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Poverty Reduction Under Structural Constraints: Growth, Inequality and Policy Trade-Offs in South Africa

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Poverty Reduction Under Structural Constraints: Growth, Inequality and Policy Trade-Offs in South Africa

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Abstract

South Africa faces the intertwined challenges of weak economic growth, persistently high poverty and extreme income inequality. This paper assesses what levels of poverty reduction and distributional change are realistically achievable over the next fifteen years under plausible growth scenarios, given binding structural and fiscal constraints.

Using a stylised log-normal income distribution calibrated to 2023 data, the analysis simulates poverty outcomes under sustained per capita growth rates of 1–2 per cent (consistent with GDP growth of 2–3 per cent) and cumulative Gini reductions of 0, 2, 4 and 6 points. The results reveal a clear asymmetry. Moderate growth generates substantial reductions in poverty at both lower- and upper-bound poverty lines, while plausible medium-term reductions in inequality make a smaller incremental contribution.

This pattern reflects structural features of the South African labour market: high unemployment, convex returns to education and persistent wage dispersion anchor overall inequality and limit the speed of distributional adjustment. Drawing on Tinbergen's principle, the paper argues that the number of policy objectives exceeds the set of immediately effective instruments, creating a structural policy tension.

Recognising these constraints does not imply resignation. Rather, it calls for sequencing and instrument alignment. Growth is indispensable for poverty reduction and fiscal sustainability, whereas a substantial decrease in inequality remains a longer-term structural agenda. The paper therefore broadens the evaluative framework beyond income to include capabilities and human dignity, arguing that welfare improvements may occur even where income inequality and the poverty headcount adjust only slowly.

Keywords: Poverty reduction; Income inequality; Economic growth; Policy instruments; Labour market structure; Fiscal sustainability; South Africa

JEL classification: I32, D63, O11, O15, E61

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Executive Summary

Context and Central Question

South Africa's development debate is shaped by three interrelated objectives: faster economic growth, lower poverty and reduced income inequality. These objectives are often discussed as if they move together. In practice, they respond differently to policy and operate on different time horizons.

This paper asks a feasibility question: what reductions in poverty and inequality are realistically achievable over the next fifteen years under plausible growth assumptions, given South Africa's labour-market structure and fiscal constraints?

Structural Anchors of Inequality

Income inequality in South Africa is fundamentally labour-market driven. High unemployment excludes a large share of the population from earnings, while wage dispersion among the employed remains steep and persistent. Returns to education are strongly convex, reflecting deep inequalities in skills formation.

Because educational improvements affect inequality largely through cohort replacement, and because wage premia respond slowly to shifts in labour supply and demand, income inequality adjusts gradually. Wage dispersion therefore acts as a structural anchor under overall inequality. Rapid compression of the Gini coefficient is unlikely within a fifteen-year horizon without a profound structural transformation.

Modelling Approach

The paper uses a stylised log-normal income distribution calibrated to 2023 data. Poverty outcomes are simulated under sustained per capita income growth of 1–2 per cent per annum, combined with cumulative Gini reductions of 0–6 points. Poverty is evaluated at both lower- and upper-bound poverty lines.

The inequality scenarios are benchmarked against historical episodes of distributional change in Latin America. They therefore represent optimistic but empirically grounded magnitudes rather than aspirational targets.

Main Results

Three findings are robust:

1. Growth is the dominant driver of poverty reduction. Sustained per capita income growth generates substantial declines in poverty at both poverty lines.
2. Distributional change reinforces poverty reduction but contributes less at plausible magnitudes. Even a six-point decline in the Gini coefficient adds less to poverty reduction than moderate, sustained growth.
3. Structural labour-market features limit inequality reduction. Wage dispersion and unemployment constrain how rapidly inequality can fall.

The results do not imply that inequality is unimportant. They indicate that within a medium-term horizon, poverty reduction depends primarily on growth in mean incomes, while substantial inequality compression remains gradual.

Policy Implications and Instrument Constraints

Applying Tinbergen's principle clarifies the structural tension. Policymakers pursue multiple objectives – growth, poverty reduction, inequality reduction, employment expansion and fiscal sustainability – yet the set of immediately effective instruments is limited.

Growth-oriented policies are most effective for reducing poverty and expanding fiscal space. Redistribution alleviates deprivation but cannot rapidly reshape the earnings structure. Educational and labour-market reforms are essential but inherently slow.

The implication is sequencing rather than substitution. Growth, redistribution and structural reform are complements, but they operate on different time scales.

Welfare Beyond Income

Because income inequality is slow to adjust, welfare evaluation should not rely solely on income metrics. Drawing on the capabilities approach, the paper argues that improvements in service delivery, governance quality, safety and institutional fairness can expand human dignity and social inclusion even where income distribution changes gradually.

Evidence from the South African Reconciliation Barometer supports this broader view of welfare.

Central Conclusion

Over the next fifteen years, sustained growth is indispensable for meaningful poverty reduction and fiscal sustainability. Income inequality is likely to remain high in the medium term, even under optimistic assumptions.

Structural realism does not imply pessimism. It implies aligning objectives with feasible instruments, sequencing reforms appropriately and pursuing growth, redistribution and capability enhancement as complementary elements of a coherent long-term strategy.

1 Introduction

1.1 Motivation: growth differences and welfare implications

In a 1985 lecture at Cambridge University, later published as *On the Mechanics of Economic Development*, Robert Lucas (1988) reflected on the stark differences in growth experiences across countries and the profound implications these differences hold for human welfare. As Lucas observed, once one begins to consider the scale of welfare gains associated with sustained economic growth, "*it is hard to think about anything else*". The observation remains highly pertinent for South Africa, where prolonged weak growth has coincided with deep and persistent poverty and inequality.

South Africa faces an urgent need for sustained economic growth. Yet growth alone is not sufficient in the medium term. The country confronts persistently high levels of poverty and income inequality, among the highest in the world, and these three outcomes – growth, poverty reduction and reduced inequality – do not necessarily move together. International evidence, as well as South Africa's own post-transition experience, demonstrates that economic growth can coexist with stubbornly high inequality and that poverty reduction may proceed unevenly even when growth accelerates. Understanding how these outcomes interact and what can realistically be achieved over the medium term, therefore, remains central to South Africa's development debate.

1.2 South Africa's post-transition challenge: growth without inclusion

South Africa's democratic transition ushered in a government under intense pressure to address the legacies of exclusion of the majority of the population from political power and from the economic mainstream. Early policy frameworks reflected this dual imperative. The Reconstruction and Development Programme (RDP) emphasised redistribution, poverty reduction, and the expansion of basic services. In contrast, the Growth, Employment and Redistribution (GEAR) strategy, introduced shortly thereafter, recognised that these objectives could not be sustained without higher, more durable economic growth. From the outset, therefore, post-apartheid policy confronted a fundamental tension between growth, redistribution and social inclusion.

The National Development Plan (NDP) articulated ambitious long-term goals, including the elimination of income poverty and a substantial reduction in inequality by 2030. After more than three decades of democracy, it is evident that these targets are unlikely to be met. Economic growth has been weak for much of the past fifteen years, employment creation has failed to keep pace with labour-force growth and income inequality remains structurally entrenched.

This raises a critical question that motivates this paper: what can realistically be expected over the next 15 years under improved yet plausible growth scenarios, given South Africa's labour-market structure, demographic dynamics and institutional and fiscal constraints? Much of the existing South African literature has either analysed historical trends in poverty and inequality or focused on long-run structural reform agendas. Less attention has been given to the medium-term welfare implications of plausible growth paths under current constraints.

1.3 The poverty–growth–inequality triangle as a diagnostic framework

This paper revisits the relationship between economic growth, poverty and inequality in South Africa through a forward-looking, scenario-based lens. It builds on earlier work, including Van der Berg (2014), which analysed post-transition trends in poverty and inequality, but shifts the emphasis from historical decomposition to prospective outcomes.

The analysis is framed around the poverty–growth–inequality "triangle popularised by Bourguignon (2004), used here not as a general theory of development, but as a diagnostic device. The key question is not whether growth, poverty reduction and inequality are related – this is well established – but how the strength and direction of these relationships are shaped by South Africa's initial conditions and structural features.

In South Africa, income inequality is driven primarily by the labour market, through unequal access to employment and highly convex returns to education, rather than by demographic or household factors alone. As a result, the poverty-reducing impact of growth is weaker than in many other countries and reductions in income inequality are likely to be slow even under moderately improved growth performance. This structural perspective distinguishes the paper from more mechanical applications of growth-poverty elasticities.

1.4 Scope and contribution of the paper

South Africa's post-transition experience underscores the importance of taking medium-term constraints seriously. Despite substantial progress in expanding access to education, housing and basic services since the mid-1990s, income inequality has remained exceptionally high, and labour-market exclusion has persisted. While long-run gains from growth and structural transformation remain substantial, the pace at which these gains translate into broadly shared improvements has been slower than many initially anticipated, and the pace of transformation has also slowed. This gap between expectations and realised outcomes has important implications for how progress is assessed and for which policy objectives can credibly be prioritised over a 15-year horizon.

The paper makes three related contributions to the South African literature.

Firstly, it provides a forward-looking assessment of poverty and inequality outcomes under plausible growth scenarios, rather than focusing exclusively on historical trends or aspirational targets. Using stylised distributional modelling and sensitivity analyses, the paper explores what moderate but achievable growth paths imply for employment, poverty reduction and income distribution over a 15-year horizon.

Secondly, it highlights the central role of the labour market and education in shaping distributional outcomes, showing why education-driven reductions in inequality are inherently slow to change and why growth alone is unlikely to deliver rapid changes in income distribution. In doing so, it reinforces and extends existing labour market-centred explanations of South African inequality by explicitly linking them to medium-term scenario analysis.

Thirdly, the paper broadens welfare analysis beyond income alone. Recognising that income inequality and labour-market exclusion are unlikely to change fundamentally in the medium term, the paper argues that welfare assessment and policy discussion must also consider other dimensions of inequality related to living conditions, service delivery and human dignity. This applies not only to assessing prospects for improving basic-needs outcomes but also to the more intangible aspects of enhancing the human dignity of the poorer segments of society.

1.5 Why welfare assessment must extend beyond income under constraints

The analysis is deliberately forward-looking and constrained. Rather than asking what would be required to eliminate poverty or inequality in principle, the paper focuses on what can plausibly be achieved over the next 15 years, given South Africa's growth trajectory, labour-market structure, demographic trends and fiscal limitations. This approach reflects the view that development strategy must be grounded not only in normative aspirations, but also in realistic assessments of economic and institutional capacity.

Within this constrained setting, the paper draws on Amartya Sen's capabilities approach to argue that welfare cannot be assessed solely by income or employment outcomes. Where large segments of the population are likely to remain excluded from the core labour market for many years, improvements in access to basic services, infrastructure, quality of education, security and fair institutional treatment become central to welfare and social cohesion. Evidence from the South African Reconciliation Barometer shows that these dignity-related dimensions of welfare strongly shape South Africans' lived experiences, regardless of income dynamics.

