Name:________________________ Class: ______

RIVER VALLEY HIGH SCHOOL
YEAR 6 Preliminary Year Examination
in preparation for General Certificate of Education Advanced Level
Higher 1

ECONOMICS 8819/01

Paper 1 **10 September 2012**

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

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

Section A

Answer **all** questions in this section.

Question 1 Rare Earth Minerals

Extract 1: Value of China's rare earth exports rockets

China's exports of vital rare earth minerals used for numerous high-tech goods slipped almost one-tenth last year but the overall value rocketed as quota cuts lifted international prices.

China, which produces about 97 per cent of the global supply of the minerals, cut export quotas for the minerals by 40 per cent last year, a move that alarmed buyers and trading partners.

Compared to the first half of last year, China will be cutting export quotas by 35 per cent for the first half of 2011. China says the quota cuts will prevent reckless mining of deposits. China is also stepping up its controls over rare earth mining and plans to release new industry standards to combat pollution in its mining industries.

China's moves have raised objections from major trading partners such as the United States, European Union and Japan. The US Trade Representative office threatened last month to take China to the World Trade Organization (WTO) about its export restraints.

With these export restraints, 17 elements, which are critical for the manufacturing of smartphones, computers, wind turbines and hybrid cars in the US and Western countries, have been identified by analysts to face a global supply crunch as demand swells.

Source: *Reuters,* 19 January 2011

Extract 2: Global suppliers respond to China's rare earth policies

Since China set quotas to restrict its rare earth exports, global suppliers have made considerable headway in reducing dependence on Chinese supply. For example, US-based Molycorp MCP has begun production at its California mine and Avalon Rare Metals AVL is developing a deposit in Canada's Northwest Territories. Japan and Australia have also started mine production and are considering reopening mines.

These responses have resulted in rising private stockpiles and have dented international trade in these commodities in the past year.

Source: *The Wall Street Journal*, 24 July 2012

Extract 3: Differing views on China's restrictions on rare earth exports

China's cabinet issued its first white paper on rare earth industry policies, acknowledging that poorly regulated and excessive mining of rare earth minerals had caused landslides, clogged rivers and environmental pollution, causing great damage to the ecological environment and also posed as safety and health hazards to her citizens. In addition, the paper highlighted the need to protect the scarce non-renewable resources.

As such, China pledged to tighten regulation on its rare earth industry within the WTO guidelines. Some of the policies that China has implemented include production caps, export quotas and higher rare earth taxes on production.

The white paper comes after the US, the EU and Japan jointly filed a case in March at the WTO that challenged China's restrictions on rare earth exports, which were imposed in 2006 and have been repeatedly tightened since then. These countries argue that the export quotas are trade protectionism and these export quotas violate free trade rules by putting pressure on companies to move their factories to China if they want to tap China's vast supply of rare earth minerals.

On the other hand, Chinese officials defended that despite export controls in place, China has met global market demand as actual exports totalled just 18,600 tonnes, which is lower that the export quota of 30,200 tonnes set for rare earth products in 2011.

Source: *New York Times*, 20 June 2012

Extract 4: China, a rare earth giant, set to start importing the elements

China, the world's biggest producer of rare earth minerals, is expected to become an importer of some of the materials as early as 2014 as it continues to develop its high-technology industries.

Today, appetite for rare earth is growing fast in China. Efforts to expand the industrial chain mean that China, which produces more than 90 per cent of the world's rare earth, is now consuming 65 per cent of global output, up from 25 per cent a decade ago.

The Chinese approach to coke, a raw material for steel, offers lessons for rare earth. In a bid to supply coke to its own steel mills rather than shipping most of the material abroad, China increased export taxes, rode out trade disputes and by 2008, China turned from being the world's biggest exporter of coke into one of the world's biggest importers. Today, China imports one-fifth of its annual consumption of coke, which is more than half a billion tons.

The US Geological Survey estimates that China holds about half of the world's reserves of rare earth, with 55 million tons, compared with 19 million tons in Russia and 13 million tons in the United States. China, meanwhile, says that its reserves represent only a quarter of global reserves and that churning out 90 per cent of world production is unsustainable.

China hopes to dominate products like magnets, which can be made smaller and more powerful with rare earth. These are then used in renewable energy, satellites, medical equipment and natural gas drilling. Chinese producers like Zhenghai Magnetic Materials contribute more than 80 per cent of global output, up from close to zero two decades ago.

While China's Ministry of Industry said China was still behind in technologies that refine or make use of the minerals, export curbs are playing a role in its effort to catch up and have encouraged foreign companies to bring technology into China. Examples of these foreign companies include glass makers and producers of energy-saving light bulbs.

