



**Jurong Junior College  
2016 JC2 Preliminary Examination**

**ECONOMICS**

**Higher 2**

**9732/01**

**Paper 1**

25 August 2016

**2 hours 15 minutes**

**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

**Begin each case study question on a fresh sheet of writing paper.**  
**Attempt case study questions in ascending order of question sequence and indicate questions attempted clearly on answer sheet.**

**Fill in the necessary information on the cover sheet.**

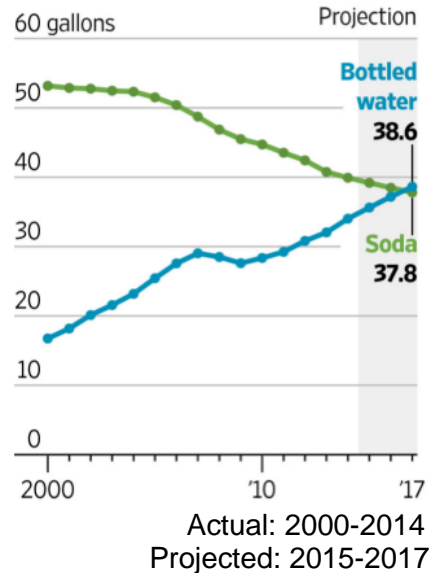
At the end of the examination, fasten all your work securely with the **cover sheet at the top**.  
The number of marks is given in brackets [ ] at the end of each question or part question.

Answer **all** questions.

### Question 1

#### Bottled Water and Clean Water

**Figure 1: U.S. per capita beverage consumption**



Source: Wall Street Journal

#### Extract 1: Bottled water sales volume to increase in the U.S.

Building on last year's growth of 4.7 percent, bottled water that includes sparkling, mineral, distilled and pure water, will again post large increases in both sales and consumption for 2014, according to preliminary data from the Beverage Marketing Corporation. Sales volume of bottled water in 2014 is expected to grow to \$13 billion, an increase of 6.1 percent from 2013.

The liquid refreshment beverage market in the U.S. consists of soda, energy drinks, sports drinks, bottled water, and other non-carbonated beverages. The rise in the consumption of bottled water has been driven by the shift in consumer preference for healthier beverages. Soda has often been criticised for its high sugar content and caffeine. The alleged health impacts include high blood pressure, diabetes, and obesity. Many consumers know that convenient and refreshing bottled water has zero calories and is the healthiest option on the shelf, as compared to soda. Nevertheless, the overall rise in obesity rates in the U.S. shows that consumers may be less willing to give up on soda and other sugary beverages. Positive growth rate in the U.S. has also played an imperative role in the growth of the bottled water industry.

The bottled water industry is appealing with an increasing number of players every year, primarily due to positive sales revenue. The main type of plastic used for plastic bottles, polyethylene terephthalate, as well as the main type of mineral used for glass bottles, silica sand have been experiencing fall in prices. These plastic and mineral made up a relatively large proportion of the production of bottled water, and U.S. being the one of leading producers has sufficient stocks available. The other costs of making bottled water such as fuel, electricity and labour are also obtained easily with ease.

Source: *The Economist*, 15 November 2014

## **Extract 2: Competition in the U.S. bottled water industry**

Nestle Waters North America is the market leader of the U.S. bottled water industry. Aside from the other major market players PepsiCo's Aquafina and Coca-Cola's Dasani, Nestle also competes with the bottled water brands of private players. The firms in the bottled water industry are interdependent as they consider their rivals' reactions when setting prices, output, advertising budgets and other business models.

Coca-Cola's Dasani broadcasted a new ad campaign featuring actress Jennifer Aniston touting its vapor-distilled, electrolyte-enhanced Smartwater and launched an unsweetened, zero-calorie sparkling water beverage in lime, lemon, apple, and berry flavors in early 2014, whereas PepsiCo this summer ran its first ad campaign for Aquafina since 2008. Dozens of smaller, high-end specialty-water brands with names like Real Water, People Water and Happy Water have also come up with new bottle designs and exotic minerals to attract consumers. Firms also continue to invest in the exploration of technologies and recovery systems that enable more energy-efficient and cost-effective production of bottled water.

Source: *Wall Street Journal*, 19 August 2015

## **Extract 3: Consumption of clean water**

Water is a basic necessity for life and drinking clean water reduces the number of episodes of diarrhea for an individual, making him healthier and more productive. Apart from the benefits to the individual, consuming clean water also leads to healthier populations as the spread of water-borne diseases is lowered, increased productivity and growing economies. Despite this overwhelmingly clear evidence, millions of people still struggle to access clean drinking water, and more than 840,000 people die each year from consuming unclean water and sanitation.

The most commonly used definition of "access" is defined as having a source of safe water within 1 kilometer of the dwelling. It is estimated that in 2015, 663 million people still lacked access to "improved" drinking water sources. Improved sources are those deemed to be relatively protected from contamination and, therefore likely to provide clean water for human consumption and household use, such as piped water supplies into the house or protected wells or springs. For the high number of poor households living in urban slums and in rural areas, there is insufficient access to clean water or sanitation, highlighting the inequality issue in most developing countries.

