NYJC	PRELIMINARY EXAM 2012
	Economics JC2 H1 (8819)

PAPER 1

Thursday
13 September 2012
08:00 – 11:00 **TIME** : 3 hours 00 mins

INSTRUCTIONS TO CANDIDATES

Do not open this paper until you are told to do so.

Write your name, class and name of economics tutor in the space provided on the writing paper.

Answer **all** questions in **Section A** and **one** question in **Section B**. The number of marks is given in the brackets at the end of each question. Write your answers on the writing papers provided. If you use more than one sheet of paper, fasten the sheets together.

You are advised to spend several minutes per question reading through the data and questions before you begin writing your answers.

There are _10_ printed pages including this cover page

Section A

Answer **all** questions in this section

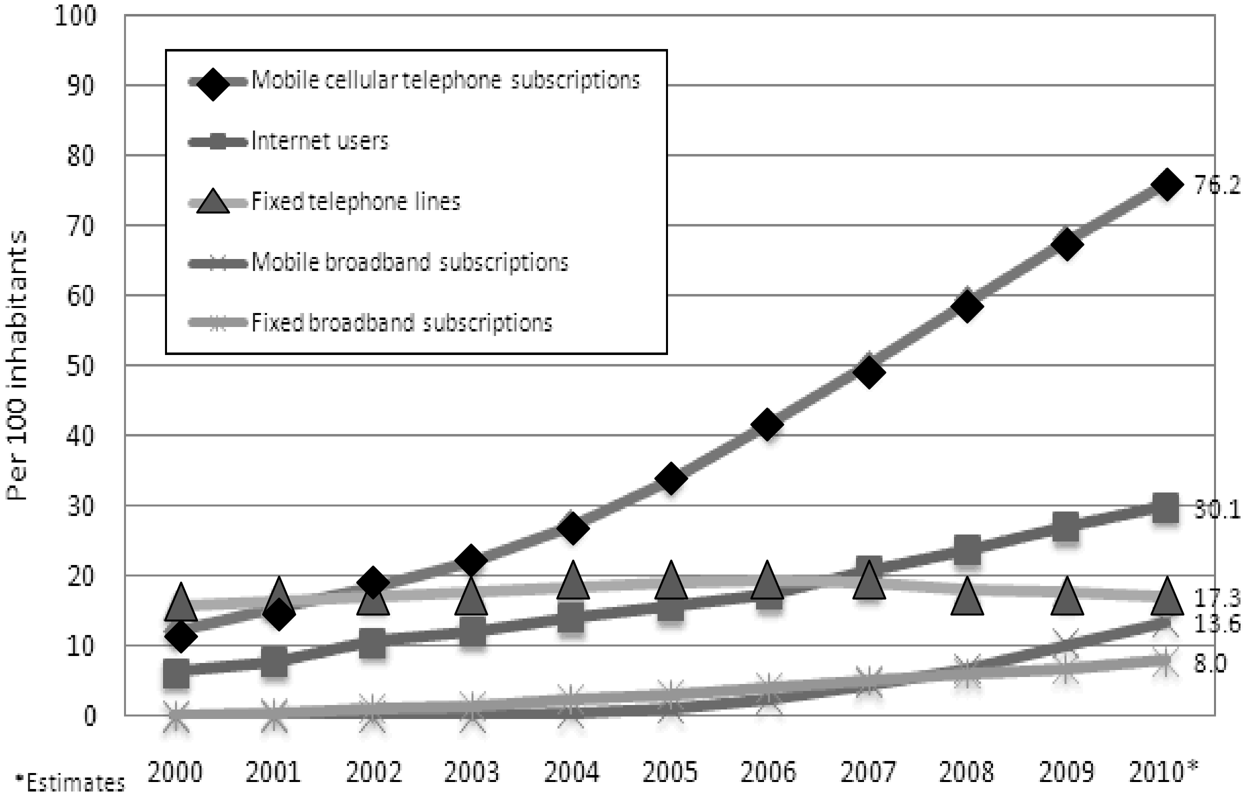
Question 1

The Mobile Network Industry

Table 1: Real GDP Growth Rate and Mobile Phone Penetration Rate for Singapore

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Real GDP growth rate (%)	9.0	-1.2	4.2	4.6	9.2	7.4	8.8	8.9	11.7	-1.0	14.8	4.9
Mobile Phone Penetration Rate (%)	74.8	69.2	77.8	84.5	92.7	99.8	105.4	122.5	131.0	137.4	143.6	149.6

Figure 1: Global ICT developments, 2000-2010*



*Estimates

Source: ITU World Telecommunication /ICT Indicators database

Extract 1: 'Cut-throat' competition among telcos likely to hurt margins

Intense competition within the local telecommunication industry is driving the service providers to adopt strategies to increase their share of the market. While competition is healthy for the industry, the ongoing price war among the telcos may hurt profit margins. An analyst points out that competition now is a different game. The price war is confined to the growing prepaid* segment. The prepaid market segment has a high churn rate or low brand loyalty.

