Class Adm No

Candidate Name: ______________________________

Class	Adm No

H

millennia institute

2024 Preliminary Examinations
Pre-University 3

ECONOMICS **9570/01**

Paper 1: Case Study **28 August 2024**

2 hours 30 minutes

Additional Materials: Answer Booklet

READ THESE INSTRUCTIONS FIRST

Write your name and 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 any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer all questions.

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

An answer booklet will be provided with this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional paper, ask the invigilator for a continuation booklet.

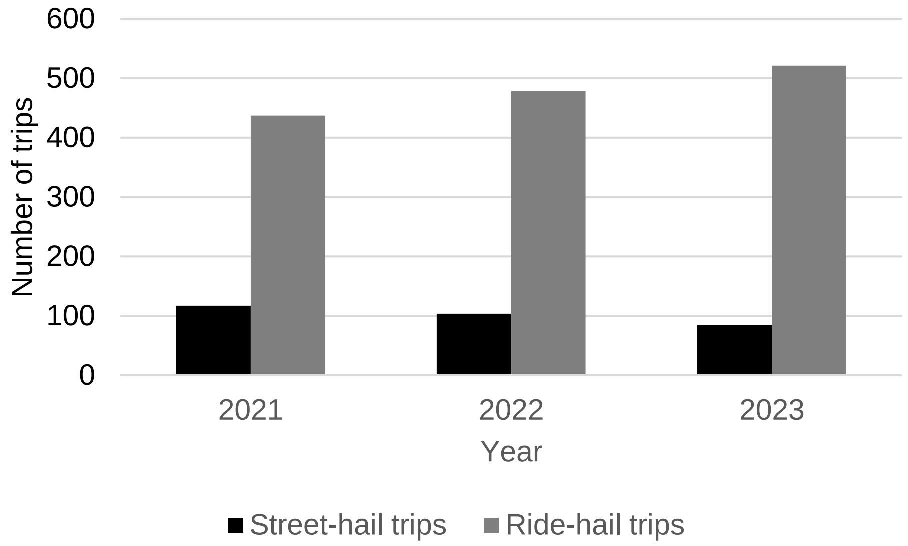
The number of marks is given in brackets [ ] at the end of each question or part question.

This question paper consists of **9** printed pages and 1 blank page.

Answer **all** questions.

Question 1: Ride-hailing and taxi industry in Singapore

Figure 1: Average daily number of street-hail trips and ride-hail trips (annualised)



**Street-hail refers to rides flagged down on the street or hired at taxi stands. Only taxis are allowed to provide street-hail rides, with metered fare calculated based on the distance travelled, and surcharges may apply.*

Ride-hail refers to rides that are booked (e.g. via app or call booking). Both taxis and private-hire cars are allowed to do ride-hail jobs. Ride-hail trip fare can be metered fare or a flat fare, depending on what is chosen at the point of booking.

Source: Land Transport Authority Singapore, accessed on 26 July 2024

Extract 1: Taxi versus ride-hailing market in Singapore

Many consumers today choose booking a car on ride-hailing platforms over taxis as they prefer the certainty of knowing the fare in advance – unlike a metered fare, and the option to compare prices between different mobile applications (apps).

“The market has shifted very decisively towards ride-hailing,” said Prof Theseira. “Booking through an app is the way most consumers in Singapore want to go.”

Aside from a large number of potential passengers on apps, drivers are also choosing ride-hailing due to the cheaper rental of a private car compared with a taxi.

Taxi companies, too, have been adapting, as the two sides try to offer the best of both worlds to cater to different consumers. For instance, the booking platforms of taxi firms now have a flat-fee model, which mirrors the ride-hailing fare model, and gives users an option other than metered fares.

Another difference between booking a car on ride-hailing apps and street-hailing a taxi is the location surcharge. To cushion the impact of fuel prices and ensure a better supply of taxis at Changi Airport and attractions at Mandai Wildlife Reserve, a hike in surcharge that was introduced more than two years ago was made permanent.

Every trip starting from Changi Airport now attracts a surcharge of $8 on Mondays to Sundays, 5pm to 11.59pm, and $6 at all other times. A trip starting from attractions at Mandai Wildlife Reserve has a surcharge of $5.

