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Cracking the code

China SaaS start-ups seek paying customers

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Waiting for another take-private wave
Picking up the pieces in education
China biotech players go global

Anything is possible If you work with the right partner



AVCJ China conference issue

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ISSN 1817-1648 Copyright © 2021 Asian Venture Capital Journal

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China in six trends

Soft-tech to hard-tech

AVCJ

A surge in growth-stage tech investment activity in China underpinned the region's private equity revival in the fourth quarter of 2020. China accounted for 62% of all capital deployed in Asia and half of the China total went into the technology. This trend ended abruptly in the second quarter of this year on the back of mounting concerns about a sectorwide clampdown. Early and growth-stage tech investment fell from \$14.8 billion in the first quarter to \$8.4 billion in the second and it stayed at roughly that level in the third. But activity hasn't dried up, rather it has been redirected. This trend became visible as early as mid-2019, in terms of deal count, as VC investors shifted focus from services to non-services – a crude way of capturing the transition from B2C to B2B. It is now reflected in dollar value as well. The non-services share of minority tech investment was 70% in the third quarter, compared to 40% in the final three months of 2020. Capital is targeting less sensitive areas, typically deep-tech hard-tech plays like artificial intelligence, semiconductors, and autonomous driving. Tangential sectors are also benefiting, notably electronics and consumer, with the rise of robotics and tech-enabled brands.

Beyond technology

Overall private equity investment in China gradually declined over the first nine months of 2021, a consequence of the growthstage technology malaise. While the 2020 full-year total of \$102 billion is unlikely to be surpassed, investors have already deployed more than the \$67.4 billion put to work in 2019. The largest announced transactions comprise a mixture of US take-privates (51job), corporate carveouts (Reckitt Benckiser's China infant formula business, Zhaopin), corporate spinouts (Svolt, JD Property Management), and consumer technology momentum plays transacted earlier in the year. The sectoral picture is arguably more insightful, demonstrating that investors are generally trying to invest in line with government policy. Electronics (industrial value-add), healthcare, consumer retail (mass-market accessibility), and transportation (logistics) are holding firm or gaining, though technology remains the biggest show in town. Healthcare is now comfortably the second-largest sector, buoyed by substantial investments in telemedicine and biotech. Digitally enabled drug discovery has emerged as a key theme within biotech, led by the likes of Insilico Medicine and Xtalpi.

VC leads the way

Ince Capital returned to market with its second China VC fund in May, less than 18 months after closing its debut vehicle. A first close of \$450 million – matching the overall target – came in July. While much of the fundraising work predated some of the more draconian measures (the GP pursues a consumer internet strategy, which means its portfolio companies might appear in the crosshairs of regulators), Ince's progress reflects a broader trend in China fundraising. US dollar-denominated China VC was one of few strategies across Asia that attracted more capital in 2020 than in 2019. The momentum, though not as pronounced as last year, remains. Chinafocused GPs raised \$32.5 billion in the first nine months of 2021, which means the 12-month total of \$57.9 billion in 2020 is unlikely to be eclipsed. However, the picture doesn't look so grim if renminbi funds are stripped out. About \$16.4 billion has been raised, more in 2020. Boyu Capital's \$6 billion fifth fund accounts for a large chunk of that, the VC contribution is still \$6.1 billion. In addition to Ince, the likes of 5Y Capital, Source Code Capital, Long Hill Capital, Future Capital, Vitalbridge Capital, ZWC Partners, and Glory Ventures have reached incremental or final closes.



Location, location, location

China-based online-to-offline (O2O) home services provider Daojia filed for a US IPO in early July, not long after ridehailing giant Didi saw its stock sink within days of debuting in New York. Regulators said that Didi was under investigation for violating rules on personal data collection. They later clarified that companies with data on more than one million domestic users must undergo security reviews prior to offshore listings. In the first half of 2021, 18 PE-backed Chinese companies raised \$12.7 billion through US IPOs, more in dollar terms than the previous two years. Now the pipeline has dried up. Daojia is said to have abandoned its planned IPO, with the likes of Ximalaya, Linkdoc, and Xiaohongshu doing the same. It remains to be seen whether these are merely postponements. Even if the approvals process in China is navigable, there remains the prospect of companies being delisted from US exchanges over audit compliance. Hong Kong is expected to be the key beneficiary of these trends, with regulators apparently happier with listings closer to home (and, for brand owners, closer to their main consumer bases).

From boom to bust?

Regulation is an enduring – although sometimes underestimated – risk in China. However, few industries have been turned on their head as comprehensively as education. At the end of last year, the large class K-12 space was the scene of a brutal attritional battle: online providers were plowing money into marketing campaigns even as customer acquisition costs mounted. Of the \$16 billion raised by the industry in 2020, across public and private markets, 80% went to the top five players. Government disquiet rose during 2021, culminating in comprehensive and ruthless action in July. The key takeaways: for-profit tuition in core school subjects must stop, with operators required to register as non-profit and be subject to strict approvals; pre-school children can no longer participate in online training of any kind; overseas-based foreign personnel are barred from running classes, threatening one-to-one English language tuition; and public listings or any other capital-raising activity is prohibited. Yanfudao and Zuoyebang raised nearly \$6 billion from the likes of Sequoia Capital China, Hillhouse Capital, SoftBank, Warburg Pincus, and FountainVest Partners. The path to exit is unclear.

All about the wheels

One of the peripheral casualties of Evergrande Group's difficulties servicing a \$300 billion debt pile appears to be its PEbacked electric vehicle (EV) unit. As the parent heads towards what would be China's largestever restructuring, the subsidiary canceled a planned secondary listing in Shanghai and warned of a cash shortage. The fact that Evergrande, a real estate developer, is even in the EV space speaks volumes for investor appetite for mobility. Private equity firms and strategic players have pumped capital into EV, and they are doing the same with autonomous driving. China's robotaxi pioneers Pony.ai, Weride, Deeproute.ai, and Didi Autonomous Driving have received more than \$3 billion between them. Momenta, which supplies autonomous driving technology to carmakers, recently took its total fundraising past the \$1 billion mark. Capital has also flooded into autonomous truck specialists Inceptio, Plus, and TuSimple, with the latter going public, and into semiconductor manufacturers who serve the industry. Meanwhile, Evergrande's troubles haven't deterred other strategic players. Xiaomi plans to invest heavily in EVs and recently bought VC-backed autonomous driving technology developer Deepmotion.

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SaaS: Path to profitability

COVID-19 has driven enterprise uptake of software-as-a-service solutions in China, but paying customers are still relatively few. Other markets offer some pointers on monetization

nvestors are wary of China's technology sector. What began with Ant Group's aborted IPO last November has escalated into anti-monopoly investigations targeting top domestic internet companies, a fundamental redrawing of the commercial guidelines for private education, and a sweeping data privacy law that has complicated US IPOs by consumer-facing internet players.

Taken together, the tapestry of new regulation has undermined business models and created uncertainty over exit timelines. Public markets have been rattled. The CSI Overseas China Internet Index peaked at 14,735 points in February; it is now languishing below 6,500. The mood in private markets is much the same.

Amid this chaos, software-as-a-service (SaaS) start-ups have prospered. First, as B2B players, they have been largely unscathed by the B2C-focused regulatory action. Second, they are riding a wave of pandemic-driven digitalization as enterprises recognize the importance of virtual communication and cloud-based services. Capital has duly followed, especially at the growth stage.

"We are seeing increased participation from pre-IPO or hedge fund-like investors, such as DST Global, Coatue Management, Tiger Global Management, which used to concentrate more on the consumer internet side in China," says Yipin Ng, founding partner of Yunqi Partners. "But they are established SaaS investors because they understand the industry history in the US."

Changing dynamics

There are more than 4,500 SaaS companies in China, according to Hap Academy, a local



"We are seeing increased participation from pre-IPO and hedge fund-like investors"

– Yipin Ng

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research firm. Meanwhile, the country's SaaS enterprise user base swelled by 82% last year, reaching 9.15 million. The industry is expected to be worth RMB66.6 billion (\$10.3 billion) by 2021, with annual growth of 34%.

Hap Academy puts PE and VC investment in SaaS at RMB30.7 billion for 2020, with nearly 200 companies receiving funding. It continues a longer trend of increased activity, yet the story isn't wholly positive. Even though SaaS players haven't suffered from the regulatory purge on an operational level, they aren't immune to a general cooling of investor sentiment sectorwide.

"Several of our SaaS portfolio companies have raised new funding rounds in recent months. It's not been uncommon for the lead investor to come back asking for a discount in terms of valuation despite the term sheet already being signed," one specialist SaaS investor tells AVCJ.

"And then all companies considering overseas IPOs now need regulatory approval under the new data privacy law. Although SaaS companies are B2B business and don't collect end-consumer data, they still need to make a statement and wait for approval."

On the other hand, a case could be made for the industry emerging from the crackdown in a stronger position because the giants that dominate China technology have been reined in. This creates a more conducive environment for small and medium-sized enterprises (SMEs) and for the SaaS providers that serve them.

For example, as part of the anti-monopoly probe, the government slapped a record \$2.8 billion fine on Alibaba Group for its "pick one from two" practice, whereby small online merchants are forced to choose one platform as an exclusive distribution channel. The tactic is widespread in China's e-commerce industry, with Meituan is currently facing a potential \$1 billion fine for the same offense.