To increase the stickiness or loyalty of subscribers, mobile service providers will have to offer very competitive tariffs for same network calls. The mobile operators are increasingly tying subscribers to long-term contracts and subsidies for handsets, especially for the popular range of smartphones.

* prepaid: A prepaid mobile phone is a mobile phone for which credit is purchased in advance of service use. Users are able to top up their credit at any time using a variety of payment mechanisms.

Source: The Star, 7 July 2012

Extract 2: The hidden dangers of electromagnetic radiation

The cellular phone industry was born in the early 1980s, when communications technology that had been developed for the Department of Defense was put into commerce by companies focusing on profits. This group, with big ideas but limited resources, pressured government regulatory agencies—particularly the Food and Drug Administration (FDA)—to allow cell phones to be sold without pre-market testing.

According to a scientist named Dr. George Carlo, "Mobile cellular phones are low-powered radio frequency transmitters which produce microwave radiation. Cell phone users are being exposed every day to the dangers of electromagnetic radiation (EMR). Those phones and the signals from the tower-based antennas are slowly prompting a host of health problems."

Studies have linked the radiation from the handsets and from the tower-based antennas carrying the signals to development of brain tumors, genetic damage, and other exposure-related conditions like sleep disorders and headaches.

The debate over the cancer risks from this radiation has been going on for years. Yet the lack of any conclusive evidence has allowed the industry to claim phones and the tower-based antennas are safe and led to skeptics being dismissed as scaremongers. A well-funded cell phone industry media machine continues to mislead the unwary public about the dangers of a product used by billions of people although they are fully aware of the dangers.

Unfortunately, many of us have little control over the location of cell phone towers and other broadcasting antennas that emit powerful radio frequency waves. There is an urgent need to increase public awareness of this issue and to get the governments do a better job of regulating the placement of cell phone towers and antennas. Governments in Austria, Switzerland, and many Eastern European countries have already created protective standards for human exposure to radio frequency radiation. In Scotland, towers are not allowed to be located near hospitals, schools, and homes.

Source: Adapted from Life Extension Magazine, 2007 & http://www.dailymail.co.uk, October 2010

Extract 3: Telecom gear makers feel the pinch in India

Telecom gear giants that make wireless network equipment such as Anglo-French company Alcatel-Lucent, Sweden's L.M.Ericsson Telephone Co., Finnish-German joint venture Nokia Siemens Networks and China's Huawei Technologies Co., had banked on strong demand from wireless operators in India for equipment to offer high-speed data services via third-generation mobile phone technology.

But these companies now face a major challenge in India as the telecommunications industry, struggles to regain its momentum. The Indian market is one of the largest in the world, but India's telecom operators are facing regulatory uncertainty as well as brutal tariff war.

India's Supreme Court revoked the telecom licences of several companies earlier this year, citing corruption in their allotment of the 2008 sale of spectrum for second-generation mobile phone services.

The pace of addition of new users has weakened considerably. Newer technologies, like 3G mobile phone services, also have struggled to take off in India. And the low penetration of high-end mobile handsets which can send and receive data at high speeds is preventing the development of a 3G ecosystem.

To add to the woes of foreign gear makers, the Indian government is proposing restrictions on the import of electronics and telecommunications equipment, arguing that it wants to stimulate domestic manufacturing and local job creation

Source: Adapted from various internet articles, 8 July 2012

Questions

(a) (i) Explain how it is possible for Singapore's mobile phone penetration rate from 2006 to 2011 to exceed 100%. [2]

(ii) Consider whether the information in Table 1 suggests that higher rate of economic growth results in higher mobile phone penetration in Singapore. [3]

(b) (i) With reference to Figure 1, compare the changes in mobile cellular telephone subscriptions and fixed telephone line subscriptions between 2000 and 2010. [1]

(ii) Explain two possible reasons besides income for the observations identified above. [4]

(c) Using price elasticity of demand, explain why the 'price war is confined to the growing prepaid segment' in the local telecommunication industry rather than the postpaid market segment. [4]

(d) Explain one source of market failure present in the cellphone industry and evaluate a possible measure that the Singapore government can adopt to correct this market failure. [8]

(e) "The Indian government is proposing restrictions on the import of electronics and telecommunications equipment, arguing that it wants to stimulate domestic manufacturing and local job creation." [8]

To what extent do you support this view?