Poverty and local power inequalities can exacerbate inequalities of access to water. For example, in areas where informal providers are the only source of water delivery to poor households, without regulation to ensure fair pricing, extortion and bribery can inflate the cost of this essential service, such that the poorest households can in fact be paying the most for their water.

Source: Global Water Partnership and World Health Organisation

## **Extract 4: Towards a way to improve the situation**

Water should be recognised as a great priority. One of the main objectives of the World Water Council is to increase awareness of the water issue, and decision-makers at all levels must be implicated. One of the Millennium Development Goals is to halve, by 2015, the proportion of poor people without sustainable access to clean water and increase its consumption. To achieve that aim, several measures should be taken.

Firstly, the subsidising of production of clean water that requires the use of sophisticated technology. This makes clean water affordable for the poor, yet may be costly for countries with weak fiscal position as spending on welfare programmes has to be cut. Secondly, the deregulation

of the control of water supplies to private companies creates a more efficient system and allows more people access to clean water, and hence consume them. Yet, while water companies are able to update water systems, making them more efficient and more accountable to consumers, they can also make water more costly to the poor once market power is consolidated. Thirdly, educating citizens on the responsible use and benefits of consuming clean water, which may be difficult to implement and monitor. Lastly, the signing of water treaties to import clean water supplies provides a structure for nations to address their differences in managing and monitoring shared resources, as well as increases the access to clean water especially for third-world countries. However, these countries may not have sufficient capital and/or resources available for exchange.

Source: World Water Council

### Questions

- (a) Using Figure 1, compare the trend between U.S. per capita soda consumption and U.S. per capita bottled water consumption. [2]
- (b) With reference to the likely market structure of the U.S. bottled water industry, comment on how a firm like Coca-Cola's Dasani may compete to maximise its profits. [6]
- (c) Discuss the view that supply factors are likely to be more important than demand factors in explaining the extent of the change in sales volume of bottled water in the U.S. [8]
- (d) (i) Explain why governments intervene in the market for clean water. [4]
- (ii) With reference to the data, assess whether subsidies would be the most appropriate policy option for the government to achieve its microeconomic objectives. [10]

[Total: 30]

**Question 2****Economic Slowdown****Extract 5: Trade dispute**

China is sitting atop a glut of gluts. The massive amounts of industrial capacity built to enable the speedy development of the Chinese economy is increasingly idle in the face of a slowdown and transition to services within the maturing behemoth. Prices for products from coal and steel to industrial chemicals have fallen as markets work to clear the glut. Faced with an onslaught of cheap goods from China, some governments are reaching for anti-dumping tariffs like America, which placed punitive tariffs on steel imports from some countries in March.

Cheap exports from China reflect overcapacity that has developed as the Chinese economy has slowed. The resulting cheap Chinese goods may not be proof that China is on the verge of vanquishing all rivals, but rather a reflection of its manufacturers' weakness. That weakness is now being exported. Cheap exports depress prices in foreign markets, most of which are already experiencing worryingly low inflation. While central banks have little room to respond using conventional tools as interest rates are already at historic lows, governments are feeling the pressure to resort to anti-dumping duties.

Source: *The Economist*, 8 April 2016

**Extract 6: Low or negative inflation**

Falling prices sound like something to cheer. The emergence of the sharing economy is driving down the price of a taxi ride and a bed for the night. More recently tumbling prices for natural resources, especially oil, have boosted the spending power of consumers from Detroit to Delhi. Mark Carney, the governor of the Bank of England, reckons that falling energy prices are "unambiguously good" for the British economy. Mr Carney is not wrong. Nonetheless, the world is grievously underestimating the danger of deflation. The problem is that aggregate prices are dipping in so many places at once. Deflationary pressures are visible far beyond food and energy, and in countries that cannot claim to be leading the charge towards the new economy. Weak demand, driven by austerity, debt and a lack of economic growth is dragging down prices. In the euro zone, where deflation grips tightest, consumer prices fell by 0.6% in the year to January; Germany, Italy and Spain all saw falls. Prices in Greece have been declining for 23 months. Ultra-low inflation is also widespread. America, Britain and China each have inflation rates of less than 1%. This looks less like a welcome fall in prices than a sign of entrenched weak demand.

Deflation poses several risks. One familiar danger is that consumers will put off spending in the expectation that things will get even cheaper, further muting demand. Likewise, if prices fall across an economy but wages do not, then firms' margins will be squeezed and employment will stagnate or decline. Neither of these dangers is yet visible; indeed, America and Britain are seeing strong employment growth. A third, well-known risk is debt deflation: debts become more onerous because the amount that is owed does not fall, even as earnings do. This is a big worry in the euro zone, where many banks are already stuffed with non-performing loans.

