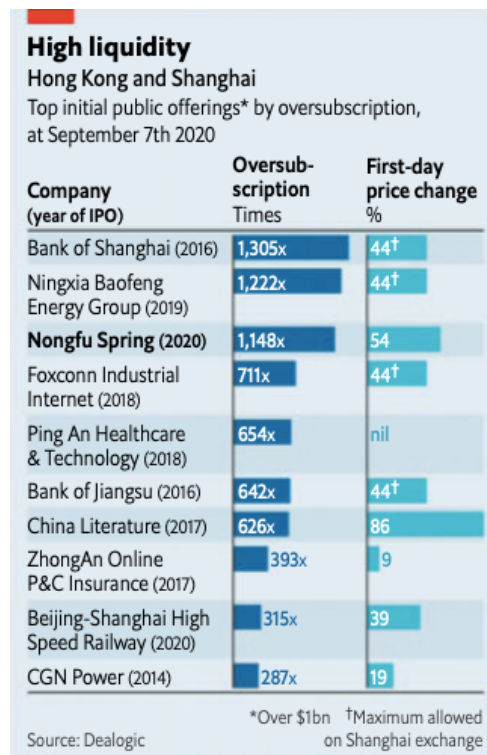


Beverages

H₂O,000,000,000

Nongfu Spring is a hit with tipplers and investors alike

“We are not manufacturers of water. We are porters of nature.” So goes a famous quip by Zhong Shanshan, the 66-year-old founder and boss of Nongfu Spring, China’s most popular brand of bottled water. On September 8th the Hangzhou-based bottler listed on Hong Kong’s bourse to spectacular fanfare. Demand for shares from retail investors outstripped supply by 1,148 times (see chart). The share price shot up by 60% over the first three days of trading. Its market capitalisation reached \$53bn. Mr Zhong, who still owns 84% of Nongfu Spring, is now China’s third-richest person, narrowly trailing two tech moguls: Jack Ma of Alibaba and (unrelated) Pony Ma of Tencent.



Rising disposable incomes and public anxiety about the safety of tap water, which is unfit to drink in most of China, have fuelled demand among Chinese for the bottled variety. Consumption per person of bottled water rose from 41 litres in 2014 to 59 litres in 2019, according to data from Mintel, a market-research firm. Americans, by comparison, guzzled an average of 141 litres last year. That suggests Chinese bottlers still have plenty of room for growth, not least because tap water in America is (typically) potable.

Nongfu Spring is the runaway industry leader. It accounted for 29% of the volume sold in China in 2019. Foreign brands such as FIJI Water, Evian (owned by Danone) and Aquafina (part of PepsiCo) are easily spotted in many Chinese supermarkets. But none has a market share greater than 6.5%, reckons Mintel.

One reason for Nongfu's success is its effort to cater to all market segments. Stingy folk can buy a mass-market 380ml-plastic bottle for as little as 1.5 yuan (\$0.22). The well-heeled may opt for the glass-bottled version, which comes with "award-winning" designs and retails for 30-45 yuan. In between you can get a lithium-rich liquid which is claimed to benefit the nervous system. Total revenues across Nongfu's waters increased by 42% between 2017 and 2019, to 14.3bn yuan. Gross margins held steady at an impressive 60%.

Nongfu sceptics point out that the bottled-water industry, in China and elsewhere, has few technical barriers to entry. The main raw material is polyethylene terephthalate (PET), a plastic that is cheap and easy to process. No special knowledge is required. Evergrande, a Chinese property developer, boasts its own line of bottled water called Evergrande Spring. The water itself tends to be an afterthought.

Not in Nongfu's case. As its aggressive marketers never tire of stressing, it possesses water-extraction permits for ten of China's most famous unspoilt bodies of water—from Thousand Island Lake in the eastern province of Zhejiang to Mount Tianshan in the remote western region of Xinjiang. The permits, granted by local governments for up to 30 years, are a moat against competitors. Loris Li, an independent analyst of China's beverage industry, observes that "the quality of the original water source" can be a strong point of brand differentiation.

Nongfu Spring has another edge: it is seen as close to Chinese officialdom. At high-level political summits, rows of Nongfu bottles arranged on tables are a common sight. As sources of advantage go, it doesn't get better than this in China.

Power in the 21st century

Efforts to rein in climate change will up-end the geopolitics of energy

Oil fuelled the 20th century—its cars, its wars, its economy and its geopolitics. Now the world is in the midst of an energy shock that is speeding up the shift to a new order. As covid-19 struck the global economy earlier this year, demand for oil dropped by more than a fifth and prices collapsed. Since then there has been a jittery recovery, but a return to the old world is unlikely. Fossil-fuel producers are being forced to confront their vulnerabilities. ExxonMobil has been ejected from the Dow Jones Industrial Average, having been a member since 1928. Petrostates such as Saudi Arabia need an oil price of \$70-80 a barrel to balance their budgets. Today it is scraping along at just \$40.

