

TOPIC 8

Fiscal policy in South Africa



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- Fiscal policy, sector balances and the savings constraint in an open economy
- Stabilisation, cycles and trends
- The government budget constraint
- Fiscal policy over the last twenty years

- Black, P. A., Calitz, E., Steenekamp, T. J. and Black, P. A. (2015) Public Economics Chapter 1 and Chapter 16
- Fischer, S. and Easterly, W. (1990) 'The Economics of the Government Budget Constraint', The World Bank Research Observer, 5, 127–142.
- Carlin, W. and Soskice, D. W. (2006) Macroeconomics: Imperfections, Institutions, and Policies. Chapter 6: Fiscal policy
- National Treasury. 2019. Budget Review. Chapter 3 Fiscal Policy

Musgrave (1959)

Distribution (equity)

Design of tax and transfer policies based on values decided in a political process

Stabilization (full employment)

Maintain appropriate level of aggregate demand based on a determination of an inflationary or deflationary gap

Allocation (efficiency)

Deciding what types and quantities of social goods (i.e. public and merit) to provide, and how to allocate the costs of provision

Schick (1966)

Control

Binding operating officials to the policies and plans set by their superiors

Planning

Systematically relating the expenditure of funds to the accomplishment of policy objectives

Management

Programming of approved goals into specific activities

Campos & Pradhan (1996)

Aggregate fiscal discipline

Overcoming the tragedy of the commons by defining the size of the fiscal envelope and ensuring compliance

Resource allocation

Prioritise competing claims and ensure most effective use of scarce resources

Operational Efficiency

Ensure technical efficiency in the use of inputs to produce outputs

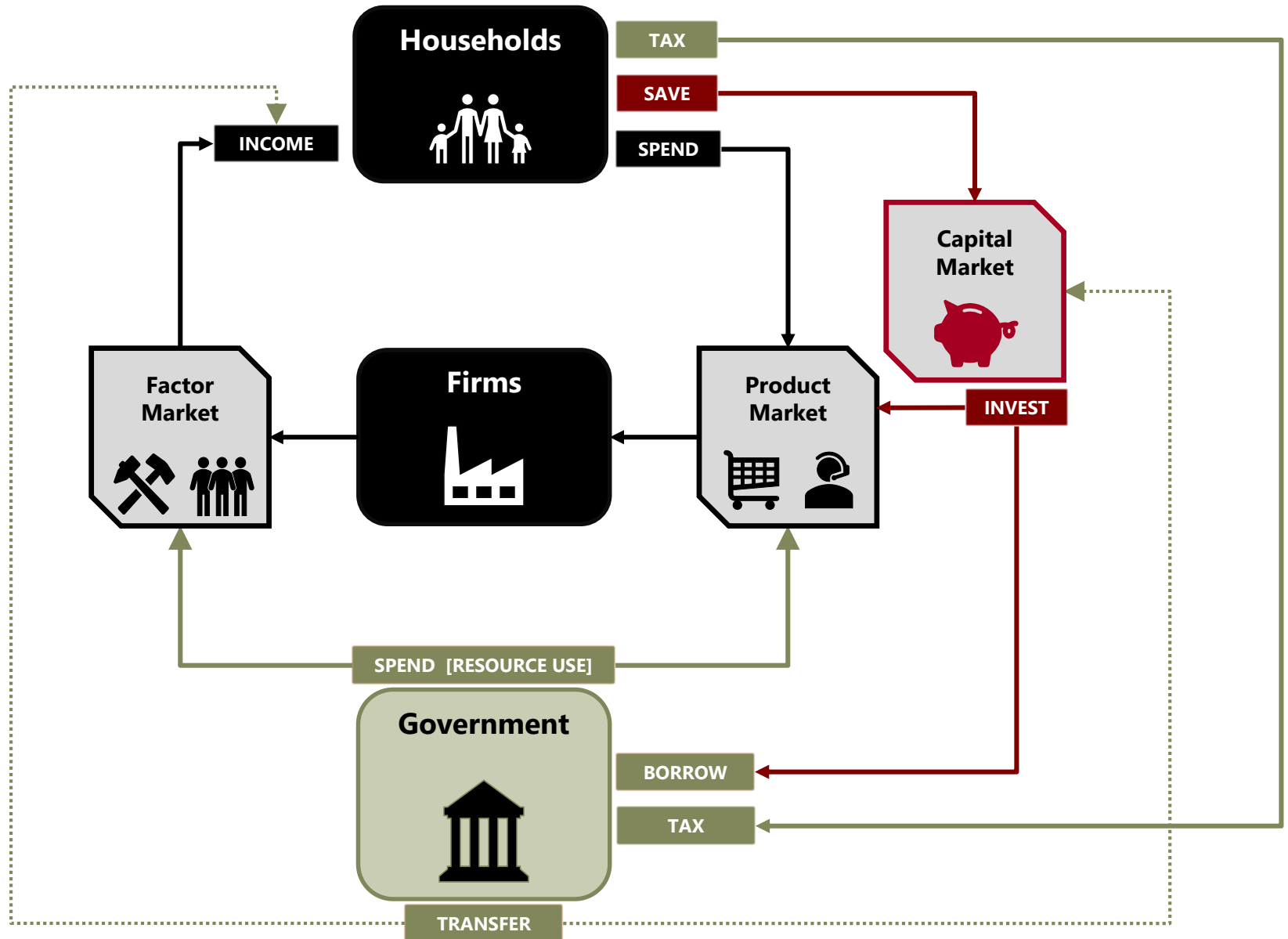
A simultaneous system of separate objectives solved as a budget plan

