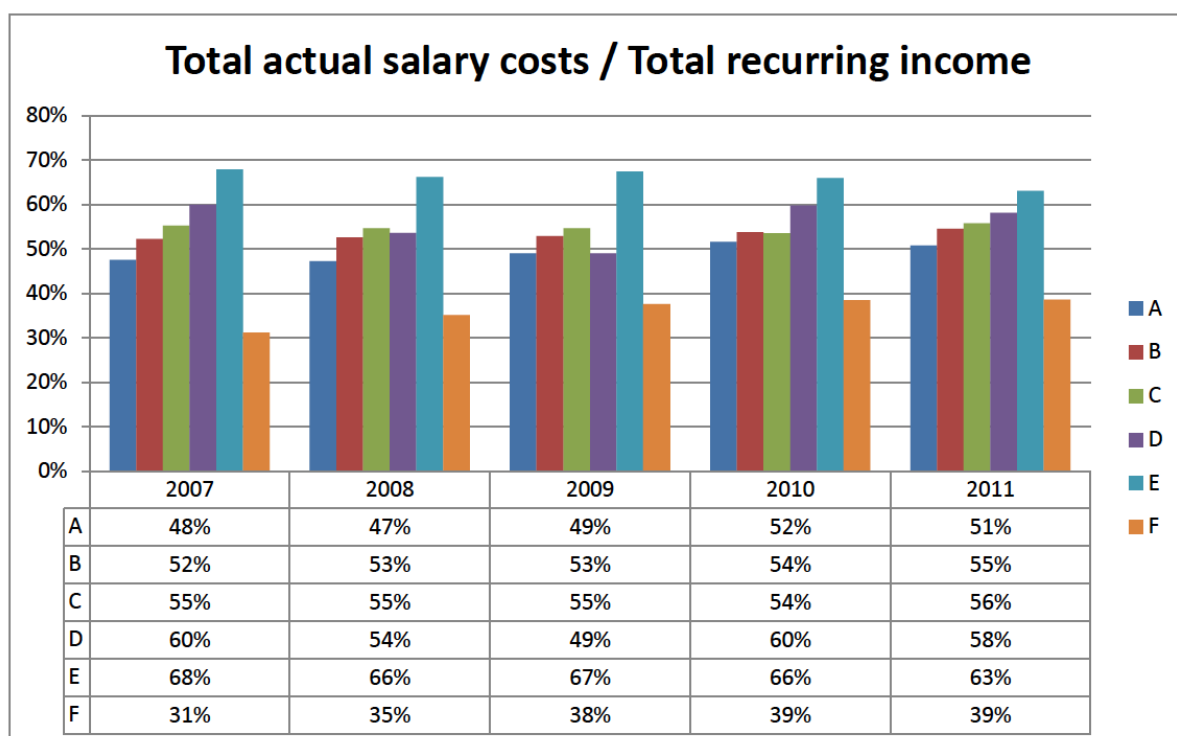
This ratio measures the size of the institution's backlog maintenance compared with its expendable net assets or Total Unrestricted Net Assets (Total net assets-Restricted net assets-PPE+L/T debt). The value of the backlog maintenance has not been calculated on an annual basis until the CSIR assessment in 2014. The value of the deferred maintenance is 28% of the total unrestricted net assets reflected in the 2014 balance sheet.

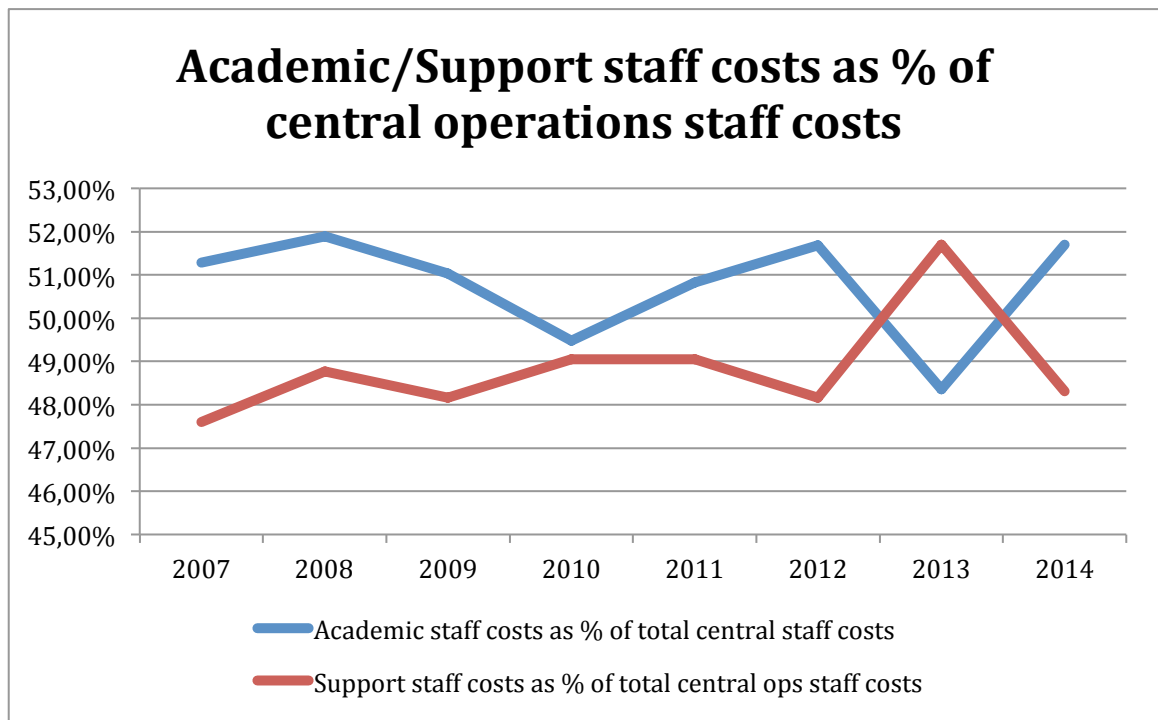
d. Staff cost ratios (per income statement categories)

These metrics provide insight into the proportion of recurring income as well as various categories of expenditure that staff expenses are consuming, and help answer the question "Is the staff cost expenditure ratio proportionate with the level of recurring income being generated by the institution?". Given the differing strategic objectives of universities, definitive benchmarking is not possible; however, within the South African higher education system the total staff cost ratio should be in the vicinity of 50%, whilst the central operations staff cost ratio should not be higher than 60% (see the staff cost data expressed in the chart below submitted by six institutions to Higher Education Finance Executives Forum's benchmarking workgroup in 2012).



Total staff cost comparative - 6 universities 2007-2011

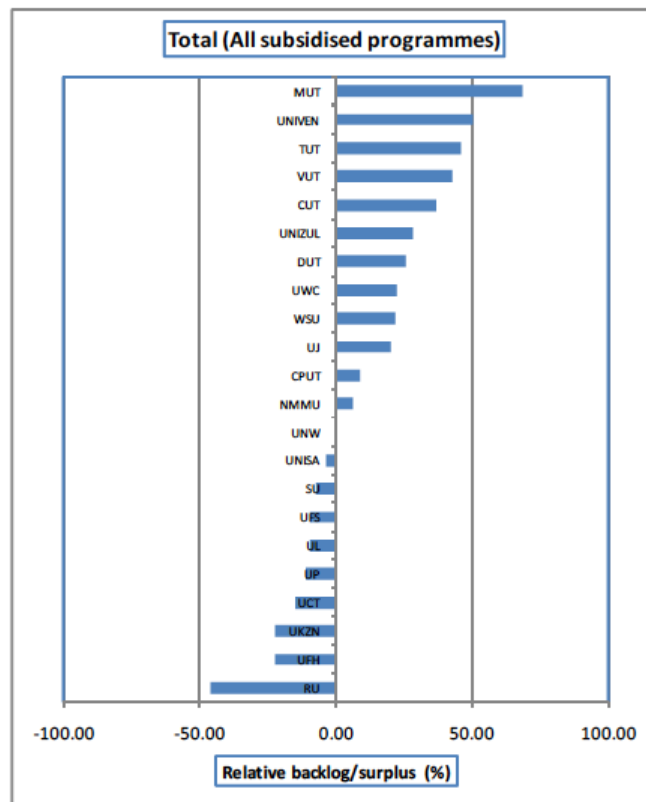




- Recommendations/strategies:**
 As mentioned above, the return on net assets ratio is the primary metric for measuring asset performance and management, and indicates whether the institution is financially better off than in previous years by measuring total economic return. Both unforeseen and planned events can and will affect the return on net assets ratio, and some years the ratio may be below the recommended level of 3% – 4% above inflation. Occasional drops in the strength factor of this ratio, however, are not a cause for concern if the financial reason for the drop is understood and it is a one-time financial event from which the institution can recover. **If the return on net assets ratio is not 3% – 4% above inflation for a period of time, there is need for concern. The KPMG benchmark is 0.06 or 6% to establish a rate of return in excess of the growth in total expenses.**

Several sub-metrics have been used to probe deeper into the performance and management of University assets (FM ratio, deferred maintenance ratio and various staff cost ratios). In response to the analysis the following comments and strategies are offered:

- Improve utilization of existing buildings**
 The HESA space usage study released in March 2012 indicates that Rhodes University was the most over-resourced from a space perspective when compared against the other 21 institutions participating in the survey (the chart below is extracted from that report).



