

Central Depository Services

BUY

INDUSTRY	EXCHANGES		
CMP (as on 19 Mar 2018)	Rs 289		
Target Price	Rs 425		
Nifty	10,094		
Sensex	32,923		
KEY STOCK DATA			
Bloomberg	CDSL IN		
No. of Shares (mn)	105		
MCap (Rs bn) / (\$ mn)	30/463		
6m avg traded value (Rs mn)	334		
STOCK PERFORMANCE (%)			
52 Week high / low	Rs 486/149		
	3M	6M	12M
Absolute (%)	(20.1)	(22.1)	-
Relative (%)	(17.4)	(23.7)	-
SHAREHOLDING PATTERN (%)			
Promoters	24.00		
FIs & Local MFs	41.72		
FPIs	3.48		
Public & Others	30.80		
<i>Source : NSE</i>			

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(Hidden) gem of a business

Central Depository Services Ltd (CDSL) is one of two depositories in India and the only one to be listed. Given the high risk of data pilferage, we believe there is limited scope for any other depository to be set up. CDSL is a gem of a business that any investor constructive on India in the long term must own. It has a robust business model, with (1) One-third of revenues being annuity (issuer charges), (2) Embedded non-linearity playing out (1,502 bps margin expansion over FY13-17), (3) Low capex requirement (~3% of revenue), (4) Excellent cash generation (OCF ~63% of EBITDA) and (5) Huge option value from new areas like digitisation of academic records and insurance policies, e-warehouse receipts and GST Suidha centres.

We see value based on (1) Diversified revenue stream, (2) Fixed cost model (3) Healthy balance sheet (Net cash of Rs 4.9bn, ~90% of BS & ~16% of Mcap), (3) High return ratios (RoE 16%, RoIC 103%) (4) Option value of new growth engines (4) No capex required for growth and (5) Excellent cash generation. We believe the business should command higher multiple because of its less cyclical nature vs exchanges and brokerages. We assign a P/E multiple of 33x to core earnings and add net cash to arrive at a TP of Rs 425 (47% upside from CMP). At 24/21x FY19/20E earnings, value is imminent and merits a BUY.

Investment rationale

- The revenue stream is diversified, with 46% of revenues being market-linked (transaction charges/IPO & corporate action/KYC are 21/11/13% of revs). Annual issuer charges (~35% of rev) are determined by SEBI and collected from a diversified base of issuers (~9.8K),

providing stability. The remaining 19% of revenue is derived from other services like e-voting, e-CAS, account maintenance, e-locker, e-will etc. Despite being a late entrant in the market, CDSL has been gaining market share from NSDL. CDSL BO accounts market share stands at 44% in FY17 (almost doubled in 10 years) and market share in incremental account adds is ~60%. DP friendly culture, flexible tariff structure, low cost offerings and retail focus are the prime reasons for market share gain.

- Stable growth in annual issuer charges, increased market traction, higher no of IPO and huge in-flow in MFs (KYC), can combine to deliver revenue CAGR of 22% over FY17-20E. CDSL has a fixed cost structure (employee/IT cost is 37/13% of total cost in FY17). Revenue has risen at 13% CAGR over FY13-17, while cost increased by only 5% over the same period. We expect EBITDA to increase at a CAGR of 29% over FY17-20E and margin to expand to 65% in FY20E vs 54% in FY17.

Financial Summary (Consolidated)

YE March (Rs mn)	FY16	FY17	FY18E	FY19E	FY20E
Net Revenues	1,229	1,460	1,907	2,232	2,620
EBITDA	639	794	1,157	1,400	1,696
APAT	680	858	1,050	1,241	1,475
Diluted EPS (Rs)	6.5	8.2	10.0	11.9	14.1
P/B (x)	6.3	5.7	5.1	4.6	4.1
P/E (x)	44.3	35.2	28.7	24.3	20.5
EV / EBITDA (x)	39.4	31.0	21.3	17.1	13.7
RoE (%)	14.2	16.1	17.8	18.8	19.9
Cash/mkt cap (%)	14.7	16.4	16.3	18.2	20.4

Source: Company, HDFC sec Inst Research

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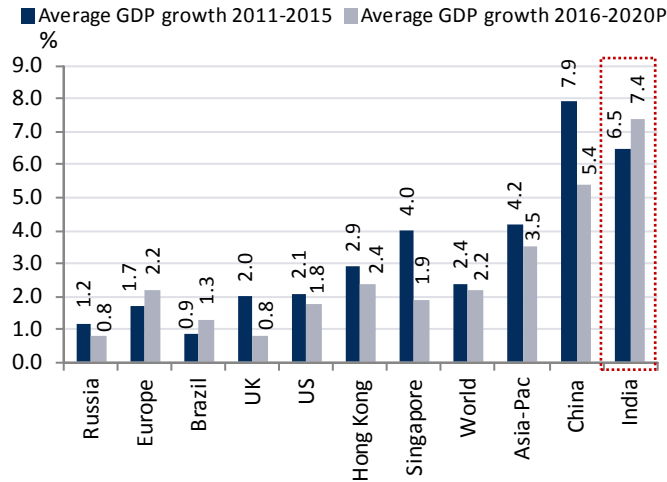
Indian economy expected to grow at 7-8% (real GDP terms), reach USD 7TN by 2030E

Bold policy reforms like GST, 'Make in India' and Demonetisation will drive growth for the Indian economy

Macro tailwinds: India, the fastest growing economy

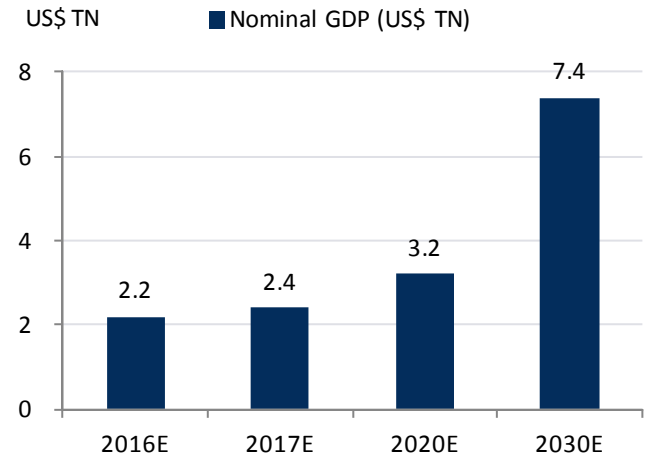
- The outlook for the Indian economy remains strong, and a number of agencies estimate that it will grow at 7-8% (real GDP terms) over the next few years. India is expected to become the third largest economy in the world by 2030, with GDP approximately tripling to USD 7tn (10-year CAGR of 8.7%).
- The strong growth outlook is driven by a number of factors, such as policy reforms like GST, focus on skill development, thrust on reviving manufacturing via the 'Make in India' initiative, export push, focus on doubling agricultural income, and close monitoring of inflation, resulting in lower interest rates. Growth in economy triggers increased activity and volumes in capital markets.

India Is The Fastest Growing Economy Globally



Source: Economist Intelligence Unit, Oliver Wyman Report, HDFC sec Inst Research

India To Become USD 7tn Plus Economy By 2030



Source: Oxford Economics, Oliver Wyman Report, HDFC sec Inst Research

Cash turnover velocity (cash turnover to market cap) is one of the lowest in India.

Market Cap to GDP for India stands at 73%, slightly higher than that of the emerging market average of 61%

Growth in trading volume will be led by rising free float, higher inflow in equities, more no of IPO's and increased retail participation

Market Cap to GDP average for developed countries is as high as 131%

Market Cap to GDP average for emerging economies is only 61%, huge scope for improvement

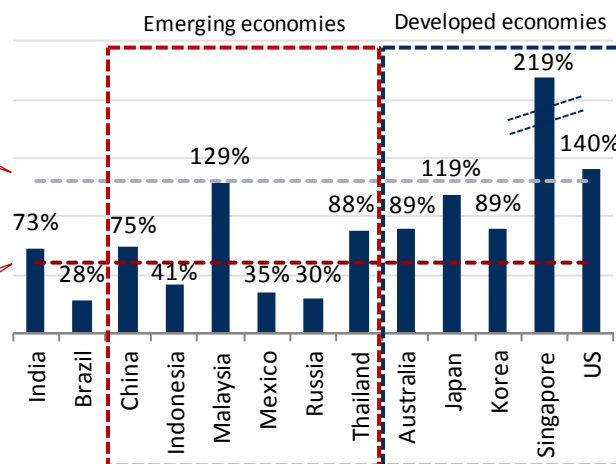
Depository business: Proxy for capital market growth

- Capital market activity and Depository business growth is directly co-related. We believe there is significant room for growth in Indian Capital market based on the following factors (1) India's market cap to GDP ratio stands at ~73% vs. developed market average of 131% (2) India's turnover velocity is at ~50% vs ~145% for developed markets (3) Shift of money from physical assets (Real estate & Gold) to financial assets and (4) Higher allocation of Financial Assets into Capital market instruments like Stocks, MFs, Bonds, Debentures etc.
- Demonetisation was a significant step towards financial inclusion and led to a significant shift of capital from physical assets to financial assets. Financial Assets grew at a CAGR of 14% over FY12-17

and now stand at Rs 12,457bn in FY17, +15% YoY. Within Total Financial Assets the share of Equity related assets (Shares & Debentures) has grown at a CAGR of 62% over FY12-17 and stands Rs 1,826bn in FY17 up 342% YoY (14% of Financial Assets). This led to a significant boost to the Depository business in the last two years.

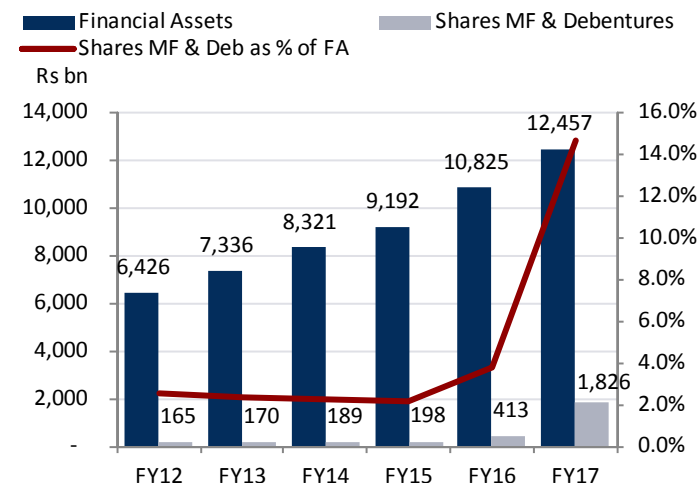
- We believe that with (1) Increasing retail participation (2) Steady inflows in MFs (3) Greater penetration of capital market products (4) Use of mobile trading platforms (5) Plans for divestment (6) Rising free float levels (7) Large number of upcoming IPOs and (8) Rising investor confidence, the depository business in India is poised to grow at a healthy pace.