The paper proceeds as follows. Section 2 reviews the conceptual and empirical literature on the relationships between economic growth, poverty reduction and income inequality, using the poverty–growth–inequality framework as a point of departure. Section 3 examines the structural sources of income inequality in South Africa, with particular emphasis on the labour market and education. Section 4 adopts a forward-looking, scenario-based approach to assess what plausible growth paths imply for employment, poverty reduction and income distribution over the medium term. Given the limits this analysis reveals for income-based redistribution, Section 5 broadens the evaluative space by drawing on Sen's capabilities approach and Tinbergen's rule of policy instruments and objectives under constraints. Section 6 discusses the policy implications, before Section 7 concludes.

This paper advances a central argument that runs through all subsequent sections. Over the medium term, economic growth is necessary to reduce poverty and stabilise fiscal capacity. However, it is unlikely to deliver rapid or substantial reductions in income inequality, given South Africa's labour-market structure and skills constraints. This creates a policy paradox: the most pressing social objectives cannot all be achieved simultaneously with the instruments available. Recognising this paradox does not imply resignation, but rather provides the basis for realistic policy prioritisation and a more credible assessment of welfare beyond income alone.

2 Growth and inequality context

2.1 Growth, poverty and inequality: core relationships

The relationship between economic growth, poverty reduction and income inequality has long been central to development economics. There is broad agreement that sustained economic growth is a necessary condition for long-run poverty reduction. However, there is far less consensus on how growth interacts with inequality or on the relative roles of growth and redistribution in reducing poverty. These questions are particularly salient in highly unequal societies, where distributional structure can substantially mediate the poverty-reducing impact of growth.

Early contributions to this literature often differed in their policy emphasis. Fields (1989) argued that development strategies should prioritise poverty reduction, even if inequality worsened, while others stressed that inequality itself should be treated as a central policy concern, both on normative grounds and because high inequality may undermine growth and poverty reduction. Ravallion (2001), for example, emphasised that inequality affects both the level of poverty and the responsiveness of poverty to growth, implying that growth and distribution cannot be analysed independently.

Subsequent work has increasingly converged on the view that growth, poverty and inequality are jointly determined, with relationships that vary across countries and over time. The key analytical challenge is therefore not to establish whether these outcomes are related, but to understand how the strength and direction of these relationships depend on initial conditions, institutions and structural features.

Early cross-country evidence suggested that growth is approximately distribution-neutral, with "the incomes of the poor tend to grow at the same rate as average incomes" (Dollar & Kraay, 2002). This implies a flat growth incidence curve, in which all parts of the distribution benefit proportionately from growth. However, this assumption is particularly strong in contexts such as South Africa, where persistent inequality and labour-market dualism may result in highly uneven distributional outcomes. Moreover, later work (e.g., Ravallion and Chen (2003)) showed that in many countries, growth is far from distribution-neutral, as the growth incidence curve slopes upward or downward meaningfully. It is therefore necessary to examine the incidence of growth across the distribution directly.

2.2 The Bourguignon triangle as an organising framework

A useful way to organise these interactions is the “triangle” triangle popularised by Bourguignon (2004). Bourguignon highlighted three core relationships: the effect of growth on poverty, the effect of growth on inequality and the feedback from inequality to growth. His central insight was that rapid growth combined with an improved income distribution is most effective in reducing poverty, but that the magnitude of these effects depends critically on initial inequality and its evolution over time.

Importantly, Bourguignon did not propose a mechanical or universal relationship linking these three outcomes. Rather, the triangle serves as a diagnostic framework for understanding trade-offs and complementarities in specific country contexts. In economies with low initial inequality, growth tends to translate more directly into poverty reduction. In highly unequal economies, by contrast, growth may reduce poverty more slowly, coexist with persistent inequality, and itself be constrained by distributional tensions.

This diagnostic perspective is particularly relevant for South Africa, where inequality is exceptionally high and deeply rooted in labour market outcomes. In such a context, neither growth-led poverty reduction nor redistribution-driven inequality reduction can be assumed to operate with the same effectiveness observed elsewhere.

Formally, changes in poverty can be approximated as the sum of a growth component (holding distribution constant) and a redistribution component (holding mean income constant). Crucially, the magnitude of the growth effect depends on the initial level of inequality and the position of the poverty line. In highly unequal societies, a given rate of growth translates into smaller proportional reductions in poverty, because a larger share of income accrues above the poverty threshold. The triangle therefore highlights not only separate channels but also their interactions.

2.3 Growth elasticities of poverty and inequality: international evidence

One influential strand of the literature has attempted to summarise the relationship between growth and poverty by estimating the growth elasticity of poverty. Ravallion (2022), updating earlier work, estimates a global poverty elasticity of growth of approximately –2.2, implying that a 1 per cent increase in mean income reduces poverty by just over 2 per cent on average. However, these elasticities vary substantially across regions. For Sub-Saharan Africa, Ravallion estimates a much lower elasticity (around –1.65) than for East Asia and the Pacific (around –4.26), indicating that growth translates into poverty reduction far less effectively in Africa.

More recent work has highlighted the role of inequality dynamics in shaping these outcomes. Bergström (2020, 2022) uses a cross-country approximation of the income-distribution-poverty relationship for 135 countries to assess the relative roles of mean income growth and changes in income distribution. She finds that the poverty reduction elasticity with respect to inequality is, on average, larger than the elasticity with respect to average income growth; but because historical changes in inequality have been much smaller than changes in mean incomes, most observed poverty reduction to date is accounted for by growth rather than redistribution. Projections based on hypothetical scenarios suggest that sustained reductions in inequality could make an important contribution to future global poverty reduction, but do not imply that inequality changes will necessarily dominate growth in practice. At the same time, this literature emphasises that inequality may influence growth itself, reinforcing the triangular interdependence among the three outcomes.

While elasticity-based approaches are informative, they have important limitations. Estimated elasticities reflect average historical relationships and may be poor guides to future outcomes in countries with extreme inequality, distinctive labour market structures or persistent institutional constraints. This motivates a more context-specific approach that examines the structural sources of inequality and the channels through which growth operates.

Gauna (2022) summarises a broad consensus in the literature that money-metric poverty declined substantially between the early 2000s and around 2011, before stagnating or reversing thereafter (Van der Berg et al., 2009; Finn & Leibbrandt, 2017; World Bank, 2018). She concludes that a combination of moderate economic growth and a large expansion of social assistance drove this decline. Importantly, while social grants played a central role in reducing the depth and severity of poverty, their impact on inequality and labour-market inclusion was more limited.

2.4 Why poverty and inequality are analytically distinct

A recurring problem in both policy and academic discussions is the tendency to conflate poverty and inequality. Although closely related, the two concepts capture different aspects of the income distribution and respond differently to economic change. Poverty focuses on the share of the population below a specified threshold, while inequality captures dispersion across the entire distribution. Changes in mean income, distributional shape and poverty lines can therefore generate divergent movements in poverty and inequality.

As Van der Berg (2014) and Leibbrandt et al. (2010) argue, analysing poverty trends alone provides limited insight into the mechanisms through which inequality is generated and reproduced. Poverty can decline while inequality rises, or for inequality to remain stable while poverty falls, depending on how growth and distribution interact. Failure to recognise this distinction risks policy prescriptions that are insufficiently differentiated and that overstate the extent to which poverty reduction implies broader distributional progress.

This distinction is particularly important in the South African context, where post-transition developments have included both the emergence of a growing middle class and persistent deprivation at the bottom of the distribution. Treating poverty and inequality as synonymous obscures these divergent dynamics and complicates the assessment of welfare progress.

2.5 Implications for medium-term development analysis

The literature reviewed in this section points to three central implications for the analysis that follows. Firstly, economic growth remains essential for poverty reduction, but its effectiveness depends strongly on initial inequality and distributional structure. Secondly, reductions in income inequality are neither automatic nor rapid, particularly in economies where inequality is rooted in labour-market outcomes and skills distributions. Thirdly, historical elasticities provide only limited guidance for medium-term projections in countries with extreme inequality and persistent structural constraints.

These insights motivate the approach adopted in this paper. Rather than relying on reduced-form elasticities, the analysis focuses on South Africa's specific structural features – particularly the labour market and education system – and adopts a forward-looking, scenario-based perspective to assess what can plausibly be achieved over a 15-year horizon. This diagnostic framing also prepares the ground for the broader welfare discussion later in the paper, where the limits of income-centred redistribution motivate consideration of non-income dimensions of welfare and dignity.

A recurring theme in what follows is that the number of policy objectives South Africa faces exceeds the set of immediately effective instruments available to pursue them. Section 5 formalises this tension using Tinbergen's (1952) principle of economic policy, which provides a precise conceptual language for the trade-offs that the modelling results in Section 4 make concrete.

2.6 South Africa’s growth performance since the transition to democracy

While the conceptual and international literature reviewed above provides useful guidance on the relationships between growth, poverty and inequality, any forward-looking assessment must be grounded in South Africa’s actual growth experience since the transition to democracy. South Africa’s post-1994 growth record is characterised by two distinct phases, with markedly different implications for employment creation, fiscal capacity and distributional change.

During the first phase, roughly from the mid-1990s to the mid-2000s, South Africa experienced sustained positive growth in real GDP per capita. This period was associated with macroeconomic stabilisation, improved access to global markets, rising public revenues and gradual employment growth, albeit insufficient to absorb all new labour-market entrants. Although poverty and inequality remained high, this phase demonstrated that moderate growth could support improvements in living standards and create limited fiscal space for redistribution and service delivery, with per capita GDP rising by 28% over the 15 years from 1993 to 2008, most of this growth (22%) occurring in the period 2000 to 2008.

The second phase, beginning around 2008 and extending to the present, has been characterised by persistently weak growth and, in several years, declining real GDP per capita. This period has coincided with deteriorating labour-market outcomes, rising unemployment and growing pressure on public finances. Importantly, this prolonged slowdown in growth has occurred despite continued high levels of public expenditure, highlighting the limits of redistribution and service expansion in the absence of sustained economic growth. In net terms, per capita GDP fell by around 3% over this period.

South Africa's economic growth performance over these two periods illustrates the sharp contrast between the earlier phase of moderate growth and the subsequent period of stagnation. This distinction is analytically important for the remainder of the paper. It suggests that neither extrapolations from the relatively favourable early post-transition period nor assumptions of rapid structural acceleration are appropriate for medium-term projections. Instead, the paper adopts a scenario-based approach that reflects the constraints implied by South Africa's more recent growth experience, though some relief in per capita terms due to declining population growth.

Anchoring the analysis in this way provides a realistic benchmark for assessing what levels of employment creation, poverty reduction and inequality reduction might plausibly be achieved over the next 15 years. In addition, it underscores the paper's central argument: that expectations regarding welfare progress must be calibrated to an environment of modest growth, persistent labour-market exclusion and binding fiscal constraints, rather than to aspirational targets alone.

3 Structural constraints shaping medium-term outcomes

This section outlines the structural features of South Africa's economy that shape the likely evolution of poverty and inequality over the medium term. The focus is on labour-market dynamics, educational attainment and quality and the distribution of employment opportunities, all of which change slowly and constrain the speed at which income distribution can adjust. The purpose of this section is not to derive quantitative outcomes, but to establish the structural context within which the modelling exercises in Section 4 are conducted.

