



ECO.MAC24 The National Debt: Fiscal Sustainability and Fiscal Rules

Total Marks

AQA 7136 · Calculators not allowed · about 120 minutes

Name: _____ Date: ____ / ____ / ____

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Answer all questions. Full sentences are required for questions worth 4 marks or more. No calculator is allowed. The final question is worth 25 marks; plan your time accordingly.

- 1** UK public debt context: multiple choice on debt terminology. Which term best describes the annual difference between government revenue and government spending excluding interest payments in the UK context?

- ☐ A current account deficit
- ☐ B primary deficit
- ☐ C structural debt
- ☐ D fiscal multiplier

(Total for Question 1 is 1 mark)

- 2** Interpretation of debt-to-GDP ratio for a fictional country, Albion. Albion's public sector net debt at the end of the year is GBP 700 billion. Nominal GDP for the same year is GBP 2,000 billion. Calculate Albion's debt-to-GDP ratio and state the ratio as a percentage to one decimal place.

(Total for Question 2 is 4 marks)

- 3** Explain, in the context of government borrowing and sustainability, why the trend in the debt-to-GDP ratio matters for assessing fiscal sustainability in a country such as Albion.

(Total for Question 3 is 4 marks)

- 4** Explain how the relationship between the government interest rate on public debt (r) and the economy's trend real growth rate (g) affects whether a given level of debt is sustainable, using the debt dynamics intuition for a country like Albion.

(Total for Question 4 is 4 marks)

- 5** Explain why the maturity structure of government debt matters for fiscal sustainability and the risk of a rollover crisis in a country that finances itself with short-dated gilts versus long-dated gilts.

(Total for Question 5 is 4 marks)

- 6** Explain how market confidence and the role of credit rating agencies can influence gilt yields and thereby affect the sustainability of public finances for a country such as Albion.

(Total for Question 6 is 4 marks)

- 7** Explain one advantage and one disadvantage of self-imposed fiscal rules, such as a legislated ceiling for the debt-to-GDP ratio, for the fiscal sustainability of a country like Albion.

(Total for Question 7 is 4 marks)

- 8** Explain why it is important to distinguish between the structural deficit and the cyclically adjusted deficit when setting fiscal rules aimed at debt sustainability for Albion.

(Total for Question 8 is 4 marks)

- 9** Explain how the choice between rapid consolidation (austerity) and slower consolidation with continued borrowing can have different short-term and long-term effects on the debt-to-GDP ratio in a country experiencing weak growth.

(Total for Question 9 is 4 marks)

- 10** A small country, Northmere, runs a primary surplus of 1% of GDP while its nominal GDP grows at 3% per year and its average effective interest rate on debt is 2% per year. Explain, using these figures, whether Northmere's debt-to-GDP ratio is likely to be falling or rising, and why.

(Total for Question 10 is 4 marks)

- 11** Explain two potential weaknesses of relying on a single numeric fiscal rule, such as a strict debt-to-GDP ceiling, as the primary tool for ensuring fiscal sustainability for Albion.

(Total for Question 11 is 4 marks)

- 12** Explain how a credible fiscal rule combined with an independent fiscal council could improve fiscal sustainability for Albion, and give one limitation of relying on those institutions.

(Total for Question 12 is 4 marks)

- 13** Essay context: the UK faces a high debt-to-GDP ratio following a period of large fiscal support. Evaluate whether rapid debt reduction should be prioritised over continued borrowing to support growth.

Evaluate the view that the UK government should prioritise reducing the national debt as quickly as possible rather than supporting economic growth through continued borrowing. In your answer, analyse the trade-offs involved, draw on debt sustainability concepts (debt-to-GDP trend, r versus g , maturity, market confidence), consider fiscal rules and real-world timing, and reach a supported judgement. Include a labelled diagram where appropriate (describe the diagram to earn diagram marks).

(Total for Question 13 is 25 marks)

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Question 1

- **B1** Primary deficit is the annual difference between government expenditure and revenue excluding interest payments
- **Answer: B**

Question 2

- **M1** method: $\text{debt-to-GDP} = (\text{public debt} / \text{nominal GDP}) \times 100$
- **A1** $700 / 2000 \times 100$
- **A1** = 35.0% correctly computed to one decimal place
- **B1** states the unit as a percentage and interprets that debt is 35.0% of GDP
- **Answer: 35.0% of GDP.**

Question 3

- **M1** identifies that the trend shows whether debt is rising faster than the economy, e.g. debt-to-GDP rising means debt is growing faster than GDP
- **A1** explains that a rising ratio may be unsustainable because interest payments can grow relative to revenue, crowding out other spending
- **M1** identifies that a stable or falling debt-to-GDP ratio is more sustainable as GDP growth can outpace debt accumulation
- **A1** explains that the trend matters to markets and credit ratings, affecting gilt yields and the government's ability to refinance at low cost
- **Answer: A rising debt-to-GDP ratio suggests debt is growing faster than the economy and may be unsustainable due to rising interest costs and market concern; a stable or falling ratio is more sustainable as growth outpaces debt accumulation.**