Industry players said that location surcharges, which also apply to other areas including Singapore Expo and Gardens by the Bay, are put in place to incentivise taxi drivers to travel there. However, there are fears that increases in such surcharges could turn even more passengers away from taxis and push them towards ride-hailing, causing more taxi drivers to also join the ride-hailing industry.

Source: ChannelNewsAsia, 19 July 2024

Extract 2: Singapore taxis now run on cleaner energy

Around 6 in 10 taxis on Singapore's roads are hybrid or electric vehicles (EVs), up from just 18 per cent three years ago, Senior Minister of State for Transport Amy Khor said on Monday (March 1).

She told Parliament the proportion of cleaner energy vehicles rose from about 20 per cent to 35 per cent in the private-hire car sector during the same period of January 2018 to January this year.

Responding to a question from Workers' Party MP Dennis Tan (Hougang), Dr Khor said the Ministry of Transport and Land Transport Authority will continue working with industry players to ensure the entire fleet makes the transition to cleaner energy vehicles.

Last year, ride-hailing trips here generated an estimated 300,000 tonnes of carbon emissions, or about 4 per cent of the estimated 7 million tonnes generated by the land transport sector.

Earlier this month, the Government announced several new targets and incentives to promote the use of electric vehicles as part of the inter-ministerial Green Plan 2030. They included a revised target of building 60,000 charging points across the island over the next nine years, more than double its original target of 28,000.

Source: The Straits Times, 2 March 2021

Extract 3: The Competition and Consumer Commission of Singapore (CCCS) issues provisional ruling on Grab’s proposed takeover of Trans-Cab

<u>The CCCS’s provisional ruling</u>

Ride-hailing giant Grab’s proposed takeover of taxi operator Trans-Cab will significantly weaken rival ride-hailing platforms here, which in turn could lead to higher prices for passengers and drivers, said the Competition and Consumer Commission of Singapore (CCCS), Singapore’s competition watchdog.

Issuing its provisional decision on the proposed acquisition after an in-depth review, the CCCS said that Grab’s purchase of Trans-Cab, which is Singapore’s third-largest taxi operator, will deprive other ride-hailing platforms of an important source of drivers at a time when the industry is facing a driver shortage.

If Grab’s proposed takeover of Trans-Cab goes through, Trans-Cab drivers will effectively be renting their vehicles from Grab. Data analysed by CCCS indicates that drivers who rent from vehicle fleets owned by a ride-hailing platform such as Grab tend to use that particular platform more and are less inclined to use other rival platforms.

Grab may also employ various strategies to induce Trans-Cab drivers to increase their use of Grab’s platform, which will significantly restrict rival platforms’ access to these drivers after the merger. The shortage of drivers as well as the high costs of maintaining a large vehicle fleet are likely to affect the ability of rival platforms to fulfil trip requests and, over time, make them less attractive to passengers and drivers.

The CCCS added that the lower ability of rival platforms to expand the scale of ride-hailing services offered will weaken competitive constraints exerted by rival ride-hail platforms on Grab. Due to less competition in the ride-hailing industry, drivers on both Grab and rival ride-hail platforms could face higher commissions and fees, while passengers may have to contend with higher fares and fewer options.

Grab and Trans-Cab’s earlier response

Both Grab and Trans-cab have said that the proposed acquisition will not result in a "substantial lessening" of competition in the ride-hailing market. This is because there is minimal overlap between the two firms, a lack of prohibitive barriers to entry and the fact that both drivers and riders can easily switch to other ride-hailing platforms.

Grab further shared that "digitalising Trans-cab’s fleet will improve driver productivity and taxi availability so that consumers can get a ride more easily. This will also improve driver earnings." Trans-cab drivers will also continue to have the flexibility to earn through multiple ride-hailing platforms and pick up rides through street hailing.