3.1 The centrality of the labour market

A consistent finding in the South African literature is that income inequality is generated primarily within the labour market rather than through household composition or demographic factors alone (Leibbrandt et al., 2010; Leibbrandt et al., 2012; Van der Berg, 2014). Inequality arises through two closely related mechanisms: unequal access to employment and a large dispersion in earnings among employed individuals. High unemployment excludes a substantial share of the population from labour income altogether, while wage inequality reflects sharp differences in skills, productivity and bargaining power among workers.

These two mechanisms reinforce one another. Limited job creation disproportionately affects those with lower levels of education and weaker labour-market attachment, while wage dispersion among the employed is amplified by strong premia for scarce skills. As a result, labour-market outcomes dominate the distribution of income in South Africa, distinguishing it from many other middle-income countries where transfers or household demographics play a larger role.

This labour-market-centred view of inequality provides the structural backdrop for the analysis that follows. It implies that changes in income distribution depend critically on employment growth, the evolution of wage structures and the production and deployment of skills, rather than on short-run redistributive mechanisms alone.

3.2 Education, skills scarcity and convex returns to schooling

A defining feature of the South African labour market is the highly convex relationship between education and earnings. Returns to schooling are relatively modest at lower levels of education but rise sharply at matric and, especially, post-matric levels. This convexity reflects a persistent shortage of highly skilled workers alongside an oversupply of workers with low or incomplete schooling.

Moll's (1998) micro-level analysis provides particularly important insight into the mechanisms underlying this pattern. By distinguishing between years of schooling and cognitive skills, Moll shows that wages respond most strongly to numeracy skills, while reading comprehension yields much weaker wage effects. Since numeracy is both scarce and unevenly produced within the schooling system, especially at the primary level, the labour market rewards only a small subset of learners who eventually acquire these skills. The result is a steep earnings gradient that emerges late in the education cycle.

From this perspective, convex returns to education are not simply a matter of credentials or signalling. They reflect deep inequalities in skill formation, with foundational deficits in primary schooling forcing secondary and tertiary education to compensate for earlier failures. This helps explain why income inequality remains high even as average educational attainment has increased: access to schooling has expanded, but the distribution of economically rewarded skills remains highly unequal.

3.3 Employment, unemployment and cohort disadvantage

Labour-market inequality in South Africa is compounded by persistently high unemployment, which is strongly correlated with education. However, unemployment is not only a function of individual characteristics; macroeconomic conditions and cohort effects also shape it.

Recent cohorts of labour-market entrants have been systematically disadvantaged by the prolonged period of weak economic growth since the late 2000s. Even relatively well-educated young people face lower employment rates than earlier cohorts, reflecting limited job creation and employers' reluctance to hire inexperienced workers in a low-growth environment. As a result, improvements in educational attainment among younger generations have not fully translated into better labour-market outcomes.

This cohort disadvantage has important distributional implications. When young entrants struggle to gain initial employment, scarring effects may reduce lifetime earnings, reinforcing inequality even if growth improves later. These dynamics highlight the interaction between macroeconomic performance and labour-market inequality and emphasise the need for sustained growth for inclusion, even if it is not sufficient to reduce inequality rapidly.

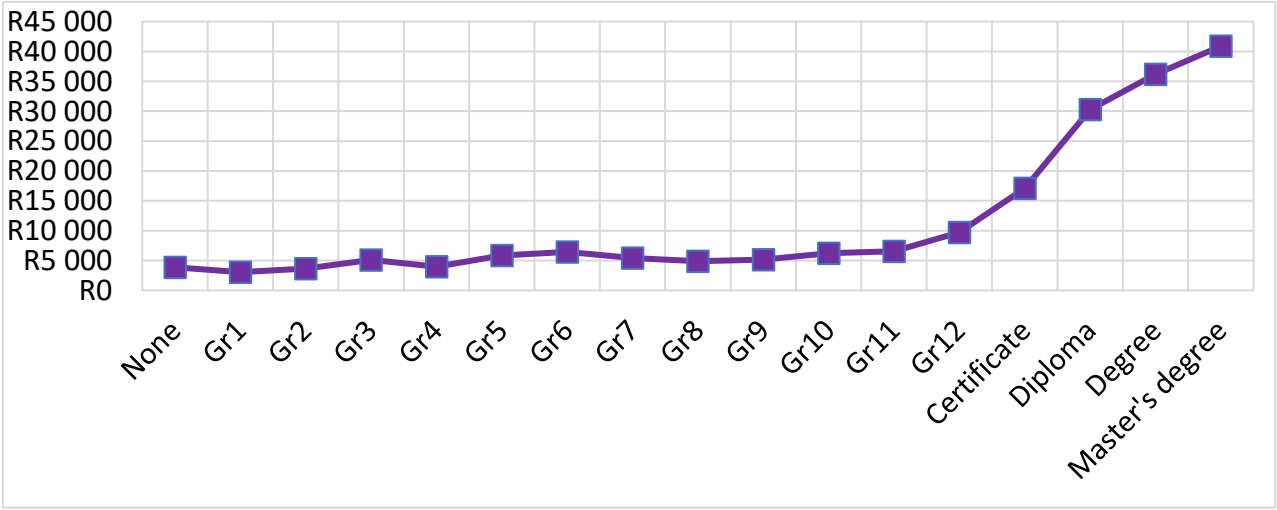
3.4 Implications for medium-term inequality reduction

Taken together, the labour-market and education mechanisms described above imply that distributional change is likely to be gradual rather than rapid. These structural features do not determine outcomes mechanically, but they shape the range of plausible trajectories over the medium term. Section 4 therefore quantifies the implications of these constraints for poverty and inequality outcomes under alternative growth and distributional scenarios.

3.5 Wage inequality as a structural floor under overall inequality

A useful way of formalising the structural constraint discussed above is to recognise that overall income inequality is largely anchored in wage inequality among the employed. Decompositions of household income inequality consistently attribute the bulk of the Gini coefficient – typically between 80 and 90 per cent – to labour-market incomes (Leibbrandt et al., 2010; Van der Berg, 2014). The Gini coefficient for wages among the employed has remained broadly stable at around 0.60 for an extended period, with the convex returns to education exhibited in Figure 1 playing a strong role in its elevated levels.

Figure 1: Monthly wage by level of education, 2019



Source: Calculated from QLFS2019Q4

Economic growth, even when sustained, does not automatically alter this wage structure. Unless growth is accompanied by rapid, broad-based improvements in the supply of skills, rising labour demand tends to reinforce existing wage premia rather than erode them. In such circumstances, higher-income households may benefit disproportionately from growth, thus aggregate income inequality changes only marginally. In terms of the poverty–growth–inequality triangle discussed in Section 2, this implies that the slow changes in labour-market inequality structurally constrain the redistribution component of poverty change.

The heuristic in Box A underscores the central structural constraint facing medium-term policy. If wage dispersion among the employed anchors overall inequality and if labour-market structures adjust only gradually, then a rapid reduction of income inequality is unlikely over a 15-year horizon. The relevant question, therefore, is how far poverty and inequality can plausibly shift under realistic growth and distributional trajectories. Section 4 addresses this question by quantifying the implications of alternative paths for mean income and inequality.

Given that social transfer income is small relative to labour income, on the order of a few per cent of GDP compared to roughly 60 per cent for wages, wage inequality effectively sets a lower bound for the Gini coefficient of income or consumption per capita. Overall inequality cannot decline substantially without a reduction in wage inequality itself.

Box A: Wage inequality as a structural floor under overall inequality

A simple heuristic helps clarify why overall income inequality in South Africa is slow to decline. The starting point is that wage inequality among the employed has remained broadly stable at a Gini coefficient of around 0.60 for an extended period. If all households consisted solely of employed individuals earning wages, overall inequality would therefore approximate this level.

In reality, several additional factors shape household-level inequality:

Household size: Poorer households tend to be larger, which increases dispersion when income is measured per capita.

Household composition: Poorer households include a higher proportion of children and older individuals with little or no labour income, widening income differences across households.

Unemployment: Joblessness is concentrated among lower-income groups, exacerbating wage dispersion among the employed.

Capital income: Dividends, interest, and property income are heavily concentrated at the top of the distribution and raise overall inequality.

Transfers: Social grants and public transfers are progressive and reduce measured inequality, though their quantitative impact is modest relative to labour income.

Labour income accounts for roughly 60 per cent of GDP, while transfer income is only a small fraction of this. As a result, progressive transfers can mitigate poverty but cannot fundamentally reshape the income distribution unless wage dispersion itself narrows.

The implication is that wage inequality effectively sets a lower bound – or floor – under overall income inequality. Meaningful compression of the Gini coefficient requires changes in the structure of labour-market earnings, whether through reduced unemployment, flatter returns to education or broader skill formation. These processes are inherently gradual. Consequently, even sustained economic growth may reduce poverty substantially while leaving income inequality largely intact over the medium term. This

also implies that changes in employment, while important for poverty reduction, have a more limited effect on overall inequality than changes in wage dispersion; this distinction is formalised in Appendix A.

The decomposition in Box A highlights that meaningful reductions in overall inequality depend primarily on changes in wage dispersion rather than employment alone. Both processes are inherently gradual. Educational improvements affect inequality primarily through cohort replacement, while changes in returns to education depend on shifts in labour supply and demand and technological change. These mechanisms unfold over decades rather than years.

In terms of the poverty–growth–inequality triangle, this implies that slow-moving labour-market dynamics structurally constrain the redistribution component of poverty change. As a result, meaningful compression of overall income inequality is likely to occur only slowly, reinforcing the structural constraints that motivate the medium-term simulations in Section 4.

3.6 Physical and demographic constraints

Labour-market structure is not the only medium-term constraint. Physical and institutional resource limitations, including energy reliability, water security, infrastructure maintenance, municipal capacity and public-sector efficiency, also shape South Africa's growth prospects. These constraints influence both the attainable growth rate of the economy and the effectiveness of redistributive and service-delivery interventions.

In addition, demographic dynamics affect the scale of the policy challenge. Where economic growth does not substantially exceed population growth, per capita gains remain modest and fiscal pressures intensify.

These physical and demographic realities reinforce the argument advanced above: medium-term policy must operate within binding resource constraints. Growth remains necessary for poverty reduction, but the attainable pace of inclusive transformation depends on improvements in infrastructure reliability, institutional capability and labour-market absorption.

4 Modelling growth, poverty and inequality over the medium term

This section presents a set of stylised simulations designed to quantify the interaction between economic growth, inequality and poverty over the medium term. Building on the structural constraints outlined in Section 3, the simulations assess how far poverty can be reduced under alternative growth and inequality trajectories and whether changes in income distribution materially alter these outcomes. The results in this section constitute the empirical core of the paper and serve as the basis for the subsequent policy discussion. Rather than extrapolating from historical elasticities alone, the analysis builds explicitly on South Africa's labour-market structure (Section 3) and recent growth experience (Section 2.6). The aim is to establish order-of-magnitude estimates under alternative growth paths. Baseline data is estimated from StatsSA (2024, 2025).