Relative backlogs/surpluses in ASM's in 2009 for HEI's

In the wake of this report, a new Space Allocation and Space Usage policy has been approved by Senate and Council. Management of space is one module of the newly purchased Archibus facilities management system that is being implemented by the Infrastructure & Operations Division. This tool will introduce the capability to assess, analyse and optimize space usage at the University with a view to optimizing the use of existing assets. The target for full implementation of the system is January 2016. Despite this, the message implicit in the HESA space study is clear – space is not being used optimally at Rhodes University.

- ii. Establish adequate investment in deferred maintenance
The analysis above, the findings of the CSIR campus condition assessment as well as a cursory inspection of the fabric of campus infrastructure indicate that the condition of campus infrastructure is poor. As reported to the various committee structures of the University, including Council, there is strong evidence that this estimate is understated, and the CSIR have been recalled to review their data. At the end of June 2015, following a “self-audit” by the CSIR, the CSIR has officially acknowledged that their assessment and cost estimates are deficient, and that they will have to re-do the assessment. In the meantime the University has submitted an application to the DHET for R682 million for backlog/deferred maintenance funding.
- iii. Establish life cycle facilities maintenance program
The deferred maintenance situation has several causes:
 - the lack of a life-cycle facilities maintenance program at the University;
 - consistent under-budgeting for facilities maintenance;

- total lack of budget and planning for lab and lab equipment life-cycle maintenance;
- poor and inefficient service provision from the Facilities Services departments, building maintenance & electrical services (until the recent appointment of a new manager) in particular.

It is imperative, if the decline of campus infrastructure is to be arrested in order to prevent further increases of deferred/backlog maintenance that a life-cycle maintenance program (planned, unplanned or ad hoc, statutory and project maintenance categories) is established at the University. Based upon international benchmarks, the CSIR has indicated that a significant increase (200%) in the budget allocation for facilities maintenance is required for life-cycle facilities maintenance (ie, excludes backlog/deferred maintenance and minor projects) – in 2015 the budget allocation is R44,4 million, whereas R133 million is required. This additional budget requirement is a recurring allocation in order to prevent the build-up of further and/or new maintenance backlogs.

- iv. Consider full ownership cost when making new capital investment
Without the infrastructure and efficiency funding received from the DHET since 2007, Rhodes University would not have had the means to undertake the various infrastructure capital projects implemented since the introduction of the funding in 2007/8 (library, residences, dining hall, Education Faculty building, laboratory space creation, Life Science and School of Languages buildings and equipment purchases). Full cost of ownership was built into the residence budget, but this has not been done in the central operations (university) budget, which has considerably increased strain on the facilities services operating budget, and thereby contributed to increasing deferred/backlog maintenance. Full ownership cost budgeting is essential for all infrastructure capital projects, irrespective of the source of funding.
- v. Improve investment from working capital
Late in 2013 an exercise was conducted in which the interest rates being achieved by Finance Division were benchmarked against Investec Asset Manager, Allan Gray's Cash Manager and Investment Solutions Banker Portfolio funds. The outcome indicated that the returns being achieved by Finance Division either equaled or surpassed the benchmarks. Despite this, the University's current investment fund manager has been invited to submit a proposal with a view to assessing further improvement. However, given the prevailing economic climate, substantial increases in short-term investment income are unlikely.
- vi. Improve investment return from invested capital
The performance of the University's investment fund managers has been excellent over the past number of years, with investment returns being achieved well above the inflation rate. The fund managers have however cautioned that these high returns will inevitably decline due to prevailing economic conditions. Increases in investment returns are therefore unlikely in the short to medium term.

vii. Optimize staffing levels and productivity

The ratio analysis above confirms that the proportion of recurring income consumed by staff costs is too high, particularly in the central operations component of the University. Given that the residences are already contributing 5% (R18.2m) of the central operations staffing cost budget, and that academic and support staff grades 6+ are being remunerated below the 50th percentile, the high staff cost ratio in central operations indicates that staffing costs are too high. This, coupled with the net return on assets and net operating revenues ratio suggests levels of inefficiency and ineffectiveness within the system.

4. **Measuring Operating Results:** Are operations generating sufficient resources to support liquidity and reinvestment?

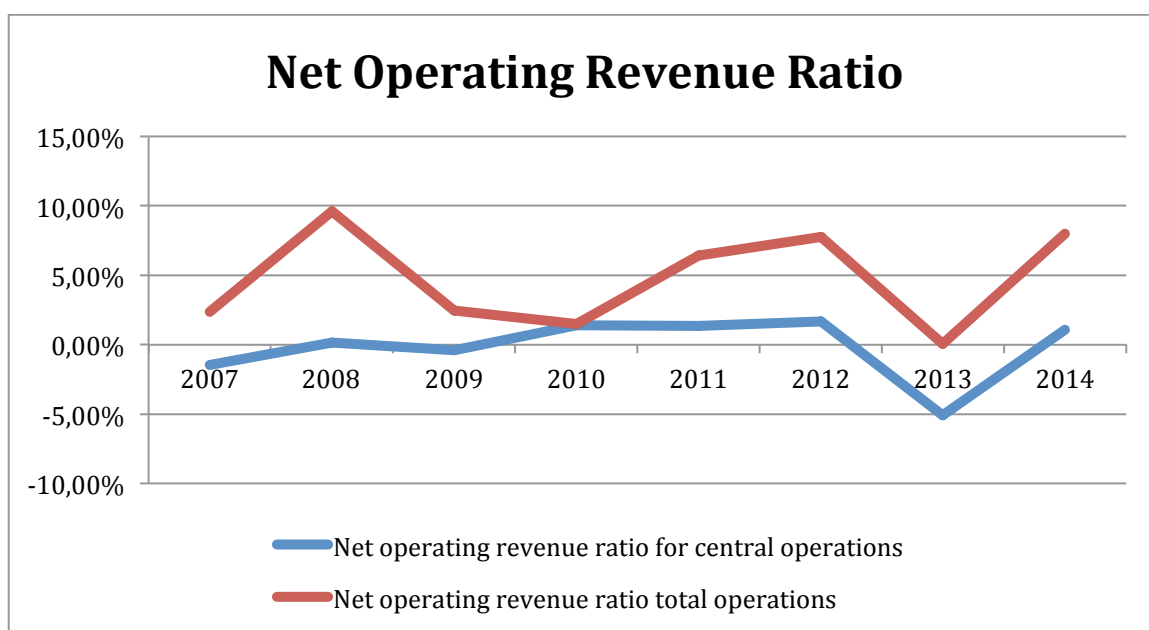
Metrics:

a. Net operating revenues ratio

This ratio is also known as the net income ratio, and is the primary metric which measures operating performance of an institution. It helps answer the question “Did the institution live within its means or not during the year or over a period of time?”

The ratio is calculated as the excess/deficiency of unrestricted operating revenue over unrestricted operating expense (or change in unrestricted net assets) divided by the total unrestricted operating income.

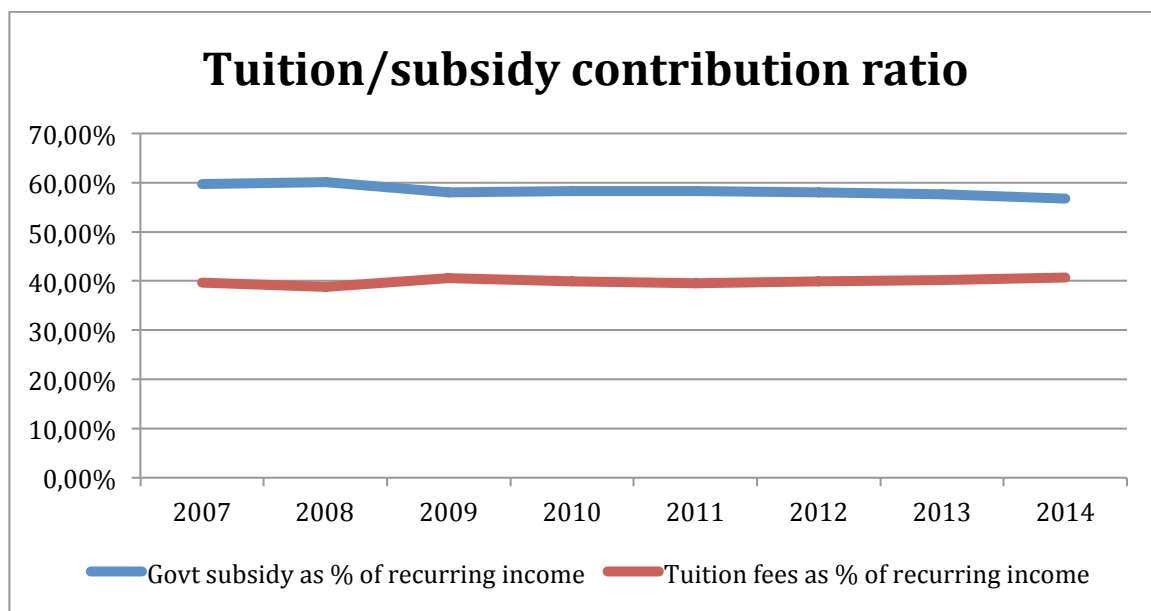
The recommended goal is a 2 – 4% return over the medium to long term.



