
Standard of living, quality of life and GDP: An Economics Peregrination

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Abstract

This study looked at the phenomenon of the Quality of Life as measured by the Human Development Index (HDI), which is a composite statistic used to rank countries by the level of "human development". Measuring and determining what is Quality of Life is not an easy task. In this study, using HDI as the yardstick for Quality of Life, the concepts of Standard of Living and per capita income were examined closely in relation to the role of government in its public expenditure programmes and how these programmes in turn influenced Quality of Life. This research question was seen as the key to addressing the phenomenon of Quality of Life. In particular, the role of government expenditure on health and education seems to signify the commitment of a government in improving the HDI or Quality of Life. Using data on government expenditure in South Africa for the last 19 years, the relationships amongst these variables were examined. The findings indicate that there seems to be a direct relationship between HDI and GDP per capita, but there seems to be no relationship between HDI and other variables under study.

Introduction

When I read Luke Bretherton's essay, "From London to Durham: A Theological Peregrination", I was immediately intrigued by the word. A closer look at its meaning inspired me to write a paper on a subject that has always intrigued me, but once I had not attempted to write about due to the challenges of proving the theories I have had. However, I could "peregrinate" and hopefully inspire more dedicated and irrefutable research projects.

Let me begin with an explanation of the subtitle, "An Economics Peregrination. It is a word that can denote the action of roaming from place to place (*or concept to concept*) and a sojourn in foreign concepts, in need for further discovery. There is a last pair of meanings to the word *peregrination* that is also relevant. In the seventeenth century it was used to refer to a comprehensive or systematic investigation, and in more recent parlance, it has been used in reference to a rambling digression or literary wandering. Now, while I should offer you the systematic investigation, what I actually offer is a series of intersecting digressions and wanderings. What follows is a series of interwoven peregrinations about how particular economic concepts and financial jargons have been used over time to explain various levels of understanding of social wellbeing. This is the heart of SoL, the core of QoL.

Scott Locklin posted an essay on "A peregrination on the nature of money" on his web site in December 2009. In the essay, he says, "I've never studied economics. What I have read of

economics appears to be ideology combined with bad maths. Since so much of what passes for modern thought annoying ideology is combined with bad maths, I try to avoid such unpleasantry". In this paper, I will try to portray that modern economic thought may also be seen and viewed by some as "annoying and convoluted ideology with a series of unbalanced equations".

This got me thinking about a subject that, unlike Scott Linklin, I have studied from time to time over my schooling years. Economics for me has always been about money, wealth creation and the pains created by the never-at-equilibrium supply and demand. In modern economics, under *ceteris paribus* conditions, we accept that market forces exist, and the market will provide an optimal environment for the creation and distribution of economic income. This would then lead to measures such as per capita income having a direct correlation to SoL, economic well-being and, hopefully, QoL!

Residents of richer countries are perceived worldwide to have a generally higher QoL than residents of poorer countries. In his book *The European Dream*, Jeremy Rifkin (2008) contends that Europe's vision of the future is quietly eclipsing the American Dream. Rifkin contends that the progressive, idealistic policies of the 1960s – dismissed as "old hippieism" in the U.S. – have taken root and have matured into a politically viable mix of tolerance, multilateralism, and environmental-friendly policies that governments are embracing and electorates are supporting, leading to a stronger European economy that has been sustained by a strong euro. On the other hand, The American Dream – a belief that anyone who works hard can succeed and better oneself economically with a guarantee of certain basic human rights seems to be failing in an open global economy. As Europe emerges as an economic and cultural superpower, he states that it is becoming clear that its beliefs and traits are often not the same as those of the United States. He says the American Dream emphasizes autonomy, national pride, and material wealth, while Europe's vision of the future emphasizes community, cultural diversity, and QoL. While America values hard work, property ownership, and a unilateral foreign policy, Europe champions fun and free time, human rights, and multilateralism. If we had to choose, which would we choose in Africa? The American Dream or the European Dream? The vision of most African elders is to see an Africa that champions national pride, communal wealth, community prosperity, cultural diversity, QoL, hard work, fun and freedom. If this is the case, how does South Africa achieve the African Dream? How do we measure the attainment thereof?