Question 4

- **M1** states the key comparison: if $r < g$, debt can be stabilised without primary surpluses; if $r > g$, debt tends to grow unless offset by primary surpluses
- **A1** explains that when g exceeds r , nominal GDP grows faster than interest obligations, making it easier to stabilise or reduce the debt-to-GDP ratio
- **M1** states that when r exceeds g , the cost of servicing debt grows faster than GDP, requiring larger primary balances to prevent a rising debt ratio
- **A1** links this to policy: if $r > g$, the government may need fiscal consolidation or structural reforms to avoid unsustainable debt dynamics
- **Answer: If $r < g$ the debt-to-GDP ratio can be stable or decline without large surpluses; if $r > g$ interest costs push debt up relative to GDP, requiring primary surpluses to stabilise debt.**

Question 5

- **M1** identifies that short maturity means frequent refinancing, so the government is exposed to changes in market yields and liquidity
- **A1** explains that if markets lose confidence, yields can spike and the government may face high costs or difficulty rolling over maturing debt, causing a rollover crisis
- **M1** identifies that long maturity spreads refinancing risk over time and locks in borrowing costs
- **A1** explains that a portfolio with longer maturities reduces vulnerability to short-term market swings, improving perceived sustainability even at the same debt-to-GDP ratio
- **Answer: Short maturities increase rollover risk and exposure to yield spikes, making debt less sustainable in bad markets; long maturities reduce refinancing frequency and stabilise financing costs, enhancing sustainability.**

Question 6

- **M1** identifies that market confidence influences demand for government bonds and thus yields
- **A1** explains that a loss of confidence, perhaps triggered by weak fiscal metrics or fiscal rule breach, reduces bond demand and pushes up yields
- **M1** identifies the role of rating agencies in signalling credit risk through downgrades
- **A1** explains that downgrades can raise borrowing costs and trigger portfolio shifts, increasing the government's interest burden and harming sustainability
- **Answer: Market confidence and ratings affect gilt demand and yields; loss of confidence or downgrades raise yields and interest costs, worsening sustainability and possibly triggering tighter fiscal measures.**

Question 7

- **M1** advantage identified: rules can bind policymakers, increase credibility, and lower risk premia
- **A1** development: greater credibility can reduce gilt yields and financing costs, helping sustainability
- **M1** disadvantage identified: rules can be inflexible and may force procyclical policy
- **A1** development: in a recession a strict rule could force spending cuts or tax rises that deepen the downturn and reduce the denominator GDP, paradoxically worsening debt ratios
- **Answer: Advantage: rules improve credibility and may reduce yields; disadvantage: they can be procyclical and force damaging cuts in downturns, harming both growth and sustainability.**

Question 8

- **M1** defines structural (cyclically adjusted) deficit as the deficit after removing the effect of the economic cycle
- **A1** explains that using the structural deficit avoids forcing procyclical tightening during recessions because cyclical shortfalls are excluded
- **M1** identifies measurement uncertainty as a problem in estimating the structural deficit
- **A1** explains that mis-measurement can lead to inappropriate policy if the structural position is estimated incorrectly, undermining credibility
- **Answer: The structural deficit removes cyclical effects so rules based on it avoid procyclical cuts in recessions, but measurement uncertainty can lead to wrong policy and reduce credibility.**

Question 9

- **M1** identifies that rapid consolidation reduces the primary deficit quickly and lowers borrowing needs
- **A1** explains that in the short term rapid consolidation may reduce GDP growth, lowering nominal GDP and possibly keeping the debt-to-GDP ratio higher than expected
- **M1** identifies that slower consolidation supports demand and growth in the short term
- **A1** explains that higher growth can raise the denominator GDP, helping to reduce the debt-to-GDP ratio over time even with ongoing borrowing, especially if $r < g$
- **Answer: Austerity cuts borrowing fast but can depress GDP so debt ratio may not fall as expected short term; slower consolidation may support growth and reduce the ratio via a larger GDP denominator, particularly when $r < g$.**

Question 10

- **M1** recognises that effective $r < \text{growth } g$ ($2\% < 3\%$) and there is a primary surplus
- **A1** explains that with $r < g$ the debt ratio tends to fall even with modest primary balances, and a primary surplus further reduces debt
- **M1** states the direction: debt-to-GDP ratio is likely falling
- **A1** explains that growth increases the denominator faster than interest accrues on the stock, and the surplus reduces the stock itself
- **Answer: The debt-to-GDP ratio is likely falling because r (2%) is below GDP growth (3%), and the primary surplus of 1% further reduces the stock of debt relative to GDP.**