The total operations ratio is positive for the period 2007 to 2014, but fluctuates quite significantly from year to year. However, these surpluses have been obtained by under-spending on critical items, such as infrastructure and staff. The ratio for central operations indicates that a restructuring of the central operations revenue and expense streams is required.

b. Tuition & subsidy contribution ratio

The tuition & subsidy contribution ratios indicate the proportions of recurring income that is derived from state subsidy and tuition fees. These ratios provide an indication of the extent to which the University is becoming increasingly dependent upon tuition fee income as the value of state subsidy declines in real terms.



The chart shows the gradual but steady decline in the subsidy with a downward acceleration in 2013, a trend which continues in 2015.

Recommendations/strategies:

- i. Identify and target adverse revenue & expense trends for improvement

At its March 2015 meeting the Reserve Bank's monetary policy committee revised its GDP growth forecast downwards from 2.5% to 2%. Simultaneously it increased SA's inflation forecast from 3.8% to 4.8% with a worrying forecast of 6.7% by the first quarter of 2016 due to inflationary pressure of a weakening rand and anticipated above-inflation public sector salary/wage increases (Financial Mail 2-8 April 2015). The South African economy is ailing.

At the first HESA Finance Executives Forum meeting of 2015 on 30 March 2015, feedback was provided from National Treasury reiterating that given the state of the economy, no additional funding should be expected – indeed, the warning was sounded that unless the economy strengthened, departmental budget cuts are likely. The message is clear – do not look to government for additional recurring funding.

The chart above indicates an upward trend in the tuition fee ratio as the real value of the state subsidy declines. The sustainability of this

trend is questionable given that Rhodes University's tuition and residence fees are in the top quintile of higher education fees – increasing fees above inflation is a risky strategy given that the University is heavily dependent upon full fee paying students.

A further constraining factor is that the national budget allocation for NSFAS funding is unlikely to increase significantly. In addition, senior NSFAS officials have signaled that the capping of NSFAS funding per student as a very strong likelihood – figures of between R60 – R66k per student have been mentioned. Should this be introduced, Rhodes University will be in serious difficulty unless it is able to generate additional third stream income in order to fund the balance between the NSFAS ceiling and the tuition and residence fee charges. If NSFAS had been capped at R66,000 in 2014, the shortfall per NSFAS student would have ranged from R500 to R34,000 per annum. The shortfall had the capping been operational would have been R5 million (461 student received NSFAS packages in 2014).

ii. Increase state subsidy proportion

This option initially appears to contradict I above; however what is being suggested for exploration here is the possibility of increasing Rhodes University's percentage share government subsidy. At the FEF meeting mentioned above, the feedback from the DHET about the higher education funding framework investigation is that the basic funding formula is unlikely to change significantly. The challenge therefore is that in order to just maintain share requires significant effort and improvement as other institutions compete to increase their share. This impacted Rhodes University's 2015 block grant allocation from the DHET – our output subsidy share dropped from 1.2% to 1.1%, and our research output share dropped from 3.2% to 3.1% - *this translated into an actual block grant decrease of R6,226,470*. Clearly a great deal of strategic planning is imperative in order to stem further erosion of our share of the national block grant subsidy allocation.

iii. Reduce tuition and state subsidy dependency by developing and growing new revenue sources

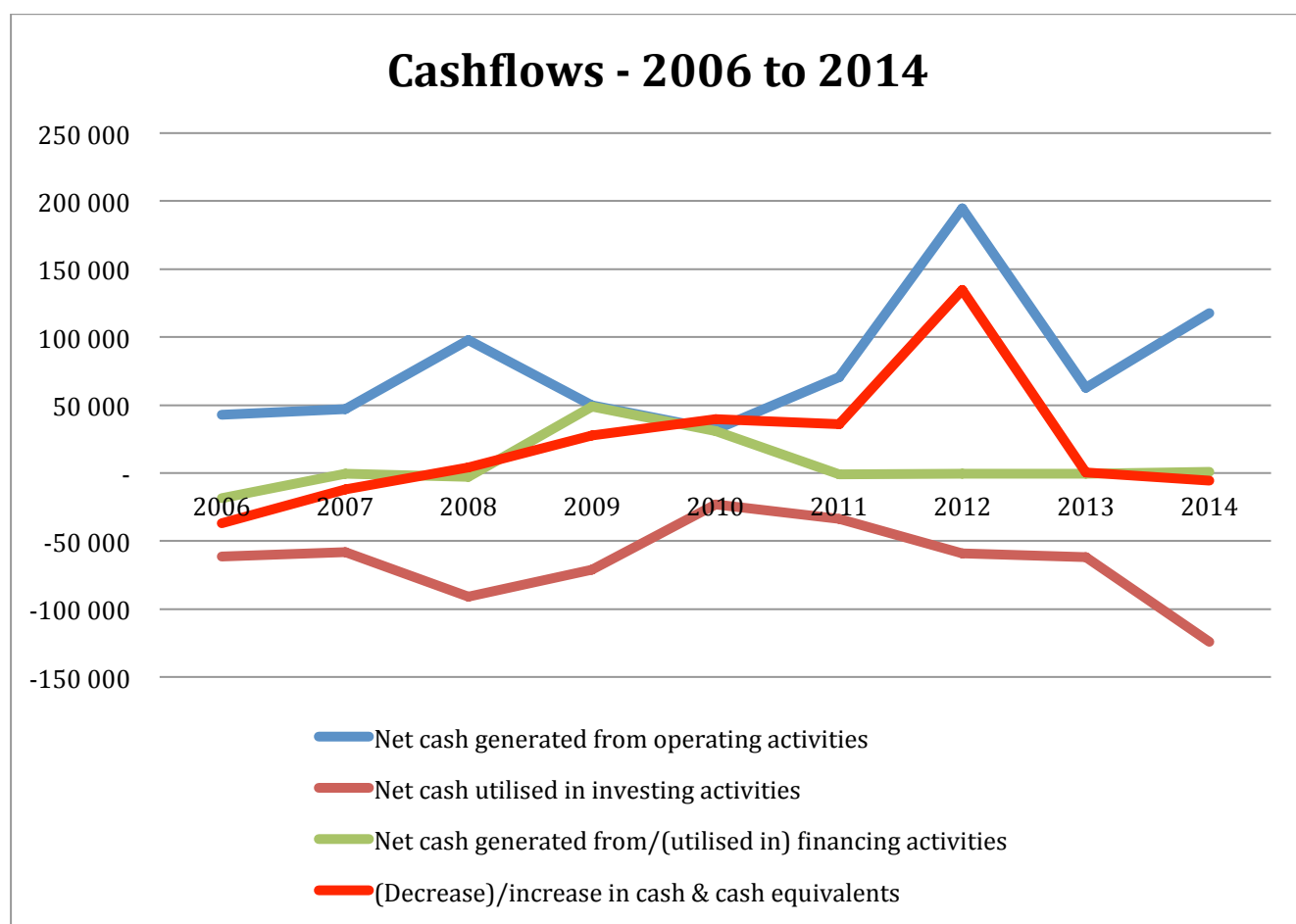
This has been a recurring theme in the preceding analysis – it is imperative that Rhodes University increase its third stream income, particularly for financial aid for students from poor and working class homes. The sector will be competing for full-fee paying students, who will become scarcer and scarcer as the economy weakens. The “Robin Hood” principle adopted at Rhodes University is entirely dependent upon having a relatively high proportion of fee-paying students . *Need stats re demographics and numbers of full fee-paying students.*

iv. Improve operational productivity/efficiency

The improvement of operational productivity and efficiency has been repeatedly emphasized in the preceding analysis.

5. Cash flow analysis

The chart below reflects the movement of cash in the categories reported in the annual financial statements for the period 2006 to 2014.



The cash flow forecast provided below is the forecast which has been provided to the DHET as part of the 2015 Annual Performance Plan required by the DHET. The cash flow forecast reflects a situation of business as usual – i.e., it does not incorporate any strategic changes.

RHODES UNIVERSITY SUMMARY CASHFLOW PROJECTIONS 2015-2017

	2015	2016	2017
Increase in Cash	193 219	198 476	221 790
<i>Surplus from Operations/Activities (eg, I&E grant, investments, res surplus, research etc)</i>	182 719	188 476	211 790
<i>Increase in Creditors</i>	10 000	10 000	10 000
<i>Increase in NRF Grant Deposit</i>	500	0	0
Decrease in Cash	249 619	250 919	247 457
<i>Increase in Debtors</i>	8 210	9 199	9 847
<i>Increase in NSFAS Long-Term Loan</i>	14 322	14 597	15 783
<i>Decrease in Deferred Income</i>	36 191	34 000	0
<i>Investment in PPE</i>	133 346	130 980	151 290
<i>Investment in BoG</i>	57 550	62 143	70 537
(Reduction)/Increase in Cash Resources	-56 400	-52 443	-25 667

An analysis of these cash-flows indicates clearly that aside from the cash outflow for new capital expenditure (infrastructure & equipment) and re-investment of investment revenue, the University's available cash resources are being consumed by student debtors (arrears) and the University's contribution to student financial aid. What is of concern is that the projections underpinning the cash flow summary indicate that the negative cash flow in the central operations is being offset by the positive cash flows generated by the residences and net research income. It is therefore not the case that the residences could in the future "subsidise" the central operations budget of the University – this is already the case.