For most people, SoL is a difficult concept to define and pinpoint. Most people would argue that there is a visible poor SoL or poor QoL for certain citizens or countries based on their observations or a study of economic statistics, for example, GDP per capita. While it is possible to agree that QoL cannot easily be expressed in precise terms, there are certain characteristics that most people would identify that are directly linked to QoL. Examples are a nice car, a decent place to live, clothes, furniture, appliances, food, vacations, education or health care. Yet there is a generally accepted measure for SoL that economists refer to as the average real gross domestic product (GDP) per capita. But as a tool for measuring how well people live, GDP per capita has its shortcomings. There are a number of activities that GDP does not take into account, for example,

- unpaid work – a full-time housewife or to be more politically correct, a full-time housewife, who provides good quality meals and services for her family instead of the use

of maid services, butlers and cooks; as well as ensuring good quality family life with less stress and more happiness

- Subsistence farming – With a country like South Africa which has a large rural populace and the majority of which dependent on subsistence farming or urban remittances, how does this output get captured in our national statistics?
- distribution of wealth – the bulk of a country's GDP could be sitting in the hands of a few individuals or foreign multinationals, and with dividend and capital gains remittances, the host country remains with scraps
- changes in the QoL – like clean air, clean water, more leisure time; increased life expectancy; undesirable changes such as traffic congestion or crowded cities, mushrooming of sea-side resorts, etc...
- changes in the quality of goods – heated homes in winter or cooled homes in summer; car, rail and air travel with reduced times and stress-free travel

GDP, especially in developing economies, is very misleading. There are millions of rands that are included in total government spending but end up in unscrupulous deals, under-the-table payments, ghost workers, suspended officials on full-pay.

Review of Related Literature

The Human Development Index (HDI) offers a global perspective on the question of how well people are living. It was devised by the United Nations in the 1990s, and is a composite of three different indicators: (1) Health as measured by life expectancy at birth, (2) Education as measured by mean years of schooling and average years of schooling, and, (4) SoL as measured by gross national income per capita. Figure I below shows the components used when calculating the HDI.

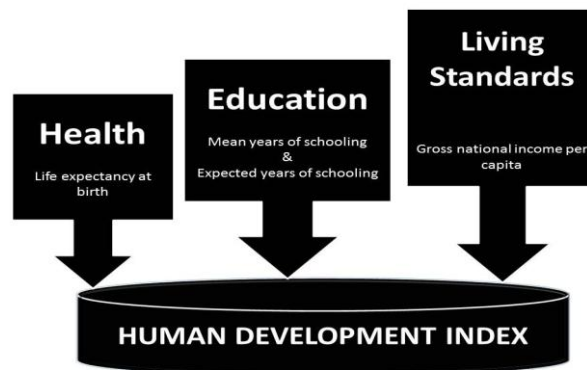


Figure I: Human Development Index Components

The United Nation's Human Development Index (HDI) was developed in 1990 and is used to indicate the development status of a country. The HDI measures life expectancy, literacy, education and SoL. The HDI critics claim that the HDI indicators are too few and too arbitrarily chosen (Berenger&Verdier-Chouchane, 2007). Some economists measure QoL using an index consisting of nine indicators: 1) material well-being, 2) health, 3) political stability and security, 4) family life, 5) community life, 6) climate & geography, 7) security, 8) political freedom and 9) gender equality (Kenny, 2005). Figure II shows the HDI index of the 15 SADC countries from 1980 until 2010.

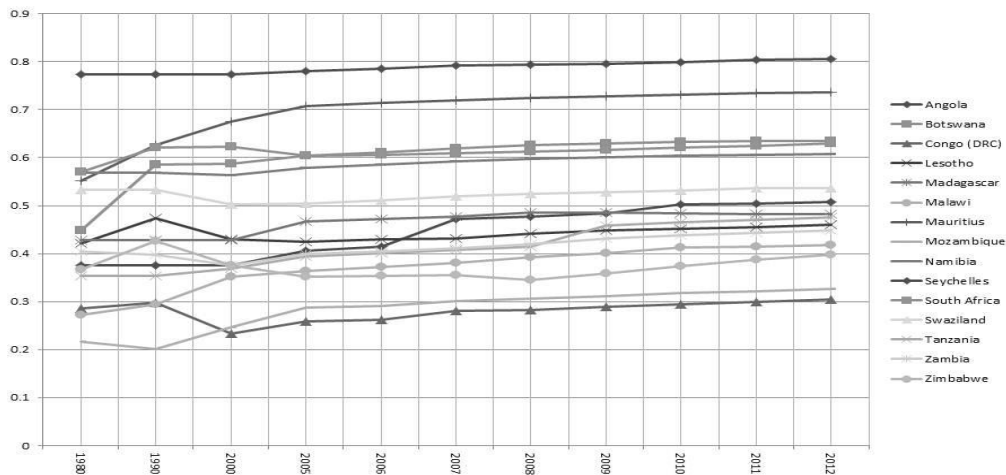


Figure II: HDI index of SADC countries

The 20 ranked countries in the world measured by HDI show that countries with high QoL and Life Expectancy Index (LEI) have a high GDP per capita (UN, 2006). This is also evident among the SADC countries. Higher ranked countries on the HDI generally display higher LEI, implying better health, and higher GDP per capita. Whatever the debate on the definition and the measurement on QoL, health is a key component of any such measurement. The World Health Organisation's constitution defines health to constitute "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). Government expenditure on health is a critical component of any health system (United Nations, 2007). Any improvement in the health system, via government expenditure, should improve QoL. In the SADC region, South Africa is ranked 4th in terms of HDI after the Seychelles, Mauritius and Botswana.

