

Raffles Junior College
JC2 Preliminary Examinations 2008

ECONOMICS
Higher 2

9732/01

Paper 1 Case Study

15 September 2008

2 hour 15 minutes

Additional Materials: Answer Booklet/Paper

READ THESE INSTRUCTIONS FIRST

Write your name, index number and CT 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 diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **both** questions. Start each question on a fresh sheet of paper.

At the end of the examination, securely **fasten** your **work to each question 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 per question reading through the data before you begin writing your answers.

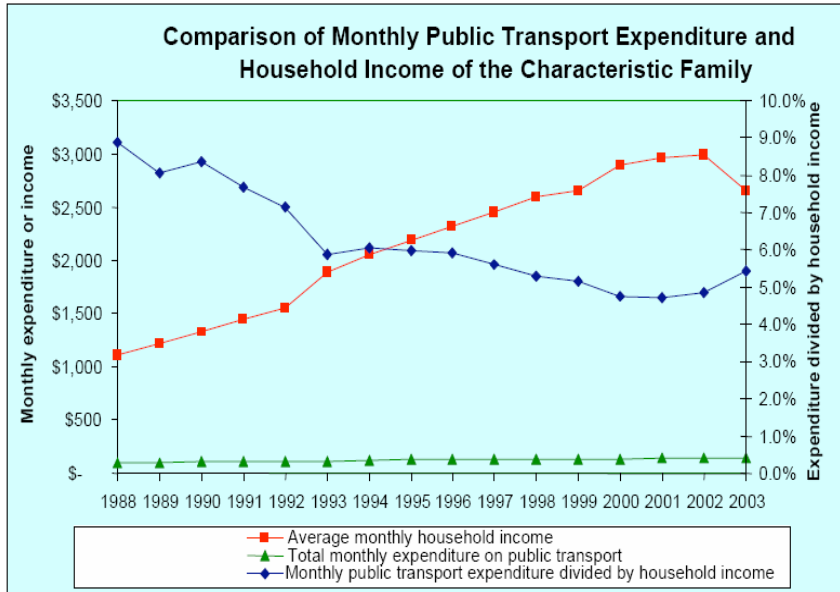
This document consists of **9** printed pages.



Answer **all** questions.

Question 1 Land Transport in Singapore

Figure 1



Source: The Committee on the Fare Review Mechanism.

**Table 1:
Singapore Real GDP
Per Capita**

Year	S\$
2001	37749.49
2002	39017.53
2003	41083.33
2004	44459.84
2005	46784.78
2006	52941.06

Source: Singapore Department of Statistics

Table 2: Bus Fare Structures

Distance Travelled (fare stages)	Fare Per Ride (cent)		Type of Passholder	Price of Bus Pass
	Ez-link Card	Cash		
			Primary Student	\$22.50
4 or less	67	90	Secondary Student	\$27.50
4.5 – 7	89	110	Tertiary Student	\$52.00
7.5 – 10	109	130	Full-time NS man	\$61.00
10.5 – 13	119	140		

Source: Land Transport Authority website

Extract 1: 4 Months After Taxi Fare Hike

In a bid to raise taxi drivers' earnings, the six taxi companies increased their starting metered fare from \$2.50 to \$2.80, adjusted the meter to tick faster (a 50% increase for every km) and revised peak-hour surcharge upwards by 35% in December last year.

Three weeks after fares were raised, many taxi drivers claimed their earnings had fallen. Taxi driver Mr Richard Chew said business had been slow and he spent a longer time waiting for passengers. A check showed his net hourly takings had fallen by just 10%.

Another driver claimed his average net hour takings had fallen from \$13 to \$10 but yet another driver said his average takings of \$80 a day had remained largely unchanged. 'The number of trips have dropped slightly, but the higher fares mean our income is more or less stable', he added.

It seems there has been a turnaround according to surveys done. ComfortDelgro, the largest taxi operator here with about 15,000 of the country's 24,000 taxis, saw a 16% increase in takings for a cabby's full day of work.

The average daily ridership for taxis in January and February's was about 900,000. Last year, the average daily ridership was 945,000. Discretionary taxi-takers have been forced back to the train and bus by the costlier fares. The issue of correct pricing to turn taxis into a boutique service, not supermarket-type socialised commuting, is what the Straits Times has been advocating.

