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Analysing the Impact of State Services on the Cost of Living for the Poor



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Analysing the Impact of State Services on the Cost of Living for the Poor

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TIPS is a research organisation that facilitates policy development and dialogue across three focus areas:

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1. INTRODUCTION AND AIMS

This paper analyses the impact of state services on the cost of living and living standards in poor and working communities. It responds to the argument in the National Development Plan (NDP) that the state should do more to ensure that service provision promotes both improved conditions and more inclusive growth.

The NDP argues on page 40 that a key step to job creation is:

"Reducing the cost of living for low-income and working-class households. Inequality and poverty can be addressed by raising incomes through productivity growth and reducing the cost of living. A commitment to a minimum living standard will ensure that all households can meaningfully participate in the economy. The costs of food, commuter transport and housing must be reduced, while raising the quality of free or low-cost education and health care."

In this context, the NDP argues for agreement on a minimum standard of living for poor households that will promote social cohesion and enable them to engage more productively with the economy.

Second, the NDP argues that reducing the cost of living for working people is crucial for sustained competiveness and growth. Specifically, it argues that

Lowering the cost of living is a necessary adjunct to raising the standard of living and encouraging investment; it will also facilitate the call for wage moderation at both the middle and top end of the income spectrum. (p 39)

It adds that,

In the earlier years [of the plan period], as the country expands access to employment on a mass scale, a large proportion of working people will receive low pay. It is essential to reduce the cost of living in relation to food, transport, education, health and other basic services. (p 144)

In effect, if the cost of living can be lowered for working people without damaging their quality of life, then the economy as a whole effectively becomes more efficient, which in turn should lead to stronger growth and job creation.

In response to the NDP proposals, this paper provides

options for specific strategies to ensure that household and family services support inclusive growth. Key findings include:

- 1. Programmes designed to improve living standards and productivity for poor households differ from those to moderate the cost of living for the core labour force. Poor households typically fall into the poorest 40% of households, which are disproportionately in the former so-called "homeland" regions; the formal labour force is primarily in the next most prosperous group. These groups have significantly different consumption patterns and consequently different requirements.
- 2. Prices for food rose faster than other prices since 1994, even before the recent drought led to a sharp upturn. Since food is the biggest actual expenditure for the poorest 80% of the country, this is a cause for concern. High levels of concentration across the food value chain contributed to this situation. Food inflation would have been even worse if not for the rapid increase in frozen chicken imports, mostly for the low-income market, which stabilised the price of chicken while other meat products saw sharp price hikes.
- 3. Most poor South Africans own their homes, so housing inflation (which was below CPI over the past 15 years) was not a critical driver for the cost of living. The apparent high cost of housing in the inflation basket for the formal working class reflected imputed, not actual, payments by homeowners. Still, the majority of households in the poorest 80% live in cramped formal or traditional houses or, in the case of around a quarter of households, informal dwellings. The housing problem persists due to a combination of extraordinarily high rural-urban migration, especially to Gauteng; the discrepancy between incomes and the cost of new formal housing, which has been met largely by housing subsidies; and the continued tendency, which is built into the current housing subsidy system, to push poor people far from economic and social centres.
- 4. In 2015, nine out of ten in the poorest 80% of households had electricity for lighting, but only two thirds had piped water. While the cost of utilities taken together ran around 4% of budgets for the poor, their cost increased much faster than the rate of inflation from 2008. In the case of electricity, this



situation in part arose because of a spike in the price of coal during the commodity boom. Efforts to fund major new bulk investments from around 2005 and municipal revenue seeking also fuelled higher household tariffs.

- 5. The time and money spent on commuter transport remains a major factor reducing the standard of living for poor households. Most workers rely on a combination of walking, taxis and buses to get to work, spending an average of over an hour each way in the process. The cost of public transport tended to track the price of petrol, despite significant subsidies. The main way to reduce the cost would be to provide more housing for workers near to economic centres. In the interim, more innovative technologies could be found provide more flexible public transport for low-income households and to expand the use of bicycles to replace walking as the main commuting mode for the poorest 40%.
- Clothing and household furnishings represent a major source of expenditure for the poor. Because of high levels of imports, the prices of these goods have risen more slowly than inflation as a whole. From this standpoint, the challenge for industrial policy is to promote more competitive local production of basic products.
- 7. The cost of university education accounted for the bulk of education costs at all income levels. In contrast, children from most low-income households did not pay for general education, but the quality of their schools was often very poor. As a result of this situation, close to 60% of all university students came from the richest 20% of households, which in itself replicated inequality.

8. In health, as with education, marginalized household typically relied on free public services, so their costs were relatively low. In contrast, formal-sector workers often had health insurance and turned to the private sector. As a result, health costs were a significant cost driver for formal semiskilled and skilled workers, which in turn raised the cost of employment across the economy.

The following section analyses the main trends in the cost of living for poor and working-class households over the past ten years. To this end, it analyses the evolving prices for both privately and publically provided goods, as well as the extent of state transfers through social grants.

Section 3 reviews the role of state services in promoting inclusive growth and reducing the cost of living for working people. It starts by evaluating debates around the aims of these services, which affect decisions around standards and delivery systems. It then outlines the main trends in fiscal space in the past decade and the resulting trade-offs for state services. On that basis, it assesses their redistributive impact and the standards they set for their services.

The final section identifies areas where changes and/ or additions to state programmes could realistically do more

- To reduce the cost of living and improve the quality of life for poor households and for the working poor, and
- To ensure that delivery of state services improves living standards and promotes both individual and collective empowerment.

2. THE COST OF LIVING FOR POOR AND WORKING HOUSEHOLDS

The definition of poor and working households is shaped by the distribution of income in South Africa and by policy objectives. In terms of the NDP's aims, a distinction emerges between

- Support for poor households to improve their ability to take advantage of economic opportunities, as almost half of the poorest 40% of households have no employed people at all, and
- Measures to reduce the cost of living for the formal workforce, which falls primarily between the 40th and 80th percentile of the income distribution. These households have significantly higher levels of employment and lower dependence on state transfers and free basic services.

The following subsection analyses the distribution of income and employment for all households and then for the formal labourforce. The second subsection assesses the structure of consumption by these groups and trends in pricing for the goods and services that dominate their spending. This part includes an assessment of state services in terms of access, cost and quality. The final subsection assesses the extent and impact of social grants on household income for poor and working people.

2.1 Defining poor and working households

Shaping state services to promote inclusive growth requires an understanding of how different groups along the income distribution relate to the economy, principally through employment. From this standpoint, as the NDP indicates, programmes to address the cost of living for poor and working households can promote inclusive growth in two ways.

On the one hand, poverty in itself prevents many



households from taking advantage of economic opportunities. Where families face a daily struggle to survive, they cannot search for employment, pay to travel to work, maintain their health and improve their children's education. In this context, government services and grants enable poor households to seek and hold down a steady job. Moreover, by providing both some initial resources and a safety net, they make it easier for low-income people to take on the costs and risks involved in setting up micro enterprises.

On the other hand, state services and industrial policy can minimise the cost of living for employed people. That would enable workers to enjoy a decent standard of living without increasing costs for employers. From this standpoint, the social wage directly benefits workers and indirectly incentivises job creation by moderating the cost of labour relative to capital.

In South Africa, these two aims largely affect different groups of households. Families with at least one formal employee generally belong to the better-off 60% percent of all households. In contrast, the poorest households have limited and largely informal or poorly paid employment if they have any at all. These families are disproportionately found in the former socalled "homeland" areas, where the main obstacles to job creation arise, not from the cost of labour, but rather from such factors as poor infrastructure and the remoteness of urban markets, limited access to good land and to water, and shortages of capital and skills.

This section first reviews the overall distribution of household income and the link between poverty and earned incomes. It then assesses where formal workers fit into the income distribution.

2.1.1 Poverty and employment in South Africa

The following graph indicates the annual income of households by decile in 2015, according to Statistics South Africa's General Household Survey.¹ The households in the tenth percentile had an income of R9600 a year; those at the 95th decile, around R470 000 a year. According to tax data, the richest 1% of households earned over R750 000 a year. As the graph shows, the distribution of income in South Africa is fairly flat through the 80th decile.

^{1.} The recently published 2016 Community Survey has a larger sample than the General Household Survey as well as being slightly more recent, but does not provide household income data. For this reason, the General Household Survey will be used primarily in this paper.

Graph 1. Annual household income by decile, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income. Downloaded from www.statssa.gov.za in October 2016.

The very poorest households were typically smaller than those with higher incomes. They had slightly fewer adults, around 30% fewer children and half as many members aged over 64. In large part, this situation reflected the targeting of social grants to people who could not work. At R1500 a month, a single old-age or disability pension would lift a household into the second decile in the income distribution. In contrast, families with only working aged, able-bodied adults were not eligible for any state transfers. Higher income households also had relatively few children and elderly people, but their adults were much more likely to be employed, as discussed below.



Graph 2. Household size and ages by quintile, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and age. Downloaded from www.statssa.gov.za in October 2016.

Poor households were heavily over-represented in the former so-called "homeland" regions, which were shaped under apartheid essentially as impoverished labour reserves. In 2015, these areas held 28% of all households but 40% of those in the poorest two quintiles and only 9% of the most prosperous quintile. Urban areas housed 70% of all households but 90% of those in the richest quintile.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and geography. Downloaded from www.statssa.gov.za in October 2016.

ow household incomes resulted largely from low employment levels. As the following graph shows, almost half of the poorest 40% of households had no employed people at all, whether in wage work or selfemployment. In contrast, the most prosperous 40% of households had more than one income earner. As a result, the poorest 40% of households accounted for 22% of all employment and the next two quintiles for 45%. The most prosperous 20% of households held 33% of jobs.



Graph 4. Average number of employed people per household and share of total employment by quintile, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on employment status and household income. Downloaded from www.statssa.gov.za in October 2016.

High joblessness also emerged in the much lower employment ratio in poor households. The employment ratio is the share of employed people in all working age adults.¹ In the poorest 20% of households, only one in four adults had employment, compared to over

1. The ILO calls this figure the employment ratio; Statistics South Africa calls it the absorption rate.

two thirds in the richest 20%. The national average is just over 40%; globally, the national figure mostly runs between 50% and 65%.

Graph 5. Employment ratio by quintile, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on employment status and household income. Downloaded from www.statssa.gov.za in October 2016.

As Graph 6 shows, less than 40% of all households in the poorest two quintiles earned any income at all from salaries or wages. If remittances and business income are included, around 70% of these households had some kind of earned income, but it was typically precarious and low. Around 60% of these households received at least one social grant. In contrast, in the richest 20% of households, over 95% had some kind of earned income from employment or self-employment.

Graph 6. Share of households by income sources and quintile, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and income sources. Downloaded from www.statssa.gov.za in October 2016.

As Graph 7 shows, the poorest households also earned less even when they had employed members. Earned income ranged from R780 a month for the

poorest quintile to R6000 a month for the fourth richest, then jumped to over R22 000 for the richest 20% of households.





Note: Median only for households that reported earnings or remittances. *Source:* Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on monthly salary income. Downloaded from www.statssa.gov.za in October 2016.

Remittances were important for lower-income households, but they were typically low. They ranged from R450 a month in the poorest quintile (averaging in only households that received them) to R1000 in the third and fourth quintile. They averaged around a third of earned income for the poorest quintile (again, counting only households with some earned income), but were far less important for higher-income families.

Joblessness was substantially higher in the former "homeland" regions, especially in the poorest 60% of households. For the higher income group, the gap in employment levels was much smaller.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and employment status. Downloaded from www.statssa.gov.za in October 2016.

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More households in the poorest 60% relied on remittances in the former "homeland" regions than in the rest of the country. This situation largely reflected the persistence of cyclical migrant labour from the labour-sending regions, despite massive migration to the urban centres from 1994. Some 29% of households in the former "homelands" received remittances, compared to just 16% in the rest of the country. The median remittance by quintile did not vary much by region, however.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and remittances. Downloaded from www.statssa.gov.za in October 2016.

Even where people were employed in the former "homeland" regions, they typically earned less than in the rest of the country, as the following graph shows. The large discrepancy in the top quintile may not be significant because the sample of households in that quintile in the former "homelands" was small.



Graph 10. Earnings by quintile in the former "homeland" regions compared to the rest of the country, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and employment status. Downloaded from www.statssa.gov.za in October 2016.

In sum,

- A significant income gap emerged between the richest 20% and the rest of households, with relatively small gaps between deciles from the poorest to around the 60th decile
- Most households in the poorest 40% had some access to earned income, but the incomes earned were very low, mostly under R2000 a month.

2.1.2. Income distribution in the formal workforce

If the aim of reducing the cost of living is to moderate wage costs, then measures must initially benefit the formal working class. In the event, the data suggest that the core formal working class was located primarily in the third and fourth quintiles of the income distribution, not in the poorest 40%.

The household data do not distinguish between formal and informal employment, but income can be used as a proxy since informal employment generally pays far worse than formal jobs. In 2015, according to Statistics South Africa's Labour Markets Dynamics,¹ three quarters of people in the formal sector earned over R2000 a month, while the median formal income was R3800.

Using R2000 as an indicator points to the low level of formal employment in the poorest 40% of households. Just 11% of households in the poorest two quintiles earned R2000 or more a month, compared to 76% in the second and third quintile together, and virtually all households in the richest quintile. As Graph 11 indicates, formal employment by this measure was particularly scarce for the poorest three quintiles in the former "homeland" regions.



Graph 11. Share of households in each quintile, by location, that earned over R2000 a month in 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household salary income and total net household income. Downloaded from www.statssa.gov.za in October 2016.

The poorest two quintiles accounted for just 8% of households where earned income was R2000 or more. In contrast, the third and fourth quintiles together made up 56% of such households, and the richest quintile accounted for 35%. Again, the differences between the

former "homelands" and the rest of the country were stark. Although almost 30% of households were in the former "homeland" regions, they contributed just 15% of all households with R2000 a month or over in earned income.

¹ Calculated from Statistics South Africa. Labour Market Dynamics 2015. Electronic database downloaded from www.statssa.gov.za in November 2016. Series on earnings by employers and employees and on sector including agriculture.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household salary income and total net household income. Downloaded from www.statssa.gov.za in October 2016.

Analysis of employment earnings by quintile indicate that measures to reduce the cost of living in order to stimulate employment should target the third and four quintile, rather than just the poorest households. Household income in these quintiles ranged from R2530 to R11 000 a month in 2015. In occupational terms, the lower end of this group would cover, for instance, construction, clothing and retail workers as well as better paid farmworkers and security guards; the higher levels included relatively skilled miners and artisans, nurses and police officers.





Notes: (a) Median wages exclude earnings by employers and the self-employed but include informal employees (around 6% of total waged employment). Figures for employment by sector includes 2,3 million employers and self-employed, of whom around three quarters are informal micro enterprise and almost half are in trade. (b) The labour force survey data used here probably understate the number employed in mining. Statistics South Africa recommends use of the employer survey for mining employment figures. *Source:* Calculated from, Statistics South Africa. Labour Market Dynamics 2015. Electronic database. Series on main industry, main work and median earnings of employees. Downloaded from www.statssa.gov.za in November 2016.