4.1 Modelling framework and calibration

To translate economic growth into poverty and inequality outcomes, the paper uses a stylised log-normal income distribution calibrated to observed mean income levels and the current Gini coefficient of 0.635. The framework allows transparent ex ante simulation of poverty outcomes under alternative paths for mean income and inequality as measured by the Gini coefficient over a 15-year horizon. Unlike Bourguignon's ex post decomposition of observed poverty changes, the analysis imposes plausible trajectories for growth and distribution and derives the implied poverty levels mechanically.

Poverty outcomes are simulated under sustained GDP growth rates of 2 and 3 per cent per annum, with projected population growth of about 1 per cent per annum. Inequality scenarios are calibrated to historically observed reductions in Latin America during the 2000s. Three cases are considered: a 2-point decline in the Gini coefficient, a 4-point decline and an optimistic 6-point decline over 15 years. These represent conservative, central and optimistic benchmarks for feasible distributional change.

The following subsections use this framework to examine poverty outcomes under growth alone or distributional change alone, before introducing changes in both income and inequality.

4.2 Sensitivity of poverty estimates to distributional assumptions

The baseline framework relies on a log-normal income distribution calibrated to the observed mean and Gini coefficient. While this specification is widely used in the macro-poverty literature (Battistin, Blundell & Lewbel, 2009), it imposes regularity on the income distribution that may not fully capture South Africa's heavy upper tail or the distribution's precise shape near the poverty line. This subsection assesses the sensitivity of the central results to these assumptions.

Two sensitivity checks are conducted, as shown in Table 1. The first varies the dispersion parameter of the log-normal distribution, the Gini coefficient, while holding mean income constant at the 2023 baseline. The second grafts a Pareto upper tail onto the log-normal from the 80th percentile, creating a spliced distribution that allows for heavier concentration at the top of the income distribution.

Table 1: Sensitivity of 2023 poverty headcount to distributional assumptions (fixed mean income = R70,496 per annum)

Assumption	LBPL headcount	UBPL headcount	Note
Log-normal, Gini = 0.575	22.0%	44.2%	Lower dispersion
Log-normal, Gini = 0.605	25.7%	47.4%	

Assumption	LBPL headcount	UBPL headcount	Note
Log-normal, Gini = 0.635 (baseline)	29.6%	50.6%	Baseline
Log-normal, Gini = 0.655	32.2%	52.7%	
Log-normal, Gini = 0.675	34.9%	54.8%	Higher dispersion
Spliced log-normal / Pareto (α = 1.5)	29.6%	50.6%	Heavy upper tail: no effect on poverty lines
Spliced log-normal / Pareto (α = 2.5)	29.6%	50.6%	Moderate upper tail: no effect on poverty lines

Notes: LBPL = lower-bound poverty line (R15,600 p.a.); UBPL = upper-bound poverty line (R31,620 p.a.). The Pareto splice threshold is set at the 80th percentile of the baseline log-normal (~R91,200 p.a.). Both poverty lines lie below this threshold; the upper tail therefore does not affect headcount poverty rates.

The dispersion sensitivity indicates that the poverty headcount is moderately sensitive to the assumed Gini coefficient. At a Gini of 0.575, six points below the baseline, the lower-bound poverty headcount falls from 29.6 per cent to 22.0 per cent, a difference of 7.6 percentage points. At a Gini of 0.675, the headcount rises to 34.9 per cent. These differences reflect genuine uncertainty in the measurement of South Africa's income distribution, particularly given known challenges in measuring top incomes in household surveys.

However, two features of these results limit their implications for the paper's central findings. First, varying the dispersion parameter while holding the mean constant is analytically equivalent to varying the Gini coefficient, which is precisely what the scenario simulations in Section 4.5 do. The sensitivity exercise therefore confirms that the paper's scenarios span a realistic range of distributional uncertainty. Second, and more importantly, the relative contribution of growth versus redistribution to poverty reduction is broadly stable across this range of assumptions. At lower assumed inequality, growth still dominates a six-point Gini reduction as a poverty-reduction mechanism; at higher assumed inequality, the two effects are roughly comparable. The paper's central argument – that growth is at least as important as plausible redistribution for poverty reduction over a 15-year horizon – is therefore not sensitive to the choice of Gini level.

The Pareto upper tail sensitivity yields a sharper result. Because both South African poverty lines – the lower-bound (R15,600 per annum) and the upper-bound (R31,620 per annum) – lie well below the 80th percentile of the income distribution (approximately R91,000 per annum), the shape of the upper tail has no effect on measured poverty headcounts. Introducing a Pareto tail with shape parameters ranging from α = 1.5 (very heavy) to α = 2.5 (moderate) leaves the LBPL and UBPL poverty rates unchanged at 29.6 and 50.6 per cent respectively. This finding validates the use of the log-normal specification for poverty analysis: uncertainty about the upper tail – where high incomes are concentrated – does not affect poverty measurement, which is determined entirely by the shape of the lower tail.

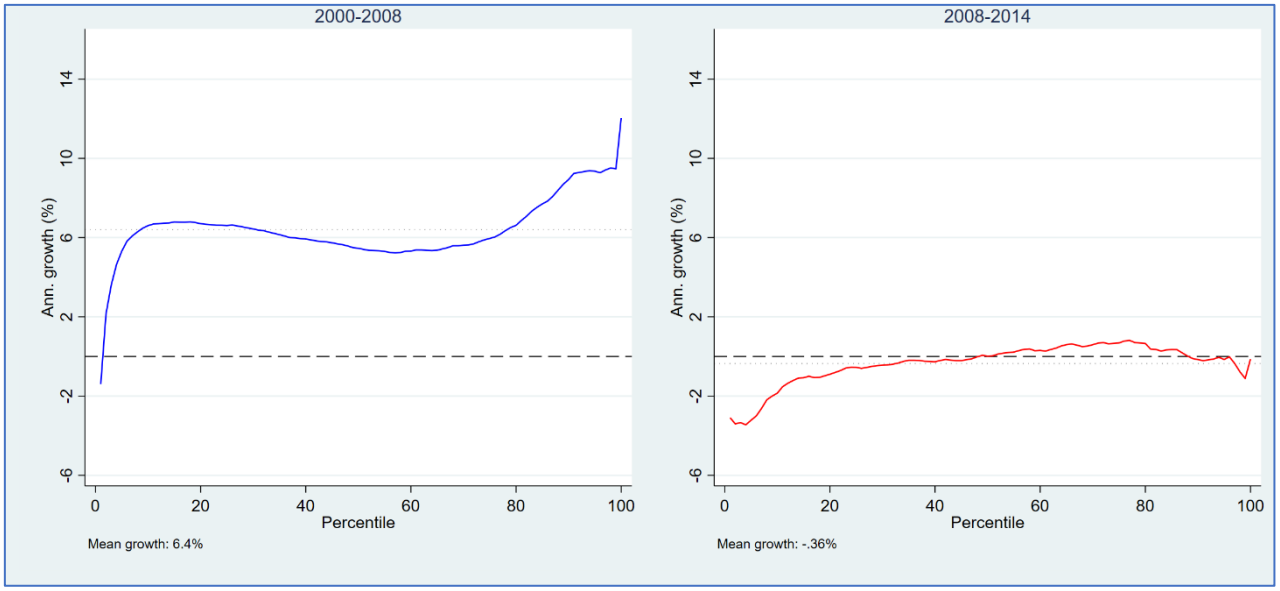
Taken together, the sensitivity analysis supports the robustness of the simulation results. The log-normal specification provides a transparent and tractable framework whose key conclusions are not materially altered by plausible modifications to the distributional assumptions.

4.3 Growth patterns and baseline assumptions

Before turning to the simulation results, it is useful to characterise South Africa's recent growth experience in distributional terms. Figure 2 presents growth incidence curves for two contrasting periods, based on PIP household survey data. The left panel covers the commodity boom of 2000–2008, during which mean per capita welfare (measured by consumption) grew at an annualised rate of 6.4 per cent (a very high estimate based on survey data). The right panel covers the post-crisis period 2008–2014, during which the mean per

capita consumption declined at an annualised rate of 0.36 per cent. Together, the two panels illustrate the sharp contrast between these phases that Section 2.6 describes in aggregate terms.

Figure 2: Growth incidence curves for South Africa, 2000-2008 and 2008-2014 (annual average growth rate in welfare indicator (consumption per capita), per cent)



Source: Own calculations from World Bank (2024). *Poverty and Inequality Platform (PIP): Distributional data (percentiles)*. Washington, DC: World Bank. Available at: https://pip.worldbank.org (accessed 21 March 2026).

Visagie (2015) shows a growth incidence curve for the whole period 1993 to 2008 that is roughly U-shaped, though the upward slope only starts just below the 70th percentile. The first of the GICs shown here (left panel) partly overlaps with the same period. During the boom period (2000-2008), growth was positive across virtually the entire distribution, but the curve slopes upward through the middle percentiles and rises sharply at the top. Households in the upper-middle and top of the distribution – roughly the 60th percentile and above – experienced considerably faster consumption growth than those in the bottom half. The bottom quintile grew at or below the mean, and the very poorest percentiles grew least of all. This pattern is consistent with skill-biased growth: a period of rising incomes that nevertheless concentrated gains disproportionately among better-off households. It is neither the flat, distribution-neutral curve implied by Dollar and Kraay (2002) nor a downward-sloping pro-poor curve.

During the stagnation period (right panel), the picture is starkly different. The growth-incidence curve lies almost entirely below zero, indicating that real per capita welfare fell across most of the distribution. The bottom percentiles experienced the largest declines, while the upper-middle percentiles came closest to zero. The top of the distribution shows renewed deterioration. This period illustrates how growth stagnation disproportionately damages the poor, even when aggregate decline appears modest in macroeconomic terms.

These two panels together motivate the structure of the simulations that follow. The distribution-neutral growth assumption used as the baseline in Section 4.4 represents a deliberately conservative middle ground between the skill-biased pattern observed in the boom years and the broad-based decline of the stagnation period. The alternative growth-incidence scenarios in Section 4.5 then explore how poverty outcomes change if the pattern of growth tilts more or less favourably across the distribution.

The scenario analysis is intentionally conservative. Rather than assuming inherently pro-poor growth or rapid structural transformation, per capita income growth is modelled as shifting the distribution proportionately

unless inequality is explicitly altered. The simulations therefore isolate the mechanical effect of growth from changes in distribution.

Two GDP growth paths are considered: approximately 2 per cent and 3 per cent per annum over the projection horizon. Given population growth of approximately 1% per annum for this period, this implies 1% and 2% per capita growth over 15 years. Employment is assumed to respond to output growth with an elasticity of 0.5, in line with historical South African experience and recent estimates (Altman, 2022), while population growth follows medium-term demographic projections. The growth of the core working-age population (20–55) is projected at around 1.1 per cent per annum over the projection period. A 3% p.a. growth rate would imply employment growth of roughly 1.5% per annum, sufficient to reduce the unemployment rate modestly. Much higher growth rates or longer time periods would be required to make a meaningful dent in unemployment. In contrast, the lower 2% growth scenario is likely to see unemployment virtually stagnant at current extremely high levels. Wage premia across education categories are held constant, so that changes in inequality arise only from the calibrated distributional scenarios introduced below.

