Beware online frauds

There isn't a great deal you can do but there are a few precautions you can take as a citizen

TECH-ENABLED

DEVANGSHU DATTA

Cyber-breaches and data-leaks affecting India have been in the headlines throughout the last week. At one level, the successful cyber-attack on the K K Nuclear power plant is the most frightening. This emphasises the vulnerable state of India's power sector infrastructure.

At another level, the Pegasus-driven surveillance of Indian activists is the most disturbing. It suggests a pattern of systematic, illegal surveillance targeting dozens, if not hundreds, of Indian citizens over a sustained period. All the evidence so far, also indicates that it was carried out by state actors.

The third cyber-breach that came to light this week however, sets a world record. A data-trove, "INDIA-MIX-NEW-01", with the details of some 1.3 million debit and credit cards, was offered for sale on the Dark Web on October 28, at a website that calls itself the Joker's Stash. More than 98 per cent of these cards were issued by Indian banks.

This is the largest single data-set of cards ever offered for sale. Each card record is being offered for the equivalent of $100 (payable in cryptocurrency). This is a good index of how valuable this stash is considered by cyber-criminals. Usually credit card and debit card details are available for as little as $1/card.

The cyber-security firm that broke the news, Group-IB, is incorporated and headquartered in Singapore while being staffed and owned by a collective of Russian researchers, headed by Ilya Sachkov. Group-IB estimates most of the card-data was picked up by "skimming", using compromised point-of-sale (PoS) devices in shops where the cards in question were swiped. Some of the data may have been harvested from compromised ATMs.

Physical skimming is most likely for several reasons. The data on offer includes Track1 and Track2 data. The magnetic strip on a card includes up to three tracks, each containing the information required for a transaction. This includes name, card number, expiry, sometimes the CVV (card verification value), plus addresses and other discretionary information used for fraud protection purposes.

Many cards only have two tracks. These tracks are read when the card is swiped, in a PoS device, or at an ATM. In an online transaction, the tracks are not read. The verification is done by inputting the CVV or CVC (card verification code) — the three-digit or four-digit number written at the back of the card.

The offer of track data indicates that the details were harvested via physical swiping. Also, the collection includes cards issued by various credit card companies and banks in a nearly random mixture and ratio. About 18 per cent of the cards belong to a single Indian bank.

This mixture suggests the data was taken from many compromised PoS devices, or from multiple compromised ATMs, rather than from a single compromised ATM. That's because a single ATM will tend to have a much higher percentage of cards issued by that specific bank.

The utility of Track1 and Track2 data lies in the fact that this can be used to clone a new card. The details can be inscribed onto a new magnetic strip and the cloned card used for physical transactions. Two-factor authentication is not necessary for many online transactions outside India and, for that matter, a clever cyber-criminal may be able to fool 2FA if she can change the associated phone number, since Track1 and Track2 contain many required details for authentication.

Should you be worried? According to the RBI guidelines, the customer holds zero liability if an unauthorised transaction takes place in a third-party breach, where the deficiency lies neither with the bank, nor with the customer, but elsewhere in the system and the customer notifies the bank within three working days of when the unauthorised transaction took place. This means basically that customers should watch for alerts to mobile numbers and email ids to flag any strange transactions. If you are not in the habit of using your card or cards much, a small online transaction should be enough to check you are receiving alerts.

Beyond this, there is not a great deal that you can do, as a private citizen. However, there are a few precautions worth taking. One is, avoid using any ATM, which seems to have any attachment to the card-reader. Also use a credit card in preference to a debit card. This is because the credit card has a daily limit and it is not possible to rack up more than that in a single day. It is possible to use a debit card for bank transfers to clean out the account.

CHINESE WHISPERS

Whose idea was it anyway?

Uttar Pradesh Chief Minister Yogi Adityanath (*pictured*) and his predecessor, Akhilesh Yadav, often spar on infrastructure projects, with each claiming credit for them. While Yadav criticises his successor for repackaging projects started during his regime, Adityanath takes pride on the purported improvement in the perception about the state in the eyes of investors. The Bharatiya Janata Party (BJP) government, led by Adityanath, is now looking to revive three mega projects conceptualised by the erstwhile Yadav regime. They pertain to townships and a plastic manufacturing hub, and are in Kanpur-Unnao, Prayagraj (Allahabad), and Auraiya districts. The chief minister has, according to sources, directed officials to remove the roadblocks in the way of land acquisition for them.

Whitewashing criticism

After a storm was raked up because the tri-colour painted on the wall of a village secretariat office in Anantapur district of Andhra Pradesh was layered with the colours (blue and white) of the YSR Congress, the state government stepped in to buy peace. Within days, the Jaganmohan Reddy government, run by the YSR Congress, ordered whitewashing the wall. It also suspended the panchayat secretary for taking the call to paint the wall with the colours of the national flag after questions were raised on whether a wall was an appropriate place for this and whether it wasn't a violation of the flag code.