Source: Adapted from The Straits Times, 11 July 2024 and Mothership.sg, 13 July 2024

Questions

(a) **(i)** With reference to **Figure 1**, state the change in the number of street-hail trips and ride-hail trips from 2021 to 2023. [1]

(ii) Using **Extract 1** and a demand and supply diagram, give two reasons for the trend observed in the ride-hailing market in **(a)(i)**. [4]

(b) Define price discrimination and explain why imposing location surcharges for taxi rides can be considered a form of 3rd degree price discrimination. [3]

(c) Using a diagram, explain how carbon emissions can cause market failure in the ride-hailing market. [4]

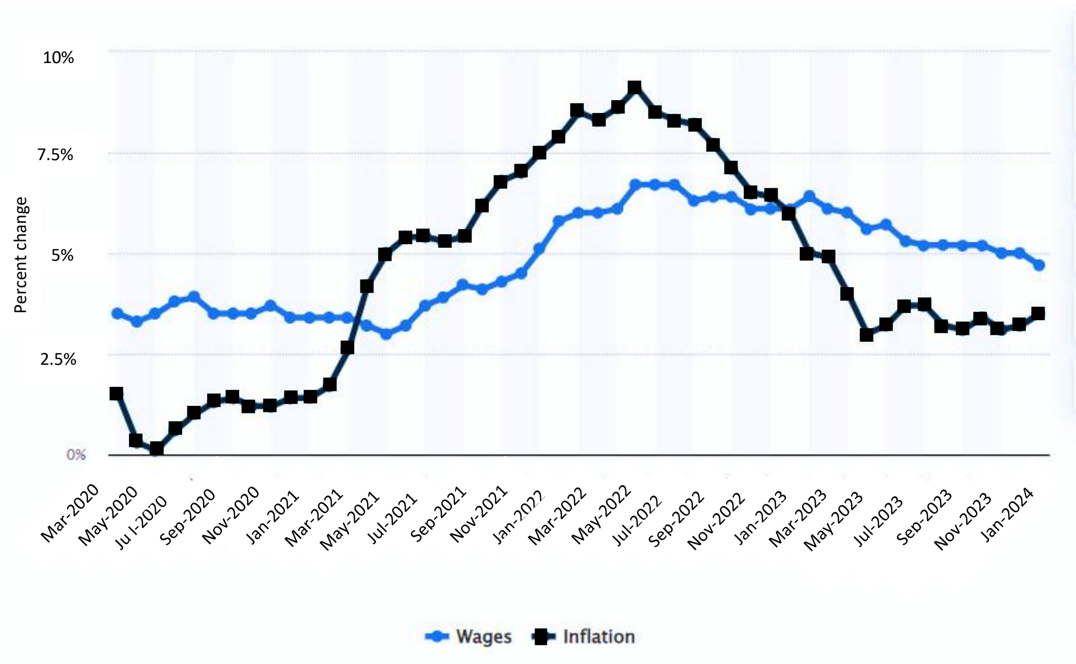
(d) Discuss whether rival firms will be disadvantaged by Grab's proposed takeover of Trans-Cab. [8]

(e) Discuss the factors a government should consider when adopting policies to address market inefficiencies caused by market dominance in the ride-hailing market. [10]

[Total: 30]

Question 2: Navigating Economic and Environmental Challenges

Figure 2: Inflation rate and growth of nominal wages in the United States from March 2020 to March 2024



Source: Statista, 2024

Extract 4: Why is inflation in the US so high?

Inflation in the US hit 8.6%, one of the highest rates in the world. Many of the forces driving inflation the previous year - such as supply disruptions from Covid and higher food prices after severe storms and drought hurt harvests - were not unique to the US. High demand in the US was driven by the massive $5tn (£4.1tn) in spending the US government approved to shield households and businesses from the economic shock of the pandemic.

Since US households were bolstered by the stimulus spending by the government, rising prices were not widely felt as a cost-of-living crisis last year, despite wage gains lagging. But as savings get spent, some households are feeling the impact of rising prices. Mr Biden has pointed the finger at the war in Ukraine, which has hit oil supplies and exports of commodities like wheat, driving up prices and spreading the pain around the world.

With few other options to address surging prices, President Biden is weighing whether to roll back some of the tariffs imposed on Chinese goods. An influential study this year predicted that a move to lift tariffs could save households $797 a year, but administration officials say the actual effect would most likely be far smaller, in part because there is no chance Mr. Biden will roll back all the federal government's tariffs and other protectionist trade measures.

Source: BBC News, 14 June 2022

Extract 5: Japan's Easy Monetary Policy

While central banks around the world are raising interest rates aggressively to try to tame decades-high inflation, with its own inflation rate near 3%, Japan has stuck mainly to using fiscal measures, or government spending, to counter that challenge. The Bank of Japan stuck to its longstanding policy of keeping its benchmark interest rate at minus 0.1%.

