TAMPINES JUNIOR COLLEGE

Preliminary Examination 2008

ECONOMICS **8816/01**

Higher 1

Monday 18 Aug 2008 13 30 – 16 30 (3 hours)

INSTRUCTIONS TO CANDIDATES

Section A (Case Study)
Answer **all** questions

Section B (Essay)
Answer any **one** question

Write your name and civics class in the spaces provided on the answer paper.

Write your answers on the separate answer paper provided.

If you use more than one sheet of paper, fasten the sheets together.

Write the question numbers of the questions you have attempted on the cover sheet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.

For Section B, you may answer with reference to your own economy or other economies you have studied where relevant to the question.

This question paper consists of 10 printed pages.

Section A

Answer **all** questions in this section

Question 1 Sustainable Energy Policy

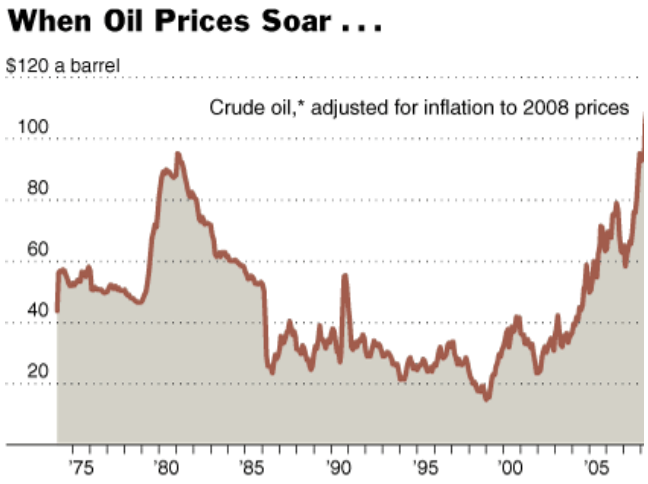
Extract 1:

When discoveries of new reserves fall short of demand – which may be the case in just a few years for oil, and slightly later for natural gas – energy prices will climb significantly.

Owing to the gradual depletion of oil and gas reserves and the need to reduce the environmental problems of energy consumption, the energy mix of the future will contain a far lower proportion of fossil energy (oil and natural gas) than it does today.

Source: *Deutsche Bank Research (2004)*

Figure 1:



Source: *New York Times (2008)*

Extract 2:

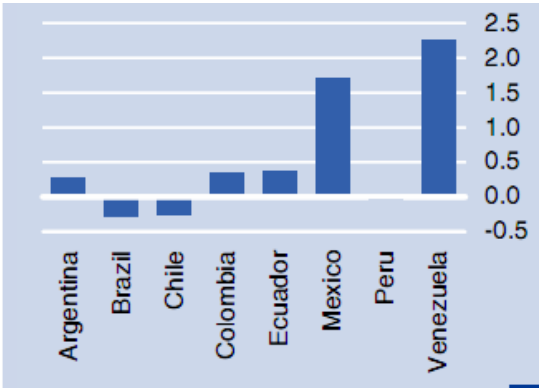
Most of the Latin American countries with sizeable oil resources engage to some extent in exporting them, notably towards North America and Europe.

However, the large emerging economies such as China & India are already representing an important market for energy resources from the region and are likely to increase further in importance.

Conversely, for countries such as China, India or South Africa, the Latin American region represents a diversification away from their established supplier countries.

Source: *Deutsche Bank Research (2007)*

Figure 2: Net oil export in 2006 – Latin America
(million barrels per day)



Extract 3: Biofuels

Biofuels are any kind of fuel made from living things, or from the waste they produce. In recent years, the term "biofuel" has come to mean the last category - ethanol and diesel, made from crops including corn, sugarcane and rapeseed.

In principle, biofuels are a way of reducing greenhouse gas emissions compared to conventional fossil fuels. Burning the fuels releases carbon dioxide; but growing the plants absorbs a comparable amount of the gas from the atmosphere.