Hatching cannibals?

The vegetarian versus non-vegetarian debate continues but there are no winners yet. A recent round of the debate has taken on a different dimension. After the Bharatiya Janata Party (BJP) criticised the Madhya Pradesh government's decision to introduce eggs in state-run Anganwadi (rural child care centre) meals, a Congress leader and public health and engineering minister, Sukhdev Panse, said: "BJP leaders are man-eaters. Many BJP leaders are involved in a lot of scandals." He also said the BJP's reaction was more like "a tempest in a teapot". That was in response to the leader of the Opposition, Gopal Bhargava (*pictured*), saying if children were given eggs from their childhood, they would turn into cannibals.

What next Lakshmi Vilas Bank?...

... A fire sale of equity or merger with a strong bank? Time is running out. There aren't too many choices

BANKER'S TRUST

TAMAL BANDYOPADHYAY

After the Reserve Bank of India (RBI) rejected Indiabulls Housing Finance Ltd's plan to be merged with Lakshmi Vilas Bank Ltd (LVB), the housing finance company hopes to focus on the retail segment only. A recent investor presentation on its new business model has a sub-title: "The Phoenix Rises Again".

What's happening at LVB? Its share is now trading at a level last seen in 2003. The triggers for the continuous erosion in shareholder value in this once-upon-a-time boutique community-based bank include the inability to raise capital to set aside money for bad loans, leading to ballooning losses. The RBI bringing it under the ambit of "prompt corrective action" (PCA), which restrains a bank's lending activities, and rejecting Indiabulls' proposal of being merged with LVB didn't help matters. Indiabulls holds 4.99 per cent stake in the bank.

It is easier to find why the bank has been put under PCA than why the merger plan was scuttled: Its huge bad loans, insufficient capital adequacy ratio, negative return on assets (RoA) for two consecutive years and its high leverage led to the PCA. For the fiscal year 2019, LVB's net bad assets were 7.49 per cent of its loan book, its capital adequacy ratio 7.72 per cent and RoA — 2.32 per cent.

After its entry into the PCA zone, LVB had said it would make every effort to improve its financial health. When the merger plan went kaput, it put up a brave front and said, "This brings an end to recent uncertainty... the bank will continue to work towards raising capital..."

That's fine but why hasn't it been able to raise capital so far?

It's a post-World War I bank, set up in 1926 at Karur on the banks of the river Amaravathi in Tamil Nadu, by a group of small businessmen belonging to the Vysya community to fund small businesses. The entrepreneurial community was instrumental in setting up many banks in southern India — Vysya Bank Ltd (which later was renamed ING Vysya and taken over by Kotak Mahindra Bank Ltd), Karur Vysya Bank Ltd and LVB, besides many smaller ones. It also chipped in with the initial capital for Andhra Bank.

Seven businessmen at Karur, under the leadership of VSN Ramalingam Chettiar, set up LVB in the textile city of Tamil Nadu. Between 1961 and 1965, it took over nine other banks and in the 1970s, it started expanding its footprint outside Tamil Nadu.

Till about a decade back, LVB was content being a small and beautiful bank, posting profits every year, giving handsome dividends to its investors but not bothering much about growth. Things changed around 2008-09 when the original Karur promoters let in others, also Vysyas, to take charge. With that, an obsession for growth crept in but none bothered to put in place the right vision and strategy for such growth.

Historically, LVB has rarely had continuity at the top-management level. More often than not, the top management consisted of retired public sector bankers, and the bank depended largely on walk-in businesses — both for deposits as well as loans. The sudden thrust on growth forced LVB to join most loan syndications with a small share, without understanding the implications. Initially, it paid off as the interest income rose, as did profits.

The going was good till the RBI decided to conduct the "asset quality review" of Indian banks in 2015-16. The central bank's inspectors started checking all banks' books, suspecting evergreening of loans. Being part of loan syndications, LVB ended up having exposure to most large rotten accounts that have been dragged into the insolvency court. That's how bad loans have been created, denting its interest income and forcing it to provide for such loans, eroding its capital.

The bank has been approaching investors to raise capital but the fear of hidden bad loans and possible interference of the board/promoters in operations has kept them at bay. Going by the media reports, about a year ago, a number of marquee investors showed interest, but nothing happened. While the bank management has not explained why the deal was not closed, the investment community says the main reason is unreasonable valuation expectations. These funds were not willing to play ball. The last I heard, a large US financial services firm is in talks. Will it say yes?

Indiabulls had its compulsions: It desperately wanted a banking licence but why would any bank in their right mind want to acquire LVB?