2.1.3. Implications

In terms of strategies to reduce the cost of living, cost drivers and needs diverge between the most marginalised households and the formal labour force. In analysing the pattern of consumption and price increases, then, it is important to distinguish between these two groups. As a proxy, the research here distinguishes mostly between the poorest 40% of households and the next 40%. It finds that for many goods and services, expenditure patterns vary significantly between these two groups. By extension, the state may face trade-offs or have to develop a range of options to ensure that its services do more to promote inclusive growth.

2.2 Cost drivers by quintile

The cost drivers for the poorest 40% of households and

the formal workforce differed significantly because they could afford different sets of goods and services. The analysis here relies primarily on the 2010/11 Income and Expenditure Survey, the latest available at the time of writing. It reviews trends in composition and inflation for major elements of consumption by income level.

As the following graph indicates, according to the 2010/11 Survey, consumption patterns differed significantly between marginalised households and the formal labourforce. For the poorest 40%, almost a third of expenditure went on food. For the next poorest 40%, the figure fell to under a fifth, and for the top quintile it was less than a tenth. The share of clothing and household furnishings in expenditure also declined with income.





Note: (a) Includes health insurance, which Statistics South Africa categorises under miscellaneous. Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 128 ff, Table 2.45.

Other major consumption groups absorbed a rising share of spending as income increases. Housing climbed from under a quarter of expenditure for the poorest 40% of households to over a third for the richest quintile. This figure should be approached cautiously, however, since the main driver was imputed rent for homeowners (see Graph 27) rather than actual expenditure. Transport rose from 12% of spending for the poorest 40% to almost 20% for the richest quintile, largely because car ownership increases with income. Health and education climbed from 4% of spending for the poorest 40% of households to 12% for the richest, with the bulk of spending going for health insurance and, in education, tertiary education. Because of South Africa's unusually unequal income distribution, the richest 20% of households accounted for the bulk of consumption expenditure for every major product group except food. As a result, food, clothing and furnishings constituted under a fifth of total consumption expenditure for the country, although they made up two fifths of spending by the poorest 40% and over a quarter for the next 40%. In contrast, housing and transport, which are more important for rich households, accounted for half of total consumer spending, although they absorbed only around a third of expenditure for the poorest 80%.

Graph 15. Share of income groups in consumption of major products, 2010/11



Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 128 ff, Table 2.45

The deep inequalities in demand mean that there is effectively a dual market in consumer goods, reflected in differentiation between types of retail as well as between the goods themselves. The richest 20% demand higher quality and brand names, which in turn means a larger share of imports, higher prices and a tendency to frequent formal supermarket chains. The remaining 80% of households are more likely to buy from independent retailers as well as cash-andcarry chains, and to look for cheaper, mass-produced goods. The data on source of purchases by household income level in Graph 16 are only indicative because households reported where they shopped for less than a fifth of total purchases.



Graph 16. Expenditure by type of shop (a) and income group, 2010/11

Note: Source of products was reported for only 12% of total expenditures, so findings should be seen only as indicative. Source: Calculated from Statistics South Africa. Income and Expenditure Survey 2010/11. Electronic database. Series on type of retailer by income decile. Downloaded from www.statssa.gov.za SuperWEB facility in November 2016.

The remainder of this section explores the composition of each of the main expenditure groups – food, housing and utilities, transport, clothing and furniture, health and education – and trends in their pricing. In each case, after assessing the share of the product in spending by marginalised households and the formal labourforce and the standard of access, it analyses changes in the real cost to households and the main cost drivers.

2.2.1 Food

Food is a critical element of consumption for the most marginalised households, and nearly as significant for the formal labour force, especially in lower-wage industries such as retail, security and agriculture. Generally, however, inflation has been higher for food than other goods, largely because of rising red meat prices and more recently the drought. a. Expenditure and quality

In 2010/11, maize and bread accounted for almost a third of food consumption by the poorest 40% of households. In contrast, for the formal labour force in the third and fourth quintiles of income distribution, it made up just over a quarter of consumption, with meat accounting for another quarter. Vegetables and dairy absorbed about a tenth of food consumption each for all income groups, but sugar and sugar products accounted for over 5% of food spending for the poorest 80%, compared to 4% for the richest 20%.



Graph 17. Expenditure on food by type of food and income group as percentage of total expenditure, 2010/11

Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 128, Table 2.45

The Income and Expenditure Survey does not provide figures for consumption by individual food products within these groups. Moreover, as discussed above, data on national consumption are shaped primarily by the richest 20% of households. Still, significant shifts at the national level over the past decade likely reflect some changes for poor and working households in the past decade. As the following graph shows, consumption of food per person overall climbed after 1994, with a move from lower to higher value products, with particularly rapid increases for poultry and potatoes. That said, the economic slowdown from 2011 to 2016, which largely reflected the end of the commodity boom, saw a levelling out in food consumption, especially in poultry, and some increase in maize, milk and vegetables instead. Graph 18. Change in consumption of major food products in kilogrammes per person, 1994 to 2015 (figures in brackets are average consumption per person in 2015)



Source: Calculated from, Department of Agriculture, Fishing and Forestry. Abstract of Agricultural Statistics 2016. Database in Excel format. Table 69 and Table 103. Downloaded from www.daff.gov.za in September 2016.

b. Price changes and cost drivers

From 1994, overall food inflation generally outstripped inflation for other consumer goods. From 1994 to 2015, the price of food products climbed by almost 400%,

while other products saw inflation of about 250%. In real terms, food prices climbed fairly steadily by a total of around 35% from the late 1990s.

Graph 19. Index of inflation for processed and unprocessed food and for other products for the urban areas, 1994 to 2016 (a) (figures for July)



Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish food and non-food prices. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July. For 2008 to 2016, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July. Downloaded from www.statssa.gov.za in October 2016.

As the following graph shows, the average annual price increase for food was higher than inflation for other

goods throughout the period from 1990, although the 2015 drought caused a particularly sharp spurt.





Note: (a) The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish food and non-food prices. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July. For 2008 to 2016, CPI (COICOP) from January 2008. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July.

Figures for food inflation essentially reflect the price increases for the basket of goods consumed by the richest 10%. This situation emerges because the index is weighted by shares of goods in total sales rather than their shares in consumption by the majority of households.

As the following chart shows, real changes in food

prices differed significantly by product. Bread and cereal prices actually declined from 2008 to 2014 before shooting up by almost 10% as a result of the drought in 2014/5. For most households, that means the real increase in reported food inflation might be exaggerated from 2008 to 2014, but understated in the past year. Virtually every other major type of food increased more than overall inflation from 1994.



Graph 21. Average annual real change in prices of major food groups, 1994 to 2015, year to July (a)

Note: (a) Deflated with CPI. The real change in price is the index in price for the commodity deflated by the headline CPI. The methodology for the CPI and its components was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish food and non-food prices. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July. For 2008 to 2016, CPI (COICOP) from January 2008. Series on CPI excluding food, processed and unprocessed food, for the urban areas for July. Excel spreadsheet downloaded from www.statssa.gov.za in October 2016. For share of foods in expenditure by the poorest 80% of households, calculated from Statistics South Africa. *Income and Expenditure of Households 2010/2011*. Pretoria. 2012. Page 57, Table 2.12, and page 118, Table 2.40

Moderate real price increases for meat and poultry were driven primarily by low-cost chicken imports, while beef prices increased much faster than inflation. The unit cost of chicken imports in 2015 was around R7 a kilo for products from Brazil, R14 a kilo for products from Europe, but around R21 a kilo for local products. Local poultry producers repeatedly called for tariff protection, which would lead to a significant increase in meat prices especially for poor consumers, who were more likely to buy frozen imported chicken.

As Graph 22 shows, from 2002 to 2015 per-person consumption of red meat increased by 40%, while consumption of poultry climbed by 120%. In this period, imports dropped from 5% to 1% of total beef consumption, and imports of poultry rose from 7% to around 20%.



Notes: (a) Calculated as difference between production and total human consumption. (b) Calculated as the product of the farmgate price and consumption per person. Retailers add around 50% to the farm-gate price, so this figure does not reflect the actual cost to households. *Source:* Calculated from, Department of Agriculture, Fishing and Forestry. Abstract of Agricultural Statistics 2016. Database in Excel format. Table 69, Table 103 and Table 79. Downloaded from www.daff.gov.za in September 2016.

The high level of concentration in the food value chain contributed to the relatively rapid increase in food prices. A fairly small number of companies dominated storage, processing and retail, as Table 1 describes. In farming itself, the number of commercial farms dropped by around half from 1994, from 60 000 to 30 000, without a decline in production. Commercial farmers accounted for around 95% of formal food sales and two thirds of total food sales.

Table 1. Market structure for major food products

Sector	Commercial farmers	Dominant processing companies
Maize and bread	9000 in maize	17 silo companies, based on former co-ops, control over 90% of storage; Senwes, Afgri and NWK control 75%
	Under 4000 in wheat	Premier, Tiger Brands, Pioneer and Pride account for 75% of maize milling, with around 300 smaller millers also functioning
		Pioneer, Tiger Brands, Premier and Foodcorp control virtually all wheat milling; Pioneer, Tiger Brands and Premier account for over 85% of bread sales.(a) Estimates suggest over 50 000 smaller formal and informal bakers, including pizza and similar franchises.
Dairy	There were 1728 formal milk producers in August 2015, down from 3665 in January 2008 and over 7000 in 1997 (b)	Market shares: Clover 26%, Parmalat 18%, Unilever 7%, Danone 6%, and Cape Oil and Margarine 6%.
Poultry	Poultry is grown largely by direct subsidiaries of the large companies as well as by farmers contracted to them	Vertically integrated companies, which also produce feed, dominate poultry production, with Astral and Rainbow together controlling around half of total production. (c) Around 400 farmers are considered "emerging" poultry farmers.

Sector	Commercial farmers	Dominant processing companies
Processed fruit and vegetables	Around 8000 farmers grew fruit and vegetables, but only about a third sold for processing	There are around 55 processors but dominant companies are Tiger Brands followed by Rhodes (which took over Del Monte in SA in 2010) – market share varies by product
Confec- tionary	Sugar company estates produce 7%; 1500 commercial farmers produce 85%; 25 000 small outgrowers	Mondelez, Nestle, Tiger Brands accounted for 68% in 2015; rest largely imported

Notes: (a) Ledger, T. 2016. Power and Governance in Agri-Food Systems: Key Issues for Policymakers. TIPS Working Paper. TIPS. Pretoria. March. (b) Food Price Monitoring Committee. 2003. *Final Report.* DAFF. Downloaded www.gov.za in September 2016. p. 201. (c) DAFF. 2012. *A Profile of the South African Broiler Market Value Chain.* Pretoria. P. 7. *Source:* Information from sector reports by Who Owns Whom, latest version for sector, unless otherwise noted.

In addition to high levels of concentration, the transition to democracy saw a substantial decline in subsidies for commercial farmers. In 2014, the OECD found that farm subsidies in South Africa had fallen from 15% of output in 1995 to 2% in 2014. That compared to a 2014 level of 4% in Brazil, 10% in the United States, and 18% in the European Union.¹

In contrast to most other developing economies, because of apartheid South Africa did not have significant numbers of small self-employed farmers. Most people ended up purchasing food produced in the formal sector, sometimes from informal stores that added a high mark up. Although around 30% of the population lived in the largely rural former "homeland" regions, only around 5% of employment was in agriculture. The gap between the share of the rural residents in total population and the share of farmworkers in total employment was unusually large by international standards, as Graph 23 shows.

In the formal "homelands," relatively few households made a living from agriculture, although many undertook some form of gardening. In the poorest quintile, just under 40% engaged in agricultural activity, compared to around 50% of households in the next two quintiles. In the urban areas, less than 10% of households were involved in agriculture.





Source: World Bank. World Development Indicators. Electronic database. Series on percentage of population in agriculture and percentage of population in rural areas. Downloaded from www.worldbank.org in April 2014.

^{1.} OECD. Producer and Consumer Support Estimates. Electronic database. Series on Percentage Producer Support Estimate for relevant countries. Downloaded from www.oecd.org in February 2016.

Graph 24. Share of households engaging in agricultural activity by national income quintile and location (a), 2015



Note: (a) Only around 5% of all households were located on commercial farms. *Source:* Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and agricultural activity. Downloaded from www.statssa.gov.za in October 2016.

The vast majority of small farmers used their products themselves, but not as the main source of food. In the former "homelands," over 80% of farmers saw their product as a supplementary source of food, and not as the main source of food or a way to earn an income. In the poorest quintile, 10% of households said they got most of their food or income from their own farms, but the figure dropped to around 7% for the more prosperous quintiles.

Graph 25. Use of own farm products by households in the former so-called "homelands," 2015, by national income quintile (thousands of households)



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and use of agricultural products. Downloaded from www.statssa.gov.za in October 2016.

c. Implications

If the NDP aimed to moderate the cost of living for marginalised households in particular, then it would have to reverse the long-standing trend toward relatively high food inflation.

In the longer run, that would require measures to address the concentration of production, storage,

processing and sales in the food value chain. The Competition Commission has begun to examine these issues.

Medium to short-term possibilities include:

• Encouraging food gardening on a larger scale. Pilot programmes by Commark in the noughts found that, where gardeners have access to land, water and mentoring, food gardens do well.

- Engaging with the major supermarket chains to reduce the mark-up on a basket of staple foods, for instance maize meal, standard loaves of bread, frozen poultry and vegetables.
- Resisting lobbying to increase tariffs on imported poultry before practical and specific measures are introduced to protect poor households.
- Zero-rating VAT on chicken, and ensuring that retailers pass the benefits on to poor households. Currently, brown bread, rice, maize meal in various forms, dried lentils and beans, tinned pilchards, fruit and vegetables, vegetable oil, dried and regular milk and eggs do not pay VAT. But there is little price difference between standard brown and white bread, which suggests that the difference in VAT is not benefiting consumers.
- Increasing social grants by the rate of inflation for low-income households rather than by the overall

rate of inflation. The rate of inflation for low-income households is weighted by the basket of goods consumed by the lowest quintile. In contrast, the overall inflation rate reflects total sales of consumer goods, which are dominated by the richest quintile and therefore understate the importance of food for most households. As discussed in Section 2.3, social grants have played a major role in reducing hunger.

Finally, the gap where African smallholders could have emerged absent apartheid is a central factor behind high joblessness as well as concentration in food production. In most developing economies, a substantial share of the labour force is self-employed in agriculture, as opposed to working for a wage. As the following graph indicates, self-employment is unusually low in South Africa. That reality largely explains why just 40% of South African adults have income-generating work, compared to almost 60% in other upper-middleincome economies outside of China.



Graph 26. Share of paid employees in employment, employment ratio (a) and linear trend for share of paid employees in employment (b)

Notes: (a) Share of employed in all working age adults. (b) Latest year from 2007 to 2013; most in 2010 to 2013. *Source:* World Bank. World Development Indicators. Electronic database. Series on Wage and salaried workers, total (% of total employed) and Employment to population ratio 15+, modelled ILO estimate. Downloaded from www.worldbank.org in June 2016.

