

There are **three parts** to this TMA: Part A, Part B and Part C. Please note that **you must complete all three parts**. On the following pages you will find guidance on how to complete each part of this assignment.

Please read the student notes carefully before attempting each part of the assignment.

Part A (40% of the mark for this assignment)



Assume the UK market for white bread flour is perfectly competitive. Table 1 shows fictional data about Sheila's marginal utility and willingness to pay for a kilogram (kgs) of white bread flour during the first 2020 covid-19 lockdown. Table 2 shows fictional production data about the costs 'Alex's kitchen' incurred when producing kgs of white bread flour.

Table 1: Sheila's marginal utility and willingness to pay for kgs of white bread flour

Kgs of white bread flour	Willingness to pay for a kg of white bread flour (£)	Marginal utility (utils)
2	20	200
3	17	170
4	14	140
5	11	110
6	8	80
7	5	50
8	2	20
9	1	10

Table 2: Alex's kitchen daily costs

Kgs of white bread flour	Total cost (£)	Marginal cost (£)
100	100	–
101	110	10
102	121	11
103	134	13
104	150	16
105	170	
106	195	
107	226	

Answer **all** of the following questions:

1. Using the data in Table 1, calculate the kgs of white bread flour Sheila will demand if:
 - a. the market price is £10
 - b. the market price is £15
 - c. the market price is £20.

Explain how you arrived at your figures. **(6 marks)**

2. The points you calculated in your answer to Question 1 are part of Sheila's demand curve for white bread flour. Plot these points and briefly describe what they suggest about the relationship between Sheila's demand and the market price. **(6 marks)**
3. Complete Table 2 by calculating the missing values for marginal cost when producing each of the kgs of white bread flour in the table. Explain how you arrived at your figures. **(6 marks)**
4. Using the data in the completed Table 2, calculate the kgs of white bread flour 'Alex's kitchen' will supply if:
- a. the market price is £10
 - b. the market price is £15
 - c. the market price is £20.



Explain how you arrived at your figures. **(6 marks)**

5. The points you calculated in your answer to Question 4 are part of the supply curve of 'Alex's kitchen' for white bread flour. Plot these points and briefly describe what they suggest about the relationship between 'Alex's kitchen' supply and the market price. **(6 marks)**
6. Previous questions required you to calculate points on an individual demand curve and on an individual firm's supply curve. Describe what the market demand and the market supply curves for white bread flour in the UK would look like, and how these could be calculated. **(10 marks)**

(Total marks available for Part A: 40 marks)

Word limit for Part A: 800 words

Part B (50% of the mark for this assignment)



The following article written in early 2020 describes a few changes that occurred or were expected to occur as a result of the covid-19 pandemic. Read the extract below, then write **one** essay that answers the following **two** questions.

Preventing a COVID-19 Food Crisis

The pandemic is amplifying the risk of a world-wide food-price spike, which would trigger outright crises in many developing countries. Governments must therefore work together to address disruptions to food supply chains and prevent food protectionism from becoming the post-pandemic new normal.

ST. PETERSBURG/SINGAPORE – Even before the pandemic, there were signs that global food prices could soon surge. Extreme weather events induced by climate change have become more common. African swine fever wiped out over one-quarter of the world's pig population last year, causing food prices in China to increase by 15–22% year on year so far in 2020. And more recently, the worst locust blight in 70 years has destroyed crops in East Africa. In Kenya, the price of maize, a staple food, has risen by over 60% since 2019.

COVID-19 is amplifying the risk of a worldwide food-price spike, which would trigger outright crises in many developing countries. In the poorest of these, food accounts for 40–60% of the consumption basket, about 5–6 times its share in advanced economies.

While lockdowns have led to a collapse in demand for durable goods and discretionary services, the opposite is true of food. In cities around the world, reports of panic buying and food hoarding have proliferated since the pandemic began.