Competing orientations/
Historical phases

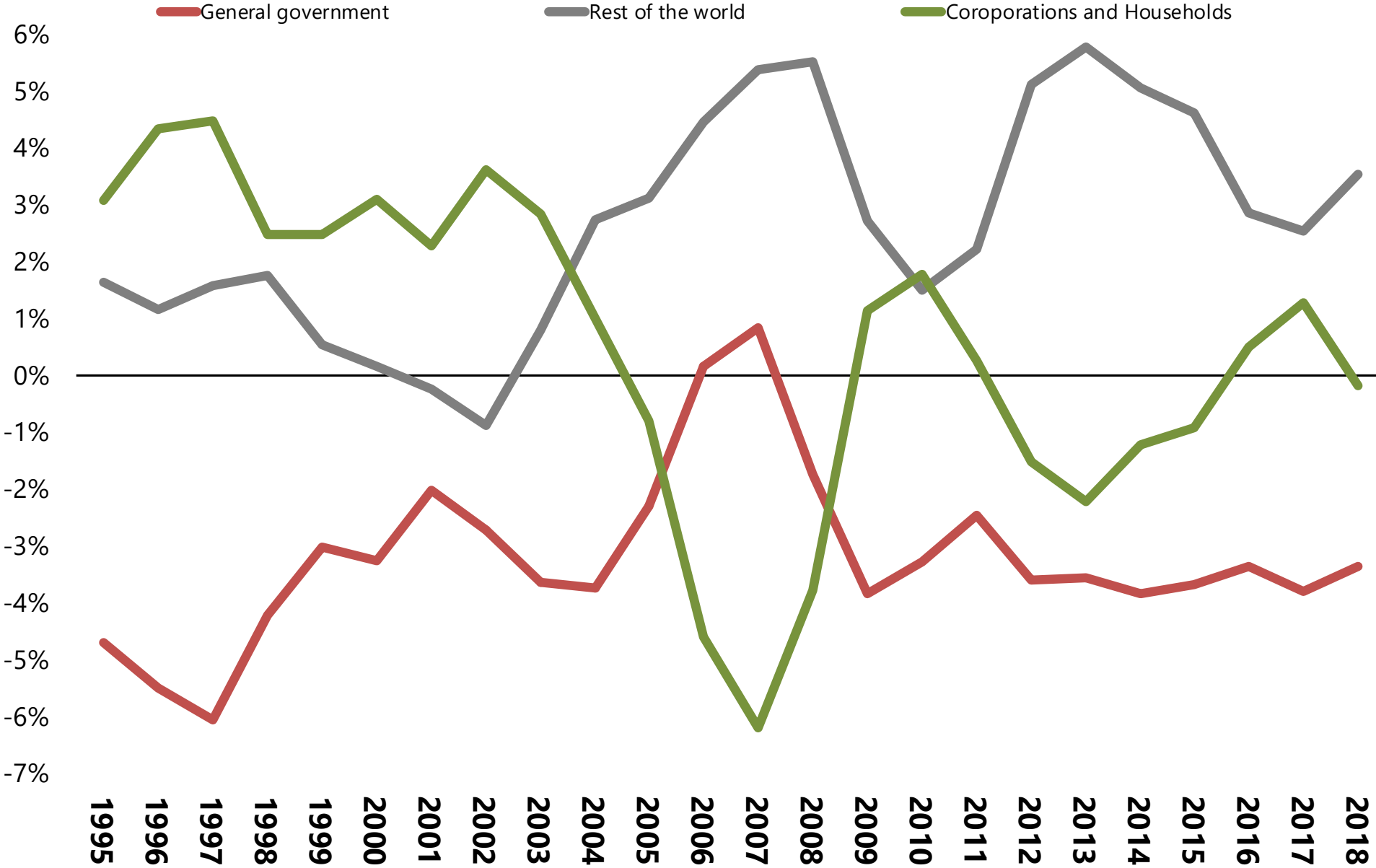
Levels/Hierarchy

Fiscal policy, sector balances and the savings constraint

Circular flow of income in a closed economy

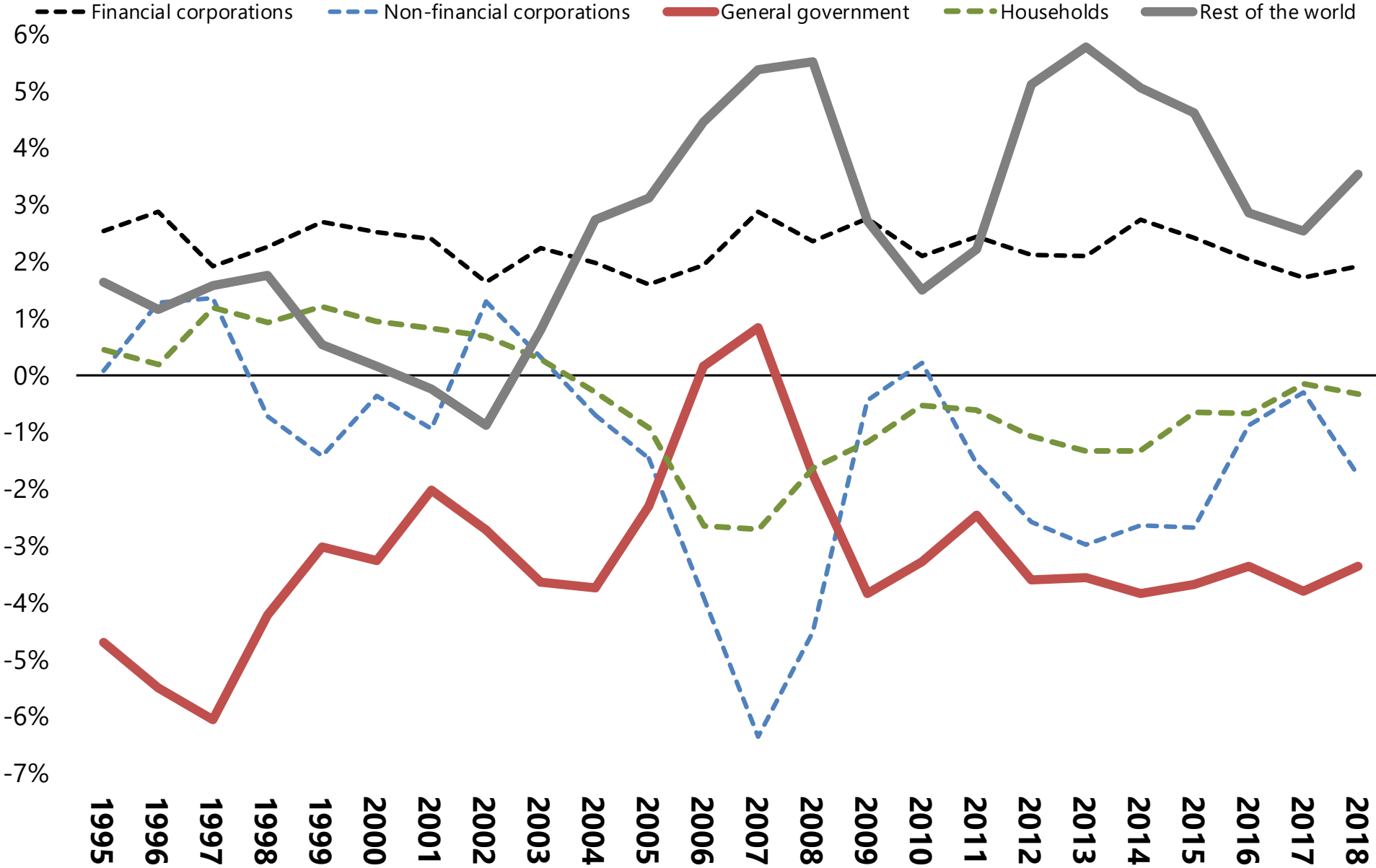


Sector balances

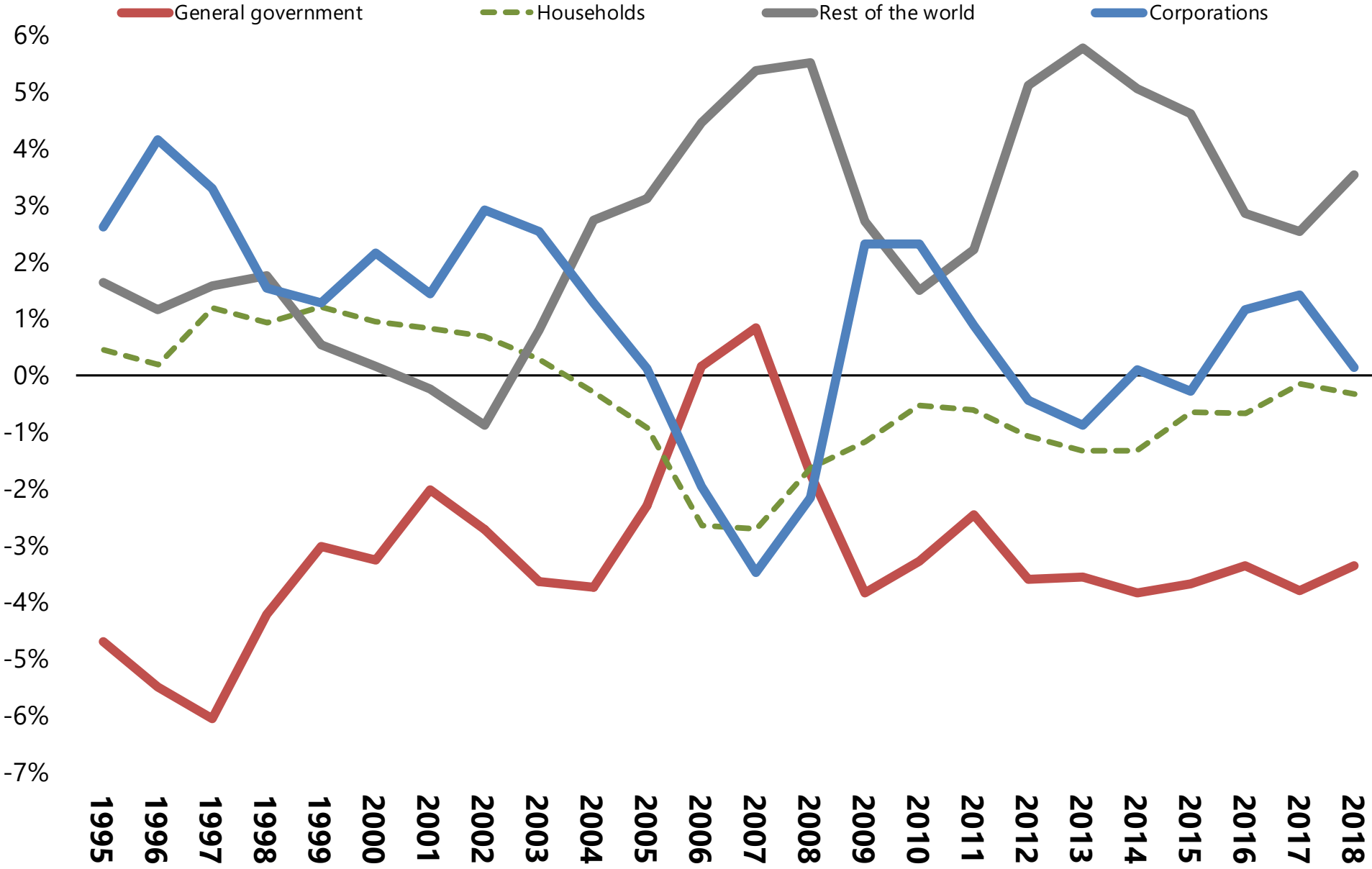


Sector Balances (1)

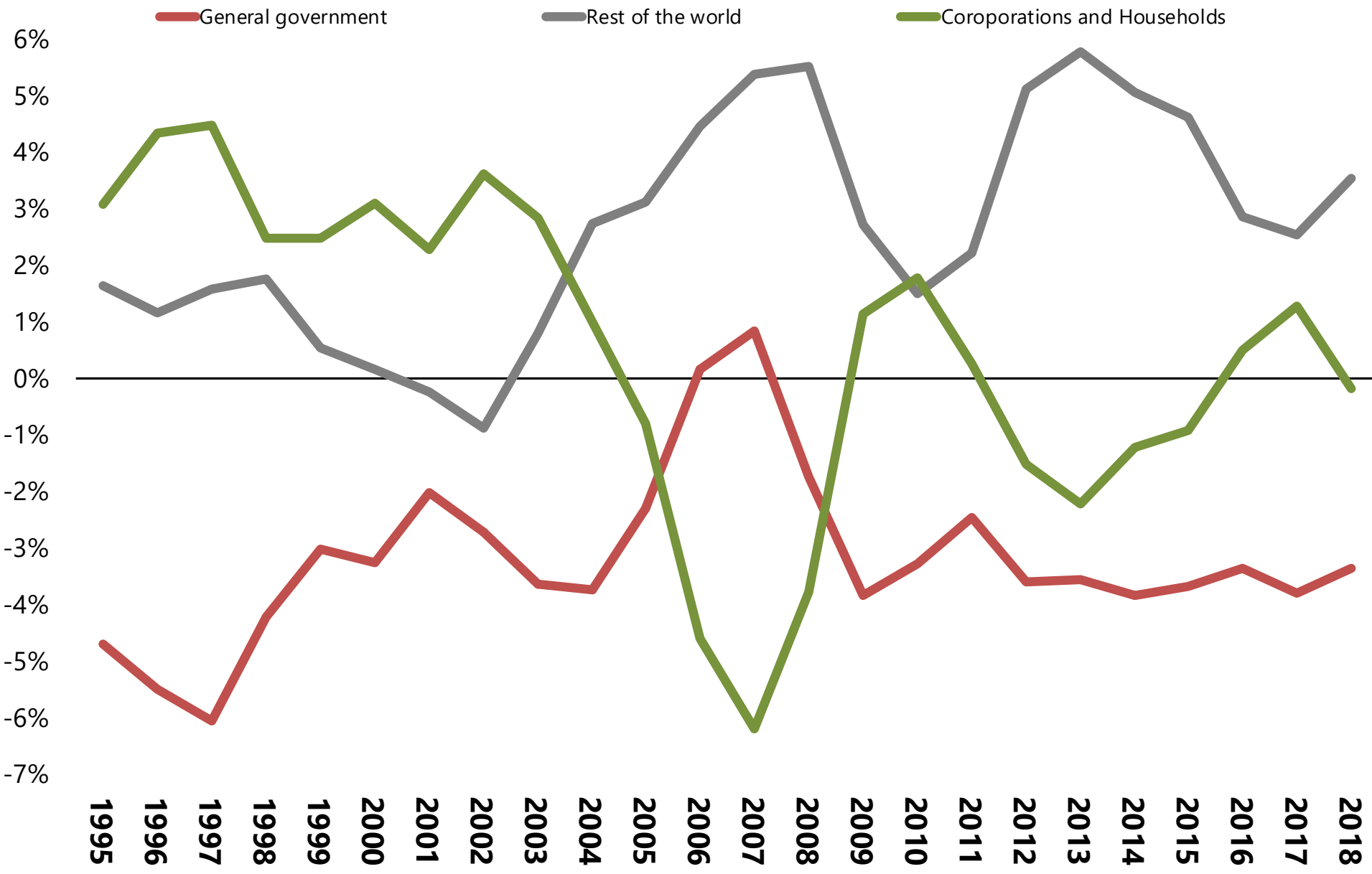
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Sector Balances (2)



Sector balances (3)



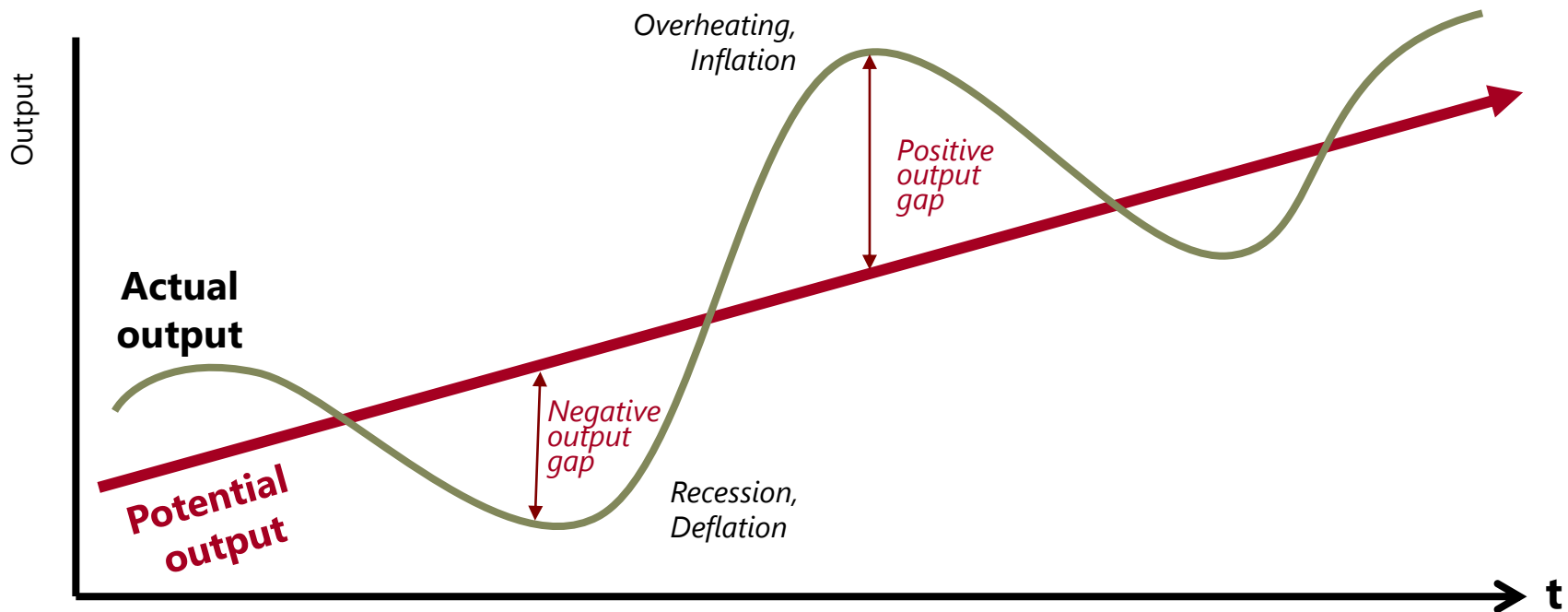
- South Africa remains vulnerable because, in aggregate, it continues to spend more income than it generates – we are savings constrained.
- This macroeconomic imbalance is related directly to entrenched inequality:
 - the vast bulk of the population lives from hand to mouth,
 - the old elite seeks to sustain levels of consumption on par with their counterparts in the global north, and
 - the emerging elite strata seek to “join the club” of high consumption.
- The East Asian developmental states (e.g. China, Japan) forced down consumption to mobilise domestic resources for investment. They did this through some combination of labour repression, financial repression in order to hold down the real exchange rate and consistently running a current account surplus
- A similar logic fuelled rapid growth and reconstruction in post-war Europe – workers accepted wage restraint, capitalist invested the resulting surplus, and a combination of global support (i.e. the marshal plan) and relatively closed capital markets held down the real exchange rate.
- How feasible is such a path in contemporary South Africa?

- The savings constraint means that consumption and investment (by both government and the private sector) exceed the value of national income.
- A significant improvement of exports could ease the constraint allowing consumption or investment to strengthen without reliance on foreign savings.
- But we cannot bank on improved exports over the medium term – the global economic outlook, and our own weaknesses suggest that rapid export growth is unrealistic.
- In the mean time, we are either reliant on foreign savings or we must act to break the savings constraint.
- Breaking the savings constraint means forcing down consumption or investment.
 - Neither and easy to achieve quickly and both would be growth reducing in a three to five year horizon.
 - Forcing down investment can only mean cutting government investment or pushing up interest rates to very high levels.
 - Forcing up savings means reducing consumption or investment – it is the opposite of a fiscal of stimulus