Market Cap To GDP Ratio For Different Countries



Source: BSE, World Bank, HDFC sec Inst Research

Substantial Increase In Equity Financial Assets



Source: AMFI, RBI, HDFC sec Inst Research

Mutual fund industry has witnessed strong growth of ~22% over a 5 year period and currently stands at Rs 22,203bn

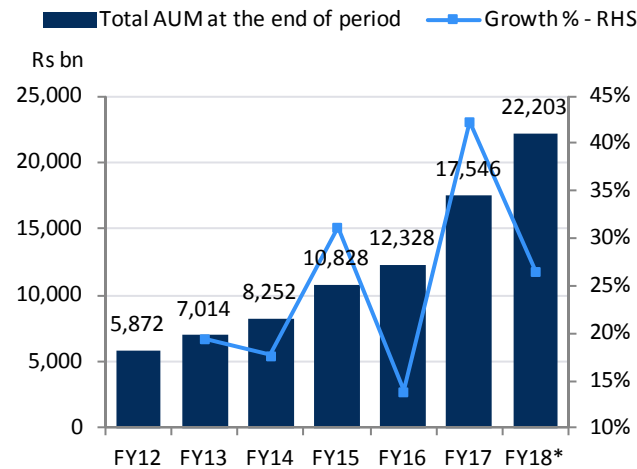
Of the total AUM Income Fund/Equity/Money market constitute 36/31/17% for FY18*

- The mutual fund industry has witnessed strong growth of ~22% over a 5 year period (FY13-18) led by improving macros, demonetization, lower interest rate, and under performance of other asset classes like real estate and gold. Total AUM stands at Rs 22,203bn, of which Income/Equity/Money market constitute 36/31/17% respectively. The Net inflow in MFs was Rs 3,430bn in FY17 (+155% YoY).
- Equity and Balanced Funds grew at a CAGR of 37/61% to Rs 8,467/1,745bn over FY13-18. This strong growth in AUM directly benefits CDSL as the money is

deployed into buying of securities resulting in higher transaction income. Increase in retail penetration results in opening of new BO accounts, which results in higher revenue for depositories.

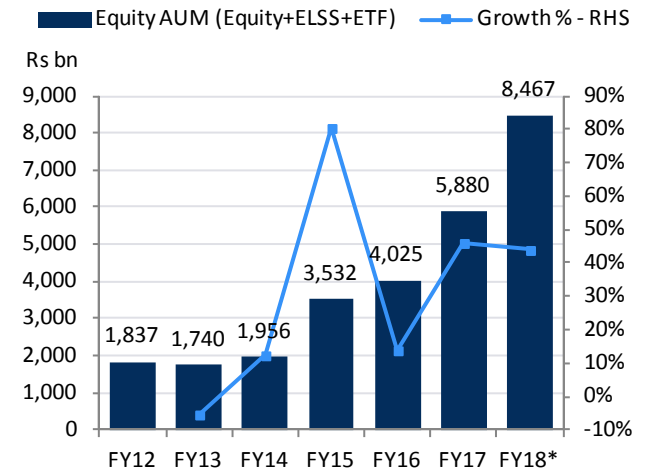
- The no of IPOs has increased at a rate of 34% over FY13-17 and the money raised has grown at a CAGR of 45% over the same period. FY17 saw a total of 106 IPOs and 46 buybacks. Total money raised through IPOs/Rights/Buyback/Public debt/QIPs was Rs 753bn (11% CAGR over FY13-17).

Significant Increase In Total Assets Under Management (AUM)



Source: AMFI, HDFC sec Inst Research, *FY18 data till Feb 2018

Equity AUM Has Grown At a CAGR Of ~37% Over FY12-18*



Source: AMFI, HDFC sec Inst Research, *FY18 data till Feb 2018

Balance fund has registered significant growth in the last three years

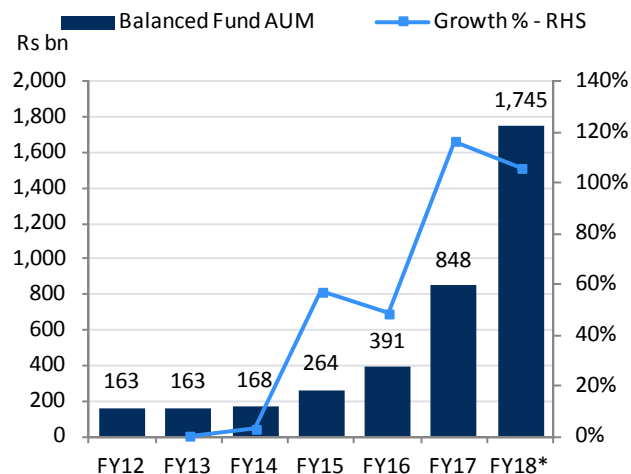
No of trades determine the number of debit transaction in CDSL

Total money raised through IPO's/Rights/Buyback/Public debt/QIP was Rs 753bn (11% CAGR over FY13-17).

The no of IPO's has increased at a rate of 34% over FY13-17 and the money raised has grown at a CAGR of 45% over the same period.

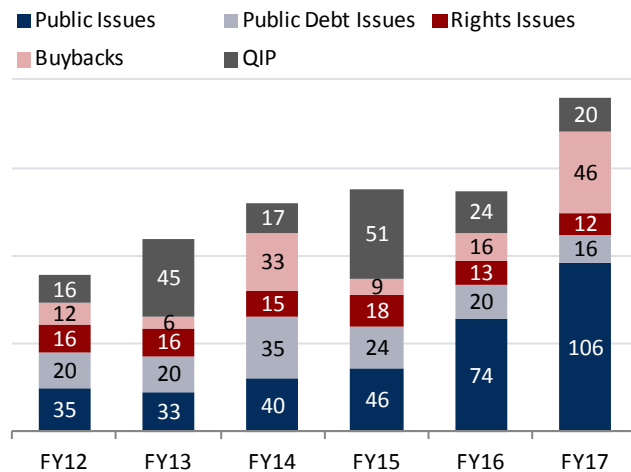
Total of 106 IPO's and 46 buybacks came in FY17

Balanced Funds Have Grown Significantly In The Last Three Years



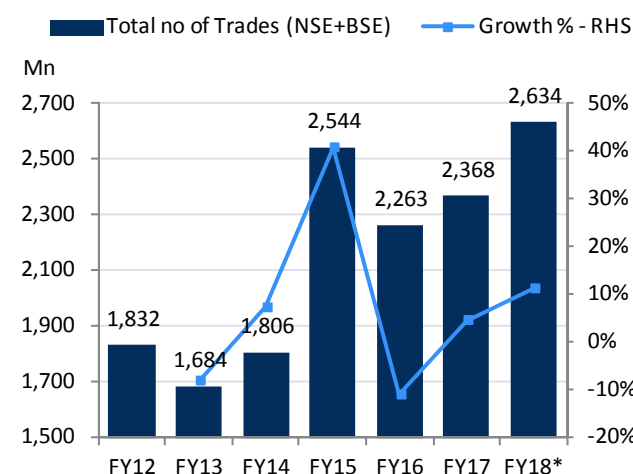
Source: AMFI, HDFC sec Inst Research, *FY18 data till Feb 2018

High Growth In Issues Through Various Instruments Is Positive for Depositories (Nos)



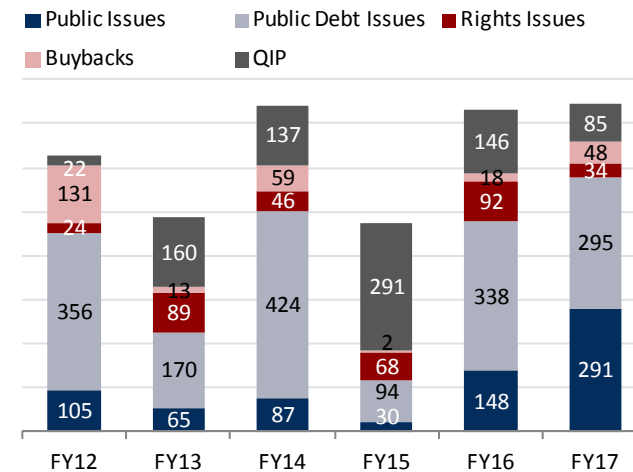
Source: SEBI, HDFC sec Inst Research

Total No Of Trades (NSE+BSE), CAGR Growth of 9% over FY13-18*



Source: NSE, BSE, HDFC sec Inst Research, *FY18 data till Feb 2018

Resource Mobilisation Through Primary And Secondary Markets In India (Rs bn)



Source: SEBI, HDFC sec Inst Research

SEBI is evaluating allowing corporate to enter into depository business which can be a risk to the duopoly

NSDL commands the dominant revenue market share

Total growth in depository business revenue has been healthy, 17% CAGR over FY13-17

Globally, depository business is duopoly in nature. Major countries have one or max two depositories

Globally also depositories are promoted by stock exchanges

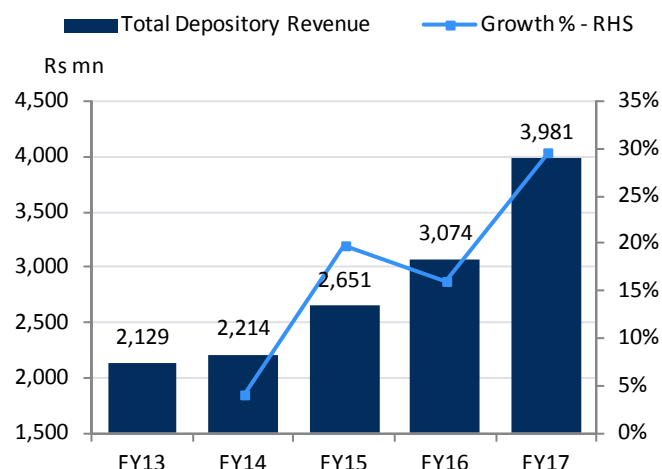
Depositories : A duopoly business

- CDSL (promoted by BSE) and NSDL (NSE promoted) are the two depositories present in India, making it a duopoly market. The duopoly nature of the depository business has resulted in healthy competition and has proved beneficial for investors.
- According to the recommendations of the panel set-up by SEBI under the guidance of former RBI Deputy Governor R Gandhi, SEBI is evaluating allowing corporates to enter into the depository business. This step is to end the dominance of exchange owned depositories and increase competition in the market.
- We believe there is no scope for any other depository unless a new exchange arrives on the scene. There is also huge security risk of data pilferage which limits the scope for any other depository. Globally most depositories are promoted by stock exchanges and

they prefer not to share data with any third party for security reasons. However, if corporates are allowed to do depository business it can be a negative development for CDSL and can increase competition.