Health care expenditure can also be regarded as an investment in human capital (Grossman, 1972). Smith & Abdullah (2004) have argued that a good human resource management used by Malaysia during the financial crisis had helped the country in overcoming the turmoil. This scenario questions the causality relationship between government expenditure on health and GDP. Does greater healthcare expenditure result in higher GDP or does higher GDP result in greater healthcare expenditure (Devlin & Hansen, 2001)? Often healthcare is treated as a share of GDP (Docteur and Oxley, 2003). Wagner's "Law of increasing State Spending" would interpret that the increase in economic activities leads to an increase in government activities, which in turn results in the rise of public expenditure (Liu & Chang *et.al*, 2005). As a case in point, South Africa has, since 1994 experienced a huge spike in tax revenue collection, but, as revenue has increased, government expenditure has increased almost exponentially!

According to the United Nations 2007 report, the quality of health and health services are better in richer countries (UN, 2007). As such, it can be argued that Gross Domestic Product (GDP) per capita and health expenditure, which is a measure of the quality of health service, are positively correlated. Sinha (1998) showed that in some countries, an increase in population was followed by an increase in education and health expenditure. If this is indeed the case, any

governmental expenditure on health should improve the QoL of its citizens and lead to a healthy, working citizenry with increased productivity gains. This would be expected to lead to a growth in per capita GDP. This raises the question on the nature of the causality between QoL and per capita GDP.

Ross and vanWilligen (1997) found that education is a key to enabling individual well-being as it provides access to paid work and supportive relationships. This supports earlier findings, that indicated that unlike poorly educated persons, well-educated persons have access to paid work that increases the sense of personal control over the labour process and that work gave people the freedom from routine and monotonous jobs, and gave them external control on the one hand, and a chance to use their skills, develop as a person, and learn new things. Investment in education, which, together with health sector investment, not only promotes better QoL, but it also aids social welfare.

Materials and Methods

In this study, HDI index is used to measure QoL in South Africa. It is noted that GDP per capita (GDP), health expenditure and spending on education by the government are often used to indicate QoL in a country. GDP is often used to measure the SoL or QoL. It is used as the proxy for QoL when comparing between countries (Becker, Philipson & Soares, 2005; Be'Renger&Verdier-Chouchane, 2007). It is not the purpose of this paper to look at the distribution of GDP across a country. Instead, this paper only sought to explore the contemporaneous relationship amongst GDP and HDI variables. Data was obtained from the UNDP.

Methodology

The contemporary relationship between HDI and other variables was examined by looking at the correlation between the natural logarithms of the variables. In order to avoid survivorship bias, all observations between 1960 and 2011 were included in the analysis. A growing literature suggests that, how researchers deal with missing data can affect model estimates and standard errors (Schafer, 1997; Vriens and Melton, 2002; Schafer and Graham, 2002; Raghunathan, 2004; Little and Rubin, 2002).

This study aimed to explore if health and education expenditure have a correlation to GDP per capita either way and if these variables are also related to HDI as a measure of QoL. It could also be possible that there is no statistically significant relationship between the variables. The HDI indices as calculated by the UNDP are as follows:

$$\text{Life Expectancy Index (LEI)} = \frac{LE - 20}{82.3 - 20}$$

$$\text{Education Index (EI)} = \frac{\sqrt{MYSI \cdot EYSI}}{0.951}$$

$$\text{Mean Years of Schooling Index (MYSI)} = \frac{MYS}{13.2}$$

$$\text{Expected Years of Schooling Index (EYSI)} = \frac{EYS}{20.6}$$

$$\text{Income Index (II)} = \frac{\ln(GNIpc) - \ln(100)}{\ln(107,721) - \ln(100)}$$

Finally, the HDI is the geometric mean of the previous three normalized indices:

$$HDI = \sqrt[3]{LEI \cdot EI \cdot II}$$

Where:

LE: Life expectancy at birth

MYS: Mean years of schooling (Years that a 25-year-old person or older has spent in schools)

EYS: Expected years of schooling (Years that a 5-year-old child will spend with his education in his whole life)

GNlpc: Gross national income at purchasing power parity per capita

Discussion of Results and Conclusion

Descriptive Analysis

The general consensus among researchers is that there exists a strong and positive correlation between healthcare expenditure and GDP (in real per capita terms) at the aggregate level (Auster&Sarachek, 1969). As a starting point in understanding where the money goes, a closer look at major revenue sources for government:

The following Table 1 and Figure I summarises the major sources of funding and some forecasts of government revenue until 2016.

