

Candidate Name: _____

CT Group: _____

Index number: _____

PIONEER JUNIOR COLLEGE

JC 2 Preliminary Examination 2013



ECONOMICS

8819/01

Higher 1

Paper 1

16 September 2013

3 hours

Additional materials: Writing Paper

READ THESE INSTRUCTIONS FIRST

Write your class, index number and name 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.

Section A

Answer **all** questions.

Section B

Answer **one** question.

At the end of the examination, fasten your answers for Questions 1, 2 and 3 or 4 separately.

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

Section A

Answer **all** questions in this section.

Question 1: Car pollution

Figure 1

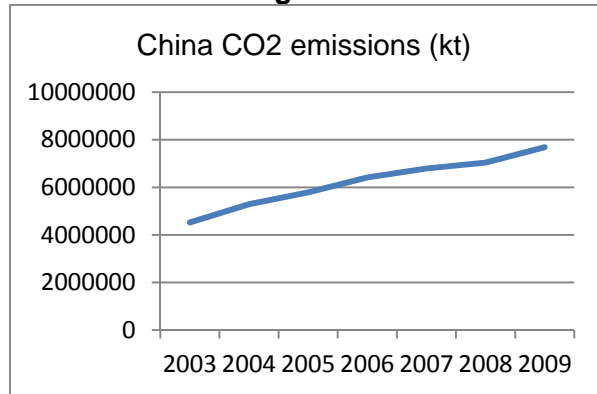
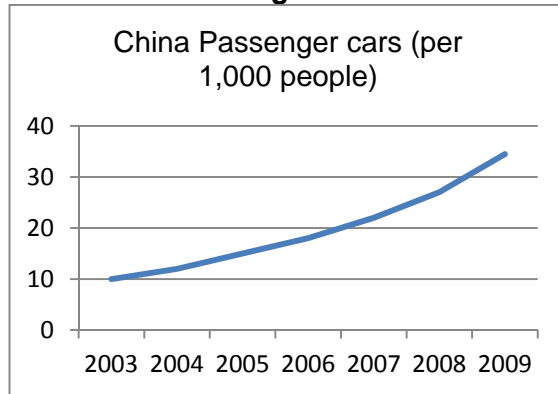


Figure 2



Source: *World Bank*

Extract 1: Pollution from car emissions killing millions

An explosion of car use has made fast-growing Asian cities the epicentre of global air pollution. Worldwide, a record 3.2m people a year died from air pollution in 2010, compared with 800,000 in 2000. It now ranks for the first time in the world's top 10 list of killer diseases, says the Global Burden of Disease (GBD) study.

According to a UN report - in 2010, more than 2.1m people in Asia died prematurely from air pollution, mostly from the minute particles of diesel soot and gasses emitted from cars and lorries. 65% of all air pollution deaths are now in Asia. Air pollution also contributes to higher rates of cognitive decline, strokes and heart attacks.

The full effects of air pollution on health in Asian cities may not be seen for years. Toxic effects like cancer surface after a long latency period. Therefore, exposure to air pollution will have to be reduced today to reduce the burden of disease.

Improvements in car and fuel technology have been made since 2000 but these are nullified by the sheer increase in car numbers. Nearly 18m are expected to be sold this year alone.

Experts suggested the need to "demand restraint measures", to put a check on the growing number of cars so that there was a check on pollution.

Adapted from *The Guardian*, 17 Dec 2012

Extract 2: Test-bedding of Electric Vehicles In Singapore

A multi-agency taskforce comprising of different ministries, statutory boards and industrial partners are involved in the Electric Vehicles (EVs) test-bedding programme. \$20 million has been set aside as part of this programme to support infrastructure development and test-bed EV.

"Singapore is well-positioned for the deployment of EVs because of our compact urban environment, and robust electrical grid and IT infrastructure", says Mr Lawrence Wong, Chief Executive, Energy Market Authority.

The EV test-bed also offers potential economic benefits for manufacturing and R&D, for example, in areas like battery technology, power electronics and electric drive systems. Singapore's capabilities in electronics and R&D will enable us to attract and anchor such new and high-value activities.

The EV test-bed also serves as a platform for companies to experiment and adapt innovative solutions for use in other countries.

Factsheet on EV

- EVs can help reduce carbon emissions. Pure battery EVs offer significant energy and pollution advantages compared to conventional petrol and diesel vehicles. The magnitude of this advantage depends on the source of the electricity. For example, electric vehicles charged from renewable energy sources like solar and wind have virtually zero carbon emissions.
- Even for countries with limited renewable energy sources, if the EVs are charged using natural gas power generation (as is the case in Singapore), it is still possible to achieve some reduction in carbon emissions compared to conventional petrol vehicles.

