

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

12 September 2011

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, hand in your work for Section A and B **separately**.
The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **9** printed pages.



[Turn over

Section A

Answer **all** questions.

Question 1

Energy Consumption in China

Extract 1: China's Coal Consumption

International coal prices hit \$124 per ton this week, the highest levels in five months, as strong demand from reconstruction projects in Japan and reduced supply from flood-ravaged Australia made coal supply tight.

Perhaps no country is more affected by surging coal prices than China. Coal powers the Chinese economy, accounting for 71% of China's energy in 2008. The country is the world's largest consumer, gobbling up nearly half of the world's coal consumption in 2009. The Electricity Council estimates that the country's coal demand will reach 1.92 billion tons in 2011, up nearly 10% from 2010.

Many people attribute the above to the rising demand for electricity in China. The rapid urbanisation and rising middle class has led to an exponential number of new refrigerators, air conditioners and other appliances in homes.

The Chinese government has made it clear that it wants to wean the country's power grid from coal. That's proven to be a difficult task. China's 12th Five Year Plan calls for bigger improvements in energy efficiency and the development of additional sources including natural gas. Massive projects such as the Three Gorges Dam have sought to increase capacity of alternatives, but hydroelectric, nuclear and other renewables combined make up only 10% of total power.

Source: *U.S. Global Investors*, 10 May 2011

Extract 2: What's really driving China's energy demand?

Between 1978 and 2000, China grew at 9% while energy demand grew at 4%. After 2001, economic growth accelerated slightly, but energy demand growth surged to 13% a year. Many China watchers assume that the recent evolution of China's energy profile reflects growth in consumption and transport, for instance, air conditioning and personal cars.

This is not correct. Consumption-led energy demand will be the major driver in the future but the main source of today's growth is energy-intensive heavy industry. The industrial sector accounts for over 70% of final energy consumption in China today, while the tertiary (service) sector remains flat at 30%. The service sector share in China is not only much lower than developed countries but also lower than other developing countries such as India.

China is now making for herself, rather than importing from abroad, more of the energy-intensive basic products (such as steel and aluminium) used to construct the roads and buildings in China. It is also interesting to note that much of the energy that China consumes is used to make products sold to the rest of the world, thus replacing energy demand in other countries.

Source: Rosen & Houser, *"China Energy: A guide for the perplexed"*, May 2007

Extract 3: Preparing for sustainable energy use in China

Recognizing the importance of reducing her reliance on coal and shifting to other energy sources, the China government has a range of measures to help provide a boost to the renewable energy industries. Specifically, the Medium-to-Long-Term Development Plan for Renewable Energy has set aside RMB3 trillion in funds to stimulate the development and increased utilization of renewable energy to 15% by 2020. This is supported by the introduction of the Renewable Energy Law as well as preferential financial policies, specialised funds subsidising the development of renewable energy sources, zero interest loans, as well as the reduction of taxes for certain renewable energy development activities.

Source: *Centre for Strategic Economic Studies*, May 2010

Extract 4: China Plans Carbon Trading Pilot Scheme

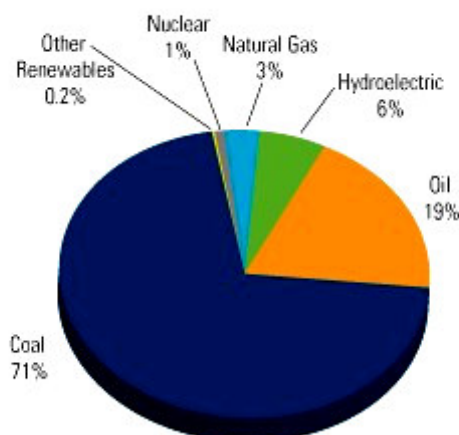
Faced with severe pollution, a predicted surge in urbanisation and a struggle to ensure adequate energy supplies to fuel its rapid growth, China outlined plans to reduce carbon emissions in its latest five-year economic plan. According to state media, China will introduce a pilot scheme for carbon emissions trading and gradually develop a national market as it seeks to reduce emissions and save energy.

