



HWA CHONG INSTITUTION
C2 Preliminary Examinations
Higher 2

CANDIDATE NAME

CT GROUP

CENTRE NUMBER

INDEX NUMBER

ECONOMICS

Paper 1 Case Study Questions

9732/01

28 August 2015

2 hours 15 minutes

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your **name, CT group, Centre and Index numbers** clearly in the spaces at the top of this page and on every page 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 and tape.

Answer **all** questions.

Begin each question on a fresh sheet of writing paper.

At the end of the examination, fasten your answers to Question 1 and Question 2 **separately** with the two cover pages provided.

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 questions before you begin writing your answers.

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

Answer **all** questions

Question 1: Singapore Maritime Industry - Future Challenges and Prospects

Table 1: Total Cargo Tonnage through Singapore, 2008-2013

	2008	2009	2010	2011	2012	2013
Cargo tonnage* (in million tonnes)	515.4	472.3	503.3	531.2	538.0	560.9
Annual Change in cargo tonnage (%)	6.6	-8.4	6.6	5.5	1.3	4.3

**Note: Cargoes that are carried on shipping vessels are generally bulk items such as cars, machineries and furniture, and raw materials such as oil, chemicals, iron, steel and cement.*

Source: Maritime Port Authority, Singapore

Table 2: Growth in World Gross Domestic Product (GDP), 2008-2013

	2008	2009	2010	2011	2012	2013
Real GDP growth (%)	3.1	-0.7	4.9	3.7	3.0	2.9

Source: CIA World Factbook

Extract 1: The melting ice cap and the Singapore port

Last week, news broke that Singapore had gained admission as permanent observer into an exclusive club in the cold north, the Arctic Council. At first glance, it may seem odd for a tiny republic on the equator to be joining a council whose members ring around the North Pole and focus on issues facing their territories, especially on the melting polar ice cap.

The Arctic's vast covering of sea ice has rendered it mostly inaccessible to commerce throughout the year. But that looks set to change. With the melting of the Arctic ice cap, the Northern Sea Route (NSR) is predicted to have up to 125 days per year suitable for navigation by 2050. By some estimates, it could be as early as 2030.

The new route via the North Pole can cut the time taken by ships from Europe to reach the East by almost half. It has the potential to divert Southern Sea Route (SSR) shipping traffic that has gone via the Suez Canal and the Malacca and Singapore Straits. In 2009, only 2 vessels with a combined load of about 40,000 tonnes used the NSR. In 2012, a staggering 46 vessels with a cargo load of 1.26 million tonnes sailed through the same route.

This would threaten Singapore, which is one of the world's busiest ports, in time to come. However, an important consideration for shipping firms lies with the fact that global economic hotspots such as the powerhouses of the rich Arabian states, India and Southeast Asia are within the SSR. A vessel would normally have a few stopovers to offload and reload the cargo, rather than merely commuting between two destinations. In addition, using the NSR may not be as straightforward as it seems. They would have to consider paying additional allowances for workers due to harsher climate and a higher insurance premium. Even during summer months, ice breaker ships are hired to clear the route.

Source: Adapted from *the Straits Times*, 21 May 2013

Table 3: Selected Indicators for a Container Vessel from Rotterdam (Netherlands) to Pusan (South Korea), 2013

	Northern Sea Route (NSR)*	Southern Sea Route (SSR)#
Distance (nautical miles)	6857	10754
Length of Journey (in days)	11	18
Fuel Consumption (ton MFO®)	2695	4410

*NSR is a new shipping lane that links the Europe and Asia Pacific via the Russian Arctic Sea.

SSR is the traditional shipping lane that links Europe and Asia Pacific via Suez Canal (Egypt), the Indian Ocean, the Straits of Malacca and the South China Sea.

® Marine Fuel Oil

Source: Korea Maritime Institute

Extract 2: Singapore's port losing its lustre?

Since the founding of Singapore, its free port has always been instrumental in developing the country to a first world economy. In 2013, it takes up 7% of Singapore's GDP and employs more than 170,000 people.

In 2010, Shanghai overtook Singapore as the world's busiest port for containers shipping due to China's rapid economic growth, and is set to widen the gap. Indeed, if the Chinese economy continues expanding at its current pace, it is almost certain that several other Chinese ports, including Shenzhen and Guangzhou will overtake Singapore as well during the next decade or so.