The bank has been under the regulator's scanner for quite some time now. In the past, the RBI had to appoint directors on its board and the tradition continues. It scuttled the efforts of one of the promoters, a chartered accountant, to assume the chairmanship at the bank but allowed another chartered account to don the mantle. The promoter's wife, a qualified advocate, was on the board till last week. The RBI, it seems, has not been happy with some alleged related-party transactions that happened in the bank.

The last MD and CEO quit in August, citing "personal reasons". The LVB advertisement looking for a replacement promises an attractive package and "excellent working environment".

Time is probably running out for LVB. There aren't too many choices before it — it's a toss-up between a fire sale of equity or merger with a strong bank.

Indiabulls had its compulsions: It desperately wanted a banking licence but why would any bank in their right mind want to acquire LVB? It will have takers at the right price as it has a good franchise with 570 branches, 85 per cent of which are in south India and about half of that in Tamil Nadu; it has 1.8 million retail customers and the employees on the rolls are not too many — about 5,000. A bank with a predominant presence in the west and north may like to have it for the branch network alone, if the price is right. A decade ago, HDFC Bank Ltd had bought Centurion BoP Ltd primarily for the branch network.

Or else, it needs a white knight a la Fairfax India Holdings Corporation of Indian-born Canadian billionaire Prem Watsa. Fairfax acquired 51 per cent stake in Catholic Syrian Bank in 2018 — the first instance of a foreign company buying a majority stake in an Indian bank. Under the current norms, foreign investors can own up to 74 per cent stake in a private bank but a single entity exposure is typically capped at 5 per cent which can be raised to 10 per cent with RBI approval.

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AS I SEE IT

A lesson from Pakistan

Its electronic media regulator has said TV anchors must limit themselves during discussions they're conducting to the role of 'moderator'

KARAN THAPAR

Not everything that happens in Pakistan is reprehensible and condemnable. Occasionally there are things that are admirable and even, to be honest, examples we should emulate. Now, if you think this point is contentious, let me give you what I believe is a perfect illustration. And it comes from a field where you might think we have little to learn from our neighbour, the ethics of television anchoring.

The Pakistan Electronic Media Regulatory Authority (PEMRA), the country's television regulator, has taken a step that we in India badly need to follow. Anchors, it has said, must limit themselves during discussions they're conducting to the role of 'moderator'. How very true. A PTI report from Islamabad says the PEMRA code of conduct stipulates that "the role of anchors is to moderate the programme in an objective, unbiased and impartial manner, excluding themselves from their personal opinions, biases and judgements on any issue".

That's unquestionably the case and it couldn't have been expressed more succinctly. Alas, Pakistani anchors are not the only ones to flout this rule. Ours do so as well, blatantly, repeatedly and without any realisation they're crossing a redline that's strictly verboten to trespass.

The fact this happens in a variety of different styles doesn't alter the case that in every instance it's wrong. For example, it's equally unacceptable for an anchor to say, "I'll accept that. It sounds right", or "What sort of defence is that? It makes no sense at all". I've heard the first on NDTV. The second, more frequently, on Times Now and Republic.

Actually, PEMRA makes one other point. It has also said that anchors who host regular shows "should not appear in (other) talk shows... as experts". Again, I couldn't agree more. First of all, television anchors are not experts. The so-called expert knowledge they have on any subject has been obtained from other sources. Second, this would reveal their personal bias and undermine their neutrality when they return to be anchors again. Frankly, you can't play two roles. In this instance, they end up doing credit to neither.

Sadly, our anchors often pretend to be experts. Even some of the best fall into this error. Each time they do they speak as if they're authorities and, wittingly or unwittingly, reveal their preferences and prejudices. The saddest part is they don't realise how much this undermines their original role as allegedly neutral and objective moderators.

However, I would go further. Anchors also need to be conscious of the language they use. You often hear people who are only charged but not convicted called criminals. They're not and that description is neither fair nor accurate. Second, anchors frequently report details that may not be confirmed facts as if they are. Critical qualifying words like 'allegedly', 'supposedly' or 'reportedly' are rarely or never used. Consequently, an impression of accuracy is conveyed which is simply misleading.

Now who would have thought these are lessons we would learn from Pakistan? The common but mistaken opinion is that theirs is a journalism of a lower order. We're convinced they neither have freedom of speech nor do they understand or observe the rules of journalism. The recent order from PEMRA shows how wrong we are.

I would recommend the News Broadcasting Standards Authority, the regulator for India's private news channels, contact PEMRA to get the details of their order and expeditiously issue it to every single channel. Thereafter, each time an anchor falls below the required standards of objectivity and neutrality he or she should be called out in a formal statement. I'm pretty certain fear of public shaming will be sufficient to ensure anchors do not colour their studio performance with their own opinions or behave partially towards those they agree with and objectionably to those they don't.

Now, I know I have often been guilty of what I've written about so you might wonder what gives me the right to cast the first stone? Simply mea culpa. Because I know I've made faults I can spot them in others and also recognise the need for an authority like NBSA to step in and correct them. Sometimes it needs a sinner to recognize the sin. Peccavi!

