Luckin Coffee (LKNCY US) Full Investment Memo (FIM)

Date: Aug 14, 2022 Share Price: US\$14.52 Market Cap: US\$4,609m

30/60/90 Days ADV (US\$): US\$31.5m/US\$27.1m/US\$23.7m

**Recommendation: Long** 

Target Price: US\$46.25 / Target Market Cap: US\$14.7bn

IRR (Aug 2022 - Dec 2023): 131%

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#### **Executive Summary**

#### Luckin Coffee's turnaround is a miracle in China's business history

After its self-reported fabrication of transactions in Apr 2020, Luckin went through a series of significant corporate events including delisting from Nasdaq, parting with and fighting off come-back attempts of former management, corporate governance restructuring, going through and emerging from provisional liquidation, settling investigations from SEC and other regulatory bodies, settling class action lawsuits, etc. At the same time, the new management managed to restructure and turnaround the business fundamentals of the company, turning it from cash-burning to profit-generating in less than two years. The fact that Luckin can turn around its business in such a short time under the most difficult circumstances is nearly a business miracle. We think the turnaround is a mixture of great efforts and luck, summarized by an old saying in China "favorable timing, geographical and human conditions" (天时地利人和):

- Right timing (天时): Covid-19 actually benefited Luckin's grab-and-go store model to take share from dominant players such as Starbucks who's using a "third place" model, which was more heavily impacted by the pandemic
- Understanding of local market (地利): based on deep understanding of China's coffee industry, Luckin invented beveraged coffee and introduced it to the coffee industry, which enlarged the TAM significantly and made lower tier cities accessible to the coffee chains. Luckin is using franchise model to penetrate lower tier cities efficiently and built a significant first-mover advantage there
- Right people (△♣□): Centurium Capital became the controlling shareholder of the company, helping the new management team restructure the company thoroughly. The new management team chose a different direction from the former management. Instead of pursuing aggressive store expansion and "new retail" model, it became laser focused on building sound offline business fundamentals, optimizing store network, investing in R&D and conducting effective marketing campaigns leveraging data and technology

#### The biggest contributor and winner of Luckin's turnaround

Centurium Capital turned out to be the biggest winner of Luckin's business turnaround. Below is a summary of Centurium's history of investing in and selling shares of the company:

- o Invested US\$178m in two rounds of private financing of Luckin in 2018 to get 23.6m Class B ADS at the purchasing price of US\$5.87 and US\$11.75, respectively
- Sold 5.5m ADS at US\$42.00 per ADS in Jan 2020 concurrently with Luckin's follow-on offering. Centurium realized US\$54m net profit after deducting all of its initial investment before
- Supported the new management team to replace and part with the former management and the restructuring
  of the company after self-reported fabrication of transactions. Signed investment agreement to invest
  US\$240m in the company in Apr 2021 and closed the transaction in Dec 2021, purchase price US\$6.50 per
  ADS
- Led a buyer consortium to purchase secondary shares from the former management due to the liquidation of their controlled entities with purchasing price of US\$8.76 per ADS. Became the controlling shareholder of the company and placed three representatives on the board in May 2022
- The average cost of Centurium Capital's holding of 83.5m ADS in the company is US\$5.21

Centurium's unrealized profit was US\$777m at the closing price of US\$14.52/ADS on Aug 12, 2022. If applying our target price of US\$46.25 with a target market cap of US\$14.7bn, Centurium would have an unrealized profit of US\$3.4bn, a generous payoff to the great effort as well as the risk taken by the fund and its supportive LPs.

Actio	Action Closing date Event				No. of ADS (	m)	Price	Amount	Accumulated (investment) profit	Accumulated Avg. cost
			Class A	Class B	Class A+B	Balance: Class A+B	USD/ADS	US\$m	US\$m	USD/ADS
Buy	Jun-2018	Series A		17.0	17.0	17.0	5.87	(100)	(100)	5.87
Buy	Nov-2018	Series B		6.6	6.6	23.6	11.75	(78)	(178)	7.52
Sell	Jan-2020	Sell secondary		(5.5)	(5.5)	18.1	42.00	232	54	(3.00)
Buy	Dec-2021	Preferred senior shares	36.9		36.9	55.0	6.50	(240)	(186)	3.38
Buy	Jan-2022	Buy secondary	28.5		28.5	83.5	8.76	(250)	(436)	5.21
Bala	nce		65.4	18.1	83.5			(436)		5.21

Source: Filings

Core thesis comparison with 2020 short report

•	2020 Short Report	2022 Full Investment Memo (FIM)					
TAM of coffee	Business Model Flaw #1: Luckin's	Thesis #1: Beveraged coffee enlarged the					
industry	proposition to target core functional coffee	TAM (total addressable market) of China					
	demand is wrong. The market of core	coffee industry significantly.					
	functional coffee product in China is small						
	and moderately growing.						
Luckin's coffee	Business Model Flaw #2: Luckin's	Thesis #3: Evolution of self-operated store					
business model	customers are highly price sensitive and	UE of raising sales volume and effective					
	retention is driven by generous price	selling price at the same time, supported by					
	promotion; Luckin's attempt to decrease	attractive beveraged coffee products rather					
	discount level (i.e., raise effective price)	than discount.					
	and increase same store sales at the same	1 /					
	time is mission impossible.	Thesis #5: The high Same-store Sales					
		Growth (SSSG) from 2021 to 1H22 is					
	Business Model Flaw #3: Flawed unit	expected to be normalized in the future and					
	economics that has no chance to see profit:	will be mainly driven by increase in					
	Luckin's broken business model is bound	purchase frequency in the mid-to-long					
	to collapse.	term.					
		Thesis #6: Operating leverage of					
		headquarter-level expenses will lead to					
		constant company-level margin					
		improvement.					
Luckin's non-	Business Model Flaw #4: Luckin's dream	Neutral #1: Non-core businesses such as					
coffee business	"to be part of everyone's everyday life,	tea drinks, light meals and snacks are					
	starting with coffee" is unlikely to come	unlikely to contribute significant revenue					
	true, as it lacks core competence in non-	or profit in the near term and are not					
	coffee products as well.	management's current focus.					

#### Thesis and risks unique in this report

- Thesis #1 & #4: Growth potential and profit contribution from franchise stores in lower tier cities
  - The introduction of beveraged coffee creates great potential for Luckin's store expansion in lower tier cities
  - The franchise model offers a decent return to both franchisees and Luckin itself in lower tier cities;
     Luckin has the potential to further increase its profit-sharing ratio with franchisees as the current return profile for franchisees is above industry-average
- Thesis #2: The beveraged coffee category has more similar attributes to coffee and western QSR (Quick Service Restaurant), where leading brands take advantage of stable and loyal customer behaviors to build long-term moats, but it is less similar to the freshly made tea drink category. Luckin's potential route to success in this category lies in attracting and retaining new customers of beveraged coffee using its competitive strengths and converting them into loyal coffee drinkers
- Thesis # 7: A well-balanced industry leader supported by economies of scale, product R&D capability, brand power, supply chain, digitalization and operating efficiency, as well as a significant first-mover advantage in lower tier cities
- Risk #1: Intensifying competition in the segment of beveraged coffee
  - Among all types of competitors, we recognize the independent coffee brands launched by franchise tea shops as Luckin's major threat in the next 3-5 years, as they also offer affordable beveraged coffee and will compete with Luckin directly in lower tier cities. They have experiences from and synergies with existing tea drink business. More importantly, they are able to scale up quickly in all city tiers by franchise model
  - We don't see other types of coffee brands have the potential to challenge Luckin's leading position in the short-to-medium term. They either don't realize the trend of beveraged coffee or cannot build a sizable store network to challenge Luckin's leading position in lower tier cities
- Risk #2: Negative impact from the impact of Covid-19

#### Benchmark of transacting stock prices in key events

• Offering to Centurium Capital and Joy Capital in 2021: Price US\$6.50/ADS, Centurium Capital invested US\$240m in the company (36.9m ADS) and Joy Capital invested US\$10m (1.5m ADS). The investment

- agreement was signed in Apr 2021, and the transactions were closed in Dec 2021 for Centurium Capital and Jan 2022 for Joy Capital.
- Secondary share purchase by a Centurium Capital led buyer consortium that also includes IDG Capital and Ares SSG Capital Management: Price US\$8.76/ADS. The buyer consortium purchased 47.9m ADS with US\$420m in total. The deal was initially proposed in Jun 2021 and the price was finalized in Aug 2021, then the deal was closed in Jan 2022.
- ADS issued as part of restructuring of the 2025 convertible senior notes: equivalent to price US\$10.98/ADS. In exchange for the US\$460m 2025 convertible senior notes, the company issued a consideration of US\$245.5m of cash, US\$109.9m of 9.00% series B senior secured notes due 2027 (not convertible) and 9.53m ADSs (ADSs equivalent to US\$104.6m). The Scheme of Arrangements was launched in Sep 2021 and became effective in Jan 2022.

#### Valuation and IRR

Based on closing price of US\$14.52 on Aug 12, 2022, Luckin's market cap is US\$4,609m, with 10% of market cap in net cash. The stock is trading at 25x, 15x and 11x P/E in 2022E to 2024E, and 0.4x and 0.4x PEG in 2023E to 2024E.

Applying 35x 2024 P/E for 2023 year-end valuation (implied 20x P/E in 2027-2028E when its net profit growth is stable), target market cap will reach US\$14.7bn, 218% upside from current market cap, and IRR of holding 1.5 years is 131%. Target price is US\$46.25 per ADS. A sensitivity analysis based on 2024 P/E is as follows.

2024 P/E	20x	25x	30x	35x	40x	45x	50x
Target market cap (US\$ m)	8,388	10,485	12,582	14,679	16,776	18,873	20,969
Target stock price (US\$)	26.43	33.03	39.64	46.25	52.85	59.46	66.07
IRR of holding to year end 2023	54%	81%	107%	131%	155%	178%	200%

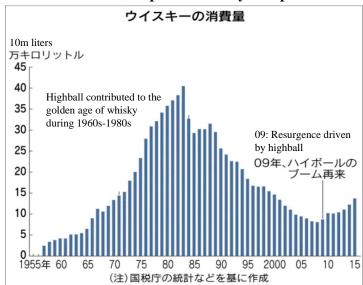
Based on the IRR calculation and high conviction level, coupled with the high likelihood of up-listing to US main board in 2H22 or 1H23, we recommend a long position. The main technical risks are the uncertainty in timing of the up-listing and the general ADR delisting risk, as well as the selling pressure from the controlling shareholder's 27.5% holding.

#### Case Study: The introduction of highball stimulated the consumption of whisky in Japan

Highball is a mixture of whisky and carbonated water. The Japanese have been making whisky since the 1920s. Before the introduction of highball, Whisky was mainly consumed in the form of whisky neat (纯饮) or whisky on the rocks (加冰) as a luxury drink in pubs. The first wave of Japanese highball came in the 1950s, transforming whiskey into an alcoholic beverage. Highball not only increased the adoption of whisky by a broader customer base, but also expanded its consumption scenario from pubs to izakaya (居酒屋) and restaurants. It is not suitable to drink whisky straight while having a meal, but the addition of the soda water tempers its strength and makes it enjoyable to have with food. Highball became an important growth driver of whisky's golden age in Japan from 1950s to 1980s. The total annual consumption of whisky increased from less than 50m liters in 1955 to the peak at ~400m liters in 1983 before the economic recession.

The resurgence of whisky was also driven by highball. Since 2008, Suntory (a major Japanese whisky distiller) spearheaded a dedicated highball campaign which helped start new "highball boom" in Japan with a desire to recruit a new generation of whisky drinkers. It convinced more izakaya to add highballs to their menus and the number of izakaya with highball on menu grew enormously from 15k in 2008 to 40k in 2009 according to Suntory. Suntory also devised equipment to dispense premixed highballs on tap and launched canned versions of highball in convenience stores. Today's young people appreciate this lower-alcohol option for whisky that allows them to enjoy the flavors of whisky without sipping it straight and continue to drink it with their meals. The total annual consumption of whisky in Japan recovered from ~100m liters in 2008 to ~150m liters in 2015.

Total consumption of whisky in Japan



Source: National Tax Agency of Japan

#### **Section 1: Company Background**

#### **Corporate History before the Self-Reported Fabrication of Transactions**

Luckin Coffee was founded by LU Zhengyao and QIAN Zhiya in 2017. LU Zhengyao was the founder of CAR Inc (formerly 699 HK) and UCAR Inc (formerly 838006 CH), and QIAN Zhiya worked for him in those companies. Luckin Coffee opened its first trial store in Beijing in Oct 2017, and quickly expanded to a chain of 2,073 self-operated stores by the end of 2018 after several rounds of private fund-raising.

No. of stores	2017	2018	2019	2020	2021
Total	9	2,073	4,789	4,803	6,024
Self-owned	9	2,073	4,507	3,929	4,397
Franchised			282	874	1,627

Source: Filings

In Apr 2019, the company secured B-1 round of fund-raising just before its IPO. On May 17, 2019, it went IPO on Nasdaq with a con-current offering to Louis Dreyfus Company, a strategic investor. The IPO price was US\$17.00, which valued the company at a market cap of US\$4.1bn. Within less than two years of commencing operation, the IPO of Luckin Coffee was known as one of the fastest among Chinese companies.

After IPO, the company continued its aggressive store expansion and delivered its store opening target of 4,500 self-operated stores by the end of 2019. At that time, the former management also targeted to reach 10,000 self-operated stores by the end of 2021. It also launched its franchise store model with a new "Luckin Tea" brand in Sep 2019 and opened its first franchise store in Oct 2019.

On Jan 7, 2020, the company announced proposed follow-on equity offering of 7.2m ADS and offering of US\$400m convertible senior notes. It also announced its unmanned retail strategy, planning to put "Luckin Coffee Express" unmanned coffee machines and "Luckin Pop Mini" vending machines on the market. There was overwhelming demand for the follow-on offering and convertible senior notes, and the company upsized the ADS offering from 7.2m to 9.0m, and both the ADS offering and the convertible senior notes offering had full-exercise of green-shoe options. On Jan 17, 2020, the company closed both offerings. The offering price for the ADS was US\$42.00, and the conversion price for the senior notes was US\$54.60 per ADS. Centurium Capital sold secondary shares of 5.52m ADS (incl. 0.72m green shoe) concurrently with the offering.

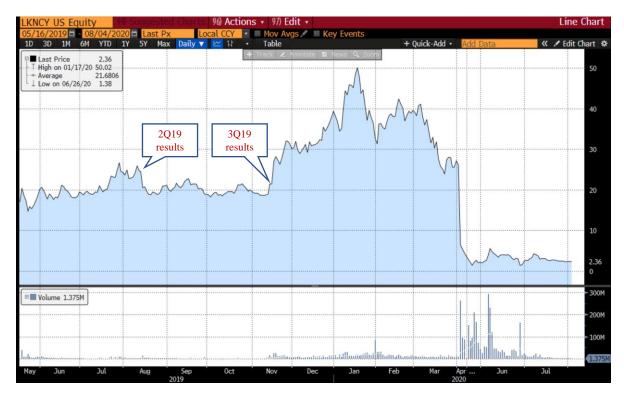
On Apr 2, 2020, the company announced the formation of the special committee of the board to oversee the internal investigation into potential fraudulent wrongdoings of certain executives, which inflated the revenue from 2Q19 to 4Q19 by RMB 2.2bn. Certain costs and expenses during the period were substantially inflated too. On Jul 1, 2020, the company announced the results of the investigation by the special committee.

#### Comparison between the Restatements of Financials and 2020 Short Report Estimated Real case

Based on the announcements of the investigation results on Jul 1, 2020, the company inflated the revenue from 2Q19 to 4Q19 by RMB 2.12bn or 83% of the real case, and the costs and expenses by RMB 1.34bn or 26%. As a result, the pre-tax loss was understated by RMB 780m or 30%. Below is the quarterly breakdown of the misstatement, and the scale of the fraud enlarged quarter by quarter from 2Q19 to 4Q19: revenue was inflated by 38%, 83% and 111% in 2Q19, 3Q19 and 4Q19, respectively.

rmb m	191Q	192Q	193Q	194Q	2Q19-4Q19
Fraud case:					
Revenue	478	903	1,543	2,220	4,666
Y/Y growth		643%	541%	377%	464%
Costs and expenses	1,030	1,561	2,086	2,847	6,494
Pre-tax profit (loss)	(552)	(657)	(543)	(627)	(1,827)
Real case (Company restated)					
Revenue	478	653	843	1,050	2,546
Y/Y growth		438%	250%	126%	208%
Costs and expenses	1,030	1,411	1,566	2,177	5,154
Pre-tax profit (loss)	(552)	(757)	(723)	(1,127)	(2,607)
Overstated:					
Revenue		250	700	1,170	2,120
Costs and expenses		150	520	670	1,340
Pre-tax profit (loss)		100	180	500	780
Overstatement as % of real case					
Revenue		38%	83%	111%	83%
Costs and expenses		11%	33%	31%	26%
Pre-tax loss		-13%	-25%	-44%	-30%
Source: Filings					

The company's IPO was in May 2019, and its financial results from 2017 to 1Q19 were audited by E&Y in the IPO process. The investigation results showed that the company began its fraudulent wrongdoings right before IPO in Apr 2019. The stock price reacted positively to its 3Q19 quarterly results and 4Q19 guidance, in proportion to the scale of its fraud.



We further compared the implied operating metrics and certain expense items of company filings with the real case in the 2020 short report. The restatements are far below the fraud case, but quite close to the real case in 2020 short report. Thus, we think the company's restatements of financials truly reflected the company's historical financial performance.

4Q19 Comparison	Fraud case	Real case (Company restated)	MW report real case
No. of items per store per day	495	265	263
Actual price per item (incl. free items, rmb)	11.8	9.8	10.0
Other products items as % of total	22%	10%	6%
2019 Comparison	Fraud case	Real case (Focus Media clarification)	MW report real case
Advertising expense on Focus Media (rmb m)	675	221	236

Source: Luckin and Focus Media filings, 2020 short report

The SEC complaint, consent and draft final judgement file in Dec 2020 described how the company fabricated the revenue and cost records:

- Executive officers and senior mgmt. created a fake operations database that included both legitimate orders and fabricated orders and altered bank records to hide their misconduct from Luckin's Finance Department.
- Inflated revenue by RMB 2.12bn by fabricating in retail sales transactions through 3 separate fraudulent schemes, of which the 3<sup>rd</sup> scheme accounted for nearly 90% of the inflated revenue:
  - 1st scheme: Luckin fabricated coupon sales to purported individual customers beginning in Apr 2019, and then created fake customer orders to redeem the coupons, fabricating sales of several millions of USD
  - o 2<sup>nd</sup> scheme: Luckin fabricated coupon sales to 4 purported corporate customers beginning in May 2019, and then created fake retail customer orders to redeem the coupons, fabricating sales of tens of millions of USD, nearly triple the amount in the 1<sup>st</sup> scheme
  - o 3<sup>rd</sup> scheme: Luckin fabricated coupon sales to 3<sup>rd</sup> party shell companies purported intermediary agents that would resell coupons to individual customers (the "Fictitious Agents") beginning in May 2019, and then created fake retail customer orders to redeem the coupons, fabricating sales of hundreds of millions of USD, nearly 90% of the fabricated revenue. 7 funding companies transferred money to Luckin and Luckin altered bank statements so that the funds appeared to originate from the Fictitious Agents
- Luckin also inflated its costs and expenses by RMB1.34bn in part to mask the fabricated sales and in part to return money used in the sham sales. It returned funds to the funding companies both directly through bank transfers and indirectly through fabricated expenses payments to vendors
  - Luckin made payments to 13 purported suppliers of raw materials that did not provide any materials to Luckin
  - Luckin overpaid 2 providers of human resources (outsourcing) services
  - O Luckin paid delivery fees to 3 companies that did not provide any service to Luckin
  - o In March and April 2020, Luckin continued returning money to the funding companies

Note that the advertising spending on Focus Media or other advertising vendors is not mentioned in fabricating costs and expenses. Luckin could have inflated other items within the sales and marketing expenses, not advertising expenses. As they don't disclose quarterly sales and marketing expense breakdown, the former management used Focus Media as an explanation for the increase in sales and marketing expenses in their verbal communication with investors and analysts.

#### How the Company Emerged from the Liquidation and Other Legal Proceedings

#### Investigation into the fabrication of transactions

The board of Luckin Coffee formed a special committee to oversee the internal investigation into the fraud on Mar 19, 2020. In May, the board terminated QIAN Zhiya and LIU Jian's positions as CEO and COO and demanded and received their resignation from the board. Six other employees were suspended as well. The board then appointed GUO Jinyi (Director and SVP at that time) as Acting CEO. In Jun, the board resolved to require LU Zhengyao to resign as a Director and the Chairman based on documentary and other evidence identified in the special committee's ongoing internal investigation and its assessment of LU Zhengyao's degree of cooperation in the internal investigation.

On Jul 1, 2020, it's announced that the internal investigation was substantially completed. Aside from termination of CEO and COO in May and recommended removal of Chairman in Jun, the board would also terminate 12 other employees; and another 15 employees were subject to other disciplinary actions. The company was in the process of terminating relationships with all third parties involved in the fabricated transactions.

#### Change of the Board and Power Struggle

At the time of Luckin's IPO in May 2019, the board was comprised of 6 directors and 2 independent directors:

- Founder and management: Chairman LU Zhengyao, CEO QIAN Zhiya, COO LIU Jian, SVP GUO Jinyi
- Pre-IPO investors: LI Hui (Centurium Capital), LIU Erhai (Joy Capital)
- Independent directors: Sean Shao, Thomas P. Meier

On Mar 27, 2020, right before the self-reported fabrication of transactions, Luckin added two independent directors on the board: Tianruo Pu and Mr. Wai Yuen Chong. The special committee was then comprised of three independent directors, Sean Shao, Tianruo Pu and Wai Yuen Chong, with Mr. Shao serving as its chairman. In Apr, the other independent director, Thomas P. Meier resigned. In Jun, independent director and special committee member Tianruo Pu resigned.

In May, the board terminated QIAN Zhiya and LIU Jian's positions as CEO and COO and demanded and received their resignation from the board. The board then appointed GUO Jinyi (Director and SVP at that time) as Acting CEO. Also appointed SVP CAO Wenbo and SVP WU Gang to the board.

On Jun 26, LU Zhengyao asked for an Extraordinary General Meeting (EGM) of shareholders to remove Sean Shao from the board. (Sean Shao was then the Chairman of the special committee). The board resolved to recommend shareholders to vote <u>against</u> the motion. On the same day, the board resolved to require LU Zhengyao to resign as a director and Chairman of the board.

- EGM was held on Jul 5 (Proposed by LU Zhengyao): Appointed Ms. Jie Yang and Ms. Ying Zeng as independent directors to the board, and Hui Li, Erhai Liu, Zhengyao Lu and Sean Shao ceased to be directors to the Board
- A board meeting was held on Jul 12: Appointed Yang Cha and Feng Liu as independent directors to the board.
   GUO Jinyi was appointed as Chairman and CEO

On Aug 3, Ms. Jie Yang and Ms. Ying Zeng (seemingly recommended by LU Zhengyao) resigned from the board. On the same day, Centurium Capital requested to hold an EGM to re-appoint Sean Shao to the board. The board resolved to recommend shareholders vote for the motion.

• On Sep 2, held the EGM and re-appointed Sean Shao to the board

On Jan 4, 2021, the board received a letter from certain Luckin employees containing allegations against GUO Jinyi. It later turned out to be a revenge attack by LU Zhengyao for GUO Jinyi's "betrayal" (LU selected GUO Jinyi as Acting CEO when QIAN Zhiya was dismissed and planned to manipulate GUO to control Luckin after his own departure. But GUO decided to side with the board and worked against him). In Feb 2021, the company announced that its internal investigation found no evidence supporting the allegation made on GUO Jinyi in the letter, and that certain members of the company's former management participated in the planning of the letter.

In Oct 2021, Luckin's board adopted a Shareholder Rights Plan, if triggered, will significantly dilute the ownership of any Acquiring Person (essentially anyone relating to former management LU Zhengyao and QIAN Zhiya as defined in the Rights Plan). In Nov 2021, the board proposed to hold an EGM on Dec 11, 2021, to approve amendments to the Company's Fifth Amended and Restated Memorandum and Articles of Association, so that no shareholder may directly or indirectly transfer shares of the Company to any Restricted Person (former management LU Zhengyao and QIAN Zhiya and their related person). The amendments were approved by the EGM.

#### Delisting from Nasdaq

On May 19, 2020, the company received delisting notice from Nasdaq on public interest concerns as raised by the fabricated transactions disclosed by the Company. On Jun 23, 2020, it received another delisting notice from Nasdaq for failure to file annual report. On Jun 26, the company decided to withdraw request for hearing on the delisting, and the trading of company's shares was suspended at the open of Jun 29, 2020, and the stock was delisted from Nasdaq and has been trading on pink sheet since then.

#### Regulatory bodies' penalties

- China SAMR: On Sep 23, 2020, the Chinese State Administration for Market Regulation (SAMR) decided to impose a RMB 61m fine on the company and certain 3<sup>rd</sup> parties for violating the PRC Anti-Unfair Competition Laws
- US SEC: On Dec 16, 2020, the company reached a settlement with SEC regarding the SEC investigation of fabricated transactions. The company, without admitting or denying the allegations of the SEC, will be imposed a US\$180m penalty, which shall be offset by any cash payments made by the Company to its security holders pursuant to any schemes of arrangement approved by the Cayman court in the proceeding for the Company's provisional liquidation
  - As the cash payment paid to the bond holders in Jan 2022 exceeded US\$180 million, the SEC filed with the SDNY Court a notice acknowledging that the Company has satisfied the civil penalties arising from the SEC settlement On Feb 3, 2022
- (Pending) US DOJ: no fines have been imposed by the DOJ. However, its investigation is ongoing and Luckin continues to cooperate with the DOJ to the extent permissible under the applicable PRC laws
- (Pending) Ministry of Finance of the PRC: the investigation has been substantially completed by 31 Jul 2020, but no fines have been imposed until now

#### Provisional Liquidation and Restructuring of the convertible senior notes

On Jul 15, 2020: the Cayman court put the company into provision liquidation status in response to a winding up petition filed by a creditor of the company (a convertible senior notes holder). Two Joint Provisional Liquidators (JPLs) were appointed by the court. The JPLs published 4 progress update reports in Dec 2020, Jan 2021, Sep 2021 and Feb 2022, and the company successfully emerged from the provisional liquidation status in Mar 2022 after successfully restructuring the convertible senior notes in Jan 2022.

In Mar 2021, the company entered into Restructuring Support Agreement (RSA) with 59% of 2025 convertible notes amount holders, who would recover 91-96% of par value to their notes under the RSA. In Jun, the company obtained SAFE approval to transfer cash offshore to satisfy the payment needs, an essential prerequisite of achieving the restructuring. In Sep, the company launched Scheme of Arrangement in Compliance with RSA, which was approved by the creditors and sanctioned by the Cayman court in Dec. on Jan 31, 2022, the restructuring date of the 2025 Notes occurred. In exchange of the convertible senior notes due 2025, the Company has issued Scheme Consideration totaling US\$245.5 million of cash, US\$109.9 million of 9.00% series B senior secured notes due 2027 (not convertible) and 9,527,601 ADSs, which includes 291,699 ADSs issued on April 4, 2022, pursuant to the top-up mechanism under the Scheme (overall issue price: ~US\$ 10.98 per ADS). On Mar 7, 2022, the Cayman court closed the provisional liquidation case.

Separately in Feb 2021, the JPLs filed Luckin's Chapter 15 bankruptcy in New York to facilitate the restructuring and manage the provisional liquidation process from one place. After the Cayman Court closed the provisional liquidation case in Mar 2022, the US court closed the Chapter 15 case, and the company emerged from all bankruptcy proceedings.

#### US Class Action settlement

On Sep 20, 2021, the company entered binding term sheet with the leading plaintiffs to settle US class action to fully resolve all claims that have been or could be filed on behalf of the provisionally certified class of purchasers Company's ADS between May 17, 2019, through Jul 15, 2020, inclusive. In Oct 2020, the agreement of settlement was reached on cash payment of US\$175m. The US Court approved the settlement on Jul 22, 2022. The company further made a provision of RMB 276.8m in 2Q22 and stated that it has made substantial progress in resolving opt-out securities lawsuits of the class action settlement.

#### Other losses caused by former management

In Mar 2020, Luckin invested RMB590m in Xiamen Trust and RMB550m in Yunnan Trust under the direction of former management, and the funds were channeled to Borgward Auto and UCAR Inc, respectively, which were companies controlled by LU Zhengyao.

After current management identified the trust investments, Luckin has exercised its rights to request for early termination of these trust and to redeem the funds on an accelerated basis, but the trusts claimed that they were not able to pay back the money. Luckin has filed a lawsuit against related parties, and the company decided to apply full impairment of RMB1,140m in 2020 after considering all available information and having used best efforts to take legal actions.

Change of auditors and Filings of 2019 and 2020 20-F

The company changed its auditor twice in order to file its 2019 20-F:

- Sep 2020 Appointment of Marcum Bernstein & Pinchuk, replacing E&Y
- Apr 2021: Appointment of Centurion ZD CPA & Co., replacing MarcumBP. MarcumBP believes that it has not gathered sufficient independent third-party data or conducted sufficient audit procedures to complete the audit in light of certain areas identified in the Company's <u>information technology general controls</u> during the year ended December 31, 2019.

On Jun 30, 2021, the company restated 2Q-3Q19 results and announced 4Q19 results, and filed 2019 20-F. Then on Sep 21, 2021, it filed 2020 20-F. It then released 1H21 results in Oct 2021 and 3Q21 results in Dec 2021, going back to normal reporting schedule. It's been filing quarterly and annual financial reports on schedule since then.

#### Centurium Capital became the controlling shareholder

In Apr 2021, the company signed an investment agreement with Centurium Capital and Joy Capital, which would each subscribe to US\$240m and US\$10m senior preferred new shares of the company, with an upsize option of US\$150m if SAFE wouldn't approve the company to transfer cash offshore to satisfy the debt restructuring needs. The subscription price was US\$6.50/ADS, about 30% discount to its trading price prior to the agreement. The investments were closed in Dec 2021 and Jan 2022, respectively for Centurium Capital and Joy Capital, and the upsize right was void as SAFE approved the cash transfer.

In Jan 2022, a Centurium Capital led buyer consortium that also includes IDG Capital and Ares SSG Capital Management closed a secondary purchase of shares from entities controlled by former management LU Zhengyao and QIAN Zhiya. The Sellers were ordered to be wound up and in liquidation pursuant to order of the Cayman Court and BVI Court because the former management pledged 49% of their holding in the company before the self-reported fabrication of transactions and couldn't repay the money after the stock price dipped in Apr 2020. The buyer consortium purchased 47.9m ADS in this transaction at US\$8.76/ADS.

After the above transactions, the former management LU Zhengyao and QIAN Zhiya ceased to have any interest in Luckin and Centurium Capital became the controlling shareholder of the company, holding at least 27.5% of the company's TSO and over 50% of voting rights.

#### Preparing for re-listing on the main board

- On Apr 14, 2022.4.14, the company appointed BDO China as auditor for 2022 annual report, replacing CZD.
- On May 9, 2022, the company officially denied pursuing HK listing at the moment, saying that it "remain committed to the US capital markets and strive to enhance long-term value for our shareholders. The Company will continue to monitor capital markets developments and evaluate all avenues to deliver value to its stakeholders but is not currently pursuing a Hong Kong listing."
- On May 20, 2022: independent director Wai Yuen Chong and director and SVP WU Gang resigned from the board, and the board appointed four new directors to the Board, effective immediately: Weihao (Michael) Chen, Jun Liu and Shaoqiang (Gary) Liu, and Qianli Liu. The first three of the new directors are representatives from Centurium Capital, and Qianli Liu is an independent director.
- The new CFO AN Jing was appointed in Aug 2022 and the new IR Director Alicia Guo was onboard in Jul 2022.

#### How the Company Restructured Internally to Transform into Fundamentally Healthy Company

The company went through intensive internal restructuring at the same time when resolving external matters.

