Boeing's 737 MAX crisis

After the two accidents involving Boeing's 737 MAX series, aviation safety standards will likely change

TECH-ENABLED

DEVANGSHU DATTA

The grounding of the Boeing 737 MAX series may remind aviation historians of the De Havilland Comet. The Comet was the first commercial jetliner. It was designed by Sir Geoffrey de Havilland, who designed the legendary World War II Mosquito, and the popular Moth range.

Inducted into service in 1952, the Comet had several crashes. One of the worst was at Dum-Dum airport, Kolkata in 1953. The wings came off at take-off and the plane turned into a fireball, killing all 43 people on board.

After the Comet was grounded, several design flaws were discovered. The wing profile could cause problems with lift in some circumstances. Stresses on the fuselage during flight were more dangerous than had been realised and metal fatigue was studied in detail. Better aero design resulted as aircraft manufacturers absorbed those lessons. A redesigned military variant of the Comet, the Nimrod, remained in service with the Royal Air Force until the 21st century.

Boeing's 737 Max series has been grounded worldwide, following two crashes, with 346 fatalities. The first crash was a Lion Air flight in Indonesia on October 29, 2018 and the second, was an Ethiopian Air crash in Ethiopia on March 10. Investigators say there are "clear similarities" in the incidents caused by problems with the MCAS, or Manoeuvring Characteristics Augmentation System, which is used in the 737 Max. While the 737 family has been in use since 1967, with over 10,000 variants delivered by Boeing, the Max series underwent major redesign.

This was to comply with modern standards of fuel-efficiency, and make it competitive with the Airbus A320Neo. The 737 is a twin-engine, narrow-body (single aisle) aircraft. The Max series has variants, seating between 140-230 passengers, with ranges of 6,000-7,000 km. The first delivery was in May 2017 and by January 2019, Boeing had 5,011 orders and it had delivered 350.

The new Leap-1B engines claimed to reduce fuel consumption by 14 per cent in the Max, compared to previous 737s. The Max was touted as 4 per cent more fuel-efficient than the Airbus Neo. The new engines are located further forward, and placed higher on the wings. This changes the aerodynamic characteristics, compared to the previous 737-NG series. The new configuration can result in the nose of the aircraft rising, especially at slow speeds. An aircraft depends on lift caused by airflow under the wings to keep it flying.

The wings are always at some angle to flight direction. This is called the "angle of attack" (AoA). Lift depends on the AoA. The maximum lift is attained at the "critical angle of attack". If the AoA is higher than the critical angle, lift decreases, leading to stalls.

As the nose rises, AoA increases, and as mentioned above, the 737 Max has a tendency for the nose to rise. The response to exceeding critical AoA is to pull the nose down, until AoA comes back to the safe zone. The MCAS is a sensor-based software system, which is supposed to do this automatically. It calculates air-speed and angle of attack and moves stabilisers in the tail to push the nose down (by pushing the tail up).

Unfortunately, there seem to be problems with the MCAS. One is that the sensors were apparently misbehaving, during the Lion Air crash, at least. The MCAS repeatedly diagnosed a stall and pulled the nose down, when the AoA was actually alright. The pilots could do nothing about this and may not even have realised there was a problem until it was too late.

The MCAS can be disconnected if the pilots realise there's a problem but two optional safety features were missing on both planes. One is an AoA indicator, which displays the sensors' readings; the other is a light that activates if the sensor readings disagree with each other. The "disagree" light costs $80,000 – not much, given that the plane costs over $120 million.

Pilots also say that they have not received enough training on a plane that has changed flight characteristics, and uses a new software system, which may misbehave. Capt. Dennis Tajer of American Airlines, who is the spokesman for the Allied Pilots' Association, says pilots received just 56 minutes training on an iPad when shifting from the 737NG, to the 737 Max.

Boeing now faces class-action lawsuits and it has of course, seen spate of cancelled orders. Aviation industry regulations and safety standards may well change as a result of these two incidents. If that happens, at least the deaths will not have been in vain.

Three choices before wobbly NBFCs

The fate of NBFCs with large exposures to the developers is intertwined with the real estate sector

BANKER'S TRUST

TAMAL BANDYOPADHYAY

On March 15, bad debt-laden private sector lender Lakshmi Vilas Bank raised ₹459.59 crore equity. The money will raise its capital base, said a stock market notice which also scotched the speculations about three non-banking finance companies (NBFCs) — Indiabulls Housing Finance, Edelweiss Financial Services and Srei Infrastructure — exploring possibilities of a merger with the bank. Or, did it?