LETTERS

An ominous trend

In the digital era when social media platforms have become a ubiquitous phenomenon with people leveraging the same for sharing information to spreading fake news, apprehensions over the security of data and the right to privacy of individuals persists. Recent revelations pointing to snooping on scores of individuals from as diverse backgrounds as journalism, law and activism in India by Israeli cyber security firm NSO is one more proof of the growing vulnerability of digital social media platforms to spyware attacks.

The allegation that malicious software Pegasus, developed by the NSO, was used by several countries to snoop on their own citizens points to an ominous trend considering the grave implications for freedom of speech and expression, one of the cornerstones of democracy. Snooping on WhatsApp users has now punched a hole in the argument that the platform with its end-to-end encryption is a safe and private way to communicate.

While it is heartening that the Indian government took cognisance of the serious violation of the right to privacy of its citizens and pledged to take action against those who breached the law, it should assert that the idea of data sovereignty also includes a citizen's right to privacy.

M Jeyaram Tamil Nadu

A way of life

This refers to "Now is the time for a bad bank" (November 1). It is imperative to note the GNPA (gross non-performing assets) of all commercial banks have declined in FY19 post the ushering in of the Insolvency and Bankruptcy Code (IBC). The painstaking efforts of all banks are commendable and would be proven by their recovery. It would be in the interest of everyone to continue with ARCs (asset reconstructions companies) as they have covered substantial ground in 15 years gaining massive experience.

Contracts and outsourcing is a way of life now. Bankers who have given loans following a structured process by calling the correct shots are the kind of industry professionals who should be deployed in the ARCs to tackle bad loans. It is important to note they made the preparation with the right ingredients and they are equipped to handle the after-affects, thanks to their experiences. ARCs have valuable exposure of more than a decade; using artificial intelligence and blockchain to deal with the stressed assets is the need of the hour.

N K Bakshi Vadodara

A stalwart's demise

Just three days short of his 83rd birthday on November 3, veteran CPI leader Gurudas Dasgupta passed away. In his death, the Indian trade union movement lost a doyen, who brought unity among disparate trade unions. How can one forget that this very simple man organised a nationwide strike in defence of the public sector during the UPA-II regime and more than 20 crore workers participated in it. Dasgupta spent three terms in the Rajya Sabha and two in the Lok Sabha. Instead of a big bungalow like other MPs, Dasgupta lived in a small bungalow in Delhi's Canning Lane, but during his tenure as general secretary of the AITUC, he built an office at Deen Dayal Upadhyaya Marg, near the BJP's palatial headquarters.

Simple and honest, Dasgupta was once awarded ₹7.5 lakh by the income tax department after he exposed a "mischief" by a big company. He donated the entire amount to the Punjab unit of National Federation of Indian Women to be spent on the children of victims of terrorism of Khalistan. As a lawmaker he raised the Harshad Mehta scandal in Parliament and exposed several irregularities, but the 2G scam brought the best out of the lawmaker. Once I saw him with a party member, an aged woman, and he was carrying her small trunk walking towards the New Delhi railway station. I now know why such politicians are a near-extinct species.

Bidyut Chatterjee Faridabad

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HAMBONE

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Deepening economic stress

Latest data suggests no respite from bad news

The slowdown in the Indian economy is deepening. The data suggests that growth in the July-September quarter might have slipped below the six-year low of 5 per cent, recorded in the April-June quarter. Output in the core sector fell by a massive 5.2 per cent in September, its sharpest decline in at least a decade with seven of the eight industries comprising it witnessing contraction. The core sector has about 40 per cent weight in the index of industrial production (IIP). A sharp contraction in core-sector output will put further pressure on overall industrial production. The IIP declined by 1.1 per cent in August.

Further, the purchasing managers' index showed that growth in manufacturing fell to a two-year low in October. The collection of goods and services tax was once again below the ₹1-trillion mark in October. The Central government's fiscal deficit reached 92.6 per cent of the full-year target in the first six months of the fiscal year, owing to slower than expected growth in revenue collection as tax mop-up in the fiscal year could fall short by ₹2 trillion. The silver lining perhaps is the mild uptick in sales of passenger vehicles. Maruti Suzuki India, for instance, showed growth in sales after eight months in October. However, it could just be reflecting the festive demand and might not sustain in the coming months. Commercial vehicle sales, for instance, continue to contract.