Table 1: Main budget framework: 2009/10 to 2015/16								
Downloaded from: http://www.treasury.gov.za/documents/national%20budget/2013/enebooklets/excel.aspx								
				Revised				
		Audited outcome			estimate	Medium-term estimates		
R million	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
Revenue (National Revenue Fund)								
Tax revenue (gross)	598,705.4	674,183.2	742,651.1	810,150.3	898,003.9	991,829.7	1 098,955.	
Departmental/ other receipts/repayments	8,894.4	13,460.1	19,193.1	14,475.1	18,336.4	19,128.9	20,240.6	
Less: SA Customs Union payments	-27 915.4	-14 991.3	-21 760.0	-35 048.6	-38 659.5	-43 036.0	-48 469.3	
Other adjustment (SACU) ¹	–	-2 914.4	–	-7 102.6	-4 714.9	–	–	
Total revenue	579,684.5	669,737.5	740,084.2	782,474.1	872,965.9	967,922.5	1,070,726.	
Percentage of GDP	23.6%	24.5%	24.9%	24.4%	24.8%	24.9%	25.1%	
Expenditure								
State debt cost	57,129.2	66,226.8	76,460.0	88,325.2	99,741.5	108,718.4	118,162.5	
Percentage of GDP	2.3%	2.4%	2.6%	2.8%	2.8%	2.8%	2.8%	
Current payments ²	116,923.2	131,252.6	145,240.3	161,201.0	171,899.3	182,448.4	191,747.8	
Transfers and subsidies	530,527.2	575,048.2	653,613.5	702,944.4	762,240.5	819,471.8	885,275.4	
Payments for capital assets ²	9,453.9	11,407.6	12,043.0	13,045.1	14,258.4	17,590.1	17,517.1	
Payments for financial assets	33,163.3	21,205.3	1,166.4	1,451.4	2,905.0	3,252.0	3,024.0	
Unallocated	–	–	–	–	30.0	–	–	
Contingency reserve	–	–	–	–	–	–	–	
Total expenditure	747,196.8	805,140.5	888,523.2	966,967.0	1,055,074.	1,137,980.	1,225,726.	
Percentage of GDP	30.5%	29.4%	29.9%	30.1%	30.0%	29.3%	28.7%	
Budget deficit³	-167,512.	-135,403.	-148,439.	-184,492.	-182,108.	-170,058.	-155,000.	
Percentage of GDP	-6.8%	-5.0%	-5.0%	-5.7%	-5.2%	-4.4%	-3.6%	
GDP	2 452,538.	2 735,274.	2 973,286.	3 209,141.	3 520,268.	3 880,405.	4 270,848.	

1. Payment to the Southern African Customs Union (SACU) partners in respect of a previous error in calculation of the 1969 agreement.
2. Excludes conditional grants to provinces and local government; these are included in transfers and subsidies.
3. A positive number reflects a surplus and a negative number reflects a deficit.

Table 1: Main budget framework: 2009 - 2016

The changes in South African government revenue can also be illustrated by the following figure:

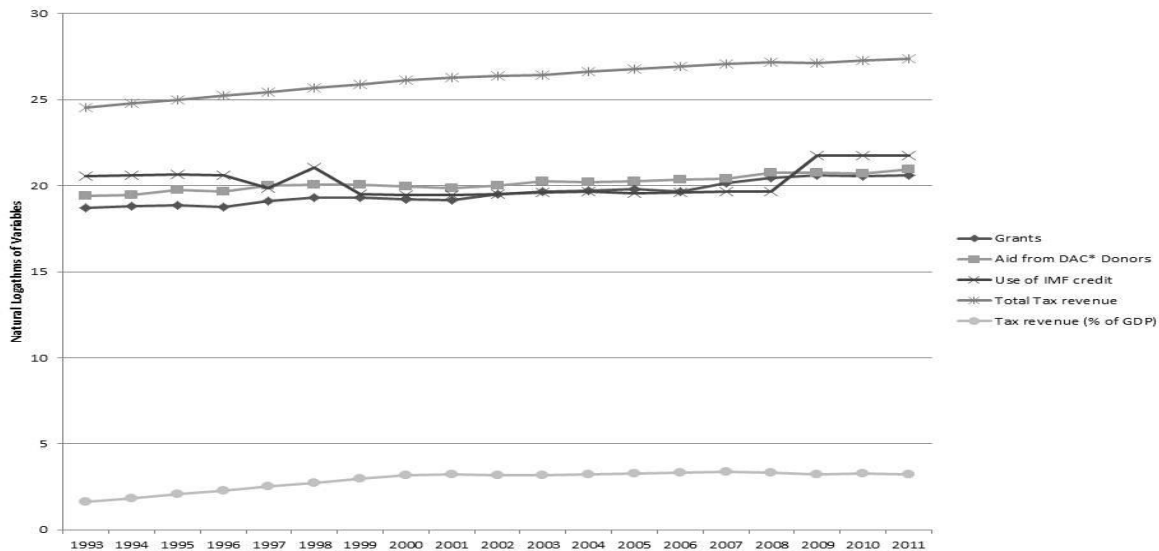


Figure III: Major Government Revenue Sources - 1993 to 2011

From Figure III, it is clear that total tax revenue has increased sharply since 2000 and at a much faster rate than its contribution to GDP, which has somewhat tapered off from 2003 and remained relatively flat. However, foreign aid, grants (Mainly from the Development Assistance Committee (DAC) of OECD countries) and IMF credit has grown steadily, though not as fast as tax revenue. The reality is that government revenue has increased sharply since 1993. This would be expected since South Africa was welcomed back into the international community at independence in 1994. A further analysis of government revenue compared with Gross National Income per capita also reveals that these two variables have moved in tandem although some differences emerge.

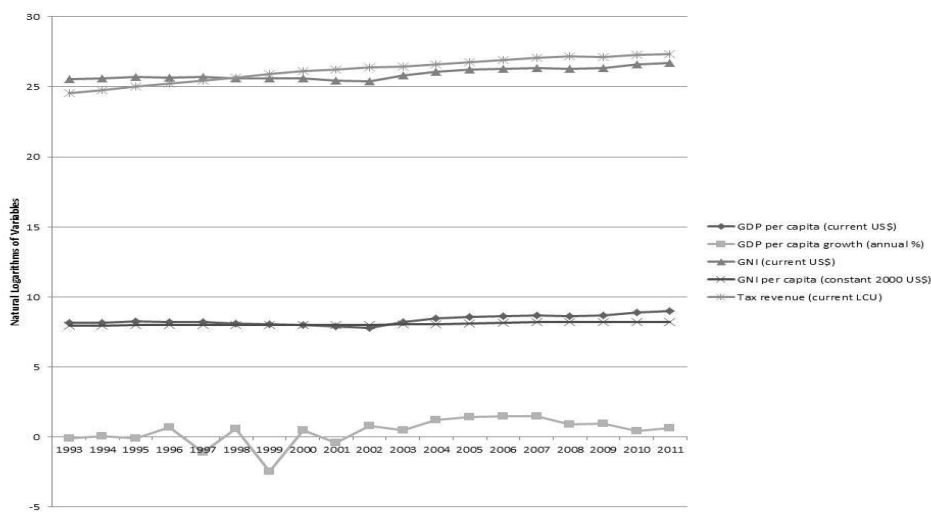


Figure IV: GDP/GNI versus Tax Revenue

Figure IV shows that while GDP growth was erratic between 1993 and 1999, it grew significantly from 2001. This seems to be consistent with the growth in tax revenue. While tax revenue overtook GNI by 1999, the benefits to GNI were not realised until 2001. The per capita figures (GDP and GNI) show a steady growth from 2000 but at a slower pace.

Having looked at revenue sources, the question that arises is, given the core expenditure requirements for attainment of QoL, does the South African budget allocation take this into account? A look at the 2013 South African National Budget allocation might reveal a few pointers. The data is obtained from the National treasury and summarised vote allocations from 2009 until 2015.

		Audited Outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimates		
R million		2009/10	2010/11	2011/12	2012/13	2012/13	2013/14	2014/15	2015/16
19	Social Development	85 318.2	94 031.0	103 139.2	112 143.6	111 472.6	120 491.6	129 279.4	137 610.1
25	Police	47 662.5	53 529.7	57 933.1	63 388.7	63 388.7	67 917.1	71 914.6	75 853.8
3	Cooperative Governance and Traditional Affairs	33 661.6	41 821.4	46 221.6	54 855.2	54 176.2	58 252.7	63 287.4	69 948.9
37	Transport	28 664.0	29 155.2	41 196.5	39 647.2	39 576.5	42 275.3	48 223.2	53 377.7
22	Defence and Military Veterans	31 324.3	30 442.4	34 331.4	37 888.5	37 888.5	40 243.3	42 695.5	45 121.5
17	Higher Education and Training	20 684.4	23 752.4	28 281.7	31 586.2	31 571.2	34 322.4	36 815.3	39 541.8
16	Health	19 168.6	22 520.3	25 712.8	28 057.2	27 942.2	30 706.7	33 924.3	36 685.2
31	Human Settlements	16 407.4	18 916.5	22 598.9	25 137.8	24 882.8	28 110.5	30 206.2	32 746.6
10	National Treasury	53 240.6	38 226.2	21 362.1	21 177.6	21 053.7	25 556.0	27 741.8	27 869.9
21	Correctional Services	13 687.3	14 698.8	16 276.8	17 700.3	17 510.3	18 748.1	19 721.1	20 795.3
15	Basic Education	7 854.3	8 677.9	12 900.9	16 204.0	15 034.8	17 591.9	19 941.3	23 023.6
24	Justice and Constitutional Development	9 560.7	10 586.8	11 470.4	12 912.2	12 912.2	14 134.2	15 060.3	15 812.1
33	Rural Development and Land Reform	5 863.9	7 122.9	7 997.7	8 974.1	8 974.1	9 459.7	9 905.3	10 274.5
38	Water Affairs	6 563.7	7 023.7	8 164.9	8 993.2	8 749.2	10 187.0	12 449.0	15 488.4
36	Trade and Industry	5 923.3	5 796.7	6 801.0	8 351.1	8 305.2	9 572.6	9 958.0	11 404.7
	Total appropriation by vote		455 592.4	499 330.6	546 378.7	542 351.7	588 682.1	635 889.8	685 029.2