The Singapore port operator, PSA, likes to point out that although Shanghai's overtaking of Singapore looks impressive, it conceals the fact that the two ports are quite different in how they operate. Shanghai is overwhelmingly a "through port", where raw materials come in to be assembled or manufactured and then leave as televisions or plastic toys. Singapore, in contrast, is a trans-shipment port, where containers arrive to be transferred to other vessels to continue their onward voyage. Singapore's port activities revolve around connecting oil and cargo markets to the West (Europe, Africa, Middle East, and South Asia) with that of East Asia, while China's ports mainly serve its domestic market. In the long run, Singapore's port should welcome its Shanghai counterpart's growth. Some of Singapore's trans-shipment traffic depends on China.

Shipping lines are increasingly forced to explore the cheapest cost options which in turn impose downward pressure on the port charges. For instance, the attractiveness of neighbouring Johor's Port of Tanjung Pelapas' (PTP) port price, which is some 30% lower than that of PSA's, becomes apparent. So far, PSA is reluctant to give way to lower price demand.

To keep its nose ahead, PSA Singapore is also investing in the soft power of maritime supremacy as much as the hard power of container metal boxes. The city is becoming a centre of maritime architecture and green maritime technology to complement its lead in terms of the legal and financial aspects of maritime technology. Realising also the need to diversify, PSA has gone beyond its own shores by venturing into port management in other countries. In 2013, PSA International, the overseas arm of PSA, was involved in the management of 26 ports in 15 countries. It has consistently been voted as the top port operator in the world. Since 2006, PSA International combined overseas operations moved more containers than were handled in Singapore. The Singapore government is also set to build a new mega container terminal for PSA in Tuas by 2027 which will double the existing handling capacity.

What is important is that Singapore is able to manage its port resources effectively - providing maximum connectivity at lowest possible cost. It is more important that Singapore remains a vital global hub for logistics and get these policies correct. Once that is done, shipment volumes and economic activity will follow.

Source: Various

Extract 3: The Cold North: A risky frontier for Singapore

The Intergovernmental Panel on Climate Change (IPCC) last year concluded that manmade activities primarily from the West had directly caused ice in the Arctic to shrink and thin. Emission of greenhouse gases from the use of fossil fuels to power cars, factories and electricity production, resulted in the warming in the atmosphere and ocean.

Melting ice could also cause coastal flooding, a real problem for Singapore. More resources will have to pour into the construction of dykes and flood management infrastructure sooner rather than later.

“Human and economic activities ironically could benefit from warmer temperatures and reduced Arctic sea ice,” concluded the report by IPCC. The region has rich deposits of oil, gas and other minerals, which will become more accessible as the ice caps melt. The Arctic now holds 30 per cent of the world's undiscovered gas and 13 per cent of oil.

Singapore's Arctic involvement is driven primarily by an ambition to exploit an emerging market niche in which it sees itself as a technological and expertise leader. The republic is also home to firms with offshore and marine engineering experience. In 2008, state-controlled Keppel Singmarine broke new ground when it completed Asia's first two ice breakers for a subsidiary of Russian Lukoil. These ice breakers carve out shipping passages by breaking through huge blocks of ice during summer months in the Arctic. Singapore is now developing the next generation of oil rigs and ships, including Arctic life boats for Arctic oil companies. Faster responses to emergencies in the Arctic are needed as the area opens up for more development.

In addition, tourism in the Arctic is expected to get much needed boost. Already, the volume of tourist trips throughout Greenland, Norway, Alaska and Canada has increased rapidly. Killer whales and grey whales sighting tours are expected to benefit from melting ice. This would prove to be a lucrative prospect for Singapore's travel industry.

Without government pushing for the agenda, Singapore businesses lack the necessary manpower and expertise in this field of Arctic exploration, research or even Arctic travel. Singapore is also far from the Arctic for firms to do first-hand research in freezing temperatures using equipment suited for warmer weather.

Nevertheless, for a tropical country, Singapore seems bent on sharing the spoils from a potentially lucrative market way up north but its limitations will persist.