- Corporate Governance: reorganized finance department and added internal accounting controls. Strengthened internal control measures on investment activities, budgeting process and IT process. The company ceased to be an emerging growth company in 2021 as defined in the JOBS Act and is now subject to the Sarbanes-Oxley Act. The company passed both the management and the auditor's review of effectiveness of internal control for the 2021 annual report.
- Strengthening of procurement process: Based on our interview with Luckin's suppliers, Luckin has improved its system of managing procurement and suppliers. Multiple suppliers are required for each type of materials procured, and a bidding process is required for most procurements. Luckin has adopted a cost-plus pricing model with its suppliers and strengthened both the quality and cost control of its suppliers. There was substantially less internal corruption in the procurement process compared to 2018-2019 and the purchase price of major raw materials was reduced to reasonable levels.
- Business model restructuring as we'll explain in detail in corresponding sections
  - Pricing: the first step taken by the new management was to raise effective price by discontinuing the free coffee promotion, using less discount, raising list price twice and introducing a higher price tier for certain stores

- Optimizing store network: closing-down of underperforming stores and tightening of store opening criteria
- Investing in new products R&D and marketing: launched 113 new freshly brewed products in 2021; two of them became best-selling products and led to the strategy of developing more beveraged coffee to enlarge the addressable market
- o Repositioning the Luckin brand: Signed Eileen Gu as brand ambassador in Sep 2021 and launched a campaign of promoting the new slogan "Livin' Young, Luckin On" (年轻, 就要瑞幸) to attract young people
- Reached store level profitability: higher revenue and more stringent cost control leads to store-level profit turning positive in 4Q20
- o Improved franchising strategy: discontinued the separate brand "Luckin Tea" and used main brand "Luckin Coffee" for franchising to penetrate into lower tier cities
- Focusing on core business: defined freshly brewed drinks as core business in late 2020 and discontinued non-core businesses such as JV on juice and snacks production, "Luckin Pop Mini" vending machines and new retail business (E commerce of non-coffee products)

#### **Company Financials**

2021: The company saw GPM expansion and store operating expenses going down as % of revenue, leading to store-level profit in 2021. However, after deducting HQ-level SG&A expenses, the company was still loss-making at operating profit level with a -2% operating margin. The company reported GAAP net income of RMB 686m in 2021, but that's considering the reversal of SEC settlement in 2021. Adjusting for non-recurring expenses which were mainly caused by fraudulent wrongdoings and their consequences by the former management, the recurring net loss was RMB 64m with a net margin of -1%.

rmb m	2018	2019	2020	2021	1H22	1
Total net revenues	841	3,025	4,033	7,965	5,704	-
Y/Y growth		260%	33%	97%	79%	
Revenues from product sales (Self-owned stores and coffee machines)	841	3,010	3,717	6,659	4,377	
As % of total rev	100%	99%	92%	84%	77%	
Y/Y growth		258%	23%	79%	60%	
Revenues from partnership stores	-	15	317	1,306	1,327	
As % of total rev	0%	1%	8%	16%	23%	
Y/Y growth			1964%	313%	201%	
Cost of materials	532	1,623	1,995	3,199	2,245	Both self-owned and partnership stores
GP	308	1,402	2,038	4,767	3,459	
GPM	37%	46%	51%	60%	61%	
Store rental and other operating costs	576	1,597	1,727	2,037	1,248	Self-owned stores only
As % of product sales	69%	53%	46%	31%	29%	
Depreciation and amortization expenses	107	412	483	465	193	Self-owned stores only
As % of product sales	13%	14%	13%	7%	4%	
Delivery expenses	242	439	415	820	561	Both self-owned and partnership stores
As % of total rev	29%	15%	10%	10%	10%	
Store preopening and other expenses	98	72	10	16	16	Self-owned stores only
As % of product sales	12%	2%	0%	0%	0%	
OP excl. SG&A	(714)		(597)	1,429	1,441	Both self-owned and partnership stores
As % of total rev	-85%	-37%	-15%	18%	25%	
Sales and marketing expenses	504	813	462	337	237	
As % of total rev	60%	27%	11%	4%	4%	
General and administrative expenses	380	1,072	982	1,270	665	
As % of total rev	45%	35%	24%	16%	12%	
Adjusted OP (Recurring)	(1,598)	(3,003)	(2,041)	(178)	539	
As % of total rev	-190%	-99%	-51%	-2%	9%	
Reported NP to shareholders (inc. non-recurring items)	(1,619)	(3,161)	(5,603)	686	(95)	
As % of total rev	-193%	-104%	-139%	9%	-2%	
Non-recurring expenses (income)	(13)	189	4,161	(750)	548	
As % of total rev	-2%	6%	103%	-9%	10%	
Impairment loss of long-lived assets		209	71	21	222	on self-owned stores and coffee machines
Losses and expenses related to FabricatedTransactions and Restructuring			475	340	58	Professional fee, penalty etc.
Provision/(reversal) for SEC settlement			1,177	(1,146)		SEC settlement
Provision for equity litigants			1,226	155	280	Class action settlement
Impairment of trust investments settlement			1,140	-		Impairment loss on trust investments
Foreign exchange loss (gain)	(13)	(20)	71	(120)	(12)	
Adjusted NP to shareholders (Recurring)	(1,632)	(2,971)	(1,442)	(64)	453	
NPM	-194%	-98%	-36%	-1%	8%	

Source: Filings

The self-operated stores had a store-level margin of -17% in 2020, which turned into +18% in 2021 (calculated; company disclosure was -13% in 2020 and +20% in 2021 with a more informed separation of costs and expenses of self-operated and franchise stores). The franchise business contributed 16% of total revenue, 9% of total GP and 21% of OP excl. SG&A in 2021.

rmb m	2018	2019	2020	2021	1H22
Total net revenues	841	3,025	4,033	7,965	5,704
Y/Y growth		260%	33%	97%	79%
Revenues from product sales (Self-owned stores and coffee machines)	841	3,010	3,717	6,659	4,377
As % of total rev	100%	99%	92%	84%	77%
Y/Y growth		258%	23%	79%	60%
Freshly brewed drinks	650	2,424	3,219	5,910	3,909
% of rev from product sales	77%	81%	87%	89%	94%
Other products	136	410	310	396	258
% of rev from product sales	16%	14%	8%	6%	6%
Others (delivery)	55	176	188	354	210
% of rev from product sales	7%	6%	5%	5%	5%
Revenues from partnership stores	-	15	317	1,306	1,327
As % of total rev	0%	1%	8%	16%	23%
Y/Y growth			1964%	313%	201%
Sales of raw materials		13	227	835	866
% of rev from partnership stores		82%	72%	64%	65%
Profit sharing		0	13	145	171
% of rev from partnership stores		1%	4%	11%	13%
Sales of equipments		-	43	179	148
% of rev from partnership stores		0%	14%	14%	11%
Other services (mostly delivery)		3	33	148	142
% of rev from partnership stores		16%	11%	11%	11%
GP	308	1,402	2,038	4,767	3,459
GPM	37%	46%	51%	60%	61%
Self-owned stores			2,002	4,324	2,955
GPM			54%	65%	68%
As % of total GP			98%	91%	85%
Partnership stores			36	443	504
GPM			11%	34%	38%
As % of total GP			2%	9%	15%
OP excl. SG&A	(714)	(1,118)	(600)	1,417	1,429
As % of product sales	-85%	-37%	-15%	18%	25%
Self-owned stores	(714)	(1,131)	(603)	1,122	1,067
Store-level margin, calculated	-91%	-40%	-17%	18%	26%
As % of total OP excl. SG&A			100%	79%	75%
Partnership stores			3	295	362
Store-level margin, calculated			1%	23%	27%
As % of total OP excl. SG&A			0%	21%	25%
Source: Filings; SLC model					
-					

The company turned into positive operating cash flow in 2021 and was near FCF breakeven in 2021. It also turned into positive net cash in 2021.

rmb m	2018	2019	2020	2021	1H22
Net cash (used in)/provided by operating activities	(1,311)	(2,167)	(2,377)	123	727
Net cash (used in)/provided by investing activities	(1,283)	(1,816)	(1,712)	0	(140)
Capex, disclosed	1,006	1,614	822	173	277
Net cash provided by financing activities	3,988	7,241	4,029	1,515	(2,732)
Net increase/(decrease) in cash and cash equivalents and restricted cash	1,412	3,350	(42)	1,616	(2,082)
FCF (OCF - Capex)	(2,316)	(3,781)	(3,199)	(50)	450
Cash	1,761	5,366	5,056	6,478	4,397
Debt	308	572	5,399	4,282	1,381
Net cash	1,453	4,794	(343)	2,196	3,016
As % of mcap	5%	15%	-1%	7%	10%
Source: Filings					

#### **Section 2: Industry Overview**

#### 2.1 TAM and growth of freshly brewed coffee industry

In China, annual coffee consumption per capita is around 10 cups in various formats in terms of total population according to Luckin (2019 prospectus) and Starbucks (2022 Investor Day), compared to 200 cups in Japan and 380 cups in the US. Starbucks expects coffee consumption per capita to increase from 10 cups in 2019 to 12 cups in 2022 and 14 cups in 2025. Luckin estimated that 25% of the total coffee consumption in 2019 was in the form of freshly brewed coffee.

As for the market size of freshly brewed coffee, third-party research firms estimate both the number of coffee shops and the total market value. We think the number of stores is of higher conviction level as it's from data tracking on Dianping.com (Chinese version of Yelp). But market value may not be accurate as it is estimated by consultants on average sales volume of a vast number of independent coffee shops.

We compared the market sizes of freshly brewed coffee to freshly made tea drinks. Note that the estimate of RMB 28bn market size of freshly brewed coffee in 2017 is from both Luckin prospectus and iResearch. The estimate is close to SBUX and YUMC's estimates of RMB 30bn market size in 2017, thus we consider it reliable.

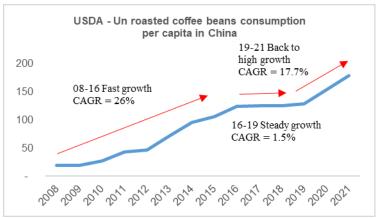
Assuming average price per cup of RMB 10 for freshly made tea drinks and RMB 20 for freshly brewed coffee, the annual consumption of freshly made tea drinks is 31 cups per capita (urban population only, 城镇常住人口) in 2021 compared with 4.8 cups of freshly brewed coffee, which indicates higher population penetration and purchase frequency of tea drinks.

We think the lower per capita consumption of freshly brewed coffee is attributable to lower population penetration but not purchase frequency. Luckin's beveraged coffee products target the large customer base of freshly made tea drinks instead of existing coffee drinkers, which significantly enlarged the addressable customer base and TAM of freshly brewed coffee (we'll elaborate in Thesis No. 1). This incremental part of TAM is mainly created by Luckin from 2H2020 (launch of Newer Latte). Luckin is the dominant player of this incremental TAM, and the segment is rapidly growing.

F	reshly mad	le tea drinks						Freshly brewed coffee					
	2016	2017	2018	2019	2020	2021	1H22	2016 201	7 2018	2019	2020	2021	1H22
Industry size (RMB m)	29,100	57,500	135,700	204,500	184,000	279,600		23,000 28,400	39,000	48,900	63,100	87,600	46,459
Y/Y growth		98%	136%	51%	-10%	52%		239	6 37%	25%	29%	39%	
x times of fresh coffee	1.3x	2.0x	3.5x	4.2x	2.9x	3.2x							
Store number	190,000	250,000	410,000	381,361	435,514	390,221	407,000	96,000 75,000		96,186	98,532	113,781	117,300
Y/Y growth		32%	64%	-7%	14%	-10%	4%	-229	6 40%	-8%	2%	15%	3%
x times of fresh coffee	2.0x	3.3x	3.9x	4.0x	4.4x	3.4x	3.5x						
Monthly rev per store (RM	1Bk)	22	34	43	38	56		28		41	54	69	67
Y/Y growth			57%	26%	-13%	50%			30%	12%	33%	27%	
China population (m)			1,405	1,410	1,412	1,413							
Urbanization rate			62%	63%	64%	65%							
Urban population (m)			864	884	902	914			864	884	902	914	914
Avg. spending per capita	(urban, per	annum)	157	231	204	306			45	55	70	96	102
Avg. price per cup (RMB)			10	10	10	10			20	20	20	20	20
Avg. cups per capita (urb	an, per ann	num)	16	23	20	31			2.3	2.8	3.5	4.8	5.1
Leading players:													
Mixue Bingcheng (system	sales)			7,792	12,103	-,		Starbucks China	17,457	20,324	18,745	23,388	8,324
Market share				4%	7%	7%		Market share	45%	42%	30%	27%	18%
Monthly rev per store (R	RMB k)			110	100	100		Monthly rev per store (rmb k)	425	423	339	366	245
Store number			4,600	7,206	12,966	20,023		Store number	3,685	4,292	4,863	5,557	5,761
Store number share			1%	2%	3%	5%		Store number share	4%	4%	5%	5%	5%
Hey Tea			1,600	3,050	5,122	5,987		Luckin Coffee (system sales)	841	3,041	4,273	8,714	6,504
Market share			1%	1%	3%	2%		Market share	2%	6%	7%	10%	14%
Monthly rev per store (R	RMB k)		1,080	950	800	650		Monthly rev per store (rmb k)	67	76	73	133	164
Store number			163	372	695	840		Store number	2,073	4,789	4,803	6,024	7,195
Store number share			0.0%	0.1%	0.2%	0.2%		Store number share	2%	5%	5%	5%	6%
Nayuki Tea			910	2,291	2,871	4,067							
Market share			1%	1%	2%	1%							
Monthly rev per store (R	RMB k)			792	585	518							
Store number			155	327	491	817							
Store number share			0.0%	0.1%	0.1%	0.2%							

Source: Market size: LK prospectus (2019) and Mixue prospectus (2022); Store number: Meituan industry reports; Filings; interview s

Data from USDA shows that the growth of coffee consumption per capita in China slowed down to only ~1.5% CAGR from 2017-2019 but it recorded rapid growth at 17.7% CAGR from 2020 to 2021 despite Covid.



Source: USDA, World Bank

In terms of caffeine intake breakdown, tea still represented 95% of caffeine intake in China in 2021 on consumption per capita basis, decreased by 1ppt compared to 2017. Caffeine intake from coffee increased from 3.4mg per capita per day in 2017 to 4.9mg in 2021, representing a 42% increase. While caffeine intake from tea also surged by 31% during the same period thanks to the growth of freshly made tea drink industry. However, coffee consumption in other countries remained flat during Covid.

Daily caffeine (coffee + tea) intake per capita per day

															% of caffeine intake	from Tea
mg	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2017	202
China (excl. Taiwan)	36	39	44	49	55	60	67	74	76	81	86	92	98	106	96%	95%
Coffee	0.5	0.5	0.8	1.2	1.3	2.0	2.6	2.9	3.4	3.4	3.4	3.5	4.2	4.9		
Tea	36	39	43	47	53	58	65	72	73	77	82	88	94	101		
Japan	142	140	136	138	138	145	146	145	146	148					28%	
Coffee	88	89	87	90	91	98	100	102	104	106	107	102	99	96		
Tea	54	51	49	48	48	47	46	43	42	42						
South Korea	55	58	59	66	61	62	73	77	82	90					3%	
Coffee	52	56	57	63	59	60	70	74	79	87	84	88	95	95		
Tea	2	2	2	2	2	2	2	3	3	3						
Vietnam	79	61	66	67	58	60	63	63	62	59					19%	
Coffee	16	18	23	25	31	33	36	40	46	48	50	50	53	52		
Tea	63	43	44	42	27	27	27	23	16	11						
India	48	47	46	45	48	52	54	55	55	56					97%	
Coffee	1.7	1.7	1.6	1.6	1.5	1.4	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.4		
Tea	46	45	44	43	47	51	53	53	53	54						
US	160	159	154	155	157	156	158	155	162	162					20%	
Coffee	123	122	118	119	121	120	123	121	128	129	129	136	130	128		
Tea	38	37	36	37	36	36	35	34	34	33						

Source: USDA, World Bank

**Coffee Consumption per Capita Comparison** 

	Unroasted Co	per Capita (g)	CAGR				
Country	2008	2016	2019	2021	08-16	16-19	19-21
China	19	124	129	179	26.1%	1.5%	17.7%
Japan	3,224	3,806	3,738	3,502	2.1%	-0.6%	-3.2%
South Korea	1,903	2,893	3,214	3,476	5.4%	3.6%	4.0%
Vietnam	594	1,694	1,837	1,903	14.0%	2.7%	1.8%
India	63	57	55	51	-1.3%	-1.0%	-3.8%
US	4,479	4,675	4,975	4,687	0.5%	2.1%	-2.9%

	Cups of C	Cups of Coffee Consumed per Capita									
Country	2008	2016	2019	2021							
China	1.3	8.2	8.6	11.9							
Japan	215	254	249	233							
South Korea	127	193	214	232							
Vietnam	40	113	122	127							
India	4.2	3.8	3.7	3.4							
US	299	312	332	312							

Source: USDA, World Bank

#### Section 3: Core Thesis and Risks

Module 1: Incremental TAM (total addressable market) of coffee industry created by beveraged coffee

#### Thesis No. 1: Beveraged coffee enlarged coffee industry TAM significantly

Sub-thesis 1.1: Beveraged coffee is boosting the adoption of coffee in the short term and there is also potential to cultivate the habit of drinking coffee in the long term

2020 short report - business model flaw #1: Luckin's proposition to target core functional coffee demand is wrong. Market of core functional coffee product in China is small and moderately growing in China.

Consumer demand for coffee shops in China can be classified into five categories as below. Before the incident in 2020, Luckin only focused on catering to the demand from (D) functional use and (E) coffee lover by offering the same type of classic coffee products as Starbucks (e.g., Americano, Latte and Cappuccino, etc.) with lower prices. Their equity story is to acquire Starbucks' customers and to educate non-coffee drinkers by offering affordable classic coffee products. But Luckin only attracted price-sensitive customers with a low retention rate. Its strategy turned out to fail at this stage, because caffeine functional demand of coffee in China is not large enough.

- A. Space: coffee shops offer space for meeting, work or relaxation, similar to the "third place" concept introduced by Starbucks a place outside the home and work where people can gather and build a sense of community
- B. Brand and lifestyle: stylish coffee shops, such as Starbucks, especially Starbucks Reserve, % Arabica or boutique coffee shops in the eyes of Chinese consumers. Starbucks not only has the most valuable coffee brand name in China, but it is also perceived as a premium brand in China, representing a lifestyle people are longing for
- C. Beverage: drinking coffee as beverage and can be replaced by tea or juices. This type of consumers often favors Mocha or flavored coffee with milk or syrup
- D. Functional use: people drink coffee for caffeine to stay awake for study or work; they often become addicted
- E. Coffee lover: the ones genuinely enjoy the tastes of a variety of coffees and normally hold high standard in the quality of coffee this is the smallest portion of coffee consumers in China based on research

On the other hand, Luckin's initial failure indicates that non-coffee drinkers cannot be easily educated by low-priced classic coffee drinks naturally and immediately. Even though caffeine is addictive, coffee's bitter taste is rarely accepted by the majority of non-coffee drinkers. Therefore, the habit of drinking coffee was not formed initially at that time. However, the introduction of beveraged coffee changed the situation.

Luckin created beveraged coffee by accident. In Sep 2019, Luckin launched its first beveraged coffee product — Brown Sugar Boba Latte (陨石拿铁) by combining ingredients of milk tea (Boba and brown sugar) with coffee latte. Then it also introduced Okinawa Brown Sugar Latte (冲绳黑糖拿铁) and Christmas Gingerbread Latte (圣诞姜饼人拿铁) in Nov 2019. The first batch of unconventional beveraged coffee became much more popular than classic coffee surprisingly. Luckin introduced Newer Latte (creamy milk latte, 厚乳拿铁) in Sep 2020, and it recorded an average daily sale of 300k cups in the first 9 days after launch, implying sales contribution of 62 cups per store per day or 29% of total. After Newer Latte, Luckin determined its strategy to keep launching beveraged coffee to tap into non-coffee drinkers. It stopped confining itself to the caffeine functional demand of coffee but switched to focus on creating incremental TAM of coffee. Below table sets forth the differences between classic coffee and beveraged coffee:

	Classic Coffee and Specialty Coffee	Beveraged coffee
Example	Americano, Latte, Cappuccino, Caramel	Coconut Milk Latte, Coconut Cloud Latte,
	Macchiato, Vanilla Latte	Newer Latter (厚乳拿铁), Brown Sugar
		Boba Latte (陨石拿铁), Grape Latte (青提
		拿铁), etc.
Coffee bean	Emphasis on coffee bean: quality, flavor,	De-emphasis on coffee bean's flavor and
	degree of baking, place of origin, etc.	place of origin
Milk	Pure milk or oat milk	More options like coconut milk, and milk
		with special flavor (厚乳, 丝绒, 果味奶)

	Classic Coffee and Specialty Coffee	Beveraged coffee
		Tea, juice, sparkling water, alcohol (esp.
		liqueur)
Other	Cream and traditional syrup incl. caramel,	More options: fruit syrup, jam, fresh fruit,
ingredients	vanilla, etc.	boba, and other ingredients used in freshly
		made tea drinks

Beveraged coffee has two main advantages. First and foremost, beveraged coffee is easily accepted by non-coffee drinkers because the bitter taste of coffee is covered by the beverage taste like sugar, fruit, and fat. Coffee is transforming from a pure functional drink to a new type of beverage with plenty of flavors appealing to a larger customer base. There are several examples in other sectors where beverage-like product increases the adoption of a niche product by the mass market:

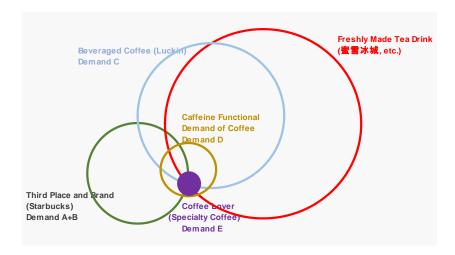
- Case Study #1: The introduction of highball stimulated the consumption of whisky in Japan (please refer to page 6)
- Ease Study #2: White Claw Hard Seltzer's success is attributed to the introduction of alcoholic beverage Hard Seltzer is an alcoholic seltzer water beverage made with a blend of seltzer water, gluten-free alcohol base (5% ABV, alcohol by volume), and a hint of fruit flavor. Compared with flat growth of beer market, U.S. hard seltzer market experienced 226% yoy growth in 2019, 165% yoy growth in 2020 and reached over US\$ 4bn market size in 2020 (source: Nielsen). White Claw was noted to be the top-selling hard seltzer in the US, with ~60% market share of the category market (source: Nielsen). Unlike bitter and strong taste of other types of alcohol, hard seltzer launched by White Claw has less ABV and plenty of flavors including lemon, tangerine, watermelon, iced tea, etc. This low alcohol content beverage become popular among younger generation, especially the young male group, which contributes to the success of White Claw. Rio (百港股份 002568 CH) is an example of alcoholic beverage in China. It sells RTD cocktails produced by mixing base liquor (usually whiskey, vodka or other liquor) with fruit juice and flavorings. RTD cocktail is usually carbonated, with ABV in the range of 3-9%
- Case Study #3: Jägermeister got popular thanks to Jager Bomb

When Jägermeister was first imported in the US in 1970s, it was positioned as a liqueur made from 56 natural herbs and spices, and its primary target customers are German-American. Jägermeister was broadly thought of as too strong to sip on its own. Instead, Jägermeister has been far more commonly consumed (outside of Germany) in a cocktail – Jager Bomb (Jager + Red Bull) since 1990s. Jägermeister got a boost in popularity thanks to the Jager Bomb, which became synonymous with nightlife, joining the likes of the Red Bull-Vodka. Jägermeister sales in the US boosted from 600 cases in 1974 to 1.3m cases in 2000s<sup>1</sup>. This is another good example that beverage-like products make a niche liqueur accepted by a broad customer base. Jager Bomb also contributed to the popularity of Jägermeister in China. It went virus on Douyin in 2018 and sales volume of Jägermeister recorded exponential growth in China before Covid outbreak

Secondly, beveraged coffee is in a good position to tap into the existing large customer base of freshly made tea drinks. The TAM of freshly made tea drinks is approximately 3-4 times of freshly brewed coffee in China.

Below Venn diagram summarized the relationship between each consumer group. Before the introduction of beveraged coffee, the overlap between coffee drinkers and freshly made tea drinkers was insignificant as they address different demands from different customer bases (caffeine functional demand vs tasty flavors). Beveraged coffee transforms coffee from a pure functional drink to tasty beverage, hence, it enables coffee brands to attract consumers of freshly made tea drinks.

<sup>&</sup>lt;sup>1</sup> https://www.nytimes.com/2005/01/01/business/the-seller-of-the-goose-that-laid-a-golden-egg.html



In the long run, there is potential to convert this incremental customer base to coffee-addicted customers. Please refer to Thesis 5 for detailed analysis.

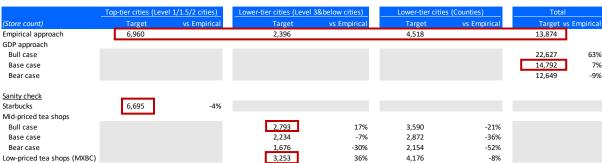
#### Sub-thesis 1.2: Beveraged coffee creates store penetration potential in lower tier cities

Before the introduction of beveraged coffee, Luckin only addressed the functional demand of caffeine in economically developed areas. The wrong choice of market segment limited Luckin's growth upside in the past. The introduction of beveraged coffee not only creates incremental demand in higher tier cities, but also makes Luckin's business model feasible for lower tier cities incl. more than 1,800 county-level cities, which creates ample room for growth in all city tiers.

We are going to use multiple methods to estimate the number of Luckin's stores (TAM) in different levels of cities:

- First, we used an empirical approach to quantify Luckin's store potential in each level of city based on estimates of number of Luckin stores in each tier and add them together to get a bottom-up estimate
- Secondly, since the total number of coffee stores is highly correlated with GDP at city level, we applied top-down estimate by using "GDP per store" as an indicator
- Finally, we did a sanity check by benchmarking our store target estimate with Starbucks and other types of business:
  - o Coffee brand (Starbucks) in higher tier cities
  - o Mid-priced tea shops (RMB 10-20 per cup) in lower tier cities
  - o Low-price tea shops (<RMB 10 per cup) in lower tier cities
  - o Fast-food chain: KFC

Below table sets forth the summary of store potential estimate by each approach. We expect the store count of Luckin to reach ~14k including ~7k in higher tier cities and ~7k in lower tier cities. The GDP approach and sanity check with Starbucks are roughly in line with the result of empirical approach. Store potential in higher tier cities may be underestimated since the number of Starbucks stores only represents the core functional demand of coffee, while the sanity check with tea shops indicates a possible lower upside in lower tier cities, especially in county-level cities.



Source: SLC analysis

#### 1.2.1 Empirical Approach

We estimate the number of stores in each city of different tiers based on the profile of a typical city in each tier. We conclude that Luckin's total store potential is ~14,000 including 6,400 self-operated stores and 7,500 franchise stores. Luckin currently has 7,388 stores as of Jul 2022 and it has potential to roll out ~6,500 new stores. The growth of store units will mainly come from franchise stores in lower tier cities, especially in county-level cities.

Cities in China fall into 337 prefecture-level cities (地级市) and 1,871 county-level cities (县级城市). County-level cities are governed by their respective prefecture-level cities but are usually located 30km-100km away from the urban area of the prefecture-level cities and have their own city centers and business areas. Thus, we estimate the store numbers of prefecture-level and county-level separately.

- Prefecture-level cities are divided into 6 levels by Yicai Magazine (publishing a widely used city tiering list annually; 第一财经城市商业魅力排行榜).
- County-level city: We use different assumptions to estimate TAM in county-level cities. Luckin stores are usually located in shopping malls or streets in the town centers. On average, there are only 1-2 Luckin stores in a normal county as the amount is limited by the number of commercial centers or shopping malls there. For economically developed counties like the Top 100 County (百强县: 昆山, 义乌, 常熟, etc.), store count per county could be larger
- We define "lower tier cities" as the Level 3-5 prefecture-level cities plus all the county-level cities. Those are
  the smaller cities in China where it's less economically developed with less population per city; people have
  lower income but also less financial burden from housing and car loans. Coupled with lower chain brand
  penetration, consumers there sometimes display a different consumption pattern from those in higher tier
  cities.

			Store potential estima	ate		Actual	(Aug 2022)			
		Total #	Avg. stores per city	Total	Cities	Coverage	Avg. stores	Total	New	Upside
City Level	Туре	of cities	(suburban only)	store count	covered	ratio	per city	store count	stores	%
Level 1	BJ/SH/GZ/SZ	4	600	2,400	4	100%	417	1,667	733	44%
Level 1.5	Capital	13	200	2,600	13	100%	164	2,138	462	22%
Level 1.5	Non-capital	2	100	200	2	100%	52	103	97	94%
Level 2	Capital	14	80	1,120	14	100%	60	846	274	32%
Level 2	Non-capital	16	40	640	16	100%	27	431	209	48%
Level 3	Capital	4	50	200	3	75%	19	57	143	251%
Level 3	Non-capital	66	12	792	66	100%	10	662	130	20%
Level 4	Capital	2	30	60	1	50%	1	1	59	5900%
Level 4	Non-capital	88	8	704	80	91%	6	455	249	55%
Level 5	Non-capital	128	5	640	35	27%	3	117	523	447%
Perfecture-I	evel cities subto	t 337		9,356	234	69%		6,477	2,879	44%
County	县级市	388	4.0	1,552	163	42%	2.9	478	1,074	225%
County	县	1,483	2.0	2,966	286	19%	1.5	433	2,533	585%
County-leve	l cities subtotal	1,871		4,518	449	24%		911	3,607	396%
Total				13,874				7,388	6,486	88%
Self-operat	eds stores			6,406				5,078	1,328	26%
Franchised	stores			7,468				2,310	5,158	223%
Cities for self-	Cities for self-operated stores			6,888	57	98%		5,560	1,328	24%
Self-operat	ed stores			6,406				5,078	1,328	26%
Franchise s	stores			482				482	-	0%

Source: Filings, Luckin APP, SLC analysis

Cities for franchise stores

Luckin's store expansion strategy is a mixture of self-operated stores and franchise stores. Self-operated stores are generally located in higher tier cities with high store density. While Luckin leverages franchise model to penetrate lower tier cities, which are geographically scattered. The franchise model enables efficient store network expansion without intensive capital commitments. Luckin categorized all cities into 2 types: cities for self-operated stores and cities for franchise stores:

282%

6,986

- Cities for self-operated stores (直营城市): There are 58 cities for self-operated stores including 49 Level 1-3 cities. Luckin will only open new self-operated stores in these cities. However, there are still less than 500 legacy franchise stores carried over the past. These cities are not available to franchisees anymore starting from 2021-2022
- Cities for franchise stores (pu里城市): There are only franchise stores in these cities and Luckin won't open new self-operated stores. Not all the rest cities are available for franchise stores immediately. Luckin allows the application of new franchise stores in a selected range of lower tier cities. It depends on Luckin's top-down plan to determine which cities are available for franchisees and how many franchise stores to open each year

The percentage of self-operated stores and franchise stores highly depends on Luckin's top-down plan of these 2 types of cities. As far as we know, Luckin has no plan to add new cities for self-operated stores (直营城市). But Luckin has incentive to open more self-operated stores in the future as it usually contributes more revenue and profit than franchise stores (Please refer to Thesis 4 for details).

#### 1.2.2 GDP Approach

Basic assumption: according to GeoHey, the total number of coffee stores in a city can be largely explained by GDP with an R-square of 0.86. Theoretically, Luckin's store potential should also positively correlated with GDP. However, due to market competition and Luckin's imbalance development in different cities, GDP per existing Luckin store ranges from RMB 6-20bn in Level 1&1.5 cities (figure on the right-hand side below), RMB 20-25bn for Level 3 cities, RMB 30bn for Level 4 cities to RMB 75bn for Level 5 cities.

Left figure: Regression between total number of coffee stores and GDP at city level; right figure: GDP per Luckin store in Level 1&1.5 cities (unit: RMB bn)



Source: GeoHey, NBS, Luckin APP

Notes: Store count estimate in Shanghai is an estimated near-term store number target in Shanghai. We think the target is feasible as Starbucks already operates 946 stores in Shanghai and Luckin usually can surpass Starbucks at city level (please refer to 1.2.2 sanity check for details).

We used three different cases to estimate potential store expansion upside using a top-down approach:

- In the bull case, if we assume all the other cities reach the same level as Shanghai (estimate), Hangzhou and Chengdu (~RMB 5bn GDP per store) where coffee market is mature, total store potential will be 22.6k with 206% upside
- In the base case, if we assume all the other cities reach the same level as overall Level 1 cities (~RMB 8bn GDP per store), total store potential will be 14.8k with 100% upside
- In the bear case, if we assume all the other cities reach the same level as overall Level 1.5-2 cities (~RMB 10bn GDP per store), total store potential will be 12.6k with 71% upside

		Current	Total GDP	Current	Bull Case (RMB 5bn GPD per store)		Base Case (RMB 8bn GPD per store)			Bear Case (RMB 10bn GPD per store)			
City Level	Туре	Store count	RMB bn	GDP/Store	Target	New stores	Upside	Target	New stores	Upside	Target	New stores	Upside
Level 1	BJ/SH/GZ/SZ	1,667	14,238	8.5	2,848	1,181	71%	2,240	573	34%	2,240	573	34%
Level 1.5	Capital	2,287	21,520	9.4	4,304	2,017	88%	2,850	563	25%	2,550	263	11%
Level 1.5	Non-capital	130	2,301	17.7	460	330	254%	288	158	121%	230	100	77%
Level 2	Capital	883	9,587	10.9	1,917	1,034	117%	1,221	338	38%	1,054	171	19%
Level 2	Non-capital	660	11,705	17.7	2,341	1,681	255%	1,463	803	122%	1,177	517	78%
Level 3	Capital	57	1,113	19.5	223	166	291%	145	88	154%	123	66	115%
Level 3	Non-capital	934	23,650	25.3	4,730	3,796	406%	2,959	2,025	217%	2,373	1,439	154%
Level 4	Capital	1	229	229.1	46	45	4481%	28	27	2700%	23	22	2191%
Level 4	Non-capital	628	18,228	29.0	3,646	3,018	481%	2,278	1,650	263%	1,824	1,196	190%
Level 5	Non-capital	141	10,565	74.9	2,113	1,972	1399%	1,320	1,179	836%	1,056	915	649%
Total		7,388	113,137	15.3	22,627	15,239	206%	14,792	7,404	100%	12,649	5,261	71%

Source: NBS, Luckin APP

Note: We calculated all stores at prefecture-level city as a whole, no matter in urban area, suburban or county, because GDP data at county level is incomplete.

#### 1.2.2 Sanity Check: Benchmark with Coffee Brand - Starbucks

The number of Starbucks stores is a meaningful reference point for Luckin in higher tier cities (Level 1/1.5/2 cities) as these cities have already been well-penetrated by Starbucks. Starbucks store portfolio is considered to be thoughtful and represents the core demand of coffee.

According to an industry expert interview, Luckin's number of store target is 1.5x of Starbucks in its early stage. The ratio is validated in mature markets like Chengdu and Hangzhou where Luckin's store counts are already 1.5x of Starbucks. Shanghai is an exception as Luckin targets to roll out an additional 400 stores according to our channel check. Therefore, if we generally apply 1.5x Starbucks' stores as the store potential of Luckin in Level 1/1.5/2 cities, the results are roughly in line with our empirical approach. The total store count calculated by 1.5x of Starbucks implies 6,695 stores in Level 1/1.5/2 cities with 29% upside. We think the result may underestimate Luckin's potential in higher tier cities. Since the number of Starbucks stores only represents the core demand of classic coffee products, it doesn't take into consideration the incremental demand created by beveraged coffee.

			Starbucks (Jun 2022 Acutal)				Estimate (	1.5x Starbuc	ks)	Luckin			
		Total #	Cities	Coverage	Avg. stores	Total	Current	Avg. stores		Target	Current	# of	
City Level	Туре	of cities	covered	ratio	per city	store count	LK/SB	per city	Implied TAM	LK/SB	Store count	new stores	Upside
Level 1	BJ/SH/GZ/SZ	4	4	100%	475.3	1,901	0.88	608	2,433	1.28	1,667	766	46%
Level 1.5	Capital	13	13	100%	129.3	1,681	1.27	204	2,657	1.58	2,138	519	24%
Level 1.5	Non-capital	2	2	100%	51.0	102	1.01	77	153	1.50	103	50	49%
Level 2	Capital	14	14	100%	33.4	468	1.81	61	852	1.82	846	6	1%
Level 2	Non-capital	16	16	100%	24.4	391	1.10	38	601	1.54	431	170	39%
Level 3	Capital	4	3	75%	11.7	35	1.63						
Level 3	Non-capital	66	58	88%	6.4	374	1.56						
Level 4	Capital	2	1	50%	5.0	5	0.20						
Level 4	Non-capital	88	59	67%	3.0	178	1.89						
Level 5	Non-capital	128	30	23%	1.6	48	2.09						
Perfecture-I	evel cities subtot	337	200			5,183	1.25						
County	县级市	388	86		4.3	372	1.28						
County	县	1,483	92		1.8	168	2.58						
County-leve	l cities subtotal	1,871	178		3.0	540	1.69						
Total			378			5,723	1.29						

	Luckin	SBUX	Current		Implied		Luckin	SBUX	Current	Target	Implied
	store count	store count	LK/SB	LK/SB	TAM		store count	store count	LK/SB	LK/SB	TAM
Tier 1						Tier 2					
Beijing	436	447	1.0	1.5	671	Kunming	79	44	1.8	1.8	79
Guangzhou	321	247	1.3	1.5	371	Shenyang	78	50	1.6	1.6	78
Shenzhen	308	261	1.2	1.5	392	Jinan	70	41	1.7	1.7	70
Shanghai (estimate)	602	946	0.6	1.1	1,000	Wuxi	80	71	1.1	1.5	107
Sub-total	1,667	1,901			2,433	Xiamen	101	62	1.6	1.6	101
						Fuzhou	82	48	1.7	1.7	82
						Wenzhou	41	36	1.1	1.5	54
Tier 1.5 ( <b>准一</b> 线)						Jinhua	15	17	0.9	1.5	26
Chengdu	283	184	1.5	1.5	283	Herbin	32	25	1.3	1.5	38
Chongqing	203	124	1.6	1.6	203	Dalian	61	41	1.5	1.5	62
Hangzhou	295	325	0.9	1.5	488	Guiyang	53	25	2.1	2.1	53
Xi'an	144	111	1.3	1.5	167	Nanning	74	35	2.1	2.1	74
Wuhan	216	158	1.4	1.5	237	Quanzhou	23	16	1.4	1.5	24
Suzhou	99	162	0.6	1.5	243	Shijiazhuang	37	16	2.3	2.3	37
Zhengzhou	86	42	2.0	2.0	86	Changchun	48	29	1.7	1.7	48
Nanjing	239	155	1.5	1.5	239	Nanchang	75	25	3.0	3.0	75
Tianjin	161	142	1.1	1.5	213	Huizhou	35	21	1.7	1.7	35
Changsha	138	57	2.4	2.4	138	Changzhou	46	47	1.0	1.5	71
Dongguan	28	23	1.2	1.5	35	Jiaxing	16	21	0.8	1.5	32
Ningbo	119	133	0.9	1.5	200	Xuzhou	22	18	1.2	1.5	27
Foshan	75	79	0.9	1.5	119	Nantong	39	35	1.1	1.5	53
Hefei	80	34	2.4	2.4	80	Taiyuan	31	15	2.1	2.1	31
Qingdao	75	54	1.4	1.5	81	Baoding	10	7	1.4	1.5	11
Sub-total	2,241	1,783			2,810	Zhuhai	25	34	0.7	1.5	51
						Zhongshan	17	14	1.2	1.5	21
						Lanzhou	25	12	2.1	2.1	25
						Linyi	18	7	2.6	2.6	18
						Weifang	9	4	2.3	2.3	9
						Yantai	12	9	1.3	1.5	14
						Shaoxing	23	34	0.7	1.5	51
						Sub-total	1,277	859			1.453

Note: If Luckin's number of stores has already exceeded 1.5x of Starbucks, we assume there is no growth potential. For the rest, we simply apply 1.5x.