Source: Adapted from *The Straits Times* 25 April 2008

Extract 2: PTC Says Public Transport Fare Hikes Likely to be Under 1.8%

Singapore's Public Transport Council (PTC) said bus and train commuters here are likely to face fare hikes of under 1.8% this year.

The council uses a formula to calculate by how much prices can go up - by pegging the adjustments to the health of the economy. It also allows for reductions if the economy plunges into a deep recession.

Public transport fares had seen increases in both 2006 and 2007. Back in 2006, operators blamed rises in manpower cost and energy prices for the need to raise fares. 'Energy costs rose by 20% or \$20.3 million last year - having already increased by 41.2% in 2005,' a SBS Transit spokesman said. 'Manpower costs have increased by about \$12.1 million during the year.' The same reasons were cited in 2007.

The Consumers Association of Singapore (Case) was then not entirely convinced and pointed out that transport companies were enjoying 'good returns'. SMRT achieved a 39% rise in net earnings to \$37.94 million in the first quarter while SBS Transit's turnover in 2007 increased by 6.6% from \$612.6m to \$653.3m.

Source: Adapted from *Channel News Asia*, 14 July 2008

Extract 3: ERP Effective in Curbing Congestion

Transport Minister Raymond Lim announced a substantial expansion of the electronic road-pricing (ERP) coverage to keep Singapore's roads moving smoothly. Commenting on the effectiveness of ERP, he said, "Some people will drive regardless of the ERP charges but not all. If this was so, all your ERP-priced roads today will be congested".

Mr Lim added that if the ERP system was a failure, other cities like London, Milan and New York would not be implementing it. "Let me stress that the purpose of ERP is not to stop everyone from driving. That is absolutely counter-productive."

Since 1998, when ERP was introduced and vehicle policy began relying increasingly on usage charges, vehicle ownership taxes (Additional Registration Fee, excise duty and road taxes combined) have been cut significantly. ERP is something to make Singapore a liveable city so that even as the economy and population grow, "we ensure we are a city in a garden and not a city in a car park".

To curb vehicle population growth, the minister also announced that the 3% annual allowable growth rate will be halved to 1.5% from April 2009, which could potentially reduce the number of car COEs by 8%. He also said that \$14 billion worth of new roads will be built over the next 12 years - compared with \$3.4 billion in the last decade. The frequency of bus services along corridors affected by the ERP expansion will be increased. Bus services will also be allowed to duplicate sections of mature MRT lines. But he cautioned that increasing road capacity will not in itself guarantee smooth flowing roads.

In fast growing economies like China, the car population grows at more than 20% a year and peak-hour traffic in mega-cities like Beijing and Shanghai crawls at 5km an hour. In the United States, motorists spent more than 4.2 billion hours stuck in jams, and used up enough extra fuel to fill 58 supertankers, he said. The 'congestion invoice' in the US stands at some \$78 billion each year.

Source: Adapted from *The Business Times* 7 March 2008

Extract 4: Bus System Changes Will Make Singapore More Competitive

The Land Transport Authority (LTA) announced that more bus operators will be allowed to compete for the right to provide a package of bus services designed by LTA rather than bus routes planned by operators based on commercial obligations.

Transport analysts welcomed the prospect of more competition in the bus services sector and said it may exert pressure on the profit margins of existing players. ComfortDelGro, which owns 75% of SBS Transit, will come up strong against potential bidders with its experience behind it. A transport analyst said: "The existing established players will already have established systems in place, whether it's physical buses, people or logistical structures."

Analysts said what will be critical is the type of tender that will be offered. In Sydney for example, operators are paid a fixed amount regardless of the amount of passengers they carry, so profit margins depend largely on keeping costs low.