Adapted from Energy Market Authority, press release, 6 May 2009

Extract 3: China consumers shun green vehicles

The hope that China will become a pioneer in the shift towards "clean car" technology have suffered a setback as the Chinese consumers show little sign of interest in electric and hybrid vehicles despite ambitious government plans. It had been hoped that government subsidies and policy support would help China's manufacturers, such as BYD, to mass-produce electric cars. But BYD has scaled back its ambitions after failing to find a market because of costs, safety concerns and underdeveloped battery technology. Reflecting the lack of progress, Prime Minister Wen Jiabao recently published an article in a Communist party journal calling for a rethink of China's "road map" towards alternative green vehicles.

Registrations of new passenger cars, especially the luxury sector (Mercedes, BMW, Audi and Rolls-Royce), are still surging. This runs directly opposite to the government's stated goal of creating a more equal, environmentally friendly nation, suggesting a change of strategy may be needed. The state is unlikely to completely abandon its promotion of "clean" car technology, but it may have to revise its plans.

[Turn over

Despite subsidies of 60,000 yuan (£5,700) for pure electric vehicles and 50,000 yuan (£4,700) for plug-in hybrids in five pilot cities, there have been few buyers because regular cars are still cheaper and more reliable. Rather than jump directly to electric cars, it now expects government officials to pay more attention to hybrid cars and fuel-efficient conventional vehicles. Although "in the long term pure [electric vehicles] may still become mainstream, it is welcome to see the government slowly but surely recognising that its targets are inflated," IHS, a Shanghai-based consultancy noted.

With the frequent traffic congestion and smog even at current unhealthy levels, even if all the new cars were hybrid or electric, the congestion would be incredible.

"Green growth" now looks a less likely prospect than a simple market slowdown.

Adapted from theguardian.com, 24 August 2011

Questions

- (a) (i) Using Figure 1, describe the trend of China's CO₂ emissions from 2003 to 2009. [2]
- (ii) Explain one possible reason to account for the trend observed in a(i). [2]
- (b) (i) Explain what is meant by the term 'negative externality'. [2]
- (ii) With reference to Extract 1, explain how the existence of a negative externality can lead to market failure. [4]
- (c) Analyse the impact of the Electric Vehicles (EVs) test-bedding programme on Singapore economy. [6]
- (d) (i) Using DD/SS analysis, explain how "consumers show little sign of interest in electric and hybrid vehicles despite ambitious government plans" (Extract 3) affect the market for EV. [6]
- (ii) In light of the "lack of progress" in reducing car pollution through the use of subsidies, what recommendations would you present to the Chinese government? Justify your answer. [8]

[Total: 30 marks]

Question 2: Rising prices, falling prices**Table 1: Inflation Rates in Selected Countries, 2007-2011**

Country	2007	2008	2009	2010	2011
Brazil	3.6	5.7	4.9	5	6.6
China	4.8	5.9	-0.7	3.3	5.4
Japan	0.1	1.4	-1.3	-0.7	-0.3
Singapore	2.1	6.5	0.6	2.8	5.3

Source: *The World Bank***Extract 4: Brazil's rising inflation hampers growth**

Keeping inflation under control is one of the main challenges facing the new government, amid risks that the economy is over-heating following a credit boom last year and rapid growth in consumption.

The rising inflation is threatening to push Brazil's policy interest rate, already among the highest among large economies at 11.25 per cent, even higher. This is in turn attracting hot money from abroad and strengthening Brazil's currency, the real, damaging the competitiveness of domestic manufacturers.

Exchange rates cripple the country, but inflation kills," said one government official in a recent interview in Sao Paulo

Economists point out that Brazil's development is at a critical phase. Driven by consumption, her internal growth is strong. At the same time, external demand for Brazilian resources further fuel price rises. China, for instance, has become the fastest growing consumer of Brazilian exports, from little more than 5 percent in 2003 to more than 15 percent, in 2009 and its appetite continues to grow.

Consumer prices rose 6.71 percent in June from a year ago, due partly to an increase in food and fuel costs, which speed up inflation even more.

Source: Adapted from *CNBC* 25th April 2011 and *Bloomberg* July 11 2011**[Turn over**

Table 2: Selected Key Economic Indicators, Brazil

	2007	2008	2009	2010	2011
GDP at 2005 constant prices (US\$b)	973	1,023	1,019	1,097	1,127
Unemployment (%)	8.1	7.1	8.3	8.2	8.2
Inflation (annual %)	3.6	5.7	4.9	5	6.6
Current account balance (% of GDP)	0.1	-1.7	-1.5	-2.2	-2.1
Government debt (% of GDP)	57.4	56.6	60	52.2	52.8

Source: *The World Bank*

Extract 5: Japan's Central Bank marks a goal for higher inflation

Hoping to win its long-futile battle against falling prices, Japan's central bank on Tuesday said it would try to kindle inflation, setting a goal of 1 percent, by pumping tens of billions more dollars into the economy.