"A small merchant can now sell on multiple online platforms, instead of just one," observes Daisy Cai, a general partner and head of China at B Capital Group. "However, it also brings extra complexity in that they need third parties to take care of customer acquisition and operations management on these various platforms."

B Capital's China portfolio includes Zaihui, a marketing SaaS platform that serves local restaurants. It was founded by an executive at Dianping, a restaurant reviews and marketing app that merged with Meituan. The company, which has secured more than \$100 million in funding to date, has worked with over 8,000 catering brands.

The demise of "pick one from two" is expected to see a proliferation of new entrants on the platform side, with the likes of social networking and short video players Douyin, Kuaishou, and Little Red Book among the most prominent. Zaihui is positioning itself to help restaurants manage their presence across these platforms.

The India example

China is a reference point for markets like India and Southeast Asia when plotting the likely evolution of consumer internet business models. The situation is reversed regarding SaaS.

Freshworks, India's second-oldest SaaS unicorns and arguably the first VC success story in the space, listed on NASDAQ last month with a market capitalization of \$11.6 billion. The company last raised private funding in 2019 at a valuation of \$3.5 billion. This has been surpassed twice in 2021, first by BrowserStack and then by Postman, with the latter achieving \$5.6 billion on closing its Series D.

Based on current momentum, India's SaaS industry is on course to hit up to \$70 billion in revenue by 2030, amounting to a 6% global market share, according to SaaSBoomi and McKinsey & Company.

However, Indian SaaS start-ups differ from their Chinese brethren in that most go global from day one, serving a primarily US customer base. They typical model is US front office-India back-office, with the bulk of the workforce located in India where talent is cheaper but also widely available. Speed is another consideration, with large India-based development teams reducing time-to-market.

China doesn't have India's long international business process outsourcing (BPO) heritage, which has fed into the SaaS boom – a rather



tricky transition from taking orders to building products that customers are willing to buy. Moreover, China's SaaS industry operates in its native language and in accordance with local business norms. But there is still considerable optimism.

"China's SaaS industry is at an early stage and penetration of the domestic customer base is very low. There is enough local market potential for companies to achieve scale. I don't think we need to think about foreign climate too much at this stage, because our own market is just beginning to get tapped," says Duncan Zheng, head of China private equity at Investcorp.

Emerging appeal

Investors generally are also placing greater emphasis on SaaS opportunities in emerging markets. The US has reached a level of maturity where start-ups are typically "a small piece of the puzzle, serving a small piece of workflow such as capturing information from customers," notes Dev Khare, a partner at Lightspeed India Partners. In younger markets, the opportunity remains to build horizontal platforms that offer end-to-end solutions.

Emerging markets also appeal because customer volumes are large, and you don't have to travel to the US and Europe to see them. "There are so many SMEs in India, Indonesia, Malaysia, and Bangladesh. It wouldn't surprise me if a Shopify equivalent for SMEs came out of Asia," says Jai Das, co-founder of Sapphire

"China's SaaS industry is at an early stage and penetration of the domestic customer base is very low"

- Duncan Zheng

Ventures, which invests in enterprise software start-ups globally.

In keeping with the horizontal platform philosophy, customer support and systems implementation are seen as areas where local players can gain traction in China. Investcorp's exposure in this area includes Mind Cloud, which targets manufacturers in China and Southeast Asia. The founder is an ex-SAP executive who felt that SAP wasn't doing enough to integrate its services with local systems.

Localization also involves adding unique flavors to a product offering and to some extent striking compromises to fit in with specific cultures and preferences.

For example, Ones, a China-based collaboration platform used by software developers, found itself in direct competition with global leader Atlassian. It gained traction through flexibility, delivering on-premises solutions while Atlassian stuck to cloud-based services. This reflects a reluctance among Chinese companies to store sensitive data on external servers, especially those overseas.

In addition, Ones positioned itself to serve local businesses that are still finding their way into SaaS. The company has a large local support team and it cut back some more advanced features to create a relatively simple interface, notes Jake Xie, a partner at China Growth Capital, a backer of Ones.

Local knowledge is essential when plugging into existing infrastructure as well. "An e-commerce SaaS that's designed based on Amazon processes wouldn't work on WeChat or Taobao – you need to follow the processes of local platforms in selling goods," says Kelly Pu, a partner at Bain & Company. The same applies to tax reporting, with each Chinese province employing slightly different rules.

While China's SaaS industry is relatively immature by global standards, some of the technologies implemented by local providers are cutting-edge. These include artificial intelligence and big data where solutions have emerged to meet a complex set of needs. Bin Xiao, CEO of e-commerce SaaS player Huice, points to how his company serves merchants with multiple warehouses.





Huice developed an intelligent algorithm that helps merchants decide which warehouse to use when fulfilling an order, based on inventory levels, distance to the customer, and speed and cost of delivery. The system can be configured to prioritize different factors, accept manual intervention, assist in warehouse layout, and even identify fraudulent customers.

SaaS + marketplace

India's 60 million SMEs are an equally attractive target for SaaS start-ups. In China and India, the "SaaS plus marketplace" model has proved effective because it not only offers improved efficiency through software, but also promises to bring in new customers and revenue streams.

Lightspeed has invested in Zetwerk, a platform that connects 2,000 India-based manufactures with around 250 large-scale buyers in sectors like aerospace, automotive, and medical devices. The company is now in 15 markets globally, having established an international footprint last year in response to demand for increased supply chain diversification.

"These small manufacturers in India don't have the capabilities to sell into the US and Europe, and even into other parts of India," says Khare of Lightspeed. "Zetwerk provides access to customers and software to manage factories and orders. This is a distinct flavor of SaaS that are focused on India."

In China, the likes of Baibu and Smart Fabric are taking a similar approach in fabrics, while Chubby Bear is doing the same for renovation materials. "Because it is B2B and businesses are regular buyers, transactions are recurring in nature and you can calculate ARR [average recurring revenue] and NDR [net dollar retention] like in SaaS," explains Yunqi's Ng.

Baibu is taking the strategy a step further by inserting itself directly into supply chains. The company has established a cloud factory that consolidates the capacity of multiple small textile manufacturers, taking orders from large brands and distributing them through its ecosystem. These manufacturers also receive digitalization tools.

OfBusiness, an India-based raw materials sourcing platform for SMEs that has expanded into supply chain finance, is also looking to become a manufacturer as well as a supplier. Vasant Sridhar, one of the co-founders, previously told AVCJ that the company is considering factory acquisitions as a means of exercising more control over supply chains as well as extracting better margins.

Using SaaS as the foundation for a range of >



other services – essentially leveraging existing customer relationships and market knowledge – is commonplace internationally. Investcorp is looking for ways to replicate the approach in China, according to Zhang.

The private equity firm backed Linkedcare, a SaaS provider to dental and medical aesthetic clinics. In addition to a software offering that encompasses customer relationship management and other functions, the company sources branded dental products for clinics. This is done through a dedicated online mall that feeds into the SaaS system to boost procurement efficiency.

The reference point for LinkedCare was Henry Schein, the world's largest distributor of dental equipment and a supplier of cloud-based software for dental offices. However, Investcorp believes the opportunity set is much larger in China and India than in mature markets.

Money matters

No matter how big the unmet need in emerging markets that SaaS products seek to address, in the end they must make money. While rising labor costs in China have pushed companies to accept SaaS, only 11% of users are paying customers, according to Hap Academy.

Achieving profitability might be more about the sector than the company: profitable sectors tend to nurture larger SaaS players. The emergence of Ming Yuan Cloud in real estate, Linkedcare in healthcare, and Kujiale in home renovation are good pointers. On the other hand, start-ups offering SaaS solutions to pet hospitals and pet stores struggle to generate revenue.

"Sometimes the problem goes back to the first SaaS company that covered the industry doing so on a free basis," says one global investor. "It's hard to change customer habits once they are ingrained."

One interesting takeaway from India is that technology companies and software developers were the first to be targeted as potential customers because they are considered early adopters of new technology and more willing buyers. Postman, which serves application programming interface (API) development teams, and Acceldata, as data observability specialist, both took this approach.

Given China is home to one of the world's three largest developer communities – alongside India and the US – it may end up taking a similar path.

Xie of China Growth Capital notes that a SaaS product valued by developers is more likely to attract paying customers than a mainstream offering. Moreover, it's easy to quantify cost savings. For example, Ones can be used to manage 100 programmers and deliver efficiency gains of 20-30% for less than the cost of employing one programmer on RMB300,000 per year.

A glimpse at the financials of China's listed SaaS providers confirms there is a profitability issue that has yet to be resolved. Youzan, an e-commerce SaaS player, saw its operating loss rise 87.3% year-on-year to RMB449 million in the first half of 2021. Weimob's operating loss was RMB195 million, an eightfold increase on the same period of last year.

Both companies are still in cash burn mode, with sales expenses close to exceeding gross profit. This is partly a function of low customer retention rates among SMEs – and, in turn, it might be driven by high failure rates among e-commerce merchants.

Shopify has a different strategy, attracting customers en masse by charging as little as \$9 per month for its basic product. Customer acquisition costs are low because high recommendation rates from existing users bring in new ones. Shopify then seeks to move customers to higher pricing tiers – where fees are more than \$20,000 per year – on the strength of its product.

"As a SaaS company, if you want to, you can grow at 10% without burning any money and you are suddenly a \$100 million business," says Sapphire's Jai Das.