Environmental analysts have said China is keen to get a functioning carbon trading market up and running soon, especially with the expiry of the Kyoto Protocol looming in 2012. Under it, China and other developing nations are not legally bound to reduce emissions of the gases blamed for global warming and climate change.

Although several cities such as Beijing, Shanghai and Tianjin have started voluntary carbon trading two years ago, the infrastructure in China is virtually nonexistent. To date, China still lacks essential legislation and third party verifications to support domestic carbon trading. Thus, Chinese leaders and industry players should first warm up with voluntary carbon trading, with the first step being to improve the infrastructure.

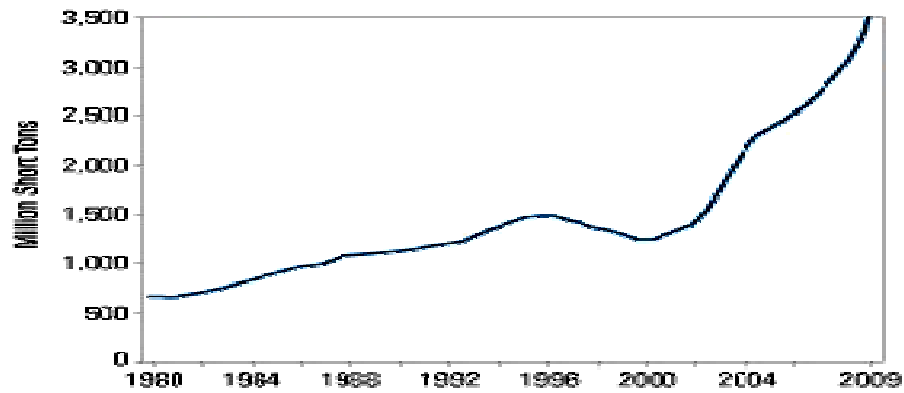
Source: *The New York Times*, 10 January 2011

Figure 1: China's Energy Consumption by Type (2008)



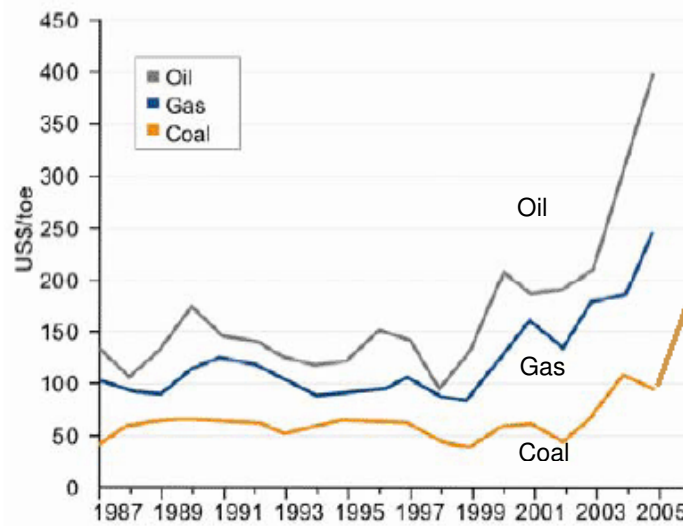
Source: EIA International Energy Statistics 2008