Source: *Reuters*, 11 July 2011

Figure 1: Rare Earth Minerals Index and Gold Mines Index

Source: *Bloomberg*

Questions

(a) With reference to Figure 1,

(i) Compare the trend in prices of rare earth minerals with that of gold mines between September 2010 and January 2012. [2]

(ii) Using demand and supply analysis, account for the trend in prices of rare earth minerals over this period. [5]

(b) **(i)** Explain what is meant by the term 'negative externality'. [2]

(ii) Explain how negative externalities arise in the market for rare earth minerals. [3]

(c) Explain the likely values of price elasticity of demand and supply for rare earth minerals. [4]

(d) Explain why the quota placed on rare earth minerals by China can be justifiable in terms of the theory of comparative advantage. [4]

(e) Discuss the extent to which export quotas and rare earth taxes help to reduce negative externalities in China. [10]

[Total: 30]

Question 2 The questionable US policies

Extract 5: The international currency war

Finance ministers from the G7 will hold an informal meeting to discuss growing concerns that the world is in the grip of an ‘international currency war’ as governments manipulate their currencies to bolster exports.

In separate moves designed to weaken currencies, the Bank of Japan reinstated its zero interest rate policy and pledged to buy ¥5tn (US$60bn) of assets, while Brazil doubled a tax on foreign investors buying local bonds to put a lid on a recent rally in its currency, the real. It was Brazil's finance minister, Guido Mantega, who coined the ‘international currency war’ phrase, following a series of interventions by central banks in Japan, South Korea, Switzerland and Taiwan to make their currencies cheaper.

Much of the focus remains on China, which has built its economy on exports and keeps its currency artificially low. Manufacturing figures at the end of last week told a clear story of the divergent economies in the developed world and emerging markets. Factory output in Britain, the US, Spain, Ireland and Greece all fell back sharply during September, while in China, manufacturing output rebounded more quickly than economists had been expecting. Although China is not the only one to manipulate its currency, the US sees China as a lynchpin - if it can get Beijing to strengthen its currency, it thinks other smaller exporters will follow.

Tensions between Beijing and Washington have been mounting on the currency issue, and Congress has approved legislation enabling the US to impose trade sanctions on China that manipulate currency to win competitive advantage.

Source: guardian.co.uk, 5 October 2010

Extract 6: The misleading US-China trade data

According to the WTO, the actual US trade deficit with China is less than half the official number. The official trade data are based on a 19th century world in which it was reasonable to assume that goods were produced in a single country. While that simplified view of trade generally still holds for trade in agricultural products such as wine, it no longer reflects the 21st century reality of global supply chains in all things manufactured.

Take, for example, the case of the Apple iPhone. Using the 19th century approach, the entire $178 estimated wholesale cost of the iPhone is credited to China, because that is the place of final assembly. What the 19th century approach ignores is that Chinese workers contribute only $6.50 to the value of the phone. According to a study by the Asian Development Bank Institute, this is far less than the value-added provided by Japan ($60.60), Germany ($28.85), South Korea ($22.96) or the U.S. ($10.75).

Source: Forbes.com, 18 January 2011

Extract 7: The QE2

It is a somewhat ironic coincidence that on the same day as the American electorate rejected any form of fiscal stimulus, Federal Reserve chairman Ben Bernanke, reaffirmed his commitment to a different kind of stimulus, known as 'quantitative easing 2' or QE2. Starting this month, and continuing up until mid-2011, the Fed intends to buy $600bn of US treasury bonds in the open market.

However, so far private banks have chosen to protect their balance sheets by holding onto their cash. Moreover, it is often forgotten that there can be no lending unless there are willing borrowers. But trying to get banks to lend is only one part of what QE2 is designed to achieve, for it is not just banks that will sell their bonds to the Fed: many other investors will end up selling their bonds. And these investors will use their cash to buy other assets, such as shares in the stock market. Higher stock prices will boost confidence, which can spur spending.

Source: guardian.co.uk, 6 November 2010

Extract 8: Bernanke attempted to defend QE2

The Reuters/Jefferies CRB index, a global commodities benchmark, has since hit a two-year high. Despite surging commodity prices, Fed chairman Ben Bernanke has argued the likelihood of deflation is greater than inflation following prolonged weakness in the US economy. However, several economists have argued the Fed's gloomy analysis cannot justify a second round of quantitative easing. Commodities are considered a safe haven when the dollar is falling. There is also an incentive for producers to seek higher prices to offset the falling value of the dollar.