This structure isolates the mechanical effect of mean income growth on poverty and provides a transparent baseline against which the role of changes in inequality can be assessed.

4.4 Structural constraints on inequality adjustment

While growth shifts the entire income distribution proportionately, changes in inequality depend on deeper structural forces. As discussed in Section 3, wage dispersion among the employed, access to employment and the convex returns to education jointly shape South Africa's high level of income inequality. These forces adjust slowly.

Improvements in educational attainment and quality affect inequality primarily through cohort replacement. New entrants to the labour force gradually alter the composition of workers, but the existing stock of employed adults continues to dominate aggregate earnings for many years. Consequently, even substantial improvements in schooling today translate into distributional change only gradually, as better-educated cohorts replace older workers. Similarly, shifts in the returns to education also depend on structural changes in labour demand and technology, which typically unfold over decades rather than years.

These constraints imply that rapid declines in inequality are unlikely in the absence of major structural transformation. They therefore motivate the joint growth–inequality simulations presented in the next subsection, which quantify how much poverty reduction can plausibly be achieved under alternative distributional trajectories.

4.5 Joint growth–inequality simulations

To assess the interaction between growth, inequality and poverty over the medium term, the simulations combine the growth paths described above with calibrated changes in the Gini coefficient. Inequality scenarios are informed by international experience, particularly sustained episodes of inequality reduction in parts of Latin America during the 2000s. Observed regional declines of roughly three to five Gini points over a decade provide an empirical benchmark for plausible distributional change, while larger reductions represent optimistic upper bounds rather than baseline expectations (Lustig, López-Calva & Ortiz-Juarez, 2012; World Bank, 2013; Tsounta & Osueke, 2014). Longer series suggest a fall from about 0.556 to 0.518 in the region between 2003 and 2012 (Barriga Cabanillas et al., 2014), while more recent changes have been more modest or uneven (Alvaredo et al., 2024). Table 2 summarises observed declines in inequality used to calibrate the simulation scenarios. These magnitudes suggest that cumulative reductions of between two

and six Gini points over a decade are possible under favourable conditions. However, sustained declines towards the upper end of this range are uncommon and context specific. These empirical patterns support the use of calibration scenarios that span modest to high declines in inequality (e.g., 2–6 Gini points) over a decade and a half.

Table 2

Country / Region	Period	Gini coefficient (start → end)	Change (Gini points)	Source
Latin America (regional average)	2000–2017	~0.56 → ~0.51	−5	World Bank; IMF summaries
Brazil	2001–2014	~0.57 → ~0.52	−5	World Bank; IMF
Uruguay	2007–2012	~0.45 → ~0.38	−7	IMF
Peru	2004–2019	~0.50 → ~0.42	−8	World Bank
Argentina	2002–2010	~0.53 → ~0.44	−9	World Bank; IMF
Typical Latin American experience	~10 years	—	−3 to −4	IMF

Notes: Gini coefficients are based on household income or consumption/expenditure. Values are rounded and interpreted as orders of magnitude. Cross-country comparability is imperfect, but the magnitudes provide a reasonable empirical basis for calibrating medium-term inequality scenarios.
Source: Authors' compilation based on Lustig, López-Calva and Ortiz-Juarez (2012); World Bank (2013, 2014); Tsounta and Osueke (2014); Barriga Cabanillas et al. (2014); World Bank LAC Equity Lab.

Before examining the joint scenarios, it is useful to isolate the partial effects of changes in mean income and changes in inequality. Table 3, therefore, presents a mechanical decomposition in which income and distribution are varied independently. The upper panel shows the poverty impact of per capita income growth while holding the Gini coefficient constant at 0.635. The lower panel shows the poverty impact of reducing the Gini coefficient while holding mean income fixed.

This decomposition clarifies the relative strength of each channel. Growth alone produces substantial reductions in poverty at both the lower- and upper-bound poverty lines. Redistribution without growth also reduces poverty, but its quantitative impact is smaller and requires substantial declines in the Gini coefficient to generate comparable headcount reductions. The exercise is not a forecast, but provides intuition for interpreting the full joint simulations.

Table 3: Poverty headcount ratios assuming per capita growth over the period, an initial Gini coefficient of 0.635 and fixed lower- and upper-bound poverty lines

Gini coefficient	Growth of income per capita	Mean income per capita	Poverty rate (below LBL)	LBPL poverty reduction (percentage points)	Poverty rate (below UBL)	UBPL poverty reduction (percentage points)
Assuming a constant baseline Gini of 0.635, showing the effect of growth on poverty						
0.635	0%	R70 469	29.6	0	50.6	0
0.635	10%	R77 516	27.1	-2.5	47.6	-3.0
0.635	20%	R84 563	24.9	-4.7	44.9	-5.7
0.635	30%	R91 610	22.9	-6.7	42.5	-8.1
0.635	40%	R98 657	21.2	-8.4	40.2	-10.4
0.635	50%	R105 704	19.7	-9.9	38.2	-12.4
Assuming a baseline income of R70 649, showing the effect of distributional change on poverty						
0.635	0%	R70 469	29.6	0	50.6	0
0.625	0%	R70 469	28.3	-1.3	49.6	-1.0
0.615	0%	R70 469	27.0	-2.6	48.5	-2.1
0.605	0%	R70 469	25.7	-3.9	47.4	-3.2

Gini coefficient	Growth of income per capita	Mean income per capita	Poverty rate (below LBL)	LBPL poverty reduction (percentage points)	Poverty rate (below UBL)	UBPL poverty reduction (percentage points)
0.595	0%	R70 469	24.4	-5.2	46.3	-4.3
0.585	0%	R70 469	23.2	-6.4	45.3	-5.3
0.575	0%	R70 469	22.0	-7.6	44.2	-6.4

Source: Own calculations

Attention now shifts from partial effects to interaction. Using 2023 household income data as a baseline, poverty outcomes to 2038 are projected under alternative combinations of per capita growth (2 and 3 per cent per annum) and cumulative changes in inequality (0, −2, −4 and −6 Gini points). Poverty is evaluated at both the lower-bound and upper-bound poverty lines. Table 4 reports the resulting headcount poverty rates for 2023 and 2038. The table distinguishes clearly between changes driven purely by growth, holding the income distribution constant at the baseline Gini coefficient of 0.635, those in which the Gini coefficient changes at a constant baseline mean income, and those arising from joint changes in mean income and the Gini coefficient.

Table 4: Headcount income poverty under various simulations, 2023 & 2038

Year	Mean income	Gini coefficient			
		0.635	0.615	0.595	0.575
Using the upper-bound poverty line (R31 620 per annum in real 2023 values)					
2023 (baseline)	R70 496	50.6	48.5	46.3	44.2
2038	R81 663	46.0	43.7	41.4	39.1
2038	R94 463	41.5	39.1	36.7	34.2
Using the lower-bound poverty line (R15 600 per annum in real 2023 values)					
2023 (baseline)	R70 496	29.6	27	24.4	22.0
2038	R81 663	25.7	23.2	20.7	18.3
2038	R94 463	22.2	19.7	17.3	15.1

Source: Own calculations

Three patterns emerge clearly. Firstly, sustained growth in mean income produces substantial reductions in poverty, particularly at the upper-bound poverty line. Secondly, reductions in inequality reinforce poverty reduction, but their marginal contribution is smaller than that of growth. Thirdly, the largest poverty declines occur when growth and reductions in inequality operate jointly, underscoring their complementarity.

Figures 3A and 3B illustrate these relationships graphically under the log-normal assumption. The first figure shows the effect of shifting the entire distribution to the right through growth, with inequality remaining unchanged. The second shows the effect of compressing the distribution through redistribution without growth. Under the assumed poverty lines and log-normal specification, proportionate increases in mean income shift a larger mass of the distribution across the poverty threshold than a moderate reduction in inequality alone. As the sensitivity analysis in Section 4.2 demonstrates, introducing a Pareto upper tail above the 80th percentile does not alter the distribution's shape near either poverty line and therefore does not affect the poverty headcounts illustrated here.

Figure 3: Relationship between growth, inequality and poverty, assuming a log-normal income distribution

Figure 3A

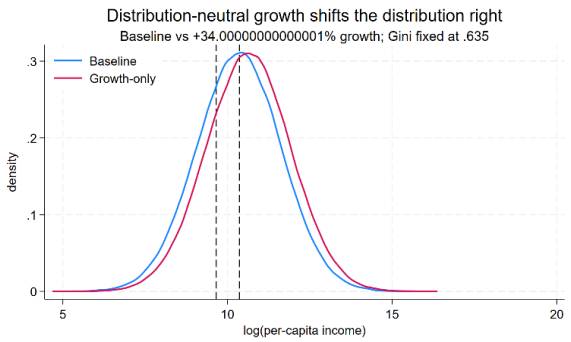
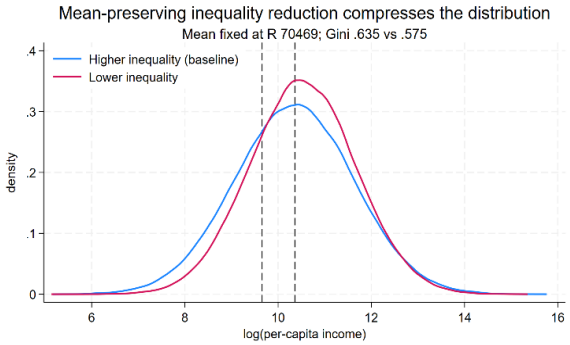


Figure 3B



While reductions in inequality can also lower poverty in the absence of growth, achieving four- or six-point declines in the Gini coefficient would require sustained and deep structural transformation. The growth assumptions, by contrast, represent moderate improvements relative to recent South African performance. Within the calibrated scenarios considered here, improvements in mean income yield larger reductions in poverty than plausible medium-term changes in inequality at both upper- and lower-bound poverty lines.

The persistence of high wage dispersion has been noted in related empirical work. As Sulla and Zikhali (2018: 109) observe in their assessment of South Africa's labour-market reforms:

> *"This stickiness of the Gini coefficient points to a larger problem with addressing the extent of inequality. While the NMW [National Minimum Wage] has the potential to positively affect many low-wage earners and employed households, the impact that the NMW has on the broader inequality of the population becomes negligible. Tackling inequalities calls for solutions that would increase the participation of the poor in a more rapidly growing economy – that is, promoting inclusive growth in a meaningful way."*

In terms of the poverty–growth–inequality relationship, this implies that the redistribution elasticity is constrained not only by wage dispersion, but by limited labour-force participation among the poor. This observation reinforces the argument developed above. Measures that alter wages at the margin may improve incomes for affected workers. However, they do not substantially reduce overall inequality when labour-market participation remains segmented and unemployment is concentrated among poorer households. Structural inclusion into employment therefore becomes central to meaningful distributional change.

