

How Depositories are Powering Financial Market Infrastructure



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In today's financial ecosystem, central securities depositories (CSDs) stand at the core of secure, efficient, and inclusive capital markets. From safeguarding paper certificates in the past to protecting trillions of dollars' worth of assets in electronic form today, CSDs have built a legacy of trust, resilience, and innovation.

As markets now transition toward tokenised assets, faster settlement cycles, and heightened cybersecurity vigilance, CSDs are once

again adapting to meet the needs of a rapidly evolving global landscape. Their continued success will hinge on embracing digitisation, strengthening cross-border interoperability, and reinforcing the trust that underpins modern capital markets.

The Beginning of a New Era: Until the mid-1990s, equity ownership in India was inseparable from physical share certificates. This traditional system, however, was riddled with inefficiencies—delays caused by cumbersome paperwork, the risk of theft, loss or forgery, complicated settlements prone to disputes, and logistical hurdles in maintaining reliable records. As India's capital markets expanded rapidly in the late 20th century, these weaknesses eroded investor confidence, with fraudulent practices such as fake certificates further compounding the challenge.

To address this, the Government of India enacted the **Depositories Act, 1996**, laying the legal foundation for electronic holding and transfer of securities. This watershed moment marked the birth of India's depository system. At its heart was the **National Securities Depository Limited (NSDL)**, established in August 1996 as India's first and largest depository. Promoted by IDBI, UTI, and NSE, NSDL revolutionised the securities market by introducing **dematerialisation (demat)**—converting physical certificates into electronic records.

NSDL's Foundational Role: NSDL's launch represented more than just a technological upgrade—it was a trust-building milestone that redefined how securities were owned, transferred, and verified in India. Replacing paper with secure digital entries was a bold institutional leap in a market still accustomed to physical certificates, and it set the template for India's modern capital market structure.

From its operational debut in 1996, NSDL quickly integrated with clearing corporations to enable seamless trade settlement. Over the following decades, it expanded

its reach into debt instruments, mutual fund units, online KYC, and e-voting platforms, embedding itself into the everyday plumbing of India's financial system.

Today, NSDL's scale speaks for itself: as it is **India's largest depository** spread across every pincode in India, and **\$6 trillion securities under custody**, it is the trusted custodian of the majority of India's market value. Its IPO in 2025 further cemented this leadership, with a strategic roadmap for tokenisation, cybersecurity, and interoperability—signalling a shift from pure custody to active financial infrastructure innovation.

How the Indian Depository System Works: India operates a **two-depository model**, regulated by SEBI under the **SEBI (Depositories and Participants) Regulations, 2018**. Investors open demat accounts through Depository Participants (DPs)—banks, brokers, and financial institutions linked to either depository.

When physical share certificates and a **Dematerialisation Request Form (DRF)** are submitted, NSDL verifies the details with issuers and records the securities electronically. Trade settlements executed on exchanges are handled through clearing corporations, which instruct the depositories to debit and credit securities in investors' accounts.

Beyond custody, depositories also manage dividends, rights issues, pledges, rematerialisation, and transmission—all supported by the legal framework of the **Depositories Act, 1996**.

Regulatory Evolution: Over the years, SEBI has progressively strengthened India's depository ecosystem:

- **Demat mandate:** Shares in public issues must be allotted only in electronic form.
- **Settlement speed:** India completed its transition to a **T+1 cycle** in January 2023 and began piloting **T+0 (same day) settlements** in March 2024.
- **Broader demat adoption:** All securities issued by private companies must now be dematerialised.
- **Simplified onboarding:** Aadhaar-based e-KYC has made account opening faster and more accessible.

By early 2025, India had nearly **192 million demat accounts**, reflecting unprecedented retail participation despite slowing growth rates.

NSDL's Broader Contributions: NSDL's role extends far beyond securities custody:

- **E-voting:** Millions of shareholders now participate in corporate governance remotely, with NSDL's platform becoming the default mechanism for AGMs and postal ballots. More than 4,654 companies availed NSDL e-Voting facility over 32,144 occasions (as on March 31, 2025).
- **Foreign Portfolio Investor (FPI) services:** NSDL tracks and reports foreign capital flows, offering widely relied-upon data for markets. As of July 2025, 99.9% of the serviced value of securities in FPI Demat holdings is with NSDL.

- **Insurance digitisation:** Through the **National Insurance-policy Repository (NIR/NDML)**, millions of policies are now held and serviced electronically (over 4 million policies stored and more than 3 million e-insurance account holders).
- **Academic credentials:** Via the **National Academic Depository (NAD)**, academic degrees and certificates can be instantly validated through DigiLocker.
- **PAN verification & KYC:** By integrating compliance services, NSDL ensures that millions of investor accounts remain authenticated and operational.

Together, these initiatives show how NSDL has broadened the depository model into a comprehensive financial infrastructure that boosts participation, transparency, and regulatory efficiency.

Recent SEBI-Led Strengthening: Over the past two years, SEBI has introduced several reforms to further modernise and secure the depository ecosystem:

- **Cybersecurity & resilience:** Adoption of the **Cybersecurity and Cyber-Resilience Framework (CSCRF)**, requiring advanced threat detection, SOC's, and AI-driven monitoring.
- **Investor protection:** Strengthened compensation frameworks through the Investor Protection Fund.

- **Operational efficiency:** Faster inter-depository transfers, streamlined nomination processes, and stricter timelines for registrars.

NSDL has implemented these reforms swiftly, ensuring greater security, faster access, and higher investor confidence.

Looking Ahead: Tokenisation and Beyond: NSDL underscores its readiness for the **next frontier of market infrastructure**:

- **Tokenised securities:** Piloting blockchain-driven models for regulated digital assets.
- **Atomic settlements (T+0):** Preparing infrastructure for instantaneous trade settlement.
- **Sustainability:** Supporting green bond markets and adopting ESG-aligned practices.

From its pioneering introduction of dematerialisation in 1996 to its landmark IPO in 2025, NSDL has consistently shaped India's capital market journey—enhancing investor access, strengthening regulation, and driving innovation. As India advances toward tokenised markets, accelerated settlement, and deeper retail participation, NSDL's pivotal role will continue to expand, ensuring the depository system remains **secure, inclusive, and future-ready**.

About NSDL (www.nsdl.co.in): **National Securities Depository Limited (NSDL)**, established in 1996, is among the world's largest depositories, managing most securities in dematerialized form in India. With cutting-edge infrastructure and a nationwide network of Depository Partners, NSDL ensures secure, efficient, and cost-effective settlement solutions, serving investors, stockbrokers, custodians, and issuers

About NDML (www.ndml.in) **NSDL Database Management Limited** was set up in June 2004 as a 100% Subsidiary of NSDL. It provides e-governance and digital solutions in India, including SEZ Online, KYC registration, e-insurance repositories, paper-to-follow management for NPCI, digital onboarding for capital market intermediaries, and issuance of academic awards.

About NPBL (www.nsdlbank.com) **NSDL Payments Bank Limited** was set up in 2018 as a 100% Subsidiary of NSDL. It offers payment banking services, including deposits, payment solutions, remittances, recharges, debit and prepaid cards, domestic money transfers, mutual fund investments, bank verification for brokers, and insurance investment services.