[Total 30 marks]

Question 2

Inflation and Growth

Extract 4: India's inflation problem eases

Lower inflation should allow the Reserve Bank of India to cut rates within months – so long as the eurozone crisis doesn't bring capital flight risks to the fore. There's no doubt about the Reserve Bank of India's (RBI) desire to cut interest rates to support the slowing economy.

WPI (Wholesale Price Index) inflation in last month was 6.55% year-on-year, down significantly from 9.5% in November and at its lowest for more than two years. The speed of the turnaround has not been quite as great as that implies, since base effects and food prices accounted for most of the fall. As Capital Economics puts it:

"Two factors explain why the annual inflation rate has fallen so steeply. Firstly, large price rises in December and January the previous year have dropped out of the annual comparison. Secondly, food prices have been declining as a result of a good harvest."
Still, with underlying trends looking favourable – over the last three months, prices of non-food manufactured goods increased at an annualised rate of less than 5%.
That said, inflation is not the central bank's only headache: the country's large current account deficit and resulting dependence on foreign investment inflows is also a persistent worry. So while the RBI's bias is clearly towards cutting rates as soon as possible it is still conceivable that another twist in the eurozone crisis might yet hold it back

Source: Adapted from www.emergingmarkets.org, 14 February 2012

Extract 5: Japan's Central Bank marks a goal for higher inflation

TOKYO — Hoping to win its long-futile battle against falling prices, Japan's central bank on Tuesday said it would try to kindle inflation, setting a goal of 1 percent, by pumping tens of billions more dollars into the economy.

The government said Monday that the Japanese economy shrank at a 2.3 percent annual rate, reversing robust gains in the previous three months, as weak overseas demand and a strong yen hurt manufacturing. Prices in Japan have not risen at an annual pace above 1 percent since 1997, when deflation set in. As widely expected, the bank left its benchmark interest rate unchanged at a range of zero to 0.1 percent.

Tokyo stocks rose modestly and the yen weakened against the dollar on the news. A weaker yen is good news for Japan's economy because it strengthens the competitiveness of its exports. The yen's recent strength has battered the country's exporters like Panasonic, which predicts record losses for the year.

Mr. Shirakawa has long argued that monetary policy alone cannot bring an end to deflation in Japan; a situation that he says is caused by a lack of demand. Economists say the bank is running out of options, since interest rates are already effectively at zero and because it has little leeway to expand its asset-buying program.

Source: Adapted from www.nytimes.com, 14 February 2012

Extract 6: Singapore exchange rate policy losing anti-inflationary mojo?

A debate on the effectiveness of Singapore's exchange rate policy in controlling inflation has surfaced as the country restructures its economy to boost productivity.
The restructuring – a large part of which involves capping the expansion of the foreign workforce – is likely to lead to higher inflation from rising wages. At least one economist believes this limits the central bank's ability to keep price increases in check through a strong Singapore dollar, since this works mainly by making imports cheaper.
'If inflation is being driven by domestic supply-side pressures, in particular those owing to tight foreign labour supplies or policies, then the ability of the exchange rate policy to curb inflation will be muted or less effective than in the past,' said DBS economist Irvin Seah in a report yesterday.

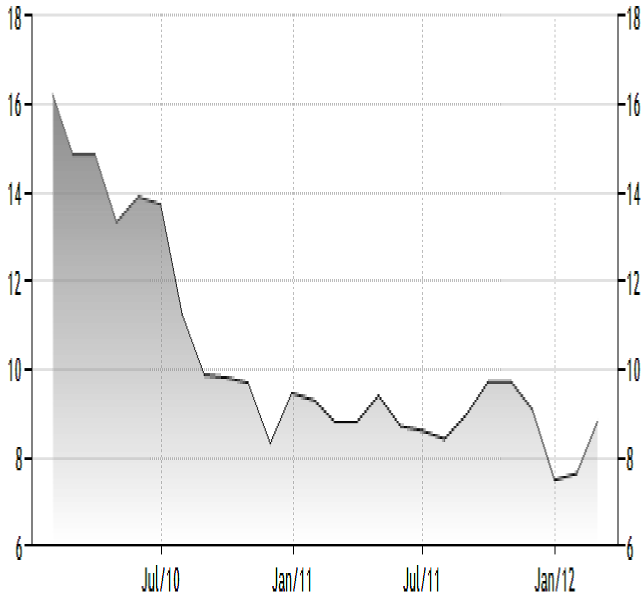
But there are market watchers who think that a strong currency still helps by containing domestic price pressures indirectly. And, with oil prices creeping up, the spectre of imported inflation remains.