It is possible that the second half of the fiscal year could look comparatively good purely because of the base effect, but the extent of the slowdown is deeply worrying. The stress in the financial system, the inefficient transmission of monetary policy, and the state of the government finances would limit the possibility of a turnaround in the short run. While the Reserve Bank of India has reduced policy rates by 135 basis points this year, transmission has been poor. However, the bigger worry at this stage is the state of the government finances. Lower than expected economic growth will directly affect revenue collection and push up the fiscal deficit. But a sharp cut in expenditure would accentuate the slowdown. Additionally, questions have been raised about the quality of the Budget data, including by the Comptroller and Auditor General of India, and the government would be expected to improve transparency and address the issue of off-Budget liabilities. It will not be easy for the government to strike the right balance.

To be sure, there are limits to what the government can do in the immediate short run to lift economic growth. However, India would need policy reforms to return to a higher growth path in the medium term. The government should work in a holistic manner with the clear objective of increasing potential growth. For instance, it has done well by reducing corporate taxes, but more would be required in terms of factor market reforms to attract investment. India is considering being part of the Regional Comprehensive Economic Partnership, but it needs to swiftly prepare to maximise gains from trade in the medium term.

Evidently, the slowdown is much deeper than what most people expected, and a sustainable recovery would need interventions going beyond another rate cut or allowing some fiscal slippage.

Protecting power assets

Kudankulam should serve as a wake-up call

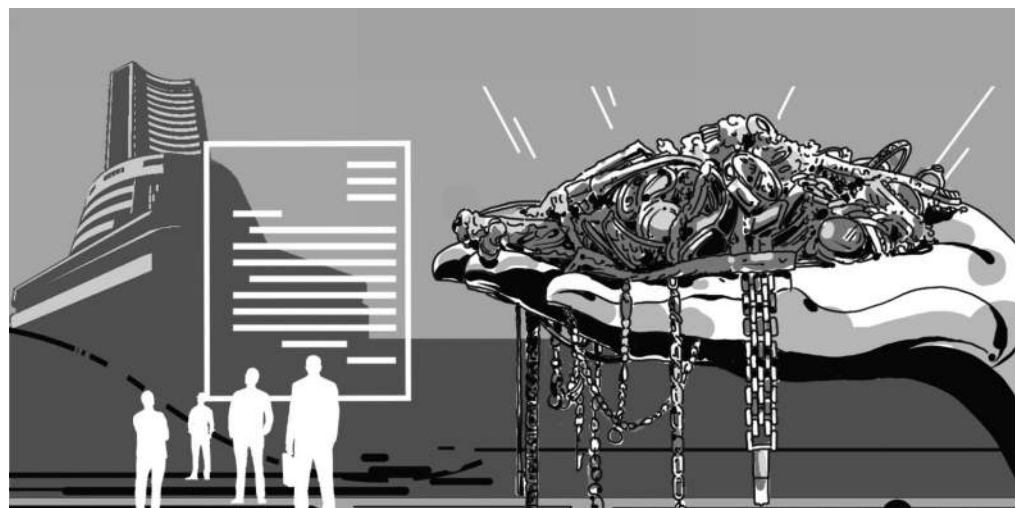
Last week, the Nuclear Power Corporation of India Ltd (NPCIL) admitted that computer systems at the Kudankulam nuclear power station had been infected with malware since early September. This confirmed rumours about cyberattacks targeting India's power system. Cyber-threat researchers estimate that a large number of assets on India's national power grid could be vulnerable to attacks. India may be under-prepared to protect these assets for a variety of reasons. Ramping up security across the power grid should be a strategic priority since this is a tempting target for terrorists, in addition to being vulnerable in the case of hostilities with any other nation. Cyberattacks on nuclear installations and other power sector assets have become increasingly common. Some attacks have been carried out by state actors, while others appear to be the work of cybercriminals out to steal data, or extract ransom. The infamous Stuxnet attack on Iran's nuclear sector in 2010 is believed to have set back its nuclear programme by years. There have been multiple ransomware assaults on electric power billing systems across the world.

Known cyberattacks on Indian power sector assets include a November 2017 malware attack on the Tehri Dam in Uttarakhand, a ransomware attack on West Bengal State Electricity Distribution Company in May 2017, an attack on Rajasthan's discom (February 2018), and an attack on Haryana's discoms (March 2018). Kudankulam is high on the list of such targets because it is both part of the nuclear programme, as well as on the power grid. The NPCIL infection is said to be caused by Dtrack, a Trojan virus that creates backdoors into computer networks. This was originally developed and commonly used by North Korean hackers with state backing. However, there are many variations of Dtrack "in the wild" and the code may have been adapted by another group.

White-hat hackers have released lists of dozens of other Indian power sector assets that they claim are vulnerable to cyber-assaults. While the Indian Computer Emergency Response Team (CERT-In) claims to be aware of these vulnerabilities, and is reported to have issued advisories in many instances, it has its hands tied because it is the responsibility of the organisation owning the asset to protect it. It is also true that much of the equipment on the power grid is old and based on outdated chips with vulnerabilities that cannot be patched. The government has been trying to set up a system for cyber-protection of infrastructure with the National Critical Information Infrastructure Protection Centre (NCIIPC) as a coordinator and dedicated sectoral CERTs, such as CERT-Thermal-NTPC and CERT-Transmission-POWERGRID, which are responsible for guarding power assets. However, it has to iron out the bureaucratic hassles in assigning the responsibility, which can prevent a vulnerability being patched even after it is identified.