Source: *Channel News Asia* 18 January 2008

[Turn over

Questions

- (a) (i) With reference to Figure 1, state the relationship between household income and proportion spent on public transport. [1]
- (ii) Identify the evidence in Figure 1 that may be used to explain the above relationship. [1]
- (b) (i) Explain the relevance of price and income elasticity of demand to the taxi operators in their decision to increase fares. [4]
- (ii) Explain the relevance of price and cross elasticity of demand to the PTC in evaluating the most recent applications for bus and train fare increases. [4]
- (iii) Suggest **two** possible limitations that both the taxi operators and PTC may face when using elasticity concepts to help them make decisions. [4]
- (c) To what extent are the fare structures in Table 2 examples of price discrimination? [6]
- (d) Discuss whether the use of COEs and ERP are the best measures for Singapore in ensuring smooth flowing roads. [10]

Total [30]

Question 2 Economic Issues in Singapore and USA

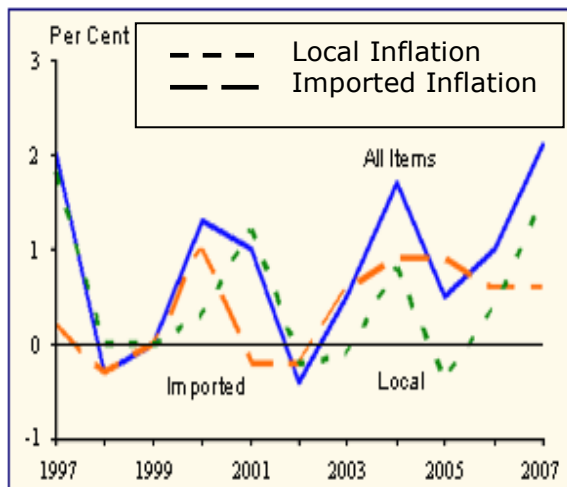
Table 1: Singapore & USA, Gross Domestic Product at 2000 Prices (%)

		2Q07	3Q07	4Q07	2007	1Q08	2Q08*
Singapore	Goods Producing Industries						
	Manufacturing	8.6	11.0	0.2	5.8	12.7	-5.6
	Construction	22.4	20.1	24.3	20.3	16.9	15.2
	Services Producing Industries	8.6	8.5	7.7	8.1	7.6	6.9
	Overall GDP growth	9.1	9.5	5.4	7.7	6.9	1.9
USA	Overall GDP growth	3.8	4.9	0.6	2.2	1.0	-

* Estimated figures

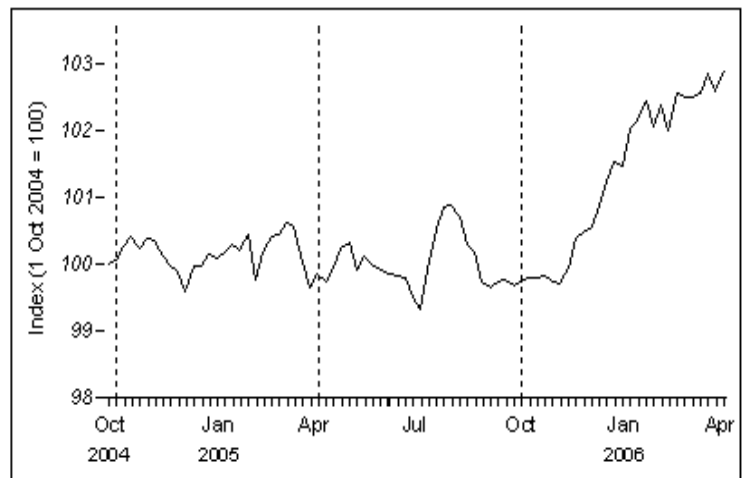
Source: Various Sources

Figure 1: Singapore's Inflation



Source: www.singstat.gov.sg

Figure 2: Singapore's Nominal Effective Exchange Rate



Source: www.mas.gov.sg

Extract 1: Tackling Inflation in Singapore through 5 Measures

Allow the Singapore dollar to appreciate against the US dollar. A MAS report stated that "an upward shift of the policy band will help to moderate inflation going forward while providing for sustainable growth in the economy," However, there's a limit to how much the value of the Singapore dollar can appreciate.

Increase the choice of food sources to minimise spikes in prices.

