



INNOVA JUNIOR COLLEGE
JC 2 PRELIMINARY EXAMINATION 2
in preparation for General Certificate of Education Advanced Level
Higher 1

ECONOMICS

8819/01

Paper 1

17 September 2014

3 hours

Additional Materials: Writing Paper and Cover Page

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/tape.

Section A: Case Study

Answer **all** questions.

Section B: Essays

Answer **one out of two** questions.

At the end of the examination, fasten all your work securely together.
You are to submit your answers for Section **A** and Section **B separately**.
The number of marks is given in brackets [] at the end of each question or part question.
You are advised to spend several minutes reading through the data before you begin writing your answers.
You are reminded of the need for good English and clear presentation in your answers.

This document consists of **9** printed pages and **1** blank page.



Section A

Answer **all** questions in this section.

Question 1 Rare Earths Market

Rare earths are a group of 17 chemical elements that are used widely in high-technology and clean-energy products because they impart special properties of magnetism, luminescence, and strength. Some of these products include magnets, lasers, nuclear reactors, plasma TVs, energy-saving light bulbs, wind turbines, hybrid cars and even guided missiles.

Extract 1: Rare earths prices

The demand for rare-earths is rising rapidly as they are increasingly being used in a wide range of high-technology products. Production of wind turbines is expected to climb sharply amid the clamour for cleaner energy alternatives that reduce dependence on fossil fuels blamed for global climate change.

China, supplier of 95% of the 17 elements known as rare earths, has shut-down many of its rare earths mining sites and cut its export quotas of rare earths. The government may further reduce export quotas.

Hitachi Metals Ltd, which uses rare earths to make magnets used in hybrid cars, said that it has become increasingly difficult to procure rare earths. Toshinori Hata, a spokesman for Hitachi Metals, said that the company would have no choice but to pass on some of its costs to the consumers.

Adapted from Bloomberg, 17 June 2011

Figure 1: Rare Earths Price Index: 2002 – 2010



Source: The Economist

Extract 2: The Chinese consolidate the industry

Beijing authorities are creating a single government-controlled monopoly, Bao Gang Rare Earth, to mine and process ore in northern China, the region that accounts for two-thirds of China's output. The government is ordering 31 mostly private rare earths processing companies to close this year in that region and is forcing four other companies into mergers with Bao Gang.

Chinese officials say that the government is worried about the external costs from the rare earths industry such as polluted water, polluted air and radioactive residues, particularly among many small and private companies, some of which operate without the proper licenses. While rare earths themselves are not radioactive, they are always found in ore containing radioactive thorium and require careful handling and processing to avoid contaminating the environment.

Rare earths ore has to be refined before it can be used commercially. The waste generated from this process is both acidic and radioactive. The refining process leaves behind a radioactive sludge laced with toxic chemical compounds that is stored in artificial lakes. Due to lax regulations, this radioactive waste material often seeps into the water supply, adversely affecting the health of residents in the area.

Adapted from The New York Times, 15 September 2011

Extract 3: The Chinese government steps-up regulation on the rare earth industry

The local governments of three regions where most of China's light rare earths metals exist will jointly crack down on the illegal exploration and production of light rare earths, the Ministry of Land and Resources said in a statement on its website. The operation aims to "promote the protection and rational development of the country's rare earths resources and further regulate their production," said the ministry.

The country has stopped issuing new licenses for rare earths mining. It has also imposed production caps, enforced export quotas and announced tougher environmental standards for rare earths production in order to control environmental damage and protect the resources. The taxes and quotas China had in place to restrict rare earths exports caused many companies to move their factories to China from the United States and Europe so that they could secure a reliable and inexpensive source of raw materials.

Earlier this year, the government released a statement announcing that it would impose a tax on rare earths minerals. According to the statement released, the tax rate of mined light rare earths would be 60 yuan (US\$ 9.1) per tonne, while that of medium and heavy rare earths would be set at 30 yuan (US\$ 4.5) per tonne. The government will use the tax to support research on rare earths processing, set up environmental compensation funds and build rare earths reserves.

