HT ILLUSTRATION

The average size of the shadow economy across 158 countries is 32% of GDP, according to the International Monetary Fund.

For India, that figure was estimated at 23.9%.

The countries with the smallest shadow economies were Switzerland (7.2%) and Austria (8.9%).

Those with the largest were Zimbabwe (61%) and Bolivia (62% of GDP).

tide over periods of strife.

- Think of what this means for the country. When earnings must come from a narrow band of direct-tax payers, higher rates of taxation become necessary, squeezing the taxpayer further than inflation and unrealistic pricing are already doing.

Governments must also rely more heavily on indirect taxes like GST and fuel duties, which raise prices, suppress spending and further squeeze the hundreds of millions of Indians in the middle classes and below.

- These differences shape perceptions of fairness. Tax systems rely partly on voluntary compliance. When visible wealth appears inconsistent with declared income statistics, taxpayers infer uneven enforcement. Perceived disparities weaken tax morale and encourage more concealment.

- Statistical measurement also becomes more uncertain when part of economic activity remains concealed. Policy decisions based on incomplete information risk misjudging savings rates, investment flows or household wealth. These effects gradually deepen.

Cracking the whip: The state's new approach to enforcement

India's approach to hidden income has shifted from episodic investigations to data-driven monitoring and digitisation.

Historically, enforcement relied on raids, asset seizures and voluntary disclosure schemes. Such measures occasionally recovered concealed assets but did little to alter the probability of detection. This is now changing via...

READ: Where is all your money going?: A close look at personal inflation

- **GST and transaction visibility**

The most significant structural change has been the introduction of the Goods and Services Tax (GST) in 2017. Before GST, India's indirect-tax system consisted of multiple levies administered separately by central and state governments. Compliance systems were fragmented and transaction chains often broke across jurisdictions.

GST replaced this system with a value-added tax that incorporates digital reporting. Firms can claim input-tax credits only when their suppliers upload corresponding invoices. Each transaction therefore creates a digital link across the supply chain.

GST filings now generate large datasets on transactions, refund claims and supply-chain relationships too. Electronic waybills track the movement of goods between states. These systems have increased the risks of routine underreporting within formal supply chains.

- **Digital payments**

The rapid expansion of digital payments has made spending and earnings a bit harder to hide. Platforms such as the Unified Payments Interface (UPI) now process billions of transactions a month. Financial-inclusion programmes have expanded bank-account ownership across the population, making the siphoning off of welfare funds a bit more difficult too.

- **Data analytics**

Tax enforcement increasingly relies on analytical tools rather than random inspection. Risk-based systems identify cases where declared income diverges from observable activity. Network analysis can identify clusters of firms sharing directors, addresses or bank accounts.

- **Legal tools**

The statutory framework has expanded as well.

The Prevention of Money Laundering Act (PMLA; 2002) allows authorities to attach assets linked to suspected financial crimes. The Benami Transactions Act of 1988 targets property held through proxy ownership. Corporate-law amendments require disclosure of beneficial ownership.

International cooperation has grown too. Automatic exchange of financial information and global anti-money-laundering standards have reduced banking secrecy in many jurisdictions.

But...

It's a cat-and-mouse game. Improved monitoring has led to more-sophisticated forms of concealment. Fraud networks use shell firms to generate fake invoices and fraudulent input-tax credits. Circular trading arrangements inflate turnover to obtain refunds.

Detection, meanwhile, is not the same as deterrence.

Economic offences often involve complex trails, forensic accounting and cross-border evidence. Investigations may proceed quickly to provisional asset attachment, but final judicial decisions take much longer.

Deterrence depends on the expected cost of violation: the probability of detection multiplied by the certainty and speed of punishment. If cases take years to conclude, the expected penalty declines even when statutory penalties are severe.

Perceived partiality also has an impact. If enforcement appears selective, compliance incentives weaken.

Voluntary disclosure schemes illustrate the tension. Such programmes can convert concealed assets into declared wealth and raise short-term revenue.

Repeated amnesties, however, may weaken long-run deterrence if economic actors expect periodic opportunities to regularise undeclared income.

So, who holds India's black money?

The capacity to accumulate it isn't evenly distributed.

It accrues to those with money, and those with power; those who make decisions and operate in areas of opacity: typically, political finance, procurement, real estate, extractive industries, cash-intensive business, trade and the professional intermediaries who structure these flows.

This is a closed network that operates on trust and influence.

And so it is that the true elite get richer than recorded.

What happens when hidden wealth enters the statistics?

We know that ours is a dramatically unequal country.