Figure 2: China's Coal Consumption



Source: EIA

Figure 3: Energy Price Trends



Source: BP 2005

Questions

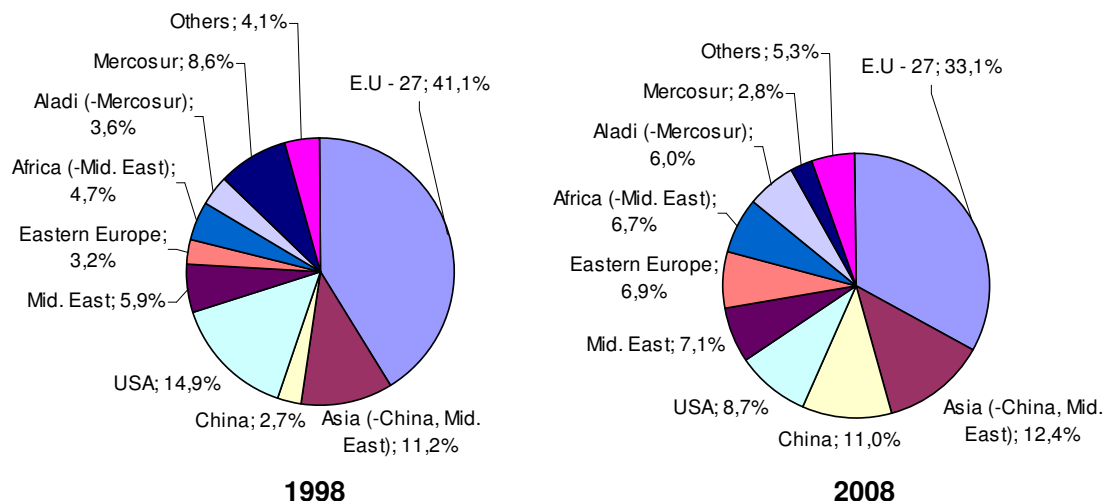
- (a) With reference to Figure 2, describe the trend of China's coal consumption from 1980 to 2009. [2]
- (b) Using relevant case material, account for the trend in China's coal consumption. [4]
- (c) Using the data provided, explain why China is unlikely to reduce her coal usage substantially despite rising coal prices. [4]
- (d) Using demand and supply analysis, explain how the measures undertaken by the Chinese government to wean the country's power grid from coal will affect China's renewable energy market and coal market. [4]
- (e) (i) Discuss how energy consumption may lead to market failure and whether China's investment in renewable energy is a solution to tackling this market failure. [8]
- (ii) As a consultant economist to the government, assess whether carbon trading is a more superior solution in mitigating the above market failure. [8]

[Total: 30]

Question 2

Impact on Trade during Recession

Figure 4: Export Market of Brazil



Source: CIA World Factbook

Extract 5: The Brazilian Economy

Characterized by large and well-developed agricultural, mining, manufacturing, and service sectors, Brazil's economy outweighs that of all other South American countries and is expanding its presence in world markets. After record growth in 2007 and 2008, the onset of the global financial crisis hit Brazil in September 2008. Brazil experienced two quarters of negative growth, as global demand for Brazil's commodity-based exports dwindled and external credit dried up.

Source: *CIA World Factbook*

Extract 6: One way out – Government Spending

Barack Obama declared that only unprecedented government spending could prevent the deepening recession stretching for years into the future. The US President-elect said that the risks of 'doing too little or nothing at all' were even greater than those of allowing a federal deficit – already projected to reach the record figure of \$1.2 trillion – to spiral on into the years to come. Mr Obama called on Congress to act quickly on his request to pump hundreds of billions of dollars into the American economy. 'At this particular moment, only government can break the vicious cycles that are crippling our economy,' Mr Obama said.

Source: *The Times*, 9 January 2009

Extract 7: The Rise of Trade Disputes

The US decision to slap tariffs on Chinese tyre imports - at the urging of US trade unions - has given a strong signal that the Obama administration is not prepared to put free trade at the top of its political agenda. But the US also has a hidden agenda in its aggressive trade move - its aim is to force China to open its own domestic markets further. President Obama has accepted the advice of his economics team that the US cannot borrow itself out of the recession this time, so it must export its way out. And opening up the Chinese market to US goods is essential to that strategy.

