Section B: Data Response question (N2004 Qn 1) (1 hour)

The Market for Sugar in the UK

(a) (i) Compare the EU price of sugar with the world price of sugar over the period shown. [2]

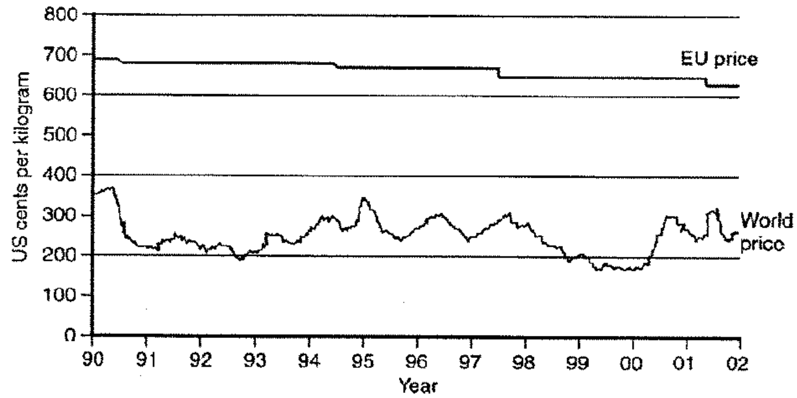

Fig. 1

With reference to Fig 1
Similarity (1m):

- The EU price and world rice is sugar are falling

Differences (1m):

- The EU price is consistently higher than the world price over the period. [1]

  Or

- The EU price is much more stable than the world price

Note: For a command word "compare", the instinctive respond is to look for a similarity and a difference. However, in the context of Figure 1, the 2 differences identified are sufficient for a 2m question because it clearly relates to the data found in the extract.

Examiner's Report
This question, which was designed to test data handling skills, was answered well by most candidates. Most were able to gain full marks for a clear comparison of the price of sugar in the two different markets.

(a) (ii) Explain any differences that you have observed. [2]

Why EU price is higher and more stable?
The EU introduced 2 schemes

(1) Scheme to guarantee the price of sugar produced and sold in EU. Guaranteed price is a form of price control. The aim is to provide price support for EU farmers to enable them to earn a good/better income by fixing the price above the free market equilibrium. This explains why EU prices are both higher and more stable than the world prices.

(2) The EU export subsidy scheme. This scheme is in fact a form of dumping. It allows EU sugar producers to "dump" or sell their sugar in the global market at lower prices than at home. This explains why world prices are lower. Moreover, world prices are much more unstable because they are not controlled but determined by the free market.

Examiner's Report

A large number of candidates failed to score on this question because they did not read the instructions carefully. The question asked for an explanation of the differences between the EU price of sugar and the world price of sugar over the period. Many candidates failed to explain the differences, however, and instead repeated or extended the observations made in (i). This emphasizes once again the importance of acting upon the directive word in each question, such as 'compare', 'explain' or 'discuss'. Failure to do this is likely to lead to irrelevant and inevitably low scoring answers which fail to reflect those skills developed in class. Successful answers explained, for example, that the EU price was guaranteed and as a result more stable than the world price, which was determined by the forces of supply and demand. Such answers as were concise, accurate and to the point scored both marks available for this question.

(b) (i) Identify <u>two</u> characteristics of BSC that suggest that it has monopoly power. [2]

Characteristics of monopoly POWER	**Evidence**
Large market share	Para 2 mentioned that BSC enjoys a large market share of the market for refined white sugar.
High barrier to entry	Para 2: BSC is the sole processor of sugar beet grown in the UK Para 3: Imports of sugar cane are limited by quotas and that ensures BSC faces little competition. Para 4: blocking the entry of another firm into the market

Note:

- ***Monopoly power is different from being a monopoly. Dominant firms in an oligopoly are assumed to have a monopoly power also. Monopoly power is pricing power or power to fix prices e.g. cartel has got monopoly power. The source of monopoly power/pricing power comes from the ability to control supply to the market.***
- ***Above characteristics enable the firm to control supply to the market giving it the ability to raise prices by restricting supply.***

Examiner's Report
This question was generally well done, with most students proving able to identify two characteristics of BSC that suggest that it has monopoly power. A number of candidates suggested mistakenly, however, that the fact that BSC received a guaranteed price for its sugar indicated monopoly power. In fact, guaranteed prices may be available in markets characterized by high levels of competition. Guaranteed prices do not in themselves indicate monopoly power.

(b) (ii) Explain <u>one</u> possible way in which BSC may have prevented the entry of another firm into the market. [2]

Approach: Suggest a method [1] & explain how it works in the context of the market for sugar described in the text [1].