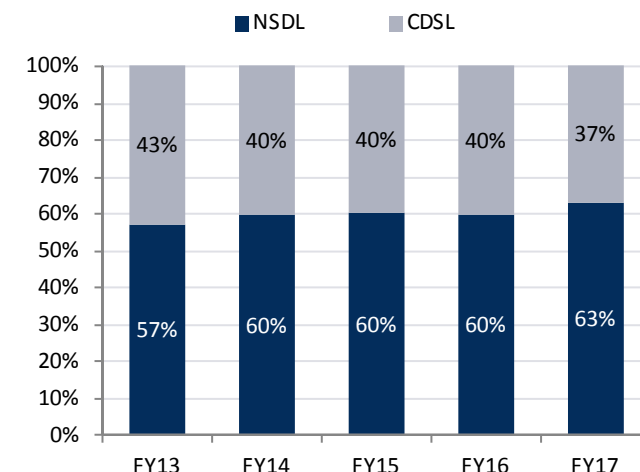
- The total market size of the depository business stands at Rs 4.0bn in FY17 (CAGR of 17% over FY13-17). NSDL and CDSL contribute 63/37% to total revenue and have grown at a CAGR of 20/13% over FY13-17 respectively.
- The sector is highly regulated and there is limited scope for any depository to differentiate in pricing and offerings. Annual Issuer charges are fixed by SEBI and the two depositories have to offer the same without any changes or modifications. Some flexibility does exist in DP and transactions charges but SEBI monitors the changes very closely.

Growth Of Depository Business In India



Source: CDSL, NSDL, HDFC sec Inst Research

Revenue Market Share of The Two Depositories



Source: CDSL, NSDL, HDFC sec Inst Research

CDSL has been constantly gaining market share from NSDL

10 year BO account CAGR of CDSL has been 17.9% vs 7.0% for NSDL and 10.5% for industry

DP friendly culture, flexible tariff structure, low cost offering and retail focus are the prime reason for gaining market share

CDSL gaining market share

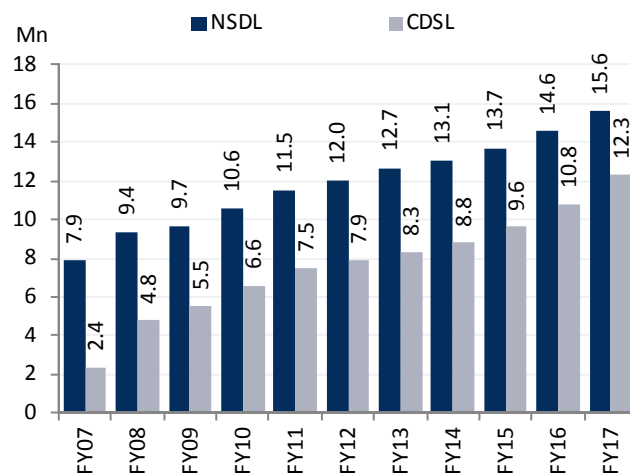
- CDSL has been consistently gaining market share from NSDL despite being a late entrant in the market. NSDL started operations in 1996 while CDSL was incorporated in 1999.
- CDSL market share has increased from 39% in FY11 to 44% in FY17. The no. of Beneficiary Owner (BO) accounts with CDSL has risen at a 10 year CAGR of 17.9% to 12.3mn in FY17. India's total BO accounts have grown at a 10 year CAGR of 10.5%, while NSDL's count of BO a/cs has grown at 7.0%.

Reasons for CDSL market share gain

- **Relaxed net worth and deposit requirement:** Minimum net worth requirement for CDSL DPs is Rs 20mn vs. Rs 30mn for NSDL. Similarly the minimum deposit required for CDSL id Rs 0.5mn vs. Rs 1mn for NSDL. This helps in more retail penetration for CDSL and small brokers can also act as CDSL DPs.

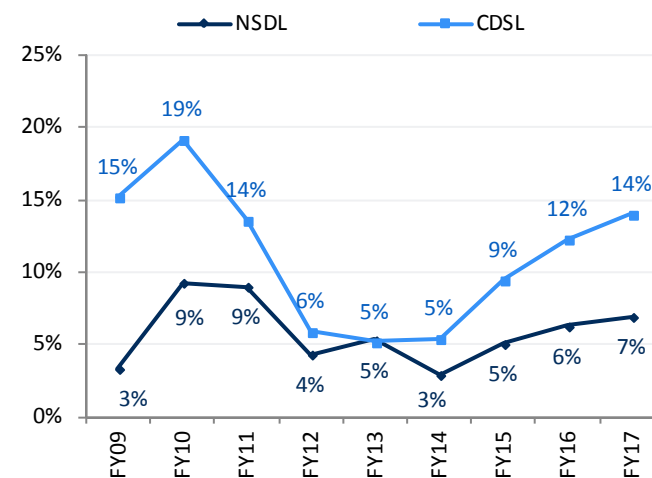
- **Lower set-up cost:** DPs can directly connect to the CDSL centralised server, enabling plug-and-play model. On the other hand, brokers registered with NSDL have to invest in an on-premise server to interact with NSDL's IT systems, which requires an up-front investment. Thus the initial cost of setting up a DP with CDSL is much less than that of NSDL.
- CDSL also offers attractive slab based traffic structure to DPs, rewarding them for higher volumes. CDSL also offers zero custodian fees to DPs and lower settlement fees.
- Our interaction with some of the DPs suggest that CDSL is more flexible and relationship managers respond more promptly to queries raised by DPs. While NSDL has more DP service centers, the geographical spread of CDSL is better than that of NSDL.

No of BO Accounts, CDSL Catching Up With NSDL



Source: CDSL, NSDL, HDFC sec Inst Research

Growth In BO Accounts



Source: CDSL, NSDL, HDFC sec Inst Research

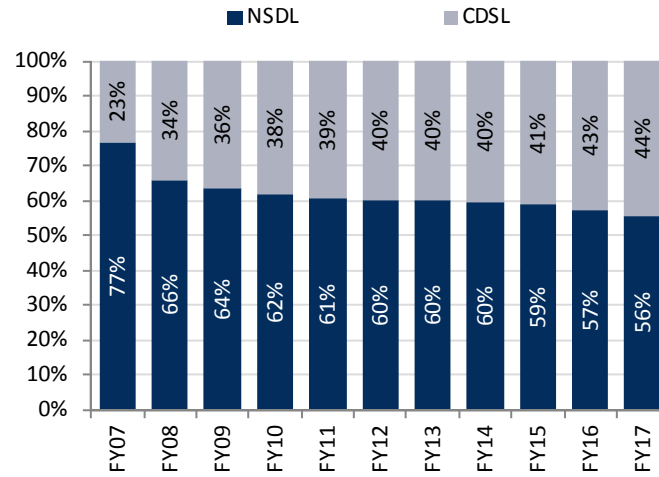
CDSL share in incremental account additions is 60%, resulting in market share gains

CDSL has more no of DP's than NSDL due to more retail focus, whereas NSDL focus is institutional

CDSL is more DP friendly than NSDL on various aspects like lower transaction fee for higher volume, no fixed fee for no activity

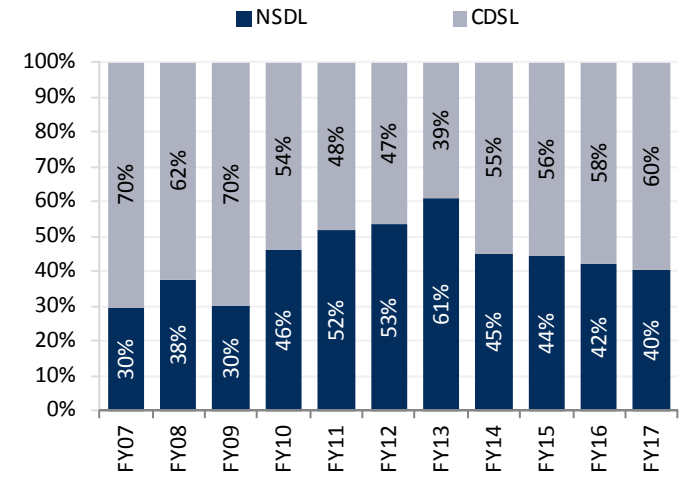
CDSL offers lower services centers but the geographical spread is more uniform

CDSL Gaining Market Share From NSDL



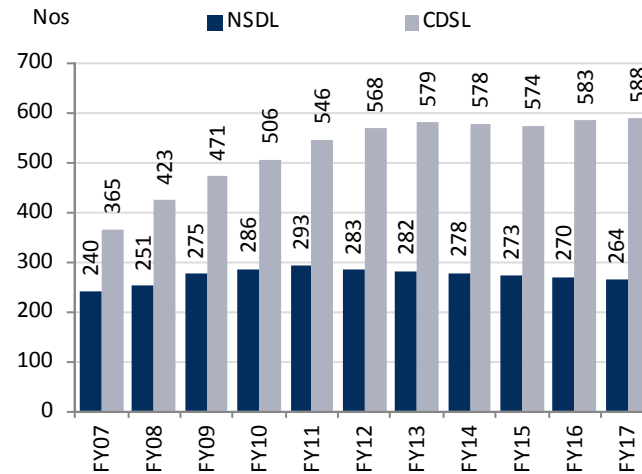
Source: CDSL, NSDL, HDFC sec Inst Research

Incremental Market Share (%)



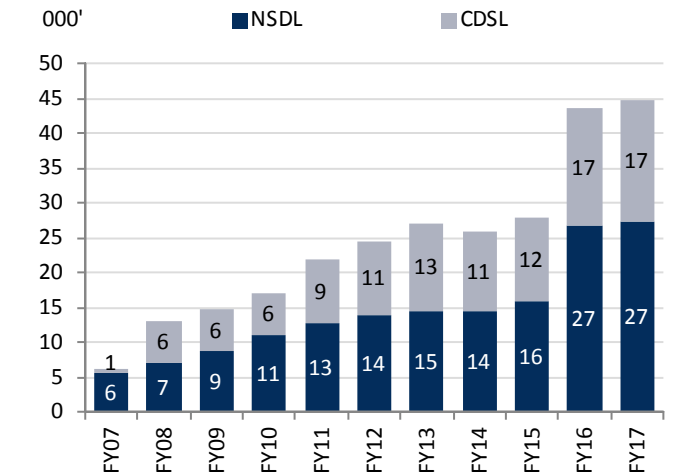
Source: CDSL, NSDL, HDFC sec Inst Research