Table 2: Expenditure by national vote: 2010 to 2016

The departments of health and education votes have been significantly lower than other departments, for example, Cooperative Governance/Traditional Affairs, Social Development, Defence and Military Veterans, Police and Transport, but there seem to be an upward investment in health expenditure of late. From this's study point of view, one would consider the investment in Social Development as part of addressing SoL as well as QoL, but, these could be eclipsing serious challenges in the South African economy, such as unemployment, especially youth, and an aged populace that depends on state hand-outs. The departments of, Cooperative Governance/Traditional Affairs and the Police continue to receive the largest votes, raising the question of whether there is real value added in terms of this expenditure in terms of SoL and QoL.

A closer look at the personnel expenditure of the votes for these departments reveals the following:

Table 3: Personnel expenditure per vote: 2009/10 to 2015/16						Adjusted appropriation	Revised estimate	Medium-term expenditure estimates		
R million		Audited outcome			2012/13				2013/14	2014/15
		2009/10	2010/11	2011/12						
25	Police	33771.5	38415.3	42427.7	46833.2	46833.2	50416.7	53274.9	56371.5	
16	Health	333.0	353.7	409.7	486.6	486.6	538.4	567.9	596.9	
17	Higher Education and Training	201.8	258.2	305.6	374.1	364.1	402.7	426.5	448.4	
15	Basic Education	225.2	252.9	295.4	356.7	356.7	389.4	414.7	438.0	
19	Social Development	220.1	247.0	273.6	310.8	307.0	340.7	358.8	383.7	
31	Human Settlements	166.9	216.5	242.8	320.0	320.0	366.0	390.0	417.8	
3	Cooperative Governance and Traditional Affairs	165.7	174.3	235.0	290.4	287.3	277.7	294.1	315.0	
Total		75276.3	86927.1	95535.4	106000.6	105803.7	114846.6	121369.0	128620.8	
25	Police	71%	72%	73%	74%	74%	74%	74%	74%	
16	Health	2%	2%	2%	2%	2%	2%	2%	2%	
17	Higher Education and Training	1%	1%	1%	1%	1%	1%	1%	1%	
15	Basic Education	3%	3%	2%	2%	2%	2%	2%	2%	
19	Social Development	0%	0%	0%	0%	0%	0%	0%	0%	
31	Human Settlements	1%	1%	1%	1%	1%	1%	1%	1%	
3	Cooperative Governance and Traditional Affairs	71%	72%	73%	74%	74%	74%	74%	74%	

Table 3: Personnel expenditure per vote: 2009/10 to 2015/16

The tables show that the bulk of spending on the Police and Cooperative Governance and Traditional Affairs is on salaries and related personnel costs. These are much higher than the norm of 65% for a public service organisation. At least less than 3% of total spending in the other departments is on personnel related costs, hopefully the bulk is directed towards key institutional spending.