Protecting power assets will be increasingly important, given the linking of all the regional grids to the national grid. While the linking makes it easier to supply power to any region on demand, it also makes the entire infrastructure more vulnerable to contagion from cyber-attacks. It is quite conceivable that an aggressive cyber-assault could cause a nationwide outage. A holistic plan must be devised and implemented to prevent such a disaster.

ILLUSTRATION BY AJAY MOHANTY



Problems of gold deposit schemes

Banks, ETFs, and jewellers can get into some arrangement, but regulation can hobble the process

SNAKES & LADDERS
AJAY SHAH

In the jewellery trade, there is a mechanism by which firms obtain credit from customers. The stress in the economy and the rise in gold prices have come together to create difficulties for many jewellers. Informal arrangements that work in normal times, between people who know one another, do not scale up well into larger numbers of people and difficult times. Ready opportunities for improving the working of this market exist.

One of the less noticed business models of the country is the "gold deposit scheme". Here, an individual regularly pays money to the jeweller, and at a future date, she gets gold or jewellery.

At its best, this is a relation of trust, the regular payments are for achieving savings and a capital-raising mechanism for the jeweller. There is a legitimate role for such arrangements in an environment of high social capital. But these informal arrangements tend to scale up poorly.

If the customer brings in money and the jeweller uses it to buy gold, this is a hedged position. But when the jeweller does not buy gold, there is gold price risk. When the price of gold goes up, unhedged jewellers will face losses. The price of gold went up from $1,200/ounce to $1,500/ounce between September last year and August this year, which has induced some stress.

When there is poor access to credit in the country, the jeweller is more likely to use these contracts as a method of capital raising. Ideally, this should be accompanied by positions on gold derivatives in order to slough off the price risk. But the state of usage of financial derivatives in India is often poor, with a host of regulatory and tax barriers.

In recent months, many stories in newspapers have appeared about crises at jewellers in these schemes. As an example, there is a story in *Mid-Day*, a local newspaper in Bombay, about one recent failure (November 1: http://bit.ly/MumJG, November 2: http://bit.ly/MumJGNov2, November 3: http://bit.ly/MumJGNov3).

The mainstream business/economics press tends to not connect the dots between such local events taking place all around the country. The *Mid-Day* stories on this firm say that pre-payment by consumers of about ₹300 crore is at stake. To the extent that this is an accurate estimate, it is not a large number, on the scale of the economy. But there are many such stories taking place: Google news searches are quite revealing. They may add up to big numbers, and each small episode casts a shadow on hundreds of families.

There is a poignant tragedy embedded in many of these stories because not all affected jewellers are crooks. Runs are irrational events that can overwhelm a sound business. Once the whispers start getting around, it is efficient for customers to ask for their money back, and when a long queue builds up, it is generally impossible to solve the situation. I am reminded of R K Narayan's book *The Financial Expert* (1952), which delves into the human dynamics of such a run.

If such relations were limited to a small circle of trust, and when two people know each other well enough to dismiss the claims going around on social media, they can still work. But when the persons in such relations do not know each other well, the relationship becomes more fragile.

Why do households take such risks — by putting their money in such savings programmes? Many elements may be at work. Formal finance in India is a centrally planned oligopoly, and works poorly from the viewpoint of its users. Financial repression forces poor rates of return upon many classes of formal financial firms. Gold is a hard currency asset that is relatively safe from expropriation.

India has a large informal economy, and the mass surveillance system that is embedded in formal finance has come to scare people, and create demand for more informal channels. A striking feature of the stories in *Mid-Day* mentioned above is that while many people are demanding their money back from the firm, only two were willing to file a complaint with the police, and these two have thus far not brought documentation to prove their claims.

When the firm fails, and it has obligations to many consumers, this is a bit like the homebuyers' problem. What is required is a smooth framework for resolution. Firm failure is part of life: What is required is a fair, swift and frictionless mechanism to resolve the firm and for everyone to move on. A key barrier here is that the state of records about these informal contracts is poor. The end-game then degenerates into power play and potentially even violence.

We can readily envision business models that address the needs of both sides. Households want to be able to save regularly and mitigate their price risk in future purchases of gold or jewellery. How can this be done better? The household can go into a systematic investment plan (SIP), through which money goes every month into gold ETF units. At a future date, the household would sell the units and pay for jewellery on the spot market.