One of the three even planned to hold a board meeting to discuss the merger but didn't go ahead. Apparently, the idea has not been dropped; it's shelved for the time being.

India's large NBFCs have realised that the dream run of the last three years cannot last. If they want to grow, they need to reinvent themselves as niche players in high-margin businesses and create new markets where most banks fear to tread. The other choice is converting themselves into banks.

The merger of Capital First with IDFC Bank is the beacon before them. Incidentally, all three that have reportedly looked into the southern bank had applied for a universal banking licence when India's banking regulator opened the window in 2013 but none of them got it.

Will the Reserve Bank of India (RBI) allow any one of them to be merged with a bank? Or, give its nod if they seek licence to become a bank? For the record, Indiabulls Housing had picked up a 39.8 per cent stake in OakNorth Bank in the UK in November 2015. It could not have been done with RBI's approval!

Meanwhile, the NBFC sector is still busy putting its house in order, selling portfolios and even group companies to generate liquidity and restraining from creation of new assets. Of course, there are a few exceptions, just a few yards away from the business-as-usual days but many, including a few big ones, are licking their wounds after the liquidity crisis, beginning end-August 2018.

The compounded annual growth rate (CAGR) of NBFCs in the past five years has been 17 per cent versus 9.4 per cent growth of the banking system; the housing finance companies (HFCs) grew even faster, at 20 per cent. Clearly, it was a disaster waiting to happen.

Indeed, different ways are being explored to get back to health but the central theme of the industry is cutting down growth. When one grows too fast, the quality of assets becomes a casualty. One large NBFC has raised interest rates for its existing customers by a hefty margin — 3 per cent for home loans, 5 per cent for LAP or loans against property and, hold your breath, 8 per cent for developers! The idea is to drive the borrowers out to knock at others' doors for money.

In some sense, the fate of the NBFCs, particularly those that have large exposures to the developers, is intertwined with India's real estate sector. A February report of Liases Foras, a real estate research firm, says the developers' sales in the past decade, between 2009 and 2018, have grown 1.28 times in units and 1.56 times in value but the inventory during the decade has grown 3.33 times in units and 4.72 times in value. The total debt of the industry has risen from ₹1.2 trillion to ₹4 trillion.

Analysing the business of the top 90 developers, including the listed ones, the study says they have a disposable income of ₹57,000 crore to meet the annual debt repayment obligation of ₹1.29 trillion. The industry is at an inflexion point and the developers are "an elephant in a well" which cannot come out on its own. It will not be a nasty surprise if a few of them drown and pull down some of the NBFCs deep into the well in the process.

The combined market share of NBFCs and HFCs in the Indian financial sector has grown from 13 per cent to 21 per cent since 2008 and the 10-year CAGR of some of the NBFCs has been as much as 35-40 per cent against a sensible 18 per cent of the Housing Development Finance Corp. It's no secret that many of them financed this growth by taking short-term low-cost liabilities and rolling them over. Once the cost of borrowing rose, that window was nearly shut and the growth engine started grunting.

What's the future looks like for them? After selling portfolios and driving many borrowers out, the quality of asset is bound to suffer. This is not a good story as not all NBFCs have impeccable assets. Even if the RBI does not conduct an industry-wide asset quality review or AQR — which it had done for banks in 2015 — some of the NBFCs will definitely be under the regulator's scanner. Simply put, they cannot get away without exposing there warts and providing for bad assets.

Under these circumstances, there are three options before the industry:

■The most preferred path is becoming a bank — either merging with one (there are quite a few in south India) a la Capital First or applying for a fresh licence. The RBI has put universal banking licence on tap but there has not been any serious contender as yet. However, unless the regulator changes its approach to what defines a "fit and proper" candidate for a bank, it will be difficult for all of them. Many had applied for a licence in 2013 but did not get and quite a few are owned by corporations that cannot get a banking licence till the norms are changed.

■Those that are primarily in the high-margin retail space will continue to do well for their better understanding of customer behaviour, technology, collection and cost structure compared with banks. They can continue to create new credit markets. But those that have been competing with banks on the home loan turf at a wafer-thin margin and giving LAP and wholesale loans to developers to compensate for that, need course correction.

■Finally, using their wide network some of the large NBFCs can go big time for securitisation. They can originate loans and convert them into debt instruments and sell to banks. Securitisation is the practice of pooling various types of debt — home loans, commercial mortgages, auto loans etc — and selling their related cash flows to investors as securities in the form of bonds. The banks will be too happy to buy such securities if they are convinced about their quality.

In sum, life for most NBFCs will never be the same again. My guess is it will be lights, camera, action after general election.