Perhaps this is the lesson that China's SaaS players should learn. The country's consumerfacing internet giants got to where they are today on the back of high-cash-burn customer acquisition initiatives and a belief that scale would ultimately deliver cost efficiency. SaaS doesn't have to work from the same playbook.



Take-privates: Holding pattern

Pressure is mounting on Chinese companies listed in New York, from domestic and US regulators. Is another wave of PE-backed take-privates imminent?

n the turbulent weeks following its June IPO, as its stock traded at a more than 40% discount to the offering price, ride hailing giant Didi considered returning to private ownership.

The Chinese company had pressed ahead with plans for a US listing even as regulators called for patience. Two days after Didi's debut, the Cyberspace Administration of China (CAC) blocked new user registrations and downloads, saying the company had violated rules on data collection. Within a week, Didi's market capitalization was at or just below its peak valuation as a private business.

Didi denied reports that a take-private was discussed as a means of appeasing regulators and compensating investors, but two sources familiar with the situation claim the option was on the table. "In the end, it was determined that the investors would probably sue everyone involved, and nobody wanted to inherit a lawsuit or many lawsuits," one source explains.

Based on its current market capitalization of around \$43 billion, a Didi take-private would be more than four times the size of any similar deal involving a US-listed Chinese company and willing private equity backers. But businesses big and small are said to be having these conversations as they feel squeezed on both sides of the Pacific.

US regulators are threatening to kick them off the New York bourses if they don't comply with accounting rules that are rejected by Chinese regulators. Meanwhile, Beijing has developed multiple agendas for reining in big tech, including a requirement that companies collecting large amounts of consumer data must obtain approval to list overseas.



"In a lot of boardrooms, they are discussing whether they should consider take-privates as a contingency plan"

– James Lu

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"In a lot of boardrooms, they are discussing whether they should consider take-private transactions as a contingency plan. It might be in the best interests of shareholders to be cashed out rather than have deal with all the uncertainty and potential losses," says James Lu, a partner at law firm Cooley. "If they aren't having this discussion, they might be failing in their duties as board members."

Moving from theoretical discussion to practical application is far from straightforward. Before running a watertight process that minimizes the scope for legal challenges by minority shareholders and securing crossborder debt financing, private equity support is often required to bankroll the transaction. GPs are generally unwilling to talk publicly, citing live situations or sensitivities around regulations, but they agree it pays to be selective.

"Just because you want to delist, that doesn't mean you can. Most companies cannot," one fund manager, who has worked on a US takeprivate in the past 12 months, observes. "The universe is not as big as people think. To find a buyer that wants to work with you, the stock price must be right, the cash flow must be right, and they have to like your business."

History lessons

In the past decade, there have been two discernable waves of take-privates involving US-listed Chinese companies. The first came in the wake of a handful of accounting scandals that eroded valuations across the board. AVCJ

"There was a huge batch of companies that shouldn't have been public in the first place, and the last two waves cleared out a lot of those" – Paul Boltz Research has records of 20 processes launched by founders in conjunction with PE backers during 2012 and 2013, a threefold increase on the previous two years.

At least the same number again were announced and didn't complete or were completed without the assistance of private equity. In some cases, it is difficult to distinguish between genuine third-party PE players and investment vehicles established by founders and high-net-worth associates.

Activity slowed for a couple of years before rebounding in 2015, with 10 PE-backed deals announced and ultimately closing. This was driven by robust local markets, which accentuated the multiple arbitrage opportunity of relisting in the mainland or Hong Kong. Moreover, Focus Media showed this could be done at speed and scale, and by a slate of big-name investors. The company relisted in Shenzhen via a reverse merger 30 months after leaving the US.

Qihoo 360 Technology remains the high point in terms of valuation. The security software provider completed a \$9.8 billion take-private in 2016 and reemerged in Shanghai a year later. It also used a reverse merger, but this backdoor route fell out of vogue soon amid a whiff of controversy.

Since the beginning of 2020, five PEbacked deals have been announced, and two have closed. Only three of the five are of significant size: online classifieds platform 58.com and biopharmaceuticals player China Biologic Products Holdings were taken private at valuations of \$8.7 billion and \$4.6 billion, respectively. A \$5.7 billion deal for online recruitment platform 51job was agreed in June.

"There was a huge batch of companies that shouldn't have been public in the first place, and the last two waves cleared out a lot of those," says Paul Boltz, a partner at law firm Gibson Dunn, on why we have yet to see the makings of a third wave. "We are left with larger, betterknown companies, and many of them are happy to give people peace of mind by doing a dual listing in Hong Kong."

As of May, there were still 248 Chinese businesses listed on US exchanges, many

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"Once the clock finally sets off, people will look at what is happening between the US and China – and they will jump when they think it has reached the point of no return" – *Marcia Ellis*

> relatively small in scale. Private equity investors divide them into three groups: the unachievable, the unwanted, and the potential targets. The latter is the smallest of the three.

Didi would typically be placed among the unachievable by virtue of its size. The same applies to the likes of Alibaba Group, Pinduoduo, JD.com, NetEase, Baidu, and perhaps a dozen or so others with market capitalizations above \$15 billion. State-owned enterprises are completely off-limits.

It is not inconceivable that some of these independently held companies fall within range, given the amount of private equity dry powder in the market, the availability of debt financing, and the prospect of existing investors rolling over. SoftBank Vision Fund, for example, owns 20.1% of Didi. However, Cooley's Lu warns that any takeprivate with a substantial rollover and perceived price discount – Didi still trades 35% below its IPO price – could be fraught with legal risk.

"You would need to ensure the special committee of the board is fully independent and the process of seeking a market check is solid to avoid litigation," he says. "It's almost guaranteed someone will sue you after a take private. If the price is a premium to market but below the IPO price, dissenting investors would say it could be higher. It's not hard to make an argument that the board didn't follow the correct process and investors have incurred damages."

Even then, Didi is arguably an anomaly among the technology players that make up most of the

largest US-listed Chinese contingent. The CSI China Overseas China Internet Index is trading well below its February peak, but losses incurred over the past six weeks as regulators took aim at several companies regarding data privacy and the entire online education industry have largely been clawed back. The index is roughly where it was in May 2020.

The unwanted constitute companies that are fundamentally unattractive for governance or business model reasons – there are fears that education businesses, previously hot commodities, will be relegated to this category. Unprofitability can also be a turnoff because it means there is no cash flow to pay down debt used to finance the acquisition and perhaps a need to put in more capital if the company is burning cash. Investors must be confident in their ability to engineer a turnaround.

"Companies that aren't EBITDA positive are not suitable for take-privates. The ones we've seen targeted, like 58.com and 51job, are more mature and have positive cash flow," the first fund manager asserts. "Companies that are high growth but losing money are for venture capital, not private equity. You don't need fast growth to generate returns from a take private."

This leaves category three. A second fund manager, pondering the relative scarcity of attractive targets, observes: "Mid-cap companies with attractive growth prospects are ideal for private equity, but there aren't many listed in the US. More are going public in China and Hong Kong nowadays."

That said, the lines between the categories can blur, depending on the prevailing valuations. Ultimately, there is a price at which the unwanted will find buyers and the unachievable might move into reach. One key factor is that US regulatory action, a long-time lingering threat, has yet to be properly implemented.

Slow to act

For years, Beijing has resisted attempts by the Public Company Accounting Oversight Board (PCAOB) to inspect audit documents for US-listed Chinese companies. At the end of last year, the Holding Foreign Companies Accountable Act (HFCAA) passed into law, giving the PCAOB more



teeth – to the point that non-compliance could result in enforced delisting.

Specifically, the Securities & Exchange Commission (SEC) must draw up a list of foreign companies whose audited financial reports are prepared by accounting firms the PCAOB is unable to inspect. If inspection is blocked for three consecutive years, US-based trading of a company's securities will be prohibited. Companies must also disclose more information, such as foreign government ownership and the names of board members who are Chinese Community Party officials.

The list has yet to materialize; even a framework for identifying who should be on the list is unavailable. According to Boltz of Gibson Dunn, the timeline states that right now companies should be disclosing whether they have been included, but no one is doing anything. Rather, lawyers are telling companies calling up to ask if they are on the list that implementation could be years away.

