

Ask NUS economists

What MRT travel numbers tell us about work from home trends



Commuters on an MRT train on Aug 29. It is difficult to get an accurate picture on trends to do with working from home unless there is sufficient data. ST PHOTO: KELVIN CHNG

The 'Li Keqiang' method of gleaning insights from seemingly unrelated data yields interesting results

Ivan Png

For The Straits Times

Q Are engineers, bankers, and other professionals returning to the office – as CEOs like Elon Musk and David Solomon are demanding

– or do they continue to work from home?

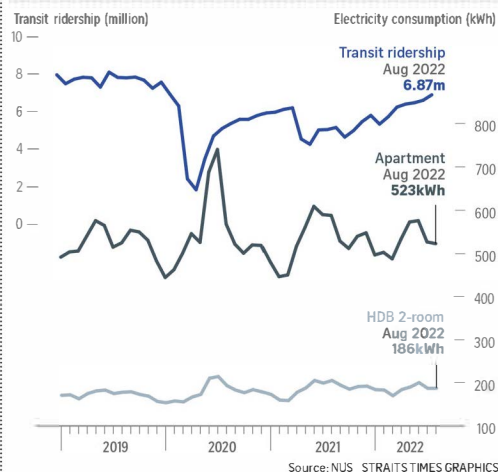
A It is difficult to get an accurate picture on this. Every month since May 2020, economists Jose Maria Barrero, Nicholas Bloom and Steven Davis have surveyed several thousand Americans to understand the trends.

However, there is another way to approach the issue. In 2007, at

a dinner with United States Ambassador Clark Randt, then Vice-Premier of China, Mr Li Keqiang, is famously reported to have criticised Chinese GDP statistics as being "man-made". He preferred to judge economic growth by electricity production, rail cargo volume and bank lending.

On trends to do with working from home, like Mr Li, we can form a view at much lower cost using extraneous data. The accompanying chart shows the evolution of transit ridership (bus, MRT and LRT) and residential electricity consumption in Singapore.

Some lightbulb moments on working from home



Source: NUS STRAITS TIMES GRAPHICS

It is striking how transit ridership dropped sharply in April 2020 when the Government declared the circuit breaker lasting until mid-June, and again but not so drastically in May 2021 when the Government reverted to Phase 2 of the re-opening.

Equally interesting is that the electricity data shows that residential electricity consumption increased in April 2020 and again in May 2021. It is fairly intuitive that if people reverted to working from home, they would use more electricity – particularly air-conditioning.

The data also suggest that the

scope to work from home varies with household income. The "bumps" during the circuit breaker and reversion to Phase 2 were more pronounced in apartments and much less so in two-room HDB flats.

So, what does the chart say about the trend of working from home? By August 2022, electricity consumption had come down to levels similar to before the Covid-19 pandemic. This would suggest that most people had returned to the office.

On the other hand, travel on the MRT and LTR was still markedly lower than before the pandemic.

This seems inconsistent with the insight from the electricity data.

What could account for the discrepancy? Perhaps people have gone back to work, but are travelling by taxi or ride hail? Or the continued drop in transit usage is due to tourism still being depressed at the time.

Or they are still working remotely, just not at home – perhaps at nearby facilities such as cafes and libraries. Or they are working from home, but economising on air-conditioning?

Importantly, with the appropriate data – on taxi and ride hail usage, tourist arrivals, commercial electricity consumption – we could examine most of these other explanations.

Moreover, with daily data on transit usage, and residential and commercial consumption of electricity, we could even examine an emergent question – the four-day week.

In 2015, Prime Minister Lee Hsien Loong called for government agencies to publish more data and improve the access. Why? Because it is only if the data is available that researchers and students can draw insights, such as using transit ridership and residential electricity consumption to gauge work from home.

Policy-makers should publish data, at the most granular level and frequency. I requested the transit data from the Land Transport Authority and found the data on electricity consumption on the website of Singapore Power.

However, the government data portal (data.gov.sg) does not publish such data. It might be good to benchmark our government data portal to Hong Kong's. There, every government agency not only publishes a list of their datasets but also their plan to release new ones as well on <https://data.gov.hk/en/annual-open-data-plans>.

Ivan Png is Distinguished Professor in the School of Business and Department of Economics and principal investigator of Spire (Service Productivity and Innovation Research Programme) at the National University of Singapore.

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