It is not just the US-China spat that is worrying observers. A disagreement between India and the US sparked the collapse of trade talks in Geneva last year. At the heart of the disagreement between the US and developing countries has been the reluctance of those countries to fully open their own markets to food imports from the West. India fears its smaller-scale farmers will be unable to compete with the sophisticated US agricultural machine. However, on the other side of the fence, the US and Europe say that if they are going to open their markets fully to agricultural products from developing countries, it is only fair that developing countries do the same. The main beneficiary of any agricultural liberalisation would be the bigger developing countries - Brazil, Argentina and South Africa - with very large and efficient agricultural sectors. However, they object to demands from the US and Europe that they fully open up their manufacturing sectors to Western imports as part of any trade deal. Brazil, which has built up a huge car manufacturing business behind trade barriers, is reluctant to take such steps, especially during a recession from which they have been largely immune.

Source: *BBC News*, 23 September 2009

Extract 8: Responses to the US tyre protectionism

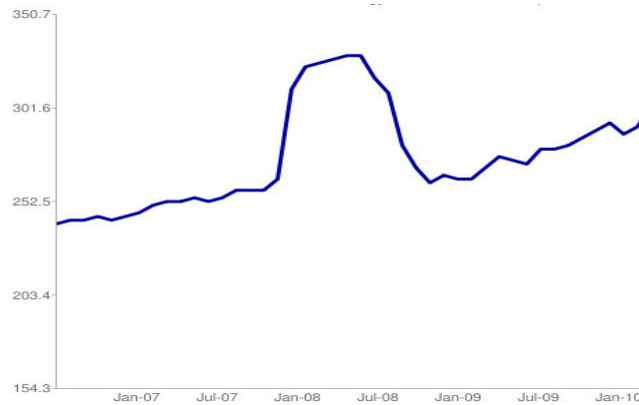
China strongly opposes a US decision to impose special protectionist tariffs on tyre imports from China. According to Los Angeles Times report, the US would add a duty of 35 percent in the first year, 30 percent in the second and 25 percent in the third on passenger vehicle and light-truck tyres from China.

The Ministry said that the US lacked bases for the case because tyre products exported to the US from China had actually declined 16 percent in the first half of this year, compared to the same period last year. China's tyre exports to US in 2008 only rose 2.2 percent from 2007.

The tariffs were also strongly opposed by US tyre distributors and retailers, who said the restrictions would raise prices, hurting cash-strapped consumers. 'For the past 15 years, major US producers had focused on higher profit and better performing tyres instead of what industry insiders call "tier three tyres" that service lower end and second-hand automobiles,' said Jim Mayfield, president of Del-Nat Tyre Corp., which sells private-label tyres, including Chinese-made imports.

Source: *China Daily*, 12 September 2009

Figure 5: Non-energy Commodities Index Price Chart (2000 = 100)



Source: World Bank

Questions

- (a) (i) Using Figure 4, describe the changes in Brazil exports to the US and that of China between 1998 and 2008. [2]
- (ii) Suggest a reason why the above would continue in 2009. [2]
- (b) Explain the impact of the global financial crisis could have on the commodity markets. [5]
- (c) Explain the underlying success factors for Brazil's large car manufacturing business and her large agricultural sector. [5]
- (d) Discuss the view that the government can break the vicious cycles that are crippling the economy and analyse how this government spending can affect the current and future standards of living. [8]
- (e) With reference to the data where appropriate, assess the validity of the bases for the imposition of tariffs on the Chinese tyre imports. [8]

[Total: 30]

Section B

Answer **one** question from this section.

- 1** The 6% tax on soft drinks and the removal of soft drink machines in primary schools aim to tackle the obesity problem and high government spending on healthcare in the US. In response, the American Beverage Association spent millions of dollars on media to mitigate the effect of the tax.
- (a) Using a diagram, explain how the above measures and response of the American Beverage Association might affect the market for soft drinks. [10]
- (b) Discuss the economic rationales and effectiveness of the above government measures. [15]
- 2** (a) Explain the key strengths and weaknesses of expansionary fiscal policy in Singapore. [10]
- (b) Discuss the extent to which expansionary fiscal policy can help Singapore preserve jobs during a worldwide recession. [15]