



Strathmore
UNIVERSITY

STRATHMORE BUSINESS SCHOOL

MASTER OF SCIENCE IN DEVELOPMENT FINANCE

END OF SEMESTER EXAMINATION

MDF 8108: PUBLIC SECTOR FINANCE

Date: Tuesday 2nd August 2022

Time: 3 Hours

Instructions

1. This examination consists of **SIX** questions.
2. **Question One** is compulsory.
3. Answer **Question One and any Other Three** questions.

Question (Compulsory) (30 marks)

- I. A basic problem in government finance is to distribute among citizens the burden of financing the costs of government-supplied goods and services. Consider these cases:

Joan earning 50,000 shillings from formal employment and Joseph earning 50,000 shillings from selling secondhand clothes. Joan pays Pay As You Earn (PAYE) tax at the graduated income tax rate while Joseph pays a presumptive income tax rate at 15% of his permit/license fees.

Joan and Joseph also pay Road Maintenance levy which is levied on the amount of fuel that is consumed by each individual. Joan owns a small car that uses an average of only 20 litres of fuel per week. Joseph on the other hand drives a car with a bigger engine capacity that consumes 80 litres of fuel per week

- a) Briefly discuss two approaches that are used as principles in determining the distribution of the burden of government finance between Joan and Joseph **(6 marks)**
 - b) For each of the two examples above, comment on the fairness of the tax system **(6 marks)**
- II. Suppose the government decides to subsidize housing to 50 percent of the market rent value for low-income earners. What will be the market effects of such a subsidy? As a public finance expert, would you recommend the implementation of such a subsidy? Explain. **(6 marks)**
- III. Suppose a government runs a budget surplus, what will be the effect on the domestic credit market? Use a graphical illustration to answer the question. **(6 marks)**

- IV. Globally, there have been efforts to devolve resources to lower levels of government. Briefly discuss any three risks of fiscal decentralization (6 marks)

Question 2 (10 marks)

Briefly discuss any five principles of public sector budgeting

Question 3 (10 marks)

- i. Distinguish between tax evasion and tax avoidance (4 marks)
- ii. Kenya has witnessed significant increase in debt over the past decade. This has largely been due to widening fiscal deficits over time. To finance the deficits, the government increased domestic borrowing. What do you understand by the term Ricardian Equivalence? Explain it within the context of Kenya's current borrowing and debt status. (6 marks)

Question 4 (10 marks)

A public works department has a mechanical shop that is responsible for maintaining the city's vehicles. There are five employees with a budget of USD 845,000 this year. In addition to the regular checkup and maintenance services, the shop provides short classes for city employees on how to efficiently operate cars and trucks. The current diagnostic system, called Vehicle Testing Monitor 2000 (VTM 2000) was purchased five years ago. The manager believes that VTM is slow in diagnosis and yields a high possibility of replacing good parts. This year, the manager requested to purchase a new diagnostic system called Quality Test System (QTS). The price of QTS was estimated at USD 21,400, with an annual operating cost of USD 280. The estimated life span is 6 years (including the current year). The benefits of QTM would come from two sources. First, diagnosis using QTS would be quicker. On average, for each diagnosis, VTM would take 150 minutes, while QTS would take 30 minutes. On average, the shop carries out an average of fifty-two diagnostics every year, with a mechanics hourly wage being USD 12. Secondly, QTS has more accurate diagnosis. The cost for ineffective replacement by VTM is USD 50. Finally, if the shop purchases QTS, then they would sell VTM for USD 692. Using a discount rate of 10 percent, calculate the net present value of QTS and indicate whether it will be a viable investment

Question 5 (10 marks)

Because of the tight fiscal position, a good public finance management (PFM) system is very important for the government to achieve its objectives. Briefly discuss any five pillars of PFM performance (10 marks)

Question 6 (10 marks)

Consider these two cases:

- (a) The demand for alcoholic beverages in the country is inelastic. Significant increases in their prices have not led to significant declines in their consumption.

(b) There are very high unemployment levels, which implies that people are willing to work even at lower wage levels.

From a public finance perspective, discuss the implications of the inelastic demand and supply in the two cases on the distribution of tax burden.