Ideally, the best outcome would be to increase income while reducing the Gini coefficient. Though achieving rapid distributional change would be difficult, it may become more viable in a more positive economic environment

4.6 Alternative labour-market trajectories and structural limits

The simulations in Section 4.4 assume distribution-neutral growth: each household's income rises at the same proportional rate, leaving the Gini coefficient unchanged unless distributional change is introduced separately. As Figure 2 illustrates, this assumption is not well supported by South Africa's recent growth experience. The historical GIC for 2006–15 slopes upward in the middle of the distribution – gains concentrated around the fourth quintile, with weak growth at the bottom – most closely resembling what the skill-biased scenario below describes. This motivates considering how different patterns of growth incidence across the distribution affect poverty outcomes.

Tilting the GIC means rotating it around the mean growth rate, so that one part of the distribution grows faster than average and another grows slower, while aggregate growth remains constant. if mean growth is 2 per cent, a pro-poor tilt gives the bottom half 3 per cent and the top half 1 per cent. A downward-sloping or pro-poor GIC, tilted in favour of lower percentiles, implies that income shares at the bottom rise relative to the top. Because this compresses the ratio of incomes across the distribution, it mechanically reduces the Gini coefficient. Conversely, an upward-sloping or skill-biased GIC, where upper-half incomes grow faster, widens relative income gaps and raises the Gini. The three scenarios below span this range.

Table 5 presents poverty outcomes under three GIC patterns – distribution-neutral, pro-poor and skill-biased – at both growth rates considered above. Pro-poor growth is defined as a tilted GIC in which households in the lower half of the distribution grow at approximately 1.5 times the mean rate, resulting in a modest reduction in the Gini coefficient of 0.7 to 1.3 points over the projection period, depending on the underlying growth rate. Skill-biased growth is the mirror image: upper-half incomes grow faster, the Gini rises slightly and the poverty-reducing effect of growth is mildly attenuated.

Table 5

	2% GDP growth (1% p.c. p.a.)			3% GDP growth (2% p.c. p.a.)		
GIC pattern	**End Gini**	**LBPL 2038**	**UBPL 2038**	**End Gini**	**LBPL 2038**	**UBPL 2038**
2023 baseline	0.635	29.6%	50.6%	0.635	29.6%	50.6%
Distribution-neutral	0.635	25.6%	45.9%	0.635	22.0%	41.3%
Pro-poor	0.628	25.4%	45.9%	0.622	21.5%	41.2%
Skill-biased	0.641	25.8%	45.9%	0.647	22.5%	41.4%
Change from baseline (percentage points):						
Distribution-neutral	—	−4.0	−4.7	—	−7.5	−9.3
Pro-poor	—	−4.2	−4.7	—	−8.1	−9.4
Skill-biased	—	−3.7	−4.7	—	−7.0	−9.1

Notes: Distribution-neutral growth shifts the entire income distribution proportionately, leaving the Gini unchanged. Pro-poor growth tilts the GIC so that households in the lower half of the distribution grow at approximately 1.5 times the mean rate. Skill-biased growth tilts the GIC so that the upper half grows at approximately 1.5 times the mean rate. Poverty lines are held fixed in real 2023 values. LBPL = lower-bound poverty line (R15,600 p.a.); UBPL = upper-bound poverty line (R31,620 p.a.). Source: Own calculations.

Three findings from Table 5 are noteworthy; the most important challenges a common policy assumption.

First, and most strikingly, the *level* of growth dominates the *pattern* of growth as a determinant of poverty reduction. Moving from the 2 per cent to the 3 per cent GDP growth path reduces LBPL poverty by an additional 3.5 to 4.5 percentage points, depending on the GIC scenario. By contrast, the difference between pro-poor and skill-biased growth at any given growth rate is roughly one-fifth to one-quarter of this magnitude. The implication is direct: achieving higher growth is substantially more important for the poor than ensuring that growth follows a pro-poor distributional pattern, within the range of plausible scenarios considered here.

Second, the choice of GIC pattern makes only a modest difference to poverty outcomes. At 2 per cent GDP growth, the gap in LBPL poverty reduction between the pro-poor and skill-biased scenarios is just 0.5 percentage points; at 3 per cent GDP growth, the gap widens modestly to 1.1 percentage points. The pattern of growth matters, but not dramatically.

Third, the pro-poor scenario generates only a small endogenous improvement in the Gini coefficient of roughly 0.7 to 1.3 points over 15 years. Even a substantially tilted GIC cannot replicate the impact of the large exogenous inequality reductions modelled in Table 4. Meaningful compression of the Gini coefficient

requires structural changes to wage dispersion and employment access that go beyond the pattern of growth alone.

These findings should be read alongside the structural constraints discussed above. Evidence since the political transition indicates that labour income growth has driven most observed poverty reduction, with social grants playing a crucial secondary role (Gauna, 2022; World Bank, 2018). South Africa's growth has historically exhibited neither a strongly pro-poor nor a strongly skill-biased GIC, as Figure 2 suggests. The distribution-neutral scenario therefore represents a reasonable central benchmark, while the pro-poor and skill-biased variants bound the range of plausible distributional outcomes under alternative structural and policy conditions. That the three scenarios converge toward similar poverty outcomes reinforces the conclusion that sustained growth remains the primary lever for poverty reduction over the medium term.

4.7 Summary of modelling results

The simulations may be interpreted as an ex ante application of the Bourguignon triangle, in which assumed paths for mean income and inequality are imposed and the implied poverty outcomes calculated mechanically.

The simulations yield three robust conclusions. Firstly, sustained growth in mean income is the dominant driver of poverty reduction over the medium term. Secondly, plausible reductions in inequality reinforce poverty reduction, but their incremental contribution is modest relative to that of growth. Thirdly, structural features of the labour market constrain the speed at which inequality can decline, even under favourable assumptions.

Under historically observed magnitudes of distributional change, poverty reduction is therefore primarily driven by increases in mean income, while a substantial reduction of inequality remains unlikely. This pattern is consistent with cross-country evidence indicating that most variation in poverty changes reflects shifts in mean income rather than large-scale distributional movements. The modelling exercise thus reframes the debate as one of feasibility: what combinations of growth and distributional change are attainable within a medium-term horizon?

4.8 Tinbergen's rule and the mismatch between objectives and instruments

Tinbergen's (1952) principle of economic policy provides a useful starting point for interpreting the modelling results. Achieving n independent policy objectives requires at least n independent and effective instruments. Where the number of objectives exceeds the available instruments, trade-offs become unavoidable.

In the South African context, policymakers simultaneously pursue multiple objectives: accelerating economic growth, reducing poverty, lowering inequality, expanding employment, improving service delivery and strengthening social cohesion. Yet the effective instrument set is limited. Debt dynamics constrain fiscal space. Labour-market outcomes are shaped by deep structural features – skills mismatches, wage convexity and persistent unemployment. Educational reform yields results only gradually through cohort replacement. Redistribution operates within a narrow tax base.

The modelling results in Section 4 make this mismatch concrete. Growth substantially reduces poverty but does not automatically compress wage inequality. Redistribution reduces poverty at the margin but requires significant structural change to generate large declines in inequality. Labour-market reforms operate over extended time horizons. The same instrument cannot simultaneously and rapidly achieve all distributional objectives.

The resulting policy paradox is therefore structural: the number of binding objectives exceeds the number of immediately effective instruments.

4.9 Instrument assignment and sequencing under constraint

Tinbergen's counting rule identifies when trade-offs are unavoidable but does not specify how instruments should be deployed once that constraint is recognised. Mundell (1962) extended this insight by arguing that each instrument should be assigned to the objective it can influence most effectively – the principle of comparative advantage in policy. Rodrik (2008) similarly emphasises that instrument assignment must be context-specific and attentive to institutional capacity and time horizons.

Applied to South Africa, this logic suggests a differentiated and sequenced assignment. Growth-oriented policies, such as those that promote macroeconomic stability, encourage investment and enhance productivity, are most effective for reducing poverty and expanding fiscal space and should therefore serve as the primary near-term instrument for those objectives. Education reform and skills development are central to long-run inequality reduction but operate through gradual cohort replacement and cannot carry the burden of medium-term distributional change. Redistribution and social grants alleviate deprivation and support consumption at the margin, but their limited share of total household income constrains their capacity to reshape the underlying earnings distribution. Labour-market inclusion policies can expand employment access, yet without concurrent changes in wage dispersion, their impact on overall inequality remains limited.

The practical implication is sequencing rather than substitution. Immediate poverty mitigation, sustained growth promotion and long-term structural reform are complementary objectives, but they respond to different instruments and operate on different time scales. Overloading any single instrument with multiple objectives, for instance, by expecting that redistributive transfers can simultaneously reduce poverty, compress inequality and substitute for growth, increases the risk of policy incoherence and unmet expectations. Instrument clarity, in Tinbergen's and Mundell's sense, is a precondition for realistic strategy.

4.10 Fiscal implications and sustainability

The growth channel also has important fiscal implications. Higher per capita income increases tax revenues proportionately, expanding the resources available for social protection and public investment. With revenue collections amounting to roughly a quarter of GDP, even moderate growth materially enlarges the fiscal envelope over time.

Redistribution financed by growth differs fundamentally from redistribution in a stagnant economy. In the absence of growth, expanded transfers require either higher tax burdens or increased borrowing, both of which face economic and political limits. Growth therefore relaxes fiscal constraints while simultaneously reducing poverty directly through higher household incomes.

The simulations underscore that poverty reduction achieved through growth is both quantitatively larger and fiscally more sustainable than redistribution alone under stagnant conditions.

4.11 The structural realism of policy expectations

The modelling evidence and the Tinbergen framework together caution against unrealistic expectations of rapid distributional transformation. Structural features of the labour market limit the pace at which inequality can decline. Over a 15-year horizon, substantial poverty reduction is therefore likely to depend

predominantly on sustained growth in mean income. Reducing structural inequality remains a long-term reform agenda. Effective strategy requires alignment between objectives, instruments and time horizons.

5 Welfare beyond income: Capabilities, dignity and feasible progress

5.1 Why income alone is an incomplete metric under binding constraints

The analysis in Sections 4.8 and 4.9 reveals a structural bind: the instruments available to South African policymakers over the medium term are insufficient in number and reach to simultaneously achieve rapid growth, poverty reduction and substantial inequality compression. One consequence of this bind is that income-based metrics such as poverty headcounts, growth of mean incomes or Gini coefficients may move only slowly for an extended period, even under well-designed policy. This creates a challenge not only for policy design, but for welfare evaluation itself: if progress is assessed exclusively in income terms, the space for registering meaningful improvement may be narrow even when real advances in people's lived conditions are occurring.

When income-based indicators adjust slowly, an exclusive focus on poverty headcounts or Gini coefficients risks narrowing the evaluative lens. Income remains a critical determinant of well-being, but it is neither the sole dimension of deprivation nor the only channel through which policy can improve lived conditions. For many South Africans who remain excluded from stable employment and rising earnings, deprivation is shaped not only by income shortfalls, but also by limited access to basic services, housing quality, sanitation, healthcare, safety, mobility and the fairness and effectiveness of public institutions. These dimensions of welfare may evolve on different time horizons relative to income distribution and may be more directly influenced by institutional performance and governance, even under binding fiscal and structural constraints.

