

Economics in the News: Micro Behavior – Markets in the News of 2024

Part A (40%): Excerpts of “政院：班班有鮮乳政策 持續協商滿足學校需求” (CNA 中央社賴于榛, 2022/10/17)ⁱ

...因應紐西蘭乳品 2025 年輸台零關稅，將衝擊國產乳品生計，農業部與教育部於 113 學年推動「學校採用國產可溯源乳品專案實施計畫」，公立國小及其共餐的附設幼兒園每週供應 2 次乳品。...(omitted)...班班有鮮乳政策中，學校無論是選擇鮮乳或是保久乳，都會是國內酪農生產的生乳，...(omitted)

Translation: ...In response to New Zealand's dairy products set to enter Taiwan with zero tariffs by 2025, which will impact the livelihood of domestic dairy producers, the Ministry of Agriculture and the Ministry of Education launched the "Implementation Plan for Schools to Use Domestic Traceable Dairy Products" in the 2024 school year. Under this plan, public elementary schools and affiliated kindergartens with communal meals will provide dairy products twice a week...(omitted)...In “fresh milk for every class,” the raw milk used are all produced by local dairy farmers regardless of school choice (fresh or preserved milk)...

Answer the following questions, first on the zero tariff and later on the “Fresh Milk in Every Class” policy:

1. (14%) Assume New Zealand is a major exporter of dairy products on the world market. Draw a supply and demand diagram to analyze the effect of lowering tariffs on New Zealand dairy products to zero. How does the equilibrium quantity and price of milk change? Evaluate the change in consumer surplus, producer surplus, and total surplus in Taiwan. Who are the beneficiaries of the tariff reduction? Who are worse off?
2. (6%) Assume the government is a price taker. Draw a supply and demand diagram to analyze the effect of the “Fresh Milk for Every Class” policy. How does the equilibrium quantity and price of milk change?
3. (4%) Does the policy create deadweight loss? Why or why not? Assuming the government expenditure on this policy is equally shared by everyone, who are the beneficiaries and victims of this policy?
4. (4%) Is the assumption that the government is a price taker realistic? Explain. How will your estimates of the equilibrium quantity and price be biased if this assumption is wrong?
5. (2%) Why doesn't the “Fresh Milk for Every Class” policy face strong opposition? Explain.

“班班有鮮奶政策突襲，羊乳業者措手不及，訂單驟減 2 至 5 成，產業如遭斷頭刀” (上下游, 2024/10/1)ⁱⁱ

...近年羊農咬牙拚轉型，包含發展網路、團購等銷售管道，開發不同產品拓展市場。正當產業奮力轉型，突如其來的「班班有鮮奶」政策，大幅壓縮原本的學童乳市場，訂單銳減 2 至 5 成，恐讓羊奶產業斷頭。...民間認為學童乳政策衝擊羊乳，農業部畜牧司司長李宜謙回應，訂購羊乳的國人是基於特殊營養、健康需求，且羊乳會加熱提供，「這是鮮奶沒有的服務」，且有明確的市場區隔，是否真的會影響羊乳，還有待商榷...

Translations: The goat milk industry has struggled to transform itself by fostering online and group-buying channels, as well as new products to open up new markets. As this industrial transformation is about to take off, the sudden strike by the "Fresh Milk for Every Class" policy crushed the student-goat milk market, making orders drop by 20% to 50% and literally "decapitated" the goat milk industry...(omitted)...The public believes that the school milk policy affected goat milk. However, Li Yi-Qian, Director of the Animal Husbandry Division of the Ministry of Agriculture, stated that those who order goat milk do so for specific nutritional and health reasons, and goat milk is delivered hot, "a service fresh milk cannot match." With such a clear market differentiation, it is debatable whether goat milk is truly affected...