Source: GeoHey

Starbucks store counts in Level 3 and below cities are not reference points for Luckin since they are underpenetrated by Starbucks using the self-operated model only. In addition, Starbucks is more selective on store location than Luckin in lower tier cities. The site selection criteria of Luckin in lower tier cities is more like tea shops rather than Starbucks and the number of tea shops represents the incremental market demand for beveraged

coffee. Therefore, we would benchmark tea shops to quantify Luckin's store potential in lower tier cities rather than Starbucks.

#### 1.2.3 Sanity Check: Benchmark with Tea Shop Brands

Tea shop brands can be divided into 3 groups by price range. Mid-priced tea shop brands' store distribution is more comparable to Luckin than the other two groups:

- Premium tea shops (ASP: RMB 20+): Top 2 players are Hey Tea and Nayuki. Each of them has less than 1,000 stores distributed in Level 1-3 cities. Their brand positioning is close to Starbucks or boutique brands in the coffee industry, catering to premium needs in higher tier cities. These brands usually adopt a self-operated store model
- Mid-priced tea shops (ASP RMB 10-20): their price range and target customer base are comparable to Luckin's beveraged coffee. Therefore, their number of stores is meaningful for us to calculate Luckin's growth potential in lower tier cities. Top 4 brands are Shuyi Tea (书亦烧仙草), Guming Tea (古茗), Chabaidao Tea (茶百道) and Coco (都可). Each of them has more than 5,000 stores concentrated in lower tier cities. These brands mainly adopt franchise store model
- Low-priced tea shops (ASP RMB 10 and below): MXBC (蜜雪冰城) is the dominate player in this category with more than 20k stores. Extremely low price enables MXBC to penetrate more lower tier cities and counties than any other tea shop chains in China. Over 99% of MXBC stores are franchise stores

# Benchmark with top 4 mid-priced tea shops: Shuyi Tea (书亦烧仙草), Guming Tea (古苕), Chabaidao Tea (茶百道) and Coco (都可)

Given single tea shop brand's geographic coverage may be regional, we refer to the aggregate store count of all top 4 brands to have a comprehensive view. For Level 3-4 cities that Luckin entered, the average Luckin store count per city is 25-50% of the total of top 4 mid-priced tea shops. Mid-priced tea shops have covered 90% of Level 5 cities and 63% of counties, while Luckin's city coverage is still lower than theirs.

		Total # of	Cities C	overage	Average # of store per city					Total # of	Stores Per city	Total stores
City Level	Туре	cities	covered	ratio	Chabaidao	Guming	Shuyi	COCO	Top 4 subtotal	stores	LK/Tea	LK/Tea
Level 1	BJ/SH/GZ/SZ	4	4	100%	150.0	55.5	117.7	163.3	429.3	1,717	97%	97%
Level 1.5	Capital	13	13	100%	108.7	93.0	139.6	92.4	412.2	5,359	40%	40%
Level 1.5	Non-capital	2	2	100%	35.5	34.5	72.5	54.5	197.0	394	26%	26%
Level 2	Capital	14	14	100%	35.4	46.3	35.4	29.9	123.8	1,733	49%	49%
Level 2	Non-capital	16	16	100%	21.6	38.8	13.3	23.8	89.4	1,430	30%	30%
Level 3	Capital	4	4	100%	21.0	-	8.5	23.0	46.8	187	41%	30%
Level 3	Non-capital	66	66	100%	8.5	18.5	13.1	9.6	40.7	2,689	25%	25%
Level 4	Capital	2	2	100%	6.5	-	17.5	10.5	34.5	69	3%	1%
Level 4	Non-capital	88	88	100%	4.6	10.1	8.8	3.9	21.0	1,848	27%	25%
Level 5	Non-capital	128	115	90%	2.5	5.9	3.9	1.9	6.9	792	49%	15%
Perfecture-le	evel cities subtot	337	324							16,218		40%
County	县级市	388	316	81%	3.1	8.0	3.8	3.6	10.6	3,336	28%	14%
County	县	1,483	870	59%	1.5	3.2	2.2	2.0	4.4	3,843	34%	11%
	l cities subtotal	1,871	1,186	63%	2.1	4.5	2.6	2.7	6.1	7,179	34%	13%
	ities and counties		1,461	68%					8.7	12,764	40%	17%

Source: GeoHey

Assuming Luckin's number of stores can reach 50% / 40% / 30% of number of top 4 mid-priced tea shops in total for bull / base / bear cases, the implied number of stores upside is 116% / 73% / 30% for Level 3 and below cities, 294% / 215% / 136% for county-level cities. The sanity check is lower than the result of empirical approach. In bull case, Luckin's store potential in lower tier cities (Level 3 & below cities + counties) is lower than empirical approach by ~500 stores. In base case, Luckin's store potential in county-level cities is lower than empirical approach by 1.788 stores.

			Bull Case				Base Case				Bear C	ase	
			Store	# of new			Store	# of new			Store	# of new	
City Level	Туре	LK/Tea	Potential	stores	Upside	LK/Te	a Potential	stores	Upside	LK/Tea	Potential	stores	Upside
Level 1	BJ/SH/GZ/SZ												
Level 1.5	Capital												
Level 1.5	Non-capital												
Level 2	Capital												
Level 2	Non-capital												
Level 3	Capital	50%	94	37	64%	409	75	18	31%	30%	57	-	0%
Level 3	Non-capital	50%	1,345	683	103%	409	1,076	414	62%	30%	807	145	22%
Level 4	Capital	50%	35	34	3350%	409	28	27	2660%	30%	21	20	1970%
Level 4	Non-capital	50%	924	469	103%	409	739	284	62%	30%	554	99	22%
Level 5	Non-capital	50%	396	279	238%	40%	317	200	171%	30%	238	121	103%
Perfecture-le	evel cities subto	tal											
					-								
County	县级市	50%	1,668	1,190	249%	40%	1,334	856	179%	30%	1,001	523	109%
County	县	50%	1,922	1,489	344%	40%	1,537	1,104	255%	30%	1,153	720	166%
County-level	l cities subtotal		3,590	2,679	294%		2,872	1,961	215%		2,154	1,243	136%
Level 3 and I	below subtotal	50%	6,382	4,179	190%	40%	6 5,106	2,903	132%	30%	3,830	1,627	74%

Source: GeoHey

#### Benchmark with low-priced tea shops - Mixue Bingcheng (MXBC, 蜜雪冰城)

MXBC has the largest number of stores among all tea shop chains. It had over 22k stores by Aug 2022 and over 99% of them are franchised. The average price per cup is generally lower than RMB 10.

MXBC is a better proxy than mid-priced tea shops to justify Luckin's store potential in county-level cities. MXBC has the most extensive store network in lower tier cities with footprints in 97% of Level 5 cities and 93% of counties in China. For lower tier cities and counties that Luckin entered, its average store number is 47% of MXBC. Assuming Luckin penetrates all the lower tier cities and counties which MXBC covered, the number of Luckin's stores in counties can reach  $\sim$ 50% of MXBC. This implied Luckin's store potential in lower tier cities and counties is 7,428 stores, 237% upside vs current level. This is slightly higher than the result calculated by empirical approach.

				MXBC (Aug				
		Total # of	Cities	Coverage	Average store		Stores Per city	Total stores
City Level	Туре	cities	covered	ratio	per city	Total Stores	LK / MXBC	LK / MXBC
Level 1	BJ/SH/GZ/SZ	4	4	100%	251	1,005	166%	166%
Level 1.5	Capital	13	13	100%	261	3,387	63%	63%
Level 1.5	Non-capital	2	2	100%	48	96	107%	107%
Level 2	Capital	14	14	100%	141	1,969	43%	43%
Level 2	Non-capital	16	16	100%	49	790	55%	55%
Level 3	Capital	4	4	100%	77	307	25%	19%
Level 3	Non-capital	66	66	100%	38	2,481	27%	27%
Level 4	Capital	2	2	100%	63	125	2%	1%
Level 4	Non-capital	88	88	100%	24	2,116	24%	22%
Level 5	Non-capital	128	124	97%	12	1,476	28%	8%
Perfecture-le	vel cities subtotal	337	333			13,752		47%
County	县级市	388	350	90%	7.5	2,638	39%	18%
County	县	1,483	1,389	94%	4.1	5,713	37%	8%
County-level	cities subtotal	1,871	1,739	93%		8,351		11%
Lower tier ci	Lower tier cities + counties		2,023		7.3	14,856	47%	15%

City Level	Туре	LK / MXBC	Store Potential	# of new stores	Upside
Level 1	BJ/SH/GZ/SZ				
Level 1.5	Capital				
Level 1.5	Non-capital				
Level 2	Capital				
Level 2	Non-capital				
Level 3	Capital	50%	154	97	169%
Level 3	Non-capital	50%	1,241	579	87%
Level 4	Capital	50%	63	62	6150%
Level 4	Non-capital	50%	1,058	603	133%
Level 5	Non-capital	50%	738	621	531%
Perfecture-le	evel cities subto	tal			
County	县级市	50%	1,319	841	176%
County	县	50%	2,857	2,424	560%
County-leve	cities subtotal		4,176	3,265	358%
Lower tier c	ities + counties	50%	7,428	5,225	237%

Source: GeoHey

As another reference point, MXBC's store count tripled from Dec 2019 to Aug 2022 in both prefecture-level and county-level cities. Through the franchise model, Luckin is also able to expand its store network at such a pace in lower tier cities.

	Dec-19	Dec	:-20	Dec	-21	Aug-	22
City level	Store count	Store count	Y/Y growth	Store count	Y/Y growth	Store count	vs Dec-21
Level 1	145	425	193%	772	82%	1,005	30%
Level 1.5	848	2,292	170%	3,214	40%	3,483	8%
Level 2	488	1,355	178%	2,219	64%	2,759	24%
Level 3	718	1,566	118%	2,181	39%	2,788	28%
Level 4	639	1,454	128%	2,026	39%	2,241	11%
Level 5	282	846	200%	1,247	47%	1,476	18%
Perfecture-level subtotal	3,120	7,938	154%	11,659	47%	13,752	18%
County-level subtotal	2,050	5,179	153%	7,257	40%	8,351	15%
Total	5,170	13,117	154%	18,916	44%	22,103	17%

Source: GeoHey

#### 1.2.4 Sanity Check: Benchmark with fast-food chain (KFC)

Although the business nature of freshly brewed coffee is not quite comparable to western QSR, Luckin and KFC have similar site selection criteria in lower tier cities. Both prefer prime locations in shopping malls and shopping streets. Their brand image within their respective category market is also comparable: KFC is a common brand in economically developed areas, but it still has brand premium and emotional utility in lower tier cities. This is also the case for Luckin (Please refer to Thesis 7 – competitive edge 2: Brand).

In terms of city coverage, KFC currently has store footprints in more lower tier cities than Luckin. KFC already covered 71% of Level 5 cities and 43% of counties. Luckin only has store presence in 27% of Level 5 cities and 24% of counties.

In terms of average store count per city, Luckin and KFC are comparable in lower tier cities as they have similar site selection criteria. Especially for counties, average Luckin store count per county entered already reached ~90% of KFC, which is reasonable given that beveraged coffee enjoys a higher purchase frequency than western QSR.

				KFC (Jul 2				
		Total # of	Cites under	Coverage	Average store		Stores Per city	Total stores
City Level	Туре	cities	coverage	ratio	per city	Total Stores	LK/KFC	LK/KFC
Level 1	BJ/SH/GZ/SZ	4	4	100%	355.0	1,420	117%	117%
Level 1.5	Capital	13	13	100%	134.8	1,752	122%	122%
Level 1.5	Non-capital	2	2	100%	110.0	220	47%	47%
Level 2	Capital	14	14	100%	67.1	939	90%	90%
Level 2	Non-capital	16	16	100%	36.0	576	75%	75%
Level 3	Capital	4	4	100%	28.5	114	67%	50%
Level 3	Non-capital	66	66	100%	13.7	907	73%	73%
Level 4	Capital	2	2	100%	20.5	41	5%	2%
Level 4	Non-capital	88	85	97%	7.5	637	76%	71%
Level 5	Non-capital	128	91	71%	3.2	289	105%	40%
Perfecture-le	vel cities subtot	337	297			6,895	94%	94%
County	县级市	388	322	83%	3.5	1,121	84%	43%
County	县	1,483	556	37%	1.6	900	94%	48%
County-level	cities subtotal	1,871	878	47%	2.3	2,021	88%	45%

Source: GeoHey

KFC was more cautious about expanding its store network in new cities as it mainly opened self-operated stores in the past. In the long run, KFC targets to penetrate all cities and counties in China and is currently closely tracking 500 new cities according to management guidance. We believe Luckin also has the potential to penetrate all cities and counties like KFC.

KFC store count	2017	2018	2019	2020	2021	2022Q2
Tier 1-2	2,360	2,719	2,976	3,236	3,675	3,805
Net addition		359	258	259	439	130
Y/Y growth		15%	9%	9%	14%	
Tier 3&below	3,128	3,191	3,558	3,930	4,493	4,705
Net addition		63	366	373	563	212
Y/Y growth		2%	11%	10%	14%	
Total	5,488	5,910	6,534	7,166	8,168	8,510
Net addition		422	624	632	1,002	342
Y/Y growth		8%	11%	10%	14%	
# of cities with KFC	1,200	1,200	1,300	1,500	1,600	1,700

Source: filings, broker estimate

Notes: Total number of stores and number of cities with KFC are disclosed in filings, store count breakdown by city tier is estimated by MS.

Thesis No. 2: The beveraged coffee category has more similar attributes as coffee and western QSR where leading brands take advantage of stable and loyal customer behaviors to build long-term moats and is less similar to the freshly made tea drink category. Luckin's potential route of success in this category lies in attracting and retaining new beveraged coffee customers using its competitive strengths and converting them into loyal coffee drinkers

We compared the brand and category attributes of western QSR, coffee and tea drinks, and think that the beveraged coffee category is more like coffee and western QSR where leading brands can benefit from a more stable consumer behavior and build their own moats, unlike the tea drinks category

- Coffee and western QSR both originate from western culture, unlike tea drinks, on which Chinese consumers have a more discerning taste. As the creator of the new beveraged coffee category with little competition, Luckin has a first mover advantage in defining the category and associating its brand with the category.
- Coffee category targets a wider age group up to 40 (may go up further as the coffee industry matures in China). Although not as wide as KFC, it's significantly better than tea drinks' focus on young customers
- The coffee category has a significant functional demand attribute, leading to a more stable customer demand for classic products; while tea drinks are mainly for emotional needs and leisure occasions, and constant new product launches are needed
- Locations such as office buildings, college campuses and communities work for coffee and western QSR categories, which host a more stable customer group. Tea drinks shops are for leisure needs and are mostly at high traffic locations such as malls or street-sides with random customers

• More importantly, coffee is perceived to be more healthy than western QSR and freshly made tea drinks by Chinese consumers and are additive in nature. A higher consumption frequency can lead to the formation of habits and having favorite brands and products

Leading brand	Starbucks China	Luckin Coffee	Note
No. of stores (Jun 2022)	5,761	7,195	
Store ownership	100% directly-operated	69% directly-operated	
Average spending	40	20	
Pricing tier	High-end	Mid-end	Brand premium needed for higher-end positioning Prime locations help brand
Able to get prime locations	Yes	No (small size; plain decoration)	building
			New products help on
New product launching frequency	Every 6-8 weeks	Every 1-2 weeks	repurchase
Creater of a new category	1999, fresh coffee + space	2020, coffee beverage	
Lead time ahead of competitors	7 - 10 years	2 - 3 years	
Direct Competitors and entry time		Lucky Cup (2021)	
	Pacific Coffee (2011)	Nowwa (2021)	
	Peet's (2017)		
	Tims (2019)		
	Lavazza (2020)		_
Category	Fresh coffee	Fresh coffee beverage	
			Customers have a discerning
Origin	Imported	Mix of imported + domestic	taste on domestic ones
			Young customers create fad
Targeting customer age	Young+mid-aged: 84% age 18 to 40	Younger than coffee but more balanced than tea	risks
Product demand	Functional	Functional+emotional	Classic products preferred for functional needs
Customer need for new products	Classic	Classic + new	
edeternor need for new products		Top 3 SKUs account for ~50% of rev	
Occasions	Office + space	Office + leisure	
	Cinco i opaco		stable customer base in
Locations	Malls, offices	Malls, offices, college campus	offices/campus/communities
Demand for in-store space	High	Low	relies more on product itself
	<b></b>		can be consumed more
Perceived to be healthy	Healthy	Healthy	frequently
Level of addictiveness	High: caffeine	High: caffeine + sugar	
Purchase frequency	2-3 times per month and increasing	2-3 times per month and increasing	
Seasonality	All year round	All year round	
,	,	,	
Customer choices based on	Space, brand	Taste, convenience, brand (lower tier cities)	
			brands' offering needs to
Leading brand key differentiator	Space, brand	Taste, convenience, brand, value for money	match core demand above
Easier to build moat		<u> </u>	
Difficult to build moat			
	1/20 011		
Leading brand	KFC China	HeyTea	
No. of stores (Jun 2022)	8,510	842	
Store ownership	91% directly-operated	100% directly-operated	
Average spending	35	25	
Pricing tier	Mid-end	High-end	
Able to get prime locations	Yes in lower tier cities	Yes	
New product launching frequency	Every 1-2 weeks	Every 1-2 weeks	l
Creater of a new category	1987, western QSR	2017, 3rd generation fresh tea drinks	

Leading brand	KFC China	HeyTea
No. of stores (Jun 2022)	8,510	842
Store ownership	91% directly-operated	100% directly-operated
Average spending	35	25
Pricing tier	Mid-end	High-end
Able to get prime locations	Yes in lower tier cities	Yes
New product launching frequency	Every 1-2 weeks	Every 1-2 weeks
Creater of a new category	1987, western QSR	2017, 3rd generation fresh tea drinks
Lead time ahead of competitors	3 - 8 years	1 - 2 years
Direct Competitors and entry time	McDonald's (1990)	Nayuki (2018)
	Dicos (1994)	Shuyi Tea (2020-21 upgrade)
	Burger King (2005)	Chabaidao Tea (2020-21 upgrade)
	Hualaishi (2001)	Guming Tea (2020-21 upgrade)
		Coco Tea (2020-21 upgrade)
Category	Western QSR	Fresh tea drinks
Origin	Imported	Domestic
Targeting customer age	Wide coverage: Age 3 to 50	Young: 78% age 10 to 30
Product demand	Functional	Emotional
Customer need for new products	Classic + new	New
		Top 3 SKUs account for 28% of rev (Nayuki)
Occasions	QSR: for kids, work, on the road etc.	Leisure: shopping, watching TVs/movies etc.
Locations	Malls, community, on the road	Malls, streets with high traffic
Demand for in-store space	High	Low
Perceived to be healthy	Not healthy	Not healthy
Level of addictiveness	Low	Mid: sugar
Purchase frequency	twice per month	1-2 times per month per brand
Seasonality	All year round	High in summer months and low in winter months
-		
Customer choices based on	Food safety, convenience, taste	Taste, convenience, quality
Leading brand key differentiator	Food safety, convenience, taste	Brand, quality, taste
Easier to build moat		
Difficult to build moat		

Source: SLC analysis, interviews, Quest Mobile

The beveraged coffee is a new sub-category of coffee and it shows some attributes of the tea drink category, such as emotional demand and leisure occasions, demand for fancy new products etc. The level of difficulty in building a long-term moat for Luckin may fall in between classic coffee and tea drink categories (we consider building moat in tea drink industry to be the most difficult). Only the new customers attracted by beveraged coffee products show kinds of similar consumer behaviors to freshly made tea drink customers. But in the end, Luckin customers are drinking coffee products with higher addiction than tea drinks. There's a potential path for Luckin to keep attracting and retaining new customers by constantly launching innovative beveraged coffee, and gradually convert them into more loyal and functional coffee drinkers with caffeine addiction. Luckin has a balanced product portfolio including classic coffee and specialty coffee offerings to retain mature coffee drinkers.

We further compared the user behavior and user profiles of APP and mini-programs users of different brands within those categories, which supports our analysis above.

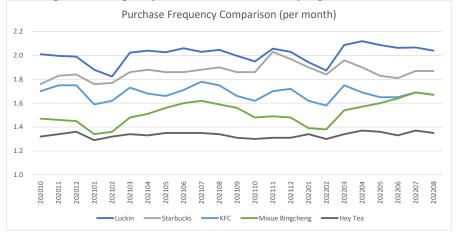
- There are distinct differences between customers of western QSR (esp. KFC) and freshly made tea drinks. Customers of KFC use APP more and have higher usage frequency per month. They also have a more balanced gender and age distribution than freshly made tea drink users. Customers of freshly made tea drink are much younger, and the majority are not surprisingly un-married. The two lowest priced tea drink brands Mixue Bingcheng and Yihetang, both have around 30% of their users under the age of 18
- If we look at the coffee brands, esp. Starbucks and Luckin, it's clear that their user behavior and profiles are more like KFC but not tea shop brands. Both Starbucks and Luckin's customers have higher usage frequency of App than KFC. Luckin users are more balanced in gender and younger than Starbucks, but both brands have a significantly higher % of users at the age of 31-40, unlike tea shop brands. It's a bit surprising to see that the other two coffee brands, Tims and Manner, both have a young user base similar to that of tea shop brands, but they do enjoy a higher usage frequency than the tea shop brands

Channel	Brand	CN	Total MAU	APP MAU	Usage days	Female %	Married %				Ag	e				Age
				% of total	per month			< 18	19-24	25-30	31-35	36-40	41-45	46-50	51+	Avg.
APP+Mini-program	KFC	肯德基	50	43%	2.6	47%	56%	8%	25%	22%	20%	10%	5%	6%	4%	30
APP+Mini-program	McDonald's	麦当劳	35	23%	2.2	44%	52%	10%	29%	20%	15%	8%	5%	6%	5%	29
Mini-Program	Hualaishi Burger	华莱士	10	0%	1.4	38%	49%	12%	30%	18%	19%	5%	6%	6%	5%	29
Mini-Program	Zhengxin Chicken	正新鸡排	5	0%	1.2	53%	56%	15%	18%	17%	17%	7%	7%	10%	8%	31
APP+Mini-program	Dicos	德克士	3	20%	1.2	53%	56%	10%	24%	19%	19%	8%	7%	9%	4%	31
Mini-Program	Burger King	汉堡王	3	0%	1.4	38%	45%	9%	41%	21%	12%	5%	4%	5%	3%	27
APP+Mini-program	Starbucks	星巴克	11	61%	2.7	56%	61%	7%	20%	26%	27%	12%	3%	3%	2%	30
APP+Mini-program	Luckin	瑞幸咖啡	25	54%	2.8	52%	52%	6%	30%	26%	23%	9%	2%	3%	1%	28
Mini-Program	Tims Coffee	Tims咖啡	0	0%	1.7	51%	37%	6%	47%	27%	7%	5%	3%	4%	1%	26
Mini-Program	Manner Coffee	Manner	0	0%	2.0	53%	32%	9%	61%	15%	3%	4%	0%	4%	3%	25
Mini-Program	HeyTea	喜茶	7	1%	1.5	44%	37%	8%	50%	21%	8%	4%	3%	4%	1%	26
Mini-Program	Nayuki Tea	奈雪	3	1%	1.6	50%	38%	9%	47%	24%	9%	5%	2%	3%	1%	26
Mini-Program	Coco Tea	Coco都可	6	0%	1.3	54%	41%	11%	39%	21%	12%	5%	3%	6%	2%	27
Mini-Program	Guming tea	古茗	5	0%	1.6	59%	35%	20%	37%	18%	11%	4%	3%	5%	2%	26
Mini-Program	Hushang Tea	沪上阿姨	4	0%	1.3	62%	38%	21%	33%	17%	11%	5%	3%	7%	4%	27
Mini-Program	Chabaidao Tea	茶百道	3	0%	1.3	65%	33%	10%	47%	32%	4%	2%	1%	4%	0%	25
Mini-Program	Yidiandian Tea	1点点	2	0%	1.4	54%	28%	13%	52%	17%	7%	3%	3%	4%	1%	25
Mini-Program	Shuyi Tea	书亦烧仙草	. 2	0%	1.3	58%	36%	17%	38%	17%	11%	4%	3%	7%	2%	27
APP+Mini-program	Mixue Bingcheng	蜜雪冰城	20	3%	1.6	54%	34%	27%	31%	15%	12%	3%	4%	7%	1%	25
Mini-Program	Yihetang Tea	益禾堂	2	0%	1.6	57%	27%	31%	40%	9%	8%	2%	3%	6%	2%	24

Source: QuestMobile, Jun-Jul 2022

Comparing purchase frequency and new user retention of Luckin with other brands using online customer purchase survey:

The purchase frequency of coffee brands is notably higher than tea brands, also higher than KFC



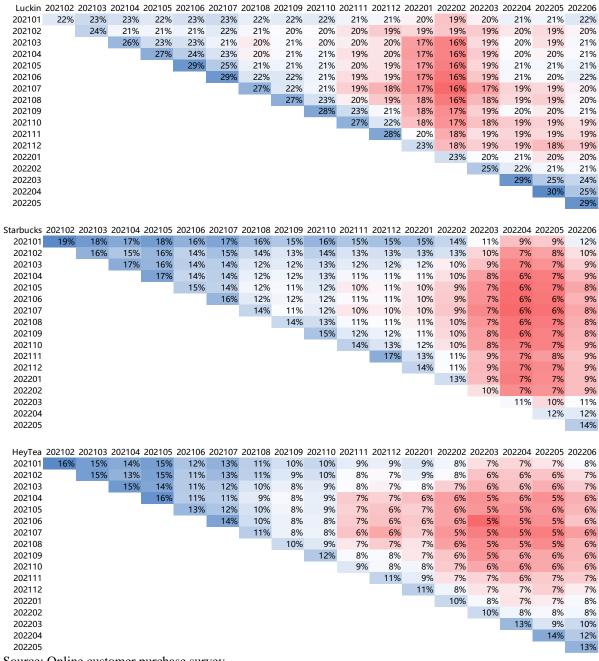
Source: Online customer purchase survey

• Tracking purchase frequency Y/Y growth for new user cohorts after one year of their first purchase: coffee brands new users generally increase their purchase frequency, while new users of tea brands do the opposite.

growth of purchase frequency of new user cohorts M+14 M+15 M+16 M+17 M+14 M+15 M+16 M+17 M+14 M+15 M+16 M+17 202101 19% 22% 15% -4% 21% 12% 2% 4% -8% -3% 0% -10% 4% 11% -1% 202102 22% 27% 26% 18% 9% 5% -4% -1% -5% -7% 0% -7% -2% 202103 14% 24% 16% 6% 3% 1% -2% -4% -3% -6% -7% 0% 202104 4% -3% 13% 2% 0% -5% 10% -1% 7% 202105 8%

Source: Online customer purchase survey

• Retention rate of different user cohorts (grouped by the month they make their first purchase): Luckin's monthly retention rate is in sequence higher than Starbucks and HeyTea (as it's only monthly retention, the higher absolute number may also come from higher purchase frequency). The retention rate for coffee brands also declines at a lower speed than tea brands.



Source: Online customer purchase survey

#### Case study: the rise and fall of HeyTea and its implications on Luckin

HeyTea was the first mover of the 3<sup>rd</sup> generation of freshly made tea drinks, which is defined mainly by the use of high-quality ingredients such as tea leaves (vs. tea powder), real milk (vs. creamer) and fresh fruits (vs. fruit-flavor syrup) and premium price. HeyTea used to be the signature brand of the category and enjoyed average store sales of over 30 times of industry average in 2018 (please refer to Section 2 – Industry Overview for details). However, its same store sales experienced a higher-than-industry-average decline of 20-30% in 2H21 and 1H22, which caused the company to turn from profit to net loss in 2H21.

Hey Tea					
MB mn	2018	2019	2020	2021	2022E
evenue	1,600	3,050	5,122	5,987	6,447
Y/Y growth		91%	68%	17%	8%
f stores 8	3 163	372	695	840	900
let addition	80	209	323	145	60
vg.	123	268	534	768	870
nly sales per store	1.08	0.95	0.80	0.65	0.62
Y growth		-12%	-16%	-19%	-5%
e per cup	25	25	25	25	20
me per store per day	1,426	1,249	1,052	855	1,015
ncome	160	305			
M	10%	10%			
ion (US\$ mn)		1,385	2,462	9,231	
ation (RMB mn)		9,000	16,000	60,000	
(Current Year)		30x			
stment Round	В	B+	С	В	
e	8/22/2016	7/1/2019	3/23/2020	7/13/2021	
a nublic nave SIC actir	motos				

Source: public news, SLC estimates

We attribute the sharp decline of same store sales to both external and internal factors and consider the intensifying competition in a low-barrier category as the main reason.

#### External factors:

- Both the Covid and the gradual maturity of the category caused the declining growth rate of freshly made tea drink industry
  - Most mid-end and high-end freshly made tea drink brands are cutting their new opening plans in 2022 to half of 2020-2021 levels
  - Based on Meituan delivery, the biggest delivery platform in China, the growth rate of freshly tea drinks delivery orders slowed down from 200% in 2020 to 100% in 2021, and further to 34% in 8M2022
- Mid-end tea drinks brands started to offer more premium fresh fruit tea products and use the franchise model to penetrate higher tier cities from the year 2021, the two past strongholds of HeyTea
  - Fresh fruit tea: HeyTea mainly offers two types of tea drinks: fresh fruit tea and milk tea and identified fresh fruit tea as its core competence and differentiator in the past, owning to the advantage of its self-operated model to better address the complexity of supply chain and store-level preparation of fresh fruits. However, the mid-end tea drinks players using franchise models made great effort to improve their supply chain of fresh fruits and started to offer fresh fruit tea at prices RMB 5-10 lower than HeyTea. They also explored various products using non-mainstream fruits which are eye-catching and attractive to young customers
  - Higher tier cities: HeyTea and Nayuki, the two dominant brands in high-end freshly made tea drinks concentrated their presence in Tier 1-2 cities, while the mid-end and low-end brands focused on lower tier cities using franchise models in the past. The franchise brands started to penetrate into higher tier cities from 2021, posing direct competition to HeyTea and Nayuki's stores

#### Internal factors:

- Less blockbuster products showing weakening R&D capabilities and intensifying competition
  - O HeyTea used to lead the market trend of freshly made tea drinks and launched several hit products such as cheese grape tea. Starting from 2021, however, the R&D capabilities seemed weakened and Hey Tea hasn't launched blockbuster products.

 As more players entered the fresh fruit tea category, brands are competing on new product launches and exploring products using niche fruits that are rarely heard of to attract customer attention. Nayuki's top SKUs in 2021-2022 are quite different from those in 2019-2020, and a lot of them used niche fruits:

Top SKU	2019	2020	2021	2022.5	2022.6
HeyTea top 5	Cheese grape	Cheese grape			
	Cheese strawberry	Cheese mango & grapefruit			
	Cheese peach	Cheese strawberry			
	Cheese mango	Black sugar boba milk			
	Black sugar boba milk	Cheese peach			
Nayuki Top 3		Cheese strawberry	Emblica tea	Rubra tea	Peach tea (1L)
		Orange tea		Leechee tea	Peach tea (500ml)
		Cheese grape		mango & grapefruit	mango & grapefruit
Top 3 as % o	f total				
HeyTea	41%				
Nayuki		28%			
Source: filing	gs				

- Stick to higher tier cities and cut price aggressively but not expand into lower tiers to attack the strongholds
  of franchise brands
  - Facing upward competition from franchise mid-end brands, HeyTea chose to stick to its stronghold higher tier city markets and cut price aggressively (from RMB 25-30 per cup to RMB 15-20 per cup), making its products more competitive than mid-end brands, but undermining its own profitability
  - We think a better strategy is to expand to lower tier cities to attack the strongholds of mid-end competitors, better by using franchise model like Luckin. However, it's difficult for a company using self-operated model to change their mindset, and HeyTea decided to stick to self-operated model in higher tier cities, re-strengthening brand power in their stronghold markets first
- The opening of smaller store format diluted the premium brand positioning
  - O HeyTea launched its smaller store format "HeyTea Go" in 2019, simplifying store decoration and product menu to offer speed pick-up or delivery services. HeyTea Go stores are usually 40-70 square meters in size, compared to its conventional store format of 150 square meters. There are 181 HeyTea Go stores by Aug 2022, accounting for 20% of total
  - O HeyTea's management thinks that the smaller store format is more cost efficient but diluted its premium brand positioning and hurt customer experience. Starting from 2022, the company shifted opening focus back to conventional large stores and decided to open less Go stores. We are not very convinced about this analysis and decision
- Distraction of CEO's attention from key functions and departure of executives
  - HeyTea's founder and CEO Neo Nie used to spend most of his time leading product R&D and brand building, the two most important competitive advantages of the company. Starting from 2021, however, HeyTea started to shift into a "platform" business model from single brand, acquiring majority and minority stakes in more than 10 smaller freshly drinks companies. Neo's attention to the main HeyTea brand was greatly distracted
  - In 2H21, HeyTea's Head of Operations (ex-Starbucks) left the company to join Peet's Coffee, which further distracted Neo's attention to care for daily store operations details

As partly mentioned above, HeyTea reacted to the same store sales decline in several ways:

- Slow down store opening significantly from 2H21
- Cut price per cup from RMB 25-30 to RMB 15-20; The GPM was kept constant by cutting cup size and reducing the amount of high-cost ingredients in each cup such as fruits
- Shift new opening to conventional large size stores rather than Go stores
- Change into a "platform" company by investing in and empowering smaller brands

#### Implications on the coffee category and Luckin:

Brand power and product strength in a low-barrier category can be short-lived, esp. in the mature freshly
made tea drink category where Chinese customers have a discerning taste of products. Also, we don't think
HeyTea did a good job in strengthening its brand power after initial success in 2017-2018. Although it
probably did the most co-branding campaigns in 2019-2020, it didn't associate the brand with customers'

- spiritual needs or build enough brand loyalty. Luckin is on the right track to foster the brand elements but still has a long way to go to build a powerful brand
- The ever-changing customer preference of freshly made tea drink is more in the fruit tea drinks, not milk tea. The top selling SKUs of fresh fruit tea change a lot for every 1-2 years, but top sellers of milk tea are relatively stable, probably thanks to less varieties of milk than fruit. Coffee, on the other hand, are mostly consumed in the form of latte in China nowadays and are more like milk tea. Fruits don't fit so well with latte (Luckin and Nowwa both launched various fruit latte products, esp. in 2022, but none became best-seller products). Luckin's blockbuster products, incl. coconut milk latte, newer latte, velvet latte and coconut cloud latte, are all made from milk with special flavors or different types of milk like coconut milk. The popularity of newer latte (launched in 4Q20) and coconut milk latte (launched in 2Q21) was hardly impacted with the launch of new star products, indicating a longer life cycle
- The price of mid-end and high-end freshly made tea drink converged to the same price range of RMB 15-20 per cup. Luckin's actual selling price of freshly brewed drinks of RMB 16-17 in 2Q22 is also within this price range. Although we have seen a meaningful price hike in the past 1-2 years, we think the further upside in effective pricing is limited (please refer to thesis no.5 for details)
- It's usually difficult for a company starting from self-operated model to accept the concept of expanding by franchise model, and it requires different skillsets to build a successful franchise business. Luckin is a rare brand that can manage both businesses well

#### Module 2: Evolution of Luckin's business model

# Thesis No. 3: Evolution of self-operated store UE of raising sales volume and effective selling price at the same time, supported by attractive beveraged coffee products rather than discount

2020 short report – business model flaw #2: Luckin's customers are highly price sensitive, and retention is driven by generous price promotion; Luckin's attempt to decrease discount level (i.e., raise effective price) and increase same store sales at the same time is mission impossible. This conclusion was valid in 2019 because the market Luckin targeted at that time – the core functional coffee product - was a niche market and moderately growing in China. There was not enough real demand from consumers for Luckin's products, and Luckin had to use price promotion to "push" their products to them. It's no wonder that this model attracts mostly price sensitive customers, and the customer retention rate was positively related to Luckin's discount level, which was shown by the retention rate data disclosed from Jan 2018 to Mar 2019 (after which Luckin started to fabricate transactions and real-case retention data were not available).