Citigroup economist Kit Wei Zheng pointed out that Singapore's exchange rate policy works through another indirect channel, by restriciting external demand. This effectively reduces demand for labour and other factors of production here so that, in the long run, 'the exchange rate will help to temper some of the wage pressures.'

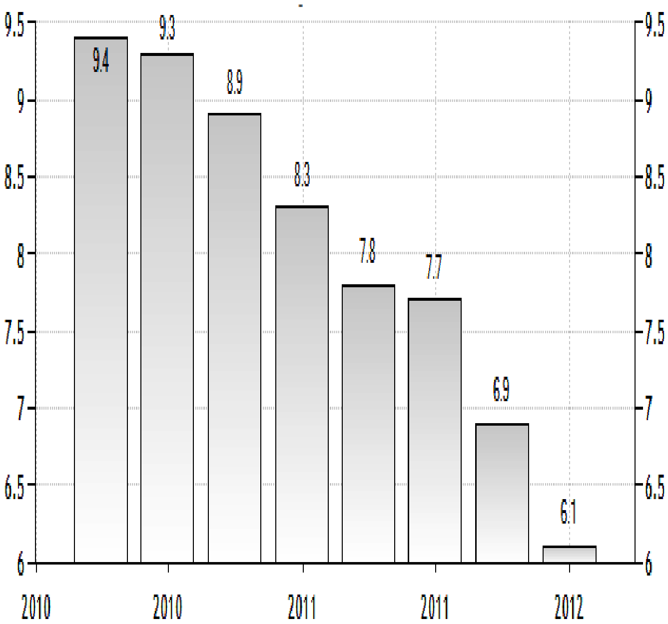
Source: Adapted from Business Times, 9 Mar 2012

Figure 2

INDIA INFLATION RATE
Annual % Change in Consumer Price Index



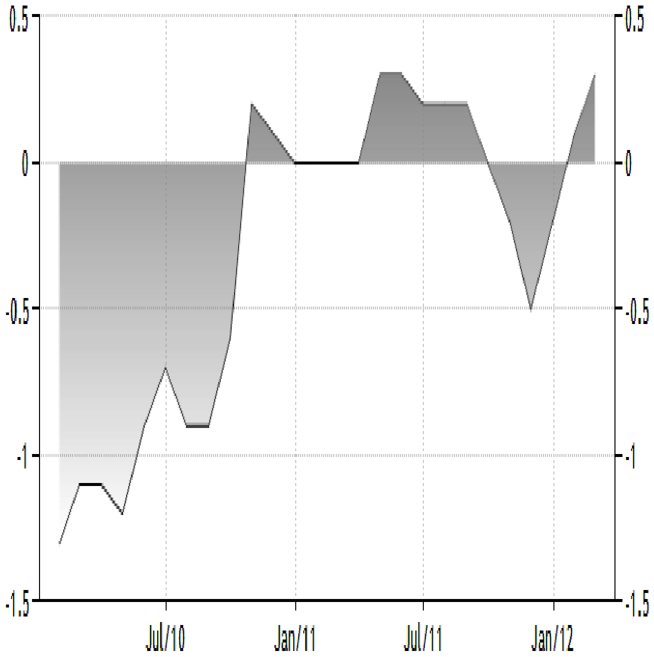
INDIA GDP ANNUAL GROWTH RATE
% change in Gross Domestic Product