This reality does not mean that resurrecting a large peasant class is a viable solution to the unemployment crisis. It does, however, suggest that the poorest quintile should be major beneficiaries of agrarian reform, which combines land reform with the development of supportive institutions that are required for successful farming.

South Africa faces unusual challenges in this regard. Internationally, successful land reform has taken place by freeing farmers of exorbitant payments to landlords, but did not have to establish supportive market institutions. Viable systems to support smallholders include both private and public agencies, for instance marketing and village (but not producer) co-ops, contracting out where viable, and effective state extension and marketing services. These institutions link smallholders to markets, whether supermarket chains or alternative outlets; support innovation to promote productivity and quality; and assist with a range of other needs including infrastructure, access to water and credit.

2.2.2 Housing, utilities and transport

In terms of housing, the main challenge was that formal housing was virtually unaffordable for most low-income households, which therefore depended on state subsidies. Most ended up in very small houses that were distant from economic opportunities, but owned their dwellings. The upper end of the formal workforce was more likely to be in rentals, but in real terms the cost fell from 2011 to 2015. In contrast, while utilities and water made up a relatively small share of spending for households, the cost rose sharply especially from 2008. Moreover, as of 2015 only around two thirds of households in the poorest 40% had running water in their houses or yards.

This section first reviews overall expenditure on housing and municipal services by income group. It then outlines the impact of apartheid residential laws on the provision of housing and services. The following sections review the standard of access and changes in the cost of housing, energy, and water and related services in turn.

a. Spending on housing and municipal services

The cost of housing reported in the Income and Expenditure Survey consists mostly of imputed rent for homeowners – and most low-income South Africans own their homes. In terms of the effects of housing costs on the standard of living, the imputed-rent convention effectively exaggerates the cost of housing for homeowners. It is not an actual expenditure (maintenance is measured separately), but rather an effort to capture the benefits, opportunity costs and possible capital gains from home ownership. In the Survey findings, it is offset by the inclusion of imputed rent in the income of the homeowners.

As the following graph shows, almost half the reported expenditure on housing for the poorest 80% of households in the 2010/11 Income and Expenditure Survey reflected imputed rent. For the richest households, imputed rent accounted for 70% of reported housing expenditure.





Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 129 ff, Table 2.45

If imputed rent is deducted from expenditure on housing, then the share of expenditure on housing becomes regressive – that is, poor households generally pay a higher share of their total expenditure on housing than better-off ones do. The main component of spending was rent, followed by utilities and, for the poorest 40%, fuel. Only home maintenance absorbed a higher share of income for better-off households than for poor ones.

b. The context: The apartheid legacy in housing

For housing and municipal service, access was often

as important as cost for poor households. The type of housing and infrastructure available was largely shaped efforts to address backlogs left by apartheid in historically black communities, on the one hand, and by very high levels of rural-urban migration, on the other. Before 1989, the state generally avoided investing in municipal services and housing in black communities while providing European service levels in white areas. The state also generally pushed townships far from economic and city centres.





Notes: (a) The Census data do not indicate if toilets were on site or not. In 2016, 3% of African households used flush toilets outside their yard, but 42% had toilets in their yards rather than houses. For non-Africans with flush toilets, 0,3% were outside the yard and 6% in the yard rather than the dwelling. Figures for 1996 include chemical toilets, but their share was likely small. It was 1,7% of the total for Africans in 2001, the first Census to distinguish the two types. The Censuses do not indicate whether flush toilets are on or off site. *Source:* Calculated from Statistics South Africa. Census 1996, 2001 and 2011 and Community Survey 2016. Electronic databases. Series on population group of household head and household services. Downloaded from SuperWEB facility at www.statssa.gov.za in November 2016.

Discrimination in municipal investment and spatial planning made it far more difficult for black people to engage in the economy, since they lacked water, electricity and logistics for home-based production and faced high transport costs in accessing economic centres. It also meant that introducing more fiscally and environmentally sustainable standards for municipal services appeared at best to step back from historic standards of quality, as set in formerly white communities, and at worst to reinforce existing inequalities.

After 1994, the elimination of racist restrictions on urbanisation led to extraordinary growth in urban areas especially around Gauteng and, during the commodity boom, the platinum belt in the North West. That in turn fuelled escalating demand for low-income housing and expansion in under-served informal settlements.

From 1996 to 2016, the national population rose by 38%. But the population of Gauteng climbed by over 70%, and the Western Cape and Bojanala district in the platinum belt of the North West grew almost 60%. Most other provinces grew far more slowly than the national average, with particularly slow population growth reported for the Free State and the Eastern Cape.¹

Two factors shaped internal migration: the pull of fast economic growth in the Northern provinces during the mining boom from around 2003 to 2011, and the movement of whole families once the law no longer enforced circular migration. The slowest growing areas were the historic labour-sending regions of the coastal provinces as well as the Free State; the most rapid, the metros around Gauteng as well as some mining towns, many of which were in rural, former "homeland" regions.

The mass migration that set in with the end of apartheid placed significant strains on all urban areas. Gauteng had the administrative and economic capacity to meet the needs of most new residents, so that the share of informal housing in the province was not much above the national average. Smaller, poorer and more rural centres, notably around the platinum belt, experienced explosive growth in informal settlements. By 2011, informal housing accounted for over a quarter of the total in the platinum belt. In these areas, unacceptable living conditions for many residents, even if they had stable and well-paid employment, sometimes caused severe social and political strains.

Rural-urban migration combined with the prevalence of very small formal and informal houses for low-income families to foster a fall in the size of average households in all income quintiles. As a result, even though the number of formal houses nationally more than doubled from 1996 to 2016, the number of informal houses climbed by around 50%. In contrast, the population as a whole grew by under 40%.

^{1.} The 2016 Community Survey likely understates migration from 2011 because it is weighted by the mid-year population estimates. The 2011 Census found that Statistics South Africa's mid-year population estimates substantially underestimated rural-urban migration. Nonetheless, the mid-year estimates since 2011 assume a falling migration rate. In interviews, Statistics South Africa officials argued that the rate through 2011 was extraordinarily high by international standards and therefore could not persist – an argument that ignores the unique nature of South Africa's apartheid legacy.



Note: (a) As discussed in section 2.2.2, the estimates for rural-urban migration from 2011 are likely too low. *Source:* Calculated from Statistics South Africa, 1996 Census and 2016 Community Survey. SuperWEB interactive data. Downloaded from www. statssa.gov.za in November 2016.

c. Housing: Quality and cost

This section first reviews the nature of housing for poor South Africans and then the cost for owners and renters. Most poor South Africans lived in formal but very small homes, with around a quarter in informal housing. While most owned their homes, around a quarter of the formal working class occupied rental housing. The cost of housing did not increase in real terms in the 15 years to 2016. These factors meant that from the standpoint of the cost and quality of living, the lack of decent affordable housing in economic and social centres was more important than changes in monthly housing costs.

The majority of South Africans at all income levels lived in formal housing, which Statistics South Africa defined as housing built according to approved plans. In 2015, around 75% of the poorest 40% of families had formal homes, as did 80% of the next 40% in the income distribution. Virtually all of the richest 20% of households lived in formal housing.



Graph 30. Housing by type, income group and location, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and housing type. Downloaded from www.statssa.gov.za in October 2016.

As Graph 30 shows, in urban areas families who did not have formal housing lived in informal settlements. In the former "homeland" areas, they generally had "traditional" houses, which Statistics South Africa defined as houses or rondevals made of local materials other than bricks or cement.

The share of all households living in informal housing fell from 16% to 13% between 1996 and 2016, while the share in traditional housing dropped from 18% to 7%. The share of families with formal housing rose

from 65% to 79%, and the number of households with formal housing more than doubled, climbing from 5,8 million to 13,4 million.

Nonetheless, the number of families in informal housing also climbed over the period, rising by around a third from 1,5 million to 2,2 million. In contrast, the number in traditional housing declined from 1,6 million to 1,2 million. The shift from traditional to informal housing largely reflected rural-urban migration.



Graph 31. Housing by type, 1996 to 2016

Source: Statistics South Africa. Community Survey 2016. Statistical Release P0301. Pretoria. 2016. Page 59, Table 7.9.

Most of the poorest 80% of South Africans lived in cramped conditions. Their formal houses were almost all very small – the median was around four rooms, including the kitchen and sanitary facilities. Even though household size shrank, that meant rooms had multiple users and uses. Traditional homes for the poorest 40%

typically had three to four rooms. The next poorest 40% of households were more likely to have five rooms. The richest 20% of households generally had six to seven rooms, whether formal or traditional. In contrast, at every income level, most informal dwellings had only one room.



Graph 32. Median number of rooms, including kitchen and sanitary facilities, by type of housing income level and location, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography, housing type and number of rooms. Downloaded from www.statssa.gov.za in October 2016.

Homeownership was high in South Africa, and as Graph 33 shows, poor families were more likely than rich ones to be homeowners. This anomalous situation mostly reflected the transfer of existing and new township tract housing to the occupants after 1994. High levels of ownership for traditional housing offset the fact that most informal housing was rented or occupied for free. In particular, families in the poorest quintile were less likely than richer households to live in or own formal housing. They were, however, more likely to live in the former "homeland" regions, where they owned traditional housing. Because it was still difficult for families living on less than R12 000 a month – around 75% of all households – to obtain bonds, the richest 20% of households accounted for 46% of homeownership with outstanding debt.



Graph 33. Ownership and rental of housing by income level and type of housing, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography, housing type and ownership of dwelling. Downloaded from www.statssa.gov.za in October 2016.

Since most houses were small, their value was not very large. If they had a formal house, eight out of ten of households in the poorest 40% thought their house was worth less than R250 000. Seven out of ten in the next 40% had the same valuation. For those who lived in informal housing, 95% of the poorest 80% of households thought their dwelling was worth under R50 000. For traditional housing, four out of five households in the poorest 40% thought the value was under R50 000, as did seven in ten from the next poorest 40%.



Graph 34. Estimated market value of housing by type and income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography, housing type and market value of property. Downloaded from www.statssa.gov.za in October 2016.

High levels of home ownership meant that only one in seven of the poorest 40% of households paid rent, as did around a quarter of the next 40%. In the poorest 40%, more households lived in rent-free accommodation than rented. In contrast, for the upper end of the formal workforce, in the fourth quintile of the income distribution, rentals accounted for a third of all housing. Still, the richest quintile was most likely to rent. These households occupied half of all formal rental housing.



Graph 35. Tenure by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and ownership of dwelling. Downloaded from www.statssa.gov.za in October 2016.

Informal housing constituted a disproportionate share of rentals, accounting for over a third of total rentals for the poorest 60% of families, although only a quarter of their houses.

For households that rented accommodation or paid a mortgage, the cost appears to have run between a quarter and a third of their income in most cases, although the available data are not very strong. The 2016 Community Survey found median rentals in formal housing came to R800 a month, while for informal housing rentals the median was R300 a month.¹ The Community Survey does not report household incomes at all, so the figure applies to all households, which means that the top 20% dominate the findings. The Income and Expenditure Survey reports rental expenditure by quintile but averages it across all households in the quintile, so the cost is not clear for the minority that paid rent. The General Household Survey provides information on rents and mortgages paid, but only in rather broad categories.



Graph 36. Rental housing by type, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, main dwelling and ownership of dwelling. Downloaded from www.statssa.gov.za in October 2016.



Graph 37. Rents and mortgages paid by households in rental accommodation, by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography, housing type and monthly rent or mortgage. Downloaded from www.statssa.gov.za in October 2016.

1. Calculated from, Statistics South Africa. 2016 Community Survey. SuperWEB interactive data. Downloaded from www.statssa. gov.za in November 2016. Although there was a bubble in housing prices around 2008, housing costs declined 5% from 2011 to 2016. The 5% fall in rental costs benefited the formal working class. In contrast, the decline in imputed rent for

homeowners largely reflected stagnant house prices as well as falling rental rates. It is not clear, however, whether the reported house prices take into account poor families' township and rural homes.



Graph 38. Real change in rentals and imputed homeowners' rent (a) to 2016 (July)

Note: (a) Imputed homeowners' rent is calculated based on the relationship between the cost of housing and rental rates. *Source:* Calculated from CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI, actual rentals and imputed rent for the whole country for July. Statistics South Africa. Downloaded from www.statssa.gov.za in October 2016.

Analysis of the CPI from 1994 indicates a longer term trend toward stagnation in housing prices despite the bubble in the run up to the 2008/9 global financial crisis. By extension, rising costs were not the main cause of the housing shortage for marginalised households and the formal workforce. Rather, the core problems arose from a sharp mismatch between incomes for the jobless and formally employed people, on the one hand, and the cost of new housing on the other, especially near urban centres. This mismatch was aggravated by the lack of financing, which meant that most households could not spread the cost of new housing through mortgage bonds.

In these circumstances, most poor households could only hope to afford formal housing with some kind of state support. In effect, the state ended up shaping effective demand for low-income houses, and in the process setting standards for most new construction. As Graph 39 shows, more than two out of five families in the poorest 80% who lived in a formal house built after 1996 had received a housing subsidy. But only very limited housing subsidies were available for people in informal or traditional housing, although they benefited from in-kind support through upgraded infrastructure.

Overall, urban planning largely maintained the patterns set under apartheid, for reasons of cost as well as the nature of delivery systems. Most new townships were still located far from economic centres, largely to take advantage of cheaper land. Subsidised houses were typically even smaller than the traditional matchboxes built in the 1970s. The small size of subsidised houses in itself fostered smaller households, accelerating the need for housing and the related municipal services far beyond the growth in the population.

In this context, the profound inequalities in housing made it difficult to agree on minimum standards. The top 20% resided in luxurious leafy suburbs, while most other South Africans occupied very small formal houses, and around a quarter of families in the lower 80% of households lived in one-room informal shacks. These extraordinary differences meant any decision about what kind of housing to subsidise would be heavily contested.

The problems around housing for poor families often proved particularly severe in small towns, which had less capacity to manage the influx of new residents. Developments in Johannesburg, Cape Town and Bojanala, which was at the epicentre of the platinum boom from 2003 to 2011, illustrate the challenges.

The population of both Cape Town and Bojanala climbed by just under 40% from 2001 to 2016, while Johannesburg grew by over 50%. The number of formal houses in Bojanala doubled in this period; in Johannesburg it grew by 93% and in Cape Town by 72%. Nonetheless, the number of informal houses rose by 66% in Bojanala, from just under 100 000 to 164 000. As a result, the share of residents living in informal settlements only fell from 30% to 27% despite the rapid growth in formal tracts. In Johannesburg and



Graph 39. Share of households living in homes built since 1996 that received a housing subsidy, by income and type of house, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography, housing type, year built and whether received a subsidy. Downloaded from www.statssa.gov.za in October 2016.

Cape Town, informal housing expanded somewhat more slowly, by around 55%. Still, like Bojanala, both metros saw only a slight decline in the share of informal housing. That said, Johannesburg reduced the share of people living in informal housing from 21% to 18% between 2001 and 2016 despite the fastest in-migration in the country. Meanwhile the average household size fell in Bojanala from 3,7 to 2,8 people; in Cape Town, from 3,8 to 3,2 members; and in Johannesburg from 3,2 to 2,7.



Graph 40. Housing by type, 2001 and 2016, Cape Town, Johannesburg and Bojanala.