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CHINESE WHISPERS

EC vs Thirumangalam formula

The Thirumangalam formula — the art of influencing voters with cash promises perfected by the Dravida Munnetra Kazhagam during the 2009 Thirumangalam byelection in Madurai district — is in full flow in Tamil Nadu as political parties gear up for the coming Lok Sabha election and the bypolls for 18 Assembly seats in the state. To curb the illegal cash flow, the Election Commission (EC) had directed banks to inform the authorities about any suspicious cash movement or large deposits made in particular accounts. On Friday, the commission's flying squad confiscated 6 kg of gold from a vehicle in Chennai and another ₹68 lakh worth of gold from Ariyalur, about 260 km from Chennai. The EC revealed its flying squad and surveillance teams had recovered about ₹14 crore in cash till last weekend.

Will it be Pragya?

Will Pragya Singh Thakur (*pictured*) get her wish? The self-styled godwoman and Malegaon blast accused has been doing the rounds of the Bharatiya Janata Party (BJP) offices, demanding that she be fielded against former chief minister Digvijaya Singh from Bhopal in the coming Lok Sabha election. After MP Chief Minister Kamal Nath announced that Singh would contest from the city, Pragya expressed her desire to contest, saying, "I want to fight against Digvijaya in this contest of justice and injustice." Bhopal is a seat the Congress has not won in the last three decades.

VIP status

The grand alliance of political parties in Bihar has given VIP entry to a little-known outfit. The Rashtriya Janata Dal (RJD) gave three Lok Sabha seats to the Vikassheel Insan Party (VIP), formed barely a year ago. The "VIP" hasn't fought a single election but has tremendous influence among the Nishad community members. In total, the RJD has conceded 11 seats to the backward and *mahadalit* parties in the alliance. This alliance is an umbrella social coalition for 40 Lok Sabha seats in the state stitched up to restrict the National Democratic Alliance's efforts to woo floating voters among the intermediate castes.

INSIGHT

The overriding power of IBC

SUKRIT R KAPOOR

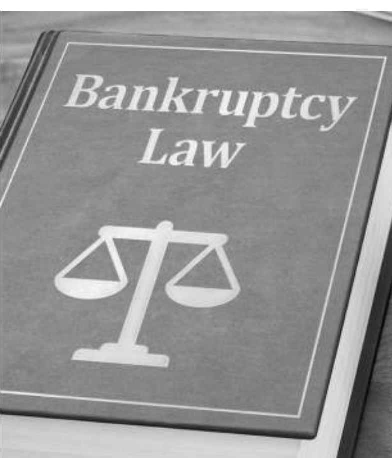
With the proximity of the 2019 elections to the onset of another scorching summer, the divergent opinions on the overall success of the Insolvency and Bankruptcy Code, 2016 (IBC) are expected to heat the debates. Be that as it may, one aspect that remains undebated is the primacy garnered to the IBC on the judicial side. Contextually, a key decision passed last month has strengthened the position of resolution professionals and has in turn brought much relief to creditors under the insolvency and bankruptcy regime.

The decision came in the matter of Srei Infrastructure Finance versus Sterling SEZ and Infrastructure, where the Mumbai bench of the NCLT (National Company Law Tribunal) upheld the supremacy of the provisions of the IBC over those of the Prevention of Money Laundering Act, 2002 (PMLA) — a stand that was hotly argued against by the Directorate of Enforcement.

The crux of the debate in the SREI Infrastructure matter pertained to whether a moratorium as announced under Section 14 of the IBC would hit the attachment proceedings under the ambit of PMLA? The wider debate concerned whether the IBC provisions ought to be given primacy over other special legislations, contextually the PMLA?

The decision answered both the questions in affirmative and in doing so the tribunal relied upon the trite position in law that in the event of conflicting provisions of two special statutes those of the later enacted one shall persist.

This rule of interpretation was confirmed by the Supreme Court in the 2001 Solidaire India versus Fairgrowth Financial Services case, wherein it effectively noted that had the legislature intended to subject the overriding powers of the later special statute to those of the earlier, it would have specifically provided so. But an unconditioned non-obstante clause in the later enacted statute indicates otherwise.



From the standpoint of conflict of laws, the above debate falls within the broad confines of the doctrines of "lex specialis derogat legi generali" (that a special law will prevail over a general statute) and "lex posterior derogat priori" (that in case of two conflicting laws the later statute will prevail). These two principles have been extensively propounded in various contexts to determine not only the applicability of conflicting statutes, but also to precisely determine the degree and extent of application of the statutes aiming at defining the relevant legal framework.