6. (4%) Assume the "Fresh Milk for Every Class" policy provides all fresh milk for free. Calculate the cross-price demand elasticity of goat milk with respect to fresh milk. (Hint: You may want to give a range.)
7. (2%) Since this policy does not provide fresh milk for free to everyone, how would your estimated cross-price elasticity of demand be biased?
8. (4%) Are goat milk and fresh milk complements or substitutes? Explain. Based on your calculations, do you agree with Director Li that there is a "clear market differentiation" between goat milk and fresh milk? Why or why not?

Part B (49%): Excerpts of “北運受阻菜價又高漲 農糧署估 5 日運輸恢復正常” (中央社 2024/10/4)ⁱⁱⁱ

颱風山陀兒警報解除，今天台北果菜批發市場整體蔬菜交易均價反而重回高價，且交易量僅約 754 公噸，明顯不及 1000 公噸。農糧署說，昨天還在颱風警報，影響北運，明天運輸恢復正常。農業部農糧署官網顯示，台北果菜批發市場 3 日交易均價每公斤新台幣 48.8 元，回到相對正常區間；4 日颱風警報解除，反而重返 10 位數 5 字頭高價區，每公斤 55 元。且 3 日還在颱風警報，所以交易量僅約 807 公噸，但是 4 日已解除，交易量繼續下降到約 754 公噸，明顯不及 1000 公噸。...(omitted)

Translation: Typhoon Santol warning was lifted today, but the average transaction price at the Taipei Fruit and Vegetable Wholesale Market rose again to a high price, with a trading volume of only about 754 tons, clearly below 1,000 tons. The Agriculture and Food Agency said yesterday the typhoon warning affected transportation to the north, but that will resume tomorrow. According to their official website, the average transaction price at the Taipei Fruit and Vegetable Wholesale Market on October 3 was NT\$48.8 per kilogram, back at the normal range. However, on October 4 after the typhoon warning was lifted, prices jumped back to the fifties, reaching NT\$55 per kilogram. On October 3, trading volume was only about 807 metric tons due to the typhoon warning, but on October 4, the trading volume continued to decline to about 754 metric tons after the warning was lifted, clearly below 1,000 metric tons...(omitted)

Answer the following questions:

1. (2%) What was the average trading price at the Taipei Fruit & Vegetable Wholesale Market on October 3? What is the average price on October 4 after the Santol typhoon warning was lifted? Use the midpoint method to calculate the percentage price change after the Santol typhoon.?
2. (2%) What is the quantity traded at the Taipei Fruit & Vegetable Wholesale Market on October 3? What is the quantity traded on October 4 after the Santol typhoon warning was lifted? Use the midpoint method to calculate the quantity change in the vegetable market due to the typhoon.
3. (4%) Based on your answers above, calculate the price elasticity. Is it elastic or inelastic? Is this price elasticity of demand or supply? Explain.
4. (4%) What is your assumption to calculate price elasticity? Is it realistic? Explain. How would your estimates be biased if the assumption is wrong? Specifically, would demand/supply be more elastic or more inelastic?

Excerpts of “山陀兒颱風過後菜價再漲！高麗菜「這價格」婆媽一問嚇到不敢買” (TVBS, 2024/10/4)^{iv}

山陀兒颱風肆虐南臺灣，讓全台菜價格飆漲，根據北農資料顯示，今天(10/4)蔬菜批發價漲至每公斤 55.6 元，颱風過後菜價繼續漲，民團就建議，政府可以設立氣候通膨補償金，來降低農損、調節菜價，減少對民衆生活衝擊。...(omitted)...山陀兒颱風，影響蔬菜交易價格，根據北農資料顯示，10 月 1 日，平均批發價飆到 63.7 元，創 5 年新高，2 日、3 日，雖然菜價開始走緩，不過 4 日又漲至每公斤 55.6 元，...(omitted)