Largest PE-backed take-privates of US-listed Chinese companies

| | - | | - |
|-----------------------|--|-------|--|
| Date | Target | US\$m | Outcome |
| Jun-15 | Qihoo 360 Technology | 9,843 | Relisted in mainland China through a reverse merger in 2017 |
| Jun-20 | 58.com | 8,700 | |
| Jun-21 | 51job | 5,929 | |
| Nov-20 | China Biologic Products | 4,631 | |
| Oct-16 | Qunar | 4,400 | Became subsidiary of Trip.com, post-2017 |
| Aug-12 | Focus Media | 3,700 | Relisted in mainland China through a reverse merger in 2015 |
| Aug-15 | WuXi PharmaTech | 3,269 | Restructured, with WuXi Biologics and WuXi AppTec listing in 2017 and 2018, respectively |
| Nov-13 | Giant Interactive | 3,000 | Relisted in mainland China through a reverse merger in 2015 |
| Feb-19 | eHi Car Services | 2,130 | |
| Jan-14 | Shanda Games | 1,900 | Acquired by Zhejiang Century Huatong Group in 2017 |
| Mar-18 | iKang Healthcare | 1,400 | |
| Apr-17 | Zhaopin Ltd. | 1,000 | |
| Jan-12 | AsiaInfo-Linkage | 890 | Relisted in Hong Kong in 2018 |
| Jun-11 | Harbin Electric | 773 | |
| Jun-14 | Montage Technology | 693 | Relisted in mainland China in 2019 |
| Jun-15 | China Mobile Games & Entertainment Group | 689 | Acquired by Zhejiang Century Huatong Group in 2015; relisted in Hong Kong in 2019 |
| Sep-12 | 7 Days Group Holdings | 678 | Acquired by Jin Jiang International in 2015 |
| Feb-16 | eLong | 675 | Merged with Tongcheng Network Technology in 2017; relisted in Hong Kong in 2018 |
| May-13 | Pactera Technology | 619 | Acquired by HNA Group in 2016 |
| Mar-12 | Zhongpin | 617 | |
| Jun-17 | SciClone Pharmaceuticals | 605 | Relisted in Hong Kong in 2021 |
| Jun-15 | iDreamSky Technology | 592 | Relisted in Hong Kong in 2018 |
| Feb-14 | Chindex International Inc. | 550 | Acquired by a US-listed SPAC in 2019; currently in process of delisting |
| Mar-13 | Simcere Pharmaceutical Group | 505 | Relisted in Hong Kong in 2020 |
| Mar-11 | Funtalk China Holdings | 430 | Acquired by Sanpower Group in 2014 |
| Source: AVCJ Research | | | |

🔀 AVCJ

"The three-year clock hasn't started yet, and there is some idea that we could see a compromise," says Marcia Ellis, a partner at law firm Morrison & Foerster. "Once the clock finally sets off, people will look at what is happening between the US and Chinese administrations, studying for any signals of a compromise – and they will jump in when they think it has reached the point of no return. It will be an interesting process to follow."

In the meantime, some US-listed companies have added a Hong Kong secondary listing as a backup. This is limited to those that qualify for the Chapter 19C, or fast-track route, which involves lighter-touch regulation. They must



PE-backed take-privates by listing jurisdiction

Source: AVCJ Research

be businesses from "emerging and innovative sectors" that have already spent at least two years on the New York Stock Exchange, NASDAQ, or the London Stock Exchange, and meet minimum requirements in terms of market capitalization and revenue.

Alibaba led the way in late 2019 and it was followed by the likes of Baidu, JD.com, Bilibili, Trip.com, NetEase, Yum China, and ZTO Express. The post-Alibaba flood has slowed to a trickle because relatively few companies are eligible.

Once a secondary listing has been achieved, there is the possibility of shifting the location of primary listing and deregistering in the US - which involves inviting investors to migrate to Hong Kong rather than recruiting a private equity backer to help take out those holdings.

Deregistration in the US is conditional on having fewer than 300 shareholders in the US or having an average daily trading volume in the US that represents 5% or less of global trading volume. Hong Kong would treat an issuer as having a permanent dual primary listing if more than 55% of the worldwide trading volume by dollar value during the most recent financial year takes place on the local bourse.

"If the overwhelming amount of your trading volume is in a non-US market there is a very easy way to privatize, and you don't have to cash anyone out," says Boltz of Gibson Dunn. "It was designed for European companies that had dual listings in New York and Paris but the trading in New York was really small and they wanted to get out of the reporting system."

No US-listed Chinese company has made this transition. Alibaba and NetEase already have higher trading volumes in Hong Kong than in the US, but there is still a relatively large gap for most others.

There are various other circumstances under which a company may be delisted and deregistered in the US – typically because its number of shareholders or asset value falls below a certain level – without establishing a new primary listing. Lengthy compliance processes are tied to these actions. Otherwise, they must pursue take-private transactions, open-market purchases, or public tender offers, which require shareholder votes and fairness opinions on pricing.

Data dynamics

Several industry participants believe the US and China will resolve the audit issue, simply because there is so much money at stake for both sides. It is difficult at present, given tensions between the two countries encompass multiple issues and no one wants to be seen as giving up ground.

However, recent regulatory activity in China – and how it dovetails with the US agenda – has complicated matters. The government's stance on data privacy has yet to be fleshed out, leaving investors to fret that approval will be



"Given the political headwinds in both directions, companies that can go private will strongly consider it"

- Douglas Freeman

required not only for companies doing an initial share offering overseas, but any share offering. It would slow or sever a vital funding route for USlisted businesses.

"Right now, the CAC is focused on headline IPOs," says Cooley's Lu. "We don't really know how secondary issuance will be impacted. Could it be that every time you do a disclosure, you need regulatory approval in China?"

On one level, the PCAOB and data privacy issues are interrelated. Beijing's concern appears to be that, if the HFCAA makes it harder for Chinese companies to resist US regulatory scrutiny, this could effectively give an agency funded by a foreign government license to look beyond audit materials into sensitive consumer data. IPO approvals allow it to control who risks opening the kimono.

But based on current protocols, there is little chance of a PCAOB investigation getting into that level of detail. According to Ellis of Morrison & Foerster, this discrepancy underlines how China is thinking about data privacy on multiple fronts. In addition to a refusal to cede authority to US regulators, there are concerns that domestic companies could use data to create separate centers of power.

In this context, data privacy fits into the broader effort to bring big tech back into harness, alongside clampdowns on monopolistic or oligopolistic activity in multiple areas, curbing expansion into financial services, and restricting the use of data and algorithms to influence consumer choices.

The SEC responded to China's IPO approval measure by ramping up disclosure

requirements for US-listed Chinese companies using variable interest entity (VIE) structures, which give overseas investors exposure to restricted sectors and form an integral part of most technology IPOs. "I look at this escalation and I wonder how often companies might be penalized for not doing something in the US because it would be considered a criminal offense in China," a third fund manager adds.

This scenario has yet to play out, but it could make the US a less attractive location even for companies that see logic in being listed there. It would, in turn, drive more take-private activity.

"It's been more opportunistic so far, but given the political headwinds in both directions, companies that can go private will strongly consider it," says Douglas Freeman, a partner at Goodwin Proctor. "For others, at least for now, it still makes sense to be in the US because of the analyst coverage or business model understanding. In healthcare, for example, there's no question that you get much better coverage in the US markets."

New challenges

Nevertheless, it would be unwise to assume that a new wave of take-private transactions will mirror its predecessors. Of the 35 largest PE-backed deals that have closed since 2010, four are less than three years old, four relisted in the mainland (three through reverse mergers), six relisted in Hong Kong, and nine were acquired. The rest are either current portfolio companies or unaccounted for, which could mean a quiet buyback by the founder.

Many of these deals were predicated on achieving a higher multiple on relisting closer to home – where companies have greater brand recognition – than was available in the US. Now, though, not only is the arbitrage game less rewarding, but there is also less clarity that a relisting on the A-share market or in Hong Kong will be possible.

"It is so much more complicated because of the regulatory and policy pressure," says Morrison & Foerster's Ellis. "For a prudent PE fund, it must be a combination of trading multiples and being able to do something to make the company better, to make its profits higher."



Education: Opportunity erased?

Private equity investors have pumped billions of dollars into Chinese online education platforms, notably in the K-12 space. A regulatory crackdown has left them wondering how they can get their money back

S ummer is the busiest time for China's after-school training institutions, online and offline. Now, though, the atmosphere is strangely muted – haunted by a sense of uncertainty, confusion, and perhaps even resignation. Following a stunning regulatory intervention, this heavily private equity-backed industry may never be the same again.

It is an extraordinary fall from grace. Last summer, advertising by online tuition platforms was ubiquitous: on every TV variety show and drama, and all over elevators, bus stops, and subway stations. It is estimated the top 10 players spent more than RMB10 billion (\$1.5 billion) on marketing in July and August 2020, twice the comparable figure for 2019.

While regulators were unhappy with the highcash-burn dynamic, a severe crackdown was not expected. After all, online education was the go-to solution when schools were suspended in response to COVID-19. Even before the pandemic, it was the great leveler, bringing quality tuition to China's most remote villages and towns that would otherwise have gone unserved.

"The government hopes that private companies can promote positive change in the education industry. Therefore, the regulator will be cautious in launching new policies, and supervision will be discreet," Hao Li, a managing director at Lighthouse Capital, told AVCJ in January.

Within weeks, the situation started to change. From March, more than 15 companies were fined for false pricing and misleading advertising - some of them several times. They included TAL Education Group, New Oriental Education



"The fund will not request a withdrawal for the time being. We will give the company a chance to transform the business"

- China education investor



& Technology, and Gaotu Techedu, the USlisted market leaders, as well as Yuanfudao and Zuoyebang, the most well-funded unicorns in the private markets.

This was followed by the establishment of an off-campus education and training supervision department under the Ministry of Education. In early July, several provincial and municipal authorities ordered a complete shutdown of off-campus training during the summer vacation. Later the same month, regulators applied the coup de grace: a fundamental restructuring of the industry.

"Many of the leading players had been communicating with the regulators, and they expected the introduction of a stricter regulatory framework," one growth-stage education technology investor tells AVCJ. "But no one predicted the intensity of the final version."

The fallout has been brutal. TAL, New Oriental, Gaotu, and NetEase-owned Youdao have seen their stock prices plunge between 70% and 97% from the February peaks. New PE and VC commitments to private operators tailed off earlier in the year, but investors are looking at grim prospects for existing portfolio companies and wondering whether they will ever get their money back.