As outlined in Thesis no. 1, Luckin now entered the beveraged coffee market with a significantly enlarged TAM. Customers were drawn to Luckin by innovative beveraged coffee products, i.e., the real demand for Luckin's products increased significantly. As customers became less price sensitive, Luckin was able to charge a higher effective price for their products. As shown by the performance history below, there were three step-changes in Luckin's unit sales volume and ASP of its self-operated stores from 2Q20 to now:

- A new management team took over in May 2020. The new management team increased effective price as the first step: discontinuing free coffee promotion for new customers, reduce discount level (18-28% effective price coupons were eliminated; 38% effective price coupon which was the predominate type became rare to see), increased list price by RMB 1 twice, each in Feb and Sep 2020. The increase in effective price happened before the launch of popular beveraged coffee products, so the unit sales volume in 2Q-3Q20 was lower than 2019 level, showing a similar positive correlation trend to discount level as 2019
- Launch of Newer latte (creamy milk latte) in Sep 2020. As "one of the signature innovative products" (quoting Luckin 2021 20-F), newer latte was well received by customers, despite that it's priced RMB 1-2 higher than traditional latte (effective selling price). Luckin managed to increase unit sales volume and ASP at the same time quarter over quarter. Unit sales volume almost reached 2019 level with much higher effective selling price
- Launch of coconut milk latte in Apr 2021. Coconut milk latte is Luckin's most successful beveraged coffee product so far, with one single SKU accounting for over 16% of Luckin's freshly brewed drinks sales volume in 2Q-4Q21 and 19% in 1Q22. Priced at RMB 2 higher than Newer latte and RMB 3-4 higher than traditional latte (effective selling price), the blockbuster product helped Luckin to reach historical-high ASP with a moderate growth in unit sales volume from 2019 level. The ASP and unit sales volume stayed at a relatively stable level from 2Q21



Source: Filings

2020 short report — business model flaw #3: Flawed unit economics that has no chance to see profit: Luckin's broken business model is bound to collapse. It's true that Luckin couldn't find a viable business model at store-level in 2019 because it needed to increase unit sales volume and price at the same time, but the two had a negative correlation. However, having entered the enlarged beveraged coffee market in late 2020, Luckin managed to strike a balance between volume and price, at a level that can support a sustainable store-level profit and payback model, which we'll elaborate below.

Before diving into unit economics details, it's worth pointing out that it was more of a coincidence, not predetermined strategy, for Luckin to find and follow the beveraged coffee route that made it store-level economics work.

As we'll discuss in detail in thesis no. 7, Luckin's product R&D has two separate teams, one is a more traditional coffee professional R&D team that's similar to other coffee brands, and the other is a quite unique "beverage R&D" team which launched most of the star beveraged coffee products, such as coconut milk latte, newer latte, velvet latte and coconut cloud latte. The beverage R&D team was not set up on purpose; most of the team members were recruited in 2019 for the launch of "Luckin Tea" as a separate brand. However, the tea products in Luckin coffee shops or the separate "Luckin Tea" shops performed well due to inherent flaws that will be discussed more in Neutral no. 1. The team turned to coffee product R&D for a change by adding milk tea elements to coffee products, which matched the taste preference of non-coffee drinkers: less bitter and sour "coffee elements" but more beverage-like. After the initial success of newer latte in 4Q20, the management team put more resources into the beverage R&D team and increased new product launch frequency in 2021, when 113 freshly brewed beverages were launched in the year, i.e., more than two each week. The huge success of coconut milk latte launched in Apr 2021 was the result of those vast number of attempts.

We gave credits for Luckin management's flexibility to allow its beverage R&D team to go on a different direction of coffee product innovation, and their quick response in putting more resources when the sales data tells what products consumers really want. Luckin's industry-leading store network and scale of supply chain also enable it to do the vast number of new product trials. It's a mixture of luck and certainty for Luckin to launch the game-changing product coconut milk latte after the management team decided to give it a try in the beveraged coffee market, but the route was not written in Luckin's strategy back in 2019.

#### Comparison of Luckin's Unit Economics of self-operated stores in 2019 and 2021:

We used the 12-month period from 2Q21 to 1Q22 to compare with 2019 numbers, considering the third step-change in Luckin's unit sales volume and ASP after the blockbuster product "coconut milk latte" was launched in Apr 2021.

- Top line: ASP increased thanks to discontinuing of free coffee promotion, less discount and higher-price new products. Sales volume increased moderately thanks to the new beveraged coffee products.
- Costs and expenses: Luckin's new management team controls costs and expenses more stringently, esp. on delivery subsidy, COGS wastage and labor efficiency. Coupled with economies of scale, the costs and expenses were lower than the 2019 level too.

- Now the gross profit from each freshly brewed item is RMB 10.1, up from RMB 3.6 in 2019. This is the game-changer of the store UE.
- Luckin's stores changed from cash flow losing (EBITDA negative) in 2019 to a positive EBITDA margin of 28% now. The store-level operating margin turns from -45% to +21%, and payback period is 12 months, one of the best among listed restaurant peers.

mb, monthly if not specified otherwise	2019	2Q21-1Q22	
Total items per store per day	255	318	
Freshly brewed	219	283	Incl. 35 cups of free coffee in 2019 (ceased from May 2020)
Others	36	35	No change in absolute number: not growth driver
% of total	14%	11%	• · · · · · · · · · · · · · · · · · · ·
	•		
ASP, rmb	9.7	14.3	ASP incl. free coffee
Freshly brewed	9.7		Less discount + launching higher-price new products
Others	9.9	7.5	Product mix change
			·····
Monthly rev (excl. delivery rev)	74,419	136,079	
Monthly rev (incl. delivery rev)	79,037	143,920	
Delivery rev	4,618	7,842	
Per order	3.6	4.5	Lifted threshold for getting delivery subsidy
			,
COGS per item			free coffee COGS in S&M in 2019; SLC adjust it back
Freshly brewed	6.1	5.0	Product mix change (less tea and Exfreezo % which have higher COGS) + economy of sca
Others	7.9	5.0	Product mix change
		3.0	· · · · · · · · · · · · · · · ·
GP per item			
Freshly brewed	3.6	10.1	Main difference that makes UE work
GPM	37%		2021 level is at coffee shop industry average GPM
Others	2.0	2.5	at control only inductify around of the
GPM	20%	33%	
±: en	2070	5576	
Monthly GP	25,826	88,379	
GPM	35%	65%	
Freshly brewed	23,684	85,755	
Others	2,142	2,624	
Oulers	۷,۱4۷	2,024	
Store rental	14,000	14,000	
As % of rev	19%	10%	
AS % Of lev	1976	10%	
Labor	23,715	23,850	
As % of rev	32%	18%	
Labor cost per item	3.1	2.5	Active control measures + increased sales volume
Labor cost per item	3.1	2.5	Active control measures + increased sales volume
Utilities and others	4,200	4,300	
As % of rev	6%	3%	
AS % Of lev	0%	3%	
Delivery fee, monthly	12,444	16,032	
As % of rev	17%	10,032	
Delivery fee per order	9.7	9.2	Economy of scale
No. of total orders	9.7 196	212	Loonomy or soale
	1.3	1.5	Higher for delivery orders
Items per order			Higher for delivery orders
No. of delivery orders	43	58	Higher due to Covid Leengumer helpovier change
%	22%	21%	Higher due to Covid + consumer behavior change
Store-level EBITDA	(23,914)	38,038	
As % of rev	-32%		
A5 % UI IEV	-32%	28%	
Capex	450,000	450,000	
Payback months	(19)	<b>450,000</b>	
	. ,		
Payback years	(1.6)	1.0	
D&A	9,500	9,500	
As % of rev	13%	7%	
Stara laval profit	(22.44.4)	20 520	
Store level profit RLM	<b>(33,414)</b> -45%	<b>28,538</b> 21%	
Company reported Source: Filings, SLC model	-38%	22%	free coffee COGS not in store-level in 2019; SLC adjust it back

Based on the case of 2Q21-1Q22 (latest cost and expenses numbers), we did sensitivity analysis on total items and ASP. Note that ASP (excl. VAT) is the company's reported number, while ASP (incl. VAT) is what customers are paying.

Freshly brewed ASP (incl. VAT)	Freshly brewed ASP (excl. VAT)			To	ital items per s	store per day			
	28,538	100	200	300	400	500	600	700	800
10.6	10.0	(23,701)	(19,601)	(15,502)	(11,402)	(7,303)	(3,204)	896	4,995
11.7	11.0	(21,031)	(14,261)	(7,492)	(722)	6,047	12,816	19,586	26,35
12.7	12.0	(18,361)	(8,921)	518	9,958	19,397	28,836	38,276	47,715
13.8	13.0	(15,691)	(3,581)	8,528	20,638	32,747	44,856	56,966	69,07
14.8	14.0	(13,021)	1,759	16,538	31,318	46,097	60,876	75,656	90,435
15.9	15.0	(10,351)	7,099	24,548	41,998	59,447	76,896	94,346	111,79
17.0	16.0	(7,681)	12,439	32,558	52,678	72,797	92,916	113,036	133,15
18.0	17.0	(5,011)	17,779	40,568	63,358	86,147	108,936	131,726	154,51
19.1	18.0	(2,341)	23,119	48,578	74,038	99,497	124,956	150,416	175,875
20.1	19.0	329	28,459	56,588	84,718	112,847	140,976	169,106	197,235
21.2	20.0	2,999	33,799	64,598	95,398	126,197	156,996	187,796	218,595
Store-level operating margin									
Freshly brewed ASP (incl. VAT)	Freshly brewed ASP (excl. VAT)			To	tal items per s	store per day			
	0	100	200	300	400	500	600	700	800
10.6	10.0	-81%	-34%	-18%	-10%	-5%	-2%	0%	29
11.7	11.0	-66%	-22%	-8%	-1%	4%	7%	9%	109
12.7	12.0	-53%	-13%	1%	7%	11%	14%	16%	179
13.8	13.0	-42%	-5%	8%	14%	18%	20%	22%	239
14.8	14.0	-33%	2%	14%	20%	23%	25%	27%	289
15.9	15.0	-24%	8%	19%	25%	28%	30%	32%	33
17.0	16.0	-17%	14%	24%	29%	32%	34%	36%	37
18.0	17.0	-10%	19%	28%	33%	36%	38%	39%	40
19.1	18.0	-5%	23%	32%	37%	39%	41%	43%	44
20.1	19.0	1%	27%	35%	40%	42%	44%	45%	46
21.2	20.0	5%	30%	39%	43%	45%	47%	48%	499
Payback months									
Freshly brewed ASP (incl. VAT)	Freshly brewed ASP (excl. VAT)			To	tal items per s	store per day			
	12	100	200	300	400	500	600	700	800
10.6	10.0	(32)	(45)	(75)	(237)	205	71	43	3
11.7	11.0	(39)	(95)	224	` 51 <sup>′</sup>	29	20	15	13
12.7	12.0	(51)	777	45	23	16	12	9	
13.8	13.0	(73)	76	25	15	11	8	7	
14.8	14.0	(128)	40	17	11	8	6	5	
15.9	15.0	(529)	27	13	9	7	5	4	
17.0	16.0	247	21	11	7	5	4	4	
18.0	17.0	100	16	9	6	5	4	3	
19.1	18.0	63	14	8	5	4	3	3	
20.1	19.0	46	12	7	5	4	3	3	2
21.2	20.0	36	10	6	4	3	3	2	

Source: SLC model

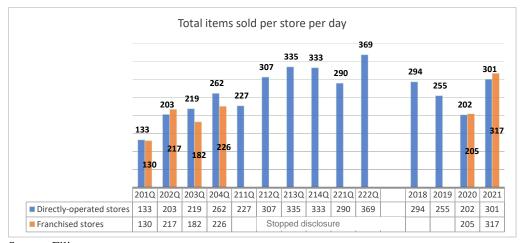
To breakeven store-level profit at the current price level, the store needs to sell a total of 160 items per day, generating monthly revenue of RMB 72k incl. delivery fee revenue (or RMB 68k without delivery fee revenue). Based on our interviews, as fast expansion and market share protection are also priorities in addition to store profitability, the company uses store-level profit >0 rather than a certain payback level as the lowest threshold to approve opening of new self-operated stores. As a result, not all self-operated stores are above the breakeven level. We estimate that about 5-10% of self-operated stores are loss making, and 15-20% are around breakeven level. This % is higher than the industry average, but acceptable as the rental terms are only three years, and the light-storefront business model allows relocation and optimization of stores more easily than other brands.

Thesis No. 4: The franchise model offers decent return to both franchisees and Luckin itself in lower tier cities; Luckin has the potential to further increase its gross profit sharing ratio with franchisees as the current franchisee return is above industry-average

#### Development history of franchise model

Luckin launched its franchise model in Sep 2019 (or partnership model, as the company calls it), and opened the first store in Oct 2019. Initially they used a newly set-up brand "Luckin Tea" for franchising, but soon made its main brand "Luckin Coffee" available for franchising as well. However, the "Luckin Tea" stores performed poorly due to less brand awareness and no product edge in the highly competitive tea drinks market. Coupled with the impact from Covid-19, most "Luckin Tea" stores were loss making in the year 2020. The new management decided to give up "Luckin Tea" as a separate store brand at the end of 2020 and asked existing franchisees to convert their stores into "Luckin Coffee" brand. The company had self-operated stores in 56 cities at that time, mainly Tier 1-2 ones. They decided to continue opening self-operated stores exclusively in those Tier 1-2 cities and use franchise model only to expand in lower tier cities. The use of franchise model in lower tier cities greatly increased expansion speed and reduced Luckin's risk of opening stores in new cities.

The performance of franchise stores followed a similar trend as self-operated ones in 2021 and 2022 with sales volume improving significantly after the launch of star products like Newer Latte and Coconut Milk Latte. Sales volume per store exceeded that of self-operated stores in 2021, showing strong performance in lower tier cities. According to our interviews with more than 10 Luckin franchisees across different regions, Luckin's franchise model now works in most county-level and above cities with little competition from coffee chains in lower tier cities, and there's vast demand from potential franchisees to open new stores.



Source: Filings

#### Business model of Luckin's franchise model

Luckin's franchise model was designed in 2019 and there's been no material change since then. It's different from the prevalent franchise model used in the restaurant industry, such as tea shops, braised food shops and breakfast bun shops. As detailed in the table below, Luckin doesn't charge a fixed amount of one-time or annual franchise fee as other brands, and it doesn't charge a sales commission based on store GMV. Instead, it mainly earns profit from two sources: gross profit (GP) sharing if the stores' monthly GP is higher than RMB 20k, and selling raw materials used in daily operations to franchise stores exclusively. Based on interviews with Luckin's franchisees, the unconventional GP sharing model is acceptable or even preferable than the GMV commission model, as it aligns the company's interest better with franchise stores' profitability. If a store's monthly GP is less than RMB 20k, the store is usually loss making after paying rental, labor and other operating costs, but still needs to pay a % of GMV to the brand owner under the GMV commission model. However, as RMB 20k is lower than Luckin's GP sharing threshold, it doesn't need to share its GP with Luckin in this case. Luckin's GP sharing also grows as the franchise store generates more revenue and profit, and thus franchisees believe that aligns Luckin's interest with them. Luckin is able to use the GP sharing scheme because it has access to 100% of its franchise stores' revenue and raw materials costs, but it's not the case for most other brands: most tea shops and Malatang (spicy Chinese fast food, 麻辣烫) brands don't supply 100% of raw materials to their franchisees (fruits and vegetables need to be procured locally), and breakfast bun shops don't have access to their franchise stores' revenue due to lack of central cashier systems.

	Restaurant Industry Norm	Luckin
One-time or annual:		
One-time or annual franchise fee	Fixed amount rmb 10k to 100k	None
Profit from selling equipments and decoration materials	Yes	Yes
Ongoing:		
% of revenue as brand and S&Mfee	3% - 5% of GMV	None
Gross profit (GP) sharing	None	Yes if GP is higher than rmb 20k per month
Profit from selling raw materials	20-40% GPM	17-18% GPM

Source: Filings, interviews

Below is the franchise revenue breakdown of Luckin. The first two are significant profit contributors and are ongoing in nature.

- Sales of raw materials: thin GPM ongoing revenue. Luckin didn't disclose its GPM of selling raw materials to franchise stores, and we used sampled franchise stores financials to estimate that the GPM is 17-18%
- Profit sharing: high margin business with low operating expenses such as staff costs of the franchise department. Also enjoys cost leverage as most costs are fixed in nature
- Sales of equipment: thin GPM one-time revenue happened before the opening of each franchise store. Based on our check of equipment purchase price by franchisees, it's quite similar to Luckin's equipment procurement cost, so we think Luckin earns no margin or less than 5% GPM on this revenue
- Other services: mostly (93% in 1H22) delivery fee that Luckin collects on behalf of delivery vendors that would flow through. Also includes one-time design services for new stores' decoration and sales of decoration materials. Insignificant profit contribution given the flow-through nature of delivery fee and insignificant amount of others

rmb m	2018	2019	2020	2021	1H22
Revenues from partnership stores	-	15	317	1,306	1,327
As % of total rev	0%	1%	8%	16%	23%
Y/Y growth			1964%	313%	201%
Sales of raw materials		13	227	835	866
% of rev from partnership stores		82%	72%	64%	65%
Profit sharing		0	13	145	171
% of rev from partnership stores		1%	4%	11%	13%
Sales of equipments		-	43	179	148
% of rev from partnership stores		0%	14%	14%	11%
Other services (mostly delivery)		3	33	148	142
% of rev from partnership stores		16%	11%	11%	11%

Source: Filings

As sales of raw materials enjoys a fixed GPM, and profit sharing enjoys cost leverage as discussed above, the store-level margin of Luckin's franchise revenue is higher than self-operated revenue once there's enough number of franchise stores to cover its limited operating expenses (mainly new franchisee development and operating staff costs). Luckin's franchise model turned profitable on the store-level in 2020 based on our calculation and continued to expand margin in 2021. Unlike self-operated model, the franchise model is not subject to loss making risk even when store-level revenue is impacted significantly by negative events such as Covid-19.

rmb m	2018	2019	2020	2021	1H22
OP excl. SG&A	(714)	(1,118)	(600)	1,417	1,429
As % of product sales	-85%	-37%	-15%	18%	25%
Self-owned stores	(714)	(1,131)	(603)	1,122	1,067
Store-level margin, calculated	-91%	-40%	-17%	18%	26%
As % of total OP excl. SG&A			100%	79%	75%
Partnership stores			3	295	362
Store-level margin, calculated			1%	23%	27%
As % of total OP excl. SG&A			0%	21%	25%

Source: Filings, SLC model

#### Gross profit (GP) sharing ratio: 3 Cases

Luckin has been applying temporarily favorable GP sharing ratios since the inception of its franchise business in 2019 to encourage the first batch of franchisees to open stores, and because Luckin went through the financial fraud crisis in 2020 and the impact of Covid-19 from 2020 to now. They waived all GP sharing in 1H20 and have been using lower GP sharing ratios (to Luckin) than contract terms at least till the end of 2022.

Below are the detailed GP sharing ratios of different cases.

- Case 1: used in 2H20 to 1H22, with the highest band of monthly GP higher than RMB 40k: franchisees get 80% and Luckin gets 20% of the band
- Case 2: used in 2H22, with the highest band of monthly GP higher than RMB 80k: franchisees get 75% and
  Luckin gets 25%. The sharing ratio of GP less than RMB 80k remains unchanged. Luckin noticed its
  franchisees this sharing ratio change on Jun 23, 2022, just 8 days before the new ratio takes effect, and
  franchisees had no bargaining power at all since all franchise stores GMV are collected online by Luckin and
  distributed to franchisees after deducting raw material costs and GP sharing
- Case 3: Contract terms that both Luckin and franchisees signed. Higher GP sharing to Luckin starting from the tier of RMB 30k and above. Luckin hasn't used this case yet

Monthly GP of Freshly	Case 1: promotion in	n 2H20-1H22	Case 2: promotio	on in 2H22	Case 3: Contra	ct terms
brewed drinks (rmb)	GP to franchisees	GP to Luckin	GP to franchisees	GP to Luckin	GP to franchisees	GP to Luckin
<20,000	100%	0%	100%	0%	100%	0%
20,000 - 30,000	90%	10%	90%	10%	90%	10%
30,000 - 40,000	85%	15%	85%	15%	80%	20%
40,000 - 80,000	80%	20%	80%	20%	70%	30%
>80,000	80%	20%	75%	25%	60%	40%

Source: Luckin franchisee recruitment webpage and interviews

#### Unit Economics of franchise stores and their contribution to Luckin

Below is the unit economics of franchise stores with unit volume of 200 to 600 items a day. We also compared it with a self-operated store at the same location.

When sales volume is 350 items per day (Actual Luckin franchise stores: 350-380 in 3Q21 to 1Q22 and 400+ in 2Q22) and ASP is similar to self-operated stores, a franchise store would have revenue of RMB 159k per month (excl. delivery fee revenue) and have a store-level GPM of 65% before GP sharing.

- Case 1 (2H20-1H22): Monthly GP would be RMB 82k after Luckin's GP sharing, and the EBITDA would be RMB 38k which will pay back the store capex in 13 months
- Case 2 (2H22): Monthly GP and EBITDA would be RMB 650 less per month than Case 1, adding 0.2 months to payback period
- Case 3 (contract terms): Monthly GP and EBITDA would be RMB 7,100 less per month than Case 1, adding 3.1 months to the payback period. The capex can now be paid back in 16 months

Compared with a self-operated store at the same location, a franchise store can save VAT and labor costs for sure, and potentially save on rental and delivery expenses as well. Franchised stores are usually registered as individually owned businesses which are subject to VAT rate of 0-3%, lower than 6% for self-operated stores. Labor cost saving mainly comes from lower compliance and more flexibility. In general, the cost saving gives both Luckin and the franchisee decent financial returns.

rmb, monthly if not specified otherwise			Franch	nised			Directly-operated
Total items per store per day	200	300	350	400	500	600	350
Freshly brewed	178	267	312	356	445	534	312
Others	22	33	39	44	55	66	39
% of total	11%	11%	11%	11%	11%	11%	11%
ASP, rmb (incl. VAT for franchised stores)	15.1	15.1	15.1	15.1	15.1	15.1	14.3
Freshly brewed	16.0	16.0	16.0	16.0	16.0	16.0	15.1
Others	8.0	8.0	8.0	8.0	8.0	8.0	7.5
Monthly rev (excl. delivery rev)	90,719	136,079	158,758	181,438	226,798	272,157	149,772
Monthly rev (incl. delivery rev)	95,651	143,477	167,389	191,302	239,128	286,953	158,403
Delivery rev Per order - rmb 6 for orders <rmb 3="" 39;="" for="" others<="" rmb="" td=""><td>4,932 4.5</td><td>7,398 4.5</td><td>8,631 4.5</td><td>9,864 4.5</td><td>12,330 4.5</td><td>14,796 4.5</td><td>8,631 4.5</td></rmb>	4,932 4.5	7,398 4.5	8,631 4.5	9,864 4.5	12,330 4.5	14,796 4.5	8,631 4.5
0000							
COGS per item Freshly brewed	6.1	6.1	6.1	6.1	6.1	6.1	5.0
LK's GPM of selling materials to franchisees	17%	17%	17%	17%	17%	17%	3.0
Others	6.0	6.0	6.0	6.0	6.0	6.0	5.0
LK's GPM of selling materials to franchisees	16%	16%	16%	16%	16%	16%	
GP per item (before profit sharing)							
Freshly brewed	10.0	10.0	10.0	10.0	10.0	10.0	10.1
GPM	62%	62%	62%	62%	62%	62%	67%
Others	2.0	2.0	2.0	2.0	2.0	2.0	2.5
GPM	25%	25%	25%	25%	25%	25%	33%
Monthly GP (before profit sharing)	54,466	81,699	95,316	108,932	136,165	163,398	97,272
GPM	60%	60%	60%	60%	60%	60%	65%
Freshly brewed	53,148	79,721	93,008	106,295	132,869	159,443	94,385
Others	1,318	1,978	2,307	2,637	3,296	3,955	2,888
GP sharing Case 1: promotion in 2H20-1H22							
GP to franchisees - monthly	49,336	71,255	82,214	93,173	115,091	137,009	
GPM after LK's GP sharing	54%	52%	52%	51%	51%	50%	
GP sharing Case 2: promotion in 2H22							
GP to franchisees - monthly	49,336	71,255	81,563	91,858	112,448	133,037	
GPM after LK's GP sharing	54%	52%	51%	51%	50%	49%	
GP sharing Case 3: Contract terms							
GP to franchisees - monthly	47,522	66,783	75,112	83,414	100,017	116,621	
GPM after LK's GP sharing	52%	49%	47%	46%	44%	43%	
Delivery platform commission (6%)	1,184	1,776	2,071	2,367	2,959	3,551	
As % of rev	1%	1% 683	1% 797	1%	1%	1%	
Online payment commission (0.6%) As % of rev	456 0.5%	0.5%	0.5%	911 0.5%	1,139 0.5%	1,367 0.5%	
VAT (0-3% as individually-owned business)	1,913	2,870	3,348	3,826	4,783	5,739	
As % of rev	2%	2%	2%	2%	2%	2%	
Store rental	10,000	10,000	10,000	10,000	10,000	10,000	10,000
As % of rev	11%	7%	6%	6%	4%	4%	7%
Labor	11,010	16,515	19,268	19,429	21,730	23,593	23,121
As % of rev	12%	12%	12%	11%	10%	9%	15%
Labor cost per item	1.8	1.8	1.8	1.6	1.4	1.3	2.2
Utilities and others	4,300	4,300	4,300	4,300	4,300	4,300	4,300
As % of rev	5%	3%	3%	2%	2%	2%	3%
Delivery fee, monthly	7,672	11,508	13,426	15,344	19,180	23,016	15,344
As % of rev	8%	8%	8%	8%	8%	8%	10%
Delivery fee per order	7.0	7.0	7.0	7.0	7.0	7.0	8.0
Store-level EBITDA, Case 1	17,734	31,001	37,635	46,859	63,330	80,240	53,138
As % of rev	20%	23%	24%	26%	28%	29%	35%
Capex	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Payback months	28	16	13	11	8	6	9
Payback years	2.3	1.3	1.1	0.9	0.7	0.5	0.8
Store-level EBITDA, Case 2	17,734	31,001	36,985	45,544	60,687	76,268	
As % of rev	20%	23%	23%	25%	27%	28%	
Payback months	28	16	14	11	8	7	
Months added to payback of Case 1	-	-	0.2	0.3	0.3	0.3	
Payback years	2.3	1.3	1.1	0.9	0.7	0.5	
Store-level EBITDA, Case 3	15,919	26,529	30,533	37,100	48,257	59,851	
As % of rev	18%	19%	19%	20%	21%	22%	
Payback months	31	19	16	13	10	8	
Months added to payback of Case 1	3.2	2.7	3.1	2.8	2.5	2.1	
Payback years	2.6	1.6	1.4	1.1	0.9	0.7	

Source: Filings, interview, SLC analysis

Compared to a self-operated store at the same location, Luckin would earn 53% of the store-level profit by franchising it out in Case 1; And this percentage would go even higher to reach 68% if switching to Case 3. Instead of going to the lower tier cities directly by hiring and training local store development and operation personnel, the franchise model offers a less risky option with good financial return.

rmb, monthly if not specified otherwise						
Total items per store per day	200	300	350	400	500	600
GP sharing Case 1: promotion in 2H20-1H22						
LK's store GP sharing (rmb/month)	5,130	10,444	13,102	15,759	21,074	26,389
Store GP sharing + GP of selling raw materials	11,383	19,824	24,044	28,265	36,706	45,148
As % of store-level profit, self-operated (same location)	72%	56%	53%	48%	45%	42%
GP sharing Case 2: promotion in 2H22						
LK's store GP sharing (rmb/month)	5,130	10,444	13,752	17,074	23,717	30,361
Store GP sharing + GP of selling raw materials	11,383	19,824	24,695	29,580	39,350	49,120
As % of store-level profit, self-operated (same location)	72%	56%	54%	51%	48%	46%
GP sharing Case 3: Contract terms						
LK's store GP sharing (rmb/month)	6,944	14,916	20,203	25,518	36,148	46,777
Store GP sharing + GP of selling raw materials	13,197	24,296	31,146	38,024	51,780	65,536
As % of store-level profit, self-operated (same location)	83%	68%	68%	65%	63%	62%
C GI C 1.1						

Source: SLC model

# Luckin has full power to increase its profit sharing from franchisees whose return on investment is higher than the industry average

Based on our understanding of the franchise model of the general restaurant industry and our interviews with Luckin franchisees, the average payback period of investing in a franchise store is 18-24 months (i.e., ROI 50%-67%). A payback period of less than 18 months is above average, and that of less than 12 months is exceptional. Based on the UE analysis above, with sales volume performance of Luckin's franchise stores in 3Q21 to 1Q22, Luckin franchisees have a payback period of 13 months in Case 1, and 14 months in Case 2. This is in line with the interview results with more than 10 franchisees: most of the Luckin franchisees expect a payback period of 12-18 months; some got back their invested capital back in less than one year, and loss making is rare to see from the year 2021.

Luckin recognized this above-average return profile of their franchisees and increased the GP sharing ratio to Case 2 in 2H22. It stated clearly that the promotional GP sharing ratio of Case 2 will apply till the end of year 2022, and there's no information on what GP sharing ratio will be after that. Based on our UE calculation, the change from Case 1 to Case 2 only adds 0.0 months - 0.3 months to franchisees' payback period (only impacts franchise stores with monthly GP over RMB 80k; the higher sales volume, the larger impact). Even if Luckin changes the GP sharing ratio to Case 3 which is contract terms, it will only add 2-3 months to franchisees' payback period. As long as sales volume is higher than 250 items per day, the payback period in Case 3 will still be less than 24 months, or in line with the industry average. Thus, we think that Luckin would gradually increase its GP sharing ratio after the end of 2022, and potentially can increase to Case 3 (contract terms) in the short to mid term. With sales volume of 350 items per store per day, the increase from Case 1 to Case 3 means an additional RMB 7,100 profit for Luckin per franchise store per month, or an additional annual profit of RMB 256m with 3,000 franchise stores (We expect Luckin to have over 3,000 franchise stores by the end of 2022).

No. of stores	193Q	194Q	201Q	202Q	203Q	204Q	211Q	212Q	213Q	214Q	221Q	222Q	2019	2020	2021	2022E
Franchised stores	-	282	501	824	879	874	1,012	1,241	1,465	1,627	1,905	2,227	282	874	1,627	3,101
Net add		282	219	323	55	(5)	138	229	224	162	278	322		592	753	1,474
Y/Y growth						210%	102%	51%	67%	86%	88%	79%		210%	86%	91%
Q/Q growth			78%	64%	7%	-1%	16%	23%	18%	11%	17%	17%				

Source: Filings, estimates

The current 13-14 months payback period of Luckin's franchisees is well below the industry average of 18-24 months. It's no wonder potential franchisees have great enthusiasm in opening new Luckin stores. Luckin allows application of new franchise stores in a selected range of Tier 3-4 cities. Based on our data tracking in Jun 2022, the range includes 2 Tier 2 cities and 179 Tier 3 cities, and 1,090 Tier 4 cities in those Tier 2 and Tier 3 cities. Luckin selection criteria includes the store location and franchisee's quality, and its top-down roll out plan of franchise stores each year. Based on our estimates, Luckin is able to open more than 1,500 new franchise stores in the year 2022, nearly doubling its store count to over 3,000 from 1,627 at the end of 2021. According to the franchisees that we interviewed, it's becoming more and more difficult to get approval from Luckin after applying due to the high competition from potential franchisees.

- According to our interviews, the annual plan for franchise stores in the years 2021 and 2022 was completed by the end of Jun 30 of each year
- To apply for opening new franchise stores of Luckin, one needs to go through a pre-examining procedure of Luckin to become a qualified potential franchisee. According to our interviews, this pre-examining procedure was only open to public in the first half of 2021 in most provinces, and only opened for a few times of couple of days each time after that. Most applications came from existing franchisees as a result, and the number of average stores that an individual franchisee has ranges from 2 to 4. Luckin also downsized its potential

- franchisee recruitment team substantially from 2H21 because there's enough quality applications from existing franchisees
- Due to the increasing volume of new store applications, sometimes multiple applications target the same mall or shopping area. Luckin has applied stricter assessment criteria, including requiring more prime locations, better display of store, larger size (minimum requirement of store area raised from 20-40sqm to 60 sqm) etc. The higher requirement starting from 2021 also secured the sales performance of new franchise stores

#### Sub-thesis No. 4.1: Unique combination of both self-operated model and franchise model

Luckin has a unique combination of self-operated model in higher tier cities and franchise model in lower tier cities, which is rare in China's chain store business. We think this combination is good for brand building in Tier 1-2 cities while maximizing store penetration in lower tier cities. Most other brands rely on one model only and cannot have both benefits at the same time.

We classified some leading chain brands in the restaurant, retail and hotel industries by their store ownership model. Their store distribution has a high correlation with the model that the brand uses, and less with the brand's segment, price range or store number.

- Most brands using self-operated model are concentrated in higher tier cities (Tier 1-2, meaning Beijing, Shanghai, Guangzhou, Shenzhen and other provincial capital cities and alike). The business demand in lower tier cities and price range may be restraining factors, but we think the most important hurdle is the capability and efficiency of managing a self-operated store network in lower tier cities
- Most brands using purely franchise model are more concentrated in lower tier cities (Tier 3-4, meaning prefecture-level cities and counties). Some brands are copycats of renowned brands such as Wallace 华莱士 and Dicos 德克士 (copycats of KFC), Nowwa (copycat of Luckin), and some are priced at lower end to target the lower-income customers in lower tier cities. Even though they have stores in Tier 1-2 cities, those tend to be located in suburban or less-prime locations compared to self-operated brands. Higher competition and higher operating costs prevent their individual franchisees from opening more stores in higher tier cities
- The brands using a combination of self-operated model and franchise model have an even distribution in higher and lower tier cities, and it shows that Luckin has the potential to increase its percentage of stores in lower tier cites. Those brands build their brand power in Tier 1-2 cities with self-operated model and enjoy fast expansion in lower tier cities with franchise model. KFC's lower tier penetration was not entirely attributable to franchise model, but the brand has been in China for 33 years to scale up its self-operated store network gradually

Name	CN	Business	Price range	Store ownership	Store no.	Store dis	tribution		Store dis	tribution	
						Higher tier	Lower tier				
						Tier 1-2	Tier 3-4	Tier 1	Tier 2	Tier 3	Tier 4
Starbucks	星巴克	Fresh coffee	High	Direct	5,842	80%	20%	33%	46%	11%	9%
McDonald's	麦当劳	Western QSR	Mid	Direct	4,810	70%	30%	28%	42%	18%	12%
Bianlifeng	便利蜂	CVS	Mid	Direct	2,093	96%	4%	51%	45%	1%	3%
LXJ	老乡鸡	QSR	Low	Direct	1,396	62%	38%	8%	53%	19%	19%
Haidilao	海底捞	Hot pot	Mid to high	Direct (profit sharing)	1,227	63%	37%	18%	45%	24%	12%
CountrySC	乡村基	QSR	Low	Direct	1,188	92%	8%	6%	86%	4%	4%
Nayuki tea	奈雪	Fresh tea	High	Direct	891	86%	14%	31%	55%	11%	4%
Helens	海伦司	Bar	Low	Direct	853	71%	29%	10%	61%	21%	8%
HeyTea	喜茶	Fresh tea	High	Direct	852	91%	9%	42%	48%	5%	4%
Manner	Manner	Fresh coffee	Mid	Direct	453	100%	0%	91%	9%	0%	0%
Tai Er	太二	Chinese cuisine	Mid	Direct	391	81%	19%	35%	46%	15%	4%
Xi Bei	西贝	Chinese cuisine	Mid to high	Direct	353	92%	8%	48%	44%	6%	2%
Tims	Tims	Fresh coffee	Mid to high	Direct 96% + franchise 4%	438	99%	1%	62%	36%	0%	1%
KFC	肯德基	Western QSR	Mid	Direct 91% + franchise 9%	9,280	56%	44%	16%	39%	22%	22%
Luckin	瑞幸	Fresh coffee	Mid	Direct 69% + franchise 31%	7,293	70%	30%	22%	48%	17%	13%
Zhouheiya	周黑鸭	Braised food	High	Direct 45% + franchise 55%	3,153	62%	38%	19%	43%	20%	18%
Ji Hotels	全季	Hotel	Mid	Direct 15% + franchise 85%	1,498	66%	34%	22%	45%	19%	14%
Hanting	汉庭	Hotel	Low	Direct 12% + franchise 88%	2,699	56%	44%	17%	38%	21%	23%
Mixue Bingcheng	蜜雪冰城	Fresh tea	Low	Franchise	22,102	33%	67%	5%	29%	28%	38%
Wallace	华莱士	Western QSR	Low	Franchise	16,152	40%	60%	8%	32%	25%	35%
Juewei	绝味鸭脖	Braised food	Mid	Franchise	12,634	52%	48%	11%	42%	21%	27%
Guoquan	锅圈食汇	Kitchen food retail	Mid	Franchise	7,550	37%	63%	5%	32%	24%	39%
Shuyi Tea	书亦烧仙草	Fresh tea	Mid	Franchise	7,354	41%	59%	5%	36%	25%	34%
Guming Tea	古茗	Fresh tea	Mid	Franchise	5,954	34%	66%	2%	32%	21%	45%
Lawson	罗森	CVS	Mid	Franchise	5,386	84%	16%	30%	54%	10%	6%
Pagoda	百果园	Fruit retail	High	Franchise	5,224	80%	20%	27%	52%	14%	6%
Yihetang	益禾堂	Fresh tea	Low	Franchise	5,001	30%	70%	7%	23%	31%	40%
Hushang Tea	沪上阿姨	Fresh tea	Mid	Franchise	4,834	42%	58%	8%	35%	28%	30%
TLL Tea	甜啦啦	Fresh tea	Mid	Franchise	4,583	15%	85%	2%	13%	38%	47%
Family	全家	CVS	Mid	Franchise	2,848	99%	1%	73%	26%	0%	1%
Dicos	德克士	Western QSR	Mid	Franchise	2,543	33%	67%	4%	29%	29%	38%
Bantianyao	半天妖烤鱼	Chinese cuisine	Low	Franchise	1,151	43%	57%	8%	34%	27%	30%
Lucky Čup	幸运咖	Fresh coffee	Low	Franchise	1,077	26%	74%	1%	25%	36%	38%
Xiaolongkan	小龙坎	Hot pot	Mid	Franchise	733	36%	64%	8%	28%	30%	34%
Coco	Coco都可	Fresh tea	Mid	Franchise (JV)	4,307	63%	37%	15%	48%	23%	15%
Nowwa	Nowwa	Fresh coffee	Mid	Franchise (mostly)	144	56%	44%	10%	46%	17%	26%
Reason for store	distribution o	utlier		• • • • • • • • • • • • • • • • • • • •							

Source: Filings, GeoHey

#### Higher tier cities: more suitable for self-operated model

Building a store network with consistent product and service quality in higher tier cities, esp. in prime locations, is a good way to showcase the brand and build brand awareness. However, due to the intense competition and high operating costs in higher tier cities, it's more challenging to achieve a similar level of store profitability as in lower tier cities. By opening self-operated stores in higher tier cities, a company can work out and optimize the store model. It can also build a network of stores that can tolerate loss-making risk during the stage of brand building. The company can ensure consistent product and service quality by managing those stores directly. Franchisees, on the other hand, are mostly individuals who evaluate store opening decisions one by one. They care more about their investment return rather than the overall brand image, thus less likely to open stores in prime locations to bear loss-making risks. Using self-operated model in higher tier cities is best for a company to work out the business model, build brand power and fight for higher market share. Also, the higher income level and population density in higher tier cities can help the company to achieve cost efficiency in managing a self-operated store network.

