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| NYJC | PRELIMINARY EXAM 2015 |
| | Economics JC2<br>H2 (9732/01) |

# PAPER 1

Monday
14 September 2015
08:00 – 10:15 **TIME** : 2 hours 15 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.

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

Answer **all** questions. 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. Submit the answers for both case study questions **separately.**

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

There are _8_ printed pages including this cover page

Answer **all** questions.

**Question 1**

**The Automobile Industries in India and Thailand**

**Figure 1: Population Growth in India**

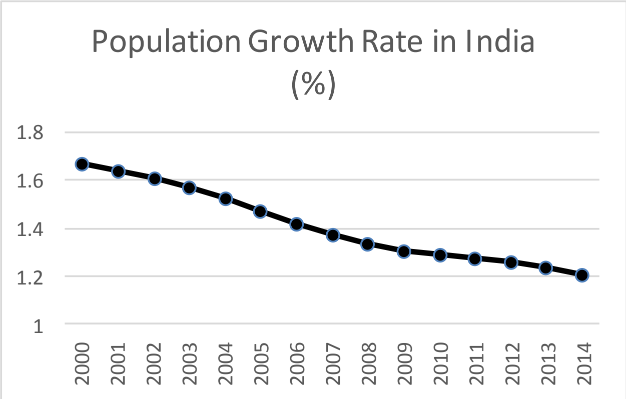
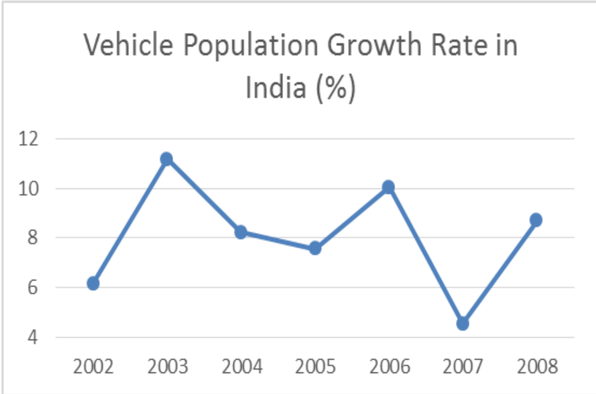



**Figure 2: Vehicle Population Growth in India**




Source: The World Bank

**Extract 1: Traffic congestion and productivity losses**

With growing prosperity in India, an increasing number of people can now afford their own private vehicles. Public transport is becoming an inferior good for many of them. They prefer travelling by their own cars to save time, to avoid the hassles of coordination in case of car-pooling, and to increase their comfort while travelling. The states with the highest number of motor vehicles per 100 people are Goa, Delhi, Tamil Nadu, Gujarat and Haryana. Delhi has the highest number of cars per 1,000 people (262). It also has the highest number of vehicles per km of road length, which thus increases the likelihood of congestion on roads. Often, because of this, states like Delhi face crippling traffic bottlenecks leading to a standstill in peak hours.

Poor road infrastructure, traffic mismanagement, lack of efficient public transport—the reasons can be numerous, but at the end of the day, all of this is resulting in an increase in congestion on roads leading to traffic chaos and ultimately huge loss of time and hence productivity of the nation. So, the increase in the prosperity of the nation is actually turning into economic losses for the nation. Also, there are environmental losses with the increase in air pollution, losses due to increase in accident rates on roads, increase in maintenance expenditure of road infrastructure, losses due to delays and lost opportunities which collectively cost millions to the nation each day. This will eventually hamper India's ability to reach its potential.

Source: Adapted from The Indian Express, Oct 27, 2012

**Extract 2: When it Comes to Reducing Car Congestion, India's Cities Can Learn from its Businesses**

City governments in India are still focused on investing in road expansions and overpass construction projects rather than curbing car dependence and improving public transport services. Instead of waiting for local governments to act, a handful of Indian businesses are taking the initiative to implement transport demand management (TDM) strategies, improving the productivity of their employees and reducing the social costs of car congestion.

Employer-initiated TDM strategies have been especially common in the information technology (IT) sector, because most IT employees in India use private cars to commute to and from work. These strategies have been relatively easy to implement given the availability of information—such as employees' origins and destinations, duration, and frequency of trips—for designing optimal transit and carpool routes.

Some initiatives have included providing employees with commuter subsidies for public transport or carpooling. Other businesses have experimented with company buses that transport workers from nearby metro stations to offices, providing much-needed "last-mile connectivity." These programs have successfully shifted 30-50 percent of the targeted employees from cars to public transport, resulting in reduced travel times and significant cost savings for employers. Not only are employees more productive from shorter commutes, bus and other public transit subsidies are much cheaper compared to private company buses.

For example, Wipro worked with the Bangalore Metropolitan Transport Corporation on specific routes designed to move workers more comfortably and efficiently. This initiative encouraged employees to commute by bus rather that private vehicle and is credited with reducing employee carbon footprint by almost 16 percent in the first year of implementation.