<u>Control of access to common resources like raw material:</u> E.g. ownership of sugar beet plantations through mergers with sugar plantations. This will prevent rival firms from having access to essential input or gaining cost advantage through purchase of raw material supplies at competitive price.

Note: This is also known as vertical price squeezing, where a vertically integrated firm, which controls the supply of an input, charges competitors a high price for that input so that they cannot compete with it in selling the finished good i.e. refined white sugar. In reality, such mergers might be prevented by anti-competition laws

<u>Predatory pricing policy</u>: BSC might have a history of selling below cost to drive out competitors from the market and thus establishing itself as a monopoly. As such, some potential firms after considering such scare tactics from BSC, decide not to enter.

Note: This is possible if BSC cross-subsidize prices in a competitive market.
Cross-subsidize refers to the use of profits in one market to subsidize prices in another.

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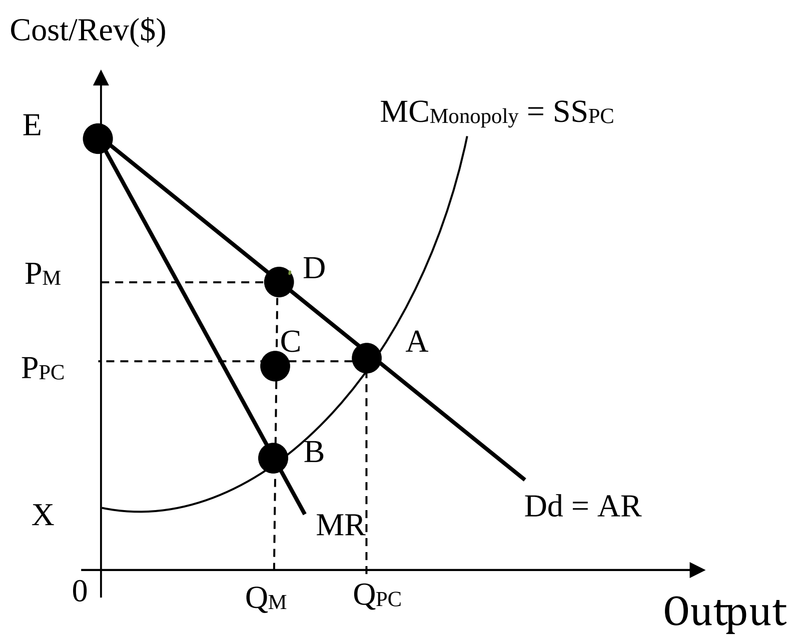
Tutorial #23: Microeconomics III – Theory of the Firm & Market Structure

Examiner's Report
In response to this question, candidates provided a range of possible ways in which BSC might have prevented other firms from entering the industry. These included control of raw material supplies and predatory pricing policies. Candidates varied in their ability to explain the suggested method, however, and some failed to gain both marks available. They suggested a method but failed to explain how this might work in the context of the market for sugar described in the text.

(c) With the aid of a diagram, explain the impact of BSC's monopoly power on producer surplus and consumer surplus in the market for sugar. [4]

Price & Output comparison for a monopoly & a PC industry under **Constant Cost Conditions**



The purpose of this analysis is to explain "consumer exploitation" or abuse of monopoly power.

- In a perfectly competitive market as a benchmark, equilibrium will be achieved at price P_{PC} and output Q_{PC} at point A where P=MC (DD=SS) and there is allocative efficiency maximising consumers surplus as shown by area AEP_{PC}.
- The impact of BSC's monopoly power would result in equilibrium at profit maximizing level point B where MC=MR, and MC is rising, setting price higher at P_M and lowering output to Q_M.
- This results in a reduction of consumer surplus to a smaller area of DEP_M and the loss of consumer surplus of area $P_MP_{PC}AD$.
- $P_MP_{PC}CD$ is translated as a gain to producer in the form of producer surplus. <u>Producer surplus changes from PpcAX to PmDBX.</u>
- However, there is a deadweight loss of area ABD as output $[Q_{PC} - Q_M]$ is not produced.

Note: Producer surplus is not the same as total excess profit.