There have been oil slumps before, but this one is different. As the public, governments and investors wake up to climate change, the clean-energy industry is gaining momentum. Capital markets have shifted: clean-power stocks are up by 45% this year. With interest rates near zero, politicians are backing green infrastructure plans. America's Democratic presidential contender, Joe Biden, wants to spend \$2trn decarbonising America's economy. The European Union has earmarked 30% of its \$880bn covid-19 recovery plan for climate measures, and its president, Ursula von der Leyen, used her state-of-the-union address this week to confirm that she wants the EU to cut greenhouse-gas emissions by 55% over 1990 levels in the next decade.

The 21st-century energy system promises to be better than the oil age—better for human health, more politically stable and less economically volatile. The shift involves big risks. If disorderly, it could add to political and economic instability in petrostates and concentrate control of the green-supply chain in China. Even more dangerous, it could happen too slowly.

Today fossil fuels are the ultimate source of 85% of energy. But this system is dirty. Energy accounts for two thirds of greenhouse-gas emissions; the pollution from burning fossil fuels kills over 4m people a year, mostly in the emerging world's mega-cities. Oil has also created political instability. For decades petrostates such as Venezuela and Saudi Arabia, with little incentive to develop their economies, have been mired in the politics of handouts and cronyism. In an effort to ensure secure supplies, the world's big powers have vied to influence these states, not least in the Middle East, where America has roughly 60,000 troops. Fossil fuels cause economic volatility, too. Oil markets are buffeted by an erratic cartel. Concentration of the world's oil reserves makes supply vulnerable to geopolitical shocks. Little wonder that the price has swung by over 30% in a sixth-month period 62 times since 1970.

A picture of the new energy system is emerging. With bold action, renewable electricity such as solar and wind power could rise from 5% of supply today to 25% in 2035, and nearly 50% by 2050. Oil and coal use will drop, although cleaner natural gas will remain central. This architecture will ultimately bring huge benefits. Most important, decarbonising energy will avoid the chaos of unchecked climate change, including devastating droughts, famine, floods and mass dislocation. Once mature, it should be more politically stable, too, because supply will be diversified, geographically and technologically. Petrostates will have to attempt to reform themselves and, as their governments start to depend on taxing their own citizens, some will become more representative. Consuming countries, which once sought energy security by meddling in the politics of the oil producers, will instead look to sensible regulation of their own power industry. The 21st-century system should also be less economically volatile. Electricity prices will be determined not by a few big actors but by competition and gradual efficiency gains.

Yet even as a better energy system emerges, the threat of a poorly managed transition looms. Two risks stand out. China could temporarily gain clout over the global power system because of its dominance in making key components and developing new technologies. Today Chinese firms produce 72% of the world's solar modules, 69% of its lithium-ion batteries and 45% of its wind turbines. They also control much of the refining of minerals critical to clean energy, such as cobalt and lithium. Instead of a petrostate, the People's Republic may become an "electrostate". In the past six months it has announced investments in electric-car infrastructure and transmission, tested a nuclear plant in Pakistan and considered stockpiling cobalt.

China's leverage depends on how fast other economies move. Europe is home to giant developers of wind and solar farms—Orsted, Enel and Iberdrola are building such projects around the world. European firms are leading the race to cut their own emissions, too. America's trajectory has been affected by the rise of shale oil and gas, which has made it the world's largest oil producer, and by Republican resistance to decarbonisation measures.

If America were to act on climate change—with, say, a carbon tax and new infrastructure—its capital markets, national energy laboratories and universities would make it a formidable green power.

The other big risk is the transition of petrostates, which account for 8% of world gdp and nearly 900m citizens. As oil demand dwindles, they will face a vicious fight for market share which will be won by the countries with the cheapest and cleanest crude. Even as they grapple with the growing urgency of economic and political reform, the public resources to pay for it may dwindle. This year Saudi Arabia's government revenue fell by 49% in the second quarter. A perilous few

decades lie ahead.

Faced with these dangers, the temptation will be to ease the adjustment, by taking the transition more slowly. However, that would bring about a different, even more destabilising set of climate-related consequences. Instead, as our special report in this issue explains, the investments being contemplated fall drastically short of what is needed to keep temperatures within 2°C of pre-industrial levels, let alone the 1.5°C required to limit the environmental, economic and political turmoil of climate change. For example, annual investment in wind and solar capacity needs to be about \$750bn, triple recent levels. And if the shift towards fossil-fuel-free renewable energy accelerates, as it must, it will cause even more geopolitical turbulence. The move to a new energy order is vital, but it will be messy.

Failing the poor

The pandemic has reversed years of progress in reducing extreme poverty. Once again, politicians bear much blame

This coronavirus affects everyone, but not equally. The young often shrug off the virus; the old often die of it. The rich shrug off the economic shock; the poor cannot. Because of covid-19, the number of extremely poor people (ie, those making less than \$1.90 a day) will rise by 70m-100m this year, the World Bank predicts. Using a broader measure, including those who lack basic shelter or clean water and children who go hungry, the ranks of the poor will swell by 240m-490m this year, says the UN. That could reverse almost a decade of progress. If a vaccine is found, economies will no doubt bounce back. But widespread vaccination will take years and the very poor cannot wait that long. By then, malnutrition will have stunted a tragic number of children's bodies and minds.