Source: Calculated from, Statistics South Africa. SuperWEB interactive dataset. Census 2011 and Community Survey 2016. Series on population and main house type for Bojanala, Cape Town and Johannesburg. Downloaded from www.statssa.gov.za in November 2016.

The analysis here suggests that housing issues for low-income households are not best understood in terms of monthly costs. Although housing appeared as a significant expense for all households in the official Income and Expenditure Survey, most of the cost reflected imputed rent rather than an actual outlay. Most poor families owned their houses, although the housing itself was often inadequate. Moreover, rental inflation was generally slightly lower than the CPI over the past 15 years.

From this standpoint, the main mechanism for addressing the housing crisis for the poor continued to be the provision of subsidised housing. That said, housing subsidies would work better in the context of improvements in:

- Planning for rural-urban migration. A particular problem in this regard remains the conservative forecasts in Statistics South Africa's mid-year population estimates, which have in the past 15 years provided a misleading basis for housing investment.
- Strategies to structure the built environment as well as communications and transport systems to make it easier for both marginalised households and

the formal labourforce to engage in the economy. In particular, that requires tackling the obstacles to densification. Key blockages include the high initial cost of multi-storey housing and of land near urban centres, despite the lower costs of network infrastructure and commuting in the longer run, as well as the trajectory set under apartheid for township planning and construction systems.

 Measures to expand rental housing for the formal labourforce, which includes a relatively large share of renters. A challenge in this regard is that meeting the needs of the relevant group – relatively skilled and well-paid workers – would require both relatively high quality and easy access to economic centres.

d. Energy: Expenditure, quality and cost

As Graph 41 shows, household spending on electricity and, even more, other forms of energy was heavily regressive. The poorest 40% of households spent 4,5% of their total expenditure on electricity and fuel; the next poorest 40% spent 4,0%; and the richest 20% spent 3,5%. Even so, the top 20% of households used more electricity than the poorer 80% combined, accounting for over half of all household spending on energy.



Graph 41. Expenditure on energy (a) as percentage of total household spending, by income level, 2011

Note: (a) For some households, figures for water and energy were combined, without an indication of the split between them. These figures are therefore included for both, although that leads in effect to a double count. *Source:* Calculated from Statistics South Africa. *Income and Expenditure of Households 2010/2011.* Pretoria. 2012. Page 129 ff, Table 2.45

Figures for average spending by household exaggerate the regressive structure of energy spending because marginalised households were far less likely to have electricity at all. That meant both that low-income households with electricity paid more than reflected here, and that poor households ended up spending more on other kinds of fuel, which were typically more expensive.

As the following graph shows, while virtually all households in the richest 20% had electricity, for the poorest 80% in the urban areas access ranged from 90% to 96%. In the former "homeland" regions, it was slightly lower.



Graph 42. Access to electricity at home by income and location, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and access to electricity. Downloaded from www.statssa.gov.za in October 2016.

Significant progress was made in improving access to electricity from 1994. Figures by income are not reliable, but an indication of progress emerges from increased access by race (see Graph 28 above). It can also be seen in the increased electrification of traditional and informal housing, as shown in Graph 43 below. The share of informal housing with electricity climbed from around a third in 1996 to almost two thirds in 2016, while the share of traditional housing rose from under a fifth to three quarters. Still, both traditional and informal housing lagged behind formal housing in access to electricity. Around a quarter of the poorest 80% of households lived in these kinds of housing.



Graph 43. Electricity by type of housing, 1996 to 2016

Source: Calculated from Statistics South Africa. Census 1996, 2001 and 2011 and Community Survey 2016. Electronic databases. Series on population group of household head and household services. Downloaded from SuperWEB facility at www.statssa.gov. za in November 2016.

Poor households were significantly more likely than rich ones to have their electricity cut off for non-payment, excluding through pre-paid meters, if they lived in urban areas. Excluding pre-paid meters, in the poorest 20% of urban households, 4% were cut off in a month in 2015. For the richest quintile, the figure was just 2%. Pre-paid meters were not included in the data on shutoffs, but they were more common for poor households and had a similar effect if families could not meet the electricity cost. Shut offs in the former "homeland" regions were also high, but less regressive.



Graph 44. Share of households saying they were shut off for failure to pay in the previous month, by income, 2015 (a)

Note: (a) Share only of households with electricity, including those with pre-paid meters. Excludes shut offs where meters were not loaded. *Source:* Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and access to electricity. Downloaded from www.statssa.gov.za in October 2016.

Both the level of shut offs and the degree of regressivity varied substantially by region. As the following graph shows, in 2015 Nelson Mandela Bay metro accounted for more than two fifths of all shut offs. Yet the metro made up just 5% of the metros' shared population. In contrast, households in Cape Town and Mangaung did not report any shut offs for non-payment, and disconnections in Johannesburg were more likely to affect higher-income households than others.



Graph 45. Share of households reporting they had been shut off in the previous month for non-payment by metros and income level, 2015 (a)

Note: (a) Households in Cape Town and Mangaung did not report any shut offs. Share only of households with electricity, including those with pre-paid meters. Excludes shut offs where meters were not loaded. *Source:* Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and access to electricity. Downloaded from www.statssa.gov.za in October 2016.

From 2008, the price of electricity rose sharply above inflation, after 15 years of very little real increase. From 2008 to mid-2016, the price of household electricity and other fuels, together, more than doubled in real terms (that is, after accounting for the increase in the CPI as

a whole). The bulk of the increase occurred from 2008 to 2012, when the index rose by 68% or 13,9% a year above CPI. From 2012 to 2016, in contrast, the real increase was 10%, or 2,4% a year.





Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 2000 to 2008 and from 2008 to 2016. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 from 1990 to 2000 and from 2000 to 2008. Excel spreadsheets downloaded in January 2009. Series on CPI and electricity and fuels for the metro areas for July. For 2008 to 2016, CPI (COICOP) from January 2008. Excel spreadsheet. Series on electricity and fuels for the metro areas for July. Downloaded from www.statssa.gov.za in October 2016.

The surge in the cost of electricity and fuels for households resulted primarily from a combination of the sharp rise in coal prices during the commodity boom and Eskom's investment in new generation capacity. Inefficiencies at Eskom and in the municipalities also played a role.¹ The following graph compares indices for the increase in household energy costs compared

1. See Neva Makgetla. "Eskom's Regulatory Clearing Account Submission for 2013/4." TIPS Briefing Note. Pretoria. 2016. Downloaded from <u>www.tips.org.za</u> in November 2016.



Graph 47. Indices of real increase in household energy prices compared to increase in Eskom electricity price and household energy costs, 1996 to 2015 (a)

Note: Eskom calculated from total revenue divided by total sales; figures not provided for 2004. All series have been deflated using the CPI for urban areas. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 2000 to 2008 and from 2008 to 2016. *Source:* Calculated from Eskom, Annual Reports for relevant years; IMF. World Economic Outlook. Electronic database. Series on South African coal export price in U.S. dollars. Downloaded from www.imf.org in November 2016. Translated into rand using South African Reserve Bank. Interactive data set. Electronic database. Series on cents per U.S. dollar, figures for June. Downloaded from www.resbank.co.za in November 2016. For electricity price, see Graph 46, above.
to the average cost of Eskom power for all customers and the export price of coal.

The relatively rapid increase in electricity and other fuel prices from 2008 confronted poor households with a sharp hike in tariffs, despite some measures to alleviate the impact of electricity price hikes on the poor. At the same time, the extension of electricity to new households meant that they could replace relatively high cost and dangerous fuels and candles with electricity, which remained a more efficient source of energy even at the higher prices. That said, by 2016 electrification had reached most households where it was comparatively easy; the remaining houses without electricity tended to be poor and either relatively remote or part of new informal settlements.

It is worth noting that South Africa entirely failed to diffuse available efficient renewable technologies for poor households on a large scale, with the exception of solar water heaters. This kind of technological shift could at least to some extent have reduced the cost of electricity for low-income households.

Still, even without a shift to more affordable energy sources, the end of the commodity boom moderated electricity price increases significantly. In addition to slowing the increase in the price of coal in rand terms, it brought downsizing at major refineries, which were key electricity consumers. The result was a 5% decline in electricity use from 2015 to 2016. The risk was that Eskom was set on a path of major investments in new coal and, possibly, nuclear plants. If it did not revise those plans, the result could be even higher increases for its remaining customers if the refineries' demand for electricity continued to decline sharply.

e. Water and sanitation: Expenditure, quality and cost

Water and sanitation together appeared to be less expensive for poor households than for higher-income ones, in contrast to electricity. A major reason was that a third of poor households still did not have piped water, and many who had access to water did not pay for it, citing a wide variety of reasons. That said, from 2008 the price of water to households rose faster than overall inflation, which would raise the cost of living for both marginalised households and the formal labour force.

The Income and Expenditure Survey combined water and electricity payments as a single cost for some households. It is not clear what percentage of that amount represented water.



Graph 48. Expenditure on water (a) and sewerage as percentage of total household spending, by income level, 2011

Note: (a) For some households, figures for water and energy were combined, without an indication of the split between them. These figures are therefore included for both, although that leads in effect to a double count with electricity costs reported above. *Source:* Calculated from Statistics South Africa. *Income and Expenditure of Households 2010/2011*. Pretoria. 2012. Page 129 ff, Table 2.45

The average cost of water and sewerage for low-income households was depressed, in part, because relatively few households had access to these amenities. Only 60% of households in the poorest 40% had piped water in their house or yard. For the next 40%, the figure was around 75%. For the richest quintile, it was over 90%. The rural poor, whether in the former "homelands" or in commercial farming areas, were particularly likely to lack piped water in their homes or yards.

Graph 49. Share of households with piped water in house or yard, by income and location, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and main source of drinking water. Downloaded from www.statssa.gov.za in October 2016.

Under half of the poorest 40% of households had flush toilets, while around the same share had pit toilets, and over one in 20 had no toilet facilities at all. For the next 40%, around three out of five households had flush toilets and a quarter had pit toilets.

Access to sanitation varied sharply by location. In the former "homeland" regions, virtually all of the poorest 80% of households had pit toilets. In the urban areas, in contrast, around 80% of the poorest households had flush toilets.



Graph 50. Type of toilet by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and type of toilet. Downloaded from www.statssa.gov.za in October 2016.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and type of toilet. Downloaded from www.statssa.gov.za in October 2016.

Using types of housing again as a proxy for income levels shows that access to water had improved from 1996, but less consistently and rapidly than electricity. Figures on access to water and electricity by race in Graph 28 point to the same conclusion. In addition, the government's decision from the mid-1990s to provide ventilated improved pit toilets rather than flush toilets for lower-income households meant that there was little increase in the share of households with access to flush toilets, especially for people in traditional housing.



Graph 52. Share of households with piped water on site and with flush toilets (a), by income level and location, 1996 to 2016

Notes: (a) Figures for 1996 include chemical toilets, but their share was likely small. The Censuses do not indicate whether flush toilets are on or off site. *Source:* Calculated from Statistics South Africa. Census 1996, 2001 and 2011 and Community Survey 2016. Electronic databases. Series on main housing type and household services. Downloaded from SuperWEB facility at www. statssa.gov.za in November 2016.

The available evidence suggests that piped water was generally of worse quality in historically African areas, especially the former "homelands". Poor urban households were more likely than well-off families to experience interruptions in their water supply. Interruptions, including prolonged stoppages, were even more common in the former "homelands", where they affected all classes more or less equally. In those areas, two out of five households said they had experienced an interruption that lasted longer than two days in the previous year.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and interruptions to water supply. Downloaded from www.statssa.gov.za in October 2016.

The incidence of water expenditure was also progressive because many poor households did not pay for it. As the following graph shows, over 60% of households in the poorest three quintiles, and 40%

of those in the next 20%, did not pay for water. In the former "homeland" regions, less than 10% of the poorest 60% of households paid for water.



Graph 54. Share of households by quintile and location that did not pay for water, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and payment for water (excludes those that pay through the levy or rent). Downloaded from www.statssa. gov.za in October 2016.

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Of households that did not pay for water,

- Almost a third of households in the poorest 40% said they could not afford to pay. These households were predominantly in the urban areas.
- A similar number of households in the poorest 40% said they had a source of free water.
- In the next 40% of households, around a quarter said they could not afford it.
- A fifth of poor households blamed technical reasons such as lack of billing or meters, but the share was larger in the former "homeland" regions.
- At all income levels, around one household in eight was not required to pay by the municipality.



Graph 55. Reasons given by households for not paying for water, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, geography and reason household not paying for water (excludes those that pay through the levy or rent). Downloaded from www.statssa.gov.za in October 2016.

One reason poor households may have seen water as unaffordable was that the price of water, sewage and related services for consumers had risen significantly faster than the CPI since 2008. In real terms, the price of water climbed by over a quarter from July 2008 to July 2016. Before 2008, the CPI reports did not provide separate information on water and related prices.





Note: (a) Deflated using CPI. *Source:* Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on water and services for the whole country for July. Downloaded from www.statssa.gov.za in October 2016.

The relatively rapid increase in the price of water and related services for households obviously places a particularly heavy burden on poorer families. Still, as with housing, the price of using water did not seem to be the main problem for poor households, if only because many simply did not pay. A bigger threat to their quality of life was the persistent lack of access and the poor quality of the water supply and sanitation in many low-income communities. As with housing, the first need was to secure affordable access for more South African households.

2.2.3 Commuter transport

According to the 2010/11 Income and Expenditure Survey, poor households spent far less than richer ones on transport in both rand terms and as a share of their expenditure. The main reason was that they relied on public transport rather than owning a car. Nonetheless, transport absorbed a significant share of their budgets. The real cost tended to track the price of petrol, which in rand terms dropped from 2011.

a. Expenditure and quality

The poorest 40% of households spent 12% of their total expenditure on transport, with over half going for rail, buses and minibuses. While the next 40% of households spent 16% of their budget on transport, two thirds went for cars, petrol and maintenance, with only around a third for public transport. The richest quintile spent almost nothing on public transport, and around 11% of its total spending went for cars alone, with a further 6% for maintenance and fuel.



Graph 57. Expenditure on public and private transport as percentage of total household spending, by income level, 2011

Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 129 ff, Table 2.45

As noted above, transport was critical for marginalised and working households because many lived far from economic and social centres. But the transport they could afford varied substantially. The National Household Transport Survey in 2013 found a strong inverse relationship between the time spent travelling and the cost by mode of transport. Trains and buses required an average trip of over an hour each way, but were cheapest; personal cars were much faster but also much more expensive; and taxis were in the middle. Walking to work was obviously cheapest, but only viable where people lived close enough. The average worker who walked spent just over half an hour each way.





Graph 58. Average time spent travelling to work and average cost per month (right axis) by mode of transport, 2013

Source: Statistics South Africa and Department of Transport, National Household Travel Survey 2013. Pretoria. 2014. Pages 61 and 62. Tables 5.17 and 5.18.

The Travel Survey did not provide information on the time spent travelling or cost by income level. But it showed that four out of five workers in the lower 40% walked or used public transport, and three out of four of

those in the next 40%. By extension, most of the formal labour force spent at least two hours a day commuting. In contrast, in the richest 20% two thirds travelled to work by car.