Question 11

- **M1** first weakness identified, e.g. procyclicality: a strict ceiling can force cuts in recessions
- **A1** development: forced cuts reduce GDP, shrinking the denominator and potentially making the rule counterproductive
- **M1** second weakness identified, e.g. measurement and timing issues or gaming the rule
- **A1** development: governments can use one-off measures, optimistic forecasts or creative accounting to appear to meet the rule without genuinely improving sustainability
- **Answer: Weaknesses: rules can be procyclical and force harmful cuts in downturns, and they can be gamed or undermined by measurement errors and one-off fiscal measures.**

Question 12

- **M1** identifies mechanism: a credible rule signals commitment and the fiscal council provides independent forecasts and monitoring
- **A1** development: independent monitoring reduces information asymmetry, increases transparency and market confidence, lowering risk premia and gilt yields
- **M1** states a limitation, e.g. political risk or limited legal powers of the council
- **A1** development: if politicians ignore advice or change rules under pressure, credibility is lost and the institutions cannot enforce sustainable policy on their own
- **Answer: A credible rule and independent fiscal council can raise transparency and market confidence, lowering yields; limitation: political override or limited enforcement power can erode credibility and effectiveness.**

Question 13

- **Level 1** (1-5): Basic, thin assertions about debt reduction or growth with little economic reasoning or use of theory. Limited reference to sustainability concepts. Little or no structure and no supported judgement.
- **Level 2** (6-10): Some relevant analysis of trade-offs between debt reduction and growth. Uses basic concepts such as debt-to-GDP or r versus g and mentions fiscal rules or market confidence. Arguments are developed but may be partial, with limited evaluation and a weak conclusion.
- **Level 3** (11-15): Clear analysis of both sides, using debt dynamics, the importance of the debt-to-GDP trend, maturity, r versus g , and market confidence. Considers practicalities of timing and the role of fiscal rules. Draws a balanced evaluation and reaches a supported conclusion. Suggests appropriate diagrams, such as a debt dynamics sketch or AD/AS to illustrate growth versus consolidation effects.
- **Level 4** (16-20): Comprehensive analysis and evaluation, showing secure knowledge of debt sustainability conditions, the pros and cons of rapid consolidation, and the merits of temporary borrowing to support growth. Considers distributional impacts, sequencing of policies, credibility effects, and real-world constraints. Uses effective examples and explains diagrams in detail. Reaches a well-justified judgement that weighs magnitude, timing and assumptions.
- **Level 5** (21-25): Sophisticated, balanced evaluation addressing a wide range of considerations: precise use of r versus g dynamics, maturity and rollover risk, fiscal multipliers, supply-side impacts, and institutional credibility. Evaluates the reliability of data and forecasts, the role of fiscal rules with escape clauses, and the political economy of implementation. Offers a clear, well-argued judgement that recognises uncertainty and states how policy should vary with economic conditions. Includes a clear description of a labelled diagram and how it illustrates the argument.
- **Indicative content:**
 - Arguments for prioritising rapid debt reduction: higher debt can raise future interest costs, risk of $r > g$ dynamics, pressure on credit rating and gilt yields, rollover risk if maturity profile is short, intergenerational fairness, and the need to rebuild fiscal buffers for future shocks.
 - Arguments for prioritising growth through continued borrowing: if $r < g$ and borrowing finances productive investment, debt-to-GDP can stabilise or fall over time; supporting weak demand can raise GDP denominator and reduce unemployment, and premature austerity can be self-defeating by shrinking tax receipts and raising debt ratios via lower GDP.
 - Discussion of fiscal rules: rules can anchor expectations and lower yields but risk being procyclical unless cyclically adjusted and flexible escape clauses are included. The role of an independent fiscal council in providing credible forecasts and enforcing transparency.
 - Consideration of timing and magnitude: size of the debt stock, the level of interest rates, the state of the output gap, and the composition of spending (current versus investment) matter for policy choice. Sequencing options such as frontloading productive capital spending while planning credible medium-term consolidation.
 - Institutional and market confidence factors: how credibility affects gilt yields, how rating agencies and confidence can create feedback loops, and the importance of maturity management to reduce rollover risk.
 - Evaluation of assumptions and uncertainty: forecasting growth and interest rates is uncertain; policies should be robust to different scenarios. Consider distributional impacts and political feasibility.
 - Diagram guidance: draw a simple debt dynamics sketch showing debt-to-GDP on the vertical axis and time on the horizontal axis, with two paths: rapid consolidation (debt ratio falls fast but output weakens) and gradual consolidation with growth (debt ratio falls slowly while GDP rises). Alternatively include an AD/AS diagram to show short-run demand loss from consolidation and long-run supply benefits from investment-led growth. Award diagram marks for correctly labelling axes, initial position, and the two contrasting paths or shifts, and explaining how the diagram supports the argument.
 - Supported judgement: a nuanced conclusion that depends on whether $r < g$, the size and composition of spending, the degree of spare capacity, and credibility concerns; may recommend a balanced approach of protecting productive investment, using gradual consolidation when growth is weak, and embedding rules with escape clauses and independent monitoring.