It must be emphasized that whilst the University as a whole may appear to be cash flush, it is holding a great deal of "trust cash", such as the DHET infrastructure & efficiency funding and earmarked research funding from DHET, NRF and other research funding funders/donors. Some of this "trust cash" has been utilized for the construction of new residences, but under very strict conditions – viz., the return on investment provided by the residence system is significantly higher than that offered by mandated financial institutions (13% per annum) AND the full amount of the "loan" is underwritten by the unencumbered reserve funds of the University in case these loan funds are called upon at short notice.

D. Options to improve financial sustainability

Since 2007 the key, fundamental principle which has guided the setting of the annual operating budgets at Rhodes University is that the budget must be balanced – in other words, deficit budgets will not be considered. Indeed, higher education legislation prohibits deficit budgets without express permission from the Minister of Higher Education and Training (however, this principle has also tacitly entrenched the view that a surplus budget is to be frowned on. The analysis above, coupled with best practice, indicates that universities do indeed need to generate surpluses to cover the full cost of operations as well as to establish adequate reserves whether this surplus is budgeted as a surplus or budgeted as specific line items in the annual budget). In the following sections, the key strategic "grand challenge" items requiring additional budget are listed and explored, followed by proposals for increasing the revenue stream to accommodate the additional expenditure.

a) Strategic expenditure

Based upon the inauguration address given by the Vice Chancellor, the strategic priorities that require significant budget allocation (the strategic objective expressed by the Vice Chancellor appear in italics whilst the amplification provided to the DHET in the 2015 Annual Performance Plan appear in small script) have been extracted:

i. Staffing budget

Rhodes University must attract, nurture and retain academic, administrative and support staff of high caliber.

Rhodes University recognizes and affirms that its single greatest strength is its people – the academic and support staff. The University aspires to become an employer of choice, which it seeks to achieve through *inter alia*:

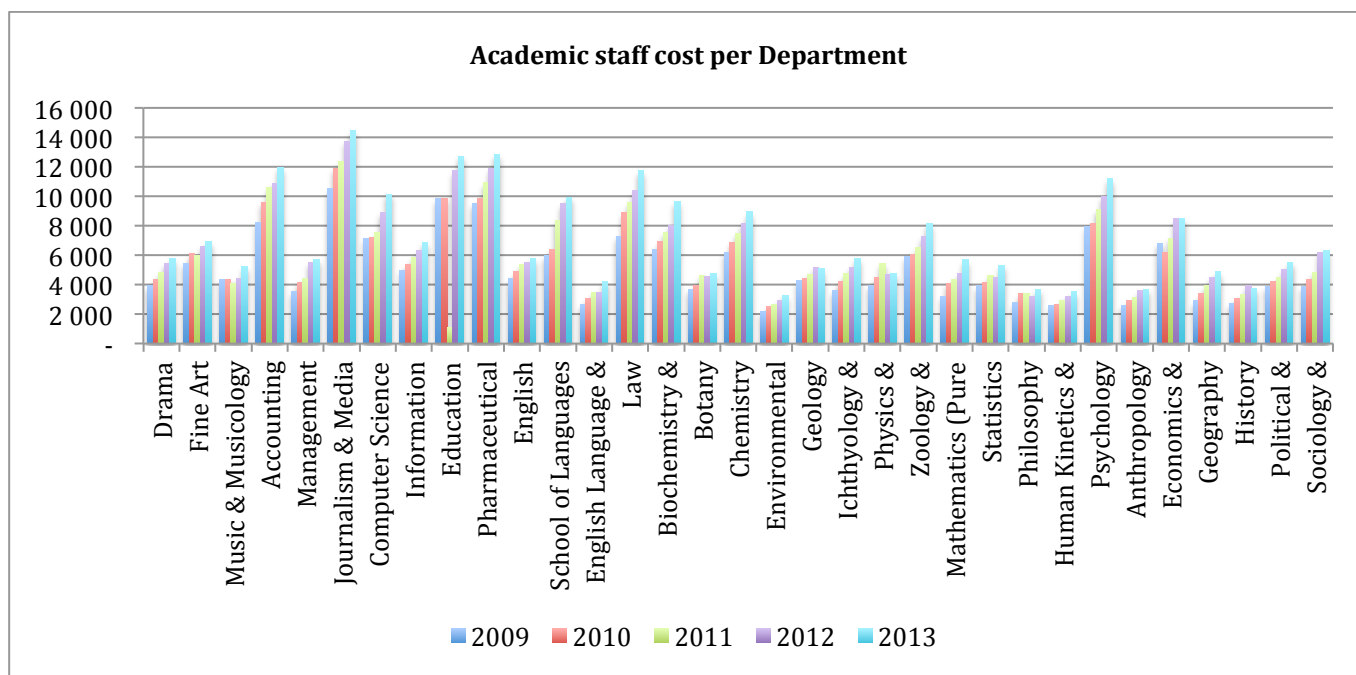
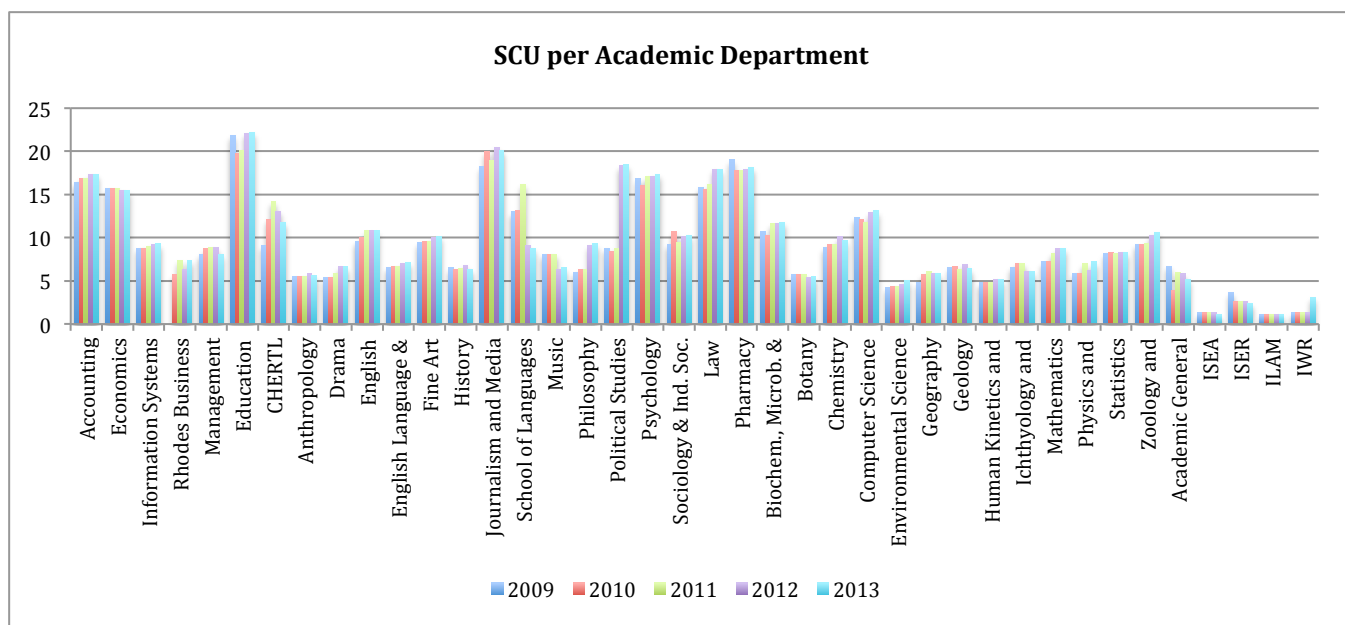
- Creating and maintaining an enabling institutional culture that values people and is an intellectually rewarding space in which to work;
- Improving our staff remuneration in order to be competitive;
- Assisting staff in finding affordable accommodation in and around Grahamstown;
- Creating opportunities for professional development and advancement of staff;
- Creating clear pathways for career advancement for support and administrative staff

The analysis of historical staff costs indicates that, when benchmarked with both international norms as well as South African HE institutions, the staff cost ratio of both central operations (university) and the University overall are too high. Various factors contribute to this high ratio:

- Part of this high cost ratio may be attributed to the fact that the University has chosen not to outsource support services such as facilities services, food services and cleaning services despite the perceived additional cost for compelling social justice reasons not least of which is a critical contribution to the local economy. The last evaluation of whether outsourcing would be financially beneficial was done many years ago (residence food services). An evaluation exercise could be done to assess whether outsourcing some or all of the “non-core” support services would indeed be financially beneficial for the University. The impact of such an assessment on the morale of approximately 500 staff (Res Ops and Infrastructure & Operations staff) will have to be carefully considered, as will the impact on the local economy.
- The creation of new posts and structures at various levels in both the academic and support staff areas is another factor contributing to the high staff cost ratio. Whilst the creation of new posts and structures is critical in a growing organization, regular assessments of the levels of productivity and efficiency should be carried out. The five-yearly cycle of reviews appears to have lapsed – part of this review exercise was an assessment of the structural efficiency and productivity of academic departments and support divisions. The re-establishment of the review cycle of both academic departments and administrative divisions should be considered to function at the very least as a mechanism to review and assess the efficiency and effectiveness of staffing levels, numbers, structures and productivity – a longitudinal comparison of the academic and support staff numbers against the staff costs in the charts below indicate that a detailed analysis is probably warranted (NB – perfectly rational and legitimate reasons may and probably do exist for anomalies, however these need to be identified and understood).