Source: Adapted from World Resources Institute, Anjali Mahendra and Pawan Mulukutla,
June 03, 2015

**Extract 3: India Threatens Thai Automobile Industry's "Detroit of the East" Title**

As if things were not bad enough already for Thailand's prestigious automotive sector a report by Standard Chartered Bank (SCB) shows that the country's claim as the "Detroit of the East" could be lost in less than five years. In the first seven months of 2014 the Thai automobile industry produced 1.1 million vehicles, a 28.5 per cent drop on the same period last year.

In 2009 India became Asia's fourth largest exporter of passenger vehicles behind Japan, South Korea and Thailand and in 2011 became the sixth largest passenger vehicle exporter in the world, exporting more than 3.9 million vehicles.

While the two countries are presently not direct competitors in the global market yet, they go head-to-head in several Asean markets. The report notes that several automotive manufacturers serving the Asean market are increasingly sourcing their engines from India.
The Thai automobile industry has been particularly hard hit due to the political upheavals in 2013 and 2014, with violent anti-government protests, sand-bagged fortress barricades and

daily street marches aimed at strangling Bangkok. These events cast a pessimistic shadow over the Thai economy. Even the most optimistic prediction for full year Thailand 2014 GDP forecasts a maximum growth of just 2 per cent – 60.78 per cent below the 5.1 per cent in 2014.

Moreover, It has also suffered from a lack of skilled workers as well as low productivity of about 3.69 vehicles per employee, compared with 11-12 vehicles per employee in Japan. The Federation of Thai Industries (FTI) said the number of skilled workers available to feed the rapidly expanding Thailand automotive industry is an ongoing concern and developing highly skilled and knowledgeable workers is crucial.

Source: Adapted from The Establishment Post, John Le Fevre, September 16, 2014

**Questions**

**(a)** Compare the trends in population and vehicle population figures in India from 2002 to 2008. [2]

**(b)** Explain why public transport is considered an 'inferior good' in India. [2]

**(c)** Suggest a possible reason for the difference in productivity between the Thai and Japanese automobile industry. [2]

**(d)** **(i)** Explain what is meant by the term third party costs. [2]

**(ii)** "Instead of waiting for local governments to act, a handful of Indian businesses are taking the initiative to implement transport demand management (TDM) strategies."

Explain why private companies in India would take the initiative to implement TDM strategies. [4]

**(e)** Assess whether the subsidy for public transport is the most effective policy in addressing the congestion problem in the Indian cities. [8]

**(f)** "In the first seven months of 2014 the Thai automobile industry produced 1.1 million vehicles, a 28.5 per cent drop on the same period last year."

To what extent is the rise of the Indian automobile industry the main reason for the above development in the Thai automobile industry? [10]

**[Total: 30]**

**Question 2**

## US economic recovery and its impact on Asia

### Extract 4: What Fed's tapering means

The Quantitative Easing (QE) program which began after the financial crisis in 2008 has led to a growing momentum of US economic recovery. QE kept interest rates low and this had a major impact on investments and consumption in the US.

The US Central Bank (Fed) has repeatedly linked the QE program with the labour market and inflation condition. With a stable and improving labour market, there is anticipation for the Fed to initiate a tapering of the QE program in the near future. The tapering of the QE, which in general means a reduction in the monthly bond purchase program, may result in a reduction of liquidity in the market and perhaps a hike in interest rate.

If that is so, corporate borrowing cost may increase with higher interest rate and this can hurt corporate earnings in the US. With higher interest rates, there is likelihood of USD to appreciate in the medium term.

Source: Adopted from “What the Fed’s tapering means for Singapore”, 6 June 2013

### Extract 5: US economic recovery finally taking hold in 2014

The latest government data shows the economy has bounced back sharply in 2014, and that momentum is expected to carry into next year. There are signs that the 2013 growth slide has finally given way to what economists call a "virtuous cycle," in which improvement in one part of the economy feeds into the others, creating a self-sustaining expansion.

America is recovering for a few reasons. While many governments are tightening belts, America’s is not: for the first time in five years, public spending as a proportion of GDP rose in 2014. American shoppers are flush with cheap credit. Lower oil prices also help, since America is still a net importer of the stuff.

The pace of the US growth of course, depends on when the Federal Reserve will decide to begin raising interest rates all the way back to more "normal" levels, and how quickly those rates begin to rise.

And while the U.S. seems to be back on its feet, the economy in the rest of the world is stumbling again. China's once red hot growth pace has slowed, and long-running efforts to revive growth in Europe and Japan continue to come up short. That–along with a stronger dollar–could hurt demand for U.S. exports. But for now, it looks like much of the U.S. economic recovery is solidly on track.

Source: CNBC, www.cnbc.com, 25 Dec 2014

**Extract 6: When US interest rates rise: Singapore wins, Hong Kong loses**

Economists at Bank of America (BofA) forecast that the Fed to hike interest rate at every other meeting in 2015 and 2016, bringing the funds rate to average 3.5% in the long run. But what would such an increase mean for Asia and its companies?