Importantly, as per "lex specialis", when a special law stops short or remains silent on certain aspects, the gaps so created can be filled by the provisions of the generally applicable statutes; at times even expressly noted under the special code/statute, for instance, that the provisions as prescribed under the codes of civil or criminal procedure shall be applicable.

"Lex posterior" as applied in the said decision noted that between the Section 71 of the PMLA and Section 238 of the IBC — both granting overriding effect to the provisions of the respective statutes — the latter will prevail, thereby ensuring that the resolution professional will proceed to take control and custody of all the assets of the corporate debtor including those subject to attachment under the PMLA.

This finding was cemented in view of the 2018 ruling of the PMLA Appellate Tribunal in Bank of India versus Deputy Directorate Enforcement, Mumbai, which ruled that the proceedings before the adjudicating authority under the PLMA in respect of attached properties is a civil proceeding, and in view of the moratorium as effected under Section 14 of the IBC the adjudicating authority under the PMLA does not have jurisdiction to attach properties of the corporate debtor undergoing the corporate insolvency resolution process.

The consequence of the aforementioned decision has confirmed the vesting of the NCLT and the NCLAT with the power to raise the attachment of properties under PMLA and to direct the Enforcement Directorate to hand over the possession of such properties of the corporate debtor to the resolution professional — an advantage that had been extended to the liquidator under the IBC as seen last year in Surender Kumar Joshi versus REI Agro, where the NCLT (Kolkata Bench) had directed the Enforcement Directorate to hand over the possession of the attached properties of the corporate debtor to the liquidator.

The NCLT Mumbai bench in the above decision has given due consideration to the object and purpose of both IBC and PMLA. Although the resolution professional could have approached the adjudicating authority under the PMLA to seek raising of the attachment, the NCLT noted that it was "advisable to take a route where assets can be utilised in a speedy manner rather [than] waiting and lose the value of assets over a period of time."

Upon perusing the stance taken by the NCLT, the principle of maximum efficacy originally propounded as "règle d'efficacité maximale" — often followed in interpreting conflicting provisions in enforcement of international arbitration awards — comes to mind. In 1996, the apex court of Spain had noted in Actival Internacional S.A. versus Conservas El Pilar S.A. that: "According to the [rule of maximum effectiveness], in case of discrepancies between provisions in international conventions regarding the recognition and enforcement of arbitral awards, preference will be given to the provision allowing or making such recognition and enforcement easier, either because of more liberal substantive conditions or because of a simpler procedure."

The decision, which in all probability will go through appellate rounds, gives resolution professionals and creditors. a reason to cheer about.

The author is senior associate, Hammurabi & Solomon Partners. Views are personal

LETTERS

Judicial reforms vital

This refers to ''Missing in the manifestos'' by M J Antony (March 20) which brought out a simmering problem where litigant distress does not feature in any party's election promises. Judicial reforms are the need of the hour. Clearance of long-pending cases and making jails less crowded isn't within the radar of any political party as there are no immediate electoral gains. There are more than 33 million cases pending in courts. Official statistics show 140 cases pending in courts for over 60 years. About 66,000 cases are pending for more than 30 years. The states with the maximum pending cases are Uttar Pradesh, Maharashtra, West Bengal, Bihar and Gujarat.

It is strange we do not have any limit on the number of years a case can drag on. If a definite time frame is embedded in the system, we can speed up cases. Gaming the system for petty gains at the cost of the litigant is also a ruse that needs to be nipped in the bud. Massive amounts of money are locked up in litigation. Once pending cases are cleared, a lot of money could be released into the system. One reason for the increase in pending cases is the acute shortage of judges.

In a couple of months, a new government will be sworn in. Let us hope the new government will have judicial reforms on its agenda to provide succour to long-suffering litigants.

K V Premraj Mumbai

Keeping Jet flying

This refers to "Banks to take control of Jet Airways cockpit" (March 21). The move of a consortium of lenders led by the State Bank of India to infuse funds and keep the airline functioning is a highly risky decision and yet, this radical step will support the aviation sector as well as all employees. The present credit exposure of the consortium of lenders to Jet Airways is a potential bad asset, and despite that, any further infusion of bank funds into the company to rescue it from closure depends on the successful execution of the risk mitigation and management measures of the lenders.