Governments in rich countries have spent over 10% of GDP to ease the economic pain. Others cannot be so ambitious. Emerging economies have spent just 3%, and the poorest nations less than 1%. Safety-nets in low-income countries are cobweb-thin. Governments there have handed out only \$4 extra per person on social programmes—in total, not per day.

Donors should help. Rich countries are on course to cut direct aid by a third compared with last year. The IMF and World Bank have raised lending, but only 31% more of the bank's money has reached poor countries, says the Centre for Global Development, a think-tank, about half the increase in the global financial crisis, a much smaller shock.

Governments in poor countries, meanwhile, need to spend their money wisely. Too many offer pork for chums and crumbs for the poor. Since the crisis began, Mexico has provided no new programmes for the hard-up but has given Pemex, the state oil giant, tax breaks worth \$2.7bn, or \$21 per Mexican. India has poured \$7bn down coal mines. South Africa is expected soon to confirm another wasteful effort to keep its money-losing airline aloft. Even when money is earmarked for good ends, it is too often wasted or stolen. South African investigators are probing possible fraud in 658 contracts worth \$300m for covid-fighting kit. Nigeria's health ministry bought some masks for \$53 each. In a leaked recording, a voice allegedly belonging to a Ugandan official guffaws as she and her colleagues appear to plot to pocket money meant for alleviating suffering in the pandemic.

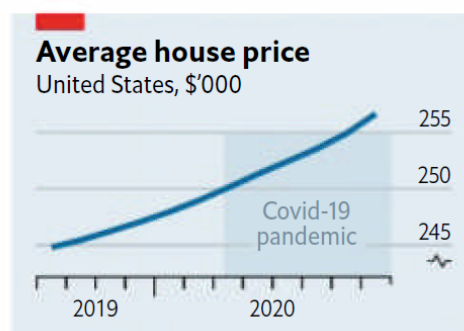
The best way to help the poor is to give them money directly. The simplicity of this policy makes it less vulnerable to corruption. With a little extra cash in their pockets, recipients can feed their children and send them back to school. They can avoid a fire-sale of assets, such as a motorbike-taxi or a cow, that will help them make a living in the future. One country that has done well getting cash into poor pockets is Brazil, despite President Jair Bolsonaro's habit of downplaying the effects of covid-19. Various measures of poverty there have actually fallen, largely because the government has sent \$110 per month for three months to the impecunious, helping 66m people. A priority for governments should be basic health care, which the pandemic has disrupted so badly that vaccination rates for children have been set back about 20 years.

The crisis requires politicians to make hard choices quickly. Mistakes are inevitable, given how much remains unknown about the disease. But some are inexcusable. India's sudden lockdown threw millions of migrant workers out of their urban jobs and lodgings, forcing them to head back to their villages on foot or crowded trains, spreading the virus far and wide. South Africa barred people from leaving home at night but then evicted tens of thousands of squatters from shacks on public land, with no place to go. Politicians governing remotely from their comfortable home offices should think harder about how their decisions might affect those whom covid-19 is plunging back into dire poverty. It is shameful when their responses to the pandemic add to the suffering of the least fortunate.

The house party returns

Booming residential-property prices spell trouble for the social contract after the pandemic

Stockmarkets have not had a good September, but their strength for the year as a whole remains a source of wonderment. Less noticed has been the equally remarkable buoyancy of another asset class: housing. Many rich countries are seeing house prices surge even as their rate of infections is rising for a second time. In the second quarter, although economies were under lockdown, house prices rose in eight out of ten high- and middle-income countries. According to unofficial series—which are timelier though less accurate than government data—America's house prices are up 5% on a year ago. Germany's are 11% higher. Britain's hit an all-time high, in nominal terms, in August. The boom shares some causes with the strength of stockmarkets, but reveals more about the pandemic's effect on economies. It is also more consequential.



Like stocks, house prices are being supported by loose monetary policy. In the past year the rate at which Americans can obtain 30-year fixed-rate mortgages has fallen by roughly a quarter, to about 2.9%. As well as making

monthly mortgage payments more affordable, low rates make houses more attractive, because they depress the returns on alternative safe investments. Other economic policies are also helping. Mass government support for household incomes, as well as mortgage-repayment holidays, have saved jobless workers from having to sell their homes, as they otherwise might. Britain has temporarily suspended stamp duty, a tax on buying houses.

The house-price boom is not just a result of policy, however. Structural forces are at work, too. Job losses this year have been concentrated among low-paid service-sector workers, who are more likely to rent than buy. Professionals who have carried on working from home but cut back on their spending have accumulated cash to splash—and, with time spent at home rising, what better moment to buy a bigger pad? The unequal effects of the pandemic have allowed prices to surge even as banks have curtailed their riskiest loans. In America the share of lending going to the most creditworthy borrowers has been growing. In Britain the boom seems to be being driven by a bidding war among existing homeowners, rather than by first-time buyers who, because they are younger, are more exposed to the economic downturn.