Business models undermined

New rules issued by China's State Council impact all independent providers of tutoring services from pre-school through K-12 levels. Crucially, for-profit tutoring in core school subjects must stop. Companies providing courses based on the national curriculum must register as non-profit organizations. Pricing will be standardized and set according to government guidance.

No new licenses will be granted in the space, while existing operators must file for approval. Local authorities must conduct comprehensive investigations before issuing any approvals.

"Even when the kindergarten segment was subject to strict regulation in 2018 and private capital was banned, there was no requirement that companies must convert into non-profit organizations," the same growth-stage edtech investor adds. "Now, suddenly all compulsory education should be non-profit."

If there was investor appetite – public or private – for K-12 tuition businesses, capital wouldn't be allowed in. Public listings or any other capital-raising activity is prohibited, while companies that are already listed cannot invest.

The State Council wants to "effectively reduce the burden on students within one year and have a significant effect within three years," which some industry practitioners interpret as a grace period of up to three years. Nevertheless, analyst projections are dispiriting, with Goldman Sachs claiming that the value of China's afterschool tuition market would contract by 76% to \$24 billion.

J.P. Morgan added in a recent report: "It's unclear what level of restructuring the companies should undergo with a new regime and, in our view, this makes these stocks virtually uninvestable."

Private equity exposure to the industry is considerable, even as consolidation in the K-12 space has led to the concentration of capital on a few key players. Yuanfudao and Zuoyebang, which rose to prominence through questionand-answer (Q&A) search engines before expanding into large-class tuition, received over \$0.60 of every dollar invested in online education last year.

Those Q&A services are now prohibited, with the regulator saying that they "affect students' independent thinking, and violate the laws of education and teaching." Meanwhile, livestreamed classes also face restrictions. Tuition cannot happen during weekends and holidays, poaching teachers from schools is banned, and classes are being cut back from two hours to 30 minutes.

Yuanfudao and Zuoyebang raised \$5.85 billion between them last year. Investors include Sequoia Capital China, Hillhouse Capital, FountainVest Partners, Warburg Pincus, CMC Capital Group, SoftBank, Tiger Global Management, Yunfeng Capital, DST Global, Goldman Sachs, Primavera Capital Group, Trustar Capital, GGV Capital, Boyu Capital, IDG Capital, Legend Capital, and Matrix Partners China. Strategics and sovereigns are in there as well.

"If a big-name fund is not on the



shareholder list, it's most likely because they couldn't get an allocation," says an investment professional in one of the groups above. "We must write down our position, but the fund will not request a withdrawal for the time being. We will give the company a chance to transform the business. Bankruptcy and liquidation don't make sense right now."

Small picture, big picture

Transformation options are limited by the wideranging scope of the regulations. The prospects for one-to-one English language tuition – as opposed to the large-class format – are uncertain given foreign personnel based overseas cannot be hired to conduct training. VIPKid, which sits third in the overall fundraising rankings after Yuanfudao and Zuoyebang, is a major player in this area.

Meanwhile, online training for pre-school children, defined as those below six years old, has been proscribed. This threatens to torpedo the business models of Huohua Siwei – which filed for a US IPO in May – and PiThinking.

For investors accessing China via the public or private markets, there are bigger-picture concerns. Since the end of last year, Beijing has widened an antitrust investigation of Alibaba Group to include dozens of platform technology companies and targeted internet companies listing in the US for violating personal data collection rules. It raises the question of what will get hit next.

"Even though such moves would in effect add a permanent 'risk premium' to Chinese stocks and bonds, they should not fundamentally change China's growth model or the broader investment case for the country's financial assets. We don't think a full-scale withdrawal from Chinese stocks is warranted," wrote Luca Paolini, chief strategist at Pictet Asset Management.

Others are not so sure. Eddie Tam, founder of Hong Kong-based Central Asset Investments, views the crackdowns through the lens of US-China tensions. The US fell into Thucydides' Trap a few years ago and now China has followed, he maintains.

"The US has launched a range of trade, finance, media, ideological, and technological wars, which have caused China to reflect on and review all its own policies. It is both necessary and inevitable," Tam tells AVCJ. "But recent policy mutations may have a deeper significance, which seems to represent a change of fundamental economic development model and even diplomatic strategy."

For its part, China has played down the notion of crackdown contagion. Four days after the education regulations were issued, Xinghai Fang, vice chairman of the securities regulator, **>**



China K-12 after-school tuition market growth trajectory, prior to regulatory changes



"Private education has been stigmatized. Criticizing it has become the standard of 'political correctness' in education policy"

– Hua Wu

held a video conference with executives from leading investment banks. He told them that the new rules are aimed at protecting social welfare and the impact should not spill over into other industries.

Moreover, the regulator remains supportive of companies pursuing overseas listings.

This may serve to assuage investors' concerns, but it is unclear why China suddenly went cold on private tuition providers. One theory is that "A Love for Dilemma" is to blame. The TV series is a critical study of off-campus training, highlighting how it contributes to unhealthy competition between students and brings anxieties to family life. It prompted widespread public debate.

A new buzzword – involution – has emerged to describe the dilemma. As off-campus training proliferates, students are pressured into taking more classes to stay ahead of peers ultimately competing for the same university places. This increases the burden – economic and otherwise – of raising a child, resulting in smaller families, a declining population, and a financial timebomb.

Speaking at an education forum in late July, Dongping Yang, a member of the National Education Advisory Committee, identified four major problems with private education: it is too big, too profitable, has yet to deliver the expected diversification and innovation, and is run by entrepreneurs and financial investors rather than by educators.

His views attracted criticism from some

quarters. Hua Wu, a professor at Zhejiang University, claimed that regulators have severely misjudged private education. "They adjusted the policy orientation from encouraging support to restricting suppression," he wrote. "Private education has been stigmatized. Criticizing it has become the standard of 'political correctness' in education policy."

Even though many Chinese parents believe their children are overloaded with after-school tuition, they find it hard to let go. Jianzhang Liang, vice chairman of China Entrepreneur Club and co-founder of online travel portal Ctrip, observes that the recent changes are a blow to supply. Demand is as robust and inelastic as ever, given the status attached to attending top schools and universities.

"Just reducing supply will distort the supplydemand relationship. With organized large classes banned, privately arranged small classes or one-to-one education will become more popular, and the educational burden on many families will become even heavier," Liang wrote in an article.

Korea is routinely cited as an example of misguided regulation. The country banned all off-campus training in 1980, but then gradually backtracked. In 2000, the ban was overturned by the courts as a violation of human rights stipulated by the constitution.

Survival instincts

While hoping for a similar retreat, after-school tuition providers in China are focusing on survival. In 2020, ByteDance-owned Dali Education announced plans to invest RMB10 billion each year for the next five years and followed up with a commitment to recruit 10,000 staff in four months.

Today, the company is refunding users and laying off staff. Gogokid, a one-to-one English language learning app that recruited US residents to help Chinese students practice speaking, has ceased operations. Math tuition app Nipaiyi has also been discontinued, while Guagualong, an English teaching app for youngsters, will lose half it staff at the end of this month.

In fact, Dali was already adjusting its model in June. It decided to curb investment in



live-streamed large-format classes for K-12 students – delivered under the Qingbei brand – in favor of recorded classes that utilize artificial intelligence. One investor observes that recorded lessons might be considered learning products, thereby circumventing the afterschool training supervision.

Gaotu also acted early, axing its program aimed at 3–8-year-olds in May and reportedly imposing a hiring freeze and jettisoning its recruitment team in early July.

Shortly after the new regulations were announced later the same month, CEO Xiangdong Chen announced further cuts: 10 brick-and-mortar education centers would close by August 1, leaving just three in operation; and 10,000 teachers – or one-third of overall staff – would be laid off.

Chen warned in an internal letter that because of policy and market changes, many outstanding technical and management talents would flee the industry and new graduates would be dissuaded from joining. "We must live, Gaotu must live, and if we don't make changes today, we will speed up our extinction," Chen wrote. "We have enough cash on hand to live for 3-5 years. Hopefully, we can make some reforms."

Of the pivots open to industry incumbents, one is to offer the high-quality free online learning services advocated by the regulator to "promote educational equity."

"Why are semiconductors, batteries, and electric vehicles suddenly considered high-tech, and deemed eligible for A-share listings?" – Eddie Tam Of the pivots open to industry incumbents, one is to offer so-called quality services, which focus on the arts, sports, or holistic education, rather than the school curriculum. Yuanfudao duly launched Pumpkin Science, initially an experimental incubation project, as a pillar business. It is intended to nurture children's curiosity about science and offer a hands-on experience of scientific phenomena.

Another option is to pursue the hardware route. Tuition platforms used to offer stationery and other learning tools as incentives to attract students, but Youdao has demonstrated its broader potential. In the first quarter, the company's revenue from educational hardware – essentially a self-developed Dictionary Pen – was RMB202 million, up 280% year-on-year. It accounted for 15% of all revenue.

ByteDance is also pushing into the hardware space, releasing the Dali smart learning light, while simultaneously trying to create a new revenue channel in B2B services. Dali CEO Lin Chen told staff in June that helping schools and teachers deliver high-quality teaching was now an area of focus.

However, there are doubts as to whether this business can become a profit center, as demonstrated by 17 Education & Technology Group, which listed in the US last December. The company introduced its smart in-classroom solution in 2012, comprising a suite of homework checking and academic assessment tools. It is used by more than 70,000 K-12 establishments, but largely for free.