Examiner's Report

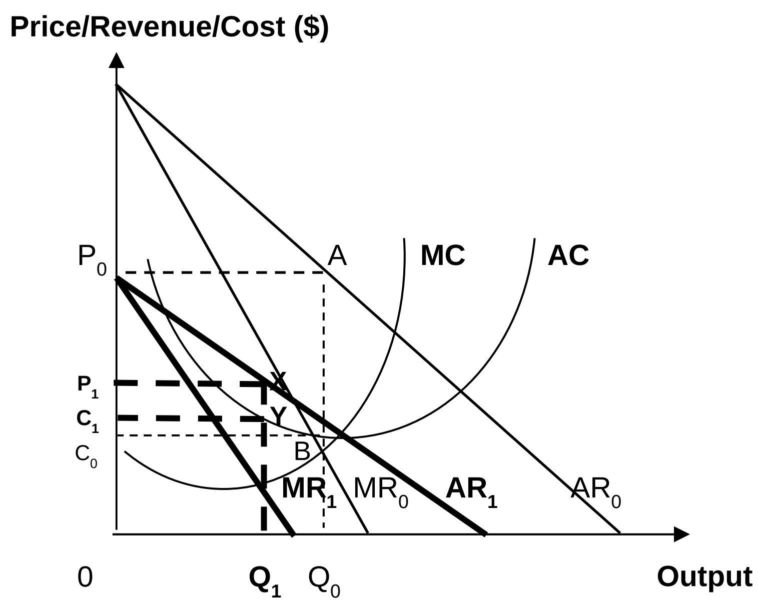
This question led to a wide range of answers in terms of quality. It was pleasing to see the level of technical grasp of the concepts of consumer and producer surplus displayed by some candidates. This enabled them to explain the impact of monopoly power on each of these. Candidates with a sound technical grasp explained that the impact of BSC's monopoly power would be that consumer surplus would diminish, producer surplus would grow and there would be deadweight loss. Good diagrams were provided to illustrate this. Unfortunately, although the concept of consumer surplus was understood by many, far fewer candidates were confident in their explanation of producer surplus, and this was often reflected in inaccurate and confused diagrams on this part of the question. Marks were lost as a result. It was also disappointing to see the large number of candidates who seemed to understand the concepts but who lost marks because of carelessness when drawing diagrams. There were also some candidates who thought producer surplus was the same as total excess profit.

(d) With the aid of a diagram, discuss what the impact would be on BSC's profits if free trade were allowed in the European sugar market. [5]

Note: The original is a 3m 'explain' question.

<u>**Dissect:**</u>
Free trade: Remove Protectionism e.g. subsidies; quotas to increase the level of competition in the EU sugar market.

Entry of more competitors/rivals



Impact on profitability:
As a result of free trade in the European sugar market, new firms would enter the industry and that leads to a fall in demand for BSC's sugar. A fall in demand will cause AR_0 and MR_0 to decrease to AR_1 and MR_1 respectively. These resulted in lower output from Q_0 to Q_1, lower price from P_0 to P_1 and unit cost rises from C_0 to C_1. Supernormal profit decreases from P_0C_0BA to P_1C_1YX.

Will there still be supernormal profits? Or will there be normal profits? Or subnormal profits?
It depends on whether BSC is able to retain its market share which in turn is influenced by its ability to offer a better deal for consumers.

Better deal in terms:

(1) Better price e.g. lower prices through increasing productivity e.g. using more efficient method of production.
(2) Better product e.g. branding to instill consumer loyalty given that it is the incumbent/established firm in the market.

At the end of the day, if TR>TC => supernormal profits. But, if TC>TR it will end up with losses.

<u>Judgment/Evaluation:</u>
In the short run, it will likely retain its market share, given that it is an incumbent firm with an established loyal customer base. However, in the longer term, its market share is likely to be eroded by the entry of more new competitors vying for a share of the same domestic market. Being protected for such a long time, it might have grown complacent and not sufficiently resilient to innovate to stay on top of the competition.

Examiner's Report
It was expected that candidates would choose to answer this question through the use of a monopoly firm diagram. As a result of free trade in the European sugar market, new firms would enter the industry. This would shift both the average revenue and the marginal revenue curves to the left as new firms competed in the market. This diagram would show reduced demand for BSC's sugar and therefore lower equilibrium output, a lower price and lower profits. All such outcomes could be clearly shown on the diagram. Many good answers were supplied along these lines and were rewarded full marks. A large number of candidates, however, responded with a market supply and demand diagram. With an appropriate explanation, this was a valid approach in explaining the process in terms of the impact upon price and market share. This was insufficient, however, to explain the impact on profits. The decline in price of sugar is likely to lead to a fall in revenue, but to explain the impact of profits it is necessary to refer to costs, which could be shown on a monopoly firm diagram but will not appear on a market supply and demand diagram. Such an approach usually gained some credit, but was unlikely to be awarded all the marks available.