Adapted from China Daily, 27 September 2011

Extract 4: Will China continue to dominate the rare earths market?

China has only 37% of the world's proven rare earths reserves but accounts for 95% of global production. This is not only due to the country's good geographical location but also its willingness to do dirty, toxic and often radioactive work that the rest of the world has long shunned.

Even so, the costs of mineral extraction are increasing because of lower ore grades and increasing capital costs. China's costs of production are likely to rise as environmental and social costs and the potential for rising labor costs begin to be incorporated into China's rare earths production and processing operations. China would likely be unable to increase production significantly to drive prices down.

While limited production and processing capacity for rare earths currently exists elsewhere in the world, additional capacity is expected to be developed in the United States, Australia, and Canada within two to five years, according to some experts. 34 Chinese producers are also seeking to expand their production capacity or seek long-term supply agreements in areas around the world, particularly in Africa and Australia. There are only a few exploration companies that develop the resource, and because of long lead times needed from discovery to refined elements, supply constraints are likely in the short term.

Adapted from The New York Times, 29 October 2010

Questions:

- (a) (i) With reference to Figure 1, describe the trend in the world price for rare earths between 2002 and 2010. [2]
- (ii) Explain how the trend in world price for rare earths would impact the market for hybrid cars. [4]
- (b) (i) With reference to Extract 2, explain how the existence of 'external costs' leads to market failure. [4]
- (ii) With reference to Extract 3, explain how China can reduce these 'external costs' through the imposition of a tax on rare earths minerals. [6]
- (c) Assess the impact of export quota of rare earths on China's Balance of Payments. [6]
- (d) Using information from the data where appropriate, discuss what may happen to the world price of rare earths in the future. [8]

[Total 30 marks]

Question 2 Korea's Performance, Prospects and Lessons

Table 1: Some economic statistics for South Korea over the period 2008-2012

	2009	2010	2011	2012
Current account balance, % of GDP	3.6	2.7	2.2	3.5
Consumer Price inflation, % per year	2.8	3.0	4.0	2.2
Unemployment , % of labor force	3.6	3.7	3.4	3.2
GDP growth, % per year	0.7	6.5	3.7	2.3
Gross Savings (% of GDP)	33	35	35	35
Imports of Goods and Services (% of GDP)	43	46	54	54

Source of Table 1: World Bank

Extract 1: South Korea lowers its growth forecast

The finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%. The sovereign debt crisis in the eurozone has hurt demand for South Korean exports from the region. Meanwhile, the economic recovery in the US - another key market for its exports - has also remained fragile and consumer demand there has not picked up drastically. The slowdown in demand for exports has hurt growth in Asia's fourth largest economy. South Korea's economy grew at its slowest pace in three years in the July to September quarter, expanding at an annual rate of 1.6%.

South Korea's exports, which account for almost half of its overall economy, have been hit by slowing demand from markets such as the US and eurozone. "Growth next year will be better than this year, although there are significant downside risks," said the finance ministry's Choi Sang-mok. "Nevertheless, the strength of the recovery won't be strong enough for the economy to catch up to its potential growth rate."

Source: *BBC*, 27 December 2012

Extract 2: South Korea unveils \$5.2bn stimulus

South Korea is to spend \$5.2bn on fiscal stimulus measures, as it seeks to boost a flagging economy hit by slowing global exports. The finance ministry has announced steps including a temporary easing of taxes on consumption and property transactions, and an increase in state credit for small businesses. The measures, effective from this month, will cost \$4.07bn this year and \$1.15bn in 2013.

Bahk Jae-wan, the finance minister, had previously indicated a reluctance to conduct large-scale stimulus, citing the need to preserve ammunition in case of a more serious deterioration in the economy. Like a \$7.5bn package announced in June, the stimulus will not involve an expansion of this year's government budget, and it is far smaller than the March 2009 stimulus of \$21.6bn. A senior government official said it is expected to boost gross domestic product by just 0.06 per cent this year and 0.1 per cent next year.