V S K Pillai Kottayam

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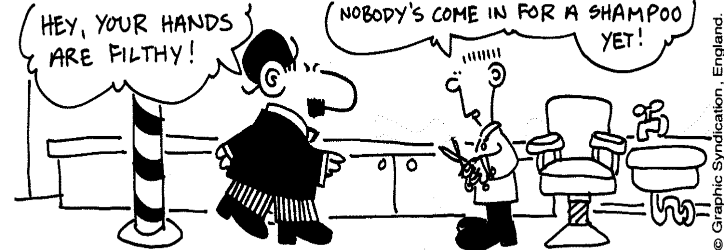
HAMBONE



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Relief for start-ups

DVR norms have minimised scope of misuse

Promoters of unlisted companies have reasons to cheer after the Securities and Exchange Board of India (Sebi) released a consultation paper on the issuance of shares with differential voting rights (DVRs). The issuance of shares with higher voting rights was banned in 2009. The latest move shows Sebi is seized of the problem that many unlisted start-up promoters face — the constant need for funds to fuel growth without losing control over their firms. The regulator has also proposed listing such companies, provided the shares with superior voting rights are held by promoters for more than one year before filing the draft prospectus. Last year, both the Hong Kong and Singapore stock exchanges allowed the listing of companies with dual-class shares.

To aid the listing process, Sebi has proposed to relax regulations such as the requirement of consistent profits for three years before issuing DVRs, allowing promoters to hold "superior" shares post listing and changes in the takeover code. However, these shares cannot be issued after listing, traded or pledged. Globally, promoters of some of the leading listed companies Alphabet (promoter of Google), Facebook and Alibaba have used this route to retain control over their firms. In its consultation paper, Sebi has followed the structure followed in these companies in terms of the number of votes allowed per share. That is, in the case of superior voting rights, one share can have a maximum of 10 votes, and for the fractional voting rights, 10 shares can have one vote.

Facebook is a good test case. On the one hand, it has taken a lot of flak because Zuckerberg and other promoters have voting rights of almost 70 per cent. At the same time, Zuckerberg's decision to buy Instagram for $1 billion in 2012 by using his significantly higher voting rights has paid rich dividends as Instagram's value grew to $100 billion in 2018 — a good example of the founder's vision leading to value enhancement for all shareholders.

Sebi's move comes at a time when there is a raging debate regarding the one-share, one-vote versus "superior" shares globally. Leading fund managers and corporate governance experts have issued warnings that dual-class shares would reduce the oversight of the public, thereby reducing the management's accountability to these shareholders. Also, such structures hinder the ability of the board of directors to exercise their duties. Critics argue that such decoupling of voting rights from economic ownership is detrimental to shareholders, especially in the long run, because it allows companies to avoid the threat of the market mechanism, which has historically kept managements in check. Other arguments against such structures include abuse by family-owned businesses by giving themselves considerably higher compensation packages, little influence of shareholders if things go wrong, and perpetual voting rights that can be transferred.

But Sebi has been prudent by taking a conservative approach in this regard. For example, the proposal is to have a sunset clause of five years after listing, and if the majority of the shareholders agree, it can be extended by another five years. There are several other restrictions: Post-IPO, superior shares will be treated as ordinary shares in the case of appointment/removal of independent directors or auditor; change in control of the company; voluntary winding up of the company; and others. This would result in adequate checks and balances so that chances of abusing the system are minimised.

Squeezing PSUs

Demanding second interim dividend is bad optics

State-owned oil major Indian Oil Corporation (IOC) has declared it would pay a second interim dividend of over ₹1,400 crore. The government owns just under 54 per cent in IOC, and will thus get over half that amount. The government has reportedly also demanded a second interim dividend from ONGC, which was initially unwilling to pay but has announced a board meeting in the next few days to pay what the government demands. ONGC had quite reasonably complained that it had just handed out an interim dividend, and therefore it was not as if it was swimming in cash; further, it argued it would need approval from the markets regulator — the Securities and Exchange Board of India (Sebi) — to pay a second interim dividend so soon. Both IOC and ONGC had accompanied their interim dividend payouts with share buybacks, which put money in the government's pocket. Coal India Ltd has declared an interim dividend as well, which will give the government ₹2,600 crore.

It is clear the government is pulling out all the stops in order to achieve its fiscal deficit target, which has been revised upwards to 3.4 per cent of gross domestic product in the ongoing financial year. But there is a big hole in the government's collections of taxes, caused by the underperformance of revenue from the goods and services tax, or GST. The revised estimate for revenue from GST is ₹1 trillion less than what was in the original Union Budget for this financial year. That is 16 per cent of the budgeted fiscal deficit and would, if not plugged, take the fiscal deficit up to nearer 4 per cent of GDP. Some of that is being sought to be made up by higher than expected direct tax collections. But the performance on that front is also not that encouraging, going by the latest advance tax numbers.