No. of DPs Registered with CDSL & NSDL



Source: CDSL, NSDL, HDFC sec Inst Research

No. of Service Centers for NSDL & CDSL

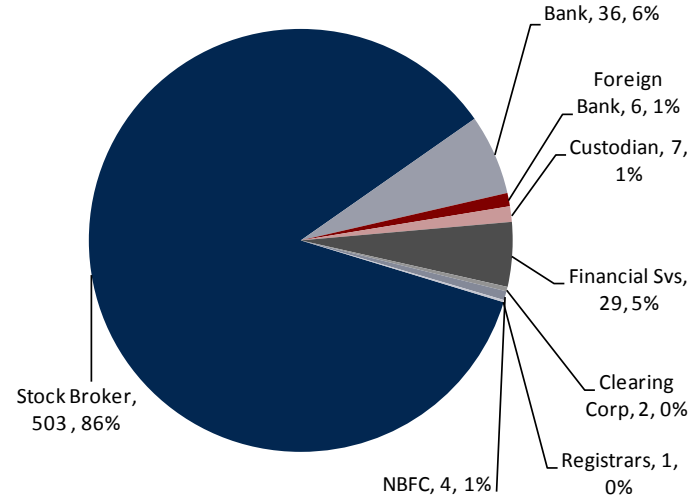


Source: CDSL, NSDL, HDFC sec Inst Research

Banks form ~16% of total no of DPs for NSDL while for CDSL its ~6%

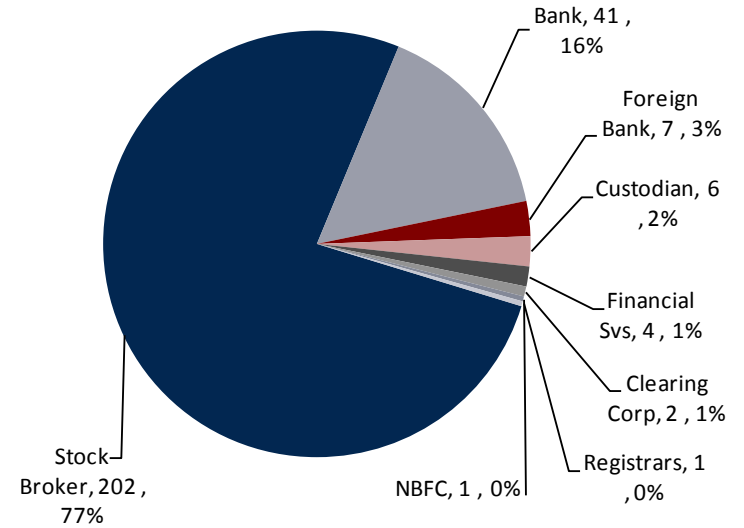
Stock brokers account for 86% of total DP's vs 77% for NSDL

Split of CDSL DPs (FY17)



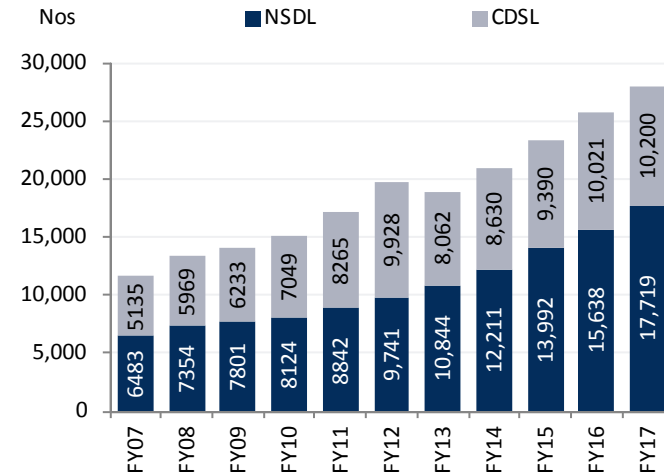
Source: CDSL, HDFC sec Inst Research

Split of NSDL DPs (FY17)



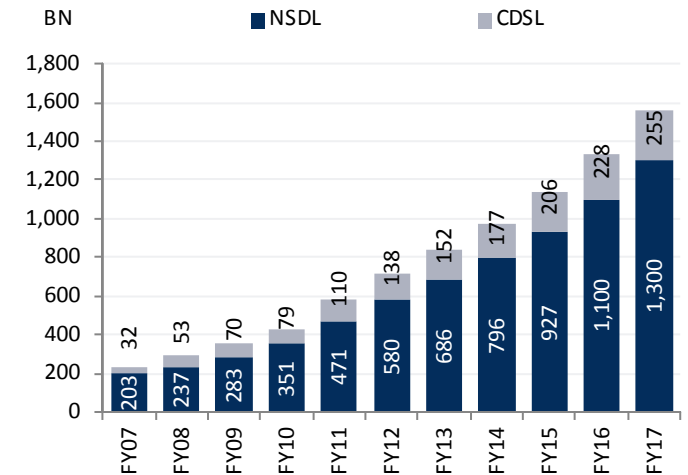
Source: NSDL, HDFC sec Inst Research

No Of Companies Available In Demat



Source: CDSL, NSDL, HDFC sec Inst Research

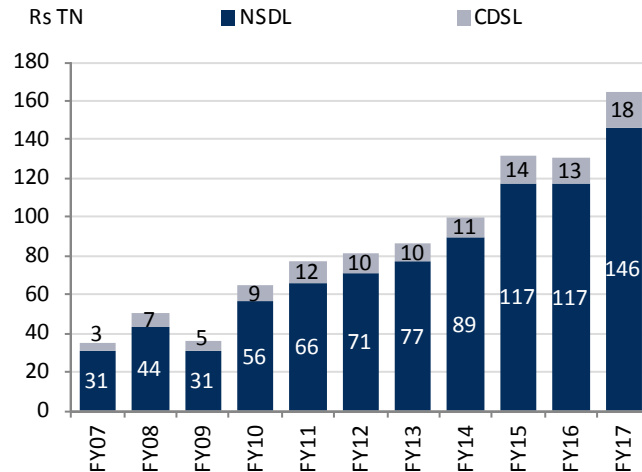
No Of Dematerialised Securities (Bn)



Source: CDSL, NSDL, HDFC sec Inst Research

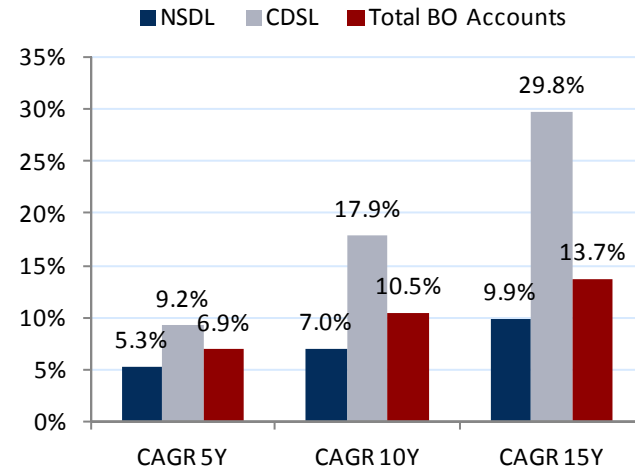
NSDL is the clear leader in terms of value of shares held in demat, no of dematerialized securities and no of company available for demat

Value Of Shares In Demat



Source: CDSL, NSDL, HDFC sec Inst Research

NSDL & CDSL BO Accounts Growth Comparison



Source: CDSL, NSDL, HDFC sec Inst Research

Growth across parameters	CAGR 5Y	CAGR 10Y	CAGR 15Y
No of Companies Available in Demat			
NSDL	13%	11%	9%
CDSL	1%	7%	5%
No of DPs			
NSDL	-1%	1%	1%
CDSL	1%	5%	8%
DP Service Centers			
NSDL	14%	17%	20%
CDSL	11%	39%	28%
No. of Dematerialized Securities			
NSDL	18%	20%	22%
CDSL	13%	23%	26%
Value of Share in Demat			
NSDL	15%	17%	24%
CDSL	12%	19%	30%

Source: CDSL, NSDL, HDFC sec Inst Research

CDSL has a diversified revenue stream, with 46% of revenues being market-linked and 35% is annuity which is issuer charges

Annual issuer charges are SEBI determined and collected from a diversified base of issuers (~9.8K) providing stability

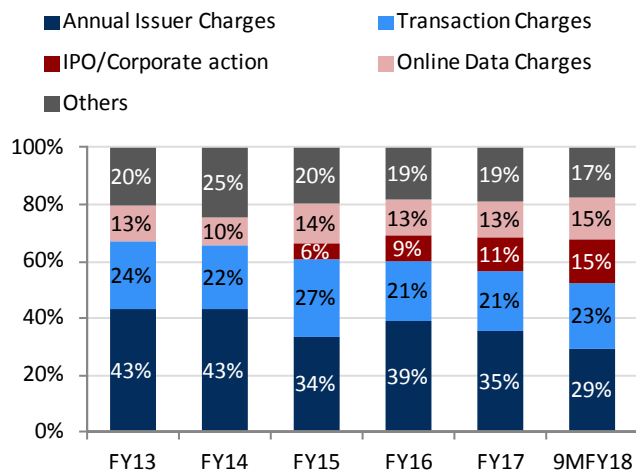
No. of IPOs and corporate action is a function of market condition

NSDL is only focussed on annual issuer and transaction revenue

CDSL : Diversified revenue stream

- CDSL has a well diversified revenue mix with a higher proportion of annuity revenue which is not market linked and non-cyclical. CDSL earned Rs 517mn (~35% of revenue) from Annual issuer charges in FY17. This has grown at a CAGR of 7% over FY13-17. In 9mFY18 Annual issuer charges have grown at 7% YoY.
- CDSL derives ~21% of revenue from transaction charges; this is market linked and depends on the no. of debit transactions processed. In FY17 transaction charges stood at Rs 312mn, +21% YoY. In 9MFY18 the growth has been very robust, +42% YoY given the robust market conditions. Over the long term it has grown at a CAGR of 9% over FY13-17.
- IPO & corporate action/online data charges (KYC) constitute 11/13% to revenue and have grown at a CAGR of 63/13% over FY13-17. The robust growth in IPO and corporate revenue is due to the higher no of

CDSL Revenue Break-up : Well Diversified Revenue Stream

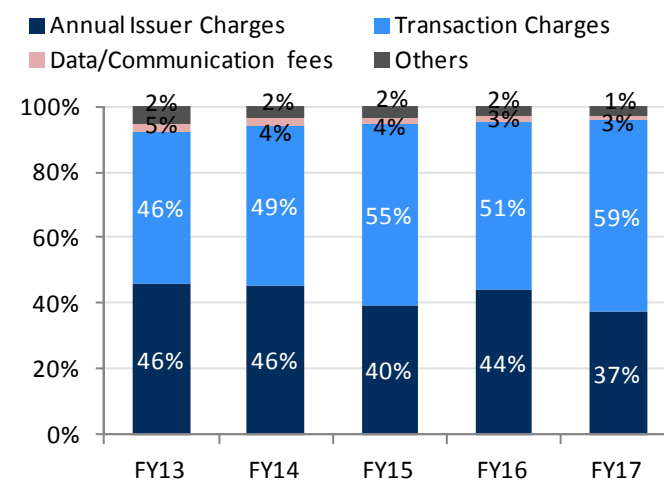


Source: CDSL, HDFC sec Inst Research

IPOs and corporate actions in the last three years. In 9mFY18 this stream has grown at 85% YoY.

- Online data charges revenue is mainly the revenue derived from CDSL ventures (100% subsidiary of CDSL). CDSL Ventures provides KYC services for investors in the capital markets, including the mutual fund industry. It has ~70% market share and holds ~16mn investor records. Revenue stands at Rs 187mn in FY17 +22% YoY, 13% CAGR over FY13-17.
- Other revenue (19% of revenue) include e-voting, account maintenance, settlement charges, GST Suvridha, warehouse repository services, Insurance repository and e-CAS (consolidated acc statement).
- NSDL on the other hand is more focused on Annual issuer charges and transaction charges, which is 37/59% of revenue and has grown at a CAGR of 14/27% over FY13-17.