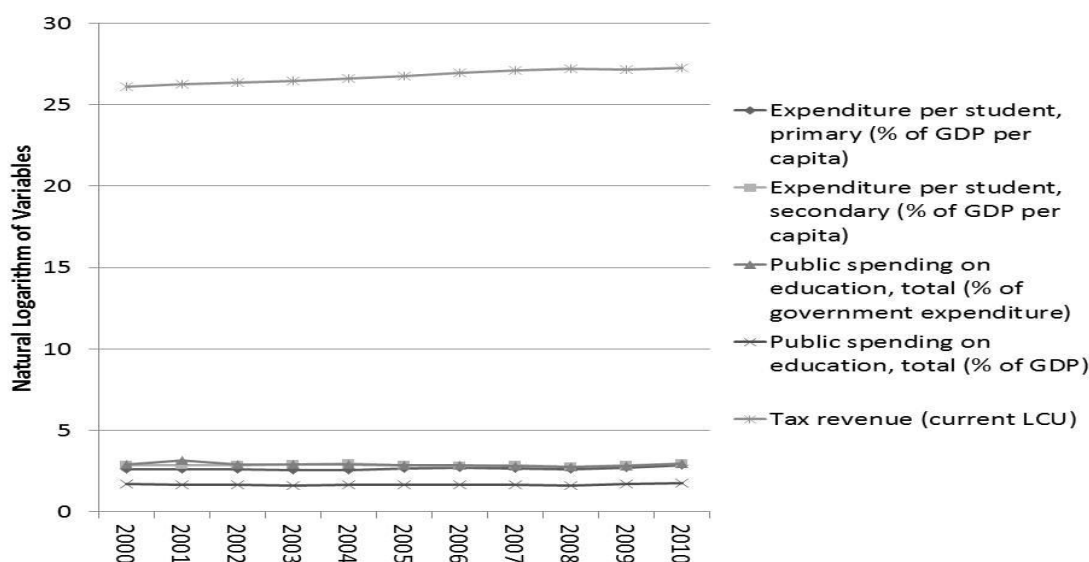


Figure V: Expenditure on Education

Spending on education as a percentage of GDP is very small, far less than the spending by developed countries, which is in the region of 5%. While the spending has not declined since 2000, it has remained static even a backdrop of increasing government revenue. There does not seem to be a correlation between increasing GDP/government revenue and spending on education as would have been expected if South Africa are to fully address QoL.

Guisan and Exposito (2010) analysed the relationships between health expenditure, education and several indicators of human well-being in Africa and Asia as a way of suggesting measures designed to increase domestic policies designed to improve health expenditure and QoL accordingly to the Millennium Development Goals. They concluded that by improving education expenditure, this led to a positive impact on health wellbeing since citizens were able to introduce preventive measures that address ways of avoiding malnutrition, water contamination and other negative circumstances. This directly leads to a better QoL.

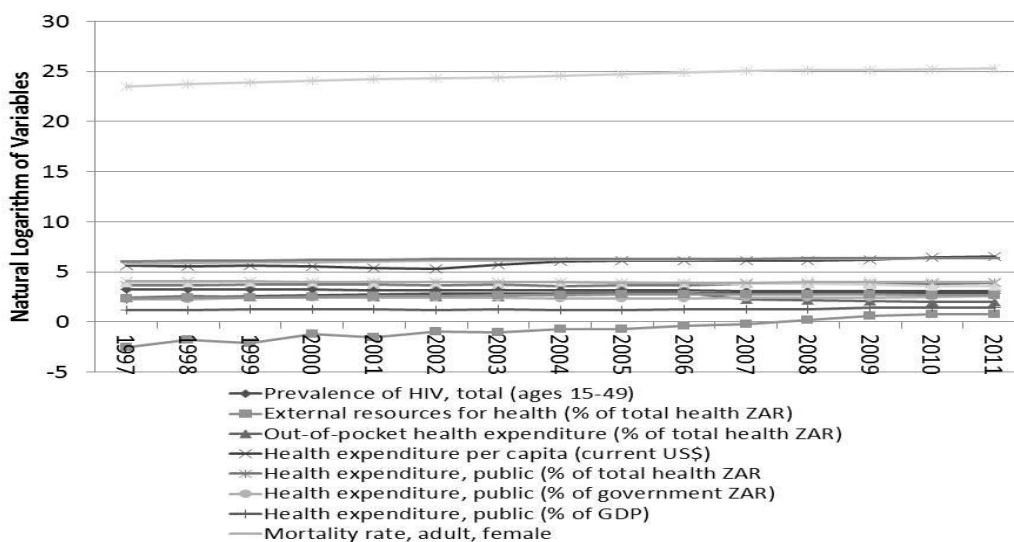


Figure VI: Public investment in health

Figure VI illustrates that health has been one of the major beneficiaries of government funding. This can be attributed to external sources for health as a percentage of total health expenditure which has increased almost 10 fold since 1997 to almost equal government health expenditure from its own budget. Unfortunately, out-of-pocket expenditure has also increased sharply since 1997. It is now almost equal to government’s health spending per capita! Male and female mortality has improved drastically but females seem to have benefited the most as they are now almost at par with their counterparts. It is becoming a very fair world, although females seem to be having a better chance of living longer now those males, albeit small. While HIV prevalence shows stagnation, the birth rate has shown signs of declining but child mortality rate has decreased dramatically since 2009.

Finally, a look at geographical distribution of South Africa to assess whether population migrations can tell us a story about the perceptions held by South Africans in terms of SoL and QoL.