Graph 59. Utilisation of transport modes to get to work by income group for workers, 2013

Source: Statistics South Africa and Department of Transport, National Household Travel Survey 2013. Pretoria. 2014. Pages 41. Table 5.3

Most commuters complained not only about the cost of taxis and buses, but also about unreliability, risky driving, abusive drivers, breakdowns and general neglect. The cost, time, physical risks and unpleasantness of commuting certainly added to stress for many workers.

b. Price changes and cost drivers

The cost of public transport largely tracked the price of petrol, which rose from 2011 to 2014 and then declined. In effect, workers largely ended up bearing the full burden of fluctuations in the petrol price. From 2014 to 2016, relatively low international oil prices were largely

offset by the depreciation of the rand, but at least the rapid increases experienced during the commodity boom seemed unlikely to re-emerge.

The CPI data used for Graph 60 do not break down modes of public transport, although they give

exhaustive detail on private car ownership. The reason is presumably, again, that high-income consumption dominates total household spending, so that cars and their maintenance constitute a larger share of total transport spending than taxis, buses and trains.



Graph 60. Real change (a) in costs to households of public and private transport, 2008 to 2016, July

Note: (a) Deflated using CPI. *Source:* Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on public transport, purchase of vehicles, petrol and CPI for all items for July. Downloaded from www.statssa.gov.za in October 2016.

c. Implications

In short, the cost of commuting reflects the persistent tendency to house poor people far from urban centres, despite limited progress in some parts of Gauteng in particular. In this context, public transport costs appear largely to track the petrol price, despite extensive state subsidies.

Densification along commuter corridors and the development of more mixed-income housing near urban centres remains the main way to reduce transport costs for marginalised households and the formal labour force. As noted above, that would require fundamental shifts in the housing strategy.

In the interim, a more rigorous analysis of current transport systems and more innovative and diverse solutions is necessary. They could include for instance wider use of bicycles so that marginalised households have an easier alternative to walking, as well as a significant expansion in low-cost individualised public transport such as motor cycle and three-wheeled taxis to reduce the time required to get to public transport hubs.

2.2.4 Clothing and household goods

As a percentage of household expenditure, spending on clothing and household goods declined steadily with income. The poorest households spent almost a seventh of their budget on these goods; the richest, under a tenth. Clothing and non-durable goods absorbed a much higher share of the budget for the poorest 80% of households than for the richest quintile.





Graph 61. Expenditure on clothing and household furnishings as percentage of total household spending, by income level, 2011

Source: Calculated from Statistics South Africa. *Income and Expenditure of Households 2010/2011*. Pretoria. 2012. Page 129 ff, Table 2.45

As the following graph shows, most lower-income households had only limited access to consumer durables, even though they spent a higher share of them than richer families. In the poorest 40% of households, a quarter did not have electric stoves, two out of five did not have a refrigerator, nine out of ten did not have a geyser, and just 5% had a computer. Low levels of effective demand from poorer households made it more difficult to develop mass production of household equipment in South Africa.



Graph 62. Consumer durables by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and ownership of computer, geyser, refrigerator, television and electric stove. Downloaded from www.statssa.gov.za in November 2016.

The price of clothing and household furniture dropped from 2002, when the inflation data start to separate

them out. As the following graph shows, the cost of these goods fell by almost half from 2002 to 2016.





Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 2000 to 2008 and from 2008 to 2016. *Source:* For 2002 to 2008, calculated from Statistics South Africa. P0141 from 1990 to 2000 and from 2000 to 2008. Excel spreadsheets downloaded in January 2009. Series on CPI, clothing and footwear, and household furnishings and equipment. For 2008 to 2016, CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI, clothing and footwear, and household furnishings and equipment. Downloaded from www.statssa. gov.za in October 2016.

It appears that a substantial increase in imports helped hold down the price of clothing and furnishings. Graph 64 below is only indicative, since the figures for imports and production come from different sources and use different industry categories. Moreover, it seems likely that the bulk of imports were relative luxuries for the high-income group rather than basic goods for lowerincome households.

The data suggest that the aughts saw imports of furnishings and appliances climb from 20% to 40%

of total sales, and of clothing and footwear from 10% to over 60%. Much of the increase occurred during the commodity boom, when the rand was not priced competitively. The share of imports levelled out from 2013, following the depreciation of the rand. A similar pattern emerges if we look at imports as a share of household consumption of clothing and furnishings. For those data, the share of imports is smaller because the figures for household consumption include the retail mark-up.

Graph 64. Imports of clothing and furnishings as percentage of total sales and real exchange rate for manufactures, 2001 to 2015



Source: Calculated from, for sales: Statistics South Africa. Manufacturing production and sales from 1998. Series on actual sales in thousands of rand for

The only item in the category of clothing and furnishings supported directly by the state was solar water heaters. From 2008, the state embarked on a large-scale programme to roll out low-pressure units to low-income households, providing a total of around 400 000 by 2015. The budget for the programme declined sharply from 2013 and roll out slowed drastically. Still, by 2015, of the 13% of households in the poorest 60% with any water heater at all, around a fifth had a solar unit supplied at no cost by government.



Graph 65. Solar and other geysers by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and ownership of geyser and solar-heated geyser. Downloaded from www.statssa.gov.za in November 2016.

Outside of solar water heaters, the state only influenced the cost of most clothing and furniture through industrial policy supports and tariffs. Those programmes aim primarily to promote domestic production and protect employment.

Trade-offs between efforts to promote local production and domestic prices for households arise only for the relatively small share of imports that constitute wage goods for low-income households. For these goods, a choice may emerge between moderating the cost of living for marginalised households and the formal labour force in the short run, and growth and job creation in



the longer term. This trade off becomes particularly visible when the rand is at uncompetitive rates. The ideal way to manage it is to make the production of more competitive production of wage goods a leading priority in industrial policy.

2.2.5 Education

Access to education remained highly unequal, which in itself reproduced inequality. Members of the richest 20% of households accounted for almost 60% of all university students in 2015. This situation arose in part because of the high cost of tertiary education, which accounted for the bulk of spending on education for the poorest 80% of households, and in part because of the persistent inequalities between rich and poor schools, which largely tracked the pattern set under apartheid. Fees for education at all levels rose faster than overall inflation, but poor households generally did not pay for general education.

a. Expenditure and quality

The share of expenditure going for education climbed with income, as the following graph shows. It accounted for 1,5% of spending for the poorest 40%, rising to more than 3% for the richest 20%. Most of the difference was due to the fact that poorer households paid between 0,5% and 1% of their income for general education, compared to close to 2% for the richest 20%. In contrast, the average share of income spent on tertiary education hardly varied by quintile.





Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 129 ff, Table 2.45

Three quarters of learners in the poorest 60% of households, and almost two fifths of those in the next 20%, did not pay any fees for general education. The main reason was that they attended no-fee schools, which constituted around three quarters of all schools and were located primarily in relatively low-income areas. The higher share paying fees in the middle 40% of households – essentially the formal workforce – meant that general education absorbed over 1% of spending for the group, compared to around 0,6% for the poorest 40% of families. In contrast, over 90% of students in higher education paid for university, irrespective of household income. Less than 10% received a full bursary at every level of income.



Graph 67. Share of households paying fees and reason for not paying fees by income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, educational institution attended and reason for not paying fees. Downloaded from www.statssa.gov.za in November 2016.

The average figures understate the burden imposed by university fees on poor households, since the cost was concentrated on relatively few families. As the following graph shows, for every thousand households in the poorest 60%, only around 45 people attended a tertiary institution in 2015. In the richest quintile, the figure climbed to 155 per thousand households. In general education, however, both the poorest and the richest quintile had slightly under one child in school per household, while the other quintiles had rather more.



Graph 68. Number of learners and students per thousand households by income level, 2015

Where households paid fees for general education, most paid less than R4000 a year. For the poorest 60% of households, the median cost was on the order of R300 a year, rising to R500 a year for the fourth quintile. In the richest quintile, the median fee increased sharply to around R8000 a year. In contrast, over half of all households with a university student paid more than R20 000 a year for fees, while most of the rest paid well over R8000. Poor households met these costs increasingly through loans, which added to their burden of stress and debt.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, educational institution attended and fees paid. Downloaded from www.statssa.gov.za in November 2016.

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and educational institution attended. Downloaded from www.statssa.gov.za in November 2016.

The unequal distribution of tertiary education by income meant that members of the richest quintile of households accounted for 59% of all university students. In contrast, they constituted just 16% of learners in general education and 22% of those in further education.

Richer households' dominance of tertiary education effectively reproduced privilege across generations.

As the following graph shows, households in the bestoff quintile, which held many more university students, were also far more likely to contain university graduates. Young adults in the poorest 60% of households were more likely than older members to have secondary and post-secondary education, but the disparity between the richest 20% of households and others remained large.



Graph 70. Attendance by type of educational institution and income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and educational institution attended. Downloaded from www.statssa.gov.za in November 2016.



Graph 71. Highest education achieved by household members by age and household income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, age and highest educational level achieved. Downloaded from www.statssa.gov.za in November 2016.

Easier access to universities for better-off students meant that education largely helped reproduce economic inequalities. In 2015, having a degree increased a person's chance of employment by 25% compared to someone with matric, while matric boosted

the chance of employment 18% compared to those with less education. The median income for employed people with a tertiary degree was more than four times that of a worker with only primary school. It was almost three times as high as someone with matric.



Graph 72. Share of adults with employment, by sector, and median earned income by education level, 2015

Source: Calculated from, Statistics South Africa. Labour Market Dynamics 2015. Electronic database. Series on sector (excluding agriculture) and monthly earnings for employees and for employers and the self-employed. Downloaded from www.statssa.gov. za in November 2016.

High returns to education reflected a combination of the skills shortage and work organisation established under apartheid explicitly to boost pay for better qualified people. In the 2010s, 17% of the South African labourforce had a university degree, compared to about 20% in other upper-middle-income economies.¹ Around 12% of all South African adults, including those who were neither employed nor looking for work, had a degree.

Unequal access to university resulted from both high fees relative to income for most households and from persistent inequality in general education. Learners at schools in historically African communities, and especially in the former "homelands", were far less likely to qualify for university, in large part because their schools had worse facilities as well as fewer and often less effective teachers.

In 2015, the best-off 15% of schools – virtually all of them historically non-African, although now mostly integrated by race - accounted for 30% of university

passes. In contrast, the poorest 25% of schools, mostly located in former "homeland" areas, contributed just 15% of all university passes. The richest 15% of schools had an overall matric pass rate of over 90%, with half getting university exemptions. In the poorest 25% of schools, just 62% of learners passed, and under a fifth qualified for university. (DBE 2016, p. 53)

Inequalities in resourcing were a key factor in continued inequalities in education.

In terms of facilities, according to documents published by the national Department of Basic Education, almost half of schools did not meet minimum standards, mostly because of inadequate classrooms in 2011 (the latest data available). Around a tenth, virtually all in the former "homelands", had no running water, with a similar figure for electricity. Four out of five formerly white schools had a library, compared to half of other urban schools, and a fifth of schools in the former "homeland" areas. (Calculated from Department of Basic Education 2014, Table 13, p 21; Table 35, p. 45)

The average number of learners per educator in historically black schools, whether rural or urban, was 32 to one in the early 2010s. In historically white schools, most of which were integrated, the figure was 22 to one. (Calculated from Department of Basic Education 2016) The difference arose primarily

^{1.} The World Bank's World Development indicators provide data on the share of graduates in the workforce for 35 countries from 2008 to 2014. The largest country in the group, China, does not report a figure. The share of graduates ranges from 6% in Belize to almost 30% in Panama, Jordan and Bulgaria. The unweighted average is 20%. See World Bank. World Development Indicators. Electronic database. Series on labourforce with tertiary education (% of total). Downloaded from www.worldbank.org in June 2015.

because the richest schools were able to charge fees and employ educators directly. Moreover, according to Statistics South Africa's General Household Survey, in 2015 less than one in ten urban students experienced violence or abuse from their teachers, compared to almost a fifth in the former "homelands".2

b. Price changes and cost drivers

Education fees climbed significantly faster than overall inflation from the mid-1990s. In real terms, the price of education as a whole almost doubled in the metro areas from 1994 to 2015. In 2015/6, the price of education fell slightly in constant rand as a result of the freeze on university fees. Data were not available for other areas over this period.





Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish food and non-food prices. Source: For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI and education for the metro areas for July. For 2008 to 2016, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI and education for the metro areas for July. Downloaded from www.statssa.gov.za in October 2016.

From 2008, the data distinguish between general and tertiary education. Fees for general education generally climbed faster than for universities from 2008 to 2016, rising around 30% in constant rand, or 3,5% a year on average. University fees climbed by 25% from 2008 to 2015, or 3,3% a year above inflation. The freeze in 2015/6 meant that they then fell by 6,1% in real terms.

Because most marginalised households did not pay for general education, the direct impact of rising education fees was greater for the formal working class. The main effect was not on the cost of living, but rather through the exclusion of low-income learners from the best schools. That in turn reduced their chances of getting matric and post-secondary education.

In contrast, the data suggest that students of all income

groups ended up paying more or less the same amount in university fees. Lower-income households taken together spent less on university only because fewer children from these households made it into university at all, either because of poor schooling or high fees. For the relatively few low-income households whose students did get into university, the cost was disproportionately high. Annual fees of R30 000 to R60 000 in 2016 equalled three to six years' income for a household in the poorest decile, but only one or two months' salary for those in the richest 10%.

c. Implications

The cost of education was, on average, relatively small for low-income households. But it was far higher for those who sought a better education for their children in fee-paying schools, or if they had to pay for university. The result was both a heavy burden on poor households as well as the replication of privilege.

^{2.} Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on violence or verbal abuse by teachers. Downloaded from www.statssa.gov.za in November 2016.

Graph 74. Index of real increase in fees for general and tertiary education, 2008 to 2016, 2008 = 100 (figures for July)



Source: Calculated from, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI, primary and secondary and tertiary education for July. Downloaded from www.statssa.gov.za in October 2016.

2.2.6 Health

The bulk of health expenditure for all income groups went on medical schemes. Because fewer low-income households had health insurance, the cost for those that did have it was substantially higher than the average indicates. Low-income households also typically had substantially worse health outcomes than richer ones. The rising real price of healthcare and insurance over the past 20 years increased the cost of relatively skilled labour in the formal sector, slowing overall growth and job creation for workers at all levels.

a. Expenditure and quality

According to the 2011 Income and Expenditure Survey, health was both a larger cost and more inequitably distributed between households than education. The share of total expenditure rose from 2,7% for the poorest 40% to 9,1% for the richest 20%. Out-of-pocket expenses absorbed almost the same share of spending for all three groups, at around 1,5%. But the share of health insurance was 1,3% for the most marginalised 40%, 3,4% for the next 40%, and 7,7% for the richest quintile.





Source: Calculated from Statistics South Africa. Income and Expenditure of Households 2010/2011. Pretoria. 2012. Page 129 ff, Table 2.45

The cost of health spending including insurance was a substantial cost driver for formal workers in particular across the top 40% of income earners. This group also accounted for the bulk of household health spending. The richest 20% of households accounted for three quarters of the total – over 80% of insurance costs and almost 60% of out-of-pocket spending. The next 40% accounted for just under a fifth of total health spending, and the poorest quintile for a twentieth.