NSDL Revenue Streams : Transaction & Annual Issuer Charges are 96% of Total Revenue



Source: NSDL, HDFC sec Inst Research

CDSL has more flexible slab based tariff structure for DP's

NSDL has a flat rate of Rs 4.5/debit

Roughly ~15% of the companies are charged on folio basis but contributes ~50% of revenue, resulting in higher yield.

Tariff structure: More flexible vs competition

- Annual issuer charge is the fees charged to corporates annually for offering Demat services. The annual issuer charge is fixed by SEBI and revised periodically (was last increased in FY16 from Rs 8/folio to Rs 11/folio). CDSL and NSDL charge Rs 11/folio or follows a slab based structure based on issued capital, whichever is higher.
- In order to bring down the cost of DP operations, CDSL follows a slab based structure. It ranges from Rs 4.25 to 5.5/debit based on the total monthly billing. On the other hand NSDL charges are fixed at Rs 4.5/debit. CDSL's flexible transaction tariff structure encourages higher volumes, with reducing charges on higher volume that can drive scale by bringing more DPs to its platform.
- Another key positive about CDSL traffic structure is that it does not charge anything to DPs if there are no transactions. NSDL on the other hand charges a fixed minimum fee irrespective of whether or not the BO has made any transactions. This has helped CDSL to penetrate more into retail BO accounts and is also gaining market share.
- For IPO's, CDSL charges Rs 2/folio for verification and Rs 10/folio on allotment to the issuing company. For corporate actions like bonus/split the charges are Rs 10/folio.
- CDSL has 9,887 issuers (-1.3% YoY) and revenue/issuer is Rs 52,305. NSDL has registered 14% YoY growth in no of issuers to 17,853 and revenue/issuer stands at Rs 52,651.

CDSL & NSDL Transaction Charges Structure

Transaction Charges	CDSL	NSDL
Monthly Transaction Bill Amount (Rs)	Rate per Debit (Rs)	Rate per Debit (Rs)
> Rs 1.5mn	4.3	Flat rate of Rs 4.5/debit transaction
Rs 0.4mn to Rs 1.5mn	4.5	
Rs 0.1mn to Rs 0.4mn	5.0	
Up to Rs 0.1mn	5.5	

Source: CDSL, NSDL, HDFC sec Inst Research

CDSL & NSDL Annual Issuer Charges Structure

Annual issuer charges based on no. of folios and issued capital, whichever is higher	CDSL	NSDL
Annual Issuer Charges per folio	Rs 11	Rs 11
Nominal Value of Securities		
Issued capital up to Rs 50mn	9,000	9,000
Issued capital between Rs 50-100mn	22,500	22,500
Issued capital between Rs 100-200mn	45,000	45,000
Issued capital greater than Rs 200mn	75,000	75,000
Corporate action fee/record	Rs 10	Rs 10

Source: CDSL, NSDL, HDFC sec Inst Research

CDSL blended transaction rate/debit is Rs 5.4 which is ~18% higher than NSDL

NSDL derives Rs 1.48bn from transaction charges which is ~3x of CDSL

No of debit transactions per year has seen strong growth in 9MFY18 due to robust market conditions

Growth in the no. of issuers has been encouraging in NSDL while for CDSL it has been muted

CDSL & NSDL Annual Issuer Revenue/Issuer

CDSL	FY15	FY16	FY17
Revenue from Annual Issuer charges (Rs mn)	355	481	517
Growth %	-7.3%	35.8%	7.4%
No of Issuers	9,399	10,021	9,887
Growth %		6.6%	-1.3%
Revenue/Issuer	37,725	48,034	52,305
Growth %		27.3%	8.9%

NSDL	FY15	FY16	FY17
Revenue from Annual Issuer charges (Rs mn)	632	818	939
Growth %	4.6%	29.3%	14.9%
No of Issuers	13,992	15,638	17,835
Growth %		11.8%	14.0%
Revenue/Issuer (Rs)	45,192	52,279	52,651
Growth %		15.7%	0.7%

Source: CDSL, NSDL, HDFC sec Inst Research

CDSL Transaction Revenue/Debit

CDSL	FY16	FY17	FY18E	FY19E	FY20E
Transaction Revenue (Rs mn)	258	312	447	540	652
Growth %	-8.8%	20.9%	43.0%	20.8%	20.8%
No of Debits/year (mn)	47	58	83	101	124
Growth %		23.0%	43.0%	22.0%	22.0%
Revenue/Debit (Rs)	5.5	5.4	5.4	5.3	5.3
Growth %		-1.7%	0.0%	-1.0%	-1.0%

Source: CDSL, HDFC sec Inst Research

CDSL has better cost management vs NSDL resulting in higher margin structure

Reduction in IP fund regulation by SEBI has resulted in better margin

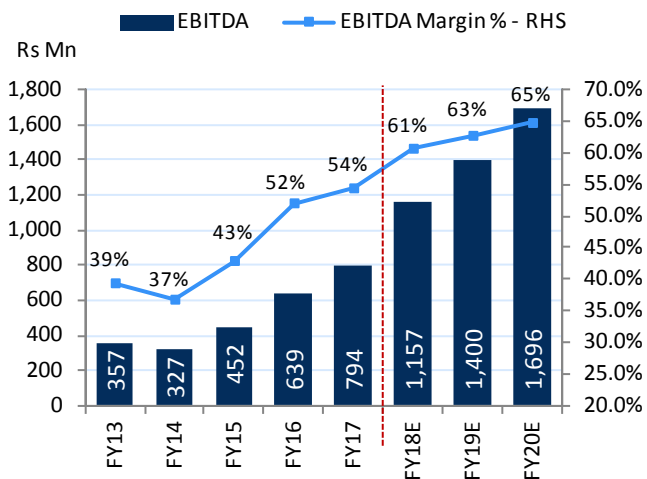
We expect margin to expand to 65% in FY20E led by operating leverage

Total cost has grown at a CAGR of 5% over FY12-17, ex-IP fund the growth has been 10% over the same period

CDSL operates at robust margins : Embedded non-linearity

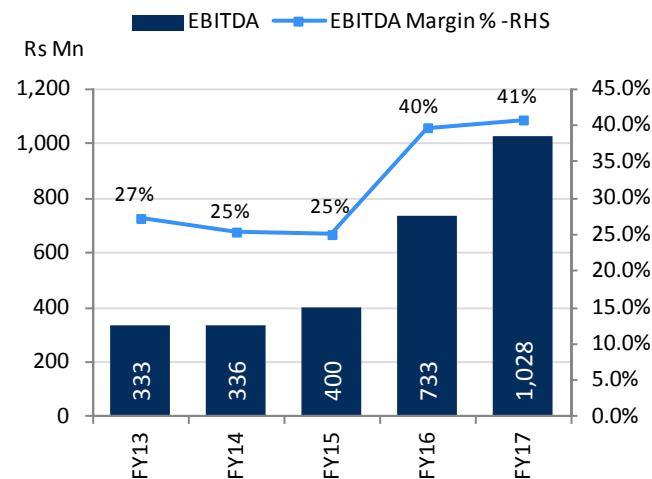
- CDSL has a fixed cost structure where Employee/IT cost is 37/13% of total cost and 17/6% of revenue. Employee cost and IT cost has grown at a CAGR of 10/6% over FY13-17 vs 13% growth over the same period in top-line, reflecting non-linearity.
- Contribution to Investor protection fund (IPF) has declined at a CAGR of 23% over FY13-17 led by change in SEBI regulations. In FY16 SEBI revised the percentage of contribution to IPF from 25% of profit to 5% of profit with retrospective effect.
- This has led to the healthy expansion of EBITDA margin from 39.4% in FY13 to 54.4% in FY17. In 9mFY18 the company has posted EBITDA margin of 60.6%, +460bps YoY.
- Other expenses (ex IT cost & IPF) have grown at a CAGR of 12% over FY13-17. These comprise Annual SEBI fees, legal & professional charges and postage & communication charges.
- We have modeled for growth in employee and technology costs at 11/8% over FY18-20E. We expect total expenses to grow at 11% CAGR over FY18-20E vs 17% growth in top-line. EBITDA margin will thus expand from 54.4% in FY17 to 64.7% in FY18E.
- NSDL on the other hand operates at an EBITDA margin of 41% for FY17. Employee/IT cost is almost in-line with that of CDSL but the major difference is in the other expenses. NSDL's other expenses are 33% of revenue as compared to 20% for CDSL, which suggests better cost management by CDSL.

CDSL EBITDA And Margin



Source: CDSL, HDFC sec Inst Research

NSDL EBITDA And Margin



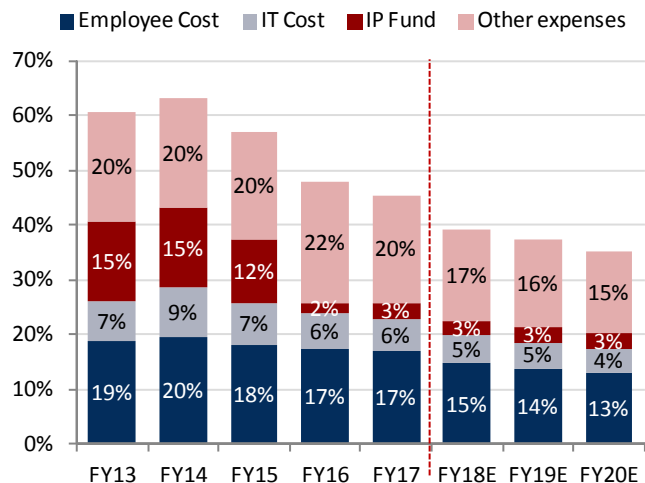
Source: CDSL, HDFC sec Inst Research

Ex-others expenses employee cost, IT cost & Investor protection fund combined is 26% of revenue for both NSDL & CDSL

The main difference is in the other expenses which constitute of annual SEBI fees, bad debts, incentive scheme for DP's, legal professional, communication & postage, travel, rent etc.

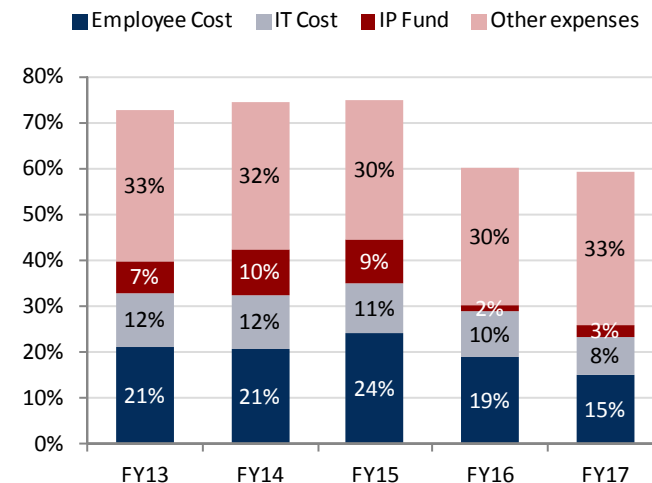
Low capex requirement, asset light model and healthy margins results in excellent cash generation for CDSL

CDSL Cost Structure (% Of Revenue)



Source: CDSL, HDFC sec Inst Research

NSDL Cost Structure (% Of Revenue)



Source: NSDL, HDFC sec Inst Research

Robust balance sheet and cash generation

- CDSL has a robust balance sheet with Net Cash of Rs 4.94bn (~90% of capital employed and ~15% of Mcap). CDSL has an asset light business model, the capex required to grow the business is minimal. The key investments required are employee and technology up gradation.
- The company has spent Rs 0.7bn for the corporate office in 1HFY18 which led to higher capex on FY18. This will normalise in FY19, capex is around 3-4% of revenue.
- The company operates at a RoE of only 16% due to high cash on the balance sheet. Adjusting for the cash, Return on invested capital (ROIC) is as high as

103%. Cash generation is also robust, ~63% of EBITDA and 58% of PAT (OCF stood at Rs 0.5bn for FY17).