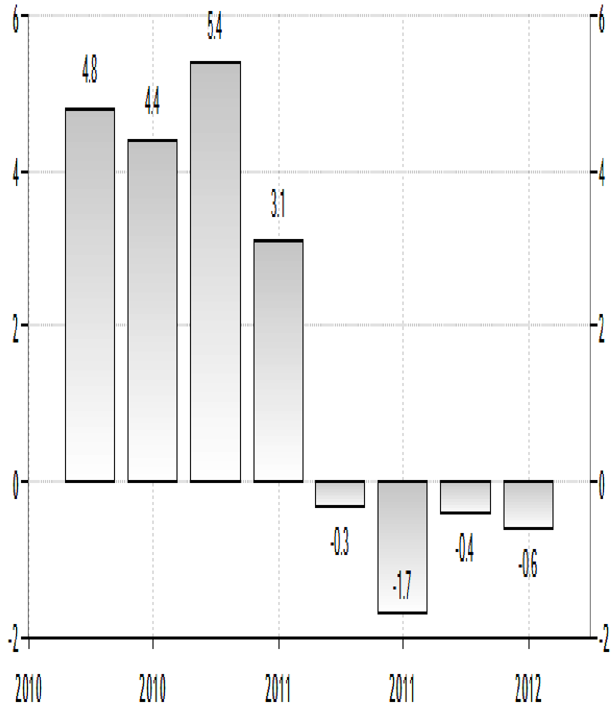
Source: TRADINGECONOMICS.COM

Figure 3

JAPAN INFLATION RATE
Annual % Change in Consumer Price Index



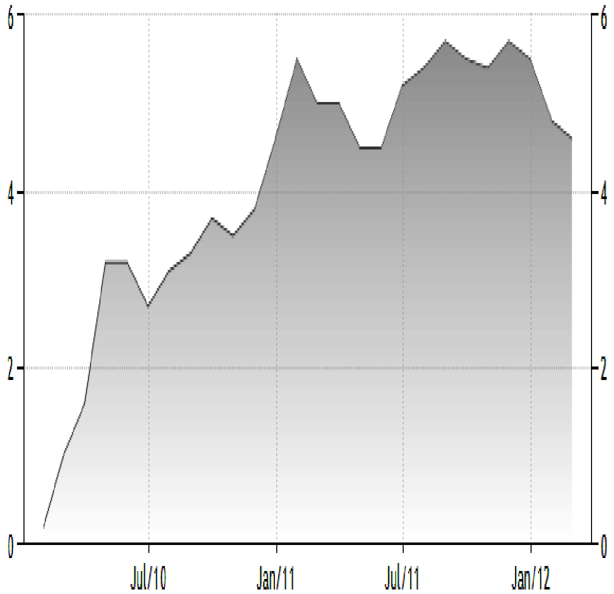
JAPAN GDP ANNUAL GROWTH RATE
% change in Gross Domestic Product



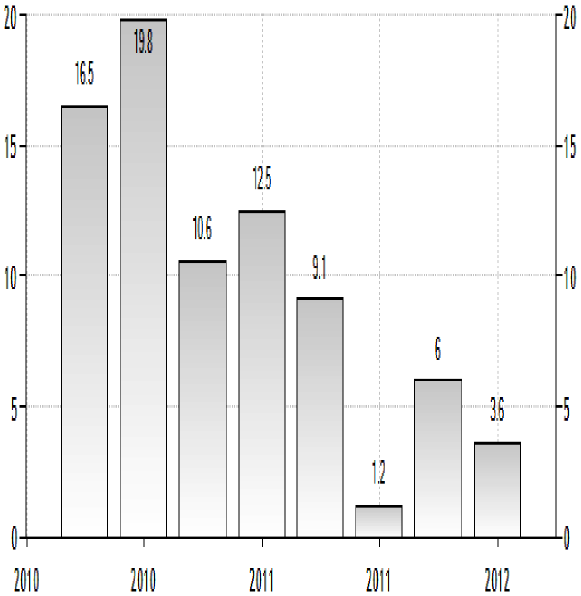
Source: TRADINGECONOMICS.COM

Figure 4

SINGAPORE INFLATION RATE
Annual % Change in Consumer Price Index



SINGAPORE GDP ANNUAL GROWTH RATE
% change in Gross Domestic Product



Source: TRADINGECONOMICS.COM

Questions

(a) Describe the trends in the inflation rates for Singapore, India and Japan, from January 2010 to January 2012. [3]

(b) (i) Using economic theory, explain why economic growth is often accompanied by inflation. [3]

(ii) Explain how it is possible for inflation rates in Singapore to continue to rise in the face of falling growth rates. [4]

(c) Explain one possible reason for the weakening Yen. [2]

(d) 'A weaker yen is good news for Japan's economy', whereas 'a strong Singapore dollar helps the Singapore economy'. [8]

Assess the continued validity of these claims.

(e) Discuss the extent to which interest rate policy is effective in managing the economies of India and Japan. [10]

[Total 30 marks]

Section B

Answer **one** question from this section.

3. 'Complete ban on smoking is the best measure to achieve efficient allocation of resources.'

   (a) Compare and contrast between merit and demerit goods. [10]

   (b) To what extent do you agree with the above statement? [15]

4. In 2011, private spending by consumers in Singapore played a much bigger role than the external sector in powering economic growth as people here were less troubled by rising global uncertainty.

   Adapted from the Straits Times, 1 May 2012

   (a) What are the factors affecting the level of consumption? [10]

   (b) To what extent should Singapore depend on domestic consumption alone to achieve sustainable economic growth? [15]

*****The End*****