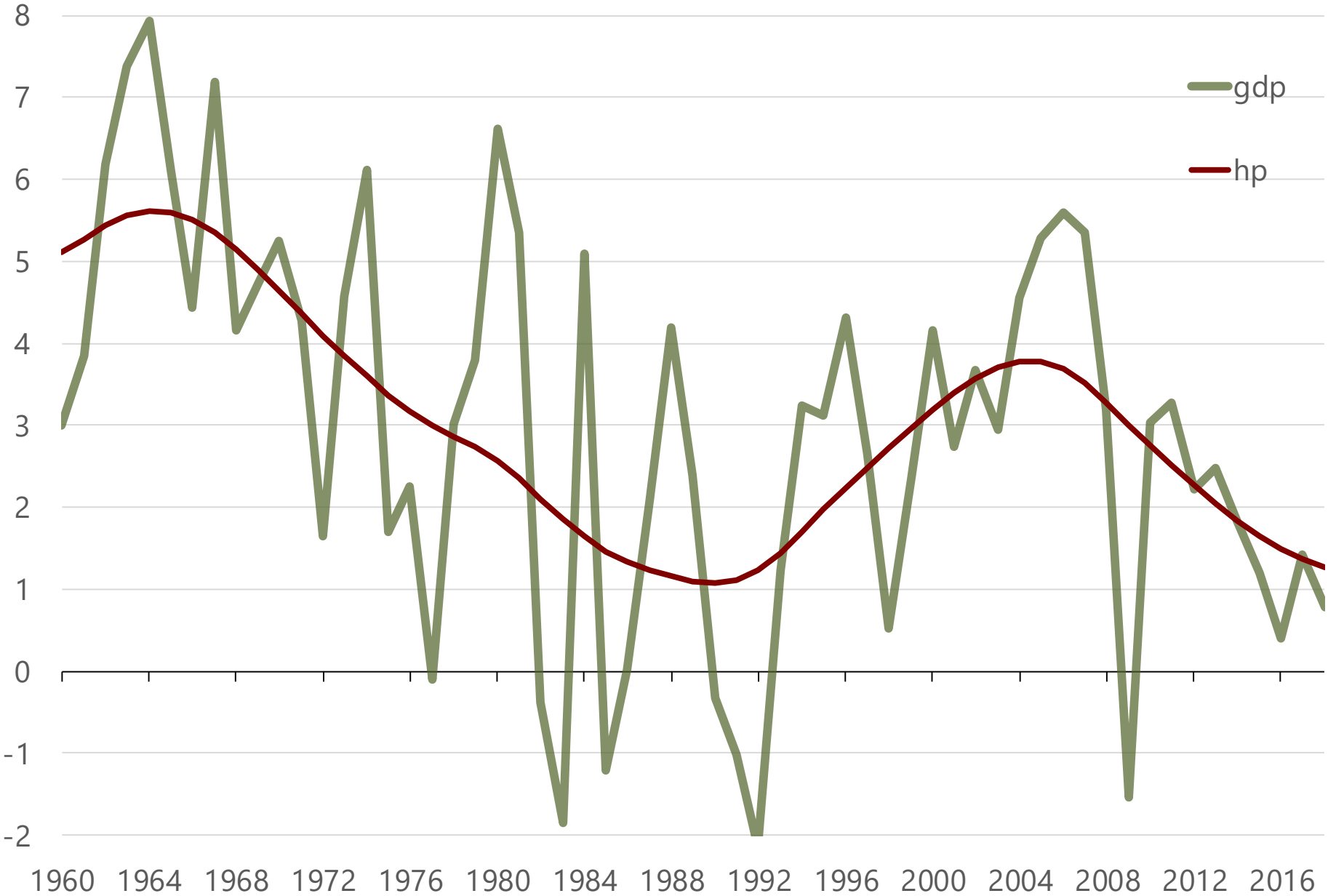
Fiscal stabilisation, cycles and trends

Fiscal objectives and the business cycle

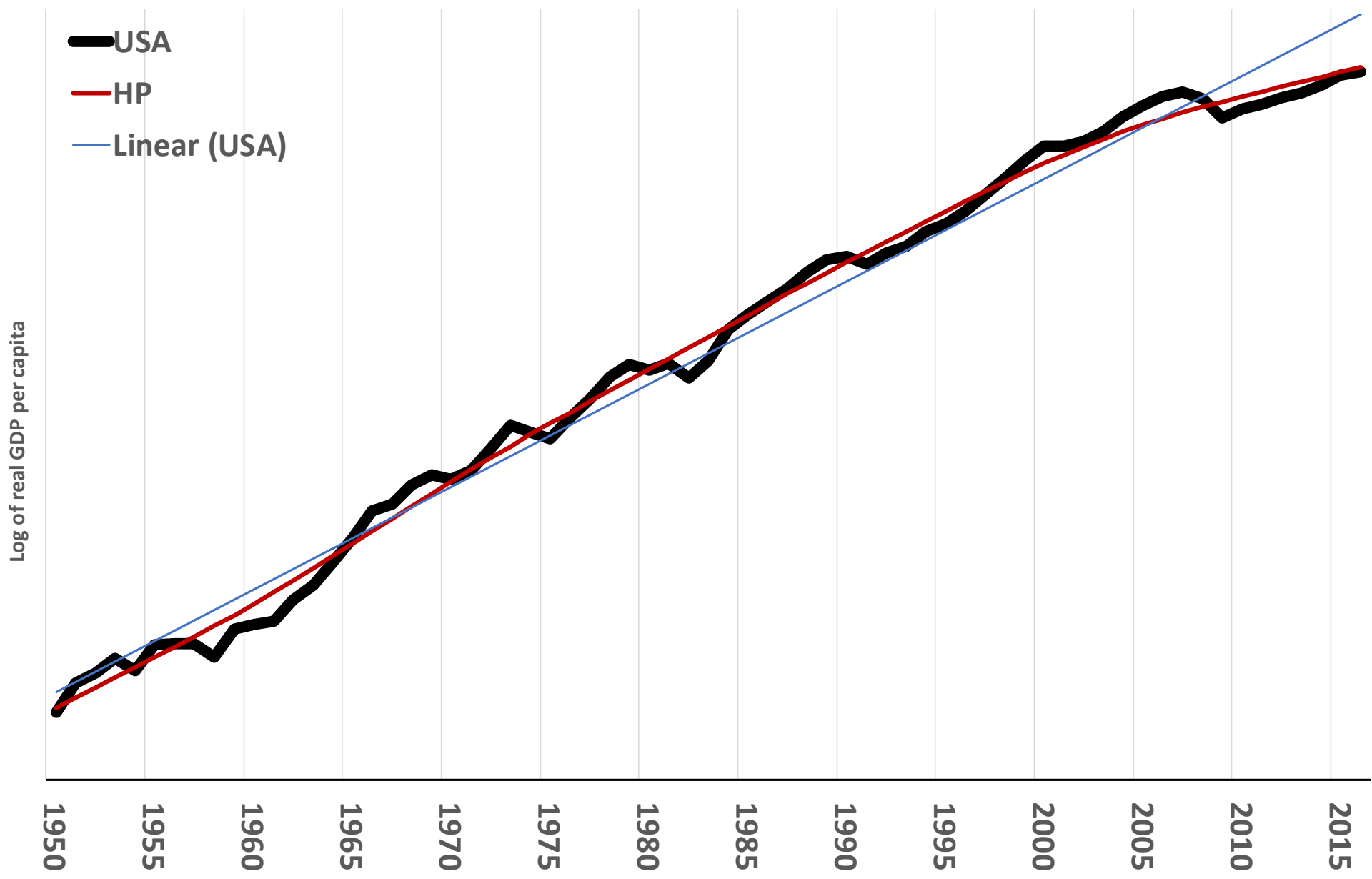
- Counter-cyclical fiscal policy: Offset the impact of shocks that create large or persistent gaps between aggregate demand and potential output
- Potential output indicates the **aggregate supply** capacity of the economy