The least-understood danger is also the most serious, because it is already here. Deflation makes it harder to loosen monetary policy. When inflation is at 4%, the central bank can take real (i.e., inflation-adjusted) rates well below zero, to -4%, by keeping headline rates at zero. But as inflation falls and turns negative, low real rates get harder and harder to achieve, just when you need them most. Most rich-world central banks have already cut their main policy rates near to zero in order to pep up demand. A growing number of European economies are using negative interest rates to

encourage spending, although charging people to put money in the bank will eventually prompt them to keep their money under the mattress instead.

All of which means that policymakers risk having precious little room for manoeuvre when the next recession hits. And sooner or later it will—because of a sharp slowdown in China, say, or the effect of a rising greenback on dollar-denominated corporate debt, or from some shock that comes out of the blue. The Federal Reserve has cut its policy rate by an average of 3.9 percentage points in the six recessions since 1971. That would not be possible today. The break-glass-in-case-of-emergency option of depreciating the currency massively against a fast-growing trading partner is of limited use when so few big economies are growing rapidly and prices are falling, or close to it, in so many places. Policymakers should be more worried than they appear to be, and their actions to avert deflation should be bolder. Governments need to boost demand by spending more on infrastructure; central banks should err on the side of looseness. Next month the European Central Bank will start quantitative easing, and about time too, by buying assets and pumping money into the economy.

Source: *The Economist*, 21 February 2015

### **Extract 7: Inflation down in Singapore**

The economy could witness a longer stretch of negative inflation this year. The recent falls in the consumer price index were largely due to policy-driven drops in housing rents and car prices and these coincided with sharp declines in global oil prices.

The Monetary Authority of Singapore's core inflation measure, which strips out accommodation and private transport costs, came in at one per cent, mainly reflecting lower but positive food inflation and services inflation. The labour market remains tight and the economy continues to expand.

Source: *The Business Times*, 24 April 2015

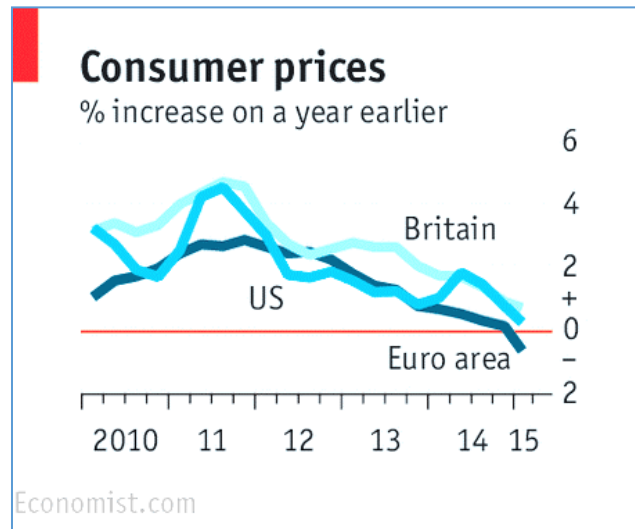
### **Extract 8: Negative interest rates**

Negative interest rates have arrived in several countries, in response to the growing threat of deflation. In June the European Central Bank (ECB) announced that it would pay -0.1% on the money banks deposited with it; in September the rate went even lower, to -0.2%. Denmark, Sweden and Switzerland also have negative rates. Banks, in effect, must pay for the privilege of depositing their cash with the central bank. Central banks' intention of having negative interest rates is to spur banks to lend any reserves that are above the minimum regulatory requirement to willing borrowers, as well as to weaken the local currency by making it unattractive to hold. Both effects, they hope, will raise growth and inflation. In fact, the downward march of nominal rates may actually impede lending. It is difficult to reduce deposit rates below zero while lending rates are falling. Weakened financial institutions, in turn, are not good at stoking economic growth.

Negative rates do not seem to have achieved much on loans. The charges central banks levy on reserves are still relatively modest: by one estimate, Denmark's negative rates, which were first imposed in 2012, have cost banks just 0.005% of their assets. Indeed, the biggest effect of negative interest rates may be on currencies. Since the ECB introduced negative deposit rates the euro has fallen against the dollar by nearly 20%. After Sweden adopted negative rates, the krona fell to a six-year low against the dollar. It is no coincidence that the central bank with the greatest enthusiasm for negative rates is Denmark's: its sole objective is maintaining a fixed exchange rate with the euro.

Source: BBC News, 15 February 2015

**Figure 2: Change in consumer prices 2010 – January 2015**



Source: *The Economist*

### Questions

- (a) With reference to Figure 2, compare the change in consumer prices of the Euro area with that of Britain between mid-2011 and January 2015. [2]
- (b) From Extract 5, explain how you would decide whether governments are justified in imposing anti-dumping duties on the cheap Chinese goods. [4]
- (c) State **two** possible reasons why wages do not fall when prices are falling in an economy. [2]
- (d) With the help of a diagram, explain the causes of deflation in various economies. [4]
- (e) Assess whether negative inflation is undesirable to an economy. [8]
- (f) With reference to the data where appropriate, discuss whether governments should use negative interest rates or another policy measure during a recession with deflation. [10]

[Total: 30]