17 Education essentially used the service to build up a user base and then expanded into large-class tuition in 2017. In the first nine months of 2020, that segment accounted for 93% of overall revenue.

Investor takeaways

It is difficult to predict what will happen to afterschool tuition platforms, assuming the regulations are implemented as planned. But the reversal of fortune has generated some takeaways for investors when considering approaches to China across different industries and strategies.

First, it is important to consider business models in a broad policy context, including





the social implications and potential regulatory ramifications. From an environment, social and governance (ESG) perspective, encouraging children to take ever more online courses is problematic.

"The mobile-internet mode, which leverages capital to generate online traffic is in the past. You must invest in something that is beneficial to the whole of society and that is aligned with the government's development agenda. Artificial intelligence and semiconductors – in other words, hardcore technology – are the future," one investor observes.

Nevertheless, Central Asset's Tam sees the renewed focus on hardware, as opposed to a more balanced mindset that takes in different industries, as symptomatic of regulatory haphazardness.

"Why are semiconductors, batteries, and electric vehicles suddenly considered hightech, and deemed eligible for A-share listings? The internet economy has fallen from the clouds to the ground, while logistics – a highlevel mathematical problem involving 'linear programming optimization' – has been relegated to a worthless low-end cabbage delivery business model," he observes.

This view is endorsed by Weiying Zhang, an

economist who believes policy uncertainty is threatening entrepreneurship. "What is legal today is not legal tomorrow, and what can be done today cannot be done tomorrow. Many people lack rational thinking, and when they see a problem in society, they ask the government to intervene without clarifying the real cause," he wrote in a recent article.

"In fact, in many cases, the more government intervention, the bigger the problem; the bigger the problem, the more demand for the government, and the result will be a vicious circle."

On a more positive note, uncertainty is hardly a new feature of China, so in that sense, little has changed. Ray Dalio, co-CIO and chairman of Bridgewater Associates, argues that Beijing has been consistent in the broad direction of its actions, so investors should not use a shock in one area as a pretext for rethinking their approach to the country.

"I encourage you to look at the trends and not misunderstand and over-focus on the wiggles," Dalio said in a LinkedIn post. "Having said that, I do think that it is unfortunate that Chinese policymakers don't publicly communicate the reasoning behind their moves more clearly."



Beauty: Traffic jam

The impact of China's internet-oriented emerging consumer brands is arguably more pronounced in beauty than anywhere else. Gaining a foothold is one challenge, keeping it is another

S ixty minutes into pre-sales for China's June 18 shopping festival, seven of the top 10 sellers on Alibaba Group's Tmall platform were beauty brands. It underlines the significance of an industry that has grown by two-thirds in five years and is expected to do much the same over the next five. This new spending will be driven by a younger, internet-oriented demographic whose consumption preferences are shaping how products are designed and distributed.

A greater shift towards online sales is a given. It remains to be seen which brands dominate the selling. The top sellers on Tmall last month were all international names, but they will be challenged by online marketplaces and social influencers who leverage their traffic to launch white-label brands.

Ravi Thakran, previously of L Catterton and LVMH and now founder of Aspirational Capital, puts beauty at the heart of the Chinese middleclass consumer story, noting that LVMH made its breakthrough in the country with Dior, not Louis Vuitton. "The bulk of the industry is in the midprice segment. You can buy a nice fragrance, for \$80-100, whereas a nice bag costs \$2,000," he says. "Anything that focuses on the middle class in China will grow 8-10x in the next 10 years."

Thakran is adamant that a Chinese equivalent to L'Oreal will emerge, but he is wary of predicting where it might come from. Local direct-to-consumer brands will shake up the established order, which means incumbents must adapt or risk losing market share. "If they don't gear up and bring influencers into their world, they will face a major threat," he adds.

Beauty is very much the low-hanging fruit when it comes to online conversion. Skincare and



"If they don't gear up and bring influencers into their world, they will face a major threat"

– Ravi Thakran



makeup products are among the categories with the highest online penetration rates, according to Bain & Company's China shopper report. Meanwhile, those capable of launching a directto-consumer brand can tap into an efficient supply chain. It is far easier and faster to outsource manufacturing to a professional foundry and deliver products to customers in China than in most other markets.

"In the past, the standard practice when creating new brands was to refine products in the first year, and do marketing and channel deployment in the second year. It then took 8-10 years to achieve RMB2 billion (\$309 million) in annual sales. But the mobile internet era has accelerated this process. A start-up can reach RMB1-2 billion in sales in the third year," Eagle Zhang, a partner at Sinovation Ventures, noted in an article published on the firm's WeChat account in April.

This is perhaps best exemplified by the rise of Yatsen Holding, parent of beauty brand Perfect Diary. Launched in 2017, its revenue increased from RMB635.3 million in 2018 to RMB3 billion in 2019 and to RMB5.2 billion in 2020. Yatsen – which received PE funding prior to a US IPO last year – now has a market capitalization of \$6 billion and a string of its own brands.

The company has already changed the local-foreign competitive dynamic. It entered China's color cosmetics top 10 in 2017 with a 0.3% market share, according to Euromonitor International. By 2020, it was second with 6.7%, behind L'Oréal's Maybelline New York. Prior to Perfect Diary's emergence, Maybelline was the clear market leader with a 15.7% share. This became 6.8% in 2020.

There are other fast risers in the local ranks. Florasis, which appeals to domestic consumers by emphasizing oriental aesthetics, achieved a 5.1% market share in 2020. It has yet to receive any VC or PE funding. These start-ups share another key characteristic in addition to developing products that resonate with target customers and using online channels – talent.

"Proctor & Gamble (P&G), L'Oréal and Unilever all entered China more than 20 years ago and they have trained up a lot of talent. Most start-up teams come from those large multinational companies. The talent pool in the beauty industry is the most complete, and the emerge of this talent is the primary reason why China's beauty industry has developed so fast," says Wei Sun, a partner at Meridian Capital.

P&G alone can claim to have nurtured Perfect Diary founder Jinfeng Huang as well as HomeFacialPro's (HFP) Bojun Lü, Simpcare's Jeffrey Liu, and PMPM's Shuo Shan. All three start-ups have received VC funding.

Makeup vs skincare

Beauty splits into two broad categories: color cosmetics, where China sales have risen from \$4.1 billion in 2016 to \$8.6 billion last year; and skincare, which has grown from \$24.6 billion to \$39.1 billion over the same period. The likes of Perfect Diary and Florasis have found success in cosmetics, while established brands continue to dominate skincare, buoyed by stronger customer loyalty.

"In makeup, it is easy to attack and difficult to defend. New brands will have opportunities because customers are always ready to switch from big-name brands to try new things. Interesting designs, as well as different colors and smells, can be used to draw customers away from the big brands, but at the same time, it is difficult to retain those customers. Long-term stickiness and brand loyalty are weaker than in skincare," says James Wang, a partner at Vision Plus Capital.

HFP, which was founded in 2014 and is backed by Qingsong Fund and 5Y Capital, was the only local brand to break into Tmall's June 18 shopping festival top 10. It pursues product differentiation by emphasizing ingredient quality, an approach also adopted by Simpcare and PMPM, which are five years younger.

HFP's tendency to name products after molecules draws comparisons with Canada's Ordinary, a brand under DeCiem that lists all its ingredients and the concentration levels. Both companies distribute products in transparent containers with a minimalist design aesthetic.

Simpcare – which has completed six rounds of funding in the past 18 months from the likes of ZhenFund, Hony Capital, and Coatue Management – uses cannabidiol (CBD) as its selling point. However, the company eschewed **>**



ingredient development processes favored by global brands like Origins and Kiehl's. Simpcare claims its proprietary extraction method is more cost-effective and results in products that are better suited to Asian skin types.

PMPM is arguably less original, given its strategy of seeking out the best ingredients from around the world is well-established in the global beauty industry. Its differentiator is the experiential element, bringing customers closer to these far-flung locations – and building an emotional link with the brand – by, for example, live-streaming the French coastal scenery in marketing campaigns. PMPM's investors include Source Code Capital and BA Capital.

While these brands have quickly gained traction, Bruno Lannes, a partner in Bain & Company's Shanghai office and previously head of the firm's China consumer products and retail practice, preaches caution. "China is a land of entrepreneurs and lots of businesses are being created. But at the same time, the mortality rate is high," he says. "Many of those start-ups don't make it through the second year or third year."

These sentiments are echoed by one investor who tells AVCJ that Chinese start-ups are good at conceptual innovation, but often lacking in scientific innovation. Concepts are easy to copy. Early movers create barriers to entry through the speed and scale of implementation.

A common tactic is to create a new subcategory and trumpet record monthly sales figures to attract investors. The initial impact might be short-lived, but the primary objective is to accumulate capital that can be used to buy traffic and market share. It is straight out of the consumer internet playbook, whereby investors prioritize scale over long-term profitability.

Makeup brand Into You is said to have taken this approach, rising to prominence by creating a category called "lip mud," which is much like lip glaze but has a mud texture. The company recently received angel funding from GSR Ventures and Fosun RZ Capital.

Buying market share

The significance of traffic cannot be overestimated. Perfect Diary's success is inextricably linked to the convergence of social media and e-commerce and the growth of platforms like Little Red Book, ByteDance's Douyin, and Alibaba's Taobao Live.