The government is clearly still short of expected revenue and is resorting to squeezing public sector companies over and over. Indeed, asking for a second interim dividend so soon after the first reflects poorly on the government. Aside from anything else, it looks like it did not even have a plan on how to make up for the revenue shortfall, which is not a good reflection on its fiscal management. Even if it is not to be blamed for its problematic estimate of GST revenue, given that the new indirect tax regime is still settling down and is unpredictable, what appears to be floundering for a few thousands of crores of rupees gives the impression of the absence of a plan. The finance ministry should be more open about its fiscal mathematics.

It is important to remember that listed public sector companies are not the government's piggy bank. Listing them was supposed to impose greater market discipline on the government, which should respect the rights of minority shareholders and ensure independence for the company managements. That does not appear to be happening in this case. The oil majors, in particular, might well want to invest their cash rather than hand it over to the government to spend. That should be their decision. Forcing PSUs to pay more is counter-productive because it will reduce their efficiency and their value in the long run.

ILLUSTRATION: AJAY MOHANTY

Making sense of airline troubles

Interfering with firm entry or exit, price fluctuations, or products and processes: These are the pathways to stagnation

SNAKES & LADDERS

AJAY SHAH

A few supply shocks have come together in airlines. What happens in a market when supply is suddenly restricted? The price moves until the gap between supply and demand is cleared. We conjecture that with economy class airline tickets, there is ample demand flexibility, and relatively modest changes in the price will restore equilibrium. In the meantime, surviving airlines will get a surge in profitability. They will lease additional planes, thus replacing the gap in supply. Price fluctuations, and firm death, are the beating heart of the market economy.

Difficulties in Jet Airways and the grounding of some planes by Boeing: These events have coincidentally come together as a supply shock in airlines. Will the price of plane tickets go up dramatically? How will the market process work out?

The key idea of the price system is that prices move until supply and demand are equalised. As an example, suppose there is drought and the supply of wheat goes down. Now there is a gap between supply and demand on the market. The price must move until some buyers are rationed out, and then the supply suffices to meet the demand. The trouble is, most people are quite insensitive to the price of wheat. Modest changes in the price of wheat will not induce a significant change in demand. Therefore, the price of wheat has to move by a lot in order to solve the problem of the supply shock.

Contrast this with airlines. In the last 20 years, we have got a great surge of middle class buying of economy class tickets. These are price-sensitive buyers! When the price of plane tickets goes up, there are many people who will travel by train or road (these effects will be strongest for short flights, e.g. Delhi to Jaipur). There are many people who will make do with video calls.

This high demand elasticity means that a relatively modest increase in the price will suffice to choke off demand to the reduced supply. These responses will be stronger as the days go by, as many seats on current flights had been sold earlier and there is reduced room for demand responses.

At first, the surviving airlines will enjoy higher profits. This is a normal and fair market process. The market system requires going through difficult times, at low profit rates, in order to enjoy high profit rates at times like this. The restoration of health in Indian firms requires a great deal of exit by weak firms. The more efficient airlines will survive. They will look to expand capacity when they see the outlook has become better. They will lease new aircraft.

It is useful to focus on the plane. Ultimately, what is required in the economy is that a plane has to fly from Bombay to Nagpur. Earlier, that plane was leased or owned by Jet Airways. An efficient financial system is one where leasing companies shift leased planes from Jet Airways to other airlines, and the bankruptcy process sells off the owned planes. As long as the plane flies, it does not matter what logo is painted on its tail.

Some people are unhappy at the temporary surge in prices. In our socialist instinct, we feel that prices should not change. But price flexibility is the essence of the market process. Supply has declined: We need higher prices to deter some buyers (who will shift to trains, buses or video calls) and allocate the seats to other buyers. A sophisticated market is one where prices change continuously, and rapidly respond to news.

Some people are unhappy at the surge in the profitability of surviving airlines. This is of the essence to get to healthy firms and to get back to high investment in the country. Many industries in India are stalled owing to the lingering survival of inefficient players, who continue to sell at low prices and damage the profitability of the entire industry. The exit of the "zombie firms", the inefficient players, restores profitability and sets the stage for investment.

A good market economy is one with a steady pace of "creative destruction": Some firms should die every year, and some new players should enter every year. As an example, we do this in every mall in India: The cast of shops that occupies the mall changes every few months. This level of dynamism is required in all parts of the economy.

What should the government do? The first thing that the government needs to do is let the price system work. If a firm is in trouble, there should be no rescue.