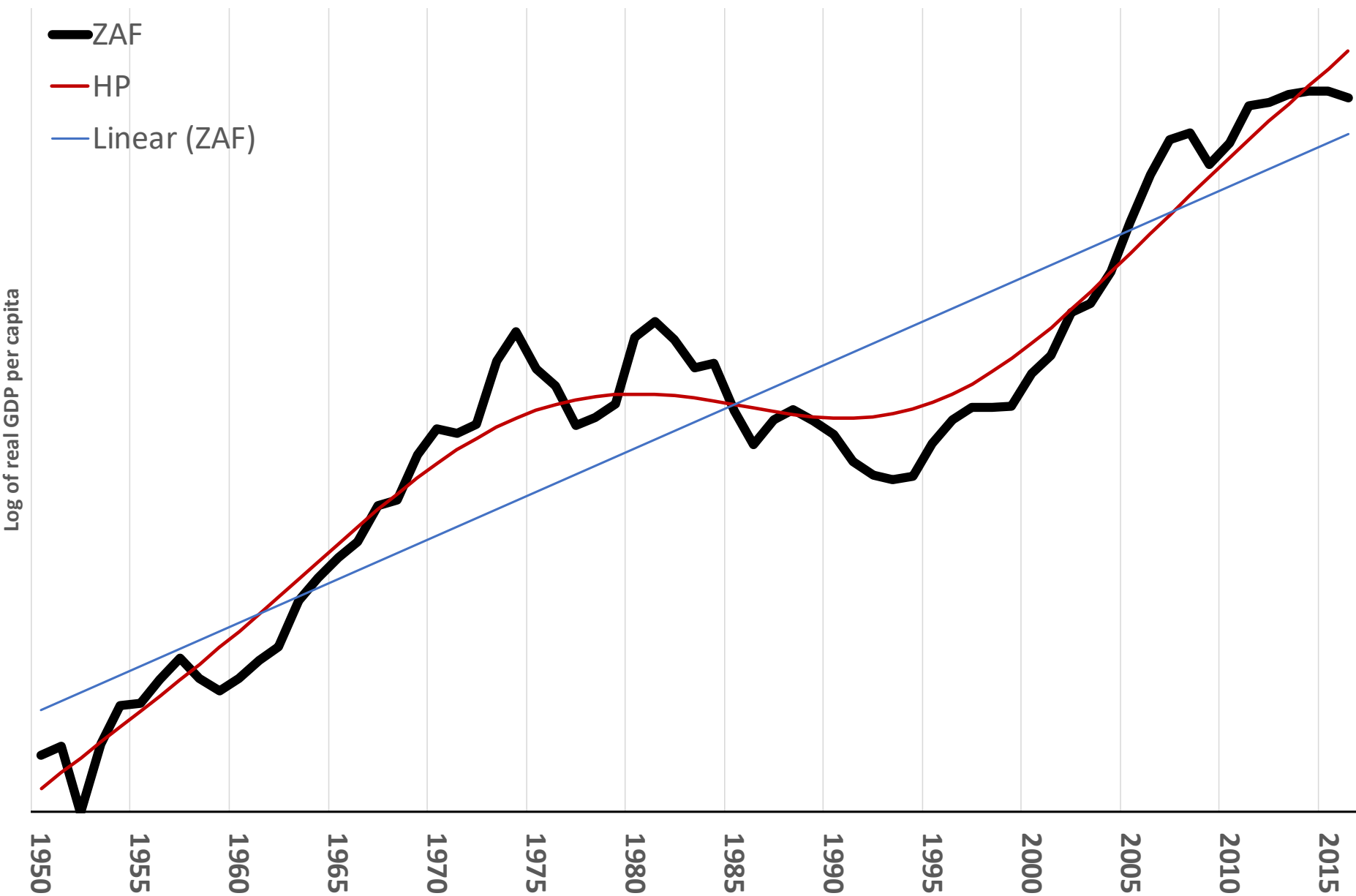
South Africa: Growth since 1960



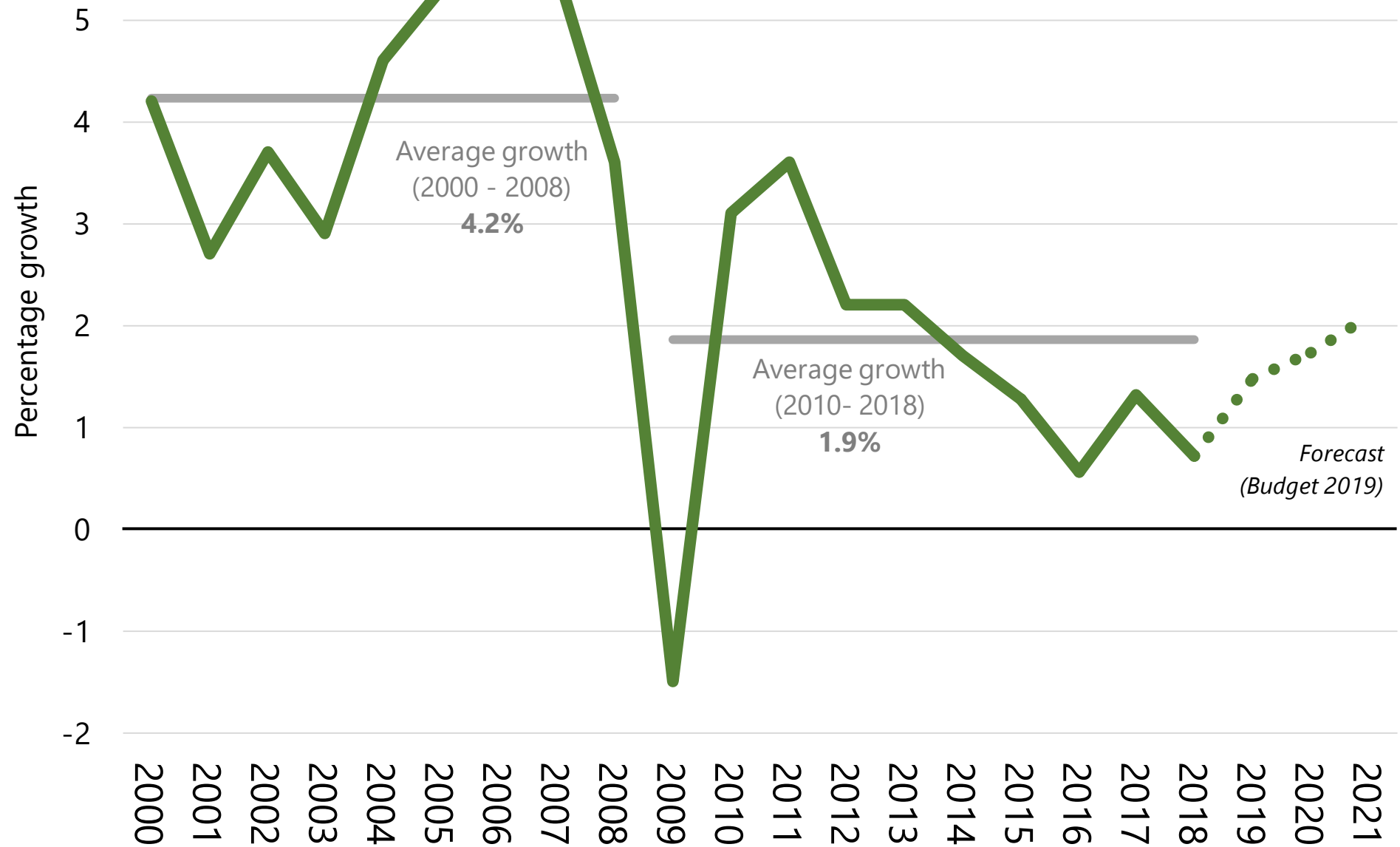
USA The cycle and the trend



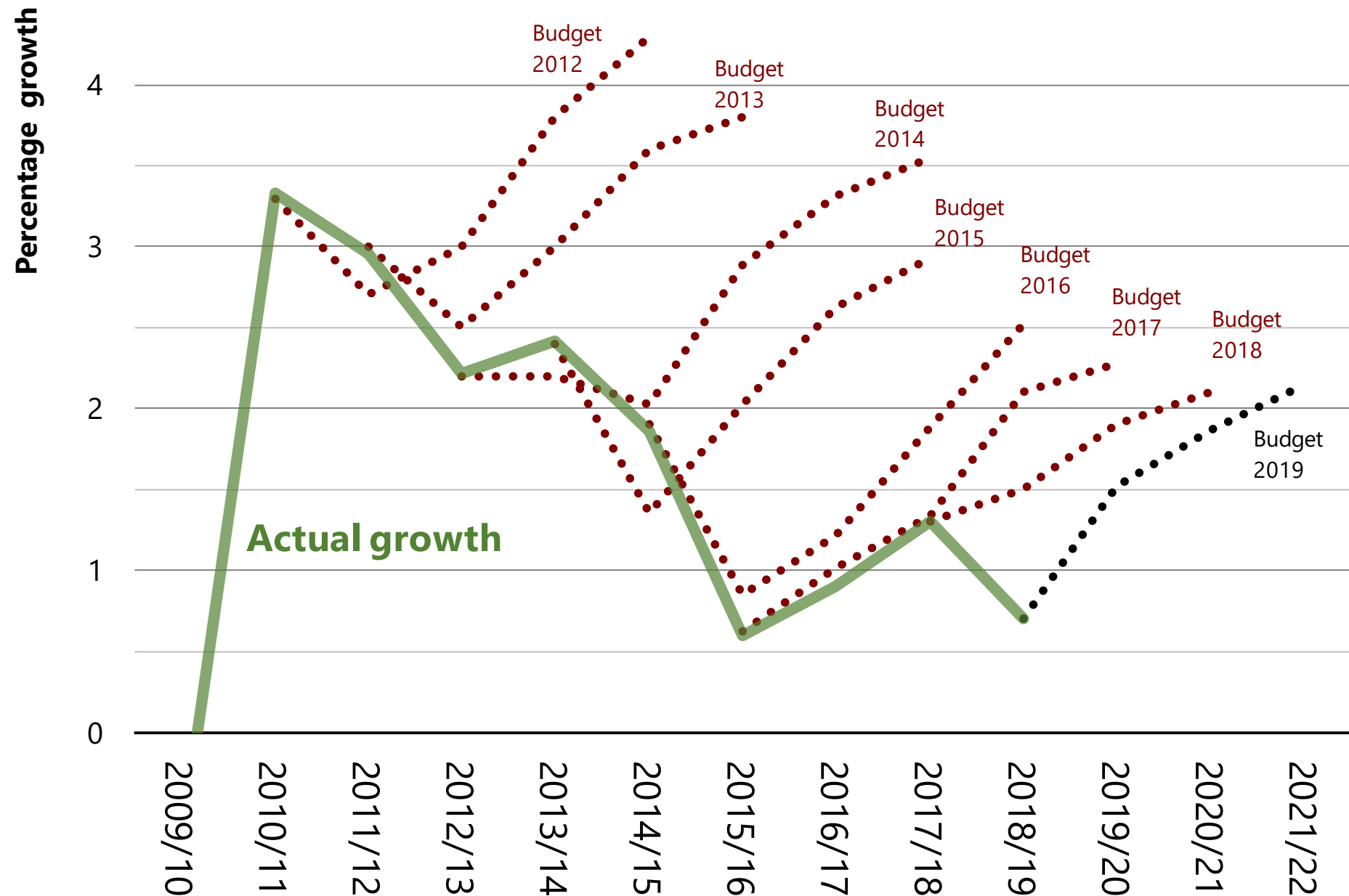
South Africa The cycle and the trend



Transition to a lower growth path



GDP growth and budget projections



Stabilisation and government's budget constraint

- **Fiscal policy:** the use of the level and composition of the general government and public sectors' spending and revenue – and the related accumulation of assets and liabilities – to achieve such goals as the stabilization of the economy, the reallocation of resources, and the redistribution of income
- Fiscal policy influences aggregate demand:
 - Directly because $Y = C + I_p + I_g + G + (X - M)$
 - Indirectly because C depends on private *disposable* income: $c = c(y-t)$
- **Automatic stabilisers:** revenue or expenditure provisions that dampen the economic cycle (have a counter-cyclical impact) without the need for policy intervention.
- **Discretionary policy measures:** active policy changes in response to economic fluctuations, such as cutting tax rates or increasing expenditure.
- **Expansionary:** Uses higher government spending and/or lower tax rates to increase economic activity by boosting aggregate demand.
- **Contractionary:** Using lower government spending and/or higher rates of taxation to reduce economic activity by limiting aggregate demand.
- The concept of a cyclically adjusted (or structural) deficit, enables policy makers to determine whether the discretionary fiscal impulse is contractionary or expansionary leaving aside the impact of automatic stabilisers

Macroeconomics of the deficit

- Pre-Keynesian presumption: deficits are in balance (except in wartime) and great depression failed attempts to balance budgets
- Keynes (1936) balancing the budget is the wrong policy in a recession because the deficit has direct impact on the size of aggregate demand, and therefore income in the short to medium term.
- **Balanced budget multiplier** shows that an equal increase in spending and revenue increases aggregate demand, leaving the deficit is unchanged.
- **Structural balance**
 - Aggregate demand has an impact on the deficit: causality runs both ways
 - Structural deficit: the size of the deficit as it would be if output were at potential
 - Cyclically adjusted balance as a “norm” of fiscal behaviour (i.e. the budget should balance over the business cycle)
- **Ricardian equivalence**
 - fiscal policy also has an impact on private savings and consumption behaviour, which offset fiscal expansion
 - At an extreme there is no difference between tax and deficit financing because private agents only care about the present value of taxes; debt is just future taxes (i.e. Ricardian equivalence)
- **Financing and sustainability**
 - Keynesian analysis is short run, assumes fixed asset stocks
 - Therefore, the financing method is irrelevant
 - But over time, it matters a lot how a deficit is financed

- What is the impact of an expenditure programme that is fully financed by taxes?
- Assume taxation is exogenous
- An increase in expenditure leads to a multiplier process:

$$\Delta y = \Delta g(1 + c_y + c_y^2 + \dots)$$

- If taxes are increased by the same amount

$$\Delta y = \Delta t(-1 - c_y - c_y^2 + \dots)$$

- Which implies a that:

$$\Delta y = \Delta g = \Delta t \qquad \frac{\Delta y}{\Delta g} = 1$$

- So an increase in spending that is tax financed will expand income by an equal amount
- The incidence of taxation and expenditure across the income distribution is also important:
 - Here we assumed the same c_y
 - But if $c_y^t < c_y^g$ then the multiplier will be greater than 1

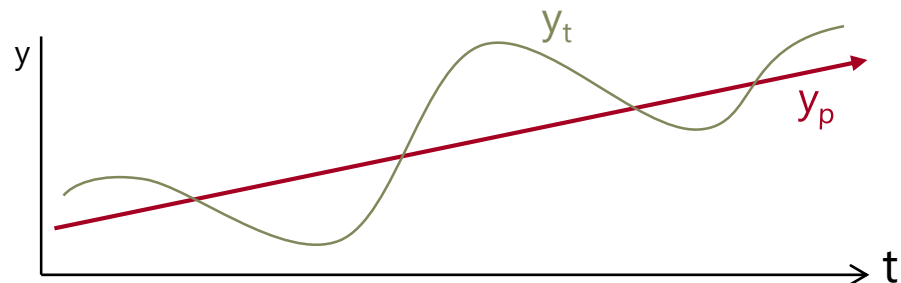
- Taxation is typically a function of income $t = t(y)$
- In developed economies, expenditure also has entitlements which automatically vary with economic activity (e.g. unemployment benefit); this is typically not the case in developing countries.
- **Cyclically adjusted budget deficit:** the deficit that would prevail given existing taxes and spending commitments if the economy was operating at potential output

$$g(y_t) - t(y_t) \equiv \underbrace{[g(y_p) - t(y_p)]}_{\text{Structural (cyclically adjusted) primary deficit}} + \underbrace{a(y_p - y_t)}_{\text{Impact of automatic stabilisers}}$$

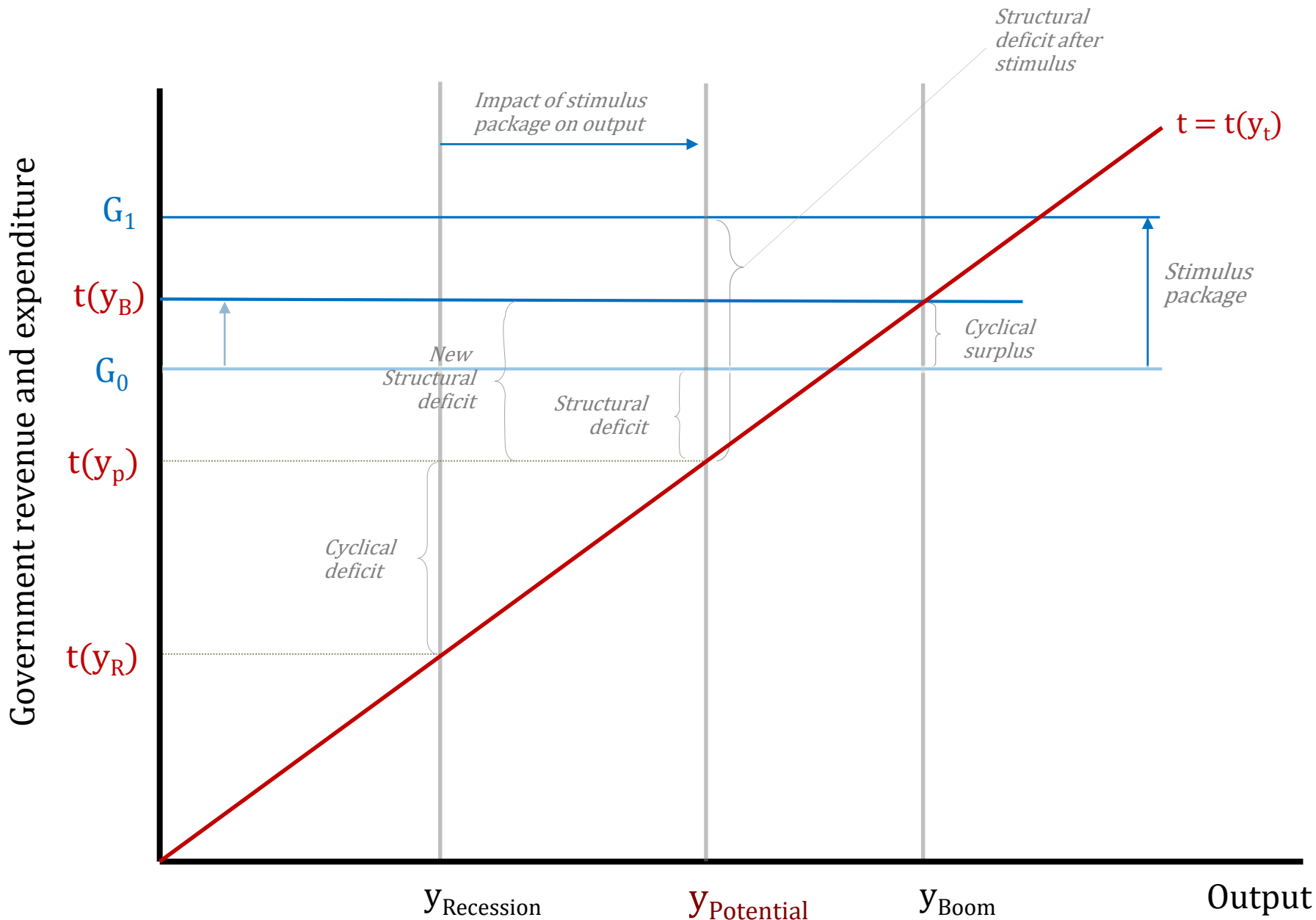
Discretionary fiscal impulse

Output gap

- Note that, automatic stabilisers have distributional consequences over the cycle



Structural and cyclical deficits



- The politics of counter-cyclicality are difficult to manage, especially during the boom/surplus. This can create a ratcheting up effect.
- Ideally discretionary measures should be:
 - **Timely**, to avoid procyclicality
 - **Temporary**, to avoid permanent structural damage, and
 - **Targeted**, to maximize the multiplier impact.
- All fiscal measures have distributional consequences.
 - Automatic stabilisers tend to benefit wealthy tax payers, especially in developing economies where automatic expenditure adjustments are small.
 - Pro-poor discretionary interventions are often difficult to reverse.
- Some would argue that (left to itself) fiscal outcomes are endogenous – i.e. a deficit is the result of the changing economic conditions, not their primary cause.

- How the deficit is financed impacts on the resulting macroeconomic imbalance because it leads to a change in asset stocks held by various agents in the economy
- Budget identity can be written

$$G + iB \equiv T + \Delta B + \Delta H$$

- In each period government must finance its expenditure (G) and pay interest on the stock of bonds issued.
- The deficit (a flow) leads to an accumulation of debt (a stock)
- Eventually these changing stocks must have some impact on the economy
- A broader set of financing instruments include the following:

Financing**Macro imbalance**

Budget deficit =	Printing money	Inflation
+	Foreign reserve use	Exchange rate crisis
+	Foreign borrowing	External debt crisis
+	Domestic borrowing	Real interest rates and/or explosive debt dynamics

- Printing money (supply) at a rate that exceeds the growth in demand for it at the current price level creates excess cash balances in the hands of the public.
- Excess supply leads to a fall in the price of money (inflation)
- Money demand grows at a rate influenced by:
 - Income growth
 - Demand for money
 - Elasticity of demand for real balances with respect to income and inflation
- How does this finance the deficit?
- Government can print money to meet rising demand for money without raising inflation.
- Beyond this, there will be inflation.
- With inflation, government is financing expenditure at everybody's expense (since the real value of incomes and nominal contracts fall)
- There is a Laffer curve of monetisation: i.e. a balance between printing money and inflation that maximizes government revenue).
- But (beyond a certain point) inflation is an unstable process (a little like the rocks in this picture)



- Government issues debt to domestic households
- In effect money is withdrawn from households in exchange for bonds
- These bonds form part of financial wealth of households
 - Rising wealth of the household sector leads to higher consumption
 - It also changes the balance between bonds and money in portfolio of household assets (shifting the LM curve to the left)
- But do households regard their bond-holding as wealth?: Households (who hold bonds) are also taxpayers: debt might be seen as taxes tomorrow vs taxes today.
- Ricardian equivalence (of taxes and bonds) assumes
 - Absence of liquidity constraints on households
 - Government and households have the same time horizon (which is infinite)
- Nevertheless, fiscal policy changes are offset by changes in private sector savings

- In any period (e.g. one year) the *nominal* budget identity must be true:

$$G + iB \equiv T + \Delta B + \Delta H$$

Uses of funds *Source of funds*

- Assume that monetary financing is off the table, then: $G + iB \equiv T + \Delta B$
- Rearranging, the deficit is the same as the change in the stock of debt

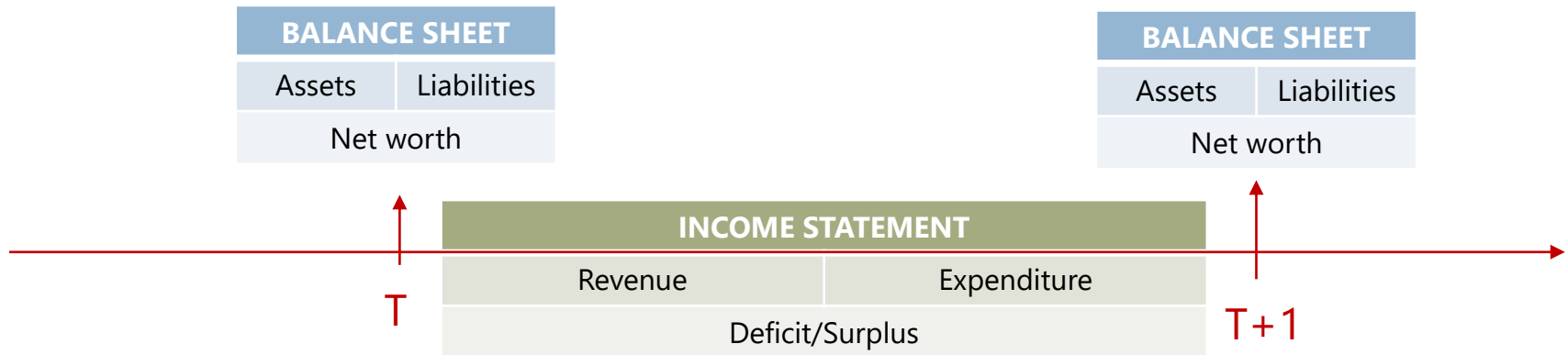
$$\Delta B \equiv [G - T] + iB$$

Change in the stock of debt *Budget deficit*

Primary balance *Interest payments*

- Note ΔB refers to the change in the stock of issued bonds
- But in broader terms, we should think of it as a change in the net worth of government, which can take place through the issuance of various types of liabilities and the running down of assets

$$(\Delta B + e\Delta B^f + \Delta L + \Delta L^H) - \Delta A \equiv [G - T] + iB$$