Jewellers want to obtain working capital finance for their raw material — gold. Their working capital requirements become very large if they have to first buy gold for ₹100, work on it for a period of time, and then sell jewellery at (say) ₹120. How can this be done better? The gold ETF can lend gold to banks for a fee, which is better than the present arrangement, where this gold is idle. The banks can lend gold to the jeweller, and earn a fee. The jeweller's working capital requirement of ₹100 is eliminated. Through these contracts, everyone — consumer, jeweller, the gold ETF, and bank — is better off.

There are two constraints. Under Indian levels of central planning in finance, each leg of these business relations requires approval by a financial regulator. The users of these arrangements would be caught in the government's mass surveillance system tracking financial activities, which may not be to their liking.

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Decoding the air emergency

DOWN TO EARTH
SUNITA NARAIN

We can't breathe in Delhi. It is a public-health emergency as pollutants in the air have spiked to extremely toxic levels. Officially, the air quality is in the severe+ zone, which means that it is bad for even the healthy, forget about what it will do to our children, the aged, and the vulnerable. But what I want to discuss is why and what can we do — without the clamour and the politics that in their own way are contaminating the air today.

So, what happened in end October and early November? Till the afternoon of Diwali (October 27, 2019), the air in Delhi was bad, but still somewhat breathable. But with the weather turning adverse — colder nights and less wind, and so no dispersion — pollution was steadily rising. Also, stubble burning in neighbouring states of Punjab and Haryana was beginning though its contribution to pollution in Delhi was minuscule. However, it was clear that things could get worse. This is why it was important to demand that all the local sources of pollution were checked. We needed to make sure that crackers were not burnt because there was absolutely no room for toxins in the air. Enforcement was critical. But this message was lost.

Instead, what happened was as follows. On the evening of October 27, 2019, the pollution levels spiked exponentially. My colleagues have estimated, on the basis of the data from the 50-odd monitoring stations, in the city and around, that there was a 10-fold jump in PM 2.5 concentration between 5 pm and 1 am due to the bursting of crackers. They say this completely wiped out whatever gains we had made to control pollution. So, it's clear that this was not a clean Diwali.

This is not all. The wind direction changed after Diwali and much more smoke — a result of stubble burning by farmers — blew into the city and its surrounding areas. The contribution of stubble burning went up to over 30 per cent of the pollution load. And as if this was not enough, cyclonic activity in the Arabian Sea and the late retreating monsoon meant that wind speeds died. Just died. All the pollution is now accumulated in the air. And we are suffering with each and every breath we take. We cannot do anything about the weather. But we can reduce all sources of pollution so that, even when there is no wind, we have our right to clean air. We can breathe. But this needs understanding the science and meteorology of air pollution.

There is a misplaced (or mischievous) belief that as pollution rises only in winter, the cause is stubble burning. It's an established fact that farmers set fire to their paddy fields, and that this happens from October 15 to November 15 every year. We also know that the resulting smoke contributes to the region's pollution load — and it can tip it over from being very poor to emergency.

But it is important to note that stubble burning is not the primary cause of pollution. The sources of pollution remain constant through the year — it is cleaner because through the year, winds disperse pollutants and there is circulation in the atmosphere (defined as the ventilation index). So, sources do not disappear, but pollution is not in our face. This changes in winter because the air just settles. This is why Delhi has not one but many high pollution episodes in winter, when the weather is adverse. The high smog episodes happen even in December and January, when there is no crop burning, but just local pollution and adverse weather. It is important that we recognise this because otherwise the entire attention is diverted to external sources. It may be good politics to shift the blame to other states. But it is certainly not a good pollution management strategy.

As I explained in my column last month, much has been done to combat pollution. It has led to stabilisation and even reduction in pollution. But now we need to do more of everything and I mean everything — from reducing crop burning, much stronger local enforcement to check garbage, plastic burning, dust management in construction, and roads to strict control of pollution in factories.

But the real and long-term answer will be in moving completely out of coal and other dirty fuels to cleaner natural gas or electricity. And in moving us from cars to massively augmented and well-connected public transport. This system has to be affordable for the poor and convenient, modern, and safe for the rich. But this is where we are doing too little, too late. Every breath we take is poison. And for the developing lungs of our children, this should not be tolerated. Not at all. So let's act — do much more and at scale. And I say it with complete conviction that action and passion will bring the necessary change.

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The evil repercussions of the American Revolution

BOOK REVIEW
ALEX VON TUNZELMANN

Thomas Paine's aspiration for the revolutionaries of 1776 was "to begin the world over again" in America. In his colorful and ambitious new transnational history, Matthew Lockwood pays very little attention to that. He is interested in how the ripples caused by the American Revolution affected everywhere outside the modern United States. The narrative hops from Britain and Ireland to the Spanish Empire, Russia, India, Australia, Africa and China, with a glittering cast of historical characters, including Catherine the Great, Tupac Amaru II, Horatio Nelson, Tipu Sultan and the Qianlong Emperor.