"Perfect Diary is extremely sensitive to the migration of internet traffic and its operation is extremely meticulous. In this model, the brand must quickly maximize its scale. Whoever can establish this barrier to entry and squeeze out other players within a limited window of opportunity will continue to raise capital," explains Meridian's Sun.

Florasis, meanwhile, went into business with Jiaqi Li, a livestream broadcaster known as Lipstick Brother, who sells more lipstick online than anyone else. Li and Ya Wei – China's top two livestream broadcasters – generated combined sales of RMB53 billion in 2020, according to iiMedia Research, a local research provider. However, exposure to Li comes at a price. Online influencers may bring traffic to a brand, but they are said to take most of the profit on products sold through their channels.

Few know the power of Li better than Qianfei Liu, founder of Zhuben, currently the top-selling makeup removal oil on Tmall. She is generally recognized as a founder who prioritizes product quality, with Vision Plus' Wang describing her as a rarity in the consumer goods space.

"Most CEOs say, 'I realized there was an opportunity, so I decided to get in,' but Qianfei Liu's initial motivation was based on passion. She prepared for a long time before starting the business, whereas most CEOs get in quickly, develop a product quickly, and sell quickly. I prefer founders who are patient and spend time on the product," Wang explains.

However, slow sales left Zhuben on the verge of bankruptcy until Li's team showcased the product in early 2019. Within minutes, sales had reached the thousands, the beginning of a sharp growth trajectory. Zhuben has featured in 34 of Li's shows and recorded sales of RMB200 million in 2020, up 450% year-on-year. Vision Plus, 5Y, and Genesis Capital recently backed a \$50 million funding round for the company.

A natural consequence of the emergence of more internet-oriented brands, and the shift in marketing to online channels, is increased traffic costs. Again, Perfect Diary makes for





an instructive example. Despite its rocketing revenue, the company swung from a net profit of RMB75.4 million to a net loss of RMB2.7 billion. Sales and marketing expenses amounted to RMB3.4 billion, or approximately two-thirds of revenue. In 2019, it was 41%.

The trend became increasingly exacerbated as the year wore on. In the fourth quarter alone, sales and marketing spend reached RMB1.38 billion, or 70.3% of revenue. The company posted a net loss for the period of RMB1.53 billion, more than the previous three quarters combined. Cost items include payments made to 15,000 online influencers, as well as to the likes of Weibo, Little Red Book, Douyin, Bilibili, and various e-commerce platforms.

Although the beauty industry is no stranger to high marketing costs, L'Oréal's allocation to this area has not exceeded 30% of revenue in recent years.

"Emerging brands are spending so much money to buy traffic and traffic costs are only getting more expensive. In the end, it may seem that these brands are just making money for Alibaba or ByteDance, rather than for themselves," says Meridian's Sun.

Others are wary of start-ups that rely heavily on online influencers to drive growth. Allen Zhu, founding partner of GSR Ventures, said in a recent speech that the value of a brand is limited if sales mostly come through live broadcasts. "It is the influence of the broadcaster, not the name of the brand," he said.

Global paradigm

International brands are now contesting this battle for online traffic, and they come equipped with some innate advantages. Strong brands mean purchase conversion ratios are higher than for local brands, while higher unit prices deliver higher transaction fees to platforms. Partnerships with these major players is logical for local platforms that want to maximize gross merchandise value (GMV) even as traffic growth slows.

A spokesperson for German personal care products giant Beiersdorf tells AVCJ that brands in its skincare portfolio such as Nivea, Eucerin, La Prairie, and Hansaplast are well-represented on Tmall.

CITIC Capital acquired Hangzhou UCO Cosmetics, an e-commerce services provider specializing in beauty and personal care, in part to leverage this trend. The company helps brands build and manage online stores across platforms like Tmall and JD.com. Hanxi Zhao, a senior managing director at CITIC, previously noted that a dozen Estée Lauder executives stayed up until midnight in UCO's office on



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the eve of the Single's Day shopping festival, monitoring the latest data.

"International big brands have learned how to become more and more Chinese. That's why they are competing quite successfully with the local brands. The keywords of their 4D model are 'designed' for Chinese, 'decided' in China, 'delivered' at China speed, and finally in a 'digital' way," says Bain's Lannes.

The combination of newfound online capabilities and mature offline distribution channels have helped global brands defend and grow market share in skincare. L'Oréal Paris controlled 5.1% of the market last year, up from 4.6% in 2016, while its sub-brand Lancôme has gone from 2.1% to 4.7%. Estee Lauder and sub-brand La Mer were on 4.4% and 1.7%, respectively, up from 2% and 0.5% four years earlier.

Much as established players must adapt to an online world, emerging brands launched by internet platforms or online influencers lack historical product knowledge and supporting infrastructure.

"It's not easy because you need to learn what the mainstream companies already know. There are 600-800 fragrances launched every year and only 6-8 make it, a 1% success rate globally. In skincare and make-up, it's the same. These new players must learn about branding, packaging, presentation, all that. Storytelling can get you so far, but if your product quality and packaging don't deliver value, it is difficult to sustain," says Aspirational's Thakran.

He believes these capability deficits in terms of product on one side and marketing on the other will lead to marriages, partnerships, and collaborations between global brands and local platforms and influencers.

Beiersdorf has signed an agreement with Tmall to co-incubate Chinese start-ups and the company plans to bring its global beauty accelerator, NX Nivea, to China this year. In addition, Beiersdorf has opened an innovation center in Shanghai – its second-largest such facility globally – and wants to use this resource to support start-ups in areas like R&D and business development.

"In recent years, we have witnessed

unprecedented growth and outbreak in China's local beauty industry, so we hope to find like-minded start-ups and local indie skincare brands, and to provide comprehensive support and win-win opportunities," the spokesperson says in a written response. "By collaborating with Chinese beauty brands, Beiersdorf expects to gain insights of how to interact with the younger Chinese consumers."

Omnichannel awareness

Ultimately, any contender to become China's version of L'Oréal must master omnichannel retail. This is why the likes of Shanghai Jahwa and Marubi, the country's largest traditional beauty players, are said to be exploring opportunities with online influencers and direct-to-consumer businesses are expanding offline. An added incentive for the latter is that offline diversification is the only way to cut online traffic expenditure.

Perfect Diary had established 241 experience stores across 110 cities as of the end of 2020 and received 24 million visitors over the course of the year. Harmay, which started out as a Taobao store and moved offline in 2017, now has five large-format, high-concept outlets offering a combination of global and local cosmetics brands. Each one is reportedly valued at RMB1 billion. Hillhouse Capital, Eastern Bell Capital, and BA Capital are among Harmay's backers.

A second investor observes that the valuation placed on a business like this depends on how much commercial significance is attached to the stores. If classified primarily as an offline retailer, Harmay would not command a premium. If the offline presence serves as a honeypot for females with high spending power, and foot traffic can be turned into offline traffic, that's a different matter.

That might be what Harmay is thinking, as evidenced by how it offers sample products at low cost to walk-in customers and encourages people to take photos in its stores. It is unclear whether this can become a second growth curve for emerging domestic brands, but Thakran claims that Harmay is the company Sephora – which launched a successful offline expansion in China – most fears. "The quality of their offline play is off the charts," he says.



Biotech: Going global

A gradual shift in focus from sourcing assets from overseas for application in China to bringing China-made treatments to the world is challenging the notion of what constitutes a local biotech start-up

WVi Biologics, China's leading provider of outsourced drug development services, doesn't want to be constrained by borders. The company has seen a gradual international-to-domestic shift in its customer base as local development activity has picked up, notably in biotech.

At the same time, WuXi is pushing a "global dual sourcing" agenda, aimed at meeting the needs of customers across China, the US, and the EU, so that risks associated with cross-company and cross-border technology transfer are minimized. It currently has more than 300,000 liters in annual manufacturing capacity, of which nearly one-third is located outside of China.

There is a strategic objective to occupy more of the industry value chain, but WuXi's approach is also representative of China's increasingly significant role in the global drug development ecosystem. Once wholly or primarily focused on in-licensing intellectual property (IP) for application in China, local biotech players want to create their own treatments for patients worldwide.

"Historically, CROs [contract research organizations] and CDMOs [contract development and manufacturing organizations] were the powerhouses for doing clinical trials in China, for local or global sponsors," observes Vikram Kapur, head Asia Pacific healthcare at Bain & Company.

"Now they are saying, 'I have Chinese biotech companies that want to conduct trials in Australia or North America. How do I provide services to them, so they don't end up with a global CRO?"

Beyond borders

Just as CROs follow clinical trial locations, investors follow talent. There are various reasons



"I source deals globally. I don't care where a start-up is based"

- James Huang



why a biotech start-up might be relevant to China: a treatment that addresses an unmet local need; relationships that offer market access; or even a China-born, overseas-educated founder. An incountry development team – when the drug is for a global market – isn't necessarily one of them.

"China has a lot of advantages. You can't stop people gravitating here because there is so much talent and infrastructure, and costs are lower than in the US," says James Huang, founder partner of Panacea Venture. "But I source deals globally; I don't care where a start-up is based. If they have great IP and I believe they can build infrastructure in the US and China, I will invest in them."

Numerous data points track China's drug development boom. PE and VC investment in healthcare reached a record \$20.2 billion in 2020, more than the previous two years combined. Commitments to biotech rose 3.5-fold to \$5 billion, while pharmaceuticals more than doubled to \$8.5 billion. In 2021 to date, these segments have received \$5.1 and \$6 billion, respectively.