Biofuel rush

"Europe should be open to accepting that we will import a large part of our biofuel resources. We should certainly not contemplate favouring EU production of biofuels … if we can import cheaper, cleaner biofuels," said Peter Mandelson, EU's trade commissioner.

Oilseed crops in Europe - which are mainly rapeseed - currently receive heavy subsidies, making them cheaper than imported Brazilian ethanol, which is subjected to large import tariffs of around 70%.

Even in the US, ethanol production is a net economic loser as it requires staggering taxpayer subsidies to its corn farmers and ethanol producers. At around 18-19 cents/litre, Brazil's sugar cane-based ethanol is much cheaper than the 30 cent/litre corn-based ethanol in the United States. Cheap Brazilian ethanol is not of any help to US consumers since the US effectively limits Brazilian ethanol because of tariff schemes.

Concerns about the use

From the environmental point of the view, the big issue is biodiversity. Demand for "green" fuels could lead to developing nations tearing down rainforests to produce fuel crops.

If increased proportions of food crops such as corn or soy are used for fuel, that may hit food availability and push prices up, affecting food supplies for less prosperous citizens.

In addition, there are also fears over the environmental cost of making fuel from crops like corn. Scientists have said it takes so much energy to produce some biofuels that it would be cleaner overall to burn petrol in our cars.

Source: *BBC articles (2006/2007), Aspen Institute (2006)*

Extract 4:

Brazil, the world's biggest producer of ethanol, could be a significant beneficiary of increased biofuel use around the world, and the country has plentiful arable land for expanding these crops. The use of baggasse (residue left after extraction of oil or juice from commodities like olives, grapes, or sugar cane) to co-generate power for the sugar/ethanol mills results in lower energy usage in Brazilian ethanol production, a significant cost saving helping to make Brazil a major competitor.

Source: *United States Department of Agriculture, Foreign Agricultural Service (2008)*

Table 1: Annual World Ethanol Production by Country
(Millions of Gallons, All Ethanol Grades)

Country	2004	2005	2006
Brazil	3,989	4,227	4,491
U.S.	3,535	4.264	4,855
China	964	1,004	1,017
India	462	449	502
France	219	240	251

Source: *Renewable Fuels Association*

Questions

(a) **(i)** Describe the trends in real oil prices between 1980 and 2006. [2]

(ii) Describe and account for the relationship between real oil prices and ethanol production. [4]

(iii) Account for Brazil's share of the world's ethanol production. [2]

(iv) Evaluate the impact of the oil trade on the economies of the Latin American countries "when oil prices soar". [8]

(b) **(i)** Using economic analysis, explain the environmental problems of using fossil fuels. [4]

(ii) Compare the policy of subsidising corn and ethanol production in US to an alternative policy such as a tax on petrol to solve this environmental problem. [10]

[30 marks]

Question 2 The Japanese Economy

Extract 5: Japan's Internal Economy

The year has been marked by the sustained recovery of Japan's economy. Although Japan's economy still faces further structural changes going forward, the year 2006 can be regarded as a year of steady progress towards normalisation after the long adjustment phase since the bursting of the bubble.

One main factor behind Japan's sustained recovery is Japanese firms are succeeding in utilising the strong growth of overseas economies to realise good business performance. This is seen in steady growth of profits and increases in business fixed investment. With this development, for the first time in more than a decade, the number of firms that reported a shortage of production capacity outnumbered those reporting an excess, and it has become clear that firms are increasingly feeling a shortage of labour.

Source: Extracted from Summary of a Speech Given by Toshihiko Fukui, Governor of the Bank of Japan, to the Board of Councillors of Nippon Keidanren (Japan Business Federation) in Tokyo on December 25, 2006

Extract 6: China vs. Japan: A Phony Trade War

In recent months, Tokyo and Beijing have been lobbying tit-for-tat import tariffs. Since April, the Japanese government slapped tariffs on Chinese mushrooms, leeks, and the reeds used in tatami mats. In late June, Beijing imposed tariffs on Japanese cars, mobile phones, and air conditioners. From all appearances, the trade battle is causing irreparable harm to the two giants' relationship. But appearances can be deceiving. In fact, the two economies already are deeply integrated -- and are growing more so every day.