Stocks

- Wealth
- Financial and economic wealth
- Capital stock
- Investment position
- Debt
- Ownership of assets

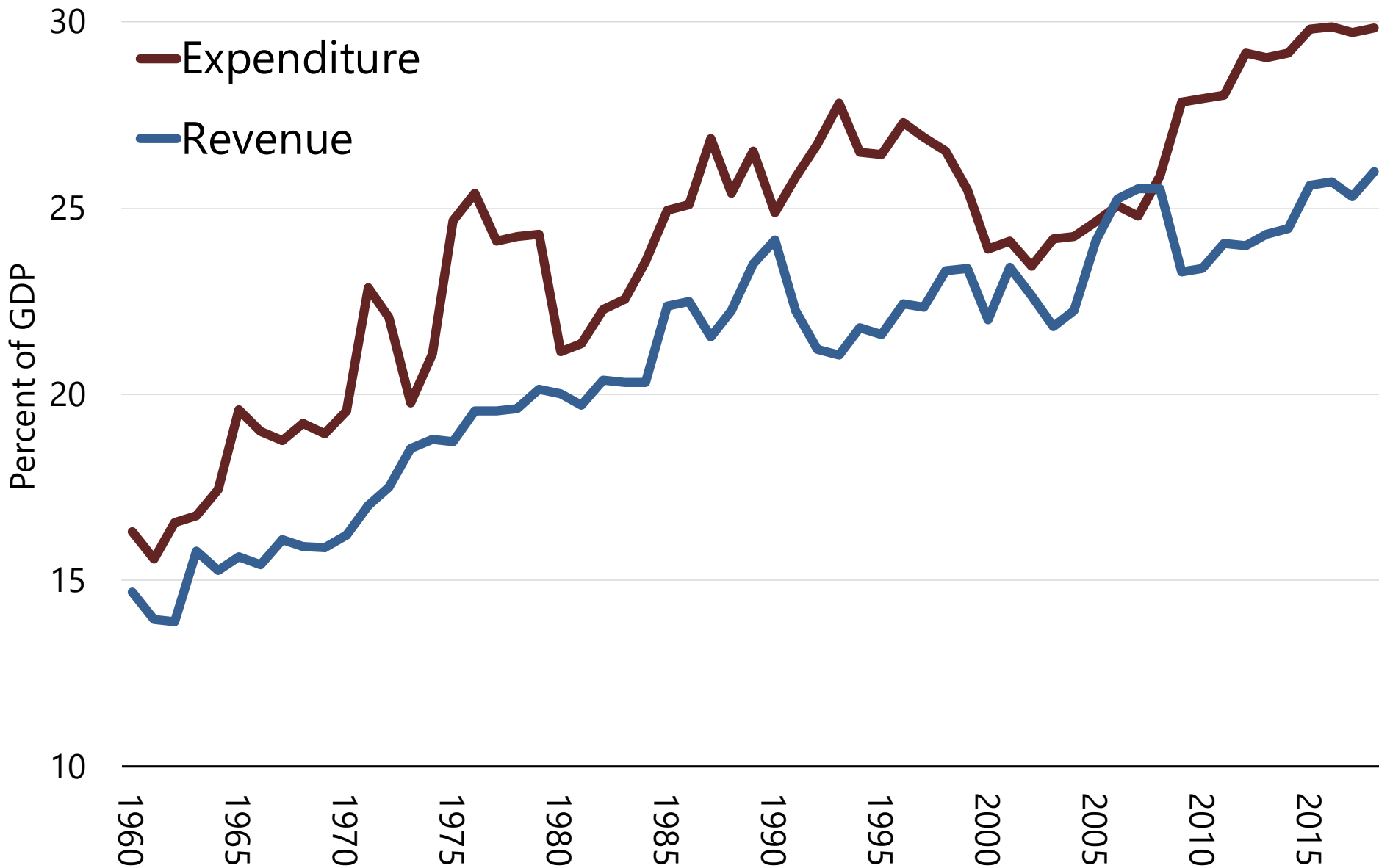
Flows

- Output = Income
- Expenditure on Consumption or investment
- Exports and Imports
- Savings
- Income (Salaries, Profits, Rents, Taxation)

- **Deficit financing** (choices with consequences)
 - Money creation and inflation
 - Domestic borrowing
 - Foreign borrowing
 - Running down assets:
 - Accumulated surpluses (including foreign reserves)
 - Increase non-debt obligations (e.g. unfunded pension liabilities)
 - Incur hidden liabilities (e.g. accruals)
 - Privatisation and other asset disposals
- **Debt issues**
 - Fiscal sustainability?
 - Inter-generational equity
 - Debt service costs and the budget
 - Public debt, growth, and interest rates
 - Debt, confidence and multiple equilibria
 - Fiscal balance and sector balances

Fiscal policy in South Africa

National government revenue and expenditure since 1960

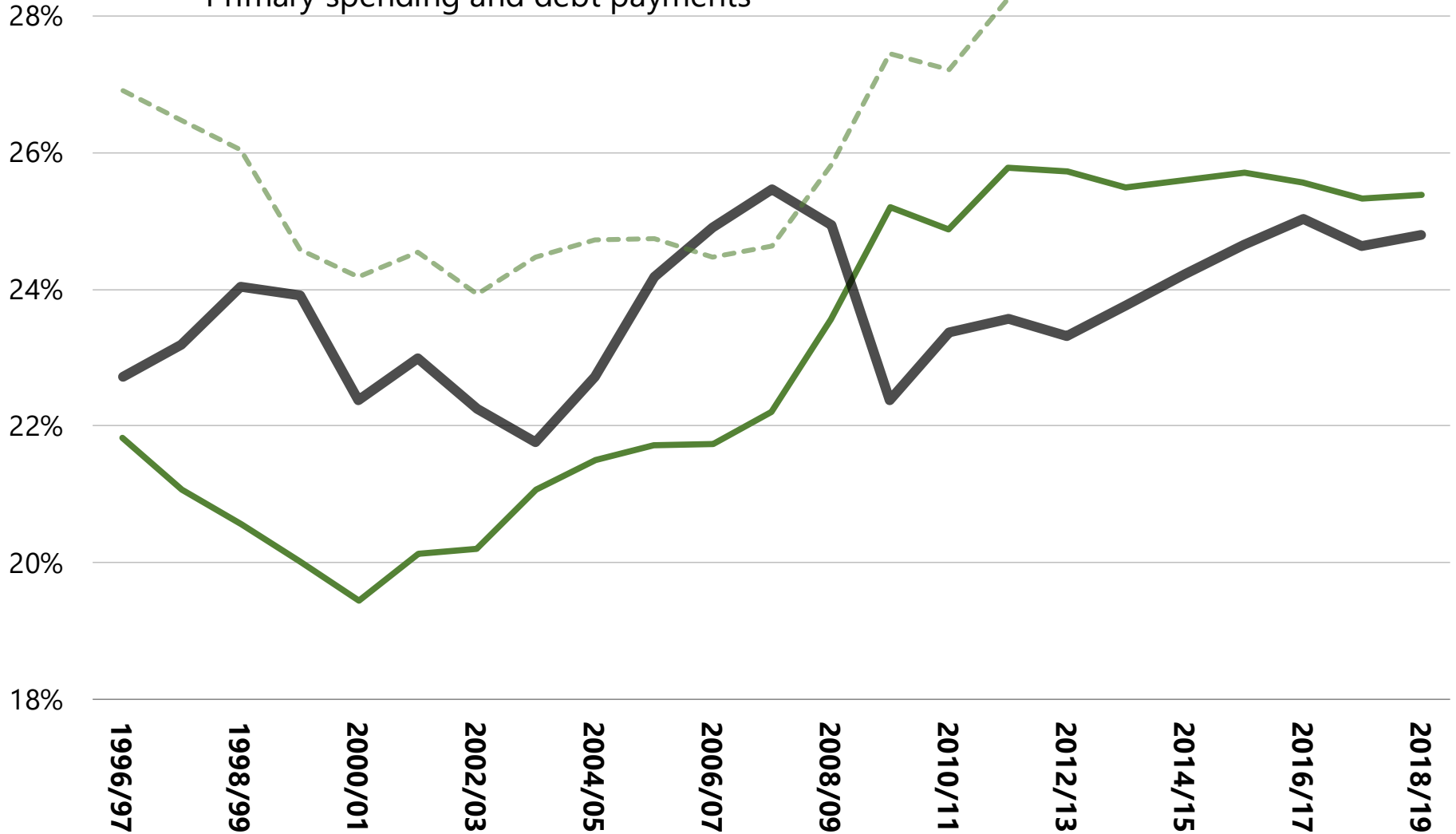


Fiscal policy over 25 years (Main budget)

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Percent of GDP

- Primary spending*
- Revenue
- Primary spending and debt payments



Source Data: National Treasury

* Primary spending excludes debt service costs, financial bailouts and self financing expenditure.