The role for the state lies in bankruptcy reform: We need to build the Insolvency and Bankruptcy Code (IBC) up to the level of capability where firms rapidly finish the IBC process. The IBC process should be fully neutral about whether a Jet Airways gets liquidated or resolved: This is a question for private players to sort out. All that is required from the government is the establishment of law and institutional capacity so that when firms begin on the IBC journey, they finish within the timelines defined in the law.

The role for the state is to undertake the financial reforms that yield sophisticated financing arrangements. A nice feature is the role of leased and not owned planes. This simplifies the reallocation of planes. All that is required is some painting and refurbishing, and a plane can switch from one airline to another. There is work in store, in tax policy and financial regulation, to make leasing work properly. Such financial arrangements should be taking place on a greater scale, so as to achieve a greater separation between the productive assets vs the firm that coordinates production using the assets.

Firm exit and price fluctuations are seen as trouble. We in India need to internalise the intuition of a genuine market economy. Interfering with firm entry or exit, interfering with price fluctuations, interfering with products and processes: These are the pathways to stagnation.

The writer is a professor at National Institute of Public Finance and Policy, New Delhi

Measuring change through the young

DOWN TO EARTH

SUNITA NARAIN

Greta Thunberg is a 16-year-old Swedish school girl who is rocking the world with her protest against inaction on climate change. In August 2018, as Sweden was gearing up for its national elections, she decided not to go to school but to sit outside to raise the flag on the need to do more, much more, to combat deadly climate change. At first, it is said, she was alone but as she persisted and persisted, her voice got louder and louder. Now she sits in protest every Friday outside her school, urging the world to act. And with her, at the last count, on a Friday of mid-March some 1,650 strikes were on in over 100 countries.

What Greta and her fellow youth are asking is simple and straight: "If climate change happens, as predicted and now more or less certain, then what is our future?" This is a fact. The inheritors are asking: What are you leaving for us? What are you doing?

I don't know how far Greta's organic movement will go — will it get exhausted, irrelevant or just disappear as the youngsters get older and the reality of livelihood takes over. But I hope it will not go away. I hope it will continue to rage and rant and spread across our world. I hope it will capture the imagination of the young, gather their desperation, and all this will make its way into their parents' company boardrooms and ministerial offices. I hope it will not shush down. I hope it will not become like the old — like us.

Because there is one more chance for us to make this work. The fact is if we reconfigure our measurement of progress so that it is built on measuring the wellbeing of our children, then the planet may just survive. We know today that children are not just the inheritors of the future warmer world. We know also that environmental destruction and toxification have the worst impact on their lives. So, make them the centre of the universe of development. Measure growth through their wellbeing.

We know that the lack of access to safe sanitation impinges on children's life, not just wellbeing — it leads to malnutrition, stunting and a high disease burden, including death. We make this our way to understand if sanitation is improving or not, not just counting toilets. Then we know that the availability of the toilet is not enough, human excreta has to be taken back and made safe for reuse. If not, it will pollute water and spread diseases, including vector-borne. So, let's start measuring pollution through data on the growth of malaria or diarrhoea.

Similarly, the lack of clean energy in homes is another wicked problem; women cooking on biomass fuel suffer from killer respiratory disorders. Lower respiratory tract infections remain the top diseases of children and adolescents in the world. Even as the world needs to re-invent its energy system to mitigate greenhouse gas emissions, which cause climate change, it also needs to do much more to provide energy to the poorest in the world. Then there is the challenge of toxification because of air in cities, which is showing up in the increased disease burden, particularly of children. So, let's measure progress to clean energy or clean air through the health of our children.

But this is not all. The young are the ones who have the highest obesity levels — they are the ones who are targeted through advertisements for junk food. It is also a fact that industrialised and chemicalised food is at the root of the current broken agricultural system. It is providing hunger to many and too much food to the rest. Let's measure the change we need in agriculture, through the food that children eat and their wellbeing — not being undernourished or over-nourished.

There is also no doubt that education — ideally good and meaningful — changes lives. There is also enough evidence that educating the girl child is the beginning of the change in the fertility and population trajectory of a country. Their empowerment is real power as an educated young woman is the first to take charge of her mind and her body. It's also clear that education will build more informed consumers — the inheritors cannot take on the same lifestyle and expect to save the planet.

It is also clear that livelihoods are critical — the insecurity of the young comes from their lack of jobs in this increasingly automated world. What will they do? What are the skills that will build the new world, which will not add to the crisis of climate change? Have we built jobs that are in the green economy? This is the question that will work, not just to build futures, but also correct the present.

In this way we will measure the heath of the planet through the health and wellbeing of our young. We will build hope that we are working towards a new future — the one Greta Thunberg and her millions are calling us to do. Today, not tomorrow.