In a Wknd feature published about a year ago (Who's rich? Who's poor? Who's middle-class?; May 4), we explored how distributional estimates suggest that the top 10% receive about 58% of national income, while the top 1% receive roughly 23%. Wealth is even more concentrated: the top 1% hold about 40% of national wealth, and the top 10% roughly two-thirds.

These figures are constructed from tax records, surveys and distributional modelling. Black money, of course, sits outside this data.

If concealed income and wealth are added to the distribution, the upper tail becomes fatter. The income and wealth shares of the richest rise. Current inequality statistics therefore represent lower bounds rather than precise measurements.

This is just one of the ways in which black money keeps us from seeing the real picture, when it comes to Indian society and economy.

How does that affect you?

Well, if on paper you should be "rich", but you don't feel it (or live it), put it down to "threshold shift".

If hidden income were included, then, by my estimates, the cut-off to make it into the top 10% of income earners would shift from Rs 2.9 lakh to Rs 4.1 lakh. For the top 1%, it would rise from Rs 21 lakh to Rs 37 lakh. And the cut-off for the top 0.1% would soar from Rs 82 lakh to Rs 2.2 crore.

Similarly, if hidden wealth were factored in, the true cut-off for the top 10% would rise from about Rs 22 lakh to Rs 37 lakh in assets and savings. For the top 1%, the cut-off would rise from about Rs 82 lakh to Rs 1.7 crore. And to make it into the top 0.1%, the cut-off would nearly triple, from Rs 5.3 crore to Rs 15.4 crore.

What you feel, when you go shopping at a luxury mall or try to buy a house, is this "reordering within the top". This is the most tangible change for the upper-middle classes. A corporate executive earning crores a year can be overtaken in net worth by a contractor, land intermediary or corrupt official whose declared income is modest but whose concealed accumulation is large.

The jostling at the top intensifies.

The graph gets steeper.

The gap widens between the visible top and the true top.

We are more unequal than we think we are.

(Kashyap Kompella is a CFA charterholder, tech industry analyst and author of three books on AI)

culture

How to hover and craft

A gallery in Scotland is showcasing some of the world's first aerial photographs, taken by one man: a pilot who loved the lens. The tales of how Alfred Buckham did it are chilling

(Above left) A view of Edinburgh, captured in 1920. Buckham often used combination techniques to add elements drawn from other negatives in the same reel. Here, the aircraft is one such element. (Above right) Smoke rises from Mexico's Popocatepetl volcano, in an image captured in 1930. NATIONAL GALLERIES OF SCOTLAND; RICHARD AND JOHN BUCKHAM

Anesha George
anesha.george@hindustantimes.com

When shooting from a small, open-top aircraft, it is advisable not to hold on to anything. That way, the arms stay clear of the fuselage and vibrations do not blur the photograph. "If one's right leg is tied to the seat with a scarf or a piece of rope, it is possible to work in perfect security and to move freely in all directions."

That's Alfred Buckham, describing how he took his remarkable aerial photographs, in an interview with Amateur Photographer magazine in 1929.

If that sounds insanely risky (please don't try any of it, anywhere), it was.

"My journey nearly came to an abrupt conclusion over Buenos Aires," Buckham said, in another interview, this time with London's Morning Post, in 1933.

This was what it took to capture some of the world's first aerial views.

The small craft of the time were little more than sheets of canvas stretched over wooden frames. The cameras were large, bulky and far from effective unless used very precisely.

None of which bothered Buckham. A photographer-turned-Royal Air Force pilot, he would go on to build a legacy that won him fame, a reputation as a daredevil, and numerous awards.

The Morning Post commissioned him to write a series of articles about his adventures, because people wanted to know just how he captured these images.

It would have delighted him to know that, 70 years after his death, more than 100 of his pictures, along with personal objects such as letters, photos and travel journals, are on display at the National Galleries of Scotland until April 19, in a show titled Alfred Buckham: Daredevil Photographer.

"He was very proud of what he achieved. Some of his mishaps in the air were most definitely accidental, but none of his photographs were — because he put so much care into crafting the perfect aerial view," says exhibition curator Louise Pearson.

It helped that heights didn't scare him.

Buckham survived nine crash landings during World War 1, and used the same sense of fearlessness to make history with his images. In a spectacular 1918 photograph, Scotland's Forth Bridge spans a slender river, with its three magnificent arches in clear but minute view. In others, volcanic craters send up smoke in Guatemala and Mexico.

CHECK OUT a slideshow of more images by Alfred Buckham

A shot above the rest

Aerial photography predates the aircraft by quite a bit, incidentally.