Fiscal policy and growth

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Percent of GDP

- Primary spending*
- Revenue
- Primary spending and debt payments

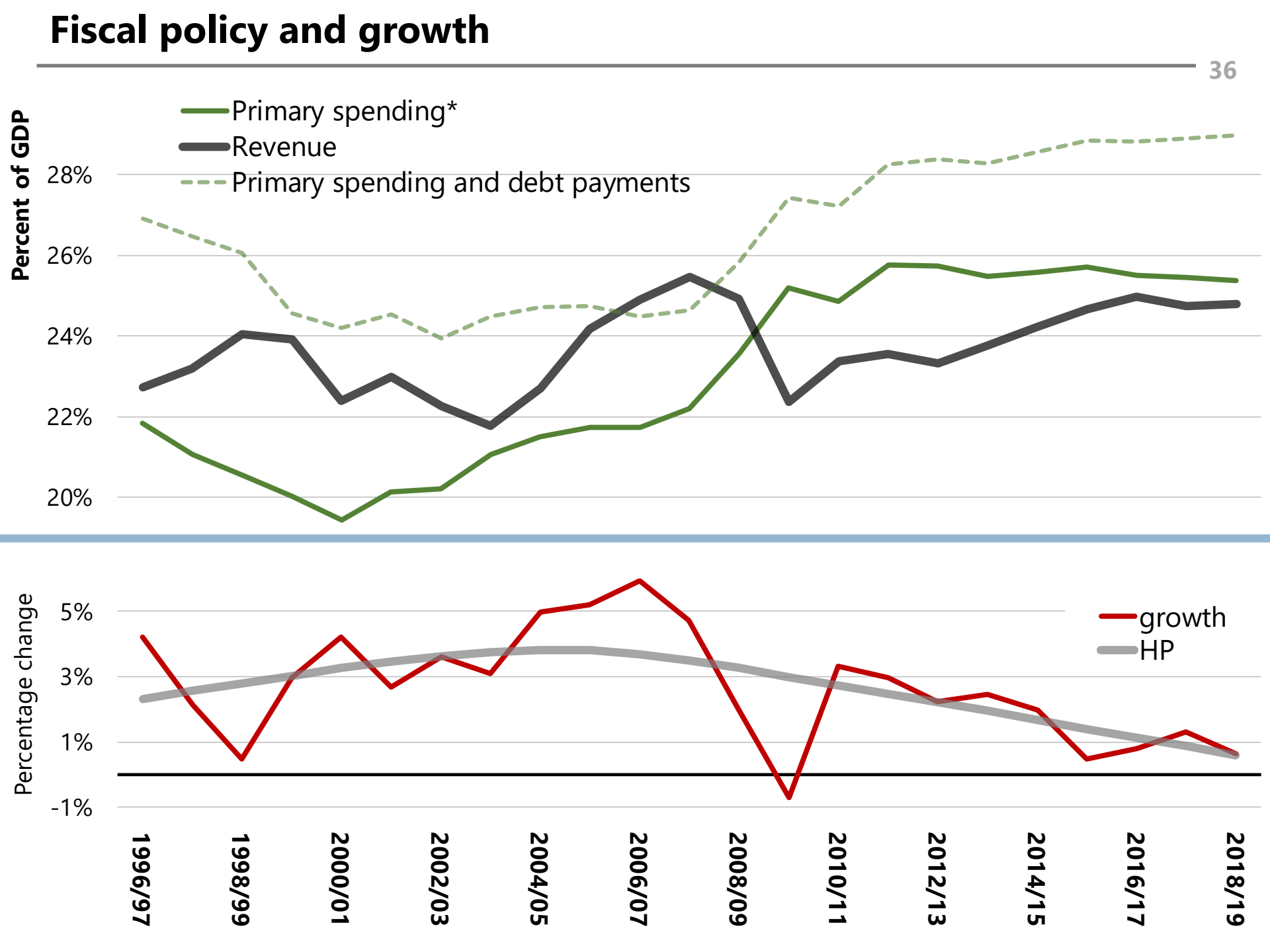
28%
26%
24%
22%
20%

Percentage change

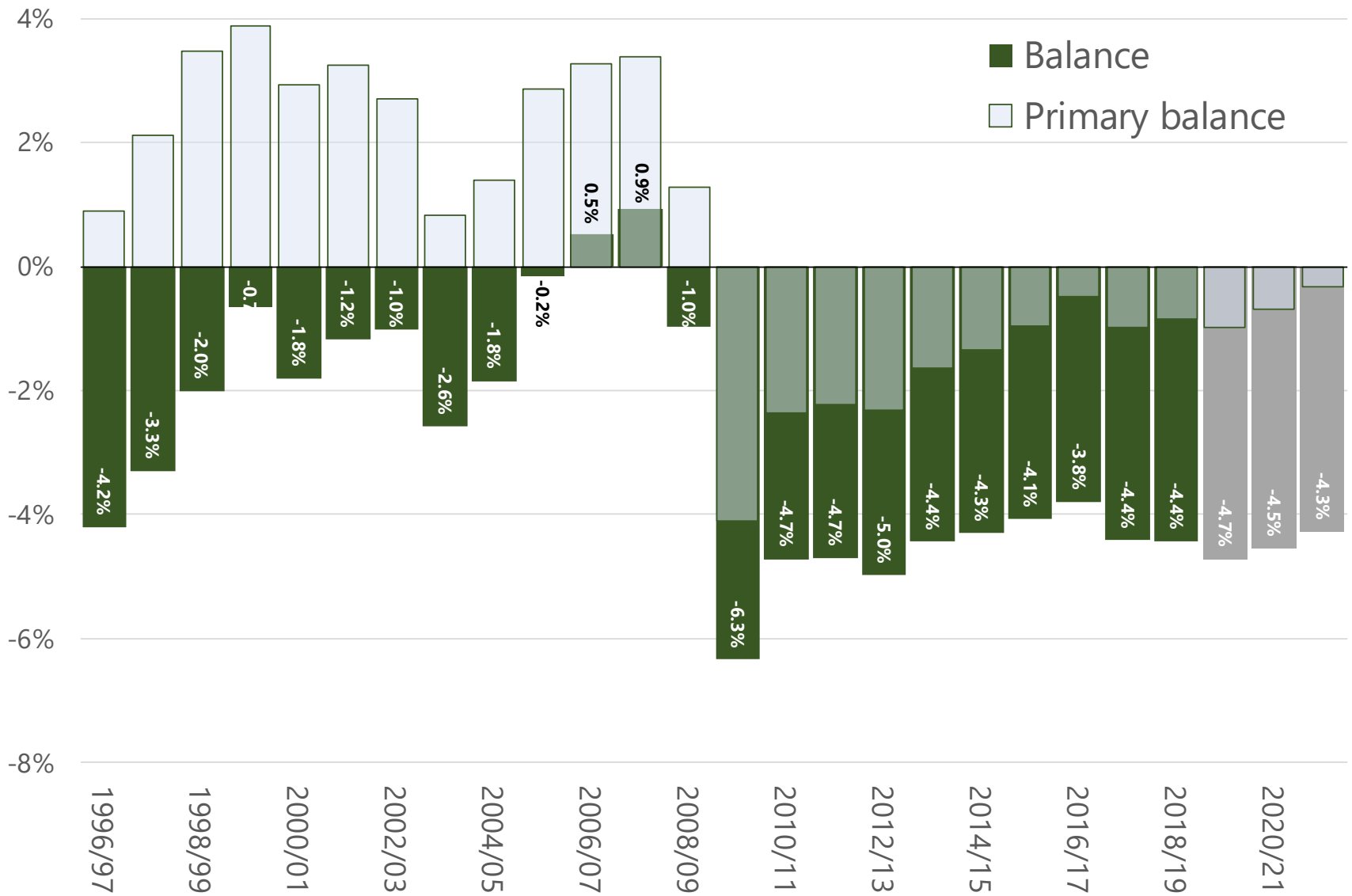
- growth
- HP

5%
3%
1%
-1%

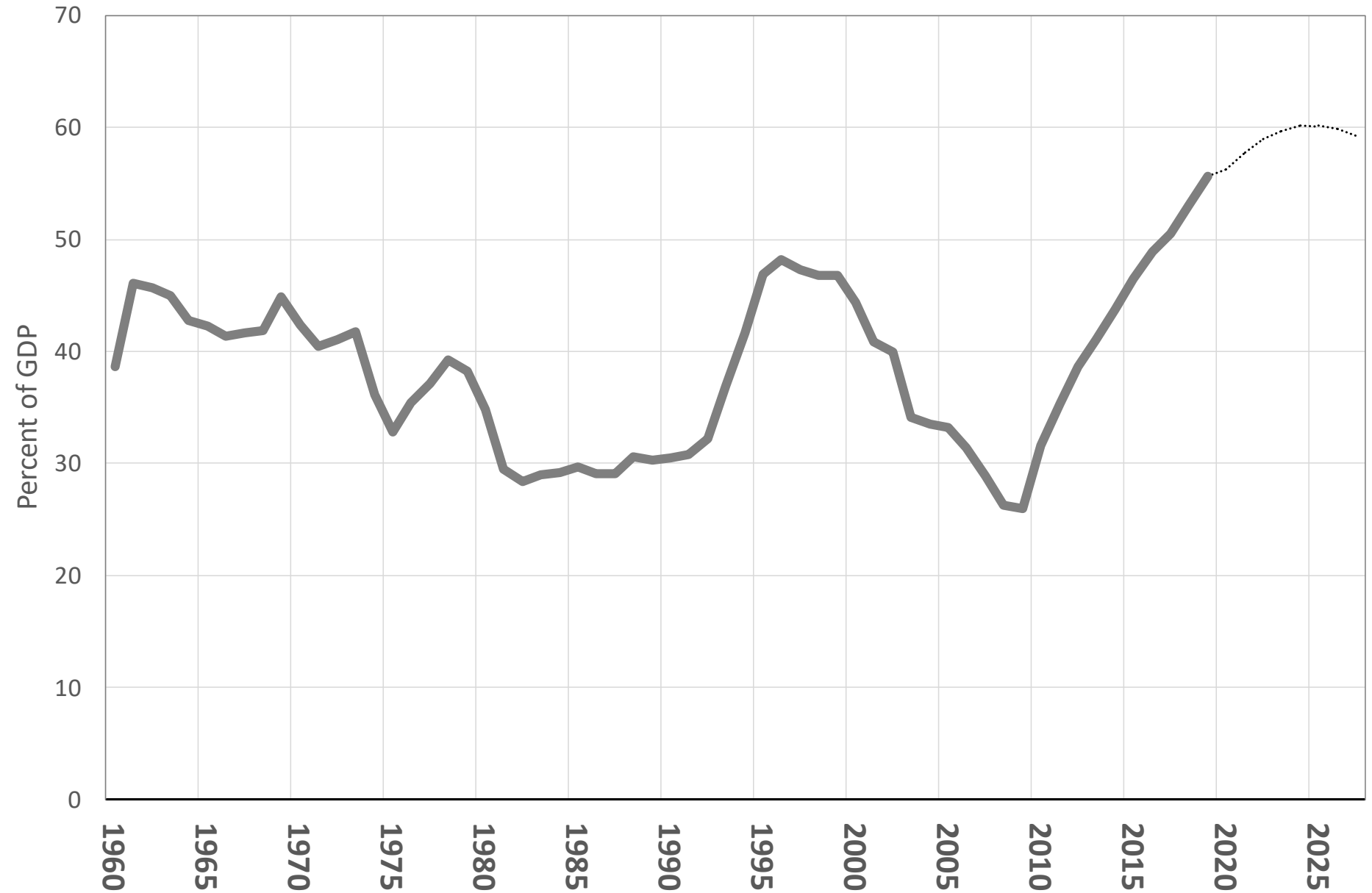
1996/97 1998/99 2000/01 2002/03 2004/05 2006/07 2008/09 2010/11 2012/13 2014/15 2016/17 2018/19



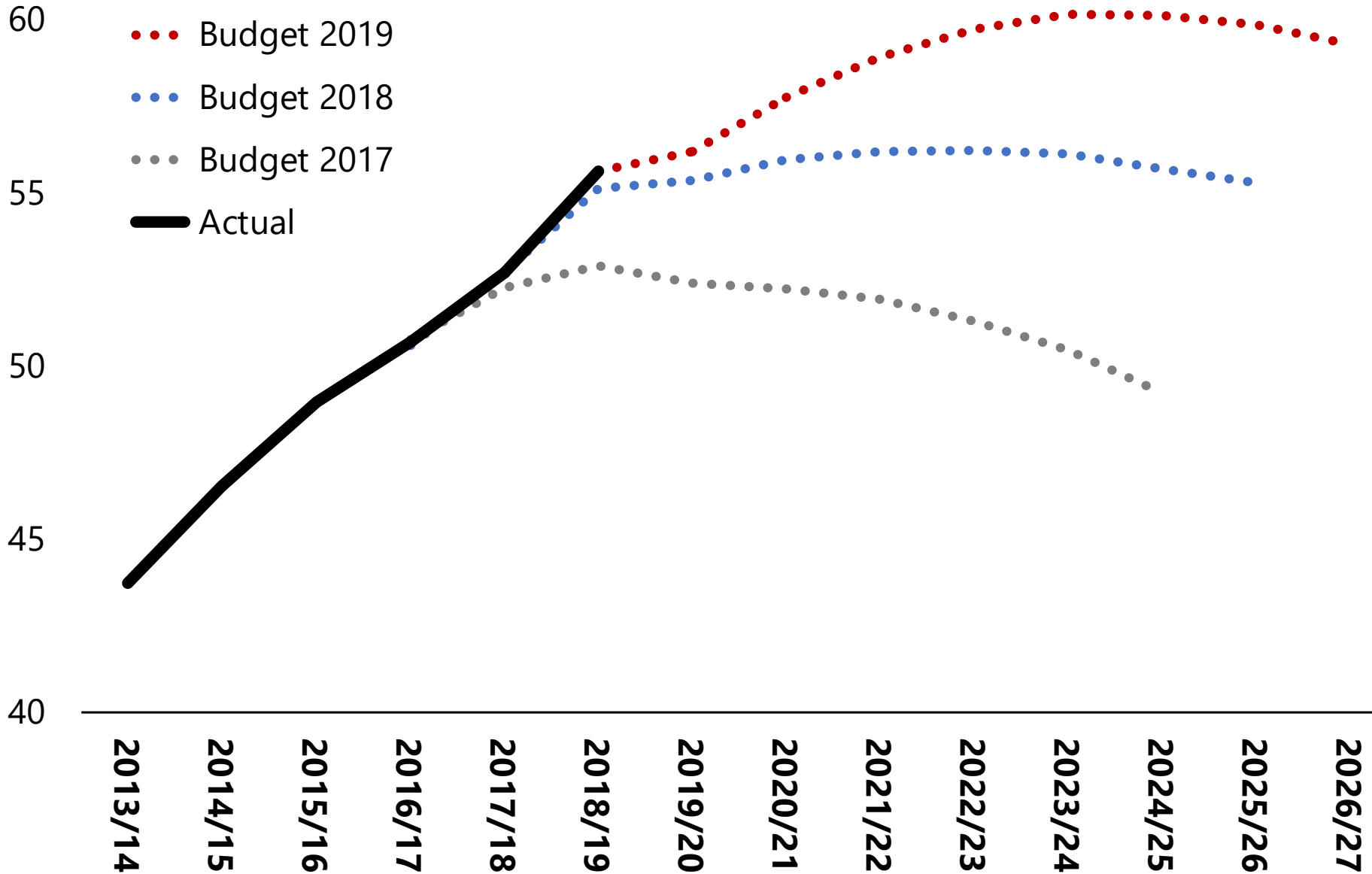
Composition of the budget deficit



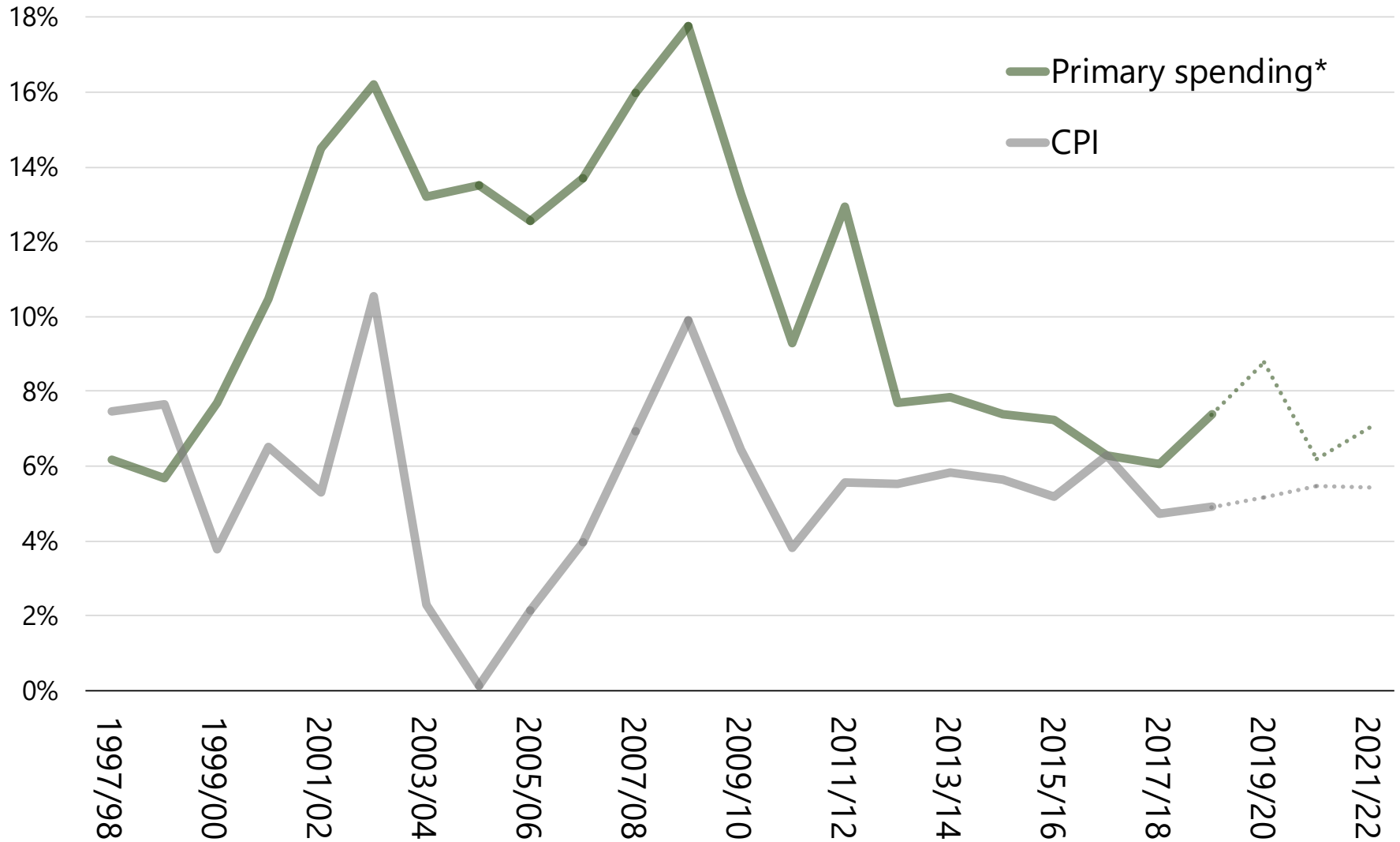
South Africa Debt-to-GDP ratio 1960 to 2027



Debt-to-GDP trajectory is not slowing



Spending growth



* Payments excluding debt service costs, payments for financial assets, provision for Eskom and self-funding transfers