Housing is a bigger asset class than equities and its ownership is more dispersed. Booming stockmarkets lead to grumbles about the growing riches of billionaires. Pricey houses make life tangibly harder for swathes of would-be homebuyers who struggle to raise the minimum down-payment necessary to get a mortgage and join the club that can benefit from low rates. The problem is most acute in countries that see home ownership as a rite of passage. In such places high prices drive young people towards leftist populists and threaten the social contract. It is reasonable to hope that the trend towards working from home will help ease the housing shortages around the most vibrant cities, which have been most economically damaging. Yet so far this is not apparent in prices.

Perhaps the boom will cool as government support for the economy falls. However, the effect of the pandemic on long-term interest rates is unlikely to change; nor is the desire for roomier homes. Higher house prices could turn out to be an enduring legacy of covid-19. If so, in the 2020s they will deepen the intergenerational tensions that were already emerging in the 2010s. The fact that the economic costs of fighting the disease are mostly being borne by the young mostly to protect the lives of the elderly makes the problem knottier still.

In the 2010s politicians failed to get to grips with high house prices. They often responded to them by further subsidising home-buying. They should indeed cut stamp duty, which distorts the market, as much as possible. But it is futile to fight long-term price rises caused by low rates and shifts in households' preferences. Rather, governments should cease to indulge national obsessions with owning property.

That means creating a well-regulated rental sector which offers security of tenancy, removing subsidies for owner-occupation and easing planning restrictions to the point where housing no longer looks like a magic money tree accessible only to those fortunate enough to start out with pots of cash. Taxes on property values—and ideally on land values—should also rise. Such levies are an efficient way of plugging budget shortfalls. They would also recoup some of the windfall gains that lucky homeowners have enjoyed.

To the extent that robust house-price growth represents confidence in the prospects for an economic recovery, it is welcome. But in no other context would the contrast between asset prices and the present condition of labour markets cause as much discomfort for those who are missing the party.

Curtains

Audiences may be ready to return. Will they have anything to watch?

It is turning out to be a long intermission. Cinemas across the West closed in March and, despite attempts to reopen in the summer, the box office has not recovered. From October 9th Cineworld, the world's second-largest chain, will temporarily shut its 536 Regal theatres in America and its 127 British outlets. AMC, the biggest, will cut the opening hours at some Odeon cinemas in Britain.

Early in the pandemic the problem was audiences. In March Disney's "Onward" flopped as people refused to breathe recirculated air with a crowd of strangers. Business got harder when governments ordered theatres to shut, or imposed profit-crushing closures of refreshment counters and caps on capacity.

As countries have eased restrictions and audiences prepared to return, cinemas are finding little to show them. In China, where covid-19 seems under control, studios have resumed pumping out hits. But Hollywood will not risk premiering costly blockbusters while many markets, including New York and California, remain closed, and cinema-goers wary. Most big titles have been postponed (see chart). The last straw for Cineworld was the decision on October 2nd by MGM and Universal Pictures to delay "No Time to Die", James Bond's latest caper, from November until April 2021. No big release is planned until Christmas Day, when Warner Bros' "Wonder Woman 1984" will ride to the rescue.

default or file for bankruptcy, believes Moody's, a ratings agency; AMC could run out of cash by January. Share prices of Western operators have slumped this year, and are now worth a fifth as much as five years ago. (Chinese ones have done better.)

Cinema bosses have urged studios to keep the films coming. Eric Wold of B. Riley, an investment bank, says Hollywood may need to "take a hit to feed the industry" and keep it from "completely falling apart". Warner Bros took one by releasing "Tenet" in the summer; with takings of just \$45m at the American box office, the sci-fi thriller may not break even. And studios cannot afford charity. Disney recently laid off 28,000 workers from its covid-hit theme parks.

One day the blockbusters will return. Even then, cinemas will have to defer investments, raise prices and close branches to shore up their balance-sheets—just as viewers have more reasons than ever to stay home. The average American household subscribes to four streaming services, reckons Deloitte, a consultancy. Film studios are bargaining down how long films are shown exclusively in theatres; AMC recently let Universal put future releases online after just three weekends in cinemas, in return for a share of the takings. Even if covid-19 doesn't smash it entirely, the big screen is likely to get a lot smaller.