#### Lower tier cities: franchise model penetrates faster with higher efficiency and less risk

There are 49 Tier 1-2 cities (Level 1, 1.5, 2 in our TAM analysis), 288 Tier 3 cities (Level 3, 4, 5 in our TAM analysis) and 1,871 Tier 4 cities (counties). To open a self-operated store in Tier 3-4 cities, a company needs to build at least two local teams: store site selection and negotiation team and store operation team. While it's relatively easy to build local teams in 49 Tier 1-2 cities, it's more challenging to do so in the vast number of Tier 3-4 cities, and to ensure their work quality (site selection and daily store operation) is on par with higher tier cities. It takes tremendous time and investment to build a self-operated store network in lower tier cities, and there are many lessons to learn/costs to bear. On the other hand, using franchise model provides an option with less risk and investment/costs, as franchisees will take care most of the local work needed such as site selection and daily operation. The company provides brand and operating standards, management tools, raw materials and operation supervision.

However, as franchisees are mostly individuals without a strong brand commitment, franchise stores usually have a lower operating quality than self-operated stores. As a result, not all restaurant segments are suitable for the franchise model. The franchise model works best for categories with simple product-making process and low service requirements. The brand is best priced at the low to mid-level so that customers don't have a high expectation of the service quality or complexity. Raw materials can be standardized for easy making process at the store level, and food safety risk is not high. Freshly made tea drinks, braised food, western QSR and Malatang (spicy Chinese fast food, 麻辣烫) are all categories proven suitable for franchise model, each with leading brands of over 5,000 franchise stores. We think freshly brewed coffee shops also meet those criteria and are suitable for franchise model development in lower tier cities.

Moreover, Luckin enjoys a brand image of "prevalent coffee shop brand in higher tier cities" in the eyes of lower tier city consumers, thanks to its wide presence of self-operated stores in Tier 1-2 cities. This gives Luckin a premium brand image in lower tier cities. Customers enjoy a good feeling or experience when they purchase at Luckin, not just buying a cup of beveraged coffee. This is a privilege only available to brands with self-operated stores in higher tier cities. Also, as a business proven to be workable in higher tier cities, the product quality is usually better than franchise brands which normally sell lower-end products at lower prices in Tier 3-4 cities. Luckin's business and products are thus more sustainable than the franchise brands as there's a consumption upgrade trend, so that the consumer preference in lower tier cities is gradually upgrading to higher tier standards.

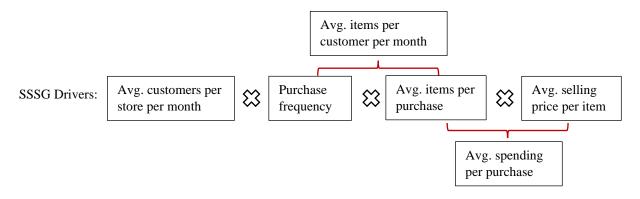
Unlike Luckin, most chain brands specialize in one store ownership model only, as it's not easy to work out a successful business model for both and manage both well. The roadmap to success in a self-operated business is to work out a robust unit economics and to manage significant number of its storefront employees; For a franchise business, the roadmap to success is to build a model that reaches a balance between the return profile of its franchisee and the financial benefit to the company itself. To manage own employees and individual franchisees also have different matters to consider as their motivations are not the same. Luckin has already built a track record in managing both businesses well.

Thesis No. 5: The high Same-store Sales Growth (SSSG) from 2021 to 1H22 is expected to be normalized in the future and will mainly be driven by the increase in purchase frequency in the mid-to-long term Luckin's Same store sales growth (SSSG) of self-operated stores turned positive in 4Q20, and experienced significant growth from 1Q21 to now, even compared to 2019 level by excluding the negative Covid-19 impact in 1H20.

SSSG	201Q	202Q	203Q	204Q	211Q	212Q	213Q	214Q	221Q	222Q
SSSG of directly-operated stores	-31%	-7%	0%	9%	95%	72%	76%	44%	42%	41%
SSSG Compared to 2019	-31%	-7%	0%	9%	33%	60%	76%	57%	89%	126%
Source: Filings										

We break down the drivers of SSSG to examine each factor's growth sustainability into the future. Based on data availability, we use two sets of factors to examine the drivers:

- Luckin filings: avg. customers per store per month \* avg. items per customer per month \* avg. selling price per item
- Online customer purchase survey: avg. customers per store per month \* purchase frequency \* avg. spending per purchase



#### Breakdown method 1: Filings

• SSSG driven by avg. customers per store per month \* avg. items per customer per month \* avg. selling price per item

The high growth in SSSG in 2021 (compared to 2019, to rule out Covid disruption) was mainly driven by <u>average items per month</u> and <u>average price per item</u>, but both factors became relatively stable from 2H21. The yoy SSSG growth in 2022 was mainly driven by high growth in <u>average customers per store per month</u>, which reached a new high of 3,007 in 2Q22. However, given the offline nature of Luckin's business and continued increase in store density, we don't expect this metric to grow much higher than current level.

SSSG Drivers	201Q	202Q	203Q	204Q	211Q	212Q	213Q	214Q	221Q	222Q
SSSG of directly-operated stores	-31%	-7%	0%	9%	95%	72%	76%	44%	42%	41%
SSSG Compared to 2019	-31%	-7%	0%	9%	33%	60%	76%	57%	89%	126%
Avg. customers per store per month (incl. franchised s	1,349	1,771	1,656	2,016	1,790	_	2,694	2,775	2,535	3,007
Y/Y growth	-32%	-22%	-38%	-26%	33%	36%	63%	38%	42%	25%
Compared to 2019	-32%	-22%		-26%	-10%	6%	1%	1%	28%	32%
Avg. items per customer per month (incl. franchised st	3.0	3.5	3.9	3.9	3.8	3.9	3.9	3.7	3.7	3.9
Y/Y growth	-19%	2%	33%	33%	27%	10%	-2%	-4%	-3%	1%
Compared to 2019	-19%	2%	33%	33%	2%	12%_	31%	28%	-1%	13%
Avg. price per item (directly-operated stores)	9.5	11.5	12.0	12.2	13.0	14.0	14.4	14.3	14.9	14.9
Y/Y growth	4%	10%	23%	24%	37%	21%	20%	18%	14%	6%
Compared to 2019	4%	10%	23%	24%	43%	33%	47%	46%	63%	41%
Source: Filings										
SSSG Drivers - Historical performance		181Q	182Q	183Q	184Q	1910	Q 192	Q 19	3Q 1	94Q
Avg. customers per store per month (incl. franchis	sed s	1,201	2,642	2,071	2,652	1,982	2,27	6 2,6	73 2,	737
Y/Y growth						65%	6 -14	% 2	9%	3%
Avg. items per customer per month (incl. franchise	ed st	2.7	3.3	4.1	4.1	3.7	3.	.5 3	3.0	2.9
Y/Y growth						36%	6 4	% -2	9% -	28%
Avg. price per item (directly-operated stores)		7.5	9.1	9.8	8.3	9.1	10.	.5 9	9.8	9.8
Y/Y growth						21%	6 16	%	0%	19%

Source: Filings

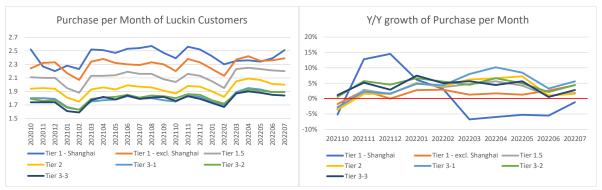
- Avg. customers per store per month: We think this metric is likely to range from 2,500 to 3,000 given the offline nature of Luckin's business, esp. in Tier 1-2 cities where self-operated stores are located. Luckin's strategy is to continue grow its self-operated store network, which is constrained in mostly existing Tier 1-2 cities. This will increase the density of stores in those cities and potentially dilute avg. customers per store. Given the higher-than-average investment return of franchise stores, we expect the store density of lower tier cities to follow the same pattern. As a reference, Starbucks China has monthly active members per store of well less than 2,000 which contribute 75% of store sales. Average customers per store per month should be less than 3,000 for Starbucks
- Avg. items per customer per month: depending on both customer purchase frequency and average items per purchase. Luckin's reported average items per customer per month stayed at a relatively stable level of 3.7 to 4.0 from 3Q20 to now, but this was partially due to the dilution of new customers. We'll examine the purchase frequency by cohort with online payment tracking data, and we believe <u>purchase frequency will be a slow</u> but long-term sustainable driver of Luckin's SSSG
- Avg. selling price per item. As mentioned in thesis no. 2, the new management team increased effective price as the first step after they took over in May 2020 by raising list prices and reducing discounts. Then starting in 4Q20, the average price increase was driven by the successful launch of higher-price new products. Currently we estimate Luckin's freshly brewed drinks have an average price of RMB 15.8-15.9 per cup in 1Q-2Q22. Adding back a 6% VAT, a cup of freshly brewed drink would cost RMB 17 for Luckin customers, about the same level as mid-end freshly made tea drinks. We think the price hike in 2020-2021 was a one-off game changer for Luckin's store Unit Economics, but it would be irrational for Luckin to raise price further as it would attract more competition. Looking at the tea drinks shop industry, the two leading high-end brands HeyTea and Nayuki have been reducing their effective price from RMB 30 to around RMB 20 level since the end of 2021 to fight for market share with mid-end competitors
  - According to Luckin's 2Q22 earnings call, it's not management's intention to change pricing either, as the current price level is good for gaining market share and attracting a larger customer base, and Luckin is earning a decent profit margin at this price level

In general, we think the high SSSG growth of Luckin from 1Q21 to 2Q22 was more of one-off business model correction, coupled with one-off factors including extending store hours and expand the usage of delivery platforms to all stores, and the high growth is difficult to repeat in the future. This is in line with management's comments of expecting future SSSG to normalize from current high levels on their 2Q22 earnings call.

#### Breakdown method 2: Online customer purchase survey

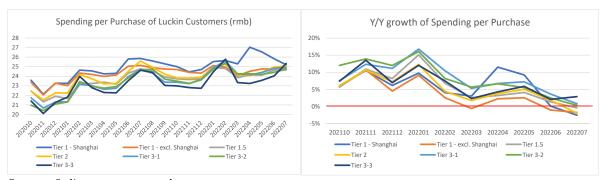
• SSSG driven by avg. customers per store per month \* purchase frequency \* avg. spending per purchase We use online customer purchase surveys to analyze the details of purchase frequency and avg. spending per purchase by city tier and user groups.

Purchase per month shows a clear pattern of increasing with higher city tier. There's an average difference of 0.2 purchase per month between each tier, possibly because of different levels of economic development, Luckin's time in the market and store density. In Shanghai, the most advanced coffee market in China, Luckin has the highest customer purchase frequency, around 2.5 times per month, or less than once per week, still not high. The purchase frequency of each tier also grew by around 5% yoy in 2022, showing consistent frequency increase within every city tier (except for Shanghai from Mar to Jun 2022 when there were strict Covid-related controls).



Source: Online customer purchase survey

On the other hand, spending per purchase shows an increasingly unification trend among different city tiers, showing similar pricing strategy and acceptance nationwide. Y/Y growth of spending per purchase slowed down to 0% to 5% starting from Mar 2022, when Luckin's effective price started to stabilize yoy.



Source: Online customer purchase survey

Looking at purchase frequency from another angle: breakdown by new user cohort. We divide new users by the month of their first purchase and track their purchase frequency change after one year. New users' purchase frequency generally increased by 10-20% yoy after one year.

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Purchase per Month of New User Cohorts (By the month of making the first purchase)
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Source: Online customer purchase survey

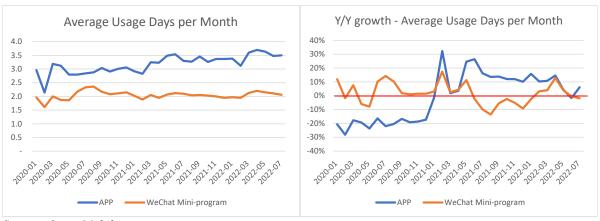
We can infer from the analysis above that the blended purchase frequency of Luckin will be on a gradual upward trend and drive the growth of SSSG in the mid to long term, as the dilution from lower tier cities and new users eases over time. This gradual increase of blended purchase frequency can be shown in the charts below: there's a Y/Y increase of around 1% in blended purchase frequency from Nov 2021 to May 2022.



Source: Online customer purchase survey

Using another data source, Luckin's APP and mini-program usage tracking by Quest Mobile, a similar trend is observed: average usage days per month for APP users saw around 10% Y/Y growth from 2H21, and average usage days per month for mini-program users also turned to positive Y/Y growth from 2022 (except for May-Jun 2022, months impacted by Covid).

• Usage means opening an APP or Mini-program, not necessarily making a purchase as shown in online customer purchase survey. We use number of usage days per month as a proxy of purchase frequency, as multiple opening of APP is required for making a purchase (ordering, payment, pick-up etc.), but it's unlikely to make multiple purchases within the same day



Source: Quest Mobile

We think the gradual increase in purchase frequency is mainly thanks to the additive nature of coffee consumption. Luckin mainly attracts non-coffee drinkers or light coffee drinkers to start drinking coffee by offering beveraged coffee products. Based on research of a leading coffee shop chain in China, a significant part of light coffee drinkers would go through a "coffee journey" as they mature, drinking "purer" coffee (less flavoring, sugar and milk) and more cups of coffee per month.

The company classified its members into four levels and six different groups based on the major products they consume:

- Level 1: Tea, seasonal special coffee with syrup, milk coffee with syrup
- Level 2: Basic milk coffee (latte, flat white, cappuccino etc.)
- Level 3: Black coffee (americano, espresso)
- Level 4: SOE (specialty coffee)

Around 70% of each level's customers would move to the next level over time and increase purchase frequency by 10-20% each level. It takes an average of 18 cups of coffee or drinks in Level 1 to upgrade to Level 2, and 35 cups of coffee in Level 2 to upgrade to Level 3. The three higher levels account for over 50% of the company' total number of members.

Compared to the company, we think Luckin has a higher percentage of its customers in Level 1 and Level 2 given its best-selling products are beveraged coffees. Hit products like newer latte and coconut milk latte fall between Level 1 and Level 2, in our view, and Luckin purposely reduced the bitter and sour taste of coffee beans to make it more "drinkable" to non- and light-coffee drinkers. It may take those customers a longer time to upgrade to higher levels, and some of them may remain in Level 1. Nevertheless, we expect a significant number of Luckin's customers to upgrade to higher levels in the long run and increase their purchase frequency accordingly.

# Thesis No. 6: Operating leverage of headquarter-level expenses will lead to constant company-level margin improvement

Compared to other restaurant companies, Luckin's business model is relatively asset-light on the storefront and asset-heavy on the headquarter level, and thus enjoys operating leverage on the HQ-level expenses as the store network expands. We expect Luckin's operating profit and operating profit margin (OPM) to both go up as the number of self-operated and franchise stores increase, which are both generating positive store-level profits.

Luckin's store model	Store-level	HQ level
Attracting customers	Less spending on decoration capex	Use centralized sales and
	Less rental expenses on non-prime locations	marketing activities to attract
	Less offline promotion	customers
Store operation	simplifying and standardizing operations such	Invest in HQ-level IT systems to
	as new store selection, inventory management	digitalize and automate those
	and workforce management	processes

Luckin's SG&A expenses are mostly fixed in nature, such as staff costs, which won't increase in proportion to revenue. What's more, some historical spending on the HQ-level was capex-like and formulated "intangible" assets, in our view, which will benefit Luckin's business for a long time, such as building brand awareness, accumulating users base and setting up IT systems.

rmb m	2018	2019	2020	2021	
Sales and marketing expenses	504	813	462	337	
As % of total rev	89%	27%	11%	4%	
Advertising expenses	362	587	354	244	Capex-like
As % of total rev	43%	19%	9%	3%	
Free product promotion expenses	131	207	65	(18)	Capex-like
As % of total rev	16%	7%	2%	0%	
Commission such as delivery platform	NA	5	10	60	Variable
As % of total rev		0%	0%	1%	
Others (mostly staff costs)	NA	14	33	52	Fixed
As % of total rev		0%	1%	1%	
General and administrative expenses	380	1,072	982	1,270	
As % of total rev	45%	35%	24%	16%	
Payroll	NA	416	420	447	Fixed
As % of total rev		14%	10%	6%	
Research and development expenses (mainly IT staff costs)	78	219	266	252	Fixed and capex-like
As % of total rev	9%	7%	7%	3%	
Share-based compensation	NA	152	22	254	Largely variable
As % of total rev		5%	1%	3%	
Professional fees (Excl. one-off relating to fabrication of transactions)	NA	63	100	112	Fixed
As % of total rev		2%	2%	1%	
Others	NA	222	174	206	Fixed
As % of total rev		7%	4%	3%	

Source: Filings

Below are the capex-like expenses we identified and the intangible assets that they formulated. Although costing huge operating losses in the past, we think most of them will continue to benefit the company but cost much less or even discontinue in the future:

- Advertising expenses: including spending on elevator and cinema advertisements such as Focus Media, social
  media advertisements such as WeChat Moments and star endorsements. The huge spending in the first three
  years helped to build national brand awareness in a short time, and the spending in 2021 has already declined
  from 2018-2020 levels
- Free product promotion expenses: increased brand awareness and helped on accumulating the user base, esp.
  a precious APP installation base. With the prevalence of WeChat mini-program in recent years, a stable and
  more loyal APP installation base became a scarcer resource, as it's more difficult to interact with customers
  on WeChat mini-programs than on its own APP. Luckin has discontinued the free coffee promotion from
  May 2020

APP MAU as % of total MAU 55% 60% 40% 3% 1% 1% No APP No APP No APP Source: Quest Mobile

Research and development expenses: Based on filings, its mainly payroll expenses, employee benefits, and
other headcount related expenses associated with platform development and data analysis. Based on our
interview, Luckin used to share over 1,000 technology development employees with CAR Inc and UCAR Inc
but separated teams to have a dedicated team for Luckin from May 2020. It also reduced the number of tech

development employees to less than 500 as the digital systems are already in place and require less people to maintain than the system-building stage. It's in line with Luckin's filings regarding the number of tech development employees. The average costs per employee went up after the number of employees was reduced, but we expect the total expense to be largely fixed going forward

rmb m	2018	2019	2020	2021
Research and development expenses	78	219	266	252 Fixed and capex-like
As % of total rev	9%	7%	7%	3%
No. of technology development employees	811	1,049	521	436
Avg. costs per employee per month (rmb k)		20	28	44
Source: Filings				

As most of the SG&A expenses won't increase in proportion to revenue in the future, it's useful to benchmark the absolute level of SG&A expenses and SG&A% to other restaurant companies, esp. when they were at a similar revenue scale as Luckin. As shown below:

- S&M expenses: not all restaurant companies spend heavily on S&M. As an offline business, most restaurants just use their offline presence (store location and decoration) to attract customers, not advertising or star endorsement. YUMC uses a similar sales and marketing strategy as Luckin and spends 4-5% of revenue on S&M expenses. Haidilao doesn't spend on any advertising before the year 2022. According to our interviews, Starbucks China spends less than 1% on S&M. For smaller scale brands, JMJ (Tai'Er) spends 1% on S&M and Nayuki spends 3%
- G&A expenses: YUMC and Starbucks China have a relatively constant % of revenue spending on G&A, 5-6%. Haidilao's G&A declined as % of revenue to 6% in 2019. JMJ and Nayuki spend 5% and 13% on G&A, respectively. Nayuki hired Luckin's ex-CTO HE Gang in Jun 2020 to build the digitalization capabilities, and the G&A% increase in 2021 was largely due to the increased IT department headcount. Both JMJ and Nayuki have a much lower revenue scale than Luckin

rmb m	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
YUMC											
Total revenue	35,751	43,402	42,335	42,930	43,614	47,258	52,106	56,051	60,753	56,735	63,578
Y/Y growth		21%	-2%	1%	2%	8%	10%	8%	8%	-7%	12%
SG&A						5,491	6,016	5,722	6,203	5,809	6,369
As % of rev						12%	12%	10%	10%	10%	10%
S&M						2,625	2,696	2,684	2,831	2,520	2,729
As % of rev						6%	5%	5%	5%	4%	4%
S&M of direct stores			2,121	2,031	2,064	2,218	2,233	2,271	2,381	2,108	2,375
As % of direct store rev			5%	5%	5%	5%	5%	4%	4%	4%	4%
G&A	1,786	2,114	2,183	2,408	2,493	2,866	3,320	3,037	3,371	3,289	3,639
As % of rev	5%	5%	5%	6%	6%	6%	6%	5%	6%	6%	6%
<u>Haidilao</u>											
Total revenue					5,757	7,808	10,637	16,969	26,556	Stopped	disclosur
Y/Y growth						36%	36%	60%	56%		
SG&A					540	675	798	1,276	1,715		
As % of rev					9%	9%	8%	8%	6%		
Starbucks: China and Asia Pacific											
Total revenue	3,589	4,551	5,663	6,951	14,952	19,298	22,087	29,382	Stopped	disclosur	e
Y/Y growth	0,000	27%	24%	23%	115%	29%	14%	33%	оторрос	u.00.00u.	•
G&A	214	240	299	360	754	856	1,412	1,587			
As % of rev	6%	5%	5%	5%	5%	4%	6%	5%			
JMJ											
Total revenue						1,164	1,469	1,893	2,687	2,715	4,180
Y/Y growth						.,	26%	29%	42%	1%	54%
SG&A						64	99	154	127	151	269
As % of rev						5%	7%	8%	5%	6%	6%
S&M						15	15	20	20	21	48
As % of rev						1%	1%	1%	1%	1%	1%
G&A						49	84	134	108	130	222
As % of rev						4%	6%	7%	4%	5%	5%
Nayuki											
Rev								1,087	2,502	3,057	4,297
Y/Y growth								1,007	130%	22%	41%
SG&A								190	347	283	662
As % of rev								18%	14%	9%	15%
S&M									68	82	
As % of rev								39 4%	3%	3%	112
											3% 551
G&A								151	280	<b>201</b> 7%	<b>551</b>
As % of rev								14%	11%	1%	13%
Source: Filings											

Based on the analysis above and understanding that Luckin is a relatively heavy-HQ business compared to other restaurant peers, we made the following forecasts on Luckin's SG&A% going forward. S&M% will remain stable and a comparable level as YUMC, and SG&A will decline as % of revenue but still higher than other restaurant companies. We expect Luckin's SG&A expenses to be RMB 3.7bn, higher than YUMC, Haidilao and Starbucks China in 2028E when Luckin reaches RMB 33bn in revenue and RMB 41bn in system sales, which is at a similar revenue scale as the above leading restaurant companies. SG&A as % of revenue will decline from 20% in 2021 to 11% in 2028, benefiting company margin with operating leverage.

RMB m	2018	2019	2020	2021	2022E	2023E	2024E	2025E
Luckin Coffee								
Total rev	841	3,025	4,033	7,965	13,416	18,829	23,686	27,129
Y/Y growth		260%	33%	97%	68%	40%	26%	15%
System sales	841	3,041	4,273	8,714	15,329	22,233	29,045	33,949
SG&A	753	1,678	1,379	1,625	1,989	2,580	3,045	3,377
As % of rev	90%	55%	34%	20%	15%	14%	13%	12%
S&M - excl. free coffee	373	606	397	355	553	777	978	1,121
As % of rev	44%	20%	10%	4%	4%	4%	4%	4%
S&M - incl. free coffee	504	813	462	337				
As % of rev	60%	27%	11%	4%				
G&A	380	1,072	982	1,270	1,436	1,803	2,067	2,257
As % of rev	45%	35%	24%	16%	11%	10%	9%	8%

Source: Filings and SLC model

Neutral No. 1: Non-core businesses such as tea drinks, light meals and snacks are unlikely to contribute significant revenue or profit in the near term and are not management's current focus

2020 short report – Business Model Flaw #4: Luckin's dream "to be part of everyone's everyday life, starting with coffee" is unlikely to come true, as it lacks core competence in non-coffee products as well. Its "platform" is full of opportunist customers without brand loyalty. Its labor-light store model is only suitable for making "Generation 1.0" tea drinks that have been in the market for more than a decade, while leading freshly made tea drink players pioneered "Generation 3.0" products five years ago.

We think this thesis still stands even though the competence of Luckin's core business has improved significantly and customers are drawn to Luckin by differentiated beveraged coffee products now, instead of discount and promotion.

- Brand positioning of "Luckin Coffee" as a coffee brand and difficulty in cross-selling for most consumer brands. Based on experiences of Luckin's and other restaurant brands' cross-selling efforts before, it's usually difficult for a brand to expand into different categories, even similar ones within F&B industry, such as tea shops selling coffee (less than 10% of revenue contribution), Western QSR brands selling coffee (over 50% cups sold as part of breakfast combo) and Luckin selling tea drinks (less than 10% of items sold). Customers usually have a first instinct of going to a specialized brand to purchase something they want, as there's abundant quality choices within the category itself already. Other categories are usually only for "supplementary" scenarios only, such as group purchase or combo purchase, and contributes insignificant revenue share. As a result, the R&D and marketing resources put in those non-core categories will be less and less as well
- Lack of competence in products other than coffee, partially determined by Luckin's simplified store model. This is the same as 2020 short report. Luckin's other products, esp. tea products, lacks differentiation and competitiveness due to the mismatch between the tea industry's complexity in both supply chain and in-store production and Luckin's simplified store model tailor made for coffee products

Luckin's new management also recognized this reality and reduced its resources and investments in non-core businesses. According to our interviews, the management decided to focus on main business (defined as freshly brewed drinks) in late 2020 and discontinued non-core businesses such as JV of fruit juice and nuts production plants, new retail (or E commerce of non-coffee products) and "Luckin Pop Mini" unmanned F&B retail machines. Those discontinuations also helped to reduce the loss of the company in 2021. Limited number of non-coffee products were kept at store-level, incl. tea drinks, light meal and snacks, but didn't contribute to sales volume growth in 2021-2022.

Items sold per directly-operated store per day	2018	2019	2020	2021
Total items sold per store per day	294	255	202	301
Y/Y growth		-13%	-21%	49%
Coffee products	203	170	130	222
As % of items	69%	67%	64%	74%
Y/Y growth		-16%	-24%	71%
Non-coffee products	91	85	70	73
As % of items	31%	33%	35%	25%
Freshly brewed drinks (Exfreezo and tea drinks)	43	50	39	38
Y/Y growth		18%	-22%	-4%
Light meal and snacks	48	35	30	35
Y/Y growth		-27%	-14%	16%

Source: Filings

We expect non-fresh coffee items, which account for less than 25% of items sold, will continue to be an insignificant source of same store growth in the short term. In the mid-to-long term, however, there's a chance that Luckin may be able to increase its revenue and profit contribution, but it's not the management's focus now and it's not sure whether Luckin would be successful in those endeavors.

- "Coffee + breakfast" combos in Tier 1-2 cities: a stable and repeatable demand from office white collars in the Tier 1-2 cities. Tim Hortons China has pioneered this business in the coffee industry in China by offering differentiated hot food plus coffee. We estimate that bakery and sandwiches accounted for over 20% of total revenue of Tims China in 2021. However, offering competitive breakfast food items would require Luckin to invest in storage and heating equipment in stores and potentially change its store layout, which is difficult considering that Luckin stores are designed to be compact
- Retail coffee products such as instant coffee or RTD coffee. Luckin offers various instant coffee products on its own APP and mini-programs, as well as on E Commerce platforms. So far, the revenue contribution is minimal and Luckin faces a different set of specialized competitors in this battlefield such as Saturnbird (三 顿半) or Tasogare (陽田川). Also, there's no RTD coffee products available, unlike Starbucks or Costa. With national brand awareness, it's possible that Luckin expand its presence in these areas, or simply license out the RTD business to a FMCG company as Starbucks did with Nestle and PepsiCo, or Costa did with Coca Cola

One exception of discontinuing non-core businesses by the new management is the "Luckin Coffee Express" unmanned coffee machine business. Launched on the same day as the follow-on offering the convertible senior notes offering in Jan 2020 by the former management, the unmanned new retail strategy was more like a capital market move rather than rational business decision. In Dec 2020, the new management team ceased the operation of "Luckin Pop Mini" but kept the "Luckin Coffee Express" business. The number of "Luckin Coffee Express" machines reached 1,102 by 4Q21 and 1,119 by 1Q22.

Due to technology constraints, "Luckin Coffee Express" machines can only offer 9-10 freshly brewed coffee SKUs and cannot make ice drinks. To save operating costs which are the biggest cost component in determining a machine's profitability, Luckin places those machines within short distance of its self-operated stores and asks store-level staff to maintain the operations of those machines, avoiding incurring too much additional operating costs. According to an interview with Luckin's SVP of Operations CAO Wenbo by Centurium Capital in Mar 2022, Luckin's management is still exploring the business model of "Luckin Coffee Express" by trying to find a balance of customer satisfaction and the sustainability of the business. Given the limited product offering and unpopular demand from customers for coffee vending machines, we think the "Luckin Coffee Express" business is unlikely to become a significant profit contributor. In 2Q22, Luckin's management decided to take full impairment of RMB 222m of the Luckin Coffee Express machines considering it's not going to be a profitable business in the foreseeable future but will continue to operate some machines in selected cities.

#### Module 3: Luckin's competitive advantages and competitive landscape analysis

Thesis No. 7: A well-balanced industry leader supported by economies of scale, product R&D capability, brand power, supply chain, digitalization and operating efficiency, as well as significant first-mover advantage in lower tier cities

#### **Moat 1: Economies of Scale**

Luckin and Starbucks are undisputable top two coffee brands in China in terms of store count, exceeding #3 Lucky Cup 幸运咖 (636 stores by 1Q22) and all the other coffee brands (less than 500). Economies of scale are the foundation of product R&D advantage, supply chain, digitalization and Luckin's first mover advantage in lower tier cities. We have to admit that it is not a single competitive edge that contributes to Luckin's leading position, but its balanced capabilities together with economies of scale set the moat.

Freshly brewed coffee and freshly made tea drinks have low entry barrier naturally. Other than scale and brand, the rest competitive edges are all technical advantages, which can also be achieved by Luckin's competitors through increasing investment.

- Product R&D: competitors can replicate Luckin's methodology and mechanism by increasing R&D investment, but their scale and market position constrain them from testing hundreds of new products aggressively
- First mover advantage in lower tier cities: coffee is still a new category in lower tier cities, only leading player with strong brand awareness has the capability to educate customers
- Extensive store network brings convenience to customers in all city tiers
- Supply chain, logistic network and digitalization are all technical advantages as well

#### Competitive Edge 1: Product R&D capability

Luckin is the pioneer to launch beveraged coffee and is dedicated to addressing the incremental demand from non-coffee drinkers. It outperforms all the other competitors in terms of the frequency of launching new products. Luckin launched 113 and 34 new freshly brewed beverages (coffee + tea) in 2021 and 2022Q1, which is 5-6 times more than that of Starbucks. Below table sets forth the quantitative comparison of menu and launching frequency of new products.

Product Comparison	Affordab	le Coffee E	everage		Global Coffee	e Brand			<b>Local Bout</b>	ique Brand	d	Yum C	China	McDonald
	Luckin	Nowwa	Lucky Cup (幸运咖)	Starbucks Standard	Starbucks Reserve	Tims	Costa	Manner	Seesaw	M Stand	Algebraist (代数学家)	Lavazza	K Coffee	McCafe
# of store	7,000+	~1,100	1,000+	5,600	<100	450	417	400	94	173	89	86	8,000+	2,145
Price per Cup (RMB)	10-20	10-20	5-15	30-40	30-40	20-30	30-40	15-25	30-40	30-40	25-30	30-40	10-20	10-20
Freshly-brewed Product Menu														
Beveraged coffee	25	16	8	7	7	4	8	9	7	12	14	2	2	2
Classic Coffee	11	10	10	11	14	14	14	7	5	8	6	13	5	9
Specialty Coffee (SOE / Pourover)	15	-	-	4	12	-	10	4	1	-	2	2	1	-
Tea and others	35	9	17	26	28	13	17	4	10	4	1	8	1	18
Total SKUs	86	35	35	48	61	31	49	24	23	24	23	25	9	29
Product Innovation														
Total # of new freshly brewed SKI	Js													
2021	113	60	NA	20				15-20	~20			6	6	
22Q1	34	9	4	5				5	5			2	4	
2022 Expectation vs 2021	Same	More	More	Same				Same	More			More	More	
# of seasons per year	50	12	NA	6-8				10	8			6		
New SKUs per season	2-3	5	4	2-3				1-2	2-3			1		

Source: expert interview, WeChat mini-program, Dianping, Brand APPs

In addition to the frequent launch of new products, Luckin has launched several successful blockbuster products, which enable Luckin to acquire and retain customers organically. Blockbuster products not only distinguish Luckin brand with others, but also contribute a significant portion of daily sales, which helps Luckin reduce pressure from store performance when testing new products.