Source: Various

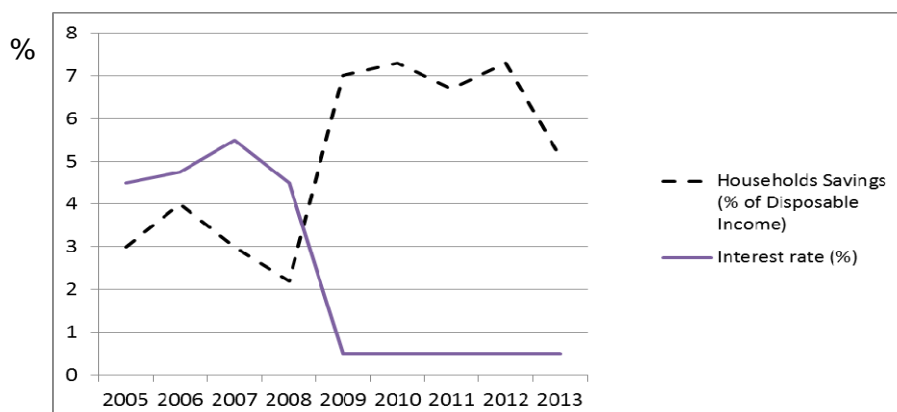
Questions

- (a) With reference to Tables 1 and 2, use a relevant elasticity of demand concept to explain the likely reason for the changes in cargo tonnage passing through Singapore. [4]
- (b) Explain whether data suggest the melting Arctic ice cap has significantly affected the volume of cargo tonnage handled by Singapore between the period 2009 and 2012. [2]
- (c) How might shipping firms make the decision to take either the NSR or SSR route? [4]
- (d) Despite being overtaken by Shanghai as the world's busiest container port, explain why Singapore Port Operator (PSA) should 'welcome its Shanghai counterpart's growth'. [2]
- (e) Given the emergence of major shipping ports like Shanghai, Shenzhen and Guangzhou, discuss the appropriate strategies that you would recommend for PSA to maintain its profitability. [8]
- (f) Assess whether the government or the private sector in Singapore should play a more important role in view of the economic inefficiencies in resource allocation brought about by the melting polar ice cap. [10]

[Total 30 marks]

Question 2: Financial Crisis, Austerity Measures and Cost of living Issues

Figure 1: Bank of England Interest Rates and UK Household Savings (% of Disposable Income)



Source: OECD & Bank of England

Extract 4: Austerity plan in UK is failing

The International Monetary Fund (IMF) has never been wildly enthusiastic about the UK Finance Minister George Osborne's tough austerity plan to shrink growing budget deficits by cutting back on government spending and raising taxes. It has been saying for at least a year that there should be a reassessment of fiscal policy if the recovery falters.

The IMF, while supporting the need for budget deficits to be reduced, believes action should not be so aggressive as to derail growth. It has done some recent work on fiscal multipliers – they are much higher during nasty downturns than at other times. Research suggests that when interest rates are near zero, the multiplier could be higher than two. Besides, the knock-on effects of tax and government spending on households and firms are more powerful than was previously thought.

However, Osborne's advisers have pointed out that the fiscal multipliers are weaker in open economies such as the UK than they are in more closed economies such as the US or Germany.

But austerity is still having a dampening effect on the economy, and is making it harder for the Finance Minister to hit his deficit reduction targets. The IMF is right. It is time to take stock. It would be a risk for Osborne to announce tax cuts and a slower pace of spending cuts in the budget. But it will be a risk – and probably a bigger one – if he does nothing.

Source: *The Guardian*, 24 January 2013

Extract 5: 'Recessions can hurt, but austerity kills'

Mass of data reveals that more than 10,000 additional suicides and up to a million extra cases of depression have been recorded across the two continents since governments started introducing austerity programmes in the aftermath of the crisis. In the US, more than five million people have lost access to health care. In Greece, there's a 200% increase in HIV cases. And in some of the worst-hit countries, both suicide and crime rates are up. David Stuckler, author of an explosive new book, says the facts speak for themselves.