Translation: Typhoon Santol has ravaged southern Taiwan, causing vegetable prices across the island to surge. According to data from the Taipei Agricultural Products Marketing Corporation, today (October 4), the wholesale price of vegetables has risen to NT\$55.6 per kilogram. After the typhoon, vegetable prices are expected to continue increasing. In response, civic groups have suggested that the government establish a climate inflation compensation fund to mitigate agricultural losses, regulate vegetable prices, and reduce the impact on people's livelihoods....(omitted)...Typhoon Santol has affected vegetable trading prices. According to data from the Taipei Agricultural Products Marketing Corporation, on October 1, the average wholesale price soared to NT\$63.7, reaching a five-year high. Although prices started to stabilize on the 2nd and 3rd, they rose again to NT\$55.6 per kilogram on the 4th...(omitted)

5. (6%) Assume that the quantity traded on October 1 (before typhoon Santol hit) is the same as October 3. How would your answers to Question 3 change if you use the numbers in this new article? Specifically, what is the price elasticity? Is it elastic or inelastic? Is this price elasticity of demand? Why or why not.

6. (6%) What is your assumption to calculate price elasticity? Is it realistic? Explain. How would your estimates be biased if the assumption is wrong? Specifically, would demand/supply be more elastic or more inelastic?
7. (12%) Draw a supply and demand curve to analyze the equilibrium price and quantity of the vegetable market **after** Typhoon Santol hit. What about total surplus, consumer surplus, producer surplus?
8. (2%) Do you think typhoon Santol generates externalities? Why or why not?
9. (9%) Suppose the government decides to subsidize vegetable consumers with the newly established climate inflation compensation fund. How is equilibrium price and quantity affected? What about total surplus, consumer surplus and producer surplus? Is efficiency achieved? Explain.
10. (2%) Would your answer of reaching efficiency change if your answer regarding externalities change?

Part C (49%): “你最近花了多少錢看演唱會？娛樂通膨跟 SXSW 有甚麼關係？” (TAICCA, 2024/5/30)”

自 2023 年疫情解封之後，演唱會與現場體驗經濟大爆發，在全世界都掀起熱潮。在美國，票價上漲的趨勢高出預期太多，甚至有「funflation」玩樂通膨一詞的出現；在韓國，媒體也觀察到類似的現象，粉絲即使只能吃便利店也要買票去演唱會，各方預期這個現象並不會消失，消費者似乎改變了支出結構，選擇將大錢花在現場體驗上。...(omitted)...爲此，即使美國司法部都介入調查售票平台 Live Nation 與 Ticketmaster 合併壟斷市場是否適當，是否與現場演出票價市場有所關聯，但 Live Nation 表示，每場表演訂價爲何以及座位策略，都是藝人以及經紀公司決定，有時場館會酌收服務費，但平台也是出於代收的角度和票價一起計算。在 2024 年，現場演出高昂票價的趨勢持續，以消費者角度而言，付出的費用絕對不只是票價的 100 多美金而已。一名美國波士頓的學生記者說明，她平日生活費有限，連餐廳外食或是洗衣次數都要仔細衡量，面對自己喜歡的歌手 Olivia Rodrigo 開演唱會，在 100 多美金的官方票價開賣即售罄的狀況下，只好考慮二手票券。但二手票網站的票價自 1 萬美金起跳至 2 萬美金，最高的甚至到達 27,241 美金，這筆費用相當於她一學期的學費，面對哄抬的票價只好放棄。然而，依據調查顯示，約有三分之一的年輕美國人（Gen Z、千禧世代），表達如果有喜歡的藝人表演，會不計一切(whatever it takes)也要達成心願。...(omitted)...Statista 統計，在美國看一場泰勒絲演唱會，從門票加計旅館、餐飲、酒水、交通，每人的平均花費是 1,300 美金；泰勒絲在丹佛的兩場演出，估計替丹佛以及整個科羅拉多州帶來一億四千萬美元的經濟效益。不過以每個人的消費來看，到底爲了一場表演會花多少錢？美國銀行(Bank of America)根據自家的信用卡刷卡資料，分析了現場演出的花費情形，這份報告分析的活動包含了體育活動(超級盃、芝加哥馬拉松)，還有兩場現場展演：2023 年泰勒斯絲在匹茲堡的演唱會，以及德州著名的展會 SXSW。以泰勒絲在匹茲堡舉辦演唱會週末場來看(2023/6/16-6/17)，在這兩天的匹茲堡零售業刷卡花費較去年同期成長了 3%，加油費以及服飾在同期成長了將近 5%。收入成長最多的行業是餐廳以及酒吧，與 2022 年同期相比將近成長了 13%；至於這兩天每組客人於餐廳的平均花費是 77 美金，於酒吧的花費是 56 美金。在 SXSW 部分，大部分前往這個德州展會的多是來自鄰近區域的美國人，像是同位於德州的休士頓、達拉斯，各占了將近 17%、16%。在花費上，每組客人在零售上花費了 168 美金，這數字相較於泰勒絲演唱會超出了兩倍，可見兩者參與的客層，在參與動機以及經濟狀況上相當不同。(omitted)