Japan is already China's biggest trading partner, while China ranks as Japan's No. 2 after United States. According to the Japan External Trade Organisation, bilateral trade hit an all-time high of $85.73 billion last year and is on track to surpass the $100 billion mark this year.

There is no denying that the booming trade between the two countries is a boon to both sides. In Japan, almost everything sold at the 500-odd UNIQLO shops (sleeper discount clothing chain) is sourced from some 65 plants in China. Last year, Japan's trade deficit with China totalled $24.88 billion -- making China one of the few non-oil-producing nations to sell more to Japan than it buys.

Furthermore, Japanese foreign direct investment in China totalled $2.9 billion last year, up 7% from 1999. The money is pouring into Japanese joint ventures and wholly owned Chinese manufacturers in the outsourcing business. Blue-chip manufacturers such as Sony Corporation and Matsushita Electric Industrial

Company are rushing to expand production and sourcing in China. They are there for the low price of labour and materials and also because Chinese workers are becoming increasingly sophisticated. Indeed, Japanese companies are making more and more high-tech products in their Chinese factories. This is an inevitable development. Japan, for her part, will try to keep a step ahead in technology so as not to lose her competitive edge. With their competitive edge eroding fast, Japanese companies increasingly see China investment as vital.

However, the irony of the trade flap is that most cheap "Chinese" products flooding Japan are made by Japanese companies. And Japan has no choice but to continue moving to China, facing as it does cutthroat competition at home due to deregulation, especially of retailing, distribution, and agriculture.

Thus, most Japanese companies consider protectionism futile. Indeed, no protectionist measures from Tokyo will stop Japan's wrenching transition to a value-added and service economy. Nor will they halt China's rise as an export machine. The reality is that each nation will need the other as the inevitable unfolds.

Source: Extracted from *BusinessWeek*, 9 July 2001

Extract 7: Japan Eyes Huge Asia Trade Bloc

Japan has plans for a huge Asian free trade bloc of 16 nations that would help integrate economies in the region. The grouping would include about half the world's population and be larger than both the EU and North American Free Trade Agreement (NAFTA).

The agreement would include China and India, the world's two fastest growing economies. It would also include the Association of South-East Asian Nations (ASEAN), Australia, New Zealand and South Korea.

Based on the estimates by Japan’s Ministry of Economy, the trade pact would increase Japan's gross domestic product (GDP) by about 5 trillion yen ($42.5bn), and the GDP of all those countries involved by about 25 trillion yen.

Japan has already closed economic agreements with Singapore, Mexico and Malaysia. Meanwhile, China already has a free trade deal with the 10-nation ASEAN.