However, the stimulus is larger than economists had expected, reflecting policy makers' concern at a string of data indicating ebbing momentum in the economy. Exports – the main driver of South Korea's economy – fell 6.2% last month, while growth in industrial production has turned negative and confidence is declining among both consumers and businesses.

Source: *Financial Times*, 10 September 2012

Extract 3: China, South Korea Start Talks on Free-Trade Pact

Since 2003, South Korea has signed several trade agreements with partners including US, EU and ASEAN. It is now pursuing entry to the US-led Trans-Pacific Partnership group as well as a trade pact with China. Currently China and South Korea are starting discussions toward reaching a free-trade agreement. The two countries' goal is to lift trade to \$300 billion in 2016. Asia's biggest and fourth-biggest economies would form a market with annual trade that rose 19% in 2011 to \$246 billion. A free trade accord is strategic from both economic and political standpoints, given the proximity to North Korea. Both can gain much for economic growth and closer ties will help beef up regional security. The world economic recovery is sluggish as the global financial crisis endures. Trade protectionism is rising. Exports to China, South Korea's largest market, increased 14.9% to \$134.2 billion in 2011 from a year ago, which accounted for 24.1% of South Korea's total exports last year.

For South Korea, makers of cars, electronics, chemicals and petrochemical products will benefit most from a trade pact while farmers and small manufacturers will be hit hard. China buys mostly cars and electronics from South Korea while selling mainly mineral products and electronic parts to South Korea. A free trade deal with China would boost South Korea's economic growth by as much as 3 percentage points and create as many as 330,000 jobs over a decade. South Korea's Finance Minister Bahk Jae Wan said that the nation should take advantage of China's efforts to generate more growth from domestic demand.

Source: *Bloomberg*, 2 May 2012

Extract 4: South Korea cuts interest rates in a bid to spur growth

South Korea's central bank has cut interest rates for the second time in the space of four months amid concerns about a slowdown in its economy. The bank cut its key rate to 2.75% from 3% in a bid to spur growth. South Korea's exports, one of its biggest drivers of growth, has been hurt by slowing demand from key markets such as the US and the eurozone. At the same time, domestic demand continues to remain subdued, further hurting economic growth.

With the eurozone continuing to struggle with its debt crisis and the recovery in the US remaining weak, South Korea may need to cut its borrowing costs even further in the coming months. South Korea's export-driven economy will have difficulty picking up if the global economy continues to struggle to grow.

Source: *BBC*, 11 October 2012

Questions

- (a) Using the information in Table 1, identify and explain the relationship between unemployment and inflation rate in South Korea between 2008 and 2011. [3]
- (b) (i) Using AD/AS analysis, explain why, in South Korea, 'the finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%', as stated in Extract 1? [3]
- (ii) Using the information in Table 2 and 3, how far does the multiplier help to explain the economic recovery of South Korea? [4]
- (c) Use the concept of circular flow of income to explain how the fiscal stimulus measures suggested in Extract 2 will affect the equilibrium level of national income in South Korea in 2013. [6]
- (d) According to Table 1 and Extract 3, explain the possible effects of a China-South Korea Free-Trade Pact on the economy of South Korea. [6]
- (e) Discuss the policy options outlined in Extract 2 and Extract 4 for promoting actual economic growth rate. (reducing export sector) [8]

[Total: 30]

Section B

Answer **one** question from this section.

- 3** As a consequence of trade liberalization, the economy specialize growingly in activities that it has a comparative advantage. However a trade-driven growth may also lead to undesirable effects such as environmental degradation.
- (a) Explain why countries embrace free trade. [10]
- (b) Discuss the policy option for a government in correcting for market failure arising from an export-led growth. [15]
- 4** In December 2012, the Federal Reserve announced that it will keep interest rates suppressed as long as it does not achieve its unemployment target rate of 6.5%.
- (a) Explain why high unemployment is undesirable for an economy [10]
- (b) Discuss the view that interest-rate centred monetary policy is, more often than not, the best option to achieve the macroeconomic objectives of a government. [15]

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