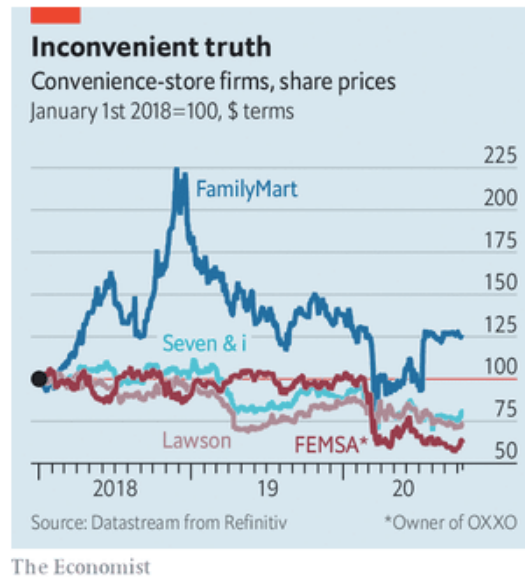
Turning a corner

Convenience stores could benefit from the pandemic—if they adapt

Corner shops are within walking distance of many homes, open long hours and small enough not to require customers to linger too long inside. They no longer sell just basic necessities, such as milk, beer and sweets. And they offer other services, from charging e-bikes in South Korea to paying for online shopping in Mexico. On paper, this makes them perfectly suited to the pandemic. And in practice?

Going into covid-19, convenience stores were a mixed bag. Some benefited as busier lifestyles, smaller households and ageing populations led more people to shop little, often and locally. They were the only brick-and-mortar shops in South Korea whose sales grew in 2019. OXXO, a Mexican chain with some 20,000 outlets across Latin America, reported sales of \$8.7bn in 2019, up by 10% on the year before. Minimarts, which mostly operate as franchises, have been opening in China, India and Thailand.

Elsewhere they have struggled. In Japan, home to the world's three biggest chains, they have been in outright decline. The share price of Seven & i Holdings, the giant which owns 7-Eleven and accounts for a third of the industry's \$360bn in global revenues, has dropped by around 30% over the past two years, as investors cooled on its saturated domestic market. Its two Japanese rivals, FamilyMart and Lawson, have been laggards, too (see chart). In many countries supermarkets have been muscling in on their traditional high-street turf. In September Asda, a British supermarket, launched Asda on the Move, joining Tesco Express and Sainsbury's Local.



Despite the potential pandemic boost, performance this year has been similarly patchy. The average value per convenience store transaction in China increased by 120% at the height of the pandemic, and stayed high. In Britain the Co-operative Group declared that sales rose by 8% in the first half, year on year, to £5.8bn (\$7.6bn), thanks to its Co-op and Nisa minimarts. At the same time Seven & i reported a 12% drop in operating profits in the three months to August. FamilyMart lost money in the third quarter. OXXO's parent company, FEMSA, is also in the red this year.

Although some pandemic shopping habits favour convenience stores, others do not. Rivals are offering the same goods for less and brought to your doorstep, often in an hour or two. Deliveroo, a British food delivery app (part-owned by Amazon), ferries booze from supermarkets. In August DoorDash, an American one that teamed up with 7-Eleven in the pandemic's early days, launched its own virtual DashMart.

To fend off rivals, stores must evolve with shoppers' changing ideas of convenience, says Amanda Bourlier of Euromonitor International, a research firm. One American chain, Wawa, has opened drive through stores. Another, Casey's, has reported a surge in digital sales. Stores in South Korea and Japan,

which face labour shortages, are toying with automated payments. In America 7-Eleven now delivers online orders to homes, as well as public places like parks. But its parent has also bought Speedway, a chain of American petrol stations, for \$21bn. That adds 3,900 outlets to the 9,000-odd 7-Elevens in America (and 70,000 or so globally). It is a big bet that petrol cars aren't soon disappearing—and nor are convenience stores.

Some lessons from Microsoft

Blue-sky thinking

Parts of the digital economy are competitive. Look at the cloud

The term “big tech” is often used as shorthand to describe the small group of digital firms that tower over the 21st-century economy. Together, they make up over a fifth of America’s stock- market. But behind that phrase a lot is going on. As business lines have become monopolised, it has become commonplace to complain that tech firms are offering consumers a toxic deal. But in a growing number of areas the picture is healthier.

The largest tech companies have expanded into a dizzying range of industries. Amazon faces credible e-commerce rivals in the form of Walmart and Shopify. Video-streaming is a fight for supremacy between half a dozen firms. And cloud computing has become a fiercely contested market, too, as our analysis of the adventures of Microsoft shows. Its experience is a reminder of the benign power of competition—and of how governments should be surgical about taming tech.

Cloud computing took off about 15 years ago, as businesses began to outsource their web-hosting, data centres, core computer systems and many applications to a few big providers, particularly the pioneer AWS, run by Amazon. The pandemic has shown just how critical the cloud has become. Many of the economy’s main functions depend on it, including a wide range of e-commerce sites and applications that let you work from home. The scale of this activity is huge; approaching 10% of all technology spending is on the cloud. So are the sums of money being invested. Perhaps \$40bn is being ploughed this year into data centres and other physical gear by AWS and others.

The cloud brings obvious benefits. The firms using it replace lumpy capital expenditure on rickety bespoke IT with a variable payment for a service that can

easily expand its capacity as needed. That is one reason firms such as Zoom have been able to grow so fast during the lockdown. Having many users for each piece of infrastructure means they are put to work more efficiently.