The high share of private insurance in total health spending made South Africa unique amongst uppermiddle-income economies. In 2014, according to World Bank data, 13% of South African spending on private healthcare was not covered by insurance, compared to an average of 72% in peer countries. South Africa had the highest levels of private insurance of any country in the group. It was also on the high end for private health spending overall, at 45% of the total in 2014, making it the eighth highest amongst middle-income economies. Both the share of private spending in total healthcare and the percentage covered by insurance had increased from 1994. (See Table 2 on page 69)

As with education, the average figures by income group obscure significant differences in access. According to the General Household Survey, less than 5% of household members in the poorest 60% were covered by medical aids, compared to over half of those in the richest quintile. As a result, the richest quintile accounted for 70% of all medical aid members, while the poorest 60% taken together constituted less than 15%.



Graph 76. Membership of medical aids by income group, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and medical aid coverage. Downloaded from www.statssa.gov.za in November 2016.

Membership in medical schemes varied substantially by race, which suggests that some people in poorer households were subsidised by other family members. That makes it difficult to assess the cost of health insurance for those covered, rather than just the average for each income group. As the following graph shows, whites were more likely to have health insurance than others at every income level. Moreover, the poorest quintile was also more likely to benefit from medical aids than the next two, again suggesting a degree of support from better-off family members.



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Graph 77. Beneficiaries of medical aids by race and income group, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, population group and medical aid coverage. Downloaded from www.statssa.gov.za in November 2016.

The share of all South Africans covered by medical schemes declined gradually from around 2011. Membership of medical schemes appeared in large

part to track economic growth, since the vast majority of members accessed the schemes through formal employment.

Graph 78. Medical scheme members as percentage of households, beneficiaries as percentage of population, and beneficiaries per member from 2008



Source: Calculated from Council for Medical Schemes. Annexures to Annual Reports for relevant years. Downloaded from www. medicalschemes.org.za in November 2016.

The figures for household spending on healthcare do not include expenditure by the state, which was much more equitably distributed across income levels. State spending on healthcare was also more focused on lowincome households, since the relatively well-off largely used fully private institutions rather than the kind of semi-privatised institutions found in education.

Nonetheless, public health services varied to some extent by income level, in part because of the failure

fully to overcome the inequalities entrenched under apartheid. The General Household Survey does not publish figures on the quality of healthcare comparable to those for education, making it difficult to assess by household income. Still, a summary of evaluations for hospitals and clinics by the Office of Health Standards Compliance suggests that in the public sector, the former "homeland" regions continued to have the worst healthcare facilities. The scorecard represented a composite assessment of elements as diverse as availability of medicines to infection control. Over 1400 facilities were inspected out of a total of around 4000 from 2012 to early 2016. Some concerns were raised about the consistency of scoring. (Kahn 2016) Still, as Graph 79 shows, there was a considerable degree of correlation, although not a complete match, between provinces that inherited privileged systems in 1994 and better scores in public health services.





Source: Data on scores by the Office of Health Standards Compliance in the National Department of Health. Provided to Business Day under Freedom of Information Act in November 2015. Downloaded from www.bdlive.co.za in November 2015.

The substantial differences in both private and public spending on health by income group contributed to markedly worse health outcomes for lower-income households. Figures from the General Household Survey indicate the extent of the resulting inequalities. People in the poorest 60% households were more likely to say they had only "poor" health than those in the next quintile, while the richest quintile was least likely to experience poor health at every age.





Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, age and health status. Downloaded from www.statssa.gov.za in November 2016.

A similar picture emerges for disability. Members of the poorest 60% of households were generally more likely to suffer from some kind of disability than those in better-off families. likely to obtain treatment and assistance. The figures for access to spectacles demonstrated the problem. Of those with difficulty in seeing, under a third in the poorest 40% of households said they had spectacles, compared to four out of five in the richest quintile.

If disabled, people in poor households appeared less



Graph 81. Percentage of household members saying they had a disability, by income level and age, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, age and U.N. definition of disability. Downloaded from www.statssa.gov.za in November 2016.



Graph 82. Share of people with spectacles by ability to see and income level, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, ability to see and use of spectacles. Downloaded from www.statssa.gov.za in November 2016.

Finally, mortality appeared linked to income as well. Overall, the number of households experiencing a death in 2014/5 declined at higher income levels. In that year, around 3,5% of the poorest 40% of households experienced at least one death, compared to 1,5% in the richest households.

Graph 83. Percentage of households experiencing a death in year before survey, 2015



Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income and cause of death. Downloaded from www.statssa.gov.za in November 2016.

In sum, as with education, the combination of public and private healthcare provision ended up reproducing better services for the higher income group. In contrast to education, however, even in the lower-income group a relatively high share of income went for private services. For formal workers, in particular, health insurance was a cost driver, in turn increasing the cost of employment and production across the economy.

on medical aids, but only on medical services and products paid for out-of-pocket. The available data suggest that while direct medical costs levelled out from 2008, fees for medical schemes continued to increase significantly in real terms. The cost of services per member, however, appear to have stabilised in this period.

As the following graph shows, the real price of outof-pocket medical expenses levelled out from around 2005, following sharp increases from 1994.

The official CPI data do not provide separate information

b. Price changes and cost drivers



Graph 84. Index of the real price for the CPI basket of medical expenses, July, 1994 to 2016 (1994 = 100)(a)

Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish medical prices from 1994. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI, medical care and health expenses for July. For 2008 to 2016, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on health for July. Downloaded from www. statssa.gov.za in October 2016.

Out-of-pocket expenses largely stabilised after 2008. In contrast, the average contribution per member and per beneficiary of medical schemes climbed by over 20%. In constant rand contributions per member doubled from 1996 to 2015; per beneficiary, they climbed

over 60%. The average contribution for beneficiaries increased faster than for members mostly due to a reduction in the number of beneficiaries per member, reflecting both a response to higher costs and the decline in household size.



Graph 85. Index of real increase in health insurance costs and in out-of-pocket expenses, July, 2008 = 100 (a)

Note: (a) Deflated using CPI. *Source:* Medical products and medical services: Calculated from, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on health for July. Downloaded from www.statssa.gov.za in October 2016. Medical insurance per member and beneficiary calculated from Council for Medical Schemes. Annexures to Annual Reports for relevant years. Downloaded from www.medicalschemes.org.za in November 2016.

Contributions per member climbed by 99% in constant rand from 1996 to 2014, while the medical schemes' average spending on healthcare per beneficiary rose 93%. The main cost drivers were private hospitals, with average spending per beneficiary rising 167%, followed by specialists and other unspecified costs at around 135%. In contrast, expenditure per beneficiary on medicine remained almost unchanged and on general practitioners it increased by 24% in real terms.



Graph 86. Medical schemes' expenditure on healthcare by type of cost in constant (2014) rand (a)

Note: (a) Deflated using CPI, rebased to 2014. *Source:* Calculated from Council for Medical Schemes. Annexures to Annual Reports for relevant years. Downloaded from www.medicalschemes.org.za in November 2016.

The rate of increase in the main cost drivers levelled off from 2011, which should ultimately moderate inflation in contributions. That moderation could, however, be offset by the effects of depreciation on medicines and medical technologies, many of which are imported.

c. Implications

By international standards, private payment for healthcare, both directly and, even more, through medical insurance, formed an unusually large share of total health spending in South Africa. This system had two major implications. On the one hand, because most health insurance was linked to formal jobs, it raised the cost of employment especially for more skilled employees. On the other hand, as Table 2 below shows, it aggravated inequality in healthcare and was consequently associated with worse public health outcomes overall. While South Africa ranked in the top ten of upper-middle-income economies for most indicators of expenditure, it was in the bottom ten for many health outcomes. The examples in the table are for DPT immunisation, child mortality and physicians per thousand people.

Table 2. Indicators of expenditure and outcomes for the South African heal	th system	compared to	o peer economies
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Indicator	Year	Upper middle income	South Africa	South Africa's rank		
Expenditure						
Health spending per person, US dollars	1995	88	311	6/54		
	2014	518	570	19/54		
Health spending as % of GDP	1995	5.2	8.3	8/54		
	2014	6.2	8.8	12/54		
Private health spending as % of total health spending	1995	49	59	9/54		
	2014	45	52	8/54		
Insurance payments as % of total private health spending	1995	24	70	3/54		
	2014	18	87	1/54		
Outcomes						
% of children aged 12-23 months with DPT immunisation	1995	81	72	46/54		
	2014	93	70	51/54		
Mortality rate for under five-year-olds, per 1000 live births	1995	47	62	46/54		
	2014	19	41	48/54		
Physicians per 1000 people	1995	1.4	0.6	30/40		
	2013 (a)	2.0	0.8	37/43		

Note: (a) Figure for latest year from 2010 to 2013. *Source:* Calculated from World Bank. World Development Indicators. Electronic database. Downloaded from www.worldbank.org in November 2016.

2.3 The impact of social grants

For marginalised households in particular, the rapid expansion of social grants from the mid-1990s helped raise living standards despite the rising real cost of some important wage goods. In effect, the transfer from mostly higher-income taxpayers and companies to largely marginalised and working-class households in this way climbed from around 2% of the budget in 1994 to 4% in 2016. (See Graph 92 on page 73) This section therefore outlines the implications of social grants for incomes by quintile.

In 2015, 16 million South Africans, or almost one in three, received some kind of social grant. The grants were targeted to those who could not physically work due to age or disability. The maximum old-age pension and disability pensions were pegged at just over R1500 a month in 2015, while the child grant was R350. In 2015, child grants made up 70% of all grants, old-age pensions 19%, and disability grants 6%.

As the following graph shows, around 75% of old-age and child support grants, and 68% of disability grants, went to the poorest 60% of households. The grants were means tested and offset against income. The means test however only fully excluded the top 30% of households for the old-age and disability grant and the top 40% for the child support grant. For the old-age and disability grants in 2016, the thresholds were around R1 million in assets and R70 000 in income for an unmarried person, and twice that for a married couple. For the child-care grant, it was R42 000 in income for an unmarried person and twice as much for a married couple.



Graph 87. Share of grants paid by income group, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, child support grant, disability grant and old age pension. Downloaded from www.statssa.gov.za in November 2016.

The social grants were extraordinarily important for marginalised households, accounting for around half of total income for the poorest 40%. The impact per quintile in Graph 88 is estimated by comparing

the average value of grants reported by SASSA with the average income per quintile from the General Household Survey.





Source: Number of grants per household calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, child support grant, disability grant and old age pension. Downloaded from www.statssa. gov.za in November 2016; average value of grant calculated from SASSA. Annual Report 2015/6. Pretoria. Page 26. Tables 1 and 2.

The average pension was somewhat lower than the maximum amount. In 2015, the average old-age pension came to R1386 a month, the average disability grant was R1471, and the average child-support grant was R329. In constant rand and in U.S. dollars, the average grant fluctuated year on year. While the oldage pension and disability grant increased from 2008, the average child-support grant shrank in real terms by around 8% from 2008 to 2012 and then recovered slightly.





Source: Calculated from SASSA. 2016. Annual Report 2015/6. Pretoria. Page 26. Tables 1 and 2. Deflated with CPI for March of relevant year.

Both the old-age and disability grants came close to the national and international poverty lines for a couple, while the child support grant would live half a person out of poverty. In 2015, Statistics South Africa said that the food poverty line for South Africa was R501 per person per month in 2011 rand. (Statistics South Africa 2015, p 10) Reflating this figure using CPI, the poverty line would be around R620 a month per person in 2015. By this standard, the old-age pension could support around 2,2 people a month, and the child grant around half a person. Using the World Bank's standard of US\$1,90 a day, the old-age and disability grants could support two people in 2015, and the child support grant around half of one.

In the event, on average every household in the poorest 60% received a single child support grant, although the figure was lower for the poorest quintile. In that quintile, less than one household in five received an old-age or disability pension; in the next two quintiles, the figure was twice as high.



Graph 90. Number of people receiving grants per thousand households by household income quintile, 2015

Source: Calculated from Statistics South Africa. General Household Survey 2015. Electronic database. Series on household income, child support grant, disability grant and old age pension. Downloaded from www.statssa.gov.za in November 2016.

In sum, the social grant system was a critical buffer for marginalised households and many formally employed workers against the rising cost of living. Through 2012, access to grants increased overall, despite their stagnant real value. That to some extent offset the real increase in household payments for state services. But the share of all households receiving disability grants fell steadily in the past decade, while child-support grants per household tended to decline from 2011. In contrast, the share getting old-age pensions increased, but slowly.





Source: Number of grants from SASSA. 2016. Annual Report 2015/6. Pretoria. Page 26. Table 1. Number of households from Statistics South Africa. 2016. General Household Survey 2015. Pretoria. Statistical Release P0318. Page 8. Table 2.

It seemed likely that the protection provided by social grants would weaken from 2016 as a result of fiscal consolidation (see section 3.2). Budget projections for

2016 to 2019 suggested that the rate of growth would decline significantly, so that social grants would decline relative to both total state spending and to the economy.





Notes: (a) From 2016 to 2019, figures for inflation and GDP based on projections in National Treasury. 2016/7 Budget Review. Tables in Excel format. Table 1.1. (b) Until 2000, figures represent total transfers to households. (c) GDP for fiscal year (to March of following year). (d) Revised estimate. *Source:* Calculated from National Treasury. Relevant years. Budget Review. Statistical Annex. Tables on consolidated expenditure (number varies). Downloaded from www.treasury.gov.za in November 2016.

3. STATE SERVICES AND INCLUSIVE GROWTH

This section first reviews some underlying debates around the standards and modalities of providing state services to poor households in South Africa. It then indicates the budget space in terms of current fiscal policy. The final section briefly analyses key state services in terms of their effects on inclusive growth and the cost of living for working people.

3.1 Options for service delivery for the poor

There is widespread agreement on the need for strong measures to improve the living standards of marginalised households and reduce costs for the formal labourforce. Disagreements emerge, however, over what standards should be set for state services and how they should be funded, as well as the institutional framework for expanding services. This section analyses these debates as a contribution to the development of a coherent strategy. We first briefly review the link between inequality and debates around standards for state services in South Africa. Section 3.1.2 explores options for financing services and their implications for inclusive growth. Section 3.1.3 reviews debates around modalities for providing services. The final section draws on the discourse analysis to identify core criteria for assessing the contribution of varied state services to improving economic opportunities and engagement by marginalised households and the formal working class.

3.1.1 Inequality and service standards

As the following chart shows, more than two decades after the transition to democracy South Africa remained one of the most unequal countries in the world. The distribution of assets was even more unequal. Tax data indicated that the richest 10% of households accounted for around 95% of assets. (Orthofer 2016)



Graph 93. Gini coefficients for developing economies, 2006 to 2013 (a)

Note: (a) Latest available figure from 2006 to 2013; most are for 2010 to 2012. *Source:* World Bank. World Development Indicators. Electronic database. Series on Gini coefficient and lower and middle income economies. Downloaded from www.worldbank.org in February 2016.