While central bankers usually worry more about keeping inflation in check than trying to encourage it, Japan's economy has labored for more than two decades against the stagnating effects of falling prices, or deflation.

The government said Monday that the Japanese economy shrank at a 2.3 percent annual rate in the October-to-December quarter, reversing robust gains in the previous three months, as weak overseas demand and a strong yen hurt manufacturing. Prices in Japan have not risen at an annual pace above 1 percent since 1997, when deflation set in. As widely expected, the bank left its benchmark interest rate unchanged at a range of zero to 0.1 percent.

Tokyo stocks rose modestly, and the yen weakened against the dollar on the news. A weaker yen is good news for Japan's economy because it strengthens the competitiveness of its exports. The yen's recent strength has battered the country's exporters like Panasonic, which predicts record losses for the year.

Mr. Shirakawa, Governor of Bank of Japan, has long argued that monetary policy alone cannot bring an end to deflation in Japan, a situation that he says is caused by a lack of demand. Economists say the bank is running out of options, since interest rates are already effectively at zero and because it has little leeway to expand its asset-buying program.

No amount of money can energize a recovery, Mr. Shirakawa has said, without measures to restructure and expand the real economy. But the Japanese government, saddled with a debt of 220% of GDP, twice the size of its economy, has struggled to spend enough to sustain strong economic growth, and economic reforms have fallen short. This serious fiscal position is made worse by the nation's natural and nuclear disasters. And now, demographics are taking a toll. With low birth rates and little inward migration, Japan is facing an ageing and shrinking population. Social security and pension costs have soared as Japan's baby boomers reach retirement.

Source: Adapted from *www.nytimes.com*, 1 Sept 2011 and 14 Feb 2012

Extract 6: Singapore exchange rate policy losing anti-inflationary mojo?

A debate on the effectiveness of Singapore's exchange rate policy in controlling inflation has surfaced as the country restructures its economy to boost productivity.

The restructuring – a large part of which involves capping the expansion of the foreign workforce – is likely to lead to higher inflation from rising wages. At least one economist believes this limits the central bank's ability to keep price increases in check through a strong Singapore dollar, since this works mainly by making imports cheaper.

'If inflation is being driven by domestic supply-side pressures, in particular those owing to tight foreign labour supplies or policies, then the ability of the exchange rate policy to curb inflation will be muted or less effective than in the past,' said a DBS report yesterday.

But there are market watchers who think that a strong currency still helps by containing domestic price pressures indirectly. And with oil prices creeping up, the spectre of imported inflation remains.

Some economists noted that the economic restructuring has, to some extent, made Singapore's exchange rate policy more challenging to manage, but the 'mechanism still works'.

The DBS report threw the spotlight on how the measures could affect exchange rate management. It supported a 'slightly softer' monetary policy stance as it could facilitate restructuring. There would be more pain for the export sector if the policy is tightened further.

And if the growth momentum turns out to be slower than expected, an even more gradual pace of appreciation would support the economy, it added.

Source: Adapted from *Business Times*, 9 Mar 2012

Questions:

- (a) Using the information in Table 1, compare the inflation rate in Brazil and Singapore, between 2007 and 2011. [2]
- (b) Using AD/AS analysis, explain the possible causes of inflation in Brazil. [4]
- (c) (i) With reference to data, explain how high inflation is 'damaging the competitiveness of domestic manufacturers' in Brazil. [3]
- (ii) With reference to Table 2, comment on Brazil economic performance in 2011. [5]
- (d) Discuss the view that a stronger currency is bad news for Japan but good news for Singapore. [8]
- (e) As a consultant economist, what options would you present to the Japanese government as a possible response to the economic problems that the data suggest? Justify your answer. [8]

[Total: 30 marks]

[Turn over]

Section B

Answer **one** question from this section.

- 3 (a) Explain how the price mechanism allocates scarce resources among competing needs in a free market. [10]
- (b) Discuss whether direct provision by the government in the markets for merit and public goods will lead to a more efficient allocation of resources. [15]
- 4 (a) Explain the benefits of free trade. [10]
- (b) Protectionism, inevitably, emerged during a period of global economic downturn. Discuss whether countries should resort to trade protectionism when faced with a global economic downturn. [15]

[End of Paper]