The cloud has also been seen as an example of the internet's fragmentation. Alibaba's and Tencent's cloud arms dominate in China and are making some inroads elsewhere in Asia. Europe is so anxious about American firms that it has launched a state-backed rival, called Gaia-x. Businesses in poor countries may struggle for access to the cloud, slowing their development.

The biggest fear has been of a cloud monopoly. Here the news is encouraging. AWS remains the cloud's biggest firm, but Microsoft, the original antitrust bad boy, is putting up a fierce fight with its own service, Azure, and hopes to get more of its Office and Windows customers to use it for the cloud, too.

Alphabet is also putting its cloud forward. On October 8th IBM said it would spin off part of its services business to focus on the "hybrid-cloud", which marries old-fashioned on-site work with the cloud. Likewise Oracle's proposed bid for TikTok, a social-media firm, is in part an effort to secure an anchor-customer for its nascent cloud operation. Regulators need to be vigilant to ensure that cloud firms are not abusing other companies' data, erecting unfair barriers to entry or misusing their dominance in other businesses to get ahead. But broadly, the boom means more choice and keener prices.

This rivalry also offers a signal to governments. Treating big tech as a monopolistic monolith does not make sense when some markets are competitive. Nor does banning tech firms from entering adjacent new markets—as a recent congressional report proposed. Better for governments to ensure that users have control over their data, and then vigorously tackle the areas like search and social media where monopolies have taken hold. If the main source of competition for big tech firms ends up being other big tech firms, so be it.

Out with the new

The state helps old hawkers but not young ones, with predictable results

Some countries build palaces or temples as monuments to their greatness. Singapore builds hawker centres. In these open-air food courts lined with stalls and Formica tables it is possible to taste Singapore's history. Dolloped unceremoniously on a plate or banana leaf or scooped steaming into a plastic bowl, dishes such as Roti prata and Singapore laksa conjure up the Indian and Chinese migrants whose own cuisines, slowly over centuries, mingled with that of the indigenous Malays. And since one can eat one's fill at a hawker centre for the price of a flat white, it is no surprise that eight in ten Singaporeans visit such establishments at least once a week, according to a survey conducted by the National Environment Agency in 2018. Singapore is so proud of its street food that it hopes UNESCO will include it in its catalogue of humanity's most precious arts.

The UN's heritage inspectors had better tuck in fast. The median age of the chefs is 60. A government report published in 2017 warned that there were "too few [aspiring hawkers] to be able to sustain the hawker trade in the long run". When old masters die, many take their recipes with them, says K.F. Seetoh, a champion of hawker food. Only Singaporean citizens can work in hawker centres managed by the government, the vast majority. But young Singaporeans have little appetite for toiling in piping-hot stalls for long hours and little pay. "It's near impossible to get manpower for this trade," Mr Seetoh wrote in January.

The few young Singaporeans willing to put up with such conditions often live hand-to-mouth. When Yu Ting Gay and Alex Ho opened their Italian-Japanese fusion stall in 2017, they hoped to earn S\$2,000 (\$1,474) a month each. Most of the time they made half that. "Our pockets were quite tight," says Ms Yu.

“For myself, it’s only going to work and going back home, so we meet up with our friends less than before.”

Older hawkers have an unfair advantage. Many of those who started out in the 1970s and 1980s pay discounted rents: \$200 a month on average. They still account for 40% of the 5,500 stalls leased by the government. Younger hawkers must pay market rates: \$1,250 a month on average. But a report published by the Ministry of Trade in 2015 found that, even though younger hawkers pay more rent, and have on average 15% higher operating costs, they do not pass those costs on to their customers, probably because of stiff competition.

With classic dishes like Hainanese chicken rice costing just S\$3, hawker food is cheaper than chips. The government wants to keep it that way. Singapore’s welfare state is parsimonious, and the authorities have long regarded hawker centres, with their “almost third-world prices”, as “one of our safety-nets”, as Ravi Menon of the central bank has said. The expectation that hawker food will be cheap is shared by consumers. Several months after Douglas Ng opened A Fishball Story in 2013, he decided to increase the price of his S\$3 fishball soup by 50 cents because his margins were so thin. Sales fell by half, he says.

Many youngsters get noticed and thrive. Mr Ng won an accolade from Michelin in 2016 and received a flood of offers of investment. Others are not so lucky. Just over a year after Ms Yu’s stall opened, her hawker centre closed for renovations. She and Mr Ho had not managed to save enough to weather the three-month hiatus, so were forced to close for good.