South Africa's unusually deep inequalities made it difficult to agree on standards for state services. Before 1994, the state effectively established separate standards for the top 10% of the population and for

everyone else. After 1994, racial segregation formally ended, so that all state services were in theory equally open and available for every citizen. In practice,

- There was not enough high-quality infrastructure or facilities to serve the entire population, and
- Continued segregation of communities by class, which largely although by no means entirely paralleled race, meant that high-income households continued to dominate access to the best institutions.

At the same time, as indicated in the previous section, most families could not afford to pay for the services they needed to engage fully in the economy and society. This was particularly true where apartheid had left communities without basic infrastructure to build on, requiring significant initial investments amongst others in housing, water delivery, roads and education and health facilities. In effect, these communities had to fast-track the accumulation of the physical and social capital that had been built up in richer communities over decades, even centuries, before 1994.

In these circumstances, the only way to improve services for most communities was through increased state support. That reality put on the table the need to define what standards would be acceptable for state services in poor communities. There was broad consensus that the state could not provide the same level historically supplied to whites, but very little agreement on what that meant in practice.

In effect, in remedying the deep inequalities in services inherited from apartheid, the state faced a three-fold burden: it had to ask poor communities, the majority of voters, to accept that standards would not achieve the levels historically supplied to rich communities in the past; it had to ask rich communities to live with lower subsidies; and it had to find the funds to extend services, using either general taxes or some kind of fee.

As discussed for major services in the following section, various strategies emerged to meet these aims. They included:

- Setting standards low in order to extend services more widely, for instance by providing ventilated improved pit toilets and small starter RDP housing for low-income households – a strategy that inevitably led to pushback, since rich households were not held to the same levels.
- Setting standards high and then not meeting them on a broad scale, as with staffing and service standards for hospitals and clinics, the target of reducing transport costs to households and the commitment to providing universal piped water.
- Enabling rich communities to pay for services directly, effectively privatising their sections of state services, either formally as with education or informally as with security.
- In the 1990s, transfers for social grants were set nominally at the level historically provided to

whites, but increased lagged inflation until they fell to an affordable (and much lower) amount in real terms.

- Setting user fees on facilities mostly patronised by high-income groups, as with toll roads.
- Setting user fees in ways that were expected to relieve or exempt the poor without explicit means testing, for instance through block tariffs in water and the establishment of fee-free schools in poorer communities.

In almost every case, departments did not set a timeframe for ensuring that every household achieved the standards set. In these circumstances, the standards often became a way to manage expectations or lobby for greater resources, rather than a commitment to guarantee a minimum level of service to all South Africans.

At the core of these strategies lay the trade-off between higher standards and the consequent cost for either users or taxpayers, and lower standards that were cheaper but politically and socially unacceptable to many voters. That trade off was a key source of tension in South Africa's democracy. Government had to balance the economic power of a small rich class against the electoral power of the majority of households, which were poor and continued to experience deficits in government services.

The imbalance emerged in the tax system, which was highly redistributive. The bulk of state spending on services went to the poorest 80% of households. But the richest 15% of taxpayers, whose incomes would place them all in the top quintile of households, accounted for almost half of personal income tax payments, while around 600 companies (out of a total registered for tax of 700 000) paid two thirds of company tax. VAT had a regressive impact, but even so the bulk was paid by the richest households, since they accounted for over half of all household consumption.

This situation set up power plays that affected every effort to improve services for poor households.

On the one hand, accelerating improvements for the poor brought resistance in the form of lobbying and legal challenges from vocal and well-organised organisations representing the rich. Key lobby groups included residents' and business associations as well as advocacy groups. Their constituents had real power. If the richest 20% of households increased evasion of taxes and user fees, as happened with e-tolls in Gauteng, then the redistributive strategy would fail.

On the other hand, slowing improvements down too far or setting standards visibly lower than those rich areas enjoyed caused distress and protest in poor communities. Again, since the poorest 80% of households held the vast majority of voters, they also had power to hold officials accountable for improving their services. Ultimately, if redistribution efforts were too slow and incremental, they could bring about a change in government.

In this heavily contested terrain, most government departments did not take an explicit stance on service standards, which would require dealing with often bitter opposition from one side or the other. Instead, they moved incrementally over many years, through a series of low-key discrete decisions, toward a set of implicit, often inconsistent norms and funding mechanisms.

The call for government departments to publish specific standards for services for low-income household sought to force a more open debate. Ultimately, the hope was to improve accountability to voters so as to secure higher and more consistent standards. The risk was that absent effective and accountable funding and delivery strategies, the process of standard setting would become even more divisive and ineffective.

To help address this dilemma, the next two subsections explore options for resourcing state services and for increasing accountability in delivery at local level in greater detail.

3.1.2 Funding strategies

Efforts to fund state services had to balance society's need to guarantee basic needs against budgetary constraints.

A cohesive society requires that people have assurance that core human and social needs - as a minimum, for healthcare, education, basic municipal services, food and housing - will be met irrespective of their personal income. That assurance is particularly important in South Africa in order to manage deep economic and social divisions. In effect, it means taking some goods and services off the market, providing them as a right and a social good rather than commodities.

But providing services requires resources. If users pay, then government does not have to find funds on the budget. That makes for an administratively simpler and easier process, and frees up tax revenue for purposes where user fees are less desirable or viable. Moreover, it discourages over-use of services, which is beneficial both to hold down costs and in some cases to protect the environment.

In response, government departments developed three models. They could:

- Require everyone pay a fee for services, without exception.
- Set fees for services but exempt poor households or provide them with an offsetting subsidy.
- Provide services at no cost to all comers, and recoup the cost through taxes, which in South Africa are generally progressive.

We here review the benefits, costs and risks of each of

these approaches.

a. Universal fees

Requiring that everyone pay for a service has the advantage of reducing the need to access funds from the budget - something that proved particularly attractive to the hard-pressed officials in the National Treasury. Some services have trivial costs, even for those with low incomes, or they only benefit rich people. In these cases, universal fees may not be regressive. Indeed, if only high-income households utilise a service, making them pay has a redistributive effect since it frees up budget funds to support benefits for the poor.

Furthermore, to the extent that a service can be commodified - that is, where individual users can be identified and made to pay - then user fees may be administratively easy. Suppliers do not have to distinguish between users, but can simply charge them all a flat fee.

The main problem with universal fees is that they often prove regressive. Where they apply to basic needs or high-cost services, fees may shut out poor people altogether or place intolerable burdens on them. That typically proves socially and politically unsustainable.

In addition, relying on universal fees may tempt government departments to prioritise services for the rich precisely because they can charge for them. Gautrain was funded mostly by user fees, set at a level that was prohibitive at least for the poorest 60% of households. But it also required a subsidy of well over a billion rand every year. The subsidy was smaller as a percentage of the total cost per person than for taxis, commuter rail and buses, but both the subsidy and cost of transport were much higher in rand terms, and effectively benefited only relatively well-off people.

Finally, user fees may lead to under-utilisation of a service from the standpoint of society. If a state service has external benefits but user fees deter poor households from accessing it, then society as a whole pays a price. That analysis above suggests that this was the case for education and primary healthcare. If young people drop out of school because their families cannot afford fees or other costs, or if poor families suffer from avoidable ill health or disability, then in the long run the country pays a far higher cost.

Disagreement persisted about how universal fees affected low-income households. In the case of e-tolls, Sanral and National Treasury argued that only rich people used the Gauteng freeways, especially since they exempted public transport. The unions still objected on behalf of workers, arguing that the fees would effectively exclude working-class car drivers from the best roads in the province.

In practice, fees were typically set by relatively welloff officials, who often conducted little or no research to determine what was affordable for users. At best, as with schools, the existing users were consulted and able to set fees. At worst, as with e-tolls, the fees were set with minimal research and no structured effort to negotiate with users. One result of this haphazard system was that prices set by state institutions rose faster than other prices.





Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish administered prices, so the data here are for metro areas through 2008, and then for all urban areas. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI and the CPI for administered prices in metro areas for July. For 2008 to 2016, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI and on CPI for administered prices for the urban areas for July. Downloaded from www. statssa.gov.za in October 2016.

It is noteworthy that prices which were regulated under a policy, mostly for fuel, electricity, water and telecommunications, actually rose faster than other administered prices, such as those for health and education, from 2002. In large part this situation reflected the increase in energy prices. Still, it points to the difficulty of ensuring that user fees reflect social as well as economic realities, even when a regulatory system was in place.

Graph 95. Index of real increase in regulated and non-regulated administered prices (a), July, 2002 to 2016



Note: (a) Deflated using CPI. The methodology for the CPI was modified in 2008. The series here is calculated by linking the separate indices from 1994 to 2008 and from 2008 to 2015. Series for the entire country do not distinguish administered prices, so the data here are for metro areas through 2008, and then for all urban areas. *Source:* For 1994 to 2008, calculated from Statistics South Africa. P0141 for 1990 to 1999 and P0141 from 2000. Excel spreadsheets downloaded in January 2009. Series on CPI and the CPI for regulated and non-regulated administered prices in metro areas for July. For 2008 to 2016, Statistics South Africa. CPI (COICOP) from January 2008. Excel spreadsheet. Series on CPI and on CPI for regulated and non-regulated administered prices for the urban areas for July. Downloaded from www.statssa.gov.za in October 2016.

More broadly, making people pay for services can damage the social contract. In particular, in South Africa before 1994, most poor households did not get services at all, but if they did they were either free or at a low fixed price. In these circumstances, the shift to fees for services seemed to many people like an unfair imposition of new charges, even if it was accompanied by a rapid expansion in access and quality.

b. Fees with some relief for the poor

In response to arguments that poor people simply cannot afford to pay for services, proposals emerged for relieving them of the cost while continuing to require payments from higher-income groups. These approaches sought to achieve the benefits of fees by mobilising resources from high-end users off the budget, while avoiding the cost of shutting out or burdening low-income people.

The core challenges around this approach were the following.

It proved difficult in many cases to identify low-income users. Administrative means-testing often proved costly, time consuming, contentious and stressful for both officials and households. Limiting free basic services to indigent households meant that many very poor families were never assessed or granted rebates. In some cases better-off households paid officials to give them indigent status.

There was no consensus on what constituted a lowincome or indigent household, particularly in light of South Africa's deep inequalities. Municipalities set the level independently, based on national guidelines; national departments could pick their own definitions. In 2016, it appeared that most metros set the maximum income at between R3000 and R3500, which would cover the poorest 60% of households.

Where fee were supposed to be offset by subsidies for low-income users, administrative problems arose. In many cases, fees were imposed or increased with a vague promise of protection for the poor that then never materialised. This happened for instance in the case of the repeated increases in electricity tariffs after 2008. In virtually every policy process the issue of the impact on poor households was brought up, yet – as Section 2.2.2 demonstrates – there is little evidence that poor households were protected from escalating energy costs.

Setting fees linked to the level of use, which was the case with block tariffs for water, avoided both means testing and transfers to poor households. But the system did not draw a line specifically between rich and poor users, instead using the amount used as a proxy for spending power. Critics argued that it could provide the rich with an effective subsidy.

Furthermore, if higher costs for larger users led them to reduce consumption, the hoped-for cross-subsidy might not be possible. That outcome would be better for society by avoiding the waste of scarce resources. But it proved unattractive to most service providers.

c. Free services

A final option was to provide a service at no cost for all citizens equally, subject to regulations on who had a right to it. This approach had the advantage of avoiding means testing, treating all citizens equally, and obviously ensuring that the poor did not bear an unfair burden. It inherently promoted social solidarity and made the social contract visible. It enabled service providers to focus on individual and household needs rather than their ability to pay.

The costs from this approach were:

- Services had to obtain funding from the budget, which was often constrained, notably under GEAR and from the end of the commodity boom in 2011. As a result, there were continual debates around affordability and how to determine eligibility. Often these services became woefully underfunded, and service standards were simply disregarded

 a common situation for instance around the provision of health and education services in poor communities.
- Rich people did not have to pay for services even though they could afford to. That left fewer resources to meet the needs of lower income households.
- Because services were free, there was nothing to prevent over-use except rules around eligibility and standards. Contestation emerged specifically around who should have access and what they should have access to, rather than around whether fees were affordable and who should pay. For instance, in the public health sector, rationing of care based on explicit criteria, including cost and prospects, was inherent to the model of near-free services for all citizens. Policing was similarly rationed, as police had to serve all complainants but had discretion on which cases to follow up intensively.

d. Conclusions

Ultimately, no one funding model fits the varied services provided by the state. The challenge is rather to ensure more systematic decisionmaking on fees that takes into account both the potential benefits in terms of higher revenue and lower consumption, and the potential costs to social solidarity and a loss of external benefits, as well as the direct economic burden on low-income households. To this end, it would help to introduce:

- More explicit criteria for deciding on options, in particular depending on whether they are considered basic needs that should be available to all citizens; their cost relative to incomes for users; the anticipated revenue; the desirability of curbing over or under use; and whether they can effectively self-target the well-off without diverting resources from poorer households.
- 2. A requirement that the impact of user fees be assessed not just in terms of all users, but also specifically in terms of their impact on the poorest two quintiles in the income distribution, representing the most marginalised households, and the formal labourforce, who mostly fall into the next two quintiles.

3.1.3 Options for service delivery

Delivering state services in a large, complex and divided society poses major challenges. It requires a complex institutional structure that can manage people and resources to meet national aims. For instance, in 2016 the South African government employed over 400 000 educators and around 200 000 health workers. Ensuring that they could do their jobs and meet the needs of far-flung communities entailed complex and hard-to-manage systems.

In this context, the usual organisational tension between centralisation and decentralisation emerged. The situation was made more difficult by the way apartheid set the paradigm of a top-down model of service delivery.

The apartheid state provided services virtually entirely on the basis of administrative decisions and hierarchies. It set up unaccountable and often dysfunctional systems to provide services for the black population, and highly centralised, closely regulated structures to meet the needs of the privileged.

The transition to democracy saw some effort to bring in more accountability, in line with the Constitutional exhortation to establish participatory democracy. New structures to achieve that aim included school governing bodies, hospital boards and community police forums. But the public service continued to function through a fairly rigid hierarchy, with strict rules governing the allocation of resources and power. Often, even where the new bodies met regularly, they had only limited effects on institutional decisions and resources.

In these circumstances, the dominant paradigm remained one of "service delivery". In this model, the state sets standards and then effectively contracts with citizens to deliver on them. The model was effectively reinforced in the early 2010s through the adoption of centralised assessment against pre-determined outcomes as the preferred form of performance management. The system required audited annual performance plans with nearly unchangeable key performance indicators set at least three months in advance. The result was to sharpen the existing focus on outputs and activities, rather than on outcomes, across the public service.

This kind of top-down approach leaves very little scope for local variations or responses to unanticipated needs. It also means communities do not need to negotiate or even understand real trade offs. In these circumstances, where the state provides benefits to one household or individual, others may feel neglected rather than seeing shared progress. If my neighbour gets an RDP house and I'm still waiting, my response becomes to assume they paid someone off, not to applaud the progress toward national housing goals.

The existing state institutions promoted centralised decisionmaking. The lowest effective structure for determining service delivery was the municipality, which only had limited control over health, education and housing. The average municipality had over 30 000 residents – too many to permit easy engagement over resource use. Health, education and housing were managed at provincial level, which made participatory engagement even harder.