Translation: Since the world reopened from the pandemic in 2023, concerts and live experience economies have surged, sparking a global craze. In the U.S., concert ticket prices have risen far beyond expectations, giving rise to the term “funflation,” referring to inflation driven by entertainment...(omitted)...Live Nation, however, stated that pricing and seating strategies are decided by the artists and their management teams, and while venues may charge service fees, the platform only collects these fees on their behalf and incorporates them into ticket prices. In 2024, the trend of soaring ticket prices for live performances continues. From the consumer’s perspective, the cost of attending a concert extends far beyond the \$100 ticket price. A student journalist from Boston explained that, with a limited budget for daily expenses like dining out or doing laundry, she had to consider buying resale tickets after the official \$100+ Olivia Rodrigo concert tickets sold out. However, resale ticket prices ranged from \$10,000 to \$20,000, with the highest

going up to \$27,241—equivalent to her semester’s tuition. Faced with such exorbitant prices, she had to give up. Yet, research shows that about one-third of young Americans (Gen Z and Millennials) would do "whatever it takes" to see their favorite artists perform live...(omitted)...Statista reports that attending a Taylor Swift concert in the U.S., including tickets, hotel, dining, drinks, and transportation, costs an average of \$1,300 per person. Taylor Swift's two performances in Denver were estimated to generate \$140 million in economic benefits for Denver and Colorado. But how much do individuals spend on a concert? Bank of America analyzed its credit card data for live event spending, covering sports events (e.g., the Super Bowl and Chicago Marathon) and two live shows: Taylor Swift's 2023 concert in Pittsburgh and Texas' famous SXSW event. For Taylor Swift’s Pittsburgh weekend concerts (June 16-17, 2023), retail spending in Pittsburgh grew by 3% compared to the same period last year, while spending on fuel and apparel grew by nearly 5%. The sector with the highest revenue growth was restaurants and bars, which saw a nearly 13% increase compared to the same period in 2022. The average restaurant bill per group was \$77, and bar spending was \$56. At SXSW, most attendees were Americans from nearby regions, such as Houston and Dallas, representing nearly 17% and 16% of attendees, respectively. In terms of spending, each group spent \$168 on retail, nearly double the amount spent at Taylor Swift’s concert, highlighting the different motivations and economic circumstances of the two audiences...