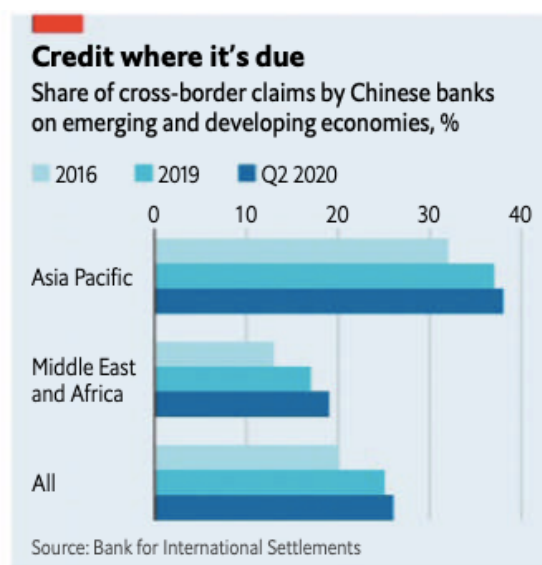
Making inroads

The overseas activities of Chinese banks shift up a gear

China's banking system, with \$35trn in assets, is the world's largest. Its four biggest lenders, measured by assets, head the global league table. Yet Western banks rarely come up against Chinese peers in foreign climes. That has fed the stereotype that China's banks are either uninterested in global business or, staffed by staid bureaucrats and stuffed with bad loans, are uncompetitive abroad. A new study suggests that this portrait is wide off the mark.

In fact the global footprint of China's banks has grown to rival that of Western lenders. In June this year its deposit-takers, including some of its policy banks, accounted for 7% of total cross-border lending flows, up from 5% in 2015, and lent to 196 out of 216 countries. A recent paper by Catherine Koch and Swapan-Kumar Pradhan of the Bank for International Settlements (BIS) and Eugenio Cerutti of the IMF explains why the rich world hasn't noticed: China's banks reign in poorer markets that Western lenders either never entered or are now abandoning.

Chinese banks provide 26% of all cross-border loans to developing countries today, most of them in dollars (see chart). That is up from a fifth in 2016, and has risen since the pandemic. (Ms Koch points out that the BIS's figures cover only countries that report to it, and suspects that the true share could be higher.) China's share is still lower than that of European banks, which, though retrenching, account for 34% of cross-border lending to poor countries. In half of these places, though, its banks are now the largest cross-border lenders.



Banks from emerging economies are typically reluctant to lend far away from home, perhaps because their own markets are still growing and the creditworthiness of far-flung borrowers is harder to assess. By looking at loans made by banks from their home base, as well as by their foreign subsidiaries, the researchers show that Chinese lenders are not so put off. In that sense they resemble banks from Europe and America, says Mr Cerutti, even though they are typically state-owned and their overseas expansion is much more recent.

In another respect, however, China's banks stand out. Cross-border loans tend to be correlated with trade and investment flows, which give lenders more information about foreign borrowers. The link between lending by China's banks and bilateral trade is especially strong. But lending bears little relation to investment flows. The authors suspect that this reflects China's capital controls, and the fact that its portfolio investments target rich markets.

What does all this mean for borrowers? The rise of China's banks brings both risk and reward. One concern has been that the lending has added to some poor countries' debt woes. In some places China's banks are now important enough that, if a shock causes them to pull back, then a local credit crunch could ensue. But China could be a source of needed capital too. Strong inflows into the country

this year mean that its banks are flush with dollars. If recent form is a guide, a chunk will be recycled into developing countries.

Frogs and princes

More and more capital is chasing fewer and fewer ideas

Who are the heirs of Robert Fleming, the 19th-century Scot who saw that America was the coming place to put risk capital? The venture capitalists of Silicon Valley have the best claim. The businesses that loom largest in public equity markets—Amazon, Apple, Facebook, Google, Tesla and the rest—were nurtured by VCs. Venture-backed companies account for around a fifth of the market capitalisation of public companies in America and almost half their research spending. The funds that unearth such gems stand to make pots of money. VCs have on average (an important qualifier) beaten the public market net of fees over the long run.

Most firms that receive VC funding fail. But the winner-takes-all nature of technology markets means those that succeed often do so extravagantly. The VC industry is at the frontier of capital allocation. The typical investor has to kiss a lot of frogs to find a prince (or even a decent-looking frog). The average VC firm screens 200 targets, but makes only four investments, according to a study in the *Journal of Financial Economics*. Part of the added value, say its authors, is to improve the governance of startups and keep a watchful eye on management.

No wonder pension schemes, sovereign-wealth funds and mutual funds are competing to write big cheques for Silicon Valley's next generation of stars. But unlike the railways, brewers, distillers and mines of the Fleming era, today's new firms have no great need of capital. A young technology firm can rent computing power from the cloud, download basic software from the internet and use a range of cheap, outsourced services to help it grow. Startups are staying private for longer. When they list, it is because the

founders need to cash out or (as with the latest rash of tech IPOs) when the money on offer in the public markets is simply too good to turn down. It is not to raise capital for the business.

Very few new firms turn out to be world-beaters. Good ideas are scarce. But VC firms that have succeeded in the past may have an edge in finding them. A study by Morten Sorensen finds that companies funded by more experienced VCs are more likely to succeed. And sourcing the best entrepreneurial talent is more important to success than the development of that talent.

In this sense the best venture-capital firms resemble elite universities. Because the brightest turn up at their door, they are able to charge the highest fees. And those fees are mostly for the accreditation and the social networks that the institution can offer.