Launch	Blockbuster Product	Sales Volume
Date		
Sep 2019	Brown Sugar Boba Latte 陨石拿铁	Not disclosed
Sep 2020	Newer Latte 厚乳拿铁	Sold over 100m cups since its launch by 2Q22 – translating into at least 9% of total items sold during the 7-quarter period
Apr 2021	Coconut Milk Latte 生椰拿铁	Sold over 70m cups in 2021 and 100m cups in one year since its launch – translating into 17% of total items sold in 1Q22
Sep 2021	Velvet Latte 丝绒拿铁	Not disclosed
Apr 2022	Coconut Cloud Latte 椰云拿铁	Sold over 24m cups of Coconut Cloud Latte from its launch in April 2022 through the end of the 22Q2 and contributed RMB400m in gross revenue – translating into 11% of total items sold in 2Q22 at RMB 16.7 per cup

Launch	Blockbuster Product	Sales Volume
Date		
Oct 2022	Cheese Flavored Latte 生酪拿铁	Not available yet
	Nearly 30 other products	Sold over 10m cups each (source: 22Q2 6-K).

Source: filings and Luckin WeChat official account

Luckin has a balanced product portfolio catering to the demand of different customer groups. In addition to beveraged coffee, Luckin also offered classic coffee products from inception. In addition, Luckin launched SOE coffee series (The Little Black Cup series  $\circlearrowleft \mathbb{R}$  in Dec 2020, of which quality is yet to be improved based on our interviews. As we discussed in Thesis 2 & 5, some customers may gradually evolve to functional-seeking coffee drinkers or coffee lovers who choose a better quality of coffee beans, and Luckin has built a product portfolio to cater to those upgraded customer needs

# The success of Luckin's product is attributed to strong R&D capability, economies of scale, and the collaboration of multiple departments.

Luckin has an unconventional and strong R&D team backed by an integrated product launching mechanism to ensure the sustainability of successful new product launches:

- Well-established R&D team structure and "horse race" mechanism: Luckin's has two separate R&D teams to address both good flavor and professionalism. One is named as professional team with 6-7 personnel. They focus on developing classic coffee and specialty coffee. The other is named as beverage team to pursuit new flavor of beveraged coffee and freshly made tea. Within beverage team, Luckin set four paralleled small groups (each has 3-4 personnel) to compete with each other on product proposal. The team structure is uncommon in the tea drink or coffee industry
  - O Luckin's beveraged coffee R&D team was recruited in 2019 for the purpose of developing Luckin Tea (小鹿茶) products initially. Their previous working experiences include tea shop, restaurant, RTD drinks but not traditional coffee industry. After the incident in 2020, they were transferred to develop coffee drinks. In a conventional sense, they are unprofessional in coffee bean and milk, but they are sensitive to the flavor that most non-coffee drinkers are pursuing. Most people cannot distinguish the quality of coffee beans
- More importantly, Luckin has developed a product launching process to ensure the sustainability of success in products. The whole process is supported by the close cooperation of 5 teams and Luckin's edge on digitalization:
  - o #1 Product management team (产品管理部, 15-16 personnel): it functions as intermediaries between marketing team and R&D team. Their task is to discover customer needs and monitor trendy products launched by competitors. It raises ideas or directions of new product to R&D teams
  - o #2 Menu management team (菜单管理部): they are responsible to manage the overall product portfolio by stabilizing the basic menu structure and making dynamic adjustments according to data analytics
  - o #3 Product R&D team: as discussed above, multiple small groups will pitch new product proposals like horse race
  - #4 Product testing team: Luckin's success on product is not based on someone's taste or magic but product testing. Luckin has a disciplined product testing mechanism including testing new products in a small group of stores or conducting customer survey
  - #5 Optimization team: new products will be handed over to this team for review and standardization after testing. Their job is to ensure the new product can meet the requirement of operation at store level. Thanks to this process, even though total number of SKUs increased from 60 in Jun 2021 to ~90 in Jul 2022, storefront operation remains efficient with margin improvement

Strong R&D system is an important factor contributing to Luckin's product advantage, but it is not the only determining factor. We have to admit that competitors are able to replicate Luckin's technical advantages by increasing R&D expenditure since there's no significant barrier to entry. In addition, product innovation in freshly made drink industry is an art rather than science. There are hardly any systematic approaches that can ensure the consistent success of every new product.

#### We believe the real moat to defend Luckin's product advantage is scale rather than R&D capability:

• First, it is the market leader's privilege to launch and test hundreds of new products per year:

- Without established brand awareness, some small- and mid-sized brands tend to be more conservative in launching new products since unsuccessful product may damage their brand images.
   E.g., Lucky Cup chooses to play safe most of their SKUs are best-selling products tested by Luckin like coconut milk latte and newer latte, while their original new products only represent a small portion of SKUs (Please refer to the screenshot of menu in Risk 2)
- Without a large number of stores or high sales volume, suppliers are not willing to develop customized ingredients for small brands. Suppliers prefer to recommend their latest products to leading brands and fulfill their request
- With a national store presence and higher brand awareness, Luckin has more chances to promote a competitive new product into a blockbuster one than smaller brands
- Without industry-leading operating efficiency, frequent product launch will pose pressure on storefront operation and supply chain
- With its extensive store network, Luckin is also competitive by adopting a follower strategy. Due to no patent protection, whenever a competitor finds a potential blockbuster product, Luckin has the capability to quickly launch the product nationwide and monetize it before the originator

Collaboration of marketing, storefront operation and supply chain also contributes to Luckin's product success:

The success of blockbuster products is also attributed to Luckin's marketing team. It promotes new products
through multiple marketing channels including creating a buzz on social media, appointing brand
ambassadors, and active information push in its own app. Luckin has become a heated coffee brand on social
media

_	Fans of social media account (unit: k)			# of posts by key w ords (k)	Interactions (k)
	Douyin	RED (小红书)	Weibo	RED (小红书)	Weibo (转评赞)
Luckin	1,601	276	811	700	4,432
Starbucks	1,274	129	1,708	890	9,630
Tims	336	7	110	35	3,071
Manner	278	14	27	50	33
Lucky Cup	13	12	17	93	9

Source: filings, social media apps as of Aug 2022

• Supply chain, logistic network (competitive edge 4) and store operation efficiency empowered by digitalization (competitive edge 5) also support Luckin's high frequency of product launch. Without the support from mid-and back office, high frequency of product launching will bring large pressure to profitability

#### Competitive Edge 2: Established Brand Awareness and Improved Marketing Capability

Luckin has achieved nationwide brand awareness through its ups and downs since its inception:

- Its dramatic free-coffee-plus-coupon-focused customer acquisition strategy in 2018-2019
- Brand image was changed to "real badass nationalistic company" after its IPO in 2019
- Self-reported fabrication of transactions in 2020 and successful management of crisis public relations
- Plenty of blockbuster products like newer latte and coconut milk latte

Furthermore, we find Luckin is on the right track to establish its brand power with improved marketing capability from 2020-2021, trying to build emotional connections with its target customers

- <u>Clear brand positioning with differentiation</u>: A successful brand should define its target customer at the first place. Then, it's necessary for a brand to have differentiation both on function level and emotion level. Luckin is positioning itself as the coffee brand of choice for young people by launching the new slogan "Livin' Young, Luckin On" from Sep 2021 ("年轻,就要瑞幸"). In addition to the functional value of coffee, Luckin is associating emotion utility with its brand and is transforming itself into a young, innovative and fashion brand
- <u>Continuity of brand image</u>: brand building is a long-term and continuous process as it's difficult to win customer mind share. Successful brands always deliver highly consistent messages to their customers. Luckin makes continuous efforts to strengthen its brand image including celebrity endorsement and active interaction with customers on social media. Luckin's first generation of brand ambassadors were mid-aged Wei Tang (汤唯) and Chang Chen (张震) in 2018-2019, stressing the professional element of the brand. Starting from late 2019, however, Luckin's brand ambassadors are all popular among younger generation including Haoran Liu (刘昊然), Zhan Xiao (肖战), Lelush (利路修) and Eileen Gu (谷爱凌)

• Emphasize on branding advertising rather than performance advertising or price discount: Instead of offering price discount or coupon, Luckin develops marketing campaign strategically along with the launch of blockbuster product as well as its celebrity endorsement. For example, Luckin appointed Eileen Gu as brand ambassador 6 months before the Winter Olympics in Beijing and it also prepared limited-time products during the marketing campaign accordingly. Luckin's selling and marketing expense as % of revenue decreased from 27% in 2019 to 3.9% in 2022Q2

RMB m	2018	2019	2020	2021	2022Q1	2022Q2
Total Sales and marketing expenses	504	813	462	337	108	129
As % of total rev	60%	27%	11%	4%	5%	4%
Advertising expenses	362	587	354	244		
As % of total rev	43%	19%	9%	3%		
Free product promotion expenses	131	207	65	(18)		
As % of total rev	16%	7%	2%	0%		
Commission (e.g., delivery platform)		5	10	60		
As % of total rev		0%	0%	1%		
Others		14	33	52		
As % of total rev		0%	1%	1%		

Source: filings

According to Yicai Magazine's 13<sup>th</sup> annual brand preference survey (sample size: 5,777) in Aug 2021, Luckin was ranked as the most popular brand in coffee category and outperformed Starbucks for the first time. Starbucks dropped to third after Luckin and Manner.

13 <sup>th</sup> annual brand preference survey	2018	2019	2020	2021
Luckin	2 <sup>nd</sup> (first time on	6 <sup>th</sup> to last	2 <sup>nd</sup>	1 <sup>st</sup>
	the list)			
Starbucks	1 <sup>st</sup>	1 <sup>st</sup>	1 <sup>st</sup>	$3^{\text{rd}}$

#### 连锁咖啡——外资品牌祛魅



\*注: 編好度=(態意推荐比例·失望比例) \*50%; 每个品类下有10-40个不等的被调研品牌; 考虑到版面限制,制表时我们仅选取了每个品类的例数五名和后五名,中间各次赔去; 票点从上到下为前五名;黑点从下到上为例数五名;

品牌名称前圆圈中的箭头反映了该品牌相较去年的排名变化;

Source: China Business News Magazine

By interviewing Luckin's franchisees, we find that Luckin's brand advantage is stronger in lower tier cities than higher tier cities. People in lower tier cities still consider coffee as a kind of more premium and stylish drink than milk tea. Luckin and Starbucks are the only well-known coffee chains there, which grant Luckin the same brand emotional utility as Starbucks. In order to take further advantage of this, Luckin encourages its franchisees to open large-sized stores and provide "third place" like Starbucks. Its brand power advantage together with beveraged coffee product is helping Luckin achieve first-mover advantage in lower tier cities.

Although Luckin is on the right track to strengthen its brand power, its sustainability remains to be seen. Freshly made tea drink and freshly brewed coffee are all competitive industries nowadays. Sophisticated customers are pursuing good products, and their brand loyalty is generally low. In higher tier cities like Shanghai, Luckin became a brand representing innovative, convenient and value-for-money. Luckin's advantage on product innovation and the convenience brought by its extensive store network are game changers rather than brand effect in higher tier cities.

#### Competitive Edge 3: First-mover Advantages in Lower-tier Cities

Brand advantage, affordable beveraged coffee and franchise store model bring Luckin the first-mover advantage to penetrate lower tier cities. Luckin has the privilege to choose prime store locations and take the mind share of coffee category in lower tier cities before other coffee brands. Now Luckin, Starbucks and Lucky Cup (幸运咖) are the only 3 sizable coffee chains that start to enter lower tier cities (Level 3 & below and county-level cities). Based on our analysis in Thesis 1, the growth of Luckin's store count will mainly come from lower tier cities.

Brand	# of stores in Level 3 & below	% of total stores
Luckin	2,203	30%
Starbucks	1,180	21%
幸运咖	651	64%
太平洋咖啡	33	15%
Costa	13	4%
Tims	4	1%
M Stand	2	1%
Manner	-	0%

Source: Brand APPs, GeoHey

We believe Luckin's first-mover advantage in lower tier cities will sustain for years, because we don't see existing brands are able to challenge Luckin's leading position in the near term. But we recognize the influx of new entrants may dilute Luckin's upside in lower tier cities, especially new independent coffee brands launched by tea shop brands. Please refer to Risk 1 for detailed analysis. Coffee store expansion in lower tier cities not only depends on strategy and determination, but brand positioning, product and price, and store expansion model also influence their chance of success.

- Starbucks is also seeking growth by penetrating lower tier cities and is second to Luckin in terms of store count. But we don't see Starbucks as a major threat to Luckin in lower tier cities, since Luckin and Starbucks don't compete in the same market segment
- Boutique brands tend to be conservative in lower tier cites but have set high priority in higher tier cities. They cater to caffeine functional demand of coffee (D) and coffee lover's demand for specialty coffee (E), which is a niche market in higher tier cities, not to mention in lower tier cities. On the other hand, opening self-operated model to penetrate lower tier cities is inefficient and slow. We don't expect them to pose a significant threat to Luckin immediately

In higher tier cities (Level 1/1.5/2 cities), although Luckin is not the first mover, extensive store network enables it to stay close to target customers. Thanks to Luckin's site selection strategy, 67% of Luckin stores in Level-1 cities are located in office buildings or malls nearby. These stores are convenient for pickup orders. According to our channel check, Luckin optimized its store location during 2020Q2-2021Q2 by closing existing underperforming stores and strengthening its store opening criteria. Store closure numbered 1,211 in these five quarters in total, but it became normalized after that.

Store distribution by location type	Office building	Shopping Mall	Campus	Others
Level 1	67%	15%	7%	12%
Level 1.5	48%	21%	14%	17%
Level 2	39%	26%	19%	16%
Level 3	20%	38%	15%	28%
Level 4	21%	46%	10%	23%
Level 5	28%	44%	7%	21%
National total	44%	26%	13%	18%

Source: GeoHey

Admittedly, due to the small store size and low rent, store location is only Luckin's advantage but not a moat. Luckin's bargaining power to landlord is lower than Starbucks, KFC or HTHT. Except for the lobby of office building, there are usually multiple sites available for tea shops or small coffee shops in shopping malls, streets, campuses, etc. Even though Luckin can take the optimal location due to its first-mover advantage, there is no means to prevent other brands from opening stores nearby. Luckin's bargaining power to landlord is not strong enough to sign an exclusivity agreement like Starbucks. Especially it is franchisee that negotiates with landlord rather than Luckin's own team in lower tier cities, which made Luckin's bargaining power to landlord even lower.

#### Competitive Edge 4: Established Supply Chain and Nationwide Logistics Network

#### Supply chain:

Due to its large scale, Luckin has strong bargaining power to upstream suppliers. Based on public filings and our channel check, Luckin is the top customer of several key raw material suppliers and enjoys strong bargaining power.

Supplier	Brief introduction	Luckin's share of wallet
Delthin (德馨食品), pending A share listing and published preliminary prospectus	Founded in 2008, Delthin is a dedicated beverage ingredient supplier of F&B companies. Its major products include juice and jam (~60% of revenue), syrup (~27% of revenue), tea bags and others (~13% of revenue).	<ul> <li>Luckin: <ul> <li>#2 customer in 2019: RMB 33m, representing 8% of total revenue</li> <li>#4 customer in 2020: RMB 22m, down 34% yoy, representing 6% of total revenue</li> <li>#1 customer in 2021: RMB 127m, up 487% yoy, representing 24% of total revenue</li> </ul> </li> <li>Top 5 customers accounted for 55% / 51% / 54% of total revenue in 2019 / 2020 / 2021</li> <li>Other top customers: Starbucks (# 2 customer in 2021, sales: RMB 70m), MXBC (蜜雪冰城), Shuyi (书亦烧仙草), Sweet 7 (7分甜), Nayuki, etc.</li> </ul>
HXIN (恒鑫生活), pending A share listing and published preliminary prospectus	Founded in 1997, HXIN manufactures and sells polylactic acid (PLA) products to over 100 countries. Its major products are paper cup (~60% of revenue), PLA cup lids and others (~40% of revenue).	<ul> <li>Luckin:         <ul> <li>New customer in 2019, not top 5</li> <li>#1 customer in 2020: RMB 27m, representing 5.6% of total revenue</li> <li>#1 customer in 2021: RMB 83m, up 217% yoy, representing 12% of total revenue</li> </ul> </li> <li>Top 5 customers accounted for 26% / 24% / 26% of total revenue in 2019 / 2020 / 2021</li> <li>Other top customers: Hey Tea (#3 customer in 2021, RMB 27m)</li> <li>Other tea shops (COCO, MXBC, etc.) and Manner were not top 5 customers</li> </ul>
Saishang (赛尚乳业), private	Founded in 2010, Saishang is a leading dairy processing company. Its products include Eisbock milk (厚乳、冰博克牛奶), cream, yogurt, cheese, etc. Saishang takes ~80% market share in Eisbock category according to its official website.	Luckin has been the largest customer of Saishang since 2020     Other customers include Starbucks, Tims, Nowwa, Lucky Cup
Freenow (菲诺), private	Founded in 2015, Freenow focuses on coconut milk and other coconut-based products	<ul> <li>Luckin has become the largest customer since the launch of coconut milk latte</li> <li>Freenow is building exclusive production line for Luckin</li> </ul>

Source: prospectus, expert interview

First of all, the bargaining power brings cost advantage to Luckin. But there's limited room to be significantly reduced further. It's estimated that it's possible to lower the unit price by 1.5%-2% annually without sacrificing quality going forward. According to 2021 20-F, Luckin usually enters into fixed-price purchase agreements with suppliers of raw materials with a term of one year.

More importantly, Luckin has the privilege to customize raw materials. Luckin usually signs exclusive terms with suppliers, which enables Luckin to have a protection period of new products, preventing competitors from replicating Luckin's new product flavor in about 3-6 months. Almost all of Luckin's raw materials are customized according to our interviews. As there are usually 3-5 raw materials used in one cup of freshly brewed drinks, it's difficult to 100% copy the taste of Luckin's products as it's a combination of 3-5 customized raw materials.

Another advantage is vertical integration. Luckin built and operated its own coffee roasting plants in Pingnan, Fujian province. Per our research, this factory is sufficient to supply 70% of Luckin's stores. Luckin signed another investment contract to build another coffee roasting factory in Kunshan, Jiangsu Province and construction will begin in late 2022. Investing in the supply chain brings Luckin a stable quality of raw material and cost advantage. Luckin procures the rest coffee beans mainly from 2 suppliers: Anhui Liyu (安徽立宇: an affiliate of Yeuan Yeou Enterprise Co., Ltd., a well-known roasting company in Taiwan) and Guangzhou Shunda Food (广州顺大). Each represents 15% of total procurement of coffee bean.

#### Logistic network:

As of Dec 31, 2021, Luckin leased approximately 30 warehouses across China from 3 third-party logistics providers for its inventory storage and fulfillment between warehouses and from warehouses to stores. Luckin is able to schedule daily delivery to its high AUV stores. The short replenishment period cooperated with its IT system enables Luckin to launch new products each week without sacrificing profitability.

Supply chain and logistic networks are both technical advantages. Competitors can also achieve the same advantage when the scale is large enough. E.g., Lucky Cup also built its own coffee bean roasting factory in 2020. More importantly, coffee is a high margin business, and the majority of raw materials are standardized commodities (coffee bean, milk and syrup). It's difficult for coffee brands to differentiate on the supply chain side. In contrast, tea shop brands are investing heavily in upstream as they use a large amount of non-standardized ingredients like fresh fruit.

#### Competitive Edge 5: Digitization Covers Every Major Aspect of Luckin's Business

Since its inception, Luckin has attempted to transform the coffee industry with its technology-driven new retail model. However, due to its previous fundamental broken business model and limited TAM of caffeine functional demand, it put the cart before the horse at that time. After it got on the right track to offer affordable beveraged coffee and to focus on the incremental market, digitalization became Luckin's unique advantage to accelerate its revolution. Luckin's edge on digitalization does improve the efficiency of every major aspect of its business: people (customer management), place (site selection and storefront operation) and product (R&D and supply chain). Moreover, Luckin's management are able to make data-driven strategic decisions with their accumulated database from day one and a culture of relying on data and market voices rather than human judgments.

#### People: customer management (用户运营)

Luckin is the pioneer in using a fully app-based ordering and customer management system in the restaurant industry. The majority of orders came from Luckin's own app and WeChat mini-program. By establishing multiple self-owned traffic pools (私域流量池), driven by data and technology, Luckin has managed to engage, retain and monetize customers through various strategies leveraging its large amount of proprietary data, such as private traffic operation (私域流量运营), customer segmentation (e.g., automatic price adjustment and coupon) and membership system.

#### Place: site selection system based on big data analytics

Before the new management team took over in May 2020, Luckin had a wrong view on store expansion methodology only for the sake of scale but not quality. The former management team is over-confident about their "new retail" business model and thought site selection was unimportant. They made an unrealistic store expansion plan and the KPI of store development department was only store count without taking profitability into consideration.

Luckin started to emphasize both the quality of store and store count after 2020H1. It began to develop a smart site selection system based on proprietary and third-party data in Oct 2020, led by its vice president Wenbao Cao. The system takes all available information into consideration including offline traffic data, customer profiles and competitors. The system was launched in Mar 2021 and then was rolled out nationwide in 2021H2. It is able to tell which malls or office buildings are suitable for new stores and to estimate store AUV to justify whether the

store can be profitable or not. Its store development team only needs to find the detailed location within the mall or office building and negotiate rent term with landlord.

The system is developed independently by Luckin. Global top restaurant players (e.g., Starbucks, YUM and McDonald) have similar tools to empower their store expansion. The system becomes even more valuable for mature brands to further increase their store density. For now, the system is uncommon for a local restaurant company in China since it requires proprietary data accumulation and a professional data science team.

#### Place: Storefront operation empowered by digitalization

Luckin also leverages its strong technology capabilities to streamline storefront operations and optimize workforce management. It also has an automated in-store inventory management system to intelligently forecast demand, manage inventory, automatically place orders directly with suppliers, timely stock up stores and limit overall waste. Even though Luckin launched more new products than any other coffee brands in China, its storelevel profitability keeps improving. This IT system also applies to franchise stores and facilitates Luckin's management of its franchise store network.

#### Product: R&D and testing of new product

According to our analysis of Luckin's product launch mechanism, digitalization enables Luckin to discover and test new products in a highly efficient way. At the stage of product R&D, Luckin digitizes various ingredients and flavors to quantify and track the trends of beveraged coffee. For example, Luckin's R&D team does not use qualitative words such as "scent" and "sweet" to describe flavors but quantifies them with numbers. At product testing stage, Luckin also has an edge on monitoring real-time sales performance and other metrics like repurchase rate to gain a comprehensive view of the new product.

#### Competitive Edge 6: Proven Track Record to Manage Extensive Store Network

According to the table summarizing all leading coffee brands in Risk 1, Luckin and Starbucks are distant leading players in the industry, each operating more than 6,000 stores. The scale of store network and operating efficiency represent the comprehensive strength of a restaurant company. Luckin already has a proven track record of making continuous improvement on store-level profitability together with rapid store network expansion.

#### Risk No. 1: Intensifying competition in the beveraged coffee segment

After beveraged coffee enlarged the TAM of coffee industry, intensifying competition is just a matter of time. Among all types of competitors, we recognize the independent coffee brands launched by franchise tea shops as Luckin's major threat in the next 3-5 years. Luckin's growth upside in lower tier cities may be diluted by the influx of these new players. We don't see other types of coffee brands have the potential to challenge Luckin's leading position in the short-to-medium term.

#### Current competitive landscape and overview of major players

China's coffee market is still highly fragmented, and chain stores only represent less than 25% of total stores. As of May 2022, there were approximately 117 thousand freshly brewed coffee stores in China, among which 75% of stores are single stores. Chain stores as % of total stores in the coffee industry are in the middle between freshly made tea (42%) and fast food (20%).



Source: 2022 中国现制咖啡品类发展报告,美团

Chain stores % of total stores	2019	2020	2021
Freshly made drinks (tea + coffee)	32%	33%	42%
Freshly made tea		35%	47%
Freshly brewed coffee	21%	23%	25%
Fast food	15%	17%	20%
Hot pot	16%	20%	21%
Chinese cuisine (八大菜系)	11%	12%	15%
BBQ	9%	10%	14%
Chinese cuisine (local flavor)	10%	12%	13%
Buffet	6%	11%	12%
Seafood	8%	9%	11%

Freshly made drink industry is the least fragmented segment in restaurant industry

Source: 中国餐饮经营研报 2022. 餐饮老板内参

We could further divide coffee chain brands into several categories: global coffee chain, boutique brands, affordable beveraged coffee brand, independent coffee brand launched by tea shop brands, and others (in-store model). We will evaluate each category with the framework of people (brand positioning and target customer), product and places (store format and store distribution).

			Price	Target	Latest		Avg. monthly rev.	
Independent Brand	Category	Operating model	range	customers	Store count	Mkt share	per store (RMB k)	Notes
Luckin	Affordable coffee beverage	Self-operated + franchised	Mid	C+D	7,388	6.3%	124	2021 self-operated store on
Starbucks	Global coffee chain	Self-operated	High	A+B+D+E	5,761	4.9%	376	2021 overall
Lucky Cup (幸运咖)	Coffee brand under tea shop	Franchised	Low	C+(D)	995	0.8%	75	Jun 2022, overall
Tims	Global coffee chain	Mainly self-operated	Mid-high	A+(C)+D	437	0.4%	200	2021 self-operated store on
Manner	Local boutique brand	Self-operated	Mid	D+E	437	0.4%	180	Shanghai only, estimate
Costa	Global coffee chain	Self-operated	High	A+D	367	0.3%		
Pacific Coffee	Global coffee chain	Self-operated	High	A+D	225	0.2%		
M Stand	Local boutique brand	Self-operated	High	D+E	182	0.2%		
SeeSaw	Local boutique brand	Self-operated	High	D+E	149	0.1%	220	Shanghai only, estimate
Nowwa (independent)	Affordable coffee beverage	Mainly franchised	Mid	C+(D)	100	0.1%	100	Shanghai only, estimate
Algebraist (代数学家)	Local boutique brand	Self-operated	High	D+E	89	0.1%	200	Nanjing only, estimate
Lavazza (YUMC)	Global coffee chain	Self-operated	High	A+B+D+E	86	0.1%		
Peet's Coffee	Global coffee chain	Self-operated	High	A+B+D+E	82	0.1%		
% Arabica	Global boutique brand	Self-operated	High	A+B+D+E	58	0.0%		
Coffii & Joy (YUMC)	Local boutique brand	Self-operated	High	D+E	32	0.0%		
			Price	Target	Latest			
In-store Brand	Category	Operating model	range	customers	Store count			
KFC K Coffee	In-store	Self-operated	Low		8,000+			
McCafe (麦咖啡)	In-store and independent store	Self-operated	Low		2,145			
Family Mart (全家咖啡)	In-store	Franchised	Low		2,000+			
7-11	In-store	Franchised	Low		2,000+			
Bianlifeng (便利蜂咖啡)	In-store	Self-operated	Low		2,000+			
Now w a (in-store model)	In-store	Franchised	Mid		~1,300			
Bumianhai (便利蜂不眠海)	In-store	Self-operated	Mid		338			
Sisphe (西西弗书店)	In-store	Self-operated	Mid		277			

Source: filings, news

Note: Market share is calculated by store count, total number of coffee stores was 117k as of May 2022; target customer group refers to five categories summarized in Thesis 1: A – Brand, B – Third Place, C – Beverage, D – Functional Demand, E – Coffee Lover.

#### 1.1 Global coffee chain

Global coffee brands, especially Starbucks, did not put enough emphasis on the trend of beveraged coffee. The market for caffeine functional demand of coffee products with mid-to-high price is still limited, especially in lower tier cities. Tims and Costa want to follow the trend of beveraged coffee, but their scale is not enough to compete with Luckin.

#### Starbucks

Before 2019, Starbucks was the undisputable market leader in China's coffee industry. Starbucks China knows that the coffee shop business demand across categories A-C is larger than category D and E. Therefore, Starbucks China is willing to pay high rent and renovation expenses for space and style. What Chinese consumers are happy to pay for essentially is a stylish place serving beverages/food for meetings or leisure, not for the coffee itself. Starbucks empowers its brand to be associated with "Knowledge", "Experience" and "Culture" and make "Starbucks" a style.

However, Starbucks is facing a strong headwind nowadays, including customer defection and significant SSSG decrease. Its SSSG largely lagged behind Luckin since 2021Q3. In recent 2022Q2, Starbucks recorded a -44% SSSG compared to +41% of Luckin during the same period, primarily due to intensifying competition. Restriction on mobility and consumer behavior change during Covid imposed more severe effect on third place" coffee shops like Starbucks than grab-and-go stores like Luckin, and the trend may reverse after the pandemic.

Conventional product offering: Starbucks seems unwilling to change and they are not easy to change

- Starbucks did not put enough emphasis on innovating beveraged coffee to attract non-coffee drinkers. Senior management of Starbucks China has been aware of Luckin's success, but they don't want to follow and don't buy in its product philosophy. They still want to maintain Starbucks as an orthodox, professional, and premium brand. They believe that beveraged coffee is nothing new but a gateway product. Non-coffee drinkers may be easily attracted by beveraged coffee in the early stage, but they will inevitably switch to drinking classic product and even specialty coffee in the future. Therefore, Starbucks didn't launch as many beveraged coffees as Luckin but chose to open more Starbucks Reserve stores to attract coffee lovers in higher tier cities
- Even if Starbucks changes its mind to focus on beveraged coffee, its corporate governance structure also restricts Starbucks China's flexibility in terms of product innovation. As a typical MNC, the local management team of Starbucks China is not the decision maker for product launching. Some new product proposals are approved by US headquarters before launching and the lead time is usually up to one year. Therefore, Starbucks China cannot be as flexible as local players to accommodate the switching taste of Chinese customers
- In addition to incremental non-coffee drinkers attracted by Luckin's affordable beveraged coffee, its core customer base is also challenged by local boutique brands. Even though Starbucks positions itself as a premium and professional coffee brand, it is actually selling generic classic coffee at high prices (RMB 30+ per cup). But local boutique brands are offering specialty coffee at the same price as Starbucks or even lower (Manner). Starbucks' once-proud brand value also got weakened due to brand aging and consecutive negative news since 2021 (e.g., food safety issue in Dec 2021 and "misunderstanding" between its staff and a police officer<sup>2</sup> in Chongqing in Feb 2022)

Starbucks China		2019	)			2020				2021			202	2
CY	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Rev US\$m	703	729	763	745	384	624	815	911	861	905	964	897	744	545
Y/Y growth	9%	10%	14%	13%	-45%	-14%	7%	22%	124%	45%	18%	-2%	-14%	-40%
Rev in rmb	4,743	4,978	5,366	5,238	2,682	4,426	5,622	6,015	5,580	5,842	6,237	5,728	4,720	3,604
Y/Y growth	16%	18%	17%	15%	-43%	-11%	5%	15%	108%	32%	11%	-5%	-15%	-38%
2 year CAGR									8%	8%	8%	5%		
Stores	3,789	3,922	4,125	4,292	4,351	4,447	4,706	4,863	4,973	5,135	5,360	5,557	5,654	5,761
Net add	104	133	203	167	59	96	259	157	110	162	225	197	97	107
Y/Y growth	17%	16%	17%	16%	15%	13%	14%	13%	14%	15%	14%	14%	14%	12%
2 year CAGR									15%	14%	14%	14%		
AUM per month (rmb k)	418	426	440	410	205	332	405	414	374	381	364	346	278	208
Y/Y growth	-2%	1%	1%	-1%	-51%	-22%	-8%	1%	83%	15%	-10%	-17%	-26%	-45%
2 year CAGR									-5%	-5%	-9%	-8%		
AUM per day (rmb k)	14	14	15	14	7	11	13	14	12	13	12	12	9	7
rmb/order	53	53	53	52	56	56	53	54	50	55	53	51	50	54
No. of orders/day	265	267	279	263	122	197	254	255	249	233	231	224	185	129
												376		
SBUX SSSG (excl. VAT im)	2%	6%	5%	3%	-50%	-23%	-7%	0%	82%	25%	-3%	-10%	-19%	-44%
Luckin SSSG, 直营店					-31%	-7%	0%	9%	95%	72%	76%	44%	42%	41%
2 year CAGR									-9%	-4%	-10%	-10%		
Transactions	-1%	2%	2%	1%	-53%	-27%	-7%	-3%	93%	30%	-2%	-6%	-20%	-43%
2 year CAGR									-9%	-5%	-9%	-9%		
Tickets	3%	4%	3%	2%	6%	6%	1%	4%	-10%	-3%	-1%	-5%	0%	-1%
2 year CAGR									-5%	3%	0%	-1%		

Source: filings

Starbucks is also seeking growth in lower tier cities. Its store count in lower tier cities and county-level cities is second only to Luckin. We don't see Starbucks as a major threat to Luckin in lower tier cities as they are not competing in the same market segment. Based on our analysis above, Starbucks is reluctant to launch beveraged coffee to attract non-coffee drinkers. The core caffeine demand of coffee is still under-developed in higher tier cities, not to mention lower tier cities. Starbucks' "space + premium pricing" store model works better in lower tier cities in the more economically-developed regions with higher consumption power. Below table sets forth Starbucks county-level store count breakdown by province. 81% of county-level stores are concentrated in only 3 provinces - Zhejiang, Jiangsu and Guangdong, which are all economically developed area. While Luckin is adaptive to more lower tier cities. Luckin has entered 449 county-level cities with 911 stores as of Aug 2022. Even if Starbucks launches beveraged coffee in the future, it's still too expensive to become people's daily choice in lower tier cities. Starbucks further raised its price by RMB 1-2 per cup in Feb 2022 to offset rising inflation and increase in labor costs according to its 21Q4 earnings call.

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<sup>&</sup>lt;sup>2</sup> Starbucks battles another backlash in China over 'misunderstanding' with police <a href="https://www.cnn.com/2022/02/16/business/starbucks-china-chongqing-controversy-apology-intl-hnk/index.html">https://www.cnn.com/2022/02/16/business/starbucks-china-chongqing-controversy-apology-intl-hnk/index.html</a>

Province	Store count	% of county-level total
浙江省	191	35%
<b>江</b> 苏省	173	32%
广东省	71	13%
福建省	34	6%
山东省	12	2%
四川省	12	2%
湖南省	9	2%
河北省	9	2%
河南省	8	1%
海南省	5	1%
安徽省	4	1%
广西壮族自治区	2	0%
云南省	2	0%
吉林省	1	0%
辽宁省	1	0%
贵州省	1	0%
重庆市	1	0%
陕西省	1	0%
江西省	1	0%
甘肃省	1	0%
宁夏回族自治区	1	0%
County-level Total	540	100%

Source: company website

#### Costa, Pacific Coffee and Tims

Before 2021, the other global coffee chains chose to follow Starbucks and have homogeneous operation strategy. They address the caffeine functional demand of coffee and offer "third place" like Starbucks. But they find it very difficult to replicate Starbucks' success built on 20 years of brand value and accumulated store portfolio, and they are struggling to turn profitable in China. Even Starbucks started to lose share in 2021, not to mention its followers

- Costa's number of stores decreased from 500+ in early 2020 to only 367 in Aug 2022 (source: GeoHey)
- Tims China recorded 7.4%, 15.7% and 3.4% SSSG of its self-operated stores in 2020, 2021 and 2022Q1, which was better than Starbucks but lagged behind Luckin

#### 1.2 Local boutique brands (e.g., Manner, Seesaw and M Stand)

Local boutique brands got several rounds of financing in 2020 and 2021 but they are not directly competing with Luckin in terms of affordable beveraged coffee. Most local boutique brands only have self-operated stores in higher tier cities where coffee market is mature. Below table sets forth the latest store distribution of these brands. To some extent, they serve as an upgrade option for the customers who are existing coffee drinkers. In addition, it's unlikely that they can scale up quickly through self-operated store in lower tier cities.