Answer the following questions:

1. (6%) Draw a supply and demand diagram to analyze the changes in the concert market after the pandemic (in terms of equilibrium price and quantity).
2. (7%) Use the following information to calculate the price elasticity of ticket **supply** based on the midpoint method. Is **supply** elastic or inelastic?
 - a. According to Pitchfork, the average secondary market price for a ticket to Taylor Swift’s “The Era Tour” was around \$3800. In contrast, six years ago, the average secondary market price for a ticket to Taylor Swift's “Reputation Tour” was \$157.
 - b. Assume that in the past, 0% of customers were willing to spend large amounts of money on concert tickets. However, according to the article, about one-third of young Americans are now willing to pay high-priced tickets, such as those for Taylor Swift’s concerts.
3. (7%) Are restaurants and hotels substitutes or complements of Talor Swift’s concert in the U.S., or neither? How would the post-pandemic change in the concert market affect consumer surplus, producer surplus and total surplus in the market of restaurants and hotels?
4. (10%) Is the secondary market a response to a shortage or a surplus of concert tickets? Why does this shortage or surplus occur? What is its effect on consumer surplus, producer surplus and total surplus (compared to pricing at equilibrium price)? Is there any deadweight loss?
5. (14%) Suppose the government wants to curb the problem of excessively high resale prices for concert tickets by making it illegal to sell above face value. Draw a supply and demand diagram to analyze the effect of this law on equilibrium price and quantity, consumer surplus, producer surplus, government revenue, and total surplus.
6. (5%) Alternatively, the government could impose a tax on each transaction on the secondary market. Can the government restore efficiency by levying exactly the difference between the ticket face value and the price where quantity demanded equals quantity supplied? What are the practical challenges for imposing such a tax? Explain.

ⁱ Executive Yuan: “Fresh Milk for Every Class” Policy Continues Negotiations to Meet School Needs: <https://www.cna.com.tw/news/aip/202410170110.aspx>

ⁱⁱ “Fresh Milk for Every Class” Policy Strikes Suddenly, Goat Milk Industry Caught Off Guard with Orders Plummeting by 20% to 50%, as if Hit by Guillotine, by 上下游記者 林怡均: <https://www.newsmarket.com.tw/blog/212131/>

ⁱⁱⁱ <https://www.cna.com.tw/news/ahel/202410040088.aspx>

^{iv} Vegetable prices rise again after Typhoon Santol! Cabbage prices so high housewives shocked and hesitant to buy: <https://news.tvbs.com.tw/life/2640654>

^v “How much have you spent on concerts recently? What’s the connection between “funflation” and SXSW?” by 王紀澤 of 產業研究資料庫, Taiwan Creative Content Agency: <https://research.taicca.tw/article/ef83acf2-c013-4f33-96c5-d7335550ee20>

Appendix:

“「班班喝鮮乳」政策倉促，採購價低於行情、缺冷鏈配套成「班班保久乳」、重擊羊奶產業”(2024/9/30)^{vi}
為因應 2025 年紐西蘭牛乳叩關，同時為學童補充營養，農業部於今(2024)年 9 月開學後，每週提供 2 次鮮乳給國小學童及附設幼兒園飲用。政策雖利益良善，但因倉促上路缺乏配套，引發不少負面效應。首先，中央開出的鮮乳採購價遠低於行情，明明是拉抬產業的政策，反成壓制乳價。另外，因配送量能未溝通，高達 75% 學校捨棄「鮮乳」選擇「保久乳」，學童不但無法品嚐國產鮮乳，反而養成喝保久乳的習慣，酪農認為，「等於是在為進口保久奶鋪路」。而羊乳產業更是本次政策直接受害者。羊乳相當仰賴學校訂購，約六成客戶都是學童，「班班喝鮮乳」政策不但排除羊奶，許多校園訂戶更因此取消羊乳訂購，訂單下滑兩成到五成不等，讓羊奶產業面臨「斷頭式打擊」。...(omitted)

"Fresh Milk in Every Class" Policy Rushed (New & Market)

The goat milk industry is one of the direct victims of this policy. Goat milk heavily relies on school orders, with around 60% of customers being students. The "Fresh Milk in Every Class" policy not only excludes goat milk but also caused many schools to cancel their goat milk orders. As a result, orders have dropped by 20% to 50%, dealing a "decapitating blow" to the goat milk industry.

^{vi} By 上下游記者 林怡均: <https://www.newsmarket.com.tw/blog/212133/>