Lockwood's thesis in *To Begin the World Over Again* is bolder than a repetition of the well-known facts of foreign involvement in the Revolutionary War. The subtitle of his book — "*How the American Revolution Devastated the Globe*" — and his introduction set out eyebrow-raising claims, including that this is "the story of how Britain won the American Revolution." Partly as a result, he writes, "for the vast majority of Earth's inhabitants, who did not give a damn about a civil war in British North America or the ideas and ideals that inspired it, the American Revolution was a disaster." He finds it at the root of a long list of ills, including increasing authoritarianism within Britain itself and the wider British Empire, the failure of Irish, Indian and Peruvian movements against imperialism, the Russian conquest of Crimea, the establishment of penal colonies in Australia and the growth of the global opium trade.

Lockwood, an assistant professor of history at the University of Alabama, has a keen eye for a good yarn, and there are enthralling glimpses here of individual lives buffeted by the American Revolution. John Randall was born into slavery in Connecticut in 1764, joined the British Army as a teenager to fight against his American enslavers, escaped back to Britain with his regiment, stole a watch and was transported to Australia aboard the First Fleet. John Aitken was a Scottish burglar, highwayman and self-confessed rapist who traveled to America and returned to operate as a sort of primitive terrorist for the American cause, setting off incendiary devices (without as much effect as he hoped) in British dockyards until he was caught and hanged in 1777.

But Lockwood's grander claim that the Revolution "devastated the globe" relies on the reader's sense of a "butterfly effect": that the flap of a butterfly's wings in Brazil can set off a tornado in Texas. What soon becomes clear even from the evidence Lockwood presents is that all of these events had much deeper pre-existing causes and in many cases more immediate triggers than Betsy Ross flapping a flag.

In his chapter on Russia, for instance, Lockwood notes that Prussia, Austria, Sweden, Denmark and Russia "had been at each other's throats for generations." In India, he shows that the Second Anglo-Mysore War — which he calls "the Indian theater of the American War" — occurred in a context of multiple conflicts involving Indian states, European powers and companies across swaths of India, not least the First Anglo-Mysore War, which happened a decade before the American Revolution.

To Begin the World Over Again explores the interesting story of the British turning to Australia as a penal colony when they were unable to continue sending convicts to America, but it is stating the point quite strongly to claim that as a result "the American Revolution had fundamentally altered the lives of tens of thousands, sending countless poor and downtrodden Europeans across the globe against their will." Was all that really the American Revolution's fault? Should it have failed? From the stories here, it would seem that the globe was already doing a pretty good job of devastating itself before 1776.

Lockwood intends his book to be political: "In order to undermine ... a solipsistic isolationism in foreign affairs we must complicate and challenge the lazy idea of America's exceptionalism, and to do this we must complicate the story of its foundational moment." Yet by tracing all these intricate and disparate global events back to the American Revolution, *To Begin the World Over Again* creates a new iteration of exceptionalism that claims the Revolution was not only America's foundational moment, but the whole world's.

The Revolution was a major event in world history. But was it really this important to everyone, everywhere, immediately? When this book describes British cities after the Revolution in terms of "the swirling chaos of postwar London" or says that "the jails of Manchester were already packed with the thieves and beggars that had proliferated in the postwar city," it implies those places were physically affected by the fighting. Yet Washington did not besiege Notting Hill or Wigan.

On the French Revolution, a global event one might have thought was notably influenced by the American Revolution, *To Begin the World Over Again* has surprisingly little to say. There is no chapter on France, and where it is mentioned elsewhere the focus is on pre-revolutionary affairs. In his chapter on Crimea, Lockwood notes the cost to the French treasury of participating in the American Revolutionary War: "1.6 billion livres (not including interest) — more than twice the annual revenue of France." He remarks, "In a few short years the French financial crisis would help to push the French people to follow the example of the American Revolution and begin a revolution of their own." That's it; the narrative swiftly moves to Scandinavia. The effects of the American Revolution on France merit considerably more attention, and might have strengthened the book's argument.

To Begin the World Over Again does not end with a conventional conclusion. The last chapter, on Anglo-American competition for Chinese trade, finishes abruptly with the assertion that "once more the effects of the American Revolution had rippled out from the Atlantic, aiding the expansion of the British Empire and undermining its imperial rivals." This is a pity. Having proposed such an audacious thesis, and collected a lot of interesting but not self-evidently cohesive or decisive information, the book needs to draw its ideas together and make its case that the American Revolution devastated the globe. As it is, though much of the material here is lively, enjoyable and compelling, the thesis is not persuasive. Rather than being either a unique global inspiration or a unique global devastator, perhaps in the 18th century America was just not the only game in town.

TO BEGIN THE WORLD OVER AGAIN
How the American Revolution Devastated the Globe
Matthew Lockwood
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