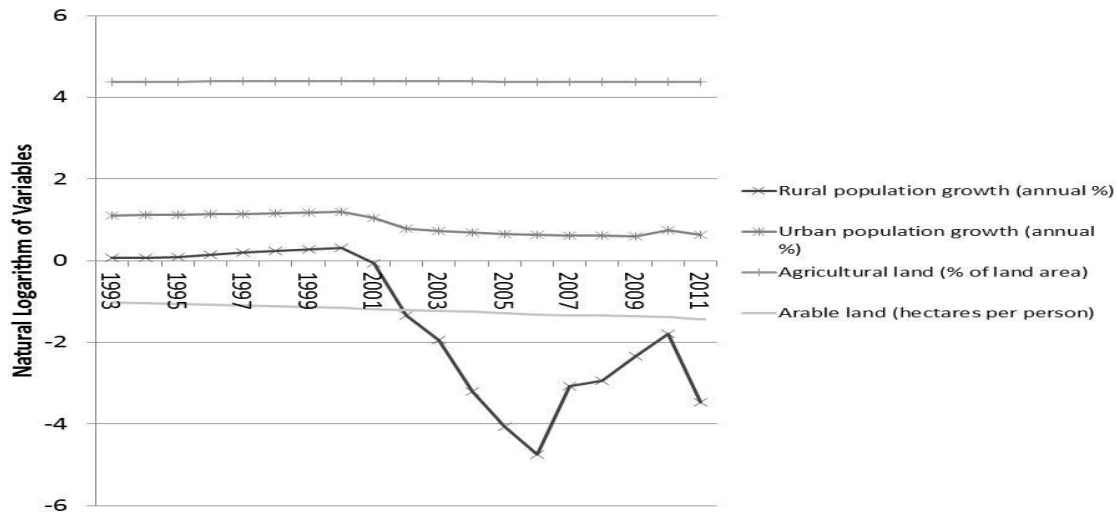


Figure VII: Population Distribution

Figure VII indicates a very large decrease in rural population from 2000 until 2006. This could be attributed to the aftermath of independence, but it could also indicate a deliberate attempt by rural based South Africans to seek a better life in the city. This has changed again between 2006 and 2010, indicating one of two things: a deliberate policy of government to improve rural areas and the reclassification of some small rural villages to urban areas. Also, it could be a return to rural areas to pursue the familiar terrain...life in the city can be tough. Of concern also is the decline in arable agricultural land. Given the need for food production, national policies will need to look at this very closely to determine the long-term impacts of such changes to the SoL and more importantly, QoL, not to mention the fulfilment of Millennium Development Goals by 2015.

Conclusion

The study has shown that South Africa displays some form of causality between GDP per capita and health expenditure per capita and education expenditure per capita. The fact that there is a significant relationship is supported by Adolph Wagner's proposition. Wagner's "Law" proposes that a state will increase its government expenditure relatively to the national income (Henrekson, 1993). Any change in the amount of health expenditure will influence the per capita health expenditure in a country. Since QoL is related to health expenditure per capita, then QoL too should change.

From the study results, it is clear that total tax revenue has increased sharply since 2000 and at a much faster rate than its contribution to GDP but the government deficit has also burgeoned in tandem with government revenue collection as if in tango. The reality is that government revenue has increased sharply since 1993 but has this been directed at QoL? Public service protests tell a different story. The departments of, Cooperative Governance/Traditional Affairs and the Police seem to be receiving the largest revenue votes, raising the question of whether there is real value added in terms of this expenditure in terms of SoL and QoL. Maintenance of tradition values and structures as well as provision of law and order seems to be coming at a very high cost.

Spending on education as a percentage of GDP is very small, far less than the spending by developed countries, which is in the region of 5%. While the spending has not declined since 2000, it has remained static even a backdrop of increasing government revenue. There does not seem to be a correlation between increasing GDP/government revenue and spending on education as would have been expected if South Africa are to fully address QoL.

It is also noted that the country was a recipient of external sources of funding for health which has increased almost 10 fold since 1997 to almost equal government health expenditure from its own budget. Unfortunately, out-of-pocket expenditure also has increased sharply since 1997. The call for an investigation into private health care costs and medical aid scheme funding seems to be justified, if not for anything, but to provide an understanding of the costs of private health. Male and female mortality has improved drastically but females seem to have benefited the most as they are now almost at par with their counterparts. It is becoming a very fair world, although females seem to be now having a better chance of living longer than males, albeit small. While HIV prevalence shows stagnation, the birth rate has shown signs of declining but child mortality rate has decreased dramatically since 2009.

There also seems to have been a large decrease in rural population from 2000 until 2006. This could be attributed to the aftermath of independence, but it could also indicate a deliberate attempt by rural based South Africans to seek a better life in the city. This has changed again between 2006 and 2010, indicating one of two things: a deliberate policy of government to improve rural areas and the reclassification of some small rural villages to urban areas. Also, it could be a return to rural areas to pursue the familiar terrain...life in the city can be tough. Of concern also is the decline in arable agricultural land. Given the need for food production, national policies will need to look at this very closely to determine the long-term impacts of such changes to variables that are key to attainment of a good SoL and more importantly, QoL, not to mention the fulfilment of Millennium Development Goals by 2015.

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