Source: Adapted from *BBC News*, 4 April 2006

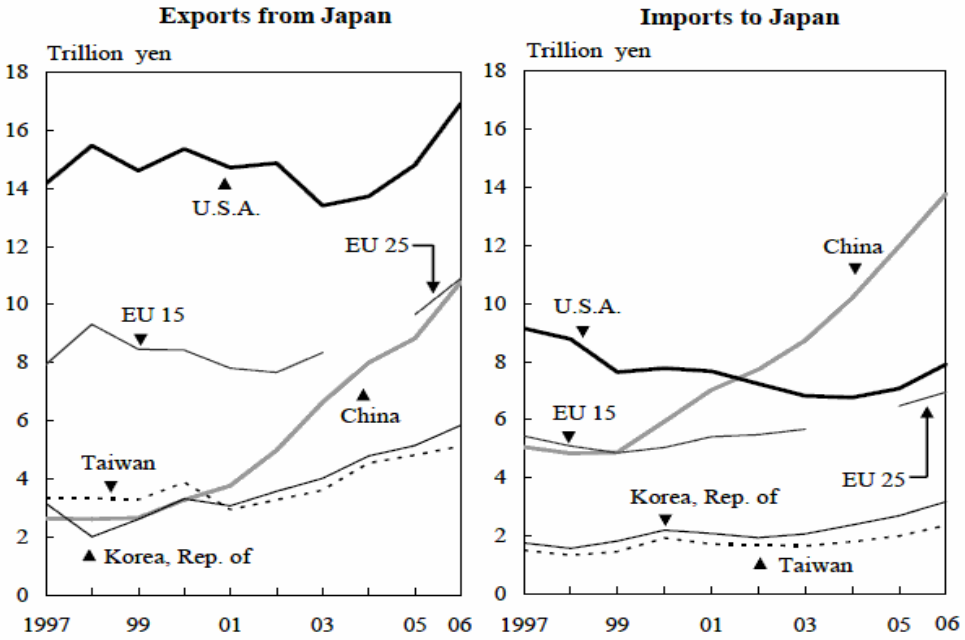
Table 2: Japan's Selected Economic Statistics

	2000	2001	2002	2003	2004	2005	2006
Real GDP growth (Annual growth in %)	2.9	0.2	0.3	1.4	2.7	1.9	2.2
GDP per capita (USD, current prices and PPP*)	25593	26195	26814	27482	29037	30290	31919
Consumer Price Index (Year 2000 = 100)	100	99.2	98.4	98.1	98.1	97.8	98.1
Unemployment rates: total (As a % of civilian labour force)	4.9	5.2	5.5	5.3	4.7	4.4	4.1
Inflows of foreign direct investment (Billion Yen)	26211	32923	27109	26322	28483	33702	40673
Government net borrowing/net lending (As a % of GDP)	-7.6	-6.3	-8.0	-7.9	-6.2	-6.4	-2.9
Current account (100 million Yen)	128,755	106,523	141,397	157,668	186,184	182,591	198,488
Exports of goods (100 million Yen)	495,257	465,835	494,797	519,342	582,951	626,319	716,309
Imports of goods (100 million Yen)	371,537	381,821	379,294	399,575	443,928	522,971	621,665
Capital account (100 million Yen)	-94,233	-61,726	-84,775	77,341	17,370	-140,068	-124,665
Labour compensation per employee (in USD calculated using PPP*)	27996.8	28763.0	29694.5	30619.1	31220.0	33013.1	-
CO_2 emissions from energy use (Million tonnes)	1172	1157	1194	1203	1201	1214	-
Life expectancy at birth (Number of years)	81.2	81.5	81.8	81.8	82.1	82.1	-

Source: Japan's Ministry of Finance & Organisation for Economic Co-operation and Development

* The purchasing power parity (PPP) of a currency measures what it will buy in terms of a standard basket of products in different countries.

Figure 3: Trends in Japan's Trade by Country/ Region



Source: Japan's Ministry of Finance

Questions:

(a) Using the data in Table 2:

(i) Summarise Japan's inflation rate in the period 2000-2006. [2]

(ii) Deduce how Japan's invisible balance has changed in the period 2000-2006. [2]

(b) Consider whether, according to Table 2, the growth of real GDP is the best indicator of the living standards in Japan. [4]

(c) With reference to Figure 3, compare Japan's trade with China and USA from 1997-2006 and suggest possible reasons for the observation. [4]

(d) Assess the impact of "increases in business fixed investment" (Extract 5) on the Japanese economy. [8]

(e) Discuss the policies that Japan can adopt to overcome the challenges faced as mentioned in the extracts. [10]

[30 marks]

Section B

Answer **one** question from this section

3. **(a)** Explain the case for government intervention in the provision of education. [10]

(b) Discuss whether the Singapore government's education policies have brought about increased efficiency and economic competitiveness. [15]

4. **(a)** Using demand and supply analysis, explain the pattern of trade between countries. [10]

(b) Fiscal policy is the best solution to boost economic growth in Singapore. Discuss. [15]