“Asian exports and growth typically strengthened during the past three episodes of US Fed rate hike cycles" That’s because rate increases are associated with stronger GDP growth in the US. For at least one market, Hong Kong, the implication is clear. Its banks will have to increase interest rates as well, because the Hong Kong dollar is pegged to the US dollar. So the cost of doing business is going to go up, particularly for enterprises with large bank borrowings. For other economies, the impact is more mixed. The winners, according to the Bank of America economists, would be the “Asian exporters,” which include Korea, Malaysia, Singapore and Taiwan, and the manufacturing companies that sell into the US.

But the GDP improvement in the Asian exporters may not be as strong this time around. Asia’s sensitivity to US GDP growth “appears to have fallen compared to the past,” says Bank of America.

One reason is the fall in the US share of the global economy, from 33% in 2001 to about 23% last year. At the same time, China’s share has climbed to about 12%. So even if US GDP growth improves – Bank of America forecasts 3.3% expansion in 2015, a full percentage point higher than its 2.3% forecast this year – the impact on the exporters may be more muted because of China’s economic slowdown.

**Table 1: BofA estimation on the impact on Asia’s Growth due 1% expansion in the US and a 1% contraction in China.**

| | **Overall impact** | **Impact of +1% US growth** | **Impact of -1% China growth** |
|---|---|---|---|
| Singapore | 1.1 | 1.7 | -0.6 |
| Taiwan | 0.7 | 1.25 | -0.6 |
| Malaysia | 0.3 | 0.75 | -0.5 |
| Korea | 0.2 | 0.45 | -0.3 |
| Hong Kong | 0.2 | 1.25 | -1.1 |
| Thailand | 0.1 | 0.60 | -0.5 |
| Indonesia | -0.1 | 0.25 | -0.3 |
| India | -0.2 | 0.05 | -0.2 |

Source: BofA Merill Lynch Global Research estimates

The net impact of the divergent US-China growth may be beneficial for Singapore, Taiwan and Malaysia because they are electronics exporters, but negative for commodity exporters Indonesia (coal, palm oil) Thailand (rubber, food), and to some extent Malaysia (palm oil).
"The positive impact from firmer US growth (which benefits manufacturing exporters) [could be] *partly* negated by weaker China growth (which hurts commodity exporters)," reckons Bank of America. The main mode of transmission would be import demand for goods in the US and for commodities in China.

"How Asia fares will largely depend on how strong the US economic recovery will be in the coming years, as the Fed normalize interest rates," Bank of America sums up.

Source: www.cfoinnovation.com, 13 Oct 2014

**Table 2: Trade of Hong Kong and Singapore**

| **Hong Kong Exports To** | | **Singapore Exports To** | |
|---|---|---|---|
| China | 47% | China | 14% |
| ASEAN | 5.8% | Malaysia | 12% |
| Malaysia | 3.3% | Indonesia | 12% |
| United States | 3.2% | Hong Kong | 7.2% |
| India | 3.1% | Australia | 6% |
| **Hong Kong Imports From** | | **Singapore Imports From** | |
| China | 50% | China | 12% |
| Japan | 7.2% | Malaysia | 10% |
| United States | 5.7% | South Korea | 8.4% |
| South Korea | 5.7% | United States | 7.3% |
| Singapore | 3.7% | Japan | 6.1% |

Source: www.aseanbriefing.com, 2015

**Table 3: Summary of the US economy**

| | **2011** | **2012** | **2013** | **2014** |
|---|---|---|---|---|
| GDP growth (%) | 1.6 | 2.3 | 2.2 | 2.4 |
| Unemployment | 8.3% | 8% | 6.6% | 5.7% |
| Inflation | 2.93% | 1.59% | 1.58% | -0.09% |
| US Government Budget (%GDP) | -10.7 | -9.3 | -6.4 | -5.8 |
| US Government Budget balance (US$bn) | - 1299 | - 1100 | - 680 | - 492 |

Source: Various

**Questions**

**(a)** **(i)** Describe the trend in the US government budget balance between 2011 and 2014. [2]

**(ii)** Explain how the trend in the US government budget balance is expected to affect the US inflation rate. [2]

**(b)** With the use of a diagram, explain how the “Fed's tapering” may cause an appreciation of the US dollar. [4]

**(c)** Extract 5 explains that the 2013 growth slide has given way to what economists call a "virtuous cycle".
Using the concept of the circular flow of income, explain how such a change will affect the equilibrium level of national income in 2014. [4]

**(d)** With reference to the data, discuss whether economic growth in US is expected to improve from 2014 and beyond. [8]

**(e)** Assess the likely impact of an increase in interest rates in the US and divergent US-China growth on the balance of payments of Singapore and Hong Kong. [10]

**[Total: 30]**