- The cash collection cycle is also pretty healthy as the DPs have to make transaction related payment before 25th of every month and annual charges are collected from DPs in advance.
- CDSL pays a healthy dividend (~40-45% payout), but considering the asset light and low capex requirement, payout could be higher. A buyback would be well advised, in view of the high free float (~76%). Dividend/share for FY17 was Rs 3.0/sh, resulting in a yield of 1.0%.

OCF adjusting for other income is ~114% of EBITDA and 106% of PAT for FY17

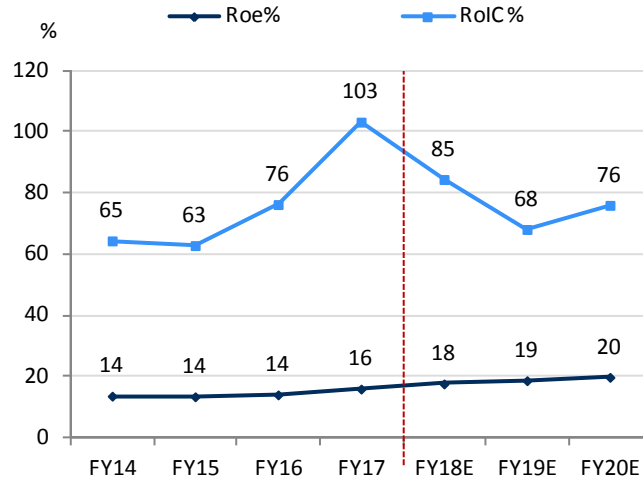
The company has purchased its corporate office in 1HFY18 for Rs0.7bn which resulted in sharp fall in FCF for FY18E

In FY16 there was a reversal of IPF in tune of Rs 0.33bn which resulted in higher other income

FCF Yield for FY19E will be 2.7% and will be 68% of PAT

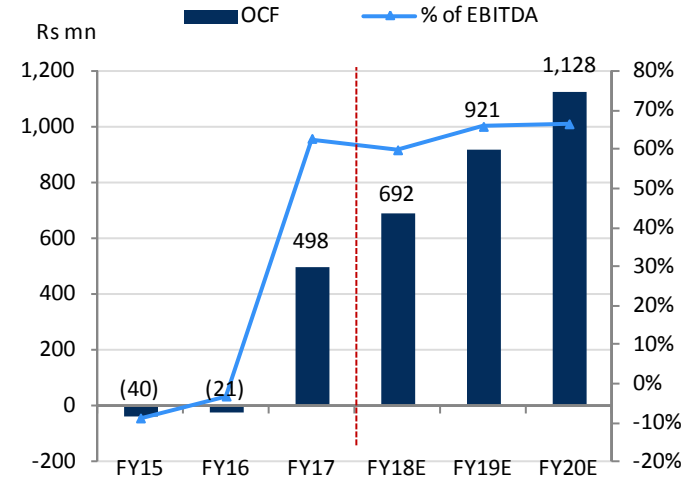
CASH ex-liabilities is Rs 4.94 bn which is 90% of BS size and 16% of Mcap

RoE and RoIC%



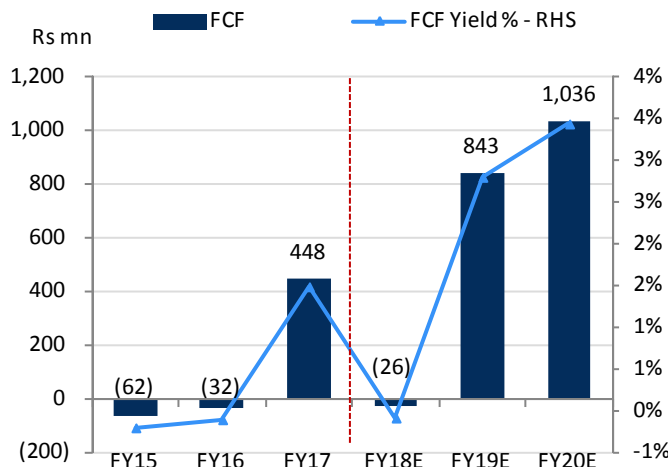
Source: CDSL, HDFC sec Inst Research

Robust Cash Generation



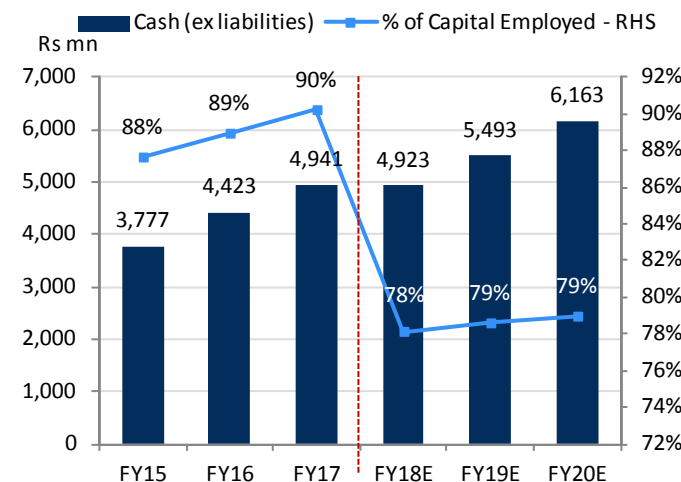
Source: CDSL, HDFC sec Inst Research

FCF and FCF Yield%



Source: CDSL, HDFC sec Inst Research

Cash As % of Capital employed



Source: CDSL, HDFC sec Inst Research

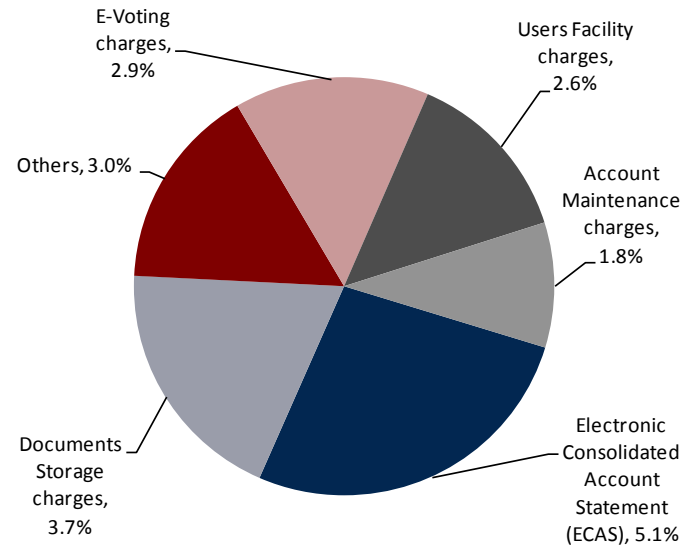
There is huge option value present from new growth areas such as NAD, insurance repository, GST suvidha kendras

New avenues for growth

- In line with the Digital India initiative, Government is creating repositories for insurance policies, academic certificates and warehouse receipts. CDSL is well poised to capture this opportunity through its subsidiaries CDSL Ventures Ltd, CDSL Insurance Repository and CDSL Commodity Repository.
- **Academic Depository Services:** Govt. has set-up the National Academic Depository (NAD) in 2017 for storing secured authenticated copies of academic certificates online. NAD will register various academic institutions, boards, students, and other verifying entities like bank, companies and government agencies. CDSL Ventures is one of the two depository registered with NAD, and will assist these academic institutions for uploading data on its servers.
- CDSL is currently not charging anything to the academic institutions for uploading their data. But once CDSL builds the database, it can be used to generate revenue based on pay per use basis. Currently the progress is slow, CDSL has tied up with ~67-70 universities for uploading data but the opportunity here is interesting and materially large.
- **Insurance Repository Services:** CDSL through its subsidiary CDSL Insurance Repository provides depository services for e-insurance policies issued by insurance companies. Online storage of policies will give more transparency and flexibility both to the insurance company and the buyer.
- According to a report by BCG, online sales of insurance policies through online channel will grow 20x in 2020. Three out of every four policies sold through Digital channel. Currently CDSL has opened ~325,000 e-insurance accounts and holds ~66,000 policies in electronic form.
- **CDSL Commodity Repository Ltd (CCRL):** CDSL has setup a commodity repository under CDSL Commodity Repository which will be governed by Warehousing Development Regulatory Authority (WDRA). CDSL will own 52% and BSE and MCX will own 24% each in the repository. CCRL has received registration certificate in Sep-2017 but the regulatory framework is still under development.
- Government has launched the Electronic Negotiable Warehouse Receipt (e-NWR) in Sep-2017 to help farmers get better prices for their produce. These receipts can be stored on CCRL and can be traded.
- CDSL also provides other value-added services like e-voting to corporates, online drafting solutions for wills through Myeasiwill (~1,000 registrations), e-Notices as part of the Ministry of Corporate Affairs' Green Initiative, Corporate Bond Repository, KYC search assistance for Aadhaar card holders and GST Suvidha Provider.
- Electronic consolidated account statement (e-CAS) and document storage charges are the main components of others revenue, 5.1/3.7% of revenue.
- **These services in total constitute ~19% of CDSL revenue in FY17, which has grown at a CAGR of 11% over FY13-17. We expect ~16% CAGR growth over FY17-20E with ramp-up of initiatives taken.**

Electronic consolidated account statement (e-CAS) and document storage charges (CDSL Ventures) are the main components of other revenue, 5.1/3.7% of revenue

Breakup Of Others (~19% of Revenue)



Source: CDSL, HDFC sec Inst Research

List of Subsidiaries for New Business

Subsidiaries	Year of commencement	Business
CDSL Ventures Ltd	2006	KYC for Mutual funds, National Academic Depository (NAD)
CDSL Insurance Repository Ltd	2011	Storage of e-insurance policies
CDSL Commodity Repository Ltd	2017	Commodity Warehouses, Repository Participants (RPs)