The data portrayed in the charts below is taken from the University’s Statistics Digests for the period 2009 to 2013.

Academic Departments

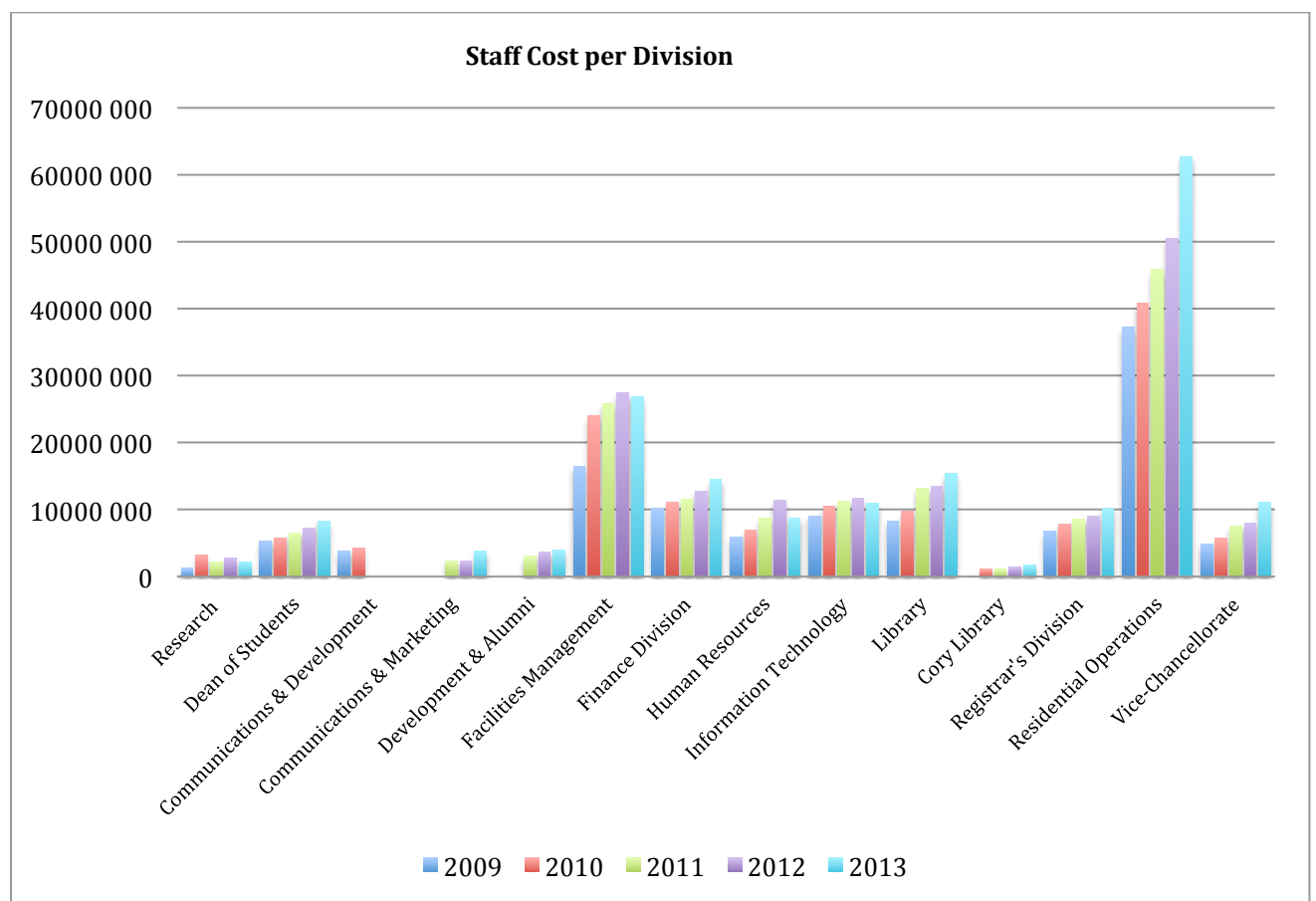
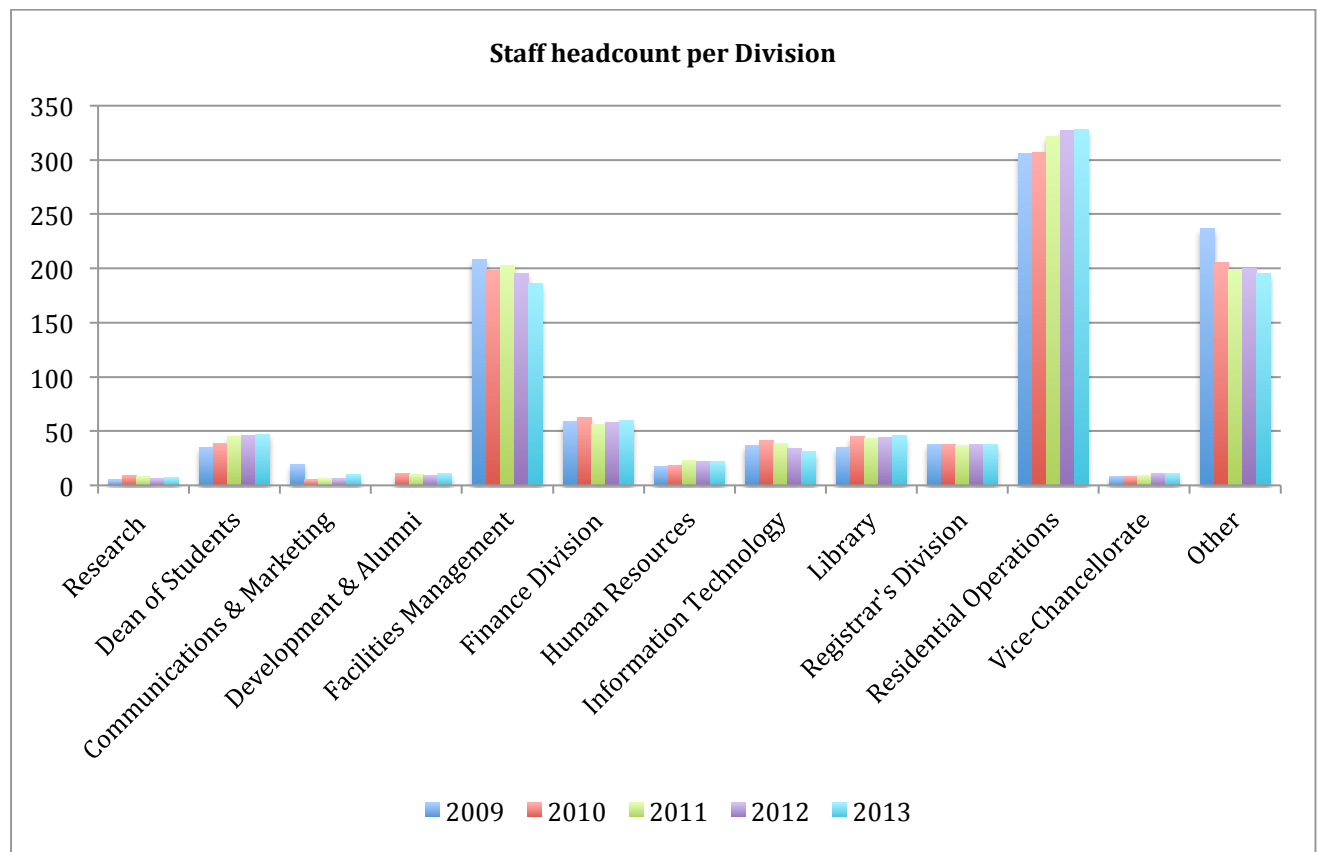


The following table reflects the net income surplus/deficit generated by academic departments over the period 2010 to 2013 ranked according to the average over the three year period.