Efforts to promote collective action as the basis for participatory governance of services therefore required considerable institutional creativity. For instance, at every new site the Community Work Programme started by developing inclusive community committees. These committees then helped determine what kind of activities would be undertaken. Ward committees were similarly expected to provide an outlet for communities, but they were not provided with resources or technical support, so their effectiveness varied significantly by region.

Both centralised and participatory mechanisms have costs and benefits.

Centralised systems are required for redistribution between rich and poor regions – a particularly pressing need in South Africa. They can set fair standards and ensure adherence, with less likelihood of capture by local power structures. They often have more technical expertise and can explore and pilot innovative options more easily.

But centralisation also brings significant risks. In particular, it means that communities do not have to engage the hard trade-offs around service standards. Constituents often rejected accept arguments that funding was not available because they could see the lifestyle of the rich. In contrast, decentralised, participatory systems can make service users grapple with the hard choices between goals. Centralised decisionmaking is also risky because mistakes can reverberate throughout the entire system. In contrast, decentralised systems are less likely to have system-wide failures.

But decentralised systems face three significant challenges.

First, they require an appropriate, small-scale institutional structure. If every community has to spontaneously manage engagement on the budget or school funding, the transaction costs become high. Moreover, if structures are not in place to ensure representivity and protect the weak, local systems can be dominated by the relatively well off and articulate, leaving poor households, less educated people and often women at the margins. Establishing this kind of institution in itself requires effort and imposes costs, which are often contested because they do not directly improve service delivery.

Second, localised decision

making can entrench regional inequalities. If there is no central system to ensure more equitable allocation of resources, poor communities may be left with power over nothing. That is why the Constitution sets up a centralised revenue and redistribution process, through the equitable share system, as the basis for decentralising power to provinces and municipalities.

Third, local decisionmakers need substantial technical support. It doesn't help people to be told to make complex decisions around budgets and services if they do not have the capacity to analyse the likely outcomes and implications. Again, a risk is that the cost of meeting these needs is seen as more red-tape rather than a way to empower local decision making. The experience of governance in the impoverished former "homeland" regions compared to the metros, however, underscores the need to redistribute technical capacity, not just funds.

Finally, officials may see participatory decision making as undermining their authority and expertise. Often they are told to consult stakeholders without any training or discussion on what that means. In response, they frequently ignore inputs and concerns especially from less educated and articulate community members.

Despite these challenges, more participatory systems would make it easier to manage the balance between standards and cost at the local level. As a minimum, they would empower communities to understand hard decisions and help in making them, rather than only being able to protest choices made by others.

3.1.4 Evaluating the impact of state services on inclusive growth and the cost of living

Assessment of the debates and options for setting



service standards and providing services indicates some criteria for evaluating how state services affect the cost and quality of living for marginalised households and the formal workforce. The analysis should assess the impact of the funding mechanism as well as the balance between participatory decisionmaking and administrative efficiency. To that end, it would evaluate both the process of providing services and the outcomes around inclusive growth.

Specifically, the analysis should assess

- The roles and capacity of the various public and, where relevant, private agencies involved.
- The specific implications of fees and other costs for marginalised households and the formal labour force.
- The extent to which users have any influence over choices and decisions.
- The outcomes in terms of the impact on social and economic equality, including by opening up new opportunities for poor households for instance through densification or education, and the effects on the cost of living for marginalised households and the formal labour force.

3.2 Fiscal constraints

As the following graph shows, state spending is expected to be substantially slower than GDP growth from 2016/7 to 2018/9. As a result, state spending per person is predicted to fall over this period.



Graph 96. Fiscal trends, 2008/9 to 2015/6 and projected for 2016/7 to 2018/9

Source: Calculated from Budget Review. Statistics in excel format. Relevant series. Downloaded from www.treasury.gov.za in June 2016.

The current process of fiscal consolidation results from a combination of:

- The shift into deficit spending in response to the 2008/9 global fiscal crisis, and
- The end of the global commodity boom in 2011, which saw a gradual decline in economic growth and revenues.

Projections for spending by major functions indicated that in real terms, housing and municipal services together would grow around 1% faster than the population; social services would grow at about the same rate as the population; economic services would grow about half as fast; and public administration and security services would face real cuts.



Graph 97. Actual and projected growth in spending by major function in constant rand (deflated with CPI)

Source: Calculated from Budget Review. Statistics in excel format. Relevant series. Downloaded from www.treasury.gov.za in June 2016.

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While the decline in spending per South African may be hard to avoid in these circumstances, it will place pressure on any effort to improve services for the poor. In particular, effective and sustainable programmes will require both innovative financing mechanisms and stronger targeting at low-income households.

3.3 Existing programmes

This section briefly reviews the funding mechanisms and standards for the provision of state infrastructure and housing, based primarily on published documents. In each case, it indicates the extent of redistribution built into departmental strategies.

3.3.1 Housing

Redistributive impact: In 2014, the National Department of Human Settlements targeted all fully subsidised township housing at households living on up to R3500 a month. That income level would cover the

lower-income half of all households. The cost of each house provided was estimated at around R110 000. Most of these houses were however located at a significant distance from economic opportunities, so that they often reinforced existing patterns of exclusion. From around 2010, the national housing policy increasingly emphasised upgrading for informal settlements. This kind of programme inherently focused on the poorest households, which were more likely to live in informal housing. In the event, it focused largely on improvement of municipal services rather than on upgrading the housing itself.

As the following graph shows, in practice provision of both serviced sites and houses tended to decline from the late 'noughts. The 2016/7 budget anticipated that spending on formal township housing would increase by 0,5% a year above inflation over the following three years, or less than half the rate of population growth. Funding for informal upgrading was projected to decline by over 1,5% a year in real terms.





Source: Department of Human Settlements. "HSDG Delivery." Downloaded from www.dhs.gov.za in November 2016

Standards: The national Department of Human Settlements sets standards for housing, but does not have a target date for ensuring that all South Africans have adequate housing in terms of its own standards. In 2014, the Department set a standard for a 40 square meter house that included amongst others norms for insulation and window size and glass. It is not clear how these standards were set. They appeared to arise primarily from technical advice, while responding to concerns raised by communities and their elected representatives.

In contrast to the provision of formal housing, informal upgrades were supposed to be managed by a partnership with stakeholders from the communities themselves. In practice, however, the process varied significantly across the country. In some places, communities were organised to manage the process. In others, for instance around the platinum belt, limited progress was made despite significant protest action and a high-level agreement between stakeholders to remedy shortcomings from 2012.

3.3.2 Municipal services

Redistributive impact: The extent of redistribution through municipal services could be understood both between and within municipalities.

Redistribution between municipalities was expected to occur through a combination of the equitable share of national revenues and funding for new infrastructure.
As the following graph shows, nonetheless the provinces with the richest populations continued to enjoy substantially higher municipal budget per person. In particular, spending per person in the former "homeland" municipalities continued to lag far behind the towns in the rest of the country, which had a far stronger revenue base.



Graph 99. Municipal budgets per person compared to share of population in richest quintile, by province, 2015

Source: Calculated from, National Treasury. High level summary of municipal revenue. Excel spreadsheet. Downloaded from www.gov.za in November 2016; and General Household Survey 2015. Electronic database. Series on household income and province. Downloaded from www.statssa.gov.za in November 2016.

Within municipalities, redistribution mostly occurred through the provision of free basic services for poor households. Most municipalities sought to achieve this aim by identifying "indigent" households, although some utilised block tariffs with no cost for relatively low levels of use. In both cases, high-income households were expected to cross-subsidise poorer users. As noted, in the event most poor households did not pay for water, but in some areas they were frequently shut off from electricity if they could not pay. Moreover, in most municipalities services tended to be of lower quality in townships and informal settlements, in part because they were far from town and in part because they were expanded rapidly and as cost-effectively as possible.

Standards: Initially the national government set standards for municipal services, although again there was no timetable for achieving them. A particular challenge for municipal services was that standards were initially set for new consumers that were significantly lower than those historically found in the rich suburbs or even older township areas. For instance, the national government argued from the 1990s that ventilated improved pit toilets should be the standard even in urban areas, while Eskom provided an initial level of electricity to houses in poor communities that could not power a stove. These decisions were made based on an assessment of affordability and conservation, but caused on-going protest in many of the affected communities.

In practice, municipal services were provided and funded by a range of agencies, from direct provision of electricity by Eskom to informal settlement upgraded funded by the national Department of Human Settlements but managed by municipalities to the provision of infrastructure as part of the development of new tract township housing. The standards varied depending on local conditions and stakeholder negotiations as well as the availability of funds.

A particular challenge emerged from the need to balance the maintenance of existing systems with the extension of services and, especially in Gauteng, provision for new in-migrants. Generally, there was a tendency to neglect bulk supply systems in order to increase the funds available for extending network access. Furthermore, new systems were often not adequately resourced or maintained, leading to frequent breakdowns particularly in poorer communities. This problem was reflected in the General Household Survey finding of frequent interruptions in both water and electricity supply.

3.3.3 Education

Redistributive impact: The Department of Education sought explicitly to focus its funding on the poorest 75% of communities. To that end, it permitted schools considered to be in the richest two "quintiles" – actually around 15% of schools each – to charge fees where approved by the School Governing Bodies, in return for lower state subsidies. In contrast, the poorest three

"quintiles" that comprised 75% of schools received a somewhat higher subsidy but could not charge fees. At the same time, it retained the requirement that schools accommodate children who lived in the vicinity, and then allow in children from further away to fill any remaining places.

The effect of this strategy was to ensure that taxpayer funds were focused on poorer communities. But it also meant that:

- Schools in richer neighbourhoods had far better facilities and more educators than those in poor communities.
- Since most communities were heavily segregated by class and to a large degree by race, rich schools were largely limited to well-off families. Few poor children lived near rich schools, so they had no right to attend. In practice the better suburban schools were able to pick and choose among applicants, even though they were not supposed to make ability to pay a criterion.

Because general education has such an impact on social mobility, arguably the system ended up limiting overall redistribution in the longer run, even though it reduced the cost of schools in high-income communities for the budget.

As noted above, in contrast to general education the tertiary sector required virtually all students to pay fees. The cost was offset for lower-income students by loans from the state funded system. The share of transfers to the loan fund, NSFAS, climbed to 25% of all subsidies to universities from its founding in the early 'noughts to 2015. For students from poor families, however, the resulting debt caused significant stress, while the loans were often not enough to cover the full cost of university. In effect, this funding system contributed to the continued dominance in the universities of students from the richest quintile of households.

Standards: The national Department of Education set norms for both staffing and the quality of facilities. In practice, however, staffing remained highly unequal, as noted above. In part, this situation reflected the ability of fee-paying schools to employ educators privately. In part, it resulted from the resistance of many betterqualified teachers to moving to historically black schools. In addition, the Department of Education repeatedly set targets for achieving minimum physical standards for schools, and repeatedly missed them.

In part, the difficulty in setting education standards arose from the complex governance system in the sector. As part of the compromise in the transition to democracy, the better schools were allowed to keep a high degree of autonomy. Furthermore, education depended on provincial budgets, and not all provincial governments made it a priority. Finally, the historically impoverished regions of the country typically had less



management capacity to run the schools, which made it even harder to secure improvements.

3.3.4 Health

Redistribution: Like the education system, the public health service aimed to support redistribution by providing free services for poor communities and households while charging the better-off market-related fees. The private sector in health was however much larger than in education. In 2015, according to Statistics South Africa's Labour Market Dynamics survey, two thirds of doctors and a third of nurses were employed privately or self- employed.¹ In contrast, only 20% of teachers and lecturers were in private institutions.

A consequence of this situation was that whatever the public sector did to direct resources to the poor was more than offset by the concentration of private resources serving primarily the better off. In effect, high-income households bid up the cost of healthcare in both the public and private sector.

Standards: More than other services, the public health system tended to set standards based on international norms rather than available resources. It had various sets of norms, ranging from the minimum benefits required for health insurance to a complex set of performance criteria for hospitals and clinics to the requirements for registration as a health professional. It did not, however, appear to have a practical timetables for achieving those norms especially in poor and historically underserved communities. Furthermore, the norms for health professionals effectively made it harder to increase the pool of skills from either lowerlevel auxiliary support or immigrants. That in turn made it more difficult to improve healthcare especially in poor communities, while increasing the cost of specialists in particular.

^{1.} Calculated from Statistics South Africa. Labour Market Dynamics 2015. Electronic database. Series on type of employer and occupation. Downloaded from www.statssa.gov.za in November 2016.

4. CONCLUSIONS

Analysis of the main cost drivers for marginalised households and the formal labour force points to the following conclusions.

- A critical challenge is that the cost of food has increased faster than other goods and services since 1994. More research is required to pinpoint the factors behind this trend and propose effective options to reverse it.
- 2. Imports of basic consumer products, including poultry, clothing and furnishings, have played a significant role in holding down inflation for wage goods. That in turn has benefited lower-income households. The challenge for industrial policy is therefore both to resist lobbying to increase tariffs on this kind of good, and to find effective ways to promote competitive production of basic necessities for South Africa and the region.
- 3. Overall, administered prices have tended to increase faster than inflation. That in itself points to problems with the price-setting system. More broadly, both the introduction of user fees and their level should be evaluated much more consistently and systemically in terms of their impact on the poorest 40% of households and their implications for social cohesion. Development of procedures to guide this kind of evaluation would be helpful.





- 4. For most marginalised households and formal workers, housing and municipal services are free. Often, however, the basic infrastructure does not reach them at all, or the quality is poor. A particular problem remains the tendency to build townships far from economic centres in order to minimise the initial cost.
- 5. Further work should be undertaken to analyse the systems for delivering and funding basic services. In particular, ways to decentralise decision making on standards and allocation should be developed, with sufficient technical support and resourcing to ensure sound and effective decision making. That in turn requires re-engineering much of the delivery system and approach to standard setting now in place.
- 6. The discussion of minimum standards should be linked more carefully to issues of redistribution, decentralisation and resourcing. In such a highly divided and unequal society, setting low standards for the poor in the name of affordability causes major conflict unless similar standards are enforced on the rich. At the other end of the scale, standards based on the norms historically provided to the privileged or that are common in richer countries end up being ignored because they cannot be resourced.
- 7. Finally, in the current tight fiscal environment, it is particularly important to seek innovative ways to meet basic needs, whether by finding new sources of funds, innovative technologies, or better systems of provision.

5. REFERENCES

DBE. 2014. Second detailed indicator report for basic education sector. Pretoria. Downloaded www.education.gov. za in November 2016

DBE. 2016. National Ordinary Schools Master List March 2016. Excel spreadsheet. Downloaded from www. education.gov.za in November 2016.

Kahn, T. 2016. "The public health system is in crisis, and its flagship programme does not offer a better deal for patients." *Business Day*. 25 November.

Orthofer, A. 2016. "Wealth inequality – striking new insights from tax data." Econ3x3. 24 July. Downloaded from www.econ3x3.org in August 2016.

Statistics South Africa. 2015. *Methodological report on rebasing of national poverty lines and development of pilot provincial poverty lines*. Report No. 03-10-11. Pretoria.



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