Source: CDSL, HDFC sec Inst Research

Financial analysis

- CDSL derives revenues from Annual Issuer Charges/Transaction charges/IPO & corporate action/Online data charges/others contributing 35/21/11/13/19% to revenue and has grown at 7/9/63/13/11% over FY13-17 respectively. Total revenue has grown at a CAGR of 13% over FY13-17, and currently stands at Rs 1.46bn (+18.8% in FY17). We expect total revenue to grow at a CAGR of 22% over FY17-20E.
- In 9MFY18 the revenue growth performance has been robust, due to increased market activity, higher no of IPO's & corporate actions and increased sale of MF's. For 9MFY18 revenue grew 29% YoY (Annual issuer/Transaction/IPO/Online data/others growth was 6.7/41.7/85.0/58.0/8.4% YoY respectively).
- Annual issuer charges revenue is a stable revenue stream (non-cyclical) and we expect it to grow at a CAGR of 8% over FY17-20E. Issuer charges are fixed by SEBI and there is very little scope for differentiation. The difference lies in the way issuer fees are charged (folio or slab basis). Roughly ~15% of the companies are charged on folio basis but contributes ~50% of revenue, resulting in higher yield.
- Transaction charge is a function of the no of debit/BO account and is moderately cyclical in nature. With increased market activity transaction charges will post 43% YoY growth in FY18. For FY17-20E we expect transaction charges to grow at a CAGR 28%. The average rate for each debit transaction will be Rs 5.3/debit.
- IPO/corporate action has registered robust growth in the last two years due to higher no of IPO's and corporate action. Share of IPO/corporate action to revenue has increased from 5.9% in FY15 to 11.3% in FY17. In 9MFY18 the revenue is up 85% YoY and we expect revenue CAGR of 25% over FY18-20E.
- CDSL operates at a healthy EBITDA margin with embedded non linearity, which led to healthy margin expansion (increased from 39.4% in FY13 to 54.4% in FY17). EBITDA grew at a CAGR of 22% over FY13-17. CDSL is more cost-efficient as compared to NSDL, and operates at an EBITDA margin of 54% vs NSDL's margin of 39%. We expect CDSL EBITDA to increase at a CAGR of 28% over FY17-20E and EBITDA margin will expand to 64% in FY20.
- CDSL has a diversified revenue stream, with a high component of annuity revenue. Growth in market activity and higher number of IPOs will fuel transaction/IPO revenue. Embedded non-linearity and will lead to margin expansion. No capex will lead to lower depreciation and revenue growth will directly flow to Profit and eventually generate free cash.

CDSL Revenue Break-up And Assumptions

CDSL Revenue (Rs mn)	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E	CAGR 13-17	CAGR 17-20E	CAGR 18-20E
Annual Issuer Charges	390	382	355	481	517	551	600	654	7%	8%	9%
<i>Growth %</i>		-1.9%	-7.3%	35.8%	7.4%	6.5%	9.0%	9.0%			
<i>% of Revenue</i>	42.9%	43.0%	33.7%	39.2%	35.4%	28.9%	26.9%	25.0%			
Transaction Charges	218	199	283	258	312	447	540	652	9%	28%	21%
<i>Growth %</i>		-9.0%	42.4%	-8.8%	20.9%	43.0%	20.8%	20.8%			
<i>% of Revenue</i>	24.1%	22.4%	26.9%	21.0%	21.4%	23.4%	24.2%	24.9%			
IPO/Corporate action	0	0	62	107	165	297	372	464	63%	41%	25%
<i>Growth %</i>		NM	NM	72.8%	54.3%	80.0%	25.0%	25.0%			
<i>% of Revenue</i>	0.0%	0.0%	5.9%	8.7%	11.3%	15.6%	16.6%	17.7%			
Online Data Charges	116	89	147	154	187	287	347	420	13%	31%	21%
<i>Growth %</i>		-23.0%	64.1%	4.8%	21.9%	53.0%	21.0%	21.0%			
<i>% of Revenue</i>	12.8%	10.0%	13.9%	12.5%	12.8%	15.0%	15.5%	16.0%			
Others	183	219	206	228	278	325	374	430	11%	16%	15%
<i>Growth %</i>		19.4%	-5.6%	10.5%	21.9%	17.0%	15.0%	15.0%			
<i>% of Revenue</i>	20.2%	24.6%	19.6%	18.6%	19.0%	17.1%	16.8%	16.4%			
Total	907	889	1,053	1,229	1,460	1,907	2,232	2,620	13%	22%	17%
<i>Growth %</i>		-2.0%	18.4%	16.7%	18.8%	30.6%	17.1%	17.4%			

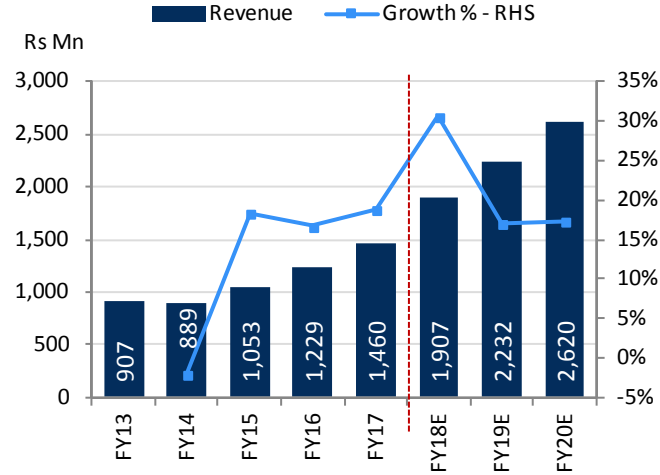
Source: Company, HDFC sec Inst Research * CAGR for FY15-17Source: BSE, HDFC sec Inst Research

CDSL Cost Analysis and Assumptions

CDSL Costing Analysis (Rs mn)	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E	CAGR 13-17	CAGR 17-20E	CAGR 18-20E
Employee Cost	172	175	192	215	249	281	312	346	10%	12%	11%
Growth %		1.8%	10.0%	11.9%	15.7%	12.9%	11.0%	11.0%			
% of Revenue	18.9%	19.6%	18.2%	17.5%	17.0%	14.7%	14.0%	13.2%			
% of Total Cost	31.2%	31.0%	31.9%	36.5%	37.3%	37.4%	37.4%	37.4%			
IT Cost	66	80	79	79	84	98	106	114	6%	11%	8%
Growth %		21.4%	-1.0%	-0.2%	7.1%	16.0%	8.0%	8.0%			
% of Revenue	7.2%	9.0%	7.5%	6.4%	5.8%	5.1%	4.7%	4.3%			
% of Total Cost	11.9%	14.2%	13.1%	13.3%	12.7%	13.0%	12.7%	12.3%			
Other cost	180	179	207	273	287	322	357	395	12%	11%	11%
Growth %		-0.8%	15.6%	31.9%	5.2%	12.2%	10.8%	10.7%			
% of Revenue	19.9%	20.1%	19.6%	22.2%	19.7%	16.9%	16.0%	15.1%			
% of Total Cost	32.8%	31.8%	34.4%	46.3%	43.1%	42.9%	42.9%	42.8%			
IP Fund	133	129	123	23	46	50	59	69	-23%	15%	18%
Growth %		-2.7%	-4.4%	-81.3%	98.8%	8.0%	18.0%	18.0%			
% of Revenue	14.6%	14.5%	11.7%	1.9%	3.1%	2.6%	2.6%	2.6%			
% of Net Profit	26.2%	26.6%	22.1%	4.0%	5.4%	4.7%	4.7%	4.7%			
Total Cost	550	562	601	589	666	750	833	924	5%	12%	11%
Growth %		2.2%	6.9%	-2.0%	13.0%	12.6%	11.0%	11.0%			
EBITDA	357	327	452	639	794	1,157	1,400	1,696	22%	29%	21%
Growth %		-8.4%	38.1%	41.5%	24.3%	45.6%	21.0%	21.2%			
EBITDA Margin %	39.4%	36.8%	42.9%	52.0%	54.4%	60.7%	62.7%	64.7%	1,502bps	1,034 bps	203 bps

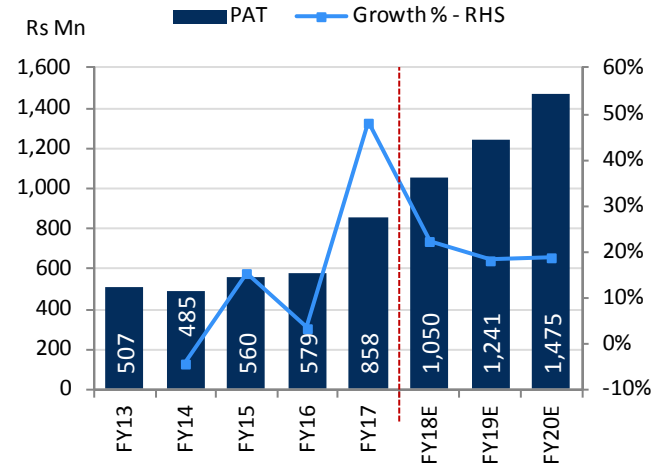
Source: BSE, HDFC sec Inst Research

CDSL Revenue & Growth%



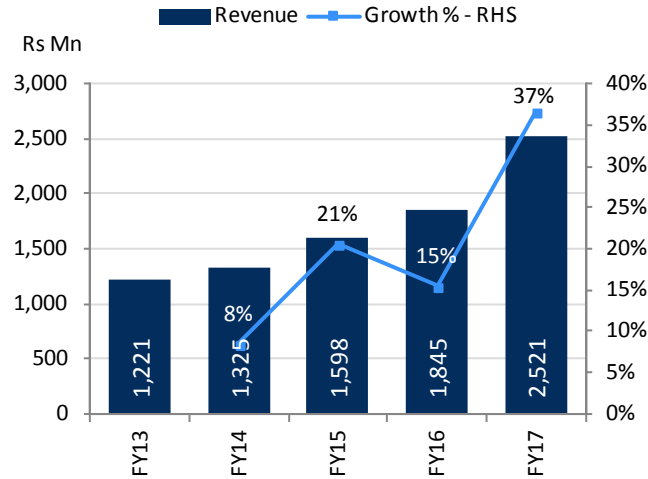
Source: CDSL, HDFC sec Inst Research

CDSL PAT & Growth%



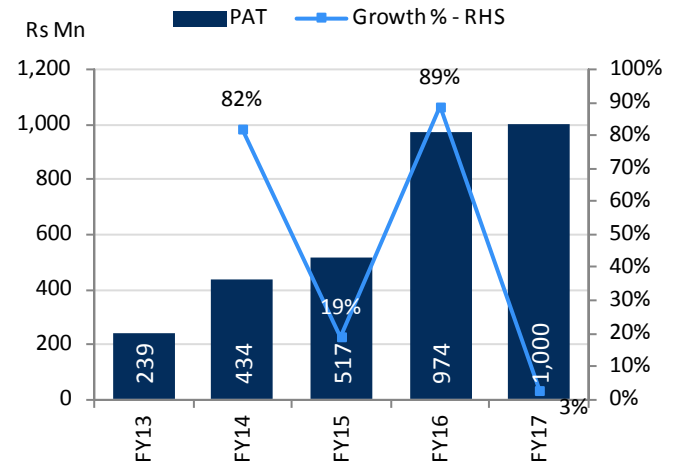
Source: CDSL, HDFC sec Inst Research

NSDL Revenue & Growth%



Source: NSDL, HDFC sec Inst Research

NSDL PAT & Growth%



Source: NSDL, HDFC sec Inst Research

Valuation & outlook

- We expect CDSL revenue/EBITDA/PAT to increase at a CAGR of 22/28/20% over FY17-20E. EBITDA margin will expand from 54.4% in FY17 to 64.0% in FY20 (posted 60.6% margin in 9MFY18) led by a fixed cost business model (cost to grow at 12% CAGR over FY17-20E)
- RoE for the business is only 16.1%, owing to high net cash on the books (Rs 4.94bn, ~16% of Mcap). Adjusting for cash, RoIC stands at ~103% in FY17. RoIC is likely to moderate in FY18E, given the investment made in purchasing office for Rs 0.7bn.
- We see value based on (1) Diversified revenue stream, (2) Fixed cost model, (4) Limited competition (4) Healthy balance sheet (Net cash of Rs 4.9bn, ~90% of BS), (4) High return ratios (RoE 16%, RoIC 103%) (5) Option value of new growth engines like NAD and e-warehouse receipts (4) No capex required to fund growth, (5) Asset light model (6) Excellent operating cash generation (~63% of EBITDA and 58% of PAT).