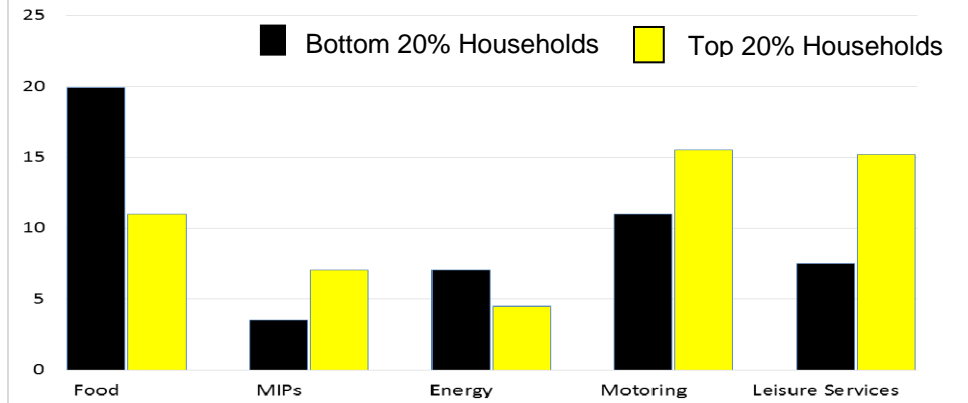
"Recessions," Stuckler says bluntly, "can hurt. But austerity kills."

Source: BBC News, 15 May 2013

Extract 6: Post-Crisis Living Standards and Rising Cost of living in the UK

Average UK living standards have fallen "dramatically" since the recession. The Institute for Fiscal Studies (IFS) calculated that a mid-range household's income between 2013 and 2014 was 6% below its pre-crisis peak. Rising childcare, food and energy costs, coupled with stagnating wages and cuts to benefits and tax credits, have widened the poverty gap. For the first time since the 1930s, benefits for pensioners are being cut in real terms by not being linked to inflation.

Figure 2: UK Households Budget shares (%) for key goods and services, 2012



Footnote: 'MIPs' are mortgage interest payments and 'Other housing' are mainly rented apartments.

Source: Office for National Statistics, UK

Everyone is hit by the higher cost of living, but those on low incomes could feel the squeeze more. The report said that inflation between 2008 and 2013 was 20%, while energy prices rose by 60% and food prices were up by 30%. This had a disproportionate impact on poorer households. It also found that the pensioners had been hit hardest with 4.2% increases in their costs compared with the 2.4% rise as indicated by the CPI.

And when mortgage interest payments dropped by 40% since January 2008, those with relatively high incomes benefited from it. The report also found people on lower incomes are less likely to switch suppliers and shop around than those on a higher income. This is partly due to the rich having bank account for direct payments, or access to buy online or compare prices across a wide range of suppliers.

"The government has already taken action to help families with the cost of living, including: increasing the personal tax rebates and freezing fuel duty.

Source: Various

Extract 7: Singapore's High Cost of Living May Come at a Cost

In the Economist Intelligence Unit's Cost of Living Survey, Singapore catapulted five places to become the most expensive city in the world.

Singapore, one of Asia's largest financial centers, has seen a big inflow of expatriates in recent years. Foreigners make up about 38 percent of Singapore's population, up from about 25 percent in 2000. More than 7,000 multinational companies operate in the city and expat workers are seen as key to developing Singapore, not just as a regional hub in finance but also in other sectors such as oil and gas. While low taxes, good air quality and less crime lure workers to Singapore from across the world, the recent push up in housing, schooling and transport costs could discourage expats from moving into the city or staying on long-term, analysts said.

Rising costs and a growing population, which the government expects could increase to almost 7 million by 2030 from the current 5.3 million, has also led to discontent among locals who feel the influx of foreign workers has led to overcrowding on trains and buses, higher property prices and contributed to the overall rise in living costs.

Singapore is one of the most expensive places in the world to buy a car, with permits to buy new vehicles called a certificate of entitlement (COE) adding to the cost of buying a car in Singapore. High property prices, pushed up by increased demand from a growing population, have been one of the major contributors to the rising cost of living. For instance, Singapore property prices surged 50 percent between 2007 and 2011, driven partly by foreign buying.

For economists the implications of rising costs in Singapore could not be clearer: wage pressures could build up, they warn. Singapore could lose some of its competitive edge to fast-developing neighbors in Southeast Asia, if costs continue to rise, said regional experts. Despite the high cost of living in Singapore, some expats are willing to pay a premium for the quality of life offered by this island state.