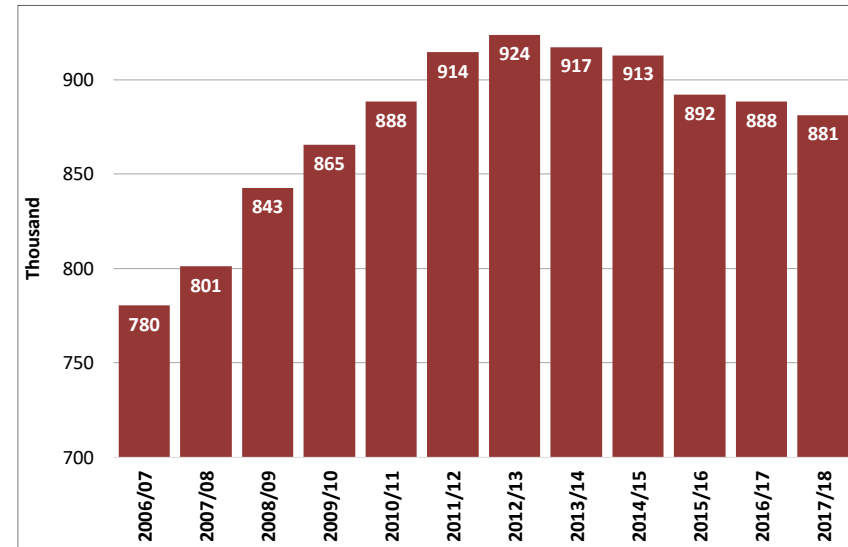
Compensation spending

Three critical trends :

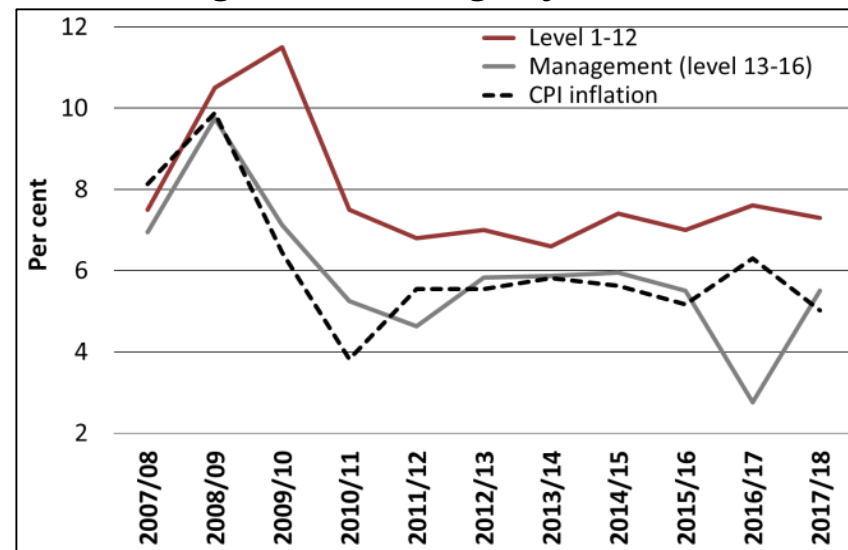
- Compensation crowding out other budgets
- Stable and falling headcounts imply growing pressure on delivery
- Compression of the wage structure as higher end salaries are held down

Department/Sector	2008/09 % of Total	2016/17 % of Total
National	57.7%	67.7%
Correctional services	63.0%	66.9%
Defence	38.2%	57.3%
Justice	54.1%	55.9%
Police	70.0%	76.6%
Provincial health departments	57.0%	63.2%
Eastern Cape	58.0%	65.6%
Free State	64.7%	64.1%
Gauteng	52.0%	62.2%
KwaZulu-Natal	58.9%	63.1%
Limpopo	58.9%	71.0%
Mpumalanga	58.5%	63.2%
North West	56.6%	62.0%
Northern Cape	51.1%	53.1%
Western Cape	56.3%	58.9%
Total consolidated expenditure	32.4%	35.3%

Headcount: provincial government

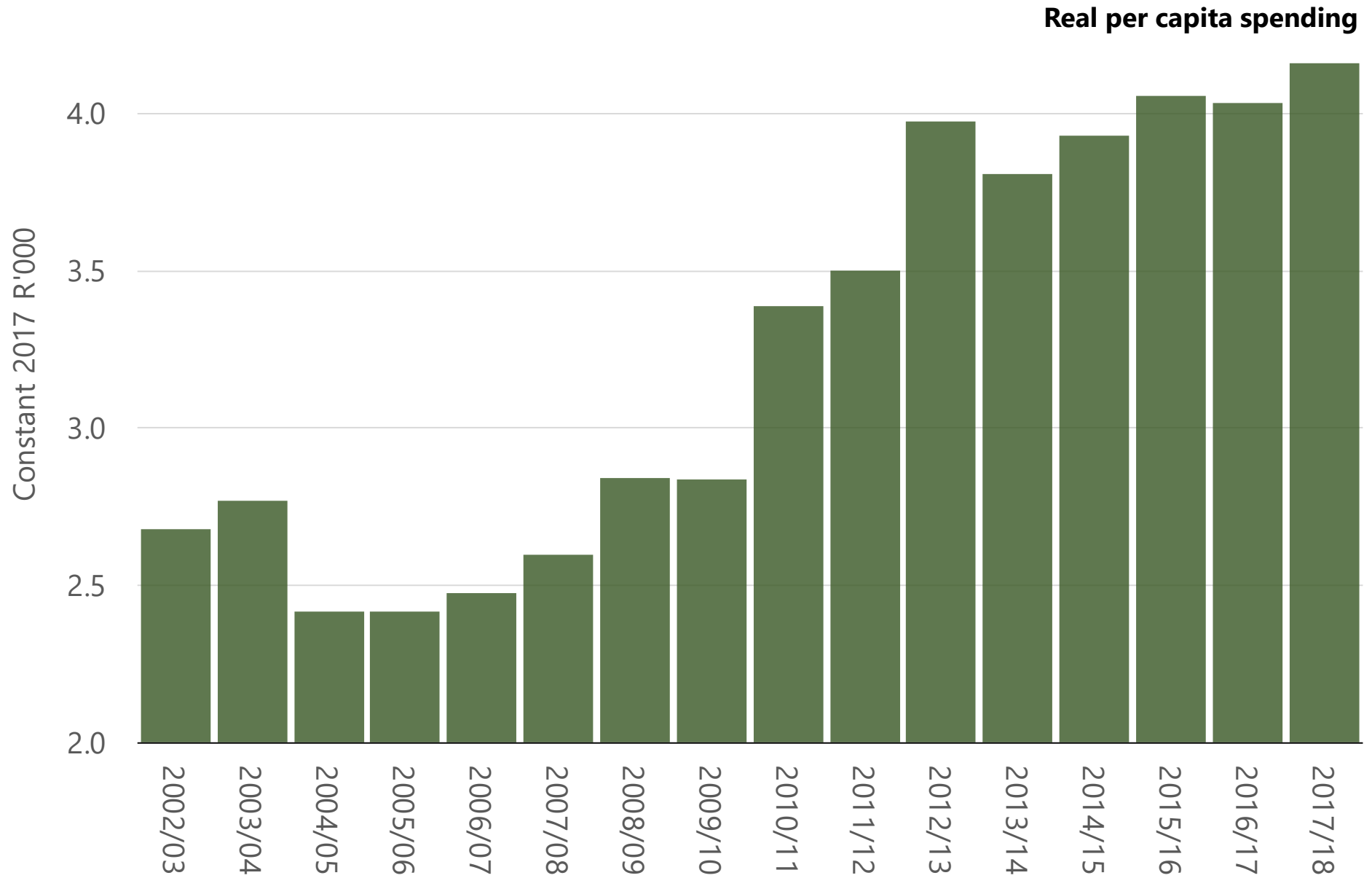


Average cost of living adjustments and CPI



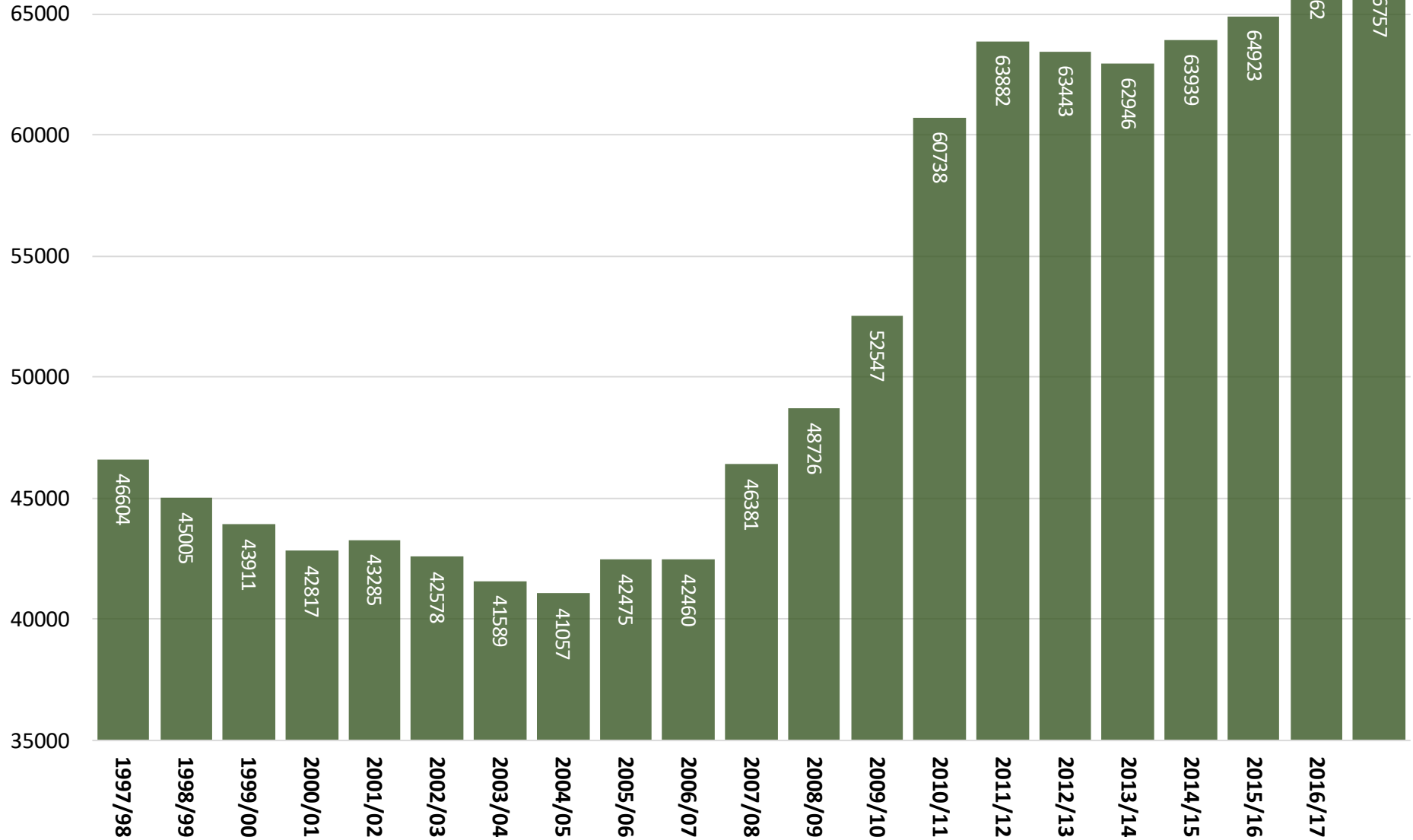
Gauteng health department: Resource envelope

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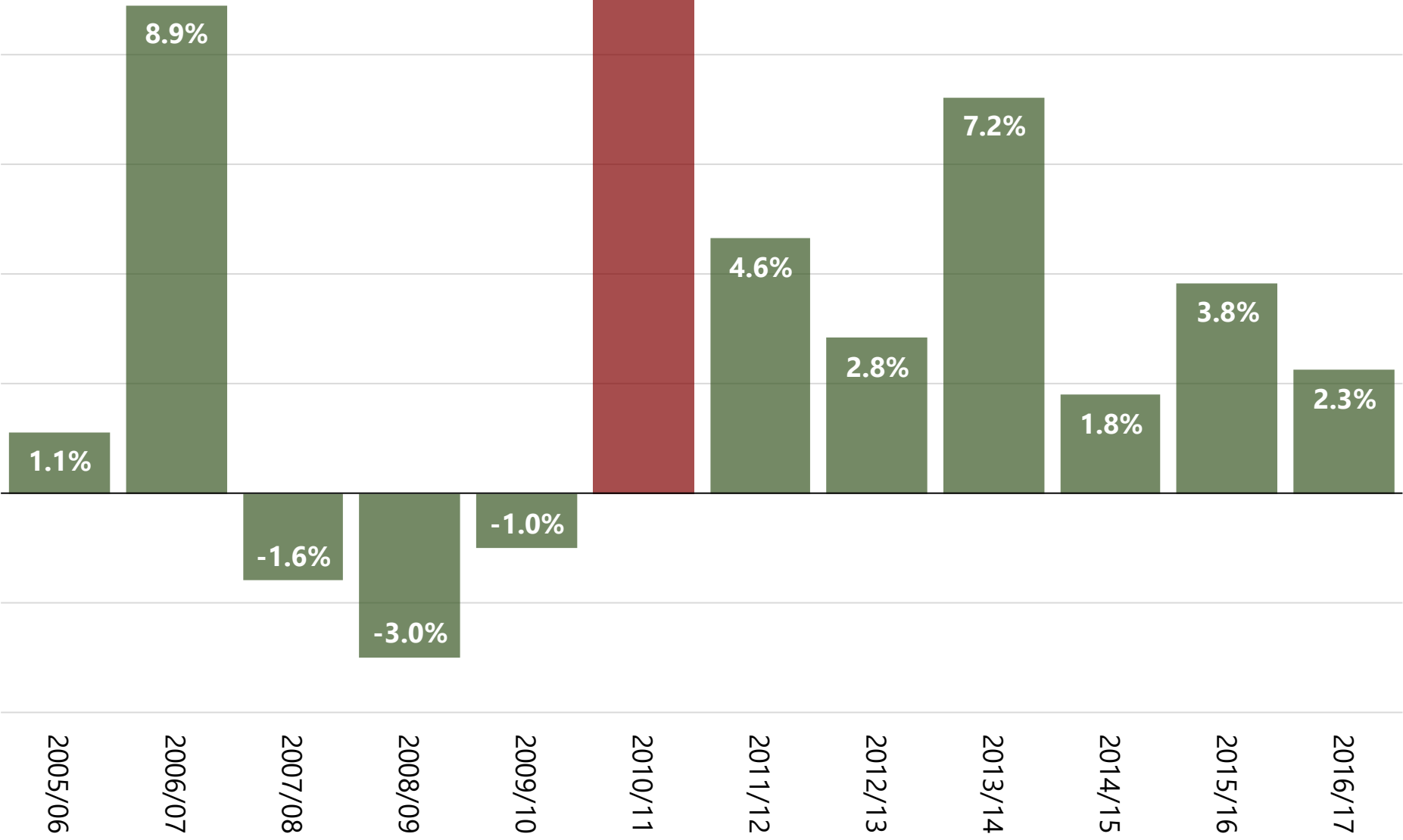
Gauteng health department: Employment surge