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The prosecutor doesn't rest

BOOK REVIEW

JENNIFER SENIOR

Am I the only woman in America who considers Preet Bharara her podcast husband?

I am guessing not. His show, "Stay Tuned With Preet," is a salve, an indulgence, a lifeline: It coasts along not just on the vitality of Mr Bharara's intelligence (uncommonly useful, given that he once was the United States attorney for the Southern District of New York, and so many urgent questions these days are legal ones), and not just on his ability to do a good interview (one wonders if years of quizzing witnesses and summarising cases made him understand the rhythms of a good story), but on his warmth, humour, reasonableness.

Donald J Trump may be laying dynamite beneath the floorboards of our most beloved institutions, democracies here and elsewhere may have blown a flat, but Preet's still there, calmly issuing dispatches from Planet Rational, reminding us each week that humane people with fine minds and old-fashioned concerns (integrity! character! truth, justice, the commonweal!) are still very much a part of public life.

Plus, his children think he's a dork. United States attorneys: They're just like us.

Given how busy his tenure was — his office prosecuted everyone from the Times Square Bomber to the two top legislators in Albany — and given how rare a varietal he is of charm and conscientiousness and intellect, Mr Bharara seems the ideal candidate to write a fine memoir. But *Doing Justice: A Prosecutor's Thoughts on Crime, Punishment, and the Rule of Law* isn't a memoir, exactly; had it been an uncomplicated reminiscence, I would have enjoyed it much more.

What is it instead? In his preface, Mr Bharara explains that for years, he's wanted to write a guide for young prosecutors, one that draws "not from legal texts and treatises but from the real-life human dilemmas that would perplex them every day." But as Mr Bharara was developing his themes, he adds, he realised that this book "might in fact be a guide to justice generally, not only for practitioners, but for real people who strive and struggle in their homes and offices to be fair and just."

Which is all fine in theory — but only sometimes works in practice. Mr Bharara seems to be addressing would-be prosecutors on some pages and a wider audience on others and he doesn't seem to settle into a common register until the second half of the book.

More vexing still: In pouring his memoir into the mould of an advice book, Mr Bharara winds up speaking in aphorisms and bromides. Of all the counsellors in literature to channel, why on earth would he choose Polonius?

I half wonder whether *Doing Justice* works better as an audiobook, which Mr Bharara personally reads aloud. I suspect he's had to read much of what he's written aloud, for speeches, closing arguments or his podcast. What can seem profound in your earbuds can seem facile on the page.

Is all of this book filled with Polonius gunk? No. Most chapters delight or provoke in some way, if you mentally redact the fortune-cookie sentences. Mr Bharara divides *Doing Justice* into four parts — Inquiry, Accusation, Judgment and Punishment — thereby following the rhythms of a criminal case, and almost every chapter returns, either directly or via roundabout, to Mr Bharara's basic contention, pithily summarised on Page 58: "In the end, the law doesn't do justice. People do."

Mr Bharara, who enjoyed a high profile and (mostly) favourable press attention during his tenure from 2009 to 2017, does not show a lot of leg in this book, nor does he settle many scores. Yes, he tweaks *The Wall Street Journal* for highlighting the fact that he went after Raj Rajaratnam, a fellow immigrant from the same region of the world. "My goodness, there's a South Asian defendant, and there's a South Asian prosecutor!" he writes. "You know where this happens every day? India." But he says virtually nothing about SAC Capital's Steven A. Cohen, whose wolfish appetite for insider information Mr Bharara's office could never quite prove, and his words about Mr Trump, the man who fired him, are few.

And why is this, exactly? Considering Mr Bharara's emphasis on old-fashioned values — duty, discretion, decency — and their application to the law, it seems strange that he wouldn't offer some words about what happened to the United States on November 8, 2016, when the worst-faith actor imaginable was suddenly elected president.

What Mr Bharara does offer, however, is an inspired and slightly perverse idea about how to salvage public discourse in 2019: We should take our cues from American criminal trials, in which both parties are obliged to consider flaws in their own arguments and understand the mind-set of the other side. Assertions must be evidence-based; research must be rigorous; decorum is paramount. "You can't call your adversary a 'low-IQ person,'" he notes. "You can't argue the prosecution is political; and you can't make sweeping biased statements."

The first thing we do, let's revive all the lawyers. Mr Bharara, as usual, makes a very strong case.

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DOING JUSTICE
A Prosecutor's Thoughts on Crime, Punishment, and the Rule of Law
Preet Bharara
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