The question that follows is therefore not whether income matters – it plainly does – but how welfare progress should be conceptualised and evaluated when income redistribution and labour-market transformation are structurally gradual. Addressing that question requires a broader framework.

5.2 Capabilities and welfare beyond income

A useful conceptual framework for thinking about welfare under such constraints is the capabilities approach associated with Amartya Sen. In this framework, individual well-being is not assessed solely in terms of income or resources, but in terms of the real freedoms people have to live the kinds of lives they value. Income is understood as an important means to achieving welfare, but not as an end in itself.

From a capabilities perspective, individuals may experience severe deprivation even when incomes rise modestly if they lack access to basic necessities such as adequate housing, clean water and sanitation, effective schooling, healthcare, personal safety or meaningful participation in social and economic life. Conversely, improvements in these dimensions can expand people’s effective freedoms and living standards even in the absence of rapid income growth.

The relevance of this framework in the South African context lies precisely in its attention to feasibility and heterogeneity. Where labour-market inclusion and income redistribution are structurally constrained in the medium term, capabilities provide an analytically coherent way to identify welfare improvements that are not fully captured by income distribution alone, yet matter deeply for social inclusion.

In the South African context, at least three capability domains stand out as simultaneously important and more immediately addressable than income inequality. First, the capability for physical security and freedom from violence: persistent crime and unsafe living environments constrain mobility, undermine economic participation and damage psychological well-being in ways that income growth alone cannot remedy, yet

that respond to improved policing, infrastructure and community governance. Second, the capability to benefit from effective schooling: access to schools has expanded substantially since 1994, but the quality of learning remains deeply unequal, limiting the development of economically rewarded skills precisely among the cohorts that most need them. Third, the capability to access reliable basic services such as clean water, sanitation, electricity and functional municipal administration, which directly shapes health, dignity and productivity and which depends more on institutional performance than on aggregate income levels. Improvements in each of these capability domains lie within reach of existing policy instruments, even under the fiscal and structural constraints that bind income redistribution.

5.3 Human dignity as a feasible policy objective

Framing welfare in terms of capabilities naturally foregrounds the concept of human dignity. In the South African context, many persistent deprivations reflect historical and institutional legacies that continue to shape daily life: inadequate housing, unreliable water and sanitation, poorly functioning schools, weak municipal services, unsafe neighbourhoods and limited access to transport and economic opportunities. For large segments of the population, these conditions are experienced not merely as material shortfalls, but as ongoing constraints on agency, recognition and social participation.

Importantly, several dignity-related outcomes lie more directly within the scope of available policy instruments than the structural determinants of wage inequality. While labour-market transformation and educational reform require sustained long-term change, improvements in service delivery, infrastructure maintenance, administrative fairness, school functionality and public safety often depend more on governance quality, institutional capability and accountability than on large new fiscal allocations.

This distinction is analytically significant in light of the Tinbergen principle discussed above. Where rapid income redistribution is constrained by labour-market structure and fiscal limits, policymakers may achieve meaningful welfare gains by targeting dimensions of well-being that respond more directly to institutional reform and improved public-sector performance. Enhancing dignity through reliable service provision, fair treatment by public authorities and improved local governance does not substitute for growth or redistribution, but complements them within a realistic medium-term horizon.

Recognising dignity as a feasible policy objective therefore strengthens, rather than weakens, the growth–poverty–inequality framework developed earlier in the paper. It acknowledges that income remains central to long-run transformation, while also identifying domains in which welfare improvements can be accelerated despite structural constraints.

5.4 Evidence on dignity, exclusion and social cohesion

The preceding discussion suggested that income-based measures may understate important dimensions of deprivation in South Africa, particularly when structural constraints slow the adjustment of wages and income distribution. Independent survey evidence is broadly consistent with this concern.

The South African Reconciliation Barometer (Institute for Justice and Reconciliation, 2025) documents persistent material insecurity, institutional distrust and social exclusion that extend beyond conventional poverty thresholds. Indicators such as the Lived Poverty Index show recurring shortages of food, water, electricity and cash income across a substantial segment of the lower and lower-middle distribution. At the same time, measures of trust in public institutions, perceived fairness of treatment and confidence in political voice remain weak and unevenly distributed.

These patterns do not invalidate the centrality of income growth for poverty reduction. Rather, they suggest that movements in poverty headcounts or mean incomes may coexist with continued deficits in dignity-related capabilities. Where service delivery is unreliable, crime is prevalent and institutional responsiveness is limited, improvements in measured income may not translate well into improved lived experience.

The evidence therefore supports a more layered understanding of welfare progress, one in which income, inequality and poverty remain essential metrics, but are complemented by indicators of institutional quality, service reliability and social inclusion. The Barometer identifies three dimensions of this broader deprivation landscape that are particularly relevant here. First, material insecurity extends beyond conventional poverty thresholds: the Lived Poverty Index records recurring shortages of food, water, electricity and cash income among households that may technically sit just above the poverty line, indicating that crossing a poverty threshold does not automatically translate into secure living conditions. Second, institutional trust and recognition remain weak: survey data consistently record low confidence in public institutions, limited sense of political voice and uneven perceptions of fair treatment by the state. Such deficits affect subjective well-being and social inclusion independently of income. Third, persistent exposure to crime, unreliable municipal services and administrative arbitrariness shapes lived experience in ways that income measures do not capture. Taken together, these patterns suggest that where service delivery is unreliable, crime is prevalent and institutional responsiveness is limited, improvements in measured income may not translate proportionately into improved lived conditions, and conversely, that governance and service delivery improvements can expand welfare even when income growth is slow.

5.5 Capabilities as a complement, not a substitute

In the language of Tinbergen and Mundell, advancing capabilities means allocating scarce policy instruments to the objectives that can respond meaningfully within the relevant time horizon, while recognising that deeper structural redistribution requires additional, longer-term instruments.

Emphasising capabilities and dignity does not imply abandoning long-run goals of income redistribution, employment creation, or structural transformation. Rather, it provides a way of aligning normative aspirations with realistic assessments of what can be achieved under current constraints. Improvements in dignity-related capabilities do not eliminate poverty or inequality, but they may mitigate their social and political consequences and expand people's effective freedoms in meaningful ways.

In this sense, a capabilities-based approach complements the growth–poverty–inequality framework developed earlier in the paper. It allows for a broader evaluative space in which progress can be assessed, while recognising that income-based outcomes remain central but are slow to change. By distinguishing between what can change quickly and what requires long-term transformation, this perspective helps clarify policy priorities under binding constraints.

6 Policy implications under binding constraints

The preceding analysis highlights that South Africa's policy space over the medium term is shaped by binding structural, institutional and fiscal constraints. Economic growth is essential for poverty reduction and fiscal sustainability, but, on its own, it is insufficient to deliver rapid or substantial reductions in income inequality. This tension does not imply policy paralysis, but it does require a realistic prioritisation of objectives and instruments.

6.1 Growth remains necessary, but cannot attain all objectives

The preceding analysis yields three policy implications under binding structural and fiscal constraints. Firstly, sustained economic growth remains indispensable for durable poverty reduction. Secondly, substantial reduction of inequality is unlikely over the medium term, given labour-market structure and limited fiscal space. Thirdly, welfare improvements must therefore be pursued across multiple policy domains, each aligned with instruments capable of delivering measurable change within realistic time horizons.

6.2 Limits to redistribution and labour-market interventions

A second implication is that conventional redistributive instruments and labour-market reforms have limited leverage in the medium term. The tax base remains narrow, fiscal space expands slowly and labour-market inequality is deeply rooted in skills shortages and historical inequalities in education quality. While redistribution and skills formation are essential for long-run transformation, they cannot be scaled rapidly enough to ensure broad-based inclusion in the near term. Sustained per capita income growth requires that aggregate output growth consistently outpace population growth, underscoring the importance of labour absorption and productivity expansion.

This reality reinforces Tinbergen's insight that when the number of policy objectives exceeds the number of effective instruments, trade-offs become unavoidable. Attempts to pursue multiple ambitious goals simultaneously with limited instruments increase the risk of policy incoherence and weak outcomes.

The historical role of social assistance also highlights a central constraint for future policy. While the expansion of social grants has been highly effective in reducing poverty in the past, the fiscal environment in which this expansion occurred has deteriorated markedly. A decade of weak growth, rising debt-service costs and the additional fiscal pressures associated with the COVID-19 pandemic have substantially narrowed the scope for further grant expansion as a stand-alone poverty-reduction strategy. Recent analyses caution that while measures such as a permanent basic income grant may yield modest reductions in poverty, their sustainability and macroeconomic implications remain uncertain in the absence of stronger growth and employment creation. This reinforces the conclusion that redistribution alone cannot carry the burden of inclusion over the medium term.

These domains operate on distinct time scales: labour-market and educational transformation are long-horizon processes, while improvements in service reliability and governance may yield welfare gains more rapidly.

6.3 Fiscal prioritisation and efficiency

A third implication is that the policy focus can shift in the medium term towards outcomes for which effective instruments do exist. As argued in Section 6, improvements in human dignity and basic capabilities – such as reliable service delivery, safe housing, functional schools, access to water and sanitation and fair

administrative processes – are often more directly within the reach of public policy than labour-market outcomes or wage structures.

Such interventions do not replace growth or redistribution, but they can meaningfully improve the lived conditions of large segments of the population, even when income growth is slow. In a highly unequal society, progress in dignity-related dimensions may also reduce social tension and strengthen trust in public institutions.

6.4 The structural preconditions for inequality reduction

The simulation scenarios in Section 4 model cumulative reductions in the Gini coefficient of 2, 4 and 6 points as benchmarks for distributional change. South Africa's Gini has remained persistently high at around 0.63 to 0.65 throughout the post-transition period and some recent estimates from Statistics South Africa (2025) point to a slight further increase rather than a decline. It is therefore important to consider what structural developments would be required in practice to generate inequality reductions of the magnitudes modelled, and how realistic these are within a 15-year horizon. These magnitudes follow from a simple decomposition of inequality into employment and wage components (see Box A and Appendix A).

An additional consideration concerns the distributional incidence of growth itself. The scenarios presented here treat growth and changes in inequality as separable components. In practice, however, growth may be unevenly distributed. In the South African context, the structural features of the labour market – in particular, high unemployment and strong skill premia – suggest that income gains from growth may accrue disproportionately to higher-skilled workers. This corresponds to an upward-sloping growth incidence curve. Under such conditions, growth may even be associated with rising inequality. This reinforces a central conclusion of the paper: that growth is necessary for poverty reduction, but does not, in itself, ensure meaningful reductions in inequality.

Against this background, three main channels through which the Gini coefficient can fall are identified in the literature: reductions in unemployment, compression of wage dispersion among the employed and expansion of progressive redistribution. Each operates differently and faces distinct constraints.