Total headcount (1997 – 2017)



Gauteng Health Department: Wage shock

Real growth of average remuneration



- Over the last decade there has been a very large increase in resources available to the health sector in Gauteng
- This has been absorbed by increased costs – especially a wage shock - and a surge in employee headcounts
- Within the available resource envelope there have been significant shifts:
 - Away from goods and services towards compensation
 - Away from central and provincial hospitals towards district and primary health services
 - Away for conditional grants towards funding from the equitable share
- Infrastructure and equipment budgets have frequently been underspent, despite the acute needs
- Gauteng primary health care services are amongst the most expensive and underutilized in the country
- The demand burden on provincial and central hospitals has continued to grow, despite a shrinking share of the budget

- Added to this has been a significant increase in medico-legal claims
- The consequence has been a rising hidden deficit on goods and services budgets in central hospitals
- This has disrupted service provision

Ave. annual real growth in spending 2006/7 – 2016/17

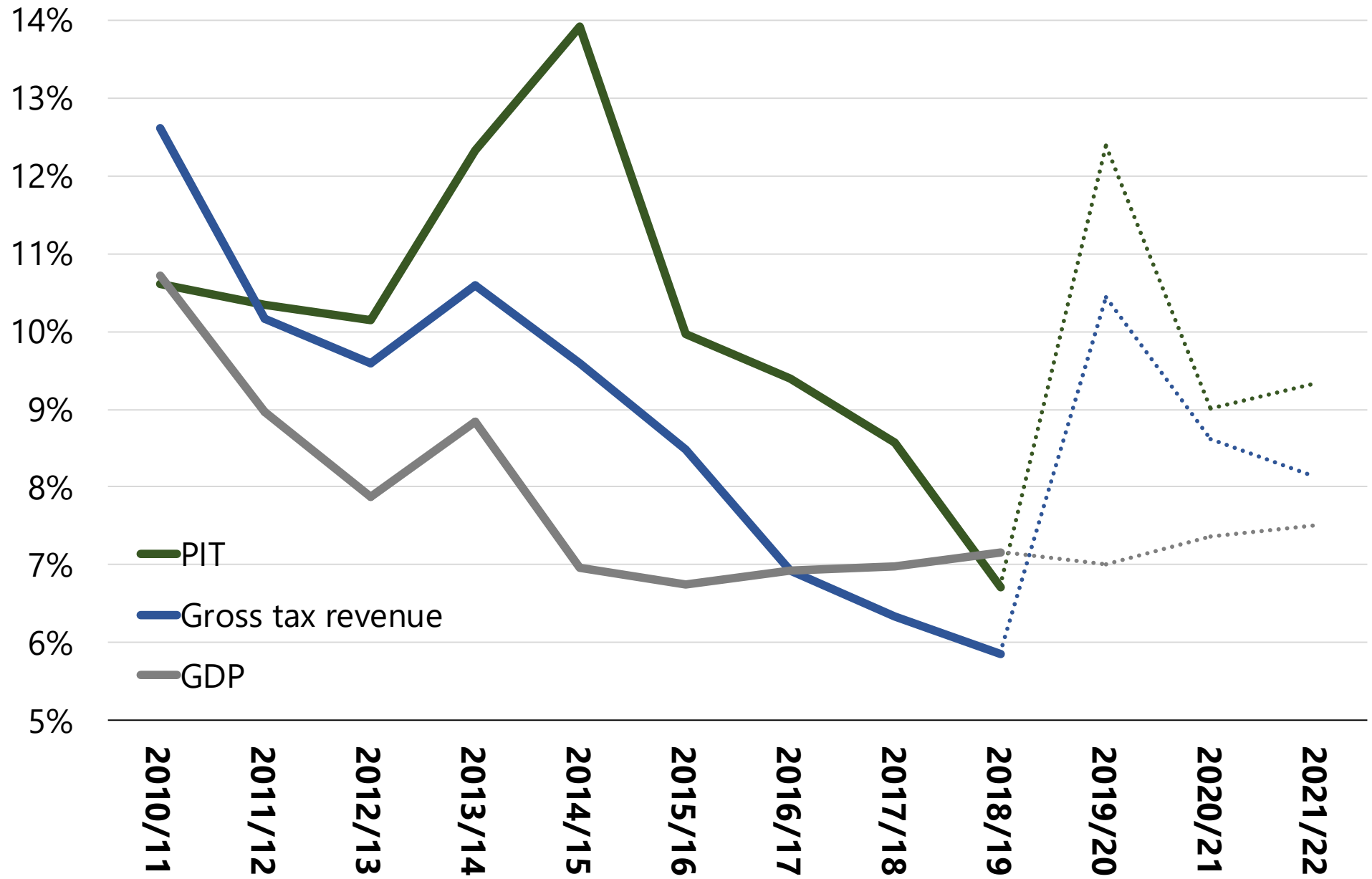
Compensation of employees	9.3%
Goods and services	4.2%
Transfers and subsidies	1.1%
Capital assets	-0.4%
TOTAL SPENDING	6.6%

Revenue: budget projections and outcomes

Under-collection (+ve) relative to original budget projection

	2015/16		2016/17		2017/18		2018/19	
	R bn	%	R bn	%	R bn	%	R bn	%
Personal income tax	5.8	1.5%	16.5	3.7%	21.1	4.4%	13.9	2.8%
Corporate income tax	10.9	5.4%	-6.1	-3.1%	1.3	0.6%	19.6	8.5%
Value-added tax	2.7	0.9%	12.1	4.0%	14.8	4.7%	23.3	6.7%
Fuel levy	0.1	0.1%	1.7	2.7%	-0.0	-0.1%	2.1	2.8%
Customs duties	-4.6	-11.0%	8.5	15.7%	3.5	6.6%	-2.4	-4.5%
Specific excise duties	-0.6	-1.7%	2.2	5.9%	2.5	6.3%	-0.2	-0.4%
Dividend withholding tax	-1.7	-7.4%	-6.5	-26.1%	5.7	16.6%	1.0	3.2%
Other taxes	-1.3	-2.7%	2.4	4.6%	0.3	0.5%	-0.1	-0.2%
Gross tax revenue	11.3	1.0%	30.7	2.6%	49.0	3.9%	57.3	4.3%

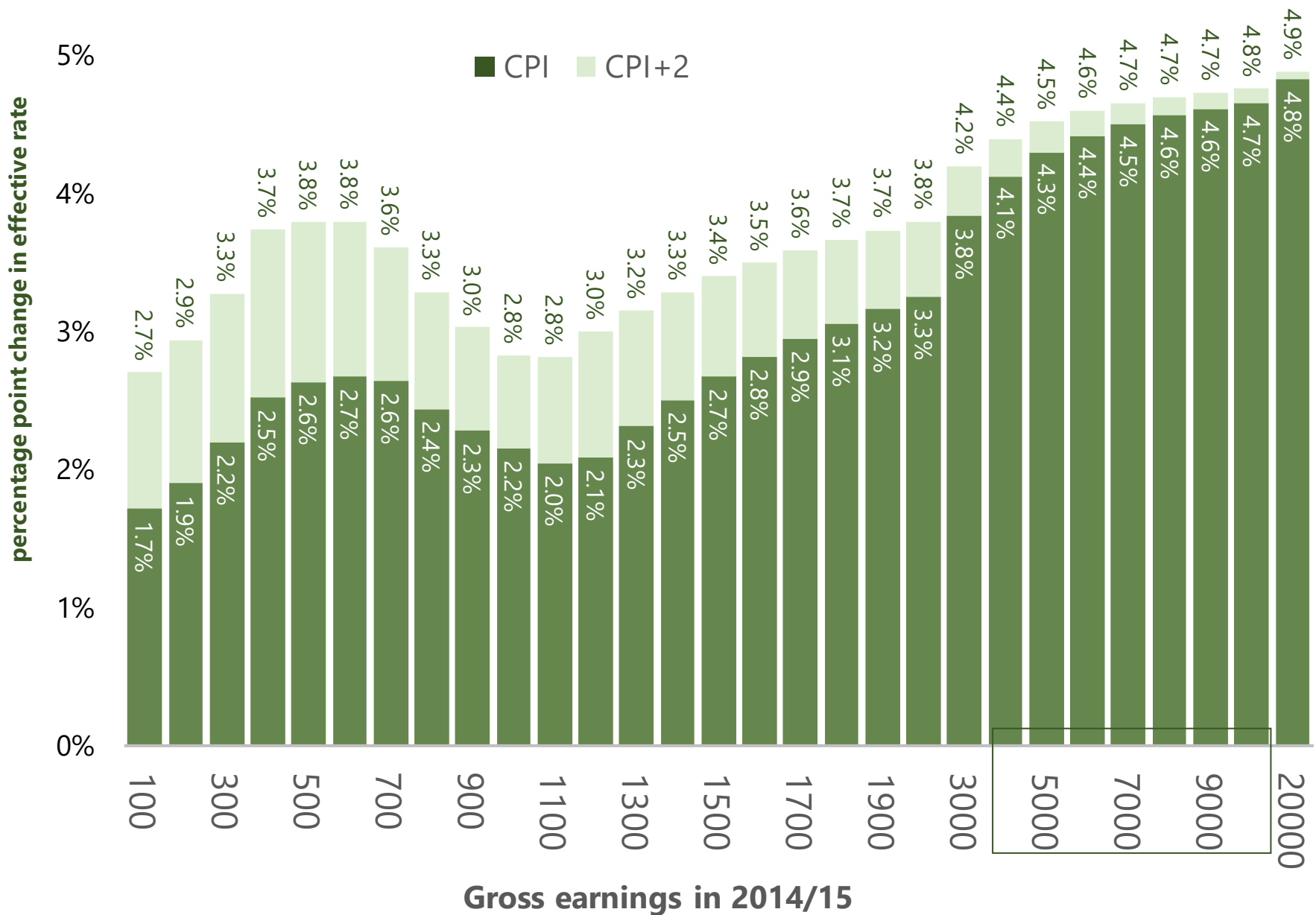
Nominal growth of PIT, gross revenue and GDP



Frequent resort to fiscal drag

	2015/16	2016/17	2017/18	2018/19	2019/20
Threshold	4.2%	1.8%	1.0%	3.2%	1.1%
1	4.2%	3.4%	1.0%	3.1%	0.0%
2	4.2%	3.3%	1.0%	3.1%	0.0%
3	4.2%	3.4%	1.0%	3.1%	0.0%
4	4.2%	0.0%	1.0%	0.0%	0.0%
5	4.2%	0.0%	1.0%	0.0%	0.0%
6				0.0%	0.0%
CPI	5.2%	6.3%	4.7%	4.9%	5.2%

Distributive impact of fiscal drag



Major risks

- Global recession is looming
- State-owned companies (solvency vs liquidity crises): Eskom, SAA, SABC, SANRAL, Prasa, Denel
- Local government finances (feeding through into broader fiscal challenges)
- Debt roll-overs and the gross financing requirement
- Higher education financing
- Fiscal risks displaced into public-finance and social risks
 - Space to compress compensation budgets is limited
 - Rising debt-service costs crowding-out real spending
 - Quality of public management
- Drive towards capital spending and successive rounds of “reprioritisation” could exacerbate these risks (and is unlikely to simulate growth).

- South Africa's debt-to-GDP ratio has been rising for the last decade, and looks set to continue rising.
- Rising public debt means:
 - Upward pressure on interest rates
 - An increasingly regressive fiscal structure as transfers to the rich exceed transfers to the poor
 - Rising dependence on finance capital both domestic and foreign
 - Rising vulnerability to macroeconomic crisis
- Since the global crisis, government has sought to slow the increase in debt but keeping primary expenditure constant as a share of GDP, and raising the tax-to-GDP ratio.
- This has not worked, and there is now no credible plan to stabilize the increase in debt. The current budget deficit is unlikely to be reversed, as this would require unacceptable political choices, and the ongoing crisis of the broader public sector balance sheet (i.e. SOCs) looks set to widen the deficit in the years ahead.
- At the same time:
 - Aggregate expenditure restraint which is not backed by political choices about resource allocation is leading to a sharp erosion in the quality of frontline public services. Most critically, budget restraint without wage restraint is undermining the public finances.
 - Rising taxes and slowing government consumption are contributing to slow growth
- A sudden and significant tightening of fiscal policy would slow the economy further, deepen the crisis in frontline public service provision and potentially not slow the debt trajectory.
- Fiscal expansion is unlikely to succeed (in boosting domestic demand), if not backed by private investor confidence and credibility with private finance (domestic and global). A loosening of fiscal policy is likely to be fully offset by a contraction in private investment and a sharp tightening of external financial conditions, leading to higher interest rates and potentially worsening the growth outlook.

- We are interested in the *nominal* stock of debt (B) relative to *nominal* GDP (yP)

$$\frac{\Delta B}{yP} \equiv \frac{G - T}{yP} + \frac{iB}{yP}$$

$$\frac{\Delta B}{yP} \equiv d + ib$$

- We want to identify Δb the change in the debt to GDP ratio and how it relates to the deficit (i.e. the change in the nominal stock of debt)

$$b \equiv \frac{B}{yP} \longrightarrow B \equiv byP$$

$$\Delta B \approx (\Delta b)yP + b(\Delta y)P + by(\Delta P)$$

- Divide through by nominal GDP:

$$\frac{\Delta B}{yP} \approx (\Delta b) + \frac{\Delta y}{y}b + \frac{\Delta P}{P}b$$

$$\frac{\Delta B}{yP} \equiv d + ib \longrightarrow d + ib = \Delta b + (g + \pi)b$$

$$\Delta b = d + (r - g)b$$

- The debt-to-GDP ratio is a function of the primary balance and the difference between growth and inflation