

▶ til at least next year. The climate for Chinese firms in America is becoming less welcoming. Competition from other exchanges is hotting up. Hong Kong is abandoning its longstanding opposition to dual-class shares in order to grab a bigger share of Asia's tech listings. Singapore is on track to do the same.

Underlying these concerns is an older one—that the vast and varied costs of first bringing shares to market, and then remaining public, are just too high. These costs include bankers' and lawyers' fees, the risk of class-action litigation, the need to reveal commercially sensitive information that could benefit rivals, and the prospect of fights with corporate raiders who want juicier returns for shareholders and social activists who want executives to pay heed to their values. Added to all these are public reporting and tax requirements that private companies can often avoid.

Mr Ritter attributes much of the decline in the number of companies that are listed to the difficulty of being a small public company. This, he thinks, is reflected in the actions of venture capitalists, who once sought public listings when they wanted to exit their investments and now overwhelmingly choose private sales. He remains a diligent collector of evidence supporting the notion that listing requirements have become more burdensome over time.

For example, he notes that the prospectus for Apple Computer's public offering in 1980 ran to a mere 47 pages and listed no risk factors, despite its novel product, inexperienced leaders and formidable competitors. The prospectus for Blue Apron, a meal-delivery company that listed last year, weighed in at 219 pages, with 33 devoted to risks, presumably intended to preempt litigation. One of those risks was the possibility that Blue Apron would not "cost-effectively acquire new customers".

The difficulties of becoming public and the decline in overall listings was cited as a crucial issue by Jay Clayton in his confirmation hearing last year to be chair of the Securities and Exchange Commission (SEC). In office Mr Clayton has not been especially forceful. Still, lawyers and bankers say the SEC's act has improved. Its internal mechanisms clank along a bit more smoothly. All companies are now allowed to file their initial applications confidentially, thus delaying any exposure of financial and strategic information to competitors until just before an IPO (investors are less happy because they do not have as much time in which to carry out research).

Even so, firms are staying private for longer. In 2000 the median age of companies at listing was five years; in 2016 it was ten years and six months. That suggests more needs to be done to lighten the burden of going public, if the current flurry of listings is to last. ■

Central-bank digital currencies

Proceed with caution

A primer on blockchain-based versions of central-bank money

BITCOIN, Ethereum, XRP, Stellar, Cardano: the infant world of cryptocurrencies is already mind-bogglingly crowded. Amid the cacophony of blockchain-based would-be substitutes for official currencies, central banks from Singapore to Sweden have been pondering whether they should issue digital versions of their own money, too. None is about to do so, but a report prepared by central-bank officials from around the world, published by the Bank for International Settlements on March 12th—a week before finance ministers and central-bank heads from G20 countries meet in Buenos Aires—offers a guide to how to approach the task.

The answer? With care. For a start, it matters who will be using these central-bank digital currencies (CBDCs). Existing central-bank money comes in two flavours: notes and coins available to anyone; and reserve and settlement accounts open only to commercial banks, already in electronic form (though not based on blockchain) and used for interbank payments. Similarly, CBDCs could be either widely available or tightly restricted. A CBDC open to all would in effect allow anyone to have an account at the central bank.

CBDCs could be transferred either "peer to peer", like cash, or through the banking system. They could be held anonymously, preserving the privacy of cash, or tagged, making it easier to trace suspicious transactions. Should they bear interest, that would affect demand not only for CBDCs but also for cash, bank deposits and government bonds.

The report weighs up CBDCs' possible effects on payment systems, monetary policy and financial stability. A steep de-

cline in the use of cash could strengthen the case for a widely available CBDC. In Sweden the Riksbank is contemplating an "e-krona" for small payments. But in most countries, despite the growing use of cards, accelerated by the advent of contactless payments, cash remains popular (see chart). Experiments with a CBDC just for interbank payments, says the report, have "not shown significant benefits".

A widely available, interest-bearing CBDC could, in principle, tighten the link between monetary policy and the economy. An interest rate tied to the policy rate may put a floor under money-market rates. Banks may have little choice but to pass changes in the CBDC rate on to depositors. Negative rates would be easier to implement, especially if high-denomination banknotes were abolished. But all this is uncertain. Retail depositors are less sensitive than institutional investors to changes in rates. Central banks already have plenty of tools. The authors are not sure that the putative gains yet warrant creating CBDCs.

On financial stability, they are more cautious still. In times of stress, depositors flee wobbly banks for safer homes—and a CBDC would allow "digital runs" to the central bank. Even in normal conditions, banks would face higher funding costs if they had to compete with the central bank for deposits. Digital versions of currencies used internationally (eg, the dollar) could worsen these complications, if foreigners were free to use them.

Central bankers focus more on the rise of private crypto-currencies, warning that they are speculative gambles. Expect more such admonitions in Buenos Aires—and no rush to mint CBDCs. ■