Source: *Wall Street Journal*, 4 Mar 2014 and CNBC, 30 Jan 2013

Table 4: Ranking of Most Expensive Cities in the World: Selected Asian Cities 2014

City	Rank 2014
Singapore	1
Tokyo	6
Hong Kong	13
Shanghai	14

Source: Economist Intelligence Unit

Extract 8: Singapore world's most expensive city for expats, not local

A day after the Economist Intelligence Unit (EIU) ranked Singapore the priciest city in the world, Finance Minister Tharman Shanmugaratnam came out to say that such surveys which focus on expatriates do not reflect the living costs of Singaporeans.

The costs measured differ from those facing an average Singaporean in two important ways: the role of currency, and which goods and services are considered. "An important reason why we've become expensive for expatriates is that the Singapore dollar has strengthened," said Mr Tharman, noting that the EIU report itself points out this reason. That makes things pricier for an expatriate paid in a foreign currency, but it improves Singaporeans' purchasing power, both at home when buying imported goods and when travelling. Next, the EIU consumption basket includes imported cheese, four best seats in a theatre, and three-course dinners in high-end restaurants for four people. "And indeed for these items, Singapore's expensive," said Mr Tharman. But such items would not feature in the average Singaporean's consumption basket.

Few surveys measure living costs for ordinary residents, but Mr Tharman cited one that did. A 2012 Asia Competitiveness Institute report had separate rankings of living costs for expatriates and a typical local household. Singapore was the fifth most expensive city out of 109 for expatriates but only 61st for locals, comparable to Hong Kong at 58 and Seoul at 60. "So that's the basic difference," said Mr Tharman.

Source: *The Straits Times*, 6 Mar 2014

Questions

- (a) (i) Use the concept of opportunity cost to explain the theoretical relationship between interest rates and level of savings. [2]
- (ii) Comment on whether the relationship is shown in Figure 1 from 2009 onwards. [2]
- (b) Using the data provided in Extract 4, explain whether the call by IMF for a reassessment of the UK austerity policy is justified. [4]
- (c) Explain the statement in Extract 4, 'austerity is still having a dampening effect on the economy, and is making it harder for the Finance Minister to hit his deficit reduction targets'. [2]
- (d) Based on Extract 5, explain how austerity measures have adversely impacted the standard of living in some countries. [2]
- (e) Discuss how inflation has affected different types of households in post-crisis UK. [8]
- (f) Singapore was ranked the most expensive city in the world in 2014 according to the Economist Intelligence Unit's Cost of Living Survey. [10]

Discuss the validity of this ranking and consider whether high cost of living is a threat to long-term economic growth for Singapore.

[Total 30 marks]

[END OF PAPER]*Copyright Acknowledgements:*

Question 1 Extract 1:	The Straits Times, www.straitstimes.com.sg
Question 1 Extract 2:	Container-transportation.com, assessed 4 August 2015 and Maritime Port Authority, Singapore
Question 1 Extract 3:	www.carbonbrief.org , assessed 28 May 2015 and The Straits Times 16 May 2013
Question 1 Table 1:	Maritime Port Authority Singapore
Question 1 Table 2:	CIA World Factbook
Question 1 Table 3:	Korea Maritime Institute
Question 2 Extract 4:	http://www.theguardian.com/business/2013/jan/24/imf-george-osborne-austerity-failing
Question 2 Extract 5:	http://www.theguardian.com/society/2013/may/15/recessions-hurt-but-austerity-kills
Question 2 Extract 6:	http://www.bbc.com/news/uk-23083218 http://www.bbc.com/news/business-25966075 http://www.thisismoney.co.uk/money/news/article-2821716/Energy-food-inflation-hit-poorest-twice-hard-rich-benefit-mortgage-cuts.html
Question 2 Extract 7:	http://www.cnn.com/id/100418370 http://blogs.wsj.com/indonesiarealtime/2014/03/04/the-worlds-most-expensive-city-now-sits-in-southeast-asia/
Question 2 Extract 8:	http://ifonlysingaporeans.blogspot.sg/2014/03/most-expensive-city-for-expats.html#.dpuf
Question 2 Figure 1:	OECD Bank of England
Question 2 Figure 2:	Office of National Statistics, UK
Question 2 Table 4:	Economist Intelligence Unit

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