Evolution

Cutting out the middle man

Sieve-toothed seals may be whales in the making

Lake baikal, near Russia's border with Mongolia, is, by volume, the biggest body of fresh water on Earth. At 1.6km, it is also the deepest. Several unusual animals call it home, including the world's only species of freshwater seal.

Baikal's seals are abundant. There are about 100,000 of them. But the lake is nutrient-poor, so how they do so well has been a mystery. A study just published in the Proceedings of the National Academy of Sciences, by Watanabe Yuuki of the National Institute of Polar Research, in Tokyo, suggests the answer is by filtering tiny organisms from the water.

Most seals eat fish. And Baikal seals do, indeed, have needle-pointed canines of the sort expected of piscivores. But in 1982 researchers noted that they sport a second sort of specialised tooth behind those canines. These have frilled cusps which resemble combs. At the time, nobody knew what to make of them. But Dr Watanabe speculated that they might be an adaptation for feeding on other strange creatures dwelling in the lake.

Seals arrived in Baikal 2m years ago, from the Arctic Ocean. So too did some much smaller marine creatures, known as amphipods. These have diversified into more than 340 indigenous species. One of them, *Macrohectopus branickii*, spends its days hiding in the depths of the lake and then forages in the shallows at night in great numbers.

Marine mammals the size of seals would normally see amphipods as too small to hunt. But Dr Watanabe wondered if the Baikal seals' comblike teeth might have

evolved to enable them to rake these tiny crustaceans from the water in sufficient quantities to make them useful prey—much as some whales collect krill using comblike structures called baleen plates. He and his colleagues therefore attached waterproof video cameras and accelerometers to a few seals, to monitor what they were getting up to. This equipment remained attached to the animals for between two and four days, before coming loose and floating to the lake's surface, whence the researchers were able to recover it.

Footage from the cameras and data from the accelerometers showed that the seals were indeed pursuing the dense amphipod aggregations that form at night. They would dive in with their mouths open and collect prey before making another pass. Dr Watanabe estimates that each seal captures an average of 57 amphipods per dive—and thus thousands of them a day. The needlelike canines are not redundant, for the seals do hunt fish as well. But they also compete with those fish for the amphipods, thus partially bypassing a link in the food chain and perhaps thereby maintaining themselves in larger numbers than would otherwise be possible.

Whether, were some of these filter-feeding seals to make it back to the ocean, they would follow the baleen-whale path and evolve into giants, is an interesting speculation. But even confined to their lake, Baikal seals provide an intriguing example of parallel evolution.

In the name of the mother

Giving a child its mother's surname is not just about feminism

As China emerged from lockdown, a woman wrote a post on Weibo, a microblog, that has echoed through the long, hot summer. She was divorcing her husband, she said, because he would not allow her to change the surname of her child to her own. Details of the case were scant, but that did not stop it lighting up the internet, shining a new spotlight on the question of how far Chinese women have come. *Phoenix Weekly*, a magazine, launched an online poll that drew 47,000 respondents. Almost two-thirds said that a surname could come from either parent.

As in most traditional societies, Chinese parents have long preferred sons, and the usual practice of handing down the father's surname remains a powerful symbol of that (though women have always retained their surname at marriage). But with social mores changing rapidly, more parents have started to give babies the mother's surname, especially in wealthy urban areas. A paper last month in the *Journal of Population Economics* found that Chinese children with young, educated mothers from areas with normal sex ratios at birth were more likely than average to be given her surname, and such offspring were healthier and better educated than average. Almost one in ten newborns in Shanghai were given their mother's name in 2018.

Some young couples have compromised and use both surnames in combination, somewhat like Westerners creating double-barrelled surnames (though only one

of those names can be legally recognised in China). According to a survey in 2019, the surnames of more than 1.1m Chinese people now form such a combination, a ten-fold increase on 1990.

Government support for matronymics has been around since the mid-1990s. Giving the mother's surname to offspring was encouraged within the one-child policy (which was relaxed in 2016), to persuade people to be content with an only daughter. To win them over, officials dug up Chinese texts about ancient matrilineal societies.

Some wonder, however, whether all of this is more to do with genealogy than with feminism. Qi Xiaoying of the Australian Catholic University says that grandfathers are urging their daughters to give their surname to one of their grandchildren now that families can have more than one, because it assures the continuation of the grandparents' line. Ms Qi calls this "veiled patriarchy". In-laws now fight over whose name will go to the son. She says matronymics are more popular in Chinese cities not because of an assertion of women's rights, but because a generation of maternal grandparents has more wealth to hand down, especially if they are richer than their son-in-law's parents.

At least the trend shows that a patronymic is not a foregone conclusion, says Ms Qi. A survey in 2017 in the south-eastern city of Xiamen found that 23% of second children in two-child families were given their mother's surname. A couple in the city of Nanjing, surnamed An and Hui, called their children An Zihui and Hui Zi'an, both meaning "the offspring of An and Hui". "Genealogy and

feminism had nothing to do with it," says Ms Hui. "It was just a way to show our love."