Net (Inc-Exp)	2010 'R'000	2011 'R'000	2012 'R'000	2013 'R'000	AVERAGE 'R'000
Zoology & Entomology	6 803	7 187	5 269	6 228	6 372
Chemistry	514	5 650	3 079	12 513	5 439
Economics	2 323	2 165	7 640	2 711	3 710
Environmental Science	2 301	3 583	3 511	4 049	3 361
Pharmaceutical Sciences	3 582	3 683	390	2 898	2 638
Political Studies	4 110	1 826	3 620	636	2 548
Sociology & Ind Soc	2 025	2 189	2 764	2 140	2 280
Education	2 665	2 167	1 383	2 680	2 224
Ichthyology & Fisheries Sc	2 436	3 205	-1 423	4 163	2 095
Management	2 061	725	3 154	1 048	1 747
HKE	631	2 415	525	626	1 049
Statistics	606	73	2 143	-246	644
Biochem, Micro & Biotech	-246	2 397	178	35	591
Philosophy	188	435	739	-463	225
English	-152	-624	168	1 124	129
Botany	-595	603	-1 070	403	-165
Psychology	1 879	-919	1 645	-3 322	-179
Anthropology	32	-146	-160	-518	-198
Geography	443	148	-1 545	-370	-331
English Language & Linguistics	-357	-683	421	-942	-390
Fine Art	-483	357	-1 520	-13	-415
History	-1 012	-135	-17	-945	-527
Music & Musicology	-847	-433	-1 015	-773	-767
Physics & electronics	-902	-656	-3 180	1 373	-841
Geology	402	-939	-1 341	-1 912	-948
Mathematics	-1 460	-1 073	-595	-1 839	-1 242
Law	-787	-3 613	-896	-3 944	-2 310
Information Systems	-2 662	-2 327	-1 388	-3 223	-2 400
Drama	-2 575	-1 897	-4 570	-2 311	-2 838
School of Languages	-4 289	-3 351	-2 481	-3 519	-3 410
Accounting	-4 188	-4 783	-1 340	-4 276	-3 647
Computer Science	-3 115	-4 762	-5 592	-5 139	-4 652
Journalism &Media Studies	-5 603	-6 334	-6 845	-6 452	-6 309

The table indicates that using the average net income over a four year period (2010 to2013) fifteen of the thirty-three academic departments of the University are generating the income necessary to sustain the other eighteen departments plus the support services of the University. It is the nature of a University that certain levels of cross-subsidisation are required, but the levels and quanta need to be re-evaluated and re-weighted against the academic contribution of the relevant departments.

Support Divisions



It must be remembered that the Residential Operations budget carries 5% (R18.2m) of the central budget staff costs.

Several support areas of the University have embarked on an evaluation of business processes with a view to establishing and implementing modern, efficient business systems. It is anticipated that this should bring about significant productivity and efficiency gains. Again, such processes and systems should be reviewed on a regular basis.

The University has set itself the target of bringing its staff remuneration to the 50th percentile of higher education staff costs. This was partially achieved some years ago when the academic staff remuneration levels were taken to the 50th percentile. However due to significant shifts in national higher education staff remuneration levels, the University has not been able to keep pace, and academic remuneration at Rhodes has again slipped below the 50th percentile level. Significant progress has been made with bringing support staff on grades 1-5 either to or close to the 50th percentile due to differential wage/salary increases over the past number of years. However, remuneration levels of support staff at Grade 6 and above are still below the 50th percentile (the higher the grade, the further from the 50th percentile).

The estimate to bring all staff to the 50th percentile provided by the HR Division in February 2015 is R111 million. This is obviously a recurring expense – i.e., in order to implement this objective, an additional recurring income stream of R111 million (escalating at the annual salary/wage settlement rate) will need to be found or a reduction of expenses elsewhere. Considering the constraints of the financial context in which the University is operating, it is highly improbable that this objective is achievable. Given the strong strategic primacy of the academic project, perhaps priority needs to be accorded to achieving and maintaining the 50th percentile for academic staff, and a lower target for support staff.

Other recurring staff costs that need to be considered:

- Cost of transformation (from a staff equity profile perspective)
The University is under increasing pressure to transform in the broad sense. Included in this transformation is the need to change the demographic profile of the staff profile in general and the academic staff profile in particular. Whilst the remuneration levels remain at current levels, it is highly unlikely that this aspect of transformation will be realized, even with the current mechanism of paying equity premiums to attract and retain black staff. This aspect of transformation will need to be costed and built into the budget.
- Cost of transformation (from a staff skills development perspective)
The recent survey of staff satisfaction undertaken by the E&IC office has indicated the need to provide staff, particularly Grades 1-5, with access to skills development and training programs beyond what is currently offered. Again, a budget will have to be established to address this request.

- Affordable accommodation for staff in and around Grahamstown.
Some years ago a task team assessed the feasibility of the University assisting staff to purchase property in Grahamstown. The report confirmed that the issue was highly complex and expensive, and no concrete or implementable proposals were identified. Given the paucity of the University's reserves, it is unlikely that the University can make a direct monetary contribution, but discussions with the Municipality and developers have and continue to take place.

ii. Infrastructure budget

Rhodes University must provide the best academic infrastructure, equipment and facilities to support our academic project.

Over a number of years the university budget has been balanced by cutting the facilities maintenance budget. The recent CSIR campus infrastructure condition assessment has quantified the extent of the considerable maintenance backlogs. Given the quantum of the backlog, the University will be looking to Government for assistance to reduce the backlog. The development and implementation of a life-cycle facilities maintenance plan is essential, and will require adequate budget allocation.

This objective is to be achieved primarily through

- The establishment and implementation of a life cycle infrastructure maintenance plan;
- The finalization of the campus spatial development framework;
- The implementation of the space allocation and usage policy.

The recent campus condition assessment exercise undertaken by the CSIR has quantified the extent and magnitude of both the facilities maintenance backlog as well as the recurring FM budget required to implement adequate life cycle facilities maintenance (without which the maintenance backlogs get bigger and more expensive, and the plant becomes less and less fit-for-purpose).

There are three components of this strategic priority:

- Life cycle maintenance (including statutory maintenance)
The benchmark for the provision of the university facilities/infrastructure lifecycle maintenance budget ranges from 1.5% to 4% of the asset replacement value (ARV) of the campus infrastructure. The CSIR has estimated the replacement value of the Rhodes University infrastructure to be R3,8 billion, and based upon their assessment of the campus infrastructure has indicated that a budget of R133,079,889 is required in 2015 for lifecycle/preventive maintenance (this comprises 3.5% of the ARV). This budget amount must be escalated annually at the rate recommended by the Bureau for Economic Research (BER) at Stellenbosch University. This R133m is the budget allocation required to *preserve* the campus infrastructure, ie., to ensure that further backlogs are not accumulated. Rhodes University will HAVE to increase its budget allocation for infrastructure maintenance to break the current downward spiral of infrastructural decay.
- Backlog maintenance
The condition assessment performed by the CSIR has estimated that the value of the campus infrastructure backlog maintenance is approximately R500m. As mentioned above, the CSIR have formally acknowledged that

their assessment of the backlog/deferred maintenance is incomplete and that the valuation figure is understated. The DHET has confirmed that priority is being given to funding for student housing and deferred/backlog maintenance in the new cycle of infrastructure and efficiency funding. Rhodes University has submitted an application for R922 million of which R683 million is for deferred/backlog maintenance. It must be emphasized that this application covers only *a portion* of the backlog maintenance required as the DHET required that priority backlogs be identified.

- Space allocation & space usage
This has been addressed in preceding sections above.

The MTEF (5 year) budget allocation recommended by the CSIR (which is understated) is provided in the following table:

Estimated Maintenance Requirement Medium Term Expenditure (Five years)

Budget Type	Estimated Expenditure Year 1: (2015 / 2016)	Estimated Expenditure Year 2: (2016 / 2017)	Estimated Expenditure Year 3: (2017 / 2018)	Estimated Expenditure Year 4: (2018 / 2019)	Estimated Expenditure Year 5: (2019 / 2020)
Repairs	R 6 388 800.00	R 6 836 016.00	R7 314 537.12	R 7 826 554.72	R 8 374 413.55
Rehabilitation	R 16 985 000.00	R 18 173 950.00	R 19 446 126.50	R 20 807 355.36	R 22 263 870.23
Replacement	R 36 023 800.00	R 39 543 466.00	R42 311 508.62	R 45 273 314.22	R 48 442 446.22
Emergency	R 5 000 000.00	R 5 000 000.00	R 5 000 000.00	R 5 000 000.00	R 5 000 000.00
Maintenance Budget (Planned and Unplanned)	R132 930 270.00	R 142 235 388.90	R 152 191 886.12	R 162 845 296.75	R 174 244 467.52
Subtotal	R 197 329 670.00	R 210 792 746.90	R 225 198 239.18	R 240 612 116.93	R 257 104 964.04
VAT @ 14%	R 27 626 153.80	R 29 510 984.57	R 31 527 753.49	R 33 615 886.23	R 35 994 694.97
Total (Including VAT)	R224 955 823.80	R240 303 731.47	R256 725 992.67	R274 297 812.16	R293 099 659.01

The total five year budget requirement is R1,289bn.