Aug-22		Manr	ner	M Sta	and	Sees	aw
City Tier	City	Store count	% of total	Store count	% of total	Store count	% of total
1	Shanghai	311	71%	72	40%	82	55%
1	Guangzhou	44	10%	15	8%	-	0%
1	Beijing	41	9%	7	4%	21	14%
1	Shenzhen	-	0%	22	12%	7	5%
1.5	Chengdu	16	4%	11	6%	8	5%
1.5	Suzhou	9	2%	1	1%	2	1%
1.5	Wuhan	6	1%	9	5%	4	3%
1.5	Chongqing	5	1%	1	1%	5	3%
1.5	Hangzhou	3	1%	19	10%	14	9%
1.5	Nanjing	-	0%	8	4%	6	4%
1.5	Ningbo	-	0%	8	4%	-	0%
1.5	Foshan	-	0%	2	1%	-	0%
2	Xiamen	-	0%	2	1%	-	0%
2	Zhuhai	-	0%	1	1%	-	0%
2	Changzhou	-	0%	1	1%	-	0%
2	Wuxi	-	0%	1	1%	-	0%
2	Nanning	2	0%	-	0%	-	0%
3	Haikou	-	0%	2	1%		0%
Total	•	437	100%	182	100%	149	100%

Source: GeoHey, as of 3 Aug 2022

#### Manner

Manner is a significant threat to Starbucks but not Luckin. It offers value-for-money classic coffee and specialty coffee to coffee lovers in mature market rather than competing with Luckin on beveraged coffee in lower tier cities

#### People:

- O Brand positioning: Manner positions itself as a lifestyle coffee brand with expertise in specialty coffee and SOE (single origin espresso) at mass-market prices (around RMB 20 per cup). It targets to offer the lowest price in specialty coffee, which usually sells at premium prices (over RMB 35-40 per cup). It also plans to build a scaled store network in the historically fragmented specialty coffee market dominated by individual shops.
- Manner caters to the caffeine functional demand of coffee (D) and sophisticated coffee lovers (E) in mature coffee market, and that's why its stores are concentrated in Shanghai, the most mature coffee market in China, where the coffee culture was rooted back in early 1900s. It is not competing with Luckin on beveraged coffee in lower tier cities

#### • Product:

Manner was the most conservative player among boutique brands to launch beveraged coffee. It only launches 2-3 new products each month. Most of the new products are SOE coffee (limited time offer) rather than beveraged coffee. Below is how its menu looked in Oct 2021.



Starting from the summer of 2022, however, Manner launched more creative coffee products, adding fruit and flower flavoring or ingredients, making them unconventional choices like Luckin's beveraged coffee. From Jul to Sep, they added 12 new drinks, 7 of which are coffee-beverage alike. But a closer look into the beveraged coffee products would notice that it's not like Luckin's beveraged coffee. The milk coffee variations are made by adding syrups, not by changing the origin or texture of the milk part like Luckin.

	Jul-22		Sep	-22	Sep-22
Category	# of SKUs	% of total	# of SKUs	% of total	Products
Classic Coffee	7	29%	9	25%	Americano
					Latte, oatmilk latte, light latte, buffalo milk latte, flat w hite, oatmilk flat w hite, cappuccino, moc
Beveraged coffee	9	38%	16	44%	Americano: coconut water, passion fruit, grapefruit, lemon+SOE
					Latte, dirty or flatw hite: osmanthus (May flow er) * 7; orange peel *4; Macadamia nut*1
Specialty Coffee	4	17%	6	17%	SOE black coffee or latte, hand drip or cold brew
Non-coffee Drinks	4	17%	5	14%	Matcha*3, Chocolate *2
Total	24	100%	36	100%	

Source: Manner WeChat Mini-program

#### Places:

- Store format: small-sized grab-and-go stores, 20 sqm on average. It didn't launch delivery service until 22Q1
- O Store distribution: 437 stores in Level 1-2 cities, including 71% of stores in Shanghai as of Aug 2022. The adaptation of Manner's business model outside Shanghai has not been proven yet.

o Manner chooses to open self-operated stores only to ensure product quality and store experience

Manner	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22-Aug
Store count	160	207	261	300	367	399	437
Net addition		47	54	39	67	32	38
Q/Q grow th		29%	26%	15%	22%	9%	10%

Source: GeoHey

We understand that the creative coffee products of Manner are fundamentally different from Luckin's beveraged coffee, mainly in the people who did the R&D and the target customers.

- Manner and other coffee specialty brands call their creative coffee products "signature beverage" (特调咖啡), which is a long existing niche product line in specialty coffee shops. The products are created by baristas, and (sometimes unintentionally) targets coffee lovers. They add creative ingredients to coffee with the purpose to match or distinguish the unique flavor of its coffee beans. In the sensory score sheet of WBC (World Barista Championship), the taste criteria for signature beverage is "creativity and synergy of coffee". It's worth noting that Manner and Starbucks are rare exceptions in the China coffee shops industry, where almost all brands followed suit to offer coconut milk latte Luckin's best-selling SKU. We understand that one reason Manner didn't launch the product is that they don't think coconut milk goes well with coffee easily and they don't like Luckin's presentation of the product, from a barista's point of view
- The majority of Luckin's beveraged coffee products, on the other hand, are not invented by baristas. There are more employees in Luckin's R&D department from freshly made tea drinks, fast food and FMCG companies than from coffee shops. They fully understand that new coffee drinkers usually don't like the bitter and sour part of the coffee beans because they are one of them. One purpose of their R&D is to make Luckin's coffee products "more drinkable" by non-coffee lovers, which are actually greater in size than coffee lovers in China. They don't mind diluting the taste of coffee beans to achieve that target, and thus some of their beveraged coffee products are despised by some coffee experts but still turn out to be great success

We also learned that Manner's R&D team are much smaller in size than Luckin, and their new product R&D, testing and launching process are not as established. As the No. 4 coffee shop chain in China in terms of store number, some of their raw materials are not customized but are suppliers' general-trade products.

#### The rest boutique brands (Seesaw, M Stand, etc.)

They represent high-end specialty coffee and an upgrade option for Starbucks customers. They don't directly compete with Luckin either.

- Brand position:
  - o Boutique brands serve high-end customers (price-insensitive) and sophisticated coffee lovers (E) in mature market
  - Compared with Luckin, they are more like Hey Tea or Nayuki in tea drink business, which offered better products at a premium price
- Product:
  - o They are more aggressive than Manner in launching beveraged coffee to differentiate.
  - They sell at a premium of about RMB 25-40 per cup due to the better quality of coffee bean and other ingredients (fresh fruit, etc.), better store environment and better service
- Places:
  - Store format: M Stand and Seesaw provide "third place" like Starbucks and emphasize aesthetic design
  - O Store distribution: Same as Manner, they only open self-operated stores in higher tier cities and 40-50% of stores in Shanghai. They don't have urgent plan to enter lower tier cities either

However, boutique coffee brands have the edge to attract sophisticated coffee lovers due to their premium and professional brand image. Luckin launched SOE coffee series (The Little Black Cup series 少黑杯) in Dec 2020 to compete in specialty coffee segment. It procured SOE coffee beans from Ethiopia (Yirgacheffe and Hambella), Columbia and Yunan. One cup of SOE coffee is usually RMB 4-5 more expensive than ordinary coffee. However, according to our interview with industry experts, Luckin's specialty coffee is not as successful as its beveraged coffee. Sophisticated coffee lovers tend to prefer boutique brands rather than Luckin due to brand image. More importantly, coffee lovers emphasize hand-made specialty coffee using manual coffee machines. However, this is not a big problem for Luckin as specialty coffee is still a niche market in higher tier cities. Even in a mature market like the US, the top six brands are all mass-market brands and there is no specialty coffee brand taking

more than 1% market share in terms of store count. In Shanghai, Manner is the largest specialty coffee brand in terms of store count, only representing 4% of total stores.

Top six coffee brands' store count in the US as of Aug 2022

# Brand	Store count	Mkt share
1 Starbucks	15,474	24%
2 Dunkin Donuts	9,477	14%
3 Tim Hortons	619	1%
4 Dutch Bros	572	1%
5 Caribou Coffee	475	1%
6 Peet's Coffee	339	1%
Others	38,454	59%
Total coffee store count	65.410	100%

Source: filings, news

Top coffee brands' store count in Shanghai as of Aug 2022

Shanghai	# of stores in Shanghai	% of total stores	Mkt Share %
Starbucks	946	17%	12%
Luckin	602	8%	8%
Manner	311	71%	4%
Tims	165	16%	2%
Costa	92	2%	1%
Now w a	91	32%	1%
Seesaw	82	55%	1%
M Stand	72	40%	1%
Pacific Coffee	29	13%	0%
Others	5,467		70%
Total	7,857		100%

Source: GeoHey

#### 1.3 Independent coffee brands launched by franchise tea shops

We consider independent coffee brands launched by franchise tea shops as major threats to Luckin in the near term. They are not only aware of the market opportunity and have incentives to compete with Luckin directly, but also have experiences from and synergies with the tea drink business. Even though their coffee business is still in an early stage, tea shop brands are highly likely to incubate direct competitors of Luckin. We don't expect any single player to be strong enough to compete with Luckin, but we are worried that their fast store expansion through franchise model may dilute Luckin's growth upside, especially in lower tier cities.

Most of top franchise tea shop brands are aware that the TAM of coffee industry is significantly enlarged by beveraged coffee (e.g., flavored Latte and fruit coffee), especially in underpenetrated lower tier cities where Luckin has almost no competitor. As the tea drink industry is entering the highly competitive phase, tea shop brands have strong incentives to make coffee business as their new growth engine. 6 out of the top 8 franchise tea shop brands have launched or are in the process of launching independent coffee brands. The other two are also testing coffee products in their tea shops. Below table sets forth summary of coffee ventures of top tea shop brands:

#	Tea Shop Brand	Number of Tea Shops	Independent Coffee Brand	Key Events and Business Plan
1	蜜雪冰城 MXBC	22k	幸运咖 Lucky Cup	MXBC acquired 100% of Lucky Cup in 2020. It repositioned the brand and kicked off franchise store expansion in early 2020. Store code <sup>3</sup> has reached ~1,300 in June 2022. (Source: industry expert)
2	书亦烧仙 草 Shuyi Tea	6.6k	DOC Coffee	Shuyi made a majority investment in DOC Coffee in May 2022. Now it has ~20 stores in Changsha. Shuyi treats DOC as its only coffee platform and plans to expand through franchise model nationwide. (Source: industry expert)

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<sup>&</sup>lt;sup>3</sup> Store code refers to accumulative total number of registered stores since brand inception incl. operating, new, closed and pipeline stores

#	Tea Shop Brand	Number of Tea Shops	Independent Coffee Brand	Key Events and Business Plan
3	Guming Tea 古茗	6.5k	Unknown	Franchised coffee brand is under preparation. (Source: industry expert)
4	Chabaidao Tea 茶百 道	5.5k	Unknown	Franchised coffee brand is under preparation. (Source: industry expert)
5	COCO 都 可	4.8k	NA	COCO added coffee products in their existing tea shops and has no plan to launch an independent brand yet. (Source: industry expert)
6	Yihetang 益禾堂	4.6k	Unknown	Franchised coffee brand has been under preparation since 2021. (Source: industry expert)
7	Hushang Tea 沪上阿姨	4.5k	NA	Hushang Tea added coffee products in their existing stores and has no plan to launch an independent brand yet. (Source: industry expert)
8	Tianlala 甜啦啦	3.8k	Kaxiaodou 卡小選	Tianlala launched franchise coffee brand – Kaxiaodou (卡小逗) in July 2022. Kaxiaodou targets to penetrate lower tier cities and plans to open 150 stores in 2022 and reach 3,000 stores in 2024. (Source: news)
15	Sweet 7 7分甜	1.2k	Brisky Coffee 轻醒咖啡	The first store was opened in Suzhou in Oct 2022 (Source: news)
NA	Ningji 柠 季	438	RUU	Ningji (柠季) made a majority investment in RUU in May 2022. RUU has 5 stores in pipeline in Changsha. (Source: news)

Note: the above brands are ranked by their latest number of tea shops according to GeoHey and Canyan Data (宅 门餐眼) as of Jul 2022.

There are two typical strategies for tea shop brands to enter the coffee industry. They can either add coffee products to their existing stores or launch independent coffee brands. We consider launching franchise coffee brand as a more threatening strategy, which is exactly most brands' choice. We are going to take Lucky Cup and DOC Coffee as examples to illustrate.

- Offering coffee products in their existing tea shops is proved to be unsuccessful as it is difficult to change
  their brand image or mindset of existing customers. Hey Tea, Nayuki, COCO and Hushang Tea chose this
  strategy. Nayuki's coffee products only contribute less than 5% of store revenue according to the company
- Launching a new franchise independent coffee brand is a compelling strategy. It not only avoids the brand recognition problem mentioned above, but also has significant synergies with the tea drink business. More importantly, these new brands have the potential to scale up quickly in 2-3 years by franchise model

#### Lucky Cup 幸运咖 (independent coffee brand launched by MXBC)

MXBC acquired 100% of Lucky Cup in 2020. It repositioned the brand and kicked off franchise store expansion in early 2020. It is betting on Lucky Cup as a new growth engine and has set aggressive store expansion plan. Lucky Cup was previously led by co-founder of MXBC (Hongfu Zhang 张红甫, younger brother of co-founder Hongchao Zhang 张红超) before 2022.

#### • People:

- o Brand positioning: extremely low price, aim to become another MXBC in coffee industry
- Target customer: both caffeine functional demand of coffee and non-coffee drinkers, high pricesensitive customers in lower tier cities

#### Product:

- Cucky Cup's menu mainly constitutes beveraged coffee and tea drinks under RMB 10 per cup. It copied Luckin's coconut milk latte and newer latte (厚乳拿铁). It also has low-priced lemonade (RMB 5) and ice cream (RMB 2) to attract customers like MXBC
- o Sales breakdown by categories: 28% beveraged coffee (mainly coconut milk latte), 28% classic coffee (top sellers are Latte (招牌冰拿铁) and Americano), 44% tea and others (e.g., ice cream) based on our interview

 Side-by-side price comparison with Luckin: MXBC's products are generally priced at 40-60% of Luckin.

Category	Product Name	Lucky Cup Price	Luckin Price (RMB)
		(RMB)	
Beveraged	Coconut milk latte	10	18-20
coffee	Newer latte (厚乳拿铁)	10	16-18
	Strawberry latte (草莓冰拿	8	20-21
	铁)		
Classic coffee	Americano	5	13-14
	Standard latte	7-9	15-16
	Vanilla Latte	10	17
	Mocha	11	17



#### Places:

- o Store format: small-sized pick-up store, store area is usually 20-30 sqm
- O Store distribution: now 67% of Lucky Cup stores are located in Level 3 & below cities; 60% of stores in shopping malls, 30% near school, 10% others (very few in office building)
- Lucky Cup is expanding its store aggressively through franchise store model. Its store code reached ~1,300 in June 2022 and planned to reach 2,200 at the end of 2022.

Lucky Cup	Early 2020	Dec 2020	Dec 2021	Jun 2022	Dec 2022 (Plan)	Dec 2023 (Plan)
Store Code	<10	100	500	1,300	2,200	5,000

Source: industry expert

Note: Store code refers to accumulative total number of registered stores since brand inception incl. operating, new, closed and pipeline stores

Take Lucky Cup as an example, we conclude that independent coffee brands have below competitive edges and synergies with tea drink business:

• Competitive edge and synergy 1: Asset-light franchise store model enables these new brands to open thousands of coffee stores in a year. The pace can be further accelerated as MXBC has a large base of existing franchisees, which can be easily leveraged to open coffee stores

- MXBC has accumulated a large base of 5,000-6,000 loyal franchisees. Lots of franchisees made their first money by opening tea shops and cooperated well with MXBC. On average one franchisee opens 3-4 MXBC stores. In 2021, nearly 50% of Lucky Cup franchisees came from MXBC
- Synergy 2: Tea shop brands have know-how on building a replicable franchise store model catering to the mass market demand in lower tier cities. Unlike local boutique coffee brands that are born in Shanghai and their business model may not be feasible for lower tier cites, tea shop brands designed their business model specially for lower tier cities from day one. More importantly, store-level operation of coffee store is simpler than tea shop, requiring less staff and more standardized raw material rather than fresh fruit. Luckin also prefers to use syrup, jam or juice rather than fresh fruit to ensure standardization

o The typical UE of Lucky Cup is as below: average payback period is around 3 years in 2022H1 due to high proportion of delivery orders. If using sales volume and ASP in Aug 2022 (peak season; also introduced more higher ASP new products), payback period is reduced to around 1 year

introduced more nigher Asi new produ			-
RMB, monthly if not specified otherwise	22H1	Aug-22	Assumptions
Daily items sold per store	300	375	
WeChat mini-program and in-store	180	225	
Delivery platform	120	150	
Delivery orders as % of total orders	40%	40%	30-40% orders from delivery platforms
ASP (RMB)	7.4	8.9	
WeChat mini-program and in-store	7.0	8.5	
Delivery platform	8.0	9.5	Generally RMB 1 higher than mini-program
Monthly revenue	66,600	100,125	
COGS	33,300	50,063	
Gross Profit	33,300	50,063	
GPM	50%	50%	
Store rental	10,000	10,000	
% of revenue	15%	10%	
Labor	9,000	11,250	22H1: 3 staff, monthly salary RMB 3k each
% of revenue	14%	11%	
Labor cost per item	1.0	1.0	Assuming stable labor cost per item
License fee	1,167	1,167	RMB 14k per annum
% of revenue	2%	1%	
Utilities and others	2,000	3,004	
% of revenue	3%	3%	Assuming stable % of revenue
Delivery platform commission fee	5,760	8,550	
Commission rate of delivery platforms	20%	20%	Meituan food delivery take rate
Store-level EBITDA (after delivery fee)	5,373	16,092	
% of revenue	8%	16%	
Store capex			
Equipment	80,000	80,000	RMB17,000 per manual coffee machine
Decoration	75,000	75,000	RMB2500 per sqm, avg. area 30 sqm
One-off license fee	28,000	28,000	
Deposit (保证金)	14,000	14,000	
Payback months (excl. deposit)	34	11	
Payback months (incl. deposit)	37	12	

Source: industry expert

- Synergy 3: Fully leverage its experience of operating thousands of franchise stores in China. Tea shop brands are already the winners in the fierce competition of tea drink industry
  - For the emerging franchise coffee brands like Nowwa, we may doubt their management capabilities as they didn't have proven track record in managing extensive franchise stores in such competitive industry
- Synergy 4: Deep-rooted in lower tier cities, tea shop brands have better understanding on offering affordable beveraged coffee to mass market. Their R&D team can also leverage their experience in tea drink to innovate beveraged coffee
  - Per our analysis in Thesis 1, beveraged coffee is a combination of tea drink ingredients and coffee. Even for Luckin, its R&D team previously worked for Lucky Tea (小鹿茶). Tea shop brands' R&D

team have advantages and profound experience in exploring flavors / recipes. Lucky Cup's head of R&D team came from MXBC

- Synergy 5: Established supply chain and nationwide logistic network
  - o MXBC has cost advantage brought by its economies of scale, self-owned factories for raw materials and strategic cooperation with top suppliers (e.g., Mengniu Dairy 蒙牛). Lucky Cup also built its coffee bean roasting factory in 2020. In addition, the majority of other ingredients can be shared with its tea drink business, including milk, syrup, juice
  - Lucky Cup claims that GPM at franchise store level reaches ~50% (GP = store level revenue ingredients purchased from Lucky Cup), and Lucky Cup's company-level GPM is ~25% (GP = ingredient sold to franchisees cost of raw material). However, Lucky Cup's three top selling products (Americano, Latte and Coconut Milk Latte) cannot meet 50% GPM at store level based on our channel check. Below table sets forth the comparison of cost per cup of each brand's franchise stores
  - You get what you pay for: as low-priced brand, Lucky Cup actually uses inferior ingredients like creamer (特调奶浆) rather than real milk in its Signature Latte (招牌冰拿铁), and creamer is made up of unhealthy hydrogenated oil

Raw material price	Lucky Cup	Luckin	Notes				
Coffee bean (1kg)	70.0	70.3	Both of them have	ve self-ow ned co	offee bean roas	ting factories	
Milk (1L)	10.0	8.2	Lucky Cup and I	MXBC has strateg	gically cooperation	ong with Mengniu D	iary
Coconut milk (1L)	12.0	18.0	They procure dif	ferent standards	s of coconut milk	from the same sup	plier (Freenow)
Creamer (特调奶浆, 1L)	30.0	NA	Mengniu Diary of	ffers customized	creamer to Luc	ky Cup and MXBC	
Syrup (糖蜜, 1kg)	7.7	9.7	Luckin's major s	yrup supplier is D	Delthin w hile MXI	BC has its own syru	up factory
	America	ano		Latte		Coconut n	nilk latte
Brand	Lucky Cup	Luckin	Lucky Cup	Lucky Cup	Luckin	Lucky Cup	Luckin
Product name	现磨美式	标准美式	招牌冰拿铁	普通冰拿铁	拿铁	椰椰拿铁	生椰拿铁
Cup size (mL)	500	500	500	500	500	500	500
Price per cup (RMB)	5.0	13.5	7.0	9.0	15.5	10.0	19.0
In comparison with Luckin franc	hise store						
Cost per cup (RMB)	2.9	3.1	4.2	4.9	4.8	5.3	6.7
Espresso (coffee bean)	1.3	1.5	1.3	1.3	1.5	1.3	1.5
Usage (g)	18.0	21.0	18.0	18.0	21.0	18.0	21.0
Milk / coconut milk	-	-	1.2	2.0	1.6	2.4	3.6
Usage (ml)			40.0	200.0	200.0	200.0	200.0
Type of milk			Creamer	Milk	Milk	Coconut milk	Coconut milk
Syrup (糖蜜)	0.2	-	0.2	0.2	_	0.2	-
Usage (g)	20.0	_	30.0	20.0	_	20.0	_
Suger by defult	Yes	No	Yes	Yes	No	Yes	No
Consumables	1.5	1.7	1.5	1.5	1.7	1.5	1.7
GP per cup (RMB)	2.1	10.4	2.8	4.1	10.7	4.7	12.3
GPM	42%	77%	40%	45%	69%	47%	65%
In comparison with Luckin self-c	operated store						
Cost per cup (RMB)	2.9	2.6	4.2	4.9	4.0	5.3	5.6
LK's GPM of selling materials	s to franchisees	17%			17%		17%
GP per cup (RMB)	2.1	10.9	2.8	4.1	11.5	4.7	13.4
GPM	42%	81%	40%	45%	74%	47%	71%
Source: expert interview	V						

o Logistics network: Lucky Cup directly leverages 6-7 warehouses of MXBC

#### DOC Coffee (Coffee brand acquired by Shuyi Tea 书亦烧仙草)

DOC Coffee was founded in 2019 and it has ~20 stores in Changsha as of Aug 2022. Shuyi Tea made strategic investment in DOC coffee and took controlling stake (55%, according to SAIC) in May 2022. It plans to expand nationwide through franchise model.

• People:

- o Brand positioning: when the brand was founded in 2019, DOC stands for "daily" classic coffee, "original" pour-over coffee and "creative" beveraged coffee
- o In 2022, brand position was adjusted by changing product mix and cutting price to cater to mass market demand and prepare to penetrate lower tier cities in the future. DOC positions itself as a younger and more stylish brand than Luckin. Its long-term target is to offer a better coffee product at around the same price as Luckin
- o To maintain the brand image as a coffee brand, DOC is still run by its original management team independently

#### Product:

- Now 50% of SKUs are creative beveraged coffee and 50% are classic coffee. DOC found creative beveraged coffee is widely accepted, which is used to attract new customers. While it also emphasizes value-for-money classic coffee to drive repurchase
- Price: DOC adjusted overall price by 30% in Jun 2022 to accommodate lower tier cities. Now beveraged coffee is less than RMB 24 per cup and Americano is RMB 15 per cup

#### • Places:

- Store format: DOC store is even smaller than Luckin. It only has a 20 sqm small-sized store format for pick-up orders
- Store expansion plan: It currently operates 20 stores in Changsha and plans to expand nationwide through franchise store model. DOC decides to enter Level 2-3 cities to build brand image first before penetrating lower tier cities
- o Now DOC is still in the process of adjusting store model prior to large expansion. E.g., manual coffee machine is replaced by the same type of automatic machine as Luckin (Franke). And fresh fruit is replaced by NFC juice or jam to ensure standardization

#### • Synergy with Shuyi Tea:

- o Franchisees: existing franchisees of Shuyi can be converted to DOC easily
- o Supply chain and logistic network: a large portion of tea drink ingredients can be shared with beveraged coffee. DOC also leverages the nationwide logistic network established by Shuyi

#### Barriers to entry for franchise tea shop brands

Admittedly, franchise tea shop brands have drawbacks to enter coffee industry. There are notably differences between tea and coffee in terms of consumer behavior, storefront operation, and product know-how. It may take time to overcome but they are not determining factors.

- The core of success is to build a store model that offers acceptable return on investment for potential franchisees
- Store operation control: despite MXBC having profound experiences in managing thousands of franchise stores and setting a comprehensive policy, it still needs time to adjust storefront operation strategy. For example, in order to reduce store capex, Lucky Cup chooses a low-end manual coffee machine (RMB 14k) rather than an automatic machine. Therefore, it is under more pressure than Luckin in terms of staff training and standardization of brewing coffee
- As new entrants, it needs time to find its own brand feature and differentiated products. It's not easy for copycat to surpass Luckin. Especially Luckin has the first mover advantage to take mind share of coffee category

#### 1.4 Emerging franchise coffee brands focusing on affordable beveraged coffee (e.g., Nowwa)

Emerging franchise coffee brands (e.g., Nowwa, which is not backed by big brands) are following Luckin to launch beveraged coffee in affordable price. But they are new entrants that lack experience to manage large store network compared with franchise tea shop brands.

#### Nowwa

Nowwa is the only sizable independent franchise coffee brand with ~1,300 stores including 100-200 independents stores and ~1,100 store-in-stores (店中店). Nowwa is founded by three former senior management of ele.com in 2019. Nowwa is a typical copycat of Luckin. It started to benchmark Luckin on store format, product and brand position in 2020H2. Its management team think Luckin's model is feasible to lower tier cities with large growth potential.

#### People

o Brand image: youth, innovative and healthy, close to Luckin

Target customer: beveraged coffee drinkers in lower tier cities

#### • Product:

- o Nowwa also focuses on beveraged coffee. Its featured products are fruit coffee (小马果咖) and beveraged coffee with health concept (e.g., zero fat and zero sugar, 轻乳系列)
- O Price: RMB 14-16 per cup, slightly lower than Luckin. In other words, Nowwa positions itself as a cheaper option to substitute Luckin (瑞幸的平替)
- Places: Nowwa changed from in-store model to independent franchise store model
  - o In-store model (店中店模式, 2019-2020): At beginning, Nowwa didn't have standalone coffee stores. It cooperated with existing coffee stores or bakeries by providing brand name, coffee machines, raw materials and access to delivery platform (Meituan and Ele.com). Nowwa has ~1,100 units at this stage but stopping expansion through in-store model



Standalone franchise stores (2021 to now): it has become Nowwa's main strategy since Dec 2020. It determined to benchmark Luckin's franchise stores and plan to penetrate Level 2-4 cities. As of Jul 2022, there are ~100 franchise stores in total. Nowwa's revenue comes from commission fee (3% licensing fee + 10% of mini-program GMV), and sales of raw material and devices (GPM is unknown)

Nowwa is a direct competitor to Luckin, but its level of threat is not as strong as franchise tea shops. Nowwa is a typical copycat of Luckin by offering similar product with lower price. According to our channel check, Nowwa's store AUV is 30-40% lower than Luckin's store nearby in Shanghai. From the franchisee's perspective, Nowwa is an inferior option to Luckin. More importantly, as a startup company, Nowwa has limited operating history without a proven track record. Store expansion and operation management are all lessons to learn. Luckin also took several years before getting on the right track.

#### 1.5 In-store model: inherent disadvantages of brand recognition

This category refers to adding freshly brewed coffee products in existing fast-food restaurants, convenient stores, or tea shops. It is more like a complement to these brands than a competitor to Luckin. Take KFC K-coffee as an example, despite promoting coffee products for years, most of its coffee product is still sold in the set meal for breakfast. Very few customers order coffee alone in KFC as KFC is recognized as a fast-food brand rather than a dedicated coffee brand.

#### **Module 4: Other Risks**

#### Risk No. 2: Negative impact from the impact of Covid-19

As an offline business with over 70% of orders from non-delivery, Luckin is prone to negative impacts from mobility control measures to contain the spread of Covid-19. This is a general risk to the offline industry such as restaurants and hotels.

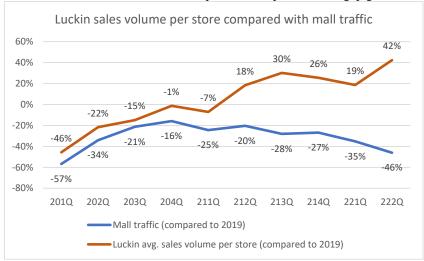
However, Luckin is less impacted than the general restaurant industry; and even has a chance of gaining market share from higher-price, "third place" coffee shops such as Starbucks due to the spending power and behavior

change of consumers during the pandemic. After the pandemic, however, it's worth noting that this market share shift might reverse a bit as customers go back to "third-place" coffee shops again.

#### <u>Less impacted than the general restaurant industry:</u>

- Fresh drink shops are less impacted than restaurants in general as most drinks can be consumed alone, while dine-in occasions usually involve social gatherings
- Coffee shops are less impacted than freshly made tea drinks, as tea drinks are more common in leisure
  occasions such as shopping and watching movies, which are more negatively impacted in Covid than coffee's
  office and functional consumption
- Luckin's business model is more pick-up and delivery focused, which performs better in Covid than "third place" coffee shop models such as Starbucks and Tims

The less impact compared to the general restaurant industry can be shown in the chart below. Luckin's sales volume per store outperformed mall traffic (proxy of general chain restaurant traffic) from 201Q to 211Q. After Coconut milk latte was launched in Apr 2021, the performance gap got even larger.



Source: Filings, mall traffic tracking

#### Not significantly impacted unless there's extreme citywide lock-downs:

Given its light store model targeting pick-up and delivery occasions, Luckin's store performance remained relatively stable unless there's extreme cases such as citywide lock-downs, which haven't been very often after the end of national lock-down in early 2020. With the spread of Delta and Omicron variants in China after Jul 2021, city-level lock-downs happened in selected cities for 1-2 months each time. It became less seen after Jun 2022 when the general population started to take regular nucleic acid tests.

After the end of citywide lock-downs, the store performance generally rebounded quickly with the lifting of control measures in 1 to 2 months. In addition, Luckin now has self-operated stores in 59 cities and franchise stores in 231 cities, which evens out the impact of extreme citywide lock-downs in one or two cities to national sales.

#### Benefiting from spending power and behavior change of consumers:

From same store sales growth (SSSG) comparison with Starbucks China and Tims China, we can also see that Luckin's self-operated stores outperformed the other two during pandemic period, and the gap also enlarged after the launch of Coconut milk latte in Apr 2021.

Besides company-specific reasons (Starbucks China had two PR crisis in Dec 2021 and Feb 2022) and "third place" factor mentioned above, it's also possible that Luckin gained market share from higher price peers Starbucks and Tims due to weakening consumption power on softer economic conditions from 2021. Luckin (RMB 15-20 per cup of coffee) may benefit from some consumers' down-trade from Starbucks (RMB 30-40 per cup). But we also acknowledge that this market share gain might reverse a bit after the pandemic is over.



Source: Filings

#### **Section 4: Management**

#### 5.1 Luckin BoD members and senior management team

Luckin has 9 directors, including 3 directors from Centurium Capital and 4 Independent Directors.

#### Chairman and CEO: Dr. Jinyi Guo (age 40)

- Dr. Guo is one of the co-founders and has served as director since June 2018 and chairman of the Board and CEO since July 2020.
- Prior to Luckin: Dr. Guo served at various positions at UCAR Inc. from 2016 to 2017. He worked at Ministry
  of Transport from 2011 to 2016, and worked at China Academy of Transportation Sciences as a research
  assistant from 2009 to 2011
- Education: Dr. Guo obtained his master's degree in July 2005 and a Ph.D. in July 2009 from Beijing Jiaotong University, majoring in transportation planning and management. Dr. Guo was a visiting scholar at the University of Leeds in 2008

#### Director and SVP: Mr. Wenbao Cao (age 52)

- Mr. Cao has served as director since May 2020 and Senior Vice President since June 2018. Mr. Cao is currently in charge of Luckin's operations, including store operations, construction and development and customer service
- Prior to Luckin: Mr. Cao had over 23 years of experience at McDonald's China and served in various positions, including vice president and North regional manager at McDonald's China.

#### Director: Mr. Weihao (Michael) Chen

 Mr. Chen has been a partner and managing director of Centurium Capital since July 2019. From October 2011 to May 2019, Mr. Chen worked at a Warburg Pincus entity where his last held position was a managing director

#### Director: Mr. Jun Liu

• Mr. Liu is a partner and managing director of Centurium Capital. Prior to joining Centurium Capital, Mr. Liu's experience included serving as Senior Vice President at Warburg Pincus and Executive Director at Goldman Sachs, both in Hong Kong.

#### Director: Mr. Shaoqiang (Gary) Liu

• Mr. Liu has more than 15 years' work experience in banking, investment and management. Mr. Liu is currently a partner and managing director at Centurium Capital. Mr. Liu also served several board and senior executive roles in various companies.

#### **Independent Director: Mr. Sean Shao (age 65)**

- Mr. Shao has served as an independent director and the chairman of the audit committee of 21Vianet Group, Inc. (NASDAQ: VENT) since 2015 and UTStarcom Holdings Corp. (NASDAQ: UTSI) since 2012. Mr. Shao served several board and senior executive roles in various companies. Mr. Shao also worked at Deloitte Touche Tohmatsu CPA Ltd. for approximately a decade.
- Mr. Shao obtained a bachelor's degree in art from East China Normal University in 1982 and a master's
  degree in healthcare administration from the University of California at Los Angeles in 1988. Mr. Shao is a
  member of the American Institute of Certified Public Accountants.

#### **Independent Director: Mr. Yang Cha (age 58)**

• Mr. Cha has more than 20 years of work experience in law, investment and management. From 2013 to 2019, Mr. Cha acted as the President of Tsinghua Education Foundation, North America, a non-profit organization registered in, and regulated by, authorities in the United States, in the meanwhile acting as a venture partner for several venture capital firms with a focus on early-stage technology start-ups. Prior to that, Mr. Cha worked at leading law firms in the United States and China with a focus in corporate finance and governance matters.

#### **Independent Director: Mr. Feng Liu (age 55)**

Mr. Liu is a leading scholar with expertise in accounting studies. Mr. Liu is currently a professor and the
director of Center for Accounting Studies at Xiamen University. Mr. Liu has also accumulated rich experience
on practices in auditing, accounting, internal control and risk management, serving a long time as an
independent director of different companies and consultant of various firms.

#### Independent Director: Ms. Qianli Liu

- Mr. Liu has over 18 years of experience in investment banking and corporate finance, including holding senior management positions at Phoenix New Media Limited (NYSE: FENG), ChinaEdu Corp. (NASDAQ: CEDU) and MainOne Information Technology Company Ltd.
- She is currently an independent director of XD Inc. (HKEX: 2400.HK), an independent director of BAIOO Family Interactive Limited (HKEX: 2100.HK), and an independent director of Feiyu Technology International Company Ltd. (HKEX: 1022.HK).
- Ms. Liu obtained her bachelor's degree from Dartmouth College in 1997 and her MBA from the Massachusetts Institute of Technology Sloan School of Management in 2003.

#### Chief Financial Officer: Jing An

- Ms. Jing An has served as chief financial officer since August 2022.
- Prior to joining Luckin, Ms. An served as chief financial officer of 58 Daojia Inc. from 2016 to 2022. Prior to joining 58 Daojia Inc., Ms. An worked at ChinaCache International Holdings Ltd. from 2013 to 2016, where her last position was chief financial officer. Ms. An has held senior corporate finance and management positions, including at Rekoo Media Ltd. from 2010 to 2012, Cooloft Technology Ltd. from 2007 to 2009 and eFriendsNet Entertainment Ltd. from 2003 to 2006. Ms. An began her professional career at PricewaterhouseCoopers in Beijing in 1998, where her last position was senior accountant.
- Ms. An received a Master of Science degree in management from the Stanford Graduate School of Business in 2010 and a bachelor's degree in economics with a major in accounting from Renmin University of China in 1998.