China, Germany and Brazil warned that QE would have far-reaching negative effects beyond the US shores. Brazil, like Thailand and other emerging economies has imposed capital controls on investors seeking to buy Brazilian assets to prevent its currency soaring.

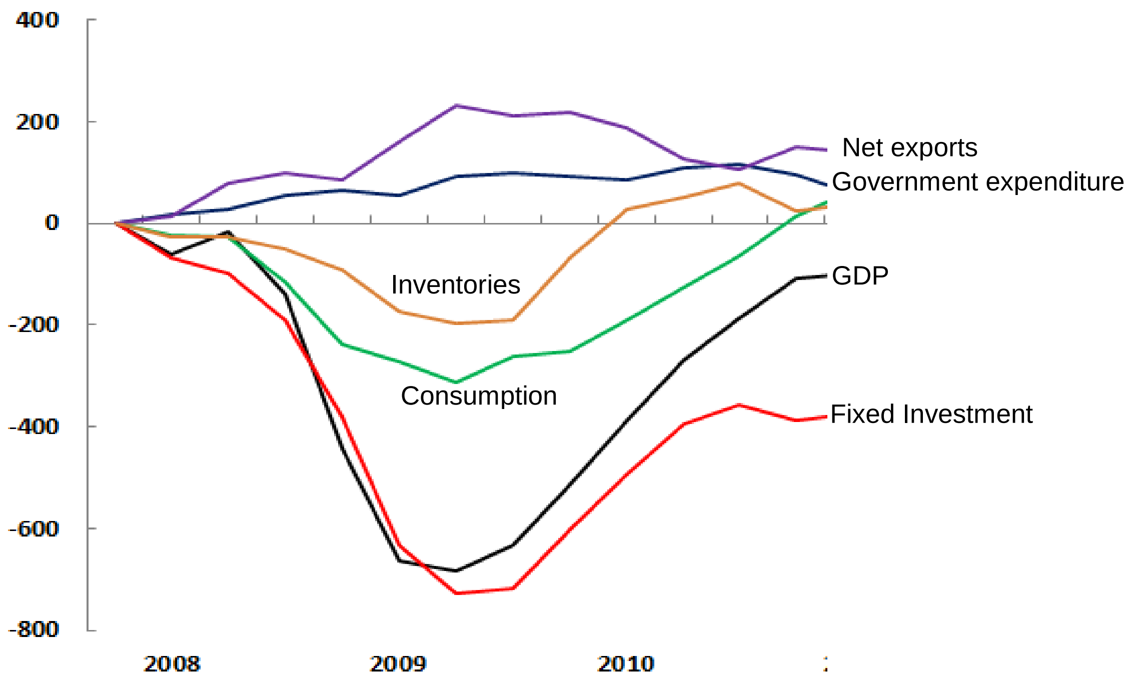
Source: guardian.co.uk, 5 November 2010

Figure 2: Asset returns (%) as on 11 Nov 2010
(Since QE2 hints, Bernanke's speech on 27 Aug 2010)

Note: Nasdaq Composite and S&P 500 are proxies of the US stock market while MSCI is a proxy of that of the emerging markets.

Source: *Thomson Reuters*

**Figure 3: Gross Domestic Product (GDP)
and its components of the United State, 4Q 2007 to 4Q 2010
($ billion at 2005 prices)**



Source: *Bureau of Economic Analysis*

Questions

(a) **(i)** Using Figure 2, compare the performance of the US$ against the Euro with that of the Japanese yen since Ben Bernanke's speech on 27 August 2010. [2]

(ii) Account for the observations you have made. [4]

(b) Explain if the theory of comparative advantage is still very much relevant in the 21st century. [2]

(c) Extract 8 suggests that QE2 would have far-reaching negative effects beyond US shores. Using a diagram, explain these effects. [6]

(d) **(i)** What evidences are there in the data to show that China was not the culprit for the US failing to achieve its pre-crisis level of GDP? [2]

(ii) With the help of the data, discuss whether QE2 was sufficient to tackle the root cause of the US failing to achieve its pre-crisis level of GDP. [6]

(e) Assess whether the approved legislation enabling the US to impose trade sanctions against China would bring about improvement in her overall trade position. [8]

[Total: 30]

Section B

Answer **one** question from this section.

3 **(a)** Explain why government produces street lighting and health care services. [12]

(b) Discuss whether the above method of intervention is the best form of government intervention. [13]

4 **(a)** Analyse how globalisation can affect a country's level of unemployment. [12]

(b) Discuss the view that protectionist measures can help prevent the rise in the level of unemployment. [13]