The University's total budget allocation for facilities maintenance for 2015 is R64,6m, which is 246% short of the total budget recommended by the CSIR (R225m). It is the constant cutting of this budget over a number of years in order to balance the annual budget that has given rise to the deterioration of the campus infrastructure. Clearly this practice is not sustainable, and significant budget allocation increases are required if the downward spiral of deferred maintenance is to be halted.

iii. Financial Aid

Rhodes University must be accessible to academically talented students from diverse racial, social, cultural, economic and class backgrounds and provide them with the support they need to succeed.

Rhodes University affirms and asserts that diversity in the composition of the student body not only enriches the academic, social and cultural environment at Rhodes University in significant ways but also enhances students' own life experiences at Rhodes University. Interaction with other students from diverse social, economic and cultural backgrounds contributes towards this holistic educational experience and provides students with important life skills.

This objective is to be achieved by seeking ways to promote access to the University for students from diverse backgrounds including students from poor, working class households.

Currently the University (central operations & residences) is contributing some R37m of its own funding to financial aid over and above the funding received from NSFAS (in 2014 the funding awards ranged from R93,000 to R2,200 per student, with 439 students receiving funding above R20,000 and 362 receiving above R50,000). This allocation has been accumulating over the past number of years as a debt on the University's balance sheet on the understanding that these funds will be recovered from graduated students by NSFAS, and that as this recovery rate increases the University's allocation can reduce as a "churn" or "turnover" of financial aid funding is created. This has however not happened, and the total due to the University by NSFAS was R167,3 million by the end of March 2015. Given the low probability of recovery, this receivable is being progressively impaired in the financial statements. The Executive Director: IOF has been tasked with exploring and assessing the feasibility of the University becoming a registered credit provider in order to be able to administer and manage the University's financial aid without reliance on NSFAS. Contact has already been made with the National Credit Regulator in this regard. In addition, the University is exploring ways to recover the historical financial aid loans made to students via NSFAS.

Despite this the University will have to grapple with the sustainability of this budget allocation given the major pressures on the operating budgets, and weigh this against the implications of discontinuing this allocation. As mentioned at the recent Board of Governors meeting, the option of securing donor funding for financial aid on a recurring basis needs to be thoroughly explored given that donor funding for infrastructure is becoming scarce. Tough questions have to be asked about the levels of donor income being brought in by the University.

iv. Modernisation of business processes and systems

Many of the business processes and systems of the University have become outdated. The University has embarked upon a review of the capability of its business processes and information systems to identify processes and systems that have become cumbersome, outdated or inadequate. Business processes and data flows are being evaluated and, where necessary, systems will be modernised or improved. Such systems are however expensive, and require capital outlay. A budget for this critical requirement will have to be created.

- **Income stream options**

- i. Increase tuition and residence fee income**

- There are two ways of increasing tuition and residence fee income – either by increasing tuition fees at a rate greater than the inflation rate, or increasing student numbers, or both.

As mentioned in a previous document (Financial Horizons – September 2014) Rhodes University's tuition fees are the fourth highest in South Africa (2014 comparison of the BA fee). Some continue to suggest that, like UCT, we should raise tuition and residence fees as high as our fee-paying constituency can bear; we should also charge international students considerably more than we currently do. However, there are signs that the maximum tolerance level of parents/funders may already have been reached. Given the poor economic situation in South Africa, increasing fees at rates above CPI in order to increase income to meet the budgetary expenses listed above is not sustainable in the short to medium term.

In 2014, of the 7676 students enrolled at the University, 4380 (57%) are full fee-paying students. This means 3296 students (43%) received some form of financial assistance or award (NSFAS, RU loan, or merit award). The table below reflects the amounts of financial aid paid to students (ie, excludes merit awards) for tuition and residence:

	2013	2014
NSFAS General	15 480 836	20 409 686
DHET	72 158	76 848
DHET Disability	154 000	154 000
DHET Final Year	12 350 000	13 091 000
EC Govt	481 304	1 400 000
Nat Skills	456 782	449 574
RU Council	27 321 000	31 139 000
Total	56 318 093	66 722 122

The tuition fee budget for 2014 was R226,5 million and R157,4 million for residence fees, ie., a total student fee income of R383,9 million. The financial aid total reflected in the table above therefore represents 17.3% of student fee income of which the University contributed 8.1% (R31,1m). This means that the 4380 full fee paying students each paid an average fee of R72,420 in 2014.

Given that the University's budget is very sensitive (i.e., small percentage fluctuations translate into significant rand amounts), the statistics above indicate that any decrease in the number of full fee paying students will harmfully erode the fee income component of the University's revenue.

Thus the only way to increase student fee income is to increase the numbers of fee-paying students. Obviously this is a strategic decision which will involve more than finances, but it does have the advantages of firstly, conforming to national higher education policy, and secondly and more importantly, it will assist in maintaining or increasing the University's proportional share of block grant subsidy.

ii. Increase international student surcharge

The table below indicates the number of international students enrolled global region since 2009:

	2009	2010	2011	2012	2013	2014
Zimbabwean	740	775	822	910	862	860
Other SADC	399	387	404	388	373	366
Total SADC Countries	113	116	122	129	123	1226
Other African States	120	122	135	142	149	139
Overseas	125	116	119	120	136	177
TOTAL INTERNATIONAL	138	140	1480	1560	1520	1542
TOTAL STUDENTS	7005	7166	7274	7395	7485	7516
% of Total Students	20	20	20	21	20	21

The 2014 figures are preliminary numbers as at July 2014.

The categorization of the 2014 international students into UG and PG is as follows:

	2014		
	TOTAL	UG	PG
Zimbabwean	846	582	264
Other SADC	365	127	238
Total SADC Countries	1211	709	502
Other African States	139	54	85
Overseas	125	61	64
TOTAL INTERNATIONAL	1475	824	651
TOTAL STUDENTS	7519	5214	2305
% of Total Students	20%	16%	28%

The 2014 international student surcharge amounts were as follows:

Undergraduates:

From SADC countries R 10,000.00

From Africa (excl. SADC) R 12,800.00

Elsewhere R 14,500.00

Postgraduates:

From SADC countries R 6,800.00

From Africa (excl. SADC) R 8,500.00

Elsewhere R 10,000.00

iii. Increase subsidy income

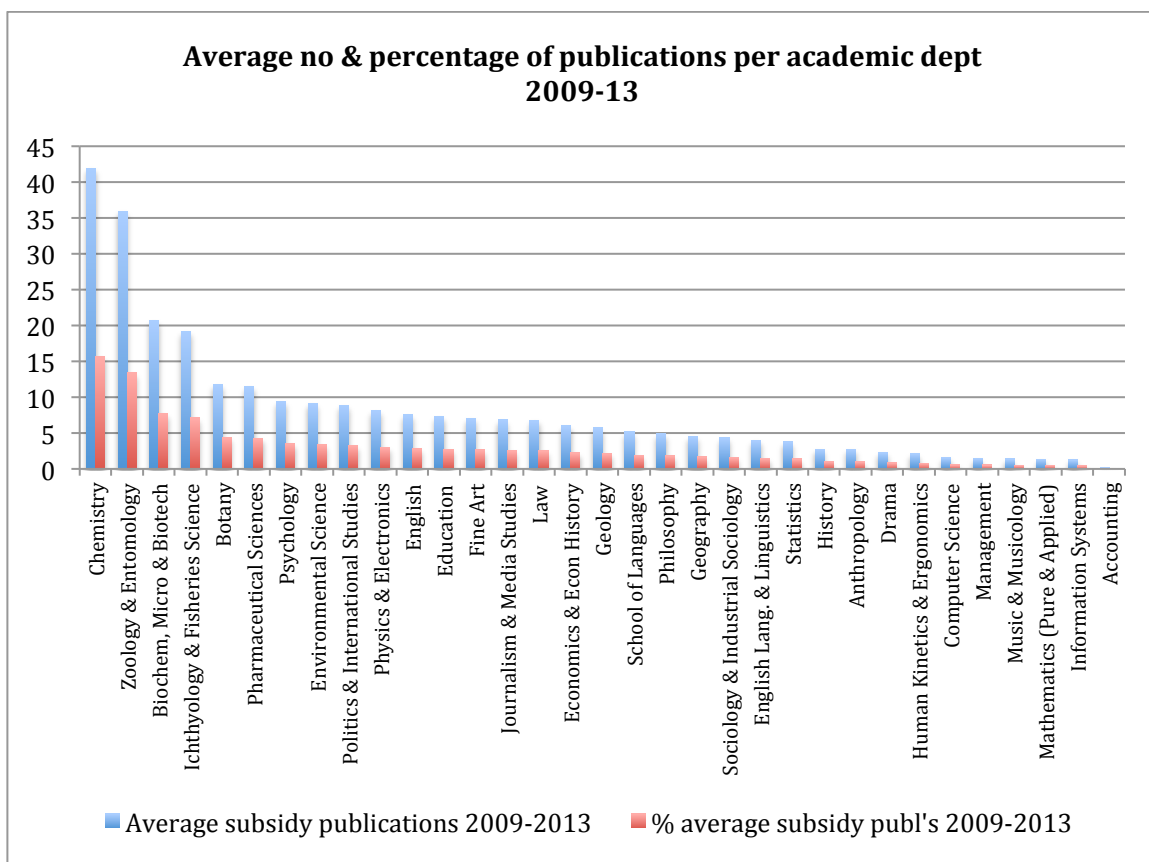
The higher education state funding framework has two main elements – firstly, block grants (undesignated amounts to cover the operating costs of universities linked to teaching and research) and secondly, earmarked grants which are allocated for specific purposes (e.g., NSFAS, clinical training, teaching development, etc).