On the other hand, the US Federal Reserve has been aggressively raising borrowing costs to combat chronic inflation, raising interest rates five times this year. It's set to do so again next week and in December, while warning that the hikes will likely bring higher unemployment and possibly a recession. The widening gap in the interest rates between the US and Japan, means that the value of the dollar has risen sharply as investors seek higher yields and a "safe haven" from market turmoil.

Japan's central bank has kept interest rates near zero for years, trying to raise inflation to a target rate of 2% and spur what it calls a "virtuous cycle" of economic growth by getting consumers and businesses to spend and invest more. Even though prices finally have risen beyond the target, the central bank is forecasting they will again fall. With its major trading partners raising interest rates, Japan's central bank is monitoring for signs that these rate hikes elsewhere might lead to recessions in these economies.

Source: AP News, October 28, 2022

Table 1: Japan: Selected Economic Indicators (2019 – 2022)

	2019	2020	2021	2022
Real GDP growth rate (%)	-0.40	-4.15	2.56	0.95
Unemployment rate (%)	2.35	2.81	2.83	2.60
Inflation rate (%)	0.47	-0.03	-0.23	2.50
Trade Balance (US$ b)	-14.81	-13.59	-26.21	-160.05

Source: Macrotrends, 2024

Extract 6: US-Europe trade tensions heat up over green subsidies

Joe Biden's administration hopes to unleash a green revolution by offering hundreds of billions of dollars in subsidies to clean energy companies, but the US president's flagship legislation also threatens to spark a fresh trade war. The Inflation Reduction Act, which was passed by US Congress last summer, earmarks around $369bn in grants, loans and tax credits for the rollout of renewable energy and clean technologies across the US.

Since the law passed, $90bn of investment has been committed to clean energy projects in the country, ranging from solar panel factories to electric vehicle plants and battery hubs. And companies are rewarded – as long as the products and parts they manufacture are made in America.

As a result, the law has alarmed US trading partners, including Europe and Japan, who fear they will lose out to the US on new jobs and business investment. French President Emmanuel Macron said recently that the new climate law threatened to "fragment the West". European Union officials have also accused Washington of discriminating against European companies and breaking global trade rules overseen by the World Trade Organization — particularly in the electric vehicle sector, where companies score the full tax credit if they manufacture cars in North America.

In response, the EU is working on its own raft of green subsidies, beginning with proposals to loosen up the bloc's strict state aid rules. However, corresponding subsidies on either side of the Atlantic have prompted concerns that companies will "subsidy shop" — playing governments against each other and locating their businesses in the most lucrative domain.

Source: The Financial Times, 27 February 2023

Extract 7: Hard truths about green industrial policy

Governments say targeted funding in green manufacturing and clean energy will boost the economy, create good jobs and enable low-carbon growth. Clean energy innovation and investment in the country would also drive down clean energy costs and reduce demand for fossil fuel. But there are always difficult trade-offs.

Despite spiraling deficits in the US, energy subsidies under the Inflation Reduction Act (IRA) will be financed with still more government debt. With the increase in interest rates to normal levels, financing costs will soar, adding an estimated $500 to $800 billion to the bill costs, almost as much as the subsidies themselves.

Also, the decarbonisation of the economy may not create as many decent jobs as initially expected. In the US, both car companies and the United Auto Workers union have warned that the shift to manufacturing EVs, which require fewer parts, could lead to job losses.

At the same time, the growth of green industries can result in other environmental harms. For example, the production of semiconductors, which are at the heart of clean tech, is energy-, water-, and land-intensive and releases perfluorocarbons and other potent greenhouse gases into the atmosphere.

Source: Eco-Business, 28 Nov 2023

Questions

(a) With reference to **Figure 2**, explain one reason for the change in real wage in the US from May 2021 to Nov 2022. [2]

(b) Using **Extract 4** and an aggregate demand and supply diagram, explain why inflation in the US is so high. [4]

(c) Explain how tariffs may worsen inflation. [2]

(d) Using a tariff diagram, explain how Biden's proposal to reduce government tariffs will affect government revenue. [4]

(e) Discuss whether the easy monetary policy is likely to have a significant impact on the Japanese economy. [8]

(f) Discuss the extent to which green subsidies would help the US achieve sustainable growth. [10]

[Total: 30]

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