Extra Question:

(e) Discuss the view that the advantages of BSC having monopoly power outweigh the disadvantage. [5]

<table>
<tr><th>Advantages:</th><th>Disadvantages</th></tr>
<tr><td>BSC being the dominant firm with high market share is able to reap substantial internal EOS due to its large scale of production. This will result in lower price and higher output.
Also, BSC has the supernormal profits to do R&D, achieving dynamic efficiency: Consumers benefit from continuous product and process innovation such as finer sugar or sugar with vitamins and minerals.</td><td>However, BSC having huge monopoly power means it will produce at price more than marginal cost and there will be no allocative efficiency as compared to a perfect competitive situation.
Also, with minimum competition except from Tate and Lyle, BSC may be complacent and have lax control over costs - X-inefficiency may arise e.g. using outdated technology, labour hoarding, reluctance to source for cheaper sources of supplies and over-generous managerial perks. So BSC will be productive inefficient also.</td></tr>
<tr><td colspan="2">Conclusion: To justify a stand stating, "the advantages outweigh the disadvantages" or vice versa.

BSC can afford (earns supernormal profits) & has the incentives to do research & innovation as there is always a potential threat of new entrants in view of free trade. Such investments in R&D are crucial for economic growth. Moreover, the disadvantages can be minimized or removed through government regulation such as MC and AC pricing. Thus, the advantages of BSC having monopoly power outweigh the disadvantages.</td></tr>
</table>

Original question: Discuss the view that the advantages of monopoly outweigh the disadvantage. [5]

Examiner's Report

Most candidates were able to identify and explain the advantages of monopoly, such as economies of scale and the greater availability of duns for research and development. Similarly, most had a grasp of the significance of monopoly for resource allocation. They suggested that monopoly would lead to productive and allocative inefficiency, and the predicted outcome of higher prices and lower output in this type of market. Many failed to gain any marks for evaluation, however, because they thought it was sufficient to make an evaluation statement without any reasoning that would explain their statement. A typical answer for example, set out the advantages and disadvantages and then stated that 'the advantages outweigh the disadvantages' (or vice versa), but without any explanation of why they had reached this conclusion. To score marks for evaluation, it was necessary to explain why they had made the judgment. For example, some candidates reasoned that the advantages outweighed the disadvantages because research and innovation, which are features of monopoly, are crucial for economic growth. In addition, the disadvantages of monopoly can be minimized or even removed through government regulation. Such an approach suggested that candidates had reached their conclusion through careful consideration of each advantage and disadvantage and had made a reasoned judgment.

Reform of EU farm policy
(http://www.bbc.co.uk/news/world-europe-11216061)

- What is CAP, how much it costs, who benefits from it, what reforms are being planned
- Students may be interested to find out more given recent EU crisis

EU Sugar Subsidies
(http://news.bbc.co.uk/2/hi/business/4118448.stm)
- How much EU's sugar subsidies cost, what reforms were being planned

Q&A: Reform of EU farm policy

The European Union has announced plans to reform its Common Agricultural Policy.

The programme is the most expensive scheme in the EU - accounting for nearly half its annual budget - and one of the most controversial.

The European Commission said it wanted to improve the "competitiveness, sustainability and permanence" of agriculture in the EU, and gradually move rewards away from intensive farming to more sustainable practices.

Global warming has fuelled fresh concerns about food security in Europe

However, the reforms seemed to satisfy nobody. Political parties of all shades, farmers' unions, environmental campaigners and taxpayer groups all lined up to say the reforms went either the wrong way, or not far enough.

Partly, this is because they realise there is still a lot of lobbying to be done and the reforms may still be amended before their approval by EU member governments and the European Parliament.

What is the CAP?

Agriculture has been one of the flagship areas of European collaboration since the early days of the European Community.

In negotiations on the creation of a Common Market, France insisted on

How much does it cost?

In 2010 the budget for direct farm payments (subsidies) and rural development - the twin "pillars" of the CAP - was 58bn euros (£48bn), out of a total EU budget of 123bn euros (that is 47% of the total). The direct payments alone totalled 43bn euros.

Regional aid - known as "cohesion" funds - was the next biggest item in the EU budget, getting 36bn euros.

The CAP has been steadily falling as a proportion of the total EU budget for many years. In 1970, when food production was heavily subsidised, it accounted for 87% of the budget.

http://www.reformthecap.eu/

The Common Agricultural Policy (CAP) needs fundamental reform. Every year, **€57 billion – more than 40% of the EU budget** – are spent without creating significant value for society.