On the supply side, global grain stockpiles are healthy but could quickly be depleted as the virus disrupts food production and distribution. And shortages of animal feed, fertilizers, and pesticides have increased both the costs of farming and the risk of bad harvests.

Moreover, from harvesting fruits and vegetables in India to operating meat plants in America, labor shortages are becoming increasingly apparent as cross-border travel restrictions in much of the world disrupt the normal seasonal cycle of migrant farm workers. And transportation shortages are making it more challenging to get produce to market – when there is one.

Farmers need to reconfigure their supply chains away from bulk wholesale to (currently closed) restaurants, hotels, and schools, and toward grocery stores and home delivery. But that takes time, not least because commercial and consumer food products are prepared and packaged differently. In the meantime, fresh produce has had to be destroyed.

[...]

Source: Reinhart, C. M. and Subbaraman, R. (2020)

Note

If you want to refer to the extract in your essay, but have only read it in this TMA, the in-text referencing is called secondary referencing. Instead of quoting Reinhart and Subbaraman (2020), you should use:

Reinhart and Subbaraman (2020, quoted in Santos, 2020) states that...

Use 'quoted in' if directly quoting, and 'cited in' if summarising from a source.

The full reference will give only the source you read (in this case: Santos, 2020).

The reference to this TMA is the following:

Santos, C. (2020) 'TMA 02', *DD126 Economics in context* [Online]. Available at <https://learn2.open.ac.uk/mod/oucontent/view.php?id=1665758> (Accessed [please insert the date that you accessed these materials]).

You can find more information about secondary referencing following the link to [Quick guide to Harvard referencing \(Cite Them Right\)](#), also available on the DD126 [Resources](#) page.

1. Reinhart and Subaraman (2020) list several changes in the global food market which cause a change in the equilibrium price of food worldwide, either via changes in demand or in supply. Focus on the effects these changes may have for the UK, and choose from the article **one** example of a change in demand and **one** example of a change in supply. Describe how these changes may explain the concern that food prices are on the rise. Use at least one diagram in your answer.
2. Describe **two limitations** of the perfectly competitive model of markets in modelling the changes in equilibrium prices and quantities in the market for food.

(Total marks available for Part B: 50 marks)

Word limit for Part B: 800 words

Part C (10% of the mark for this assignment)



We would like you to refer to the forum activity from Week 13, [Activity 13.12](#) to answer the following questions:

1. Reflect on the challenges you faced in writing an essay in economics for this TMA. We recommend you use the Personal Development Plan (PDP) model to answer this question.
2. To what extent did the experience of marking two mock essays in Week 13, [Activity 13.12](#), and the related forum discussions about the assessment criteria, feed into the plan and writing of your essay in this TMA?

(Total marks available for Part C: 10 marks)

Word limit for Part C: 200 words

Student notes for Part A



The aim of Part A is to help you identify key elements of the main model of Block 2 – the perfectly competitive model – and the use of the demand and supply diagram in representing it. The sections on preparing for your TMA in [Unit 2](#) (for Questions 1, 2 and 6) and [Unit 3](#) (for Questions 3, 4, 5 and 6) will be particularly useful to you in answering these questions.

Hints for Questions 1 and 2

- [Chapter 2](#), Section 4 introduces the demand curve and the relationship between market price and consumers' willingness to pay. You will also find the activities in [Section 4 of Week 6](#) useful, Section 4.1, Video 6.3 and Section 4.4 being particularly useful for Question 2.

Hints for Questions 3, 4 and 5

- [Chapter 3](#), Section 4 introduces marginal costs, which you need to calculate to complete Table 2, and the relationship between marginal revenue and marginal cost needed to maximise profit, which you need for Question 4.
- Remember that an individual firm will supply as long as marginal revenue, which in this model equals price, is equal to or greater than marginal cost.
- In Question 3, you do not need to calculate the marginal cost when adding the 100th kg of white bread flour. This is because, as explained in [Chapter 3](#), Section 4.1, above Figure 3.3 of the book, you would need information about the total cost of producing 99 kgs of white bread flour, which is not available.
- The activities in [Section 6](#) and [Section 7](#) of Week 8 will be particularly useful for this question as they cover the supply curve and the way in which firms maximise profits.