The first aerial view of Boston was captured from a hot-air balloon, in 1860. Inventors of that era also attached box cameras to kites and strapped miniature lenses to pigeons to produce hazy, dreamlike views.

The earliest known "aeroplane images" were taken by French cinematographer LP Bonvillain while on board one of the world's earliest flights, a craft piloted by Wilbur Wright in 1909, just six years after the first-ever flight (which was a 12-second lurch in literal terms, and a giant leap forward, if there ever was one, in every other way).

Back to aerial photography, it became a more-precise tool by the dawn of World War 1, used by armies, geologists, surveyors and urban planners too.

This did mean battling freezing temperatures, and enduring frequent sprays of engine oil as one leaned over to take one's shot. The cameras were placed under incredible strain too. Buckham's was fitted with a large viewfinder and leather bellows reinforced with cardboard or aluminium, to withstand the fierce winds at high altitudes.

Carefully handwritten notes on the backs of his images explain what it took to capture each frame. A 1920 photograph titled The Thunderstorm captures spectacular cloud formations against dramatic sunlight. Amid the blinding flashes and booming thunder, the aircraft would plunge into deep air pockets, Buckham wrote.

The artistic end-products owed much to his skilful photographic manipulation too.

Buckham made effective use of a technique called combination printing to add elements such as clouds or even a plane, from other negatives in the same reel. Take the 1920 image of Edinburgh. "Through technical analysis, we see that he used a tiny pinprick to mark out where he would add the aeroplane. I like to think he was putting together a darkroom jigsaw," says Pearson.

"It's a really interesting moment to study Buckham's photographs because we are all becoming more used to questioning what we see," Pearson says. "I think he would have been horrified by AI. He only ever used his own negatives to create his finished prints."

Buckham died in 1956, aged 76, having lived a life of adventure.

"(The) unpleasing circumstances are mostly forgotten, or only serve to add spice to the remembrance," he told The New York Times in 1930. "Ah! One was a rare daredevil in those days!"

{ THE SPORTING LIFE }

Rudraneil Sengupta

India's pace-keeping force

Jasprit Bumrah is quite simply the greatest fast-bowler of the decade, if not of all time

There is no doubt about it now. We live in the age of Jasprit Bumrah, a man who seems all the more remarkable in an era when most bowlers are mere cannon fodder for batters firing on all cylinders all the time.

Across formats, Bumrah's normal is blinding brilliance, delivered with an inscrutable composure interrupted only by a wry smile or the occasional shy grin.

Calling him the greatest fast-bowler of all time may upset some, but one need only look at the statistics. In Tests, his 234 wickets have come at an average of 19.79, a best-of-all-time rate that puts him ahead of greats such as Wasim Akram, Allan Donald and Glenn McGrath, with only Malcolm Marshall, Joel Garner and Curtly Ambrose anywhere in the vicinity. More astonishing, he's done it at an economy rate of 2.77 (only Malcolm Marshall was more miserly in Tests), despite bowling at a time when batters score more heavily than ever.

As former South African captain Faf du Plessis put it: 'You just give him the ball and he wins you games... It's like having a genie. You just rub the lamp and out comes Bumrah.' REUTERS

Bumrah has the best economy rate for any bowler in ODIs in the last 10 years, and the best average. It's the same for the T20s.

When India were staring down the barrel in the semi-final against England, with the find of the tournament Jacob Bethel in the middle of a hitting frenzy and England needing 45 off 18 balls, Bumrah took charge of the 18th over and banged in three perfect yorkers, two hard-swinging low full tosses and one full-length ball. England could score only six off that over, and lost the match at that point.

In the final, he didn't give New Zealand half a chance. He deployed that ball that he has made his own: a dipping, slow off-cutter that no batter has managed to read coming off his hand, and that subsequently bends them into awkward shapes even as it slams into the stumps.

Bumrah took all his four wickets with that ball, finishing with 4 for 15, the best bowling figures in a winning cause in a T20 World Cup final.

This was just him continuing where he left off at the last such tournament, in 2024, which India also won thanks in part to his preternatural abilities, choking teams when needed, picking up wickets when needed, with an economy rate of 4.17 that's just ridiculous in a T20 tournament.

"Regardless of the format, you just give him the ball and he wins you games," former South African captain Faf du Plessis has said. "It's a superpower that any captain will dream of. It's like having a genie. You just rub the lamp and out comes Bumrah."

(Email Rudraneil Sengupta on rudraneil@gmail.com. The views expressed are personal)