However, the notion of a global, almost stateless biotech business implies that more deals will fall in between the geographic silos – even though ultimately start-ups may end up with a foothold in China and the US or Europe. This phenomenon is arguably most visible in incubation strategies, where investors assemble companies using pieces, or talented scientists, wherever they find them.

Huang points to Triarm Therapeutics, a specialist in CAR T-cell therapies that emerged from a research institute in Germany, but now has most of its research headcount in Shanghai and is expanding into the US. The same applies to Nikang Therapeutics. Incubated by CBC Group, it is based in Delaware, has research staff in California and Texas, and is considering an R&D center in China.

"Healthcare is a global business – that's why we have we have the largest global footprint of any PE healthcare firm in Asia. One third of our people are outside of China. Being in the US, Japan, and Europe is a huge advantage," says Wei Fu, CEO of CBC. "We are getting talent globally to make drugs; we are sourcing innovations globally; and we are commercializing those innovations globally."

In and out

While incubation is a core part of CBC's business, out-licensing isn't necessarily an immediate goal.

I-Mab Biopharma and Everest Medicines were established by the private equity firm to pursue in-licensing strategies, targeting overseas IP where there was a clear line of sight to monetization in the China market. Both listed last year; I-Mab on NASDAQ and Everest in Hong Kong.

Eight months after going public, I-Mab struck its first out-licensing deal with US-based AbbVie. It involves an anti-CD47 monoclonal antibody, which inhibits "don't eat me" signals sent by cancer cells to immune system cells that destroy bacteria and other harmful organisms.

CD47 serves a similar function to PD-1, another checkpoint inhibitor-based cancer treatment that has become popular in China. PD-1 prevents cancer cells from binding with a specific protein that renders immune cells unable to detect them. BeiGene, which was previously backed by private equity, announced a PD-1 out-licensing deal with Novartis in January.

Its said that the turning point for China outlicensing came in 2017, when the country was accepted into the ICH, a global pharmaceutical industry body that creates unified technical standards for drug developers. This accelerated the entry of international treatments into the China market, and vice versa, through mechanisms such as mutual recognition of clinical trials data.

The tipping point may have come in 2020. "It was a breakout year, with more nascent innovation and more global partnerships involving best-inclass products," says Marietta Wu, a managing director at Quan Capital, citing I-Mab, BeiGene, and Junshi Biosciences partnering with Eli Lilly on a COVID-19 antibody treatment. "There was a collection of high-quality deals, and it has continued in 2021."

Like Panacea and CBC, Quan Capital invests globally, conducting top-down research into areas of interest and helping to create companies if no existing operator fulfills the criteria. A lot of deals come out of the US and China, given its strong presence in both markets. "Local is an important consideration, but perhaps less important," Wu adds. "Science has no borders."

Discarding geographic silos has implications for operational input as well as deal-sourcing strategy. Investors targeting post-incubation start-ups must consider what they can offer in addition to capital, with recruitment, technical input, and 🔀 AVCJ

"Asset-light and virtual models are not so common in China because there isn't a wellestablished industry focused on specialty drugs" – Marietta Wu

commercialization among the key issues. This would include deciding when to out-license and who to consider as partners.

Quan Capital was established by Samantha Du, a one-time healthcare investor at Sequoia Capital who founded Chinese drug developer Zai Lab in 2013. The original thesis was in-licensing, but the company struck its first global co-development deal in 2017 and most projects since then have followed the same format.

Du is not the only investor-turned-entrepreneur in the space. Jonathan Wang co-founded OrbiMed Asia in 2007 and left two years ago as Inmagene Biopharmaceuticals gained traction. The company started in China but has formed an R&D group out of San Diego. It is working on about 20 drug candidates, some in-licensed and others codeveloped with global pharma players.

Panacea's Huang draws comparisons between Wang and Michael Yu, founder of Innovent Biologics, which has in-licensed and commercialized drugs in China and has started out-licensing as well, with offices in Europe and the US. Both individuals are comfortable operating across global markets.

"Michael has the skill set of a Chinese scientist who has worked as an executive for a US biotech company," Huang observes. "These cross-border businesses are being built and run by returnees. They have been in the industry for a long time in the US and Europe, and they returned to China to build their own companies. Now they are building infrastructure outside of China."

The presence of heavily credentialed founders

and experienced teams is often a differentiating factor when developing drugs from scratch. Even as more Chinese biotech players outline grand ambitions, there are still significant gaps between China and its global peers in certain areas.

Nikang is working on small-molecule oncology treatments and has already out-licensed one drug candidate and begun phase-one clinical trials. This progress underpinned a recent \$200 million Series C round. Industry participants claim that China is generally up to five years behind the developed markets on small-molecule drugs.

In CAR-T cell therapy – which involves extracting immune cells from a patient, modifying them, and then returning them to the host to attack tumors – China is making rapid progress, partly because of regulatory support. But CAR-T is often categorized as a medical technology, not a drug. Yifei Wang, a managing director at GL Capital Group, notes that original, high-quality drug discovery is still rare.

"There are two kinds of out-licensing in China. First, the fast-follower model, which you find in areas like PD-1, where the speed of clinical trials has been fast in China and there are good use cases globally," Wang explains. "Second, there is best-in-class out-licensing. For example, the CAR T-cell candidate Cilta-cel that Legend Biotech out-licensed to Janssen Pharmaceutical was among the first developed in its category and the clinical data was very solid."

Being different

To the extent specialized needs are emerging within China's biotech community, emerging CROs and CDMOs looking to challenge local and global incumbents might be encouraged. Most of the VC funding in this space over the past 12 months has gone to companies looking to differentiate their offering in terms of geography or clinical specialty.

Bain's Kapur highlights the success of TPG Capital-owned Novotech in targeting the China-Australia corridor, which has become popular for clinical trials. "China originated trials happening abroad are growing at a very healthy clip," he says. "A lot of that is because there is a recognition that there is innovation coming out of this market that can be commercialized in other markets."

f and Thousand Oaks Biopharmaceuticals



both earmarked some of their recent funding for US expansion, while dMed Global raised capital to fund a merger with US-based Clinipace. On the specialty side, Quan Capital joined a \$96 million Series A in March for Innoforce Pharmaceuticals, which is working with Thermo Fisher to introduce cell and gene therapy manufacturing capabilities.

"A lot of companies have been established in different areas – focusing on small molecules or big molecules – and some are going overseas," says Colin Yu, head of China life sciences at KPMG. "One reason is a policy environment that encourages innovation. Another is that asset-light is the future trend. With external market pressures like price cuts, big pharma companies want to focus on the most profitable parts of the value chain and outsource the rest."

KPMG identified the latter trend two years ago in a report that mapped out how the pharmaceutical industry might evolve through 2030. It identified three business archetypes: the active portfolio company that constantly reappraises its product mix; the virtual chain orchestrator that focus on solutions rather than owning assets; and the niche specialist that focuses on a single treatment area.

Big pharma companies are increasingly focused on the front end or the back end: seeking differentiation through first-class research or strong go-to-market, and then outsourcing the manufacturing. The future appears to be assetlight, which could create opportunities for startups that absorb this capacity. China, however, isn't quite there yet.

"Asset-light and virtual models are common in the West, but not so much in China because there isn't a well-established industry focused on specialty drugs," says Quan Capital's Wu.

"That's changing rapidly, but for now, local biotech leaders have a window of opportunity to grow fast, and not just from an R&D perspective, but covering the whole value chain from discovery to commercialization with every functional area."

The first wave of Chinese biotech start-ups that listed in Hong Kong two years ago, their flagship treatments ready for national rollout, were aggressively hiring sales and marketing staff. As of year-end 2020, Innovent had 1,300 people in commercialization out of a total headcount of 3,200. It has five products approved for marketing in China.

Structural flaw?

The lingering question is whether it pays to be big. Motivations to expand into out-licensing and create drugs for global markets focus on value creation – but there is a China twist. Companies are not so much being pulled overseas by the promise of substantial paydays as being pushed there by eroded economics in their home market.

"Once a drug is commercialized in China, there can still be challenges in terms of market access. First, you need to get your drug listed in public hospitals and that process is not smooth. Then there is inclusion on the drug reimbursement list, which often results in significant price cuts," says KPMG's Yu.

Industry participants point to PD-1 as a classic case of what happens when mandated price cuts – the cost of qualification for reimbursement under government-backed insurance plans – collide with commercial price competition. PD-1 won approval in China in 2018, four years after the US, and the likes of Junshi and Innovent leapt on the opportunity. Ultimately, so did everyone else.

Innovent is the first and only company to have a PD-1 inhibitor included in the reimbursement list. This broadened the potential customer base, but regulators insisted on a more than 60% price cut. Meanwhile, new entrants flooded the market, putting downward pressure on prices for drugs outside the reimbursement system.

Last year, Innovent made its international breakthrough with an agreement to out-license the PD-1 product to Eli Lilly. BeiGene followed suit with Novartis. But GL Capital's Wang believes the local industry dynamics that prompted Innovent and BeiGene to look overseas are strangling the potential of other companies to come up with similarly significant discoveries.

"A key negative factor in the long-term development of innovative drugs in China is pricing under the national drug reimbursement program," Wang says. "As an example, PD-1 is 20 times more expensive in the US than in China. This makes it very difficult to support a biotech company at a valuation above \$1 billion if the lead asset is only developed for the local market."





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