The DHET's block grant funding system operates on a proportionate allocation of funds to institutions in four categories –

- teaching input grants generated by approved FTE student places (using weighted classification of educational subject matter categories);
- teaching output generated by non-research graduates & diplomats;
- research output generated by research masters & doctorates and publications and
- institutional factors generated by enrolment size and percentage disadvantaged students.

Possible strategies to maintain and increase the University's block grant proportion (each option has pros and cons which will need to be explored and evaluated):

1. Increase enrolment at a rate greater than the 2% per annum target by increasing student enrolments in existing programs and/or increasing and diversifying the academic programs offered at Rhodes University (e.g., increasing diploma and certificate programs).
2. Focus on increasing enrolment of students in CESM categories that attract higher rates of block grant subsidy at undergraduate level.
3. Increase postgraduate numbers aggressively across all Faculties, but particularly in the CESM categories that attract higher subsidies.
4. Increase teaching output rates across all Faculties.
5. Increase research outputs by focusing on departments with no or low outputs (see chart below).



It must be remembered that the block grant subsidy allocation for a particular year is calculated using the data from two years prior to the current year (n-2). This means for example that any initiatives implemented in 2016 to increase the lock grant will only accrue to the University in the 2018 financial year.

iv. Increase third stream income

Numerous discussions about increasing third stream income over many years have occurred without any significant outcome. As mentioned above, the residences are already making a significant contribution to the income stream of the University's central operations, and options to increase this without compromising the strategic objectives of the residence system are constantly being explored. Other suggestions for consideration:

1. Increasing the admin levy on research funding
An informal survey of the admin fee percentage levied by other universities indicates that the fee levied at RU is amongst the lowest, if not the lowest. The contribution to increasing revenue by increasing the levy percentage will need to be weighed up against possible negative consequences of such an increase.
2. Implementing an admin levy on the endowed funds
This levy has already been approved by the Board of Governors and is in the process of being implemented. The contribution to revenue is however very small given that the level of administration costs involved is small.
3. Commercialisation of research outcomes
This option has been raised and discussed *ad infinitum ad nauseum* without any significant outcome or revenue increase. It is suggested that the feasibility of such commercialization needs to be thoroughly researched.

E. Concluding remarks

Whilst Rhodes University is a going concern and is not about to shut its doors, the implications of this financial assessment are sobering, and the warning lights are flickering. Saleem Badat's observation is repeated - "It is debatable whether there is as yet a full grasp among Rhodes staff of its vulnerabilities arising from its size and shape, the intensely competitive higher education environment, its extremely modest investment reserves, and other factors". Yes, we are a going concern, but we are unable to pay competitive salaries, we are unable to adequately maintain and preserve our fixed assets, our extremely modest investment reserves are almost completely "bespoke", we are providing a significant amount of our own funds for financial aid and we have little or no room to increase revenue through fee increases.

This detailed financial sustainability assessment is sobering indeed, and confirms that Rhodes University is indeed at a *kairos* or crossroads moment in its history as we seek to finalise the Institutional Development Plan (IDP). Tough courageous decisions coupled with creativity, rigour and effort are going to be required to ensure the financial sustainability of the academic project of Rhodes University into the future.

F. Financial sustainability questions to establish strategic budget parameters

A non-exhaustive list of questions is provided below arising from this financial viability assessment and the recommendations arising from the appraisal. The questions are strategic and require input and responses that balance the

aspirations and the objectives of the academic project with the economic and social contexts in which the University finds itself.

Income stream

- a. Increase tuition and residence fee income
 - Can/should we continue to raise our tuition fees at a rate greater than the CPI rate?
 - If yes, should we be using the tertiary education inflation index, which is some 2% higher per annum than CPI?
 - Can we increase our international student surcharge? If yes, by how much?
 - Should we as an institution consider increasing our annual student enrolment increase at a rate greater than 2% per annum? If yes, by how much, and up to what ceiling (if any)?
- b. Increase block grant subsidy
 - Should we consider targeting enrolment growth in the CESM categories which attract higher levels of subsidy?
 - Should we consider offering more diploma and certificate courses?
 - Can we accelerate our postgraduate numbers at a faster rate?
 - Should we consider the CESM category “game” for targeting postgraduates?
 - How can we aggressively increase our teaching output rates?
 - How can we aggressively increase our research output rates?
- c. Third stream income
 - Should we consider increasing our cost recovery levy (“admin” levy)? If yes, by how much?
 - What new streams of third stream income can we create?

Expenditure stream

- a. Staffing costs
 - The residence & research staff cost expenses are at acceptable proportions of total recurring income. The central operations staff cost budget has been set by the Budget Committee at 67% (this percentage is higher when measured as a proportion of recurring income – 74,5% in 2014). Is this the optimal level? Should/Can it be reduced? How and where?
 - Is the strategic objective of reaching the 50th percentile of the HE remuneration market for all staff achievable?
 - How sure are we that all requested new posts are necessary?
 - How sure are we that all academic and support staff are optimally productive? Does the University have the appetite to hold staff accountable for productivity? Is there room and appetite to cut back on existing establishment posts to make budget available for remuneration increases?
 - Should the current levels of academic department cross-subsidisation be assessed? What is the acceptable limit of cross-subsidisation, if any?

- At what levels should staff transformation costs be set (equity premiums to attract equity staff, costs related to the transformation of organizational culture, staff skills development costs etc)?
- b. Infrastructure maintenance costs
- An additional R160m per annum (2015 estimate) is required to adequately maintain our campus infrastructure. By what percentage can the facilities services budget be increased? Will this additional recurring expenditure be funded from budget cuts in other areas, or from new sources of income?
- c. Student financial support costs
- Is the current level of university-funded financial aid sustainable?
 - What will be the impact on the University if this level of funding is reduced significantly?
 - Can alternative sources of funding be identified and pursued?
 - Are the current levels of merit awards affordable and sustainable?
- d. University reserves
- The analysis indicates that the University's levels of financial reserves are very low. What is a comfortable reserve level? What can be cut to raise the level?
- e. Other operating costs
- Is there an appetite for reducing non-essential capital expenditure, such as requests for office make-overs (replacement of old but serviceable furniture & equipment), catering costs, travel costs etc?
 - What other areas of expenditure can be reduced without negatively impacting the academic project?

G. References

Denneen, J & Dretler, T. (2012) *The Financially Sustainable University* Chicago: Bain & Co, Inc.

DoE (2009a). *Ministerial Statement on Higher Education Funding: 2006/7 to 2008/9*. Pretoria: Department of Education.

DoE (2009b). *Report of the Ministerial Committee on the Review of the National Student Financial Aid Scheme*. Pretoria: Department of Education.

DHET (2012). *Ministerial Statement on University Funding: 2013/14 and 2014/15* Pretoria: Department of Higher Education & Training

DHET (2014). *Ministerial Statement on University Funding: 2015/16 and 2016/17* Pretoria: Department of Higher Education & Training

DHET (2014). *Report of the Ministerial Committee for the Review of the Funding of Universities*. Pretoria: Department of Higher Education & Training

Guastella, B (2013) *Key Benchmarks* presented at the NACUBO 2013 Planning & Budgeting Forum. Chicago: McGladrey

HESA (2010) Guidelines for determining annual tuition fee increases in the Higher Education sector. Pretoria: Higher Education South Africa

HESA (2013) Key Financial Indicator definitions. Higher Education Statistics Agency, UK. Accessed 22 March 2015 at <https://www.hesa.ac.uk/pis/guide>

HEC (2014) *Too Good to Fail – The financial sustainability of Higher Education in England* London: Higher Education Commission

Johnstone, D (1998) *The Financing and Managing of Higher Education: A Status Report on Worldwide Reforms – The World Bank*. Accessed 05 March 2015 at <http://www.worldbank.org/html/extdr/educ/postbasc.htm>

KPMG & Prager, McCarthy & Sealy (2005) *Ratio Analysis in Higher Education 4th Edition* USA: KPMG

Nongxa, L & Carelse, E (2014) *Moving forward – Trends in annual reporting by South African public universities*. PricewaterhouseCoopers

Republic of South Africa (1997). *Higher Education Act No. 101 of 1997*. Government Gazette No. 18515, Notice 1655. Pretoria: Government Printers.

Rhodes University. *Annual Reports & Consolidated Financial Statements* for period 2006 to 2014.

Rhodes University. *Digest of Statistics* for period 2006 to 2013.

Zhang, M & Schmitz, S (2013) Benchmark Report: Ratio of Faculty to Administrators Accessed 21 March 2015 at WWU IR Z:\Report\Fac Staff\fac admin ratio\Report - Faculty to Admin Ratio.docx