The employment channel is, in principle, the most direct route to distributional improvement in South Africa, given that high unemployment is the single largest driver of household income inequality. However, the quantitative effect of this channel on overall inequality is limited, as it affects primarily the lower tail of the distribution while leaving wage dispersion among the employed largely unchanged. As noted earlier, decompositions of South Africa's Gini coefficient consistently attribute only a modest share of overall inequality to unemployment per se; the larger share reflects wage dispersion among employed workers. As a result, even substantial reductions in unemployment translate into relatively modest changes in the overall Gini: a sustained 5 percentage point reduction in the broad unemployment rate – itself an ambitious target, requiring GDP growth well above recent trends – would reduce the Gini by roughly 0.4 to 0.5 points. Delivering even a 2-point Gini reduction through employment growth alone would require broad unemployment to fall by approximately 25 percentage points, from the current 43 per cent to around 18 per cent. This is well beyond what is achievable over a 15-year horizon under any plausible growth scenario. Employment growth remains essential for poverty reduction and social inclusion, but its contribution to inequality reduction over the medium term is limited.

The wage compression channel has stronger potential, since wage inequality among the employed, with a Gini of approximately 0.60, is the dominant source of overall income inequality. A reduction in the wage Gini of around 3 points would be sufficient to deliver roughly 2 points of overall Gini reduction, assuming wages remain approximately 60 per cent of household income. However, wage dispersion in South Africa is rooted

in the highly convex returns to education described in Section 3: workers with post-matric qualifications earn multiples of what workers with incomplete schooling receive, a premium that has proven extremely persistent. Meaningful compression therefore depends on reducing skills scarcity at the top of the distribution while simultaneously raising the productivity and earnings of workers in the lower tail, both processes that operate through cohort replacement and are unlikely to yield measurable results without large and sustained improvements in educational quality.

Progressive redistribution through social grants and transfers constitutes the third channel. Grant expansion played a significant role in poverty reduction during the 2000s, but the fiscal environment has deteriorated substantially, limiting the scope for further expansion. Moreover, the quantitative impact of transfers on overall inequality is constrained by their relatively small share of total household income, currently around 5 per cent. Doubling this share through an expanded basic income support programme might reduce the Gini by roughly 1 to 2 points, but at a substantial fiscal cost in the absence of stronger growth.

This assessment provides a basis for interpreting the scenario magnitudes in the paper. A 2-point Gini reduction over 15 years is achievable under sustained growth of around 3 per cent per annum, combined with moderate employment gains and maintained grant spending. This is the lower bound of what coherent and well-implemented policy might deliver. A 4-point reduction is optimistic as it requires simultaneous progress across all three channels sustained over the full projection period. A 6-point reduction, calibrated to the more favourable Latin American episodes summarised in Table 2, represents an upper bound under historically exceptional conditions: South Africa has not achieved any sustained Gini decline of this magnitude in the post-transition period.

This grounding reinforces the paper's central conclusion: that achieving even moderate Gini reductions requires sustained, broad-based structural reform and that growth remains indispensable as a direct driver of poverty reduction and as the enabling condition for the employment, skills and fiscal developments that underpin longer-run distributional change.

6.5 Medium-term realism and institutional capability

The central policy lesson is therefore not a retreat from ambition, but the importance of sequencing and realism. Growth, redistribution and structural transformation remain core long-run objectives. Over the medium term, however, binding constraints necessitate a more differentiated approach: protecting and promoting growth; maintaining realistic expectations regarding inequality reduction; and concentrating policy effort where tangible improvements are achievable.

By assessing progress not only through income-based metrics but also through advances in dignity and capabilities, policy choices can be better aligned with what is feasible over the medium term, without relinquishing the longer-term goal of a more inclusive and equitable society.

In this sense, a focus on dignity and capabilities should be understood not as a substitute for long-run economic transformation, but as a stabilising and welfare-enhancing strategy during a prolonged period of structural adjustment.

Structural realism does not imply policy pessimism. It implies prioritisation, instrument clarity and institutional focus, recognising that durable distributional transformation is gradual, but that meaningful welfare gains remain achievable within a constrained horizon.

7 Conclusion

This paper has assessed what is realistically achievable in reducing poverty and inequality in South Africa over the next 15 years under plausible growth scenarios. The simulations demonstrate a clear asymmetry: poverty is highly responsive to sustained growth in mean income, while inequality is anchored in labour-market structures that adjust only gradually.

Sections 4.8 and 4.9 clarify the resulting policy paradox using Tinbergen's principle and Mundell's instrument-assignment extension. Policymakers simultaneously pursue multiple objectives – notably poverty reduction and fiscal sustainability, alongside employment expansion and inequality reduction – yet the set of immediately effective instruments is limited. The appropriate response is not to pursue all objectives with all instruments simultaneously, but to assign each instrument to the goal it can move most efficiently and to sequence reforms accordingly. Growth directly reduces poverty and expands fiscal capacity; redistribution alleviates deprivation but has a limited effect on overall inequality; structural and educational reforms reshape the earnings distribution, but only gradually through cohort replacement. Reductions in unemployment primarily affect the lower tail of the distribution, while meaningful changes in inequality depend on slower adjustments in wage dispersion.

Where income-based outcomes are slow to adjust, the capabilities framework discussed in Section 5 provides a complementary evaluative lens. Improvements in physical security, service reliability, school quality and institutional fairness can expand real freedoms and human dignity even when the Gini coefficient moves little. These dimensions of welfare are not substitutes for income growth and structural transformation, but they respond to different instruments and on shorter time horizons, and they matter deeply to the lived experience of South Africans who remain excluded from the labour market's upper reaches.

An effective strategy therefore requires aligning objectives with feasible instruments, sequencing reforms and sustaining long-term commitment to structural transformation. Over a 15-year horizon, meaningful reductions in poverty are achievable, but reductions in inequality will be gradual and contingent on improvements in the distribution of skills and earnings. Recognising these constraints is not pessimism, but the basis for credible policy.

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Appendix A: Decomposing the Contribution of Employment and Wage Inequality to the Gini Coefficient

(Technical appendix supporting Section 6.4)

This appendix provides a simple decomposition of the relative contributions of employment and wage inequality to overall income inequality and motivates the approximations used in Section 6.4.

Let total household income (y) be decomposed into labour income (y_L) and non-labour income (y_N) such that:

$$y = y_L + y_N$$

The overall Gini coefficient can then be expressed as a weighted sum of the concentration coefficients of each income source:

$$G = s_L \times C_L + s_N \times C_N$$

where s_L and s_N are the shares of labour and non-labour income respectively and C_L and C_N are the corresponding concentration coefficients.

In South Africa, labour income accounts for the majority of total income (typically around 60–70 per cent) and its concentration coefficient is close to, but somewhat higher than, the wage Gini due to unemployment (that is, zero earnings for a large share of the population). Consistent with the heuristic presented in Box A, two distinct mechanisms drive changes in overall inequality:

- Changes in employment (extensive margin): A reduction in unemployment increases the share of households receiving labour income and reduces the mass of zero earnings. This lowers the concentration of labour income, but its effect on the overall Gini is limited because it affects only a subset of households and does not directly compress the wage distribution among the employed.
- Changes in wage dispersion (intensive margin): A reduction in wage inequality lowers dispersion among the employed and therefore has a more direct effect on the overall Gini, given the large share of labour income in total income.

A simple linear approximation can be used to gauge the magnitude of these effects. The overall Gini can be approximated as a function of the wage Gini and the unemployment rate:

$$G \approx \alpha \times G_{wage} + \beta \times U$$

where U denotes the unemployment rate, and α and β capture the contribution of each component.

Empirical decompositions for South Africa (Leibbrandt et al., 2010; Leibbrandt et al., 2012; Van der Berg et al., 2011) indicate that the bulk of income inequality arises within the employed population, reflecting substantial wage dispersion, while the contribution of unemployment operates primarily through the lower tail of the distribution. This is consistent with the argument in Box A that wage inequality effectively sets a floor under overall inequality. It follows that the marginal effect of changes in unemployment on the overall Gini coefficient is limited. This implies that even relatively large reductions in unemployment would translate into only modest reductions in the overall Gini coefficient.

These calculations are intended as order-of-magnitude approximations. Their purpose is to illustrate the relative strength of the employment and wage channels in a highly unequal labour market.

Appendix A: Historical Evolution of the Structural Change Literature

The centrality of structural transformation to economic growth goes back almost as far as the study of economics itself. Adam Smith (1776) explicitly discusses the processes of industrialization and agricultural modernization as catalysts of the industrial revolution. Nevertheless, specifically inter-sectoral models became formalized in the mid-20th century. Kuznets (1955) provided a major early analysis of the relationship between structural change, economic growth, and inequality in advanced economies, with discussion of the implications for developing countries. However, from a developing country perspective, they key contribution was from W. Arthur Lewis.

Lewis (1954) observed the low productivity levels and large surplus labour in the agriculture sectors of developing countries at the time, and their comparatively minuscule manufacturing and other higher-productivity 'modern' sectors. He showed that a process through which workers could be moved from agriculture and reallocated to such sectors would come with no initial cost to agricultural productivity, because the sector was effectively operating at zero marginal productivity, although over time agricultural productivity would have to also increase so as to maintain food supplies to an expanding non-agricultural workforce. This model was further formalized by Ranis and Fei (1961), and re-derived by Jorgenson (1961) to dispense with the necessity of the zero marginal productivity assumption.

They key messages of the Lewis-Ranis-Fei model from the perspective of policy are as follows. First, because early development relies on absorbing surplus labour from agriculture, policy should encourage labour-intensive manufacturing and smooth the transition of workers into this sector. Means through which this can be done are to reduce barriers to internal mobility, and particularly incentivize firms that generate large-scale employment. Second, because the reinvestment of profits is crucial for manufacturing sector growth, policy should support capital accumulation and reinvestment in this sector. This requires the maintenance of functioning credit markets and a stable business environment with low corruption and low expropriation risk. Third, because there will come a point at which surplus agricultural labour is exhausted, policy must be ready to promote upgrading within the manufacturing sector. This particularly involves maintaining an environment which is favourable to technology adoption. Fourth, because agricultural productivity will also have to rise at this point, unproductive agriculture will need to be discouraged. This latter policy point can prove particularly sensitive in developing country settings because it may necessitate the reduction of agricultural subsidies and the consolidation of agricultural land.

Despite the sophistication of these early structural change models, the importance of structural change in growth lacked prominence for many of the subsequent decades. This is likely because of the impact of the Solow (1956) model of economic growth, which shifted the growth literature dramatically towards the advancement of single-sector models and the refinement of the processes of efficiency, capital deepening, and technological progress (within-sector productivity growth) at the expense of dual economy and between-sector perspectives. Nevertheless, empirical analyses of what were then real-time examples of rapid, transformative economic growth continued to uncover a strong structural change component (Chenery & Syrquin, 1975). Among the set of rapidly emerging economies, four East Asian economies - South Korea, Taiwan, Hong Kong, and Singapore - collectively, the 'Asian Tigers' prominently stood out. Empirical analyses of these 21st century 'growth miracles' pointed to a huge role for structural transformation and particularly industrialization (Nelson & Pack, 1999). The subsequent emergence of China cemented this observation (Chen et al., 2011; Timmer, 2000). Structural change now appeared to be central not just to the growth miracles of the past in the period of industrial revolution, but also the miracles of the present.