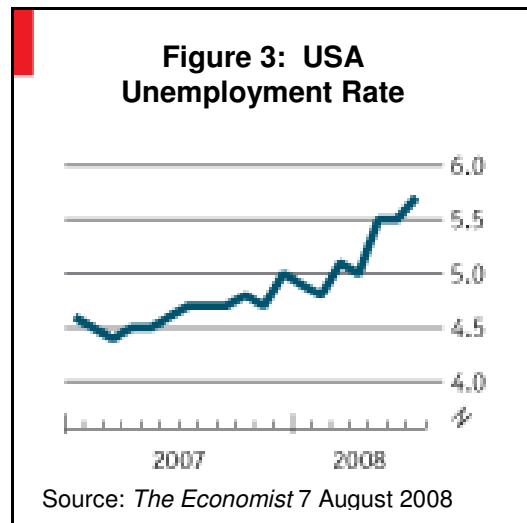
Support home ownership and other asset acquisitions. Thanks to the heavy subsidies and generous top-ups for lower-income Singaporeans, they can own homes, buy shares and thus have substantial assets and equity. Value of such assets rise over time and is generally protected against inflation.

Direct government assistance to Singaporeans who face problems coping with the cost of living e.g. Workfare, ComCare, MediFund and Public Assistance and GST offset packages.

Keep the economy competitive to offset global inflation.

Whether these measures will work depends on the extent, and the intensity, of the expected US slowdown in the wake of the sub-prime crisis, and the impact this will have on the Singapore economy.

Source: Adapted from Singapore Budget 2008



Extract 2: US Workforce shrinks for 6th Straight Month

Following a government report released yesterday, there is a deepening concern that the struggling U.S. economy could turn worse before it gets better. The collapse in the real estate and mortgage industries, coupled with the specter of inflation fueled by the rising price of oil and other commodities, has crimped employers and left top policymakers and private analysts convinced that the economy is in for a prolonged period of sluggishness.

Of immediate concern is how the economy faces inflationary pressures brought on by record-high oil and commodity prices. The price of a barrel of oil has risen by 50% since the start of the year and this has exacerbated the recession triggered by the sub-prime mortgage crisis.

The job losses were led by cuts in construction, financial services and manufacturing. Temporary and other employment agencies also experienced steep job cuts, which some economists saw as further evidence that the bleak employment picture will not improve anytime soon. There were also some cuts in retailing, which combined with the other reductions overwhelmed modest employment increases in leisure and hospitality, health care, mining, and government.

The report said that average hourly wages crept up 0.3 percent from a month earlier, to \$18.01, but that tiny bounty has been more than offset by higher food and energy prices. The report also said that 5.4 million Americans -- about 3 percent of the labor force -- were working part time either because their hours had been cut or because they could not find full-time employment. There were 8.5 million unemployed people as of June.

In a sign that concern about inflation is beginning to take precedence over the tepid economy, the European Central Bank yesterday raised its key lending rate by a quarter of a percentage point, to 4.25%. On the other hand, The Federal Reserve had a series of interest rate cuts since August last year.

In Washington, Democratic Presidential candidate Sen. Barack Obama said: "Our economy has now shed 438,000 jobs over the past six months, while workers' wages fail to keep pace with the skyrocketing cost of gas, groceries and health care. The American people are paying the price for the failed economic policies of the past eight years and we can't afford four more years of more of the same."

The Republican candidate Sen. John McCain said that the numbers reflect the economic struggles faced by all Americans. "To get our economy back on track, we must enact a jobs-first economic plan that supports job creation, provide immediate tax relief for families, enact a plan to help those facing foreclosure, lower health care costs, invest in innovation, move toward strategic energy independence and open more foreign markets to our goods," he said.

Source: Adapted from The Washington Post, 4 July 2008

Questions

- (a) (i) What is meant by GDP at 2000 prices? [2]
- (ii) What happened to GDP in Singapore between 4Q07 to 2Q08? [2]
- (b) Compare the trend in S\$NEER with her inflation rate from January 2005 to January 2006. [4]
- (c) The Singapore government has announced it is going to tackle inflation using multiple measures.
- Choose and justify your choice of the most effective and another least effective measure in reducing the inflation rate. [8]
- (d) With the aid of a diagram, explain how higher oil prices have “exacerbated the recession triggered by the sub-prime mortgage crisis”. [4]
- (e) It is stated that the US Federal Reserve had a series of interest rate cuts.
- To what extent is a cut in interest rates the most appropriate policy for solving the woes of the US economy? [10]
- Total [30]**

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Mark Scheme:

(a)(i)	What is meant by GDP at 2000 prices? [2]	2
	Define GDP: The money value of all goods and services produced within the geographical boundaries of a country in a given period of time.	1
	Clarify what is meant by "2000 prices": This means that the effects of inflation have been eliminated from the GDP figures, where price level in 2000 was used as the base year.	1
(a)(ii)	What happened to GDP in Singapore between 4Q07 to 2Q08?	2
	GDP increased	1
	GDP increased at a decreasing rate Or GDP increased at a faster rate in 1Q08 compared to 4Q07, then increased at a slower rate from 1Q08 to 2Q08.	1
(b)	Compare the trend in S\$NEER with her inflation rate from January 2005 to January 2006.	4
	Relationship between S\$NEER and inflation rate from January 2005 to January 2006: <ul style="list-style-type: none"> - Positive relationship between S\$NEER and overall inflation rate - Positive relationship between S\$NEER and local inflation - Negative relationship between S\$NEER and imported inflation, - Local inflation has a more dominant effect on overall inflation rate than imported inflation 	4 (1m each)
c	The Singapore government has announced it is going to tackle inflation using multiple measures. Choose and justify your choice of the most effective and another least effective measure in reducing the inflation rate.	8
	Identify a measure most effective at reducing inflation and explain and evaluate why that measure is effective at reducing inflation in Singapore:	5

	<ul style="list-style-type: none"> • Thesis: explain why appreciating the exchange rate reduces the inflation rate (max 3 marks for quality of explanation & analysis) <ul style="list-style-type: none"> - Extract 1: "an upward shift of the policy band will help to moderate inflation going forward while providing for sustainable growth in the economy" <ul style="list-style-type: none"> ❖ Singapore is highly dependent on imported raw materials and hence imported inflation is a major concern. By allowing the ER to appreciate, prices of imported raw materials in terms of domestic currency will fall. This will help to lower cost of production and dampen cost-push inflation. ❖ Use Figure 2 to support thesis: since Oct 05, the S\$ has appreciated and this brings the imported inflation down. ❖ Singapore has a high export and import content. X-M forms a large component of AD. Using exchange rates to influence export and import prices will minimize the "spikes in food prices" → Changes in X-M will affect AD and hence, dampen demand-pull inflation to a considerable extent. - Antithesis: explain why rising ER may not necessarily reduce demand-pull inflation, max 2 mark: <ul style="list-style-type: none"> ❖ If inflation is largely due to shortage of land and labour in the domestic economy, resulting in higher labour costs, rentals and transport, using exchange rates to influence export and import prices will not help much to dampen inflation. ❖ Use Figure 2 to support: since Oct 05, the S\$ has appreciated and this did not bring local inflation down. Instead, local inflation increased steeply, bringing overall inflation up. ❖ Using rising ER will work only in the short to medium term as it hurts the export sector. This is seen in Table 1, when S\$ appreciated in Oct 07, manufacturing output fell. Hence, "there's a limit to how fast the value of the Singapore dollar can appreciate" to dampen imported inflation. 	
	<p>Identify a measure not effective or least effective at reducing inflation and explain and evaluate why that measure is ineffective or limited in its effectiveness at reducing inflation in Singapore:</p> <ul style="list-style-type: none"> • Explain that the policies of "supporting home ownership" and/or "direct government assistance" does/do not reduce inflation • Thesis (max 2 marks for quality of explanation & analysis) <ul style="list-style-type: none"> - These policies are not designed to reduce inflation. They are designed to help Singaporeans cope with the effects of higher inflation <ul style="list-style-type: none"> ❖ Government's subsidies also increases AD and hence add on to the inflationary pressures • Evaluation (max 1 for either approach) 	3

	<ul style="list-style-type: none"> - Why “supporting home ownership” and/or “direct government assistance” is/are the LEAST effective compared to other measures? <ul style="list-style-type: none"> ❖ ER policy, finding alternative food sources and keeping the economy competitive reduces inflation. - OR The possibility of the measure(s) in reducing inflation: 	
	<p>Identify a measure most effective at reducing inflation and explain and evaluate why that measure is effective at reducing inflation in Singapore:</p> <ul style="list-style-type: none"> • Explain how managing the exchange rate affects inflation <ul style="list-style-type: none"> ○ Thesis (max 3 marks for quality of explanation & analysis) • Explain that the policies of “supporting home ownership” and/or “direct government assistance” does/do not reduce inflation <ul style="list-style-type: none"> ○ Thesis (max 2 marks for quality of explanation & analysis) • Overall Evaluation (max 3m) 	