#### Chief Strategy Officer (former CFO): Reinout Hendrik Schakel (age 40)

- Mr. Reinout Hendrik Schakel has served as chief strategy officer since January 2019 and was also CFO from January 2019 to August 2022.
- Prior to joining Luckin, Mr. Schakel worked at the corporate & institutional banking division of Standard Chartered Bank as an executive director from 2016 to 2018. From 2008 to 2016, Mr. Schakel served successively as an analyst, associate and vice president for the investment banking division of Credit Suisse. From 2006 to 2008, Mr. Schakel worked at PricewaterhouseCoopers in the advisory division as an analyst. Mr. Schakel obtained a Master of Business Administration degree from --Erasmus University in December 2005.

#### Senior Vice President: Gang Wu

- Mr. Gang Wu has served as the senior vice president of Luckin in charge of public affairs and strategic cooperation since February 2021. Mr. Wu was director from May 2020 to May 2022.
- Before joining Luckin, Mr. Wu had over 26 years of experience in the airline industry, including holding senior management positions at China United Airlines, China Eastern Airlines and Air China.

#### Chief Growth Officer: Fei Yang (age 44)

- Mr. Fei Yang has served as chief growth officer in charge of sales growth, user operation and marketing since June 2020. He is one of the co-founders of Luckin and has been responsible for Luckin's brand creation since the inception of Luckin.
- Mr. Yang has more than 20 years' experience in the areas of branding and digital marketing. He is also the author of The Flow-Pool Thinking, a popular book on sales and marketing in China. Mr. Yang obtained his master's degree in journalism and communication from the Communication University of China.

#### Senior Vice President: Shan Jiang (age 46)

- Mr. Shan Jiang joined Luckin in September 2020 as special counsel and was named senior vice president in charge of legal and compliance matters in February 2021.
- Before joining Luckin, Mr. Jiang served as Associate General Counsel of Airbnb, Inc. (NASDAQ: ABNB), where he was in charge of legal and compliance matters in China. Prior to joining Airbnb, Inc., Mr. Jiang has worked for Amazon.com, Inc. (NASDAQ: AMZN) and for Davis Polk & Wardwell LLP, where he had experience in major commercial transactions and capital markets. Mr. Jiang obtained a bachelor's degree from Peking University, a master's degree in computer science from Dartmouth College and a Juris Doctor degree from Columbia Law School.

#### **Section 5: Ownership**

- Share class: each ADS represents eight Class A ordinary shares. Each Class B ordinary share and senior preferred share can be converted to one Class A ordinary share
- Financing history
  - iPO (May 2019): 33m ADSs at initial price of US\$17, raising total net proceeds of US\$ 527m. Luckin also issued 3m ADS to Louis Dreyfus (juice supplier) at IPO price concurrently with the IPO
  - o Follow-on offering (Jan 2020): 10m ADSs at a public offering price of US\$42, raising total net proceeds of US\$419m
  - Convertible senior notes due 2025 (Jan 2020): concurrently with the follow-on offering, Luckin issued a US\$460 million 0.75% convertible senior notes due 2025 to noteholder parties include: Davidson Kempner Capital Management LP, Linden Advisors LP, Long Corridor Asset Management, Oasis Investment II Master Fund Ltd, etc.
    - After the provisional liquidation, in exchange for the 2025 Notes, Luckin has issued Scheme consideration totaling US\$245.5m of cash, US\$109.9m of 9.00% series B senior secured notes due 2027 and 9,527,601 ADSs representing 76,220,808 Class A ordinary shares, which includes 291,699 ADSs issued on April 4, 2022 (issue price: ~US\$ 10.98 per ADS) pursuant to the top-up mechanism under the Scheme. In full and final settlement of their claims, each CB Scheme creditor has recovered at least 91% of their outstanding principal sum
    - In Aug 2022, the company announced an early redemption in full of US\$109.9m of 9.00% series B senior secured notes due 2027, saving US\$10m interest costs each year.
  - In May 2019. Luckin received a delisting notice from Nasdaq. Luckin's ADSs have been quoted on the Pink Sheet (OTC) since the Nasdaq suspended the trading of its ADSs on June 29, 2020
  - Senior preferred shares (Apr 2021): Investment agreement with Centurium and Joy Capital on US\$ 250m senior convertible preferred shares
    - In Dec 2021, Luckin issued and sold a total of 295m senior convertible preferred shares (37m ADS) to Centurium Capital through a private placement, with aggregate gross proceeds of approximately US\$240 million at issue price of US\$0.8125 (US\$6.50 per ADS)
    - In Jan 2022, Luckin issued 12m Senior Preferred Shares (1.5m ADS) to Joy Capital with the proceeds of US\$ 10m at a subscription price equal to US\$0.8125 per share (US\$6.50 per ADS)
    - Liquidation preference: an amount equal to the higher of 1) 100% of original subscription price + unpaid dividend and 2) the amount would have received if converted into Class A ordinary shares should be distributed to Centurium and Joy prior to ordinary shareholders
  - o Secondary sale of former management's shares
    - The shares owned by former management Zhengyao Lu and Zhiya Qian were ordered to be wound up and were in liquidation. In Aug 2021, all 383m Class A shares (48m ADSs) were purchased by The Buyer Consortium (Centurium, IDG and Ares) at price of US\$8.7631 per ADS
    - Based on 13-D, Class A shares owned by IDG and Ares would be less than 156m (19m ADS), representing 6.4% of TSO. Centurium holds more than 228m Class A (28.5m ADS). (Note: the breakdown of IDG+Ares shares is our best guess, but not confirmed.)
- Centurium Capital became the controlling shareholder of Luckin. It held at least 228m Class A 228m (at least 28.5m ADS) + 295m senior preferred shares (36.9m ADS) + 145m Class B (18.1m ADS), representing at least 27.5% of TSO and over 50% of voting power in total
- Public float is 62.3% of TSO. There's no public information available about top shareholders

Unit: mn		Ir	ADS		In Shares				
	Total	_	Class A	Class B	Total		Class E		
	rotar	Ordinary	Senior preferred	Ordinary	rotai	Ordinary	Class A Senior preferred	Ordinary	
Equity ownership:									
Company total	304	247	38	18	2,428	1,976	308	145	
% of company total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
陆正耀&钱治亚(Haode/Primus/Summer Fame/Mayer)	-	-	-	-	-	-	-	-	
% of company total	-	-	-	-	-	-	-	-	
大钲资本 (incl. IDG/Ares' shares)	103	48	37	18	824	383	295	14	
% of company total	33.9%	19.4%	96.0%	100.0%	33.9%	19.4%	96.0%	100.0%	
愉悦资本	2	-	2	-	12	-	12	-	
% of company total	0.5%	-	4.0%	-	0.5%	-	4.0%	-	
Other Pre-IPO Investors	0	-	-	0	0	_	_	(	
% of company total	0.0%	-	_	0.0%	0.0%	-	-	0.09	
Louis Dreyfus (果汁供应商)	3	3			24	24			
% of company total	1.0%	1.2%	_	-	1.0%	1.2%		-	
Management	7	7			55	55			
% of company total	2.3%	2.8%		-	2.3%	2.8%	_		
Float	189	189			1,514	1,514			
% of company total	62.3%	76.6%	-	-	62.3%	76.6%	-	-	
Voting rights ownership:									
Company total	466	247	38	181					
% of company total	100.0%	100.0%	100.0%	100.0%					
陆正耀&钱治亚(Haode/Primus/Summer Fame)	-	-	-	-					
% of company total	-	-	_	-					
大钲资本 (incl. IDG/Ares' shares in the 48m part)	266	48	37	181					
% of company total	57.0%	19.4%	96.0%	100.0%					
愉悦资本	2	-	2						
% of company total	0.3%	_	4.0%	-					
Other Pre-IPO Investors	-	_							
% of company total	_	_		-					
Management	7	7							
% of company total	1.5%	2.8%							
Louis Dreyfus (果汁供应商)	3	3							
% of company total	0.6%	1.2%							
Float	189	189	-	-					
% of company total	40.6%	76.6%		_					
Note: 1 ADS = 8 shares; 1 Class B = 10 votes	. 70.0%	70.070	•	-					

Unit: mn			1	ADS					In :	Shares	
		otal	-	Class A	Class	вВ	=	Total		Class A	Class B
			_	Ordinary	Ordin	arv				Ordinary	Ordinary
Equity ownership:											
Company total		252		97	1	55		2,014		775	1,239
% of company total 陆正耀&钱治亚(Haode/Primus/Summer Fame/Mayer)		.0% <b>124</b>		100.0%	100. 1	0% <b>24</b>	1	00.0% <b>994</b>		100.0%	100.0% <b>994</b>
% of company total 大钲资本 (incl. IDG/Ares' shares)	49	.4% 19		-	80	2% <b>19</b>		49.4% <b>151</b>		-	80.2% 151
% of company total 大钲资本 only	7	.5%		-	12.	1%		7.5%		-	12.1%
% of company total		-		-		•		-		-	-
% of company total		_		-				-		_	_
愉悦资本		13		13				107		107	_
% of company total	<b>"</b> 5	.3%	•	13.8%	· .	. '	•	5.3%		13.8%	-
Other Pre-IPO Investors		12		-		12		95			95
% of company total	4	.7%	•	-	7.	6%	•	4.7%		-	7.6%
Louis Dreyfus (果汁供应商)		3		3				24	•	24	
% of company total	1	.2%	•	3.0%		. '	•	1.2%		3.0%	-
Management		-		-				-			
% of company total	•	-	•	-		. '	7	-		-	-
Float		81		81				644	-	644	
% of company total	32	.0%		83.1%		-		32.0%		83.1%	-
Voting rights ownership:											
Company total	_ 1,	646		97	1,5	49					
% of company total	100	.0%	r	100.0%	100.						
陆正耀&钱治亚(Haode/Primus/Summer Fame)	_ 1,	243		-	1,2	43	_	-			
% of company total	75	.5%		-	80	2%					
大钲资本 (incl. IDG/Ares' shares in the 48m part)		188	•	- '	1	88					
% of company total	11	.4%		-	12.	1%					
愉悦资本		13	_	13							
% of company total	0	.8%		13.8%		•					
Other Pre-IPO Investors	_	118		- '	1	18					
% of company total	7	.2%		-	7.	6%					
Management	_	-		- '	•						
% of company total	•	-		-	_	-					
Louis Dreyfus (果汁供应商)	_	3	•	3							
% of company total	0	.2%		3.0%	_	-					
Float		81	•	81	•						
% of company total	4	.9%		83.1%							

#### **Share-based compensation schemes**

Luckin has two share-based compensation plans in place, launched by the former management in Jan 2019 and current management in Jan 2021, each lasting for 10 years, respectively. Below is a summary of maximum shares that the plans are entitled to grant and granted/ungranted shares breakdown as of Apr 10, 2022.

Million			Plan Max	kimum	Granted by Apr 1	Not Granted		
SBC plans	Starting	Effective period	ADS	Shares	ADS	Shares	ADS	Shares
2019 Share option plan	Jan 2019	10 years	10	79	8	67	2	12
2021 Share incentive plan	Jan 2021	10 years	28	223	10	77	18	146

Source: Filings

- Excluding unvested and not exercised shares, all directors and executive officers as a group held 2.3% of TSO as of Apr 10, 2022, including Chairman/CEO GUO Jinyi's holding 1.2% of TSO.
- o In 2Q22 quarterly report, Luckin also disclosed total diluted shares of 317m ADS (2,539m shares) including all the granted share-based compensation. The number showed that Luckin granted an additional 6m ADS (48m shares) in 2Q22. If we assume all the 6m ADS newly granted share compensation to directors and executive officers (i.e., top management only), all directors and executive officers as a group held 3.7 % of TSO in diluted shares.
- o If we assume Luckin grant all the remaining share compensation under the current plans to directors and executive officers, all directors and executive officers as a group would hold 9.1% of TSO when the two plans are fully granted, a significant shareholding % for a professional manager team. All grantees (i.e., including non-directors and non-executive officers who are also Luckin's employees) would hold 11.2% of TSO in total.

Million	4.10.22 outstanding, excl. unv	vested or not exercised	2Q22 Diluted incl. gra	anted but unvested	Assuming both pla	ans fully granted
Total Holding	ADS	Shares	ADS	Shares	ADS	Shares
Company Total	304	2,428	317	2,539	336	2,691
All grantees of SBC	Not sure	Not sure	19	150	38	302
As % of company total			5.9%	5.9%	11.2%	11.2%
All directors and executive officers	7	55	12	94	31	246
As % of company total	2.3%	2.3%	3.7%	3.7%	9.1%	9.1%
Chairman and CEO GUO Jinyi	4	28	Not sure	Not sure	Not sure	Not sure
As % of company total	1.2%	1.2%				
Other grantees (also company employees	Not sure	Not sure	7	56	7	56
As % of company total			2.2%	2.2%	2.1%	2.1%

Source: Filings

#### **Section 6: Expectation**

#### Street expectations

There has been no sell-side coverage on Luckin since it's delisted from Nasdaq in Jun 2020. There's been a couple of group calls with Luckin-related experts hosted by small brokers from 2H21, but there's no official coverage or financial estimates available.

#### **Buy-side expectations**

There's been increasing public investor interest in Luckin after it filed 2019 and 2020 20-F in Jun and Sep 2021, respectively, and resumed quarterly reporting from Dec 2021. Luckin also started to host earnings calls with no live Q&A session from May 2021 for its 1Q22 results.

#### **SLC** expectations

- Luckin's revenue is driven by the number of stores and store-level sales volume and effective price. For franchise stores, Luckin's revenue will be lower than system sales (GMV), as Luckin only records sales of raw materials, gross profit sharing and delivery fee flow-through as ongoing franchise revenue
  - We expect Luckin to continue the fast expansion of store unit growth to reach 14k to 15k stores in total in 2025
  - We expect sales volume per store per day to continue growth of low single digit on Covid-impact recovery and user frequency increase
  - o ASP to increase by 2% per year, in line with CPI
- Store level profit:
  - o We expect self-operated stores to have a store-level margin of 28-29%
  - Store-level profit of franchise stores mainly comes from gross profit of selling raw materials and store-level gross profit sharing. The average monthly profit per franchise store is in line with our UE analysis
  - One franchise store generates around 70% of store-level profit as a self-operated store
- Operating profit: store-level profit minus SG&A, benefiting from operating leverage
- Net profit: operating profit deducts income tax (25% tax rate) and some minor non-operating items, such as interest income
- We expect FCF to turn positive from the year 2022, which will contribute to the increase in net cash

rmb m unless specified otherwise	2021A	2022E	2023E	2024E	2025E
rmb m, unless specified otherwise  Total revenue	7,965	13,416	18,829	2024E 23,686	2025E 27,129
Y/Y grow th	7,900	68%	40%	26%	15%
171 glow til		0070	40 /0	2070	1370
Total system sales (incl. franchise store GMV, incl. delivery re	8,714	15,329	22,233	29,045	33,949
Y/Y grow th	-,	76%	45%	31%	17%
. <b>3</b> · ·					
Total number of stores	6,024	8,624	11,632	14,010	15,079
Y/Y growth		43%	35%	20%	8%
Self-operated stores	4,397	5,523	6,487	7,246	7,709
Y/Y grow th		26%	17%	12%	6%
Franchise stores	1,627	3,101	5,145	6,765	7,370
Y/Y grow th		91%	66%	31%	9%
No. of items per store per day					
Self-operated stores	301	355	370	377	386
Y/Y grow th		18%	4%	2%	2%
Franchise stores	317	391	386	385	387
Y/Y grow th		23%	-1%	0%	1%
-					
ASP per item (rmb)	14.0	15.0	15.3	15.6	15.9
Y/Y growth		7%	2%	2%	2%
Store-level operating profit	1,429	3,621	5,247	6,700	7,890
As % of total rev	18%	27%	28%	28%	29%
Monthly store-level OP per directly-operated store (rmb)	22,452	44,939	48,836	50,090	52,523
Store-level OPM	18%	28%	28%	28%	28%
Monthly store-level OP per franchised store (rmb)	19,664	32,606	34,306	35,478	37,023
Store-level OPM (as % of LK franchised rev)	23%	28%	29%	31%	33%
As % of store-level OP of a directly-opreated store	88%	73%	70%	71%	70%
S&M	337	553	777	978	1,121
As % of total rev	4%	4%	4%	4%	4%
G&A	1,270	1,436	1,803	2,067	2,257
As % of total rev	16%	11%	10%	9%	8%
Adjusted operating profit (excl. one-off items)	(178)	1,633	2,668	3,656	4,513
OPM	-2%	1,033	14%	15%	17%
OI W	-270	1270	1470	1370	17 70
Adjusted net profit (excl. one-off items)	(64)	1,286	2,057	2,828	3,515
NPM	-1%	10%	11%	12%	13%
Y/Y grow th		NM	60%	37%	24%
Free cash flow	(50)	473	1,795	2,890	3,837
Net cash	2,196	3,492	5,288	8,177	12,014
As % of current market cap	7%	11%	17%	26%	39%

Source: Filings, SLC model

### **Section 7: Valuation and IRR**

Based on closing price of US\$14.52, Luckin's market cap is US\$4,609m, with 10% of market cap in net cash. The stock currently is trading at 25x/14x/11x P/E in 2022E-2024E, 0.4x and 0.4x PEG in 2023E and 2024E.

#### Comps:

- China: The three industry-leading brands (YUMC, Haidilao, Jiumaojiu) are trading at 26x-30x 2023 P/E and 21x 2024 P/E despite different growth expectations. PEG ranged from 0.7x to 1.3x for 2023. The other brands are trading at lower P/E and PEG levels, showing the pricing premium the market gives to leading restaurant brands
- International: the five leading companies are trading at an average of 25x 2023 P/E and 22x 2024 P/E. PEG ranged from 1.4x to 2.9x in 2023
- Across countries and different growth profiles, the market gives a 20x 2024 P/E for the leading restaurant companies. Thus, we use a 20x P/E for Luckin when it enters the stable phase of ~10% net profit growth in 2027-2028E as base case

LKNCY US																							
Comps																							
in US\$	Price		Mkt Cap		Sales		Ne	t Incon	ne		P/E		E'	//Sale:	s	EV	/EBITD	A	Sales G	rowth	EPS Gr	owth	PEG
TICKER	Local	NAME	(usd mn)	2022E	2023E	2024E	2022E	2023E	2024E	2022E 2	023E2	024E	2022E 2	023E2	024E	2022E	2023E	2024E	22/23E	23/24E	22/23E	23/24E	2023E
LKNCY U	14.52	LKNCY - SLC	4,609	1,990	2,792	3,513	189	298	412	24x	15x	11x	2.1x	1.5x	1.2x	13.8x	8.9x	6.5x	40%	26%	58%	38%	0.4x
China Res		_																					
YUMC		Yum China Hc	20.252	10 100	11.861	13.122	464	779	968	45x	26x	21x	1.9x	1.6x	1.5x	15.7x	10.6x	9.1x	17%	440/	75%	20%	1.3x
6862 HK			20,253	10,180	,	8.735	143	469	642	85x	29x	21x	1.9x					9.1x 10.7x	17%	11% 13%	196%		
9922 HK		Haidilao Interr Jiumaojiu Inte	11,370	6,598 797	7,697 1,218	1,622	60	115	162	57x	29x 30x	21x	1.9X 4.4x	1.6x 2.9x	1.5x 2.2x		12.7x	9.5x	53%	33%	90%	39% 40%	0.7x 0.7x
2150 HK		Navuki Holding	3,481 1.148	840	1,216	1,622		44	84	134x	26x	14x	0.9x	0.6x	0.5x	8.9x	4.7x	3.4x	41%	23%	420%	85%	0.7x
341 HK		Cafe De Cora	884	1.054	1,151	1,462	(7) 33	51	66	24x	20x	13x	1.0x	0.6x	0.9x		10.0x	10.0x	9%	10%	45%	27%	0.5x 0.6x
2723 TT		Gourmet Mast	594	645	692	742	29	38	44	24x 21x	15x	13x	0.8x	0.9x	0.9x	6.3x	5.1x	4.2x	7%	7%	38%	17%	0.6x
520 HK		Xiabuxiabu	443	966	1.211				62	34x			0.6x			3.5x	2.5x	2.0x		22%	208%	62%	0.9x
520 HK	3.20	Mean	443	966	1,211	1,477	13	40	62		11x	7x		0.5x	0.4x		2.5X 8.3x	7.0x	25%				0.2x
		Median								57x 45x	22x 26x	16x 14x	1.6x 1.0x	1.3x 0.9x	1.1x	12.3x 12.9x	8.3X 10.0x	7.UX 9.1x	24% 17%	17% 13%	153% 90%	41% 39%	0.7x 0.7x
		wedian								43X	201	148	1.03	U.9X	0.9x	12.91	10.08	9.13	1770	13%	90%	39%	U.7 X
US Restau	rants																						
	259.28	Mcdonalds Co	190.757	22,760	23.554	24.759	6.902	7.678	8.173	26x	25x	23x	10.3x	10.0x	9.5x	20.0x	18.2x	17.3x	3%	5%	8%	8%	2.9x
SBUX US	87.27	Starbucks Co	100.134	32,161	35,224	38,290	3,317	3,824	4.468	30x	26x	22x	3.6x	3.3x	3.1x		17.1x		10%	9%	16%	18%	1.4x
CMG US	1.631	Chipotle Mexic	45,287	8,736	9,941	11,322	921	1.182	1.436	50x	38x	31x	5.5x	4.8x	4.2x		25.2x		14%	14%	30%	23%	1.6x
YUM US	117.71	Yum! Brands	33,493	6.747	7.190	7,767	1.320	1.476	1,619	26x	22x	20x	6.7x	6.3x	5.8x	19.2x	17.6x	16.1x	7%	8%	16%	13%	1.7x
QSR US	60.31	Restaurant Br	27,144	6,432	6,769	7,104	1,382	1,462	1,563	20x	18x	17x	6.3x	6.0x	5.7x	17.1x	16.0x	14.9x	5%	5%	8%	9%	2.0x
		Mean								30x	26x	22x	6.5x	6.1x	5.7x	21.5x	18.8x	16.9x	8%	8%	15%	15%	1.9x
		Median								26x	25x	22x	6.3x	6.0x	5.7x	19.2x	17.6x	16.1x	7%	8%	16%	13%	1.7x

Applying 35x 2024 P/E for 2023 year-end valuation (implied around 20x P/E in 2027-2028 when the net profit growth is stable), target market cap will be US\$14.7bn, 218% upside from current market cap, and IRR of holding 1.5 years is 131%. Target price is US\$46.25 per ADS.

**Luckin Coffee** Current price (US\$) 14.52 8/14/2022

	8/14/2022	12/31/2022	12/31/2023	12/31/2024	12/31/2025
RMB m	FY 2021A	FY 2022E	FY 2023E	FY 2024E	FY 2025E
Total store count	6,024	8,624	11,632	14,010	15,079
Y/Y Growth		43.2%	34.9%	20.4%	7.6%
Self-operated stores	4,397	5,523	6,487	7,246	7,709
Y/Y Growth		25.6%	17.5%	11.7%	6.4%
Franchise stores	1,627	3,101	5,145	6,765	7,370
Y/Y Growth		90.6%	65.9%	31.5%	8.9%
Total revenue	7,965	13,416	18,829	23,686	27,129
Y/Y Growth		68.4%	40.4%	25.8%	14.5%
Net profit	(64)	1,286	2,057	2,828	3,515
Y/Y Growth		NM	59.9%	37.5%	24.3%
Net Margin %	(0.8%)	9.6%	10.9%	11.9%	13.0%
3 year CAGR		NM	39.8%	25.7%	17.3%
Dividend	-	-	-	-	-
Payout Ratio	-	-	-	-	-
FCF	(50)	473	1,795	2,890	3,837
As % of rev	(0.6%)	3.5%	9.5%	12.2%	14.1%
IRR			_		
	2022 P/E	24.2x	Fw rd P/E	35.0x	
Mkt Cap (US\$ m)	4,609		14,679		
Current valuation implied P/E	NM	24x	15x	11x	9x
Current valuation implied PEG			0.4x	0.4x	0.5x
Target valuation implied P/E	NM	77x	48x	35x	28x
Target valuation implied PEG			1.2x	1.4x	1.6x
Today - 2023					
Cash Inflow / (Outflow), US\$ m	(4,609)		14,679		
IRR		•	131%		
Total upside			218%		
Target price			46.25		

We also did a sensitivity analysis based on 2024 forward P/E at the time of year end 2023:

2024 P/E	20x	25x	30x	35x	40x	45x	50x
Target market cap (US\$ m)	8,388	10,485	12,582	14,679	16,776	18,873	20,969
Target stock price (US\$)	26.43	33.03	39.64	46.25	52.85	59.46	66.07
IRR of holding to year end 2023	54%	81%	107%	131%	155%	178%	200%

Source: Filings, SLC model

#### Valuation comparison with Starbucks China

China is the No. 2 largest country market for Starbucks in terms of revenue, and 100% in self-operated model. China's share in the company total: (FY21, fiscal year ending Oct 3, 2021):

- Store number: China was 16% of total; or 31% of total self-operated
- Revenue: China was 13% of total; or 15% of total self-operated
- Operating profit: we estimate China was 10-12% of total, given franchise stores have a higher OPM; also, China has higher OPM compared to other self-operated regions
- Growth:
  - o FY19 (pre-Covid): China was 29% of total revenue growth and 32% of total OP growth
  - o FY21 (During Covid): China was 20% of total revenue growth and 14% of total OP growth
- Valuation: we give Starbucks China a valuation of 15%-20% of Starbucks total considering that China accounts for 10-12% of operating profit and growing at a higher rate than global average. That arrives at the valuation of US\$15-20bn for Starbucks China, or 34x-46x FY21A historical P/E, higher compared to 26x FY21A global historical P/E.
- In FY21, Starbucks China generated a revenue of RMB 23.4bn and we estimate it had an operating profit of RMB 2.3bn to 2.8bn. We are now forecasting Luckin to have a similar level of RMB 2.7bn operating profit with revenue of RMB 18.8bn in the year 2023.

#### Valuation comparison with other public and private coffee and tea drinks peers

There's a spike of private market investments into the coffee market in 2020 to 2021.

Brand	CN	Store model	No. of stores	Latest valuation	Date	Latest round
Fresh coffee shops						
Luckin Coffee	瑞幸咖啡	Direct + franchised	7,100+	US\$4.8bn	8/12/2022	Public market
Manner	Manner	Direct	418	US\$2.8bn	6/16/2021	B+
Tims	Tims	Direct + franchised	450	US\$1.4bn	3/1/2022	Expected De-SPAC
%Arabica franchisee	%Arabica代理商	Master franchisee	57	NA ( <us\$1bn)< td=""><td>3/29/2022</td><td>Strategic 66%</td></us\$1bn)<>	3/29/2022	Strategic 66%
M stand	M stand	Direct	179	US\$600m	7/23/2021	В
Seesaw	Seesaw	Direct	96	US\$240m	2/28/2022	A+
Lian Coffee	连咖啡	Direct	24	US\$200m	9/4/2020	С
Nowwa	Nowwa	Direct + franchised	100	US\$180m	12/9/2021	B+
Greybox coffee	Greybox coffee	Direct	~10	US\$100m	12/5/2017	Α
Fisheye	Fisheye鱼眼咖啡	Direct	4	NA ( <us\$100m)< td=""><td>1/21/2019</td><td>Α</td></us\$100m)<>	1/21/2019	Α
algebraist	代数学家	Direct	87	NA	7/16/2021	Strategic
Double win	Double win	Direct	32	NA	8/31/2021	Angel
Y Coffee	歪咖啡	Direct	12	NA	6/10/2022	Pre-A
S.engine	鹰集咖啡	Direct	5	NA	9/3/2021	Strategic
DOC Coffee	DOC咖啡	Direct + franchised	~20	NA	4/27/2022	Strategic controlling
So BUFF	八福咖啡	Direct	3	NA (~US\$10m)	5/6/2022	Strategic
Other coffee products						
Saturnbird	三顿半	Instant coffee		US\$670m	6/24/2021	B+
TASOGARE	隅田川	Instant coffee		US\$270m	3/31/2021	В
SECRE coffee	时萃咖啡	Instant coffee	11	NA (~US\$150m)	7/27/2021	В
Coffee wings	咖啡之翼	Vending machines		NA (~US\$150m)	6/28/2022	Listed offering
Yongpu Coffee	永璞	Instant coffee		NA ( <us\$100m)< td=""><td>6/11/2021</td><td>A+</td></us\$100m)<>	6/11/2021	A+
Lian Coffee products	连咖啡零售	Instant coffee		NA ( <us\$100m)< td=""><td>5/11/2021</td><td>Angel</td></us\$100m)<>	5/11/2021	Angel
Minority Coffee	少数派咖啡	OEM		NA	6/21/2022	Strategic 12%
Fresh tea drinks shops						
HeyTea	喜茶	Direct	856	US\$9.5bn	7/13/2021	D
Mixue Bingcheng	蜜雪冰城	Franchised	17,641	US\$3.0bn	1/13/2021	Α
Shuyi Tea	书亦烧仙草	Franchised	6,499	US\$1.4bn	2/7/2022	Strategic
Nayuki Tea	奈雪	Direct	919	US\$1.3bn	8/12/2022	Public market
Guming Tea	古茗	Franchised	6,483	NA	1/28/2021	Pre-A
Ningji Tea	柠季	Franchised	438	NA(~US\$300m)	1/21/2022	A+
Qifentian Tea	7分甜	Franchised	1,171	NA (~US\$200m)	10/27/2020	Α
Hushang Te	沪上阿姨	Franchised	4,539	NA (~US\$150m)	6/25/2021	A+
Lele Tea	乐乐茶	Direct	114	US\$150m	4/3/2019	Pre-A
Chayan Yuese	茶颜悦色	Direct	445	NA ( <us\$100m)< td=""><td>8/29/2019</td><td>Α</td></us\$100m)<>	8/29/2019	Α
A Yogurt Cow	一只酸奶牛	Franchised	987	US\$57m	1/6/2021	Strategic 60%
Heqi Taotao	和气桃桃	Franchised	487	US\$15m	10/18/2021	Strategic
Source: itjuzi.com, i	news					
A Yogurt Cow Heqi Taotao	一只酸奶牛 和气桃桃	Franchised	987	US\$57m	1/6/2021	Strategic 60%
	*					

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**Section 8: Technical** 

#### Uplisting from Pink Sheet to Nasdaq

Luckin as a reporting company can simply file Form 8-A to uplist from pink sheet to Nasdaq, if it doesn't plan to issue new shares. This is a mechanical registration process mainly driven by legal counsels. Given Luckin has completed debt restructuring and reached settlements with SEC and class action, Luckin is able to file Form 8-A at any time technically.

#### Potential risks for the uplisting

- Although Luckin has reached a settlement with the SEC, the SEC still has the legal authority to disapprove the uplisting due to geopolitical issue. Filing 8-A is just a process with stock exchange and Nasdaq is not the final decision maker
- Auditor: Luckin appointed BDO China as auditor for FY22, but auditor is not a bottleneck at the stage of uplisting technically
  - First of all, Luckin can go through the uplisting process without changing its auditor again. Holding Foreign Companies Accountable Act (HFCA Act) does not restrict or prohibit Chinese companies to file prospectus to IPO or Form 8-A to uplist without PCAOB-Identified auditors
  - o Secondly, after uplisting from Pink Sheet to Nasdaq, Luckin will become a Commission-Identified Issuer (被识别公司) and will be added to the SEC provisional list as soon as it files new 10-K (2022 annual report)
  - Then, Luckin will have 2 or 3 years to replace its current auditor with PCAOB-Identified firms after being on the provisional list. It will depend on whether the Accelerating Holding Foreign Companies Accountable Act becomes effective
    - On June 22, 2021, the U.S. Senate passed a bill, also known as the Accelerating Holding Foreign Companies Accountable Act, to prohibit securities of any registrant from being listed on any of the U.S. securities exchanges or traded over-the-counter if the auditor of the registrant's financial statements is not subject to PCAOB inspection for two consecutive years, instead of three consecutive years as currently required under the HFCA Act, which would place some companies in jeopardy of delisting as soon as 2023. As of Aug 2022, the accelerating bill has not been approved by the US House of Representatives
- U.S. DOJ investigation is still pending as relevant Chinese laws that restrict Luckin from providing evidence and information without prior approval from the Chinese Ministry of Justice
- On July 31, 2020, the Ministry of Finance of the PRC announced its investigation has been substantially
  completed. The Ministry of Finance of the PRC further announced that it would impose and publish its
  relevant penalty decision to Luckin in due course. However, the Ministry of Finance of the PRC has not
  imposed any penalty on Luckin yet. The outcome or the duration is still unpredictable based on 2021 20-F

#### **HK Listing Requirements for Luckin**

- Luckin is unlikely to pursuit HK IPO in the short term as there is no short-cut for an OTC company to be listed on the Hong Kong Stock Exchange. OTC companies need to satisfy the same set of listing requirements and go through the same listing process as an initial listing applicant to the Hong Kong Stock Exchange
- There is a hard rule for HK listing that management should remain unchanged for the recent 3 years. The
  management continuity requirement generally cannot be waived or circumvented. Luckin does not meet this
  requirement as new management took over in May 2020
- The company itself also stressed their commitment to the US capital market in several official statements

#### Recent developments

Below events indicate that Luckin is preparing for the potential uplisting from Pink Sheet to Nasdaq:

- Apr 14, 2022: Luckin appointed BDO China as auditor for 2022 annual report to replace CZD
- May 9, 2022: Luckin denied pursuing HK listing
- Aug 8, 2022: Luckin announced the appointment of new CFO Ms. Jing AN, ex-CFO of 58 Daojia and ex-CFO of ChinaCache (Please refer to management section for detailed bio). Former CFO and CSO Reinout will remain as CSO (Chief Strategy Officer) and lead the execution of capital markets strategy
- Jul 2022: Luckin appointed new IR director Alicia Guo
- Seemingly accelerated one-off impairment and provision in 22Q2 financial statement
  - o Booked full impairment of "Luckin Coffee Express" coffee vending machine of RMB 222m in 2Q22
  - o Booked provision of equity litigants of RMB 277m in 2Q22 (for opt-out ones of class action settlements)
- Earnings call arrangement
  - o Mar 24, 2022: Luckin resumed earnings call for 22Q1 but no Q&A session
  - Aug 8, 2022: Luckin started to collect questions before its 22Q2 earnings call and management answered several questions including relisting issue. No detail was disclosed but they stress Luckin's commitment to the US capital market

#### Liquidity

- During a long period after IPO in 2019, Luckin's avg. daily trading volume was only 4m ADS, representing 11% of free float. Avg. daily trading value was below US\$ 100m
- After Luckin announced it had become profitable at a store level in the quarter through Sep 2019, its avg. daily trading volume surged to 13m ADS, representing 19% of free float. Daily trading value ranged from US\$ 200m to US\$ 1bn during Nov 2019 Jan 2020 (average: US\$ 477m)
- Right after Luckin's follow-on offering and the release of 2020 short report in Jan 2020, avg. daily trading volume was 13m ADS, representing 16% of free float. Daily trading value ranged from US\$ 300m to US\$ 1bn during Feb-Mar 2020 (average: US\$ 463m)
- Assuming completion of uplisting from Pink Sheet to Nasdaq, its avg. daily trading value may recover to predelisting level of above US\$100m, significantly higher than current US\$20m-30m.



Unit: mn	Avg. daily trading	Avg. daily trading				
Period	value (US\$ m)	volume (m)	Float	TSO	ADV/Float	ADV/TSO Stock exchange
May 19 - Oct 19	91	4	38	240	11%	2% Nasdaq
Nov 19 - Jan 20	477	13	67	243	19%	5% Nasdaq
Feb 20 - Mar 20	463	13	81	252	16%	5% Nasdaq
2022 YTD	21	2	189	304	1%	1% Pink Sheet

Source: filings, BBG

Short interest: as of 2 Aug 2022, Luckin has 3.3m ADS of short interest, representing 1.8% of free float and 1.1% of TSO.

#### **Section 9: ESG**

To enhance ESG initiatives, the Board of Luckin has established a Sustainable Development Committee, comprised of certain directors, executives and external experts, to advise the Board in fulfilling its oversight responsibilities with regard to sustainability matters. The Sustainable Development Committee is co-chaired by Mr. Weihao (Michael) Chen (Centurium MD) and Dr. Jinyi Guo (Chairman and CEO). Luckin plans to publish its first Corporate Governance Report in the fourth quarter of 2022, in an effort to provide stakeholders with greater transparency on its ESG-related efforts and progress.