Hints for Question 6

- [Chapter 2](#), Sections 4.4 and 5.1, describe individual and market demand curves. In particular, look at Figures 2.6 and 2.8 and the discussion about these demand curves. [Week 6](#) online activities – in particular, Activity 6.11 and Sections 5.2 and 5.3 – are also useful for answering this question.
- [Chapter 3](#), Section 4.2, will be useful for discussing individual firm and market supply curves. [Week 8](#) online activities – in particular, Section 6 – will also be useful.

Student notes for Part B



Part B asks you to write a single essay about how change can be modelled using a demand and supply diagram, and about the limitations of the perfectly competitive model. Unit 4 in Week 10 will be particularly useful for the first part of the essay, the part where you are asked to model change with at least one shift of the demand or the supply curve. Before you model change, make sure you explain clearly how equilibrium is reached using the demand and supply diagram. Note [Section 3](#) of Week 10 for a discussion of equilibrium and comparative static analysis, [Section 4](#) of Week 10 for modelling change, and [Section 5](#) of Week 10 with practice of applying the demand and supply diagram as well as the perfectly competitive model of the market in real life situations.

For the second part of the essay, [Unit 5](#) will be particularly useful as it discusses the limitations of the competitive model and of the type of equilibrium and the ways of modelling change. [Unit 2](#) introduces the assumptions of neoclassical models, which are revisited in Week 10, Section 3, and [Units 3](#) and [4](#) are also useful as they introduce the main assumptions of the perfectly competitive model of markets. You may find the discussion of externalities in [Chapter 5](#) and in Unit 5 particularly helpful.

Always try to write in your own words. Application of this material, and drawing diagrams specifically referring to the market for white bread flour, will be highly rewarded as it shows you can apply economists' theories and ideas to specific markets and real-life situations.

Hints for Part B

- An essay becomes less daunting if you both plan it and fill in the different elements, in advance. You will find important guidance on essay writing in [Study skills week 1](#) in Week 13. In particular look at the materials in Sections 5 and 6 of Week 13. You can also find other skills that are helpful when writing essays in economics in the online activities throughout Blocks 1 and 2. For example, you practised how to write paragraphs in TMA 01, you learned about active reading, making notes and selecting information [Week 8, Section 3](#), and in Week 10, [Section 5](#), where you also learned how to write using diagrams.
- You will need to be selective in terms of which limitations to discuss, as the question makes it clear that only two are expected. Select two limitations and discuss them in detail as opposed to listing more than the two limitations the question asks for without discussing them in depth.
- Referencing is a key academic skill that you must learn in order to be successful in DD126. Make sure that you understand the principle of writing in your own words and the reasons why referencing is important. Also, make sure that you become familiar with the [Cite Them Right](#) Harvard style of referencing. At the end of each online unit, we have included its own reference to help you appropriately reference the module materials.
- Writing to length is a useful academic skill. Note the word limit for this essay and make sure you write to it (see the [Assessment guidance](#) for general information about word limits).

Student notes for Part C



Part C asks you to reflect on the challenges you faced when writing an essay in economics. The essay in this TMA uses all elements of the economist's toolkit, so it may be a good opportunity to check how you are progressing with each element individually, and with putting them together in an essay. You may find the [Personal Development Plan](#) (PDP) model useful to answer this question.

We also want you to reflect on how discussions you have had in the forum with others about mock essays also helped with your own writing, and with identifying possible strengths and weaknesses in your own work.

This part of the TMA serves as a way of further checking your progress and identifying what support you may need. Don't forget to discuss these issues with your tutor.