Key Data on the CAP
2009 overall budget (European Agricultural Guarantee Fund): EUR 41,131 million

Policy	Objectives	Main Instruments	2009 Expenditure
Market Interventions	Raise and stabilise market prices	Intervention buying; export subsidies	3,410
Coupled Subsidies	Increase production of selected goods	Production premia; area payments	4,846
Direct Income Support	Reward farmers' historic support entitlements	Single Farm Payment; Single Area Payment	31,295

Source: Financial Report from the Commission to the European Parliament and the Council on the European Agricultural Guarantee Fund 2009 Financial Year.

Export Subsidies (€ milllion)

2008 Expenditure	
Total	**926**
Cereals	10
Sugar and Isoglucose	501
Fruit and Vegetables	19

2008 Expenditure	
Products of the Wine-Growing Sector	15
Milk and Milk Products	29
Beef and Veal	33
Pigmeat, Eggs, Poultry and Beekeeping	201
Processed Agricultural Products	118

Source: European Commission, 2009. Annexes to the Commission Staff Working Document Accompanying the 2nd Financial Report from the Commission to the European Parliament and the Council on the European Agricultural Guarantee Fund - 2008 Financial Year: SEC(2009) 1368 Part II.

Subsidies per member state in 2013 (€ million)

Member States	**Direct Aids**	**Pillar 2**	**Sum**
Austria	752	533	1285
Belgium	615	78	693
Denmark	1049	106	1155
Finland	571	289	859
France	8521	1279	9800
Germany	5853	1387	7240
Greece	2217	672	2888
Ireland	1341	352	1692
Italy	4370	1441	5811
Luxembourg	37	13	50
Netherlands	898	103	1001
Portugal	606	611	1217
Spain	5139	1284	6424
Sweden	771	267	4737

United Kingdom	3988	749	4737
EU-15	36727	9163	45890
Bulgaria	580	396	976
Cyprus	53	21	75
Czech Republic	909	424	1334
Estonia	101	113	214
Hungary	1319	585	1904
Latvia	146	151	298
Lithuania	380	254	634
Malta	5	11	16
Poland	3045	1851	4896
Romania	1264	1356	2620
Slovakia	388	320	708
Slovenia	114	113	257
EU-12	8336	5595	13930
Total	45062	14758	59821

CAP Reform in a Nutshell

The Problem

- **EU agricultural tariffs and subsidies distort the economy.** European agriculture is not aligned with its comparative advantage, but skewed in favor of those products that receive disproportional protection. Worse, support to agriculture acts like an invisible tax on the manufacturing and service sectors.
- **The CAP harms EU trade interests.** It discredits the free-trade argument and serves as a pretext for maintaining barriers to trade in agriculture, manufacturing and services.
- **The CAP is socially unfair.** Poor farmers benefit little from the CAP. 20% of recipients reap roughly 80% of the direct income support. More generally, social policies should be targeted at the poor and not at farmers or any other sector.
- **The CAP has a weak environmental record.** Only a tiny fraction of its budget is spent on efficient agri-environmental payments, while environmentally harmful farming practices, such as drainage of wetlands, are still subsidized.
- **The CAP undermines global food security and the fight against poverty.** The EU subsidizes exports which disrupt production abroad. Furthermore, investing in agricultural research and development, especially if adapted to developing country needs, is much more effective than subsidizing European farm income and production.
- **The CAP is a burden on European integration.** It creates an image of a bureaucratic, non-transparent, and ill-managed EU. It wastes resources that could, if employed more wisely, convince European citizens of the benefits of integration. It nurtures a culture of national egoism that stymies rational, efficiency-oriented decision-making on EU expenditures and budget financing.

The Opportunity

- There is a good chance that the CAP will be revolutionized after 2013 when a new long-term EU budget comes into force. The **economic crisis** has left a heavy burden on public budgets, strengthening the hand of finance ministers.
- The **ecological crisis** requires substantial shifts from wasteful handouts to programs that preserve the climate, biodiversity, soils, and water.
- The long-term trend of **increasing agricultural prices** and incomes weakens the case for income-supporting subsidies that do not promote the provision of public goods.

The Solution

- **European money should only be spent on European public goods.** If agricultural policies do not have positive effects that spill across national borders, they should be fully financed by the member states that are in a better position than the EU to pursue local preferences with financial responsibility.
- **The focus of the CAP should be on environmental objectives**, such as biodiversity protection, climate change mitigation and responsible water management.
- Accordingly, **the CAP budget should be significantly reduced.** The first pillar of the CAP should be progressively abolished and many policies under the second pillar should be removed.
- **EU oversight of national farm policies should be strengthened** to avoid subsidy payments that distort competition or hurt the environment.