- We believe the business should command higher multiple because it is less cyclical in nature vs exchanges (MCX, BSE) and brokerages (ICICI). We assign a P/E multiple of 33x (10% premium to MCX) to core earnings and add back net cash to arrive at a TP price of Rs 425 (47% upside from CMP). At P/E multiple of 24/21x FY19/20 earnings, value is imminent and merits a BUY. We initiate coverage on CDSL with a BUY rating and TP of Rs 425.

CDSL Valuation Table

Core FY20 PAT (Rs mn)	1,195
Core P/E Multiple (x)	33
Core Mcap (Rs mn)	39,434
Net Cash (Rs mn)	4,941
Target Mcap (Rs mn)	44,376
TP Rs	425
CMP (Rs)	289
Upside from CMP (%)	47%

Source: Company, HDFC sec Inst Research

Management Profile

Name	Designation	Professional details
P. S. Reddy	MD and CEO	Has 21+ years of experience, joined BSE in 1988 and served as Chief General Manager of BSE Ltd. until Nov-2006. Has been Director in CDSL since 2009. He has done his Master's Degree in Arts (economics) from University of Hyderabad.
Joydeep Dutta	ED & Group CTO	Over 30+ years of experience, Has done BE in Electrical Engineering and MS in Computer Science from Tuskegee university.
Nayana Ovalekar	COO- Operations & Admission Cell	Served as EVP operations until Sep-2017, earlier she was VP of Audit, Inspection & Compliance in CDSL.
Bharat Sheth	CFO	CA and has serviced various roles in the finance department of CDSL.
Ramkumar K.	EVP	Master's degree in Financial Management.
Sunil Alvares	EVP -New Projects	Serves at various roles in business development at CDSL. Has done Masters in Marketing Management from Welinkars and Post Graduate Diploma in Computer Science.

Source: Company, HDFC sec Inst Research

Key Risks

- Increased Competition from other depositories, market share loss
- Regulatory risk, opening of the depository market to corporate by SEBI
- Technology risks & data pilferage
- Risk to KYC business after the appointment of Central Registry of Securitization Asset Reconstruction and Security Interest of India (CERSAI)

Income Statement (Consolidated)

YE March (Rs mn)	FY16	FY17	FY18E	FY19E	FY20E
Net Revenues (Rs mn)	1,229	1,460	1,907	2,232	2,620
<i>Growth (%)</i>	<i>16.7</i>	<i>18.8</i>	<i>30.6</i>	<i>17.1</i>	<i>17.4</i>
Employee Expenses	215	249	281	312	346
Other operating Expenses	374	417	469	521	578
EBITDA	639	794	1,157	1,400	1,696
EBITDA Margin (%)	52.0	54.4	60.7	62.7	64.7
EBITDA Growth (%)	41.5	24.3	45.6	21.0	21.2
Depreciation	42	37	62	74	81
EBIT	597	757	1,095	1,326	1,615
Other Income (Including EO Items)	716	408	331	358	386
Interest	0	0	0	0	0
PBT	1,313	1,166	1,425	1,684	2,001
Tax (Incl Deferred)	402	300	371	438	520
Minority Interest	1	8	5	5	5
RPAT	910	858	1,050	1,241	1,475
EO (Loss) / Profit (Net Of Tax)	230	0	0	0	0
APAT	680	858	1,050	1,241	1,475
APAT Growth (%)	20.5	26.1	22.4	18.2	18.9
Adjusted EPS (Rs)	6.5	8.2	10.0	11.9	14.1
EPS Growth (%)	20.5	26.1	22.4	18.2	18.9

Source: Company, HDFC sec Inst Research

Balance Sheet (Consolidated)

YE March (Rs mn)	FY16	FY17	FY18E	FY19E	FY20E
SOURCES OF FUNDS					
Share Capital - Equity	1,045	1,045	1,045	1,045	1,045
Reserves	3,748	4,288	4,866	5,548	6,360
Total Shareholders' Funds	4,793	5,333	5,911	6,593	7,405
Settlement guarantee fund					
Minority Interest	147	155	160	165	170
Total Debt	0	0	0	0	0
Net Deferred Taxes (Net)	29	(15)	(15)	(15)	(15)
Long Term Provisions & Others	5	6	6	6	6
TOTAL SOURCES OF FUNDS	4,974	5,479	6,061	6,749	7,565
APPLICATION OF FUNDS					
Net Block	37	55	711	715	726
LT Loans & Advances & Others	297	228	334	391	459
Total Non-current Assets	334	283	1,045	1,106	1,184
Debtors	130	133	178	208	244
Other Current Assets	88	122	156	183	215
Cash & Equivalents	4,978	5,512	5,585	6,228	6,986
Total Current Assets	5,196	5,767	5,919	6,619	7,445
Creditors	73	90	115	135	158
Other Current Liabilities & Provns	482	481	547	601	665
Total Current Liabilities	556	571	662	735	823
Net Current Assets	4,640	5,196	5,257	5,884	6,622
TOTAL APPLICATION OF FUNDS	4,974	5,479	6,302	6,990	7,806

Source: Company, HDFC sec Inst Research

Cash Flow (Consolidated)

YE March (Rs mn)	FY16	FY17	FY18E	FY19E	FY20E
Reported PBT	1,313	1,166	1,425	1,684	2,001
Non-operating & EO items	(716)	(408)	(331)	(358)	(386)
Interest expenses	0	0	0	0	0
Depreciation	42	37	62	74	81
Working Capital Change	(258)	4	(94)	(41)	(48)
Tax Paid	(402)	(300)	(371)	(438)	(520)
OPERATING CASH FLOW (a)	(21)	498	692	921	1,128
Capex	(12)	(50)	(718)	(78)	(92)
<i>Free cash flow (FCF)</i>	<i>(32)</i>	<i>448</i>	<i>(26)</i>	<i>843</i>	<i>1,036</i>
Investments	0	0	0	0	0
Non-operating Income	716	408	331	358	386
INVESTING CASH FLOW (b)	704	358	(387)	280	294
Debt Issuance/(Repaid)	0	0	0	0	0
Interest Expenses	0	0	0	0	0
<i>FCFE</i>	<i>(32)</i>	<i>448</i>	<i>(26)</i>	<i>843</i>	<i>1,036</i>
Share Capital Issuance	0	0	0	0	0
Dividend	(314)	(377)	(472)	(558)	(664)
FINANCING CASH FLOW (c)	(314)	(377)	(472)	(558)	(664)
NET CASH FLOW (a+b+c)	369	479	(168)	643	758
EO Items, Others	37	55	241	0	0
Closing Cash & Equivalents	4,978	5,512	5,585	6,228	6,986

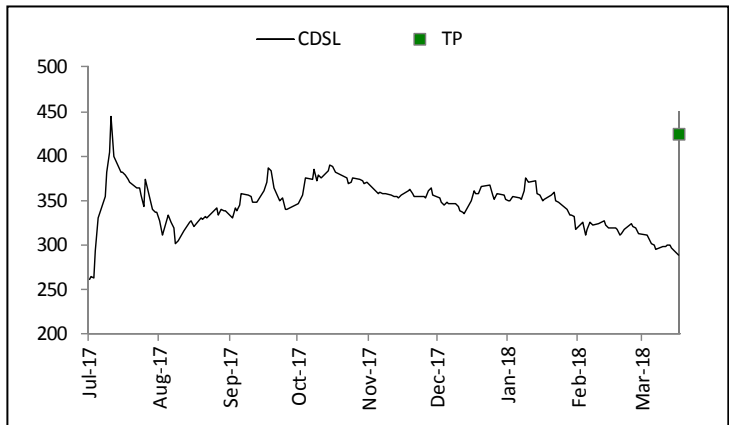
Source: Company, HDFC sec Inst Research

Key Ratios (Consolidated)

	FY16	FY17	FY18E	FY19E	FY20E
PROFITABILITY (%)					
GPM	82.5	83.0	85.3	86.0	86.8
EBITDA Margin	52.0	54.4	60.7	62.7	64.7
APAT Margin	55.4	58.8	55.1	55.6	56.3
RoE	14.2	16.1	17.8	18.8	19.9
RoIC (or Core RoCE)	76.4	103.3	84.6	68.2	76.1
RoCE	14.7	16.4	17.8	18.7	19.9
EFFICIENCY					
Tax Rate (%)	30.6%	25.7%	26.0%	26.0%	26.0%
Fixed Asset Turnover (x)	0.3	0.3	0.3	0.3	0.4
<i>Inventory (days)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Debtors (days)</i>	<i>39</i>	<i>33</i>	<i>34</i>	<i>34</i>	<i>34</i>
<i>Other Current Assets (days)</i>	<i>26</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>
<i>Payables (days)</i>	<i>22</i>	<i>22</i>	<i>22</i>	<i>22</i>	<i>22</i>
<i>Other Current Liab & Provns (days)</i>	<i>143</i>	<i>120</i>	<i>105</i>	<i>98</i>	<i>93</i>
Cash Conversion Cycle (days)	(100)	(79)	(63)	(56)	(51)
Debt/EBITDA (x)	0.0	0.0	0.0	0.0	0.0
Net D/E (x)	(1.0)	(1.0)	(0.9)	(0.9)	(0.9)
Interest Coverage (x)	NM	NM	NM	NM	NM
PER SHARE DATA (Rs)					
EPS	6.5	8.2	10.0	11.9	14.1
CEPS	6.9	8.6	10.6	12.6	14.9
Dividend	2.5	3.0	3.8	4.4	5.3
Book Value	45.9	51.0	56.6	63.1	70.9
VALUATION					
P/E (x)	44.3	35.2	28.7	24.3	20.5
P/BV (x)	6.3	5.7	5.1	4.6	4.1
EV/EBITDA (x)	39.4	31.0	21.3	17.1	13.7
OCF/EV (%)	(0.1)	2.0	2.8	3.8	4.9
FCF/EV (%)	(0.1)	1.8	(0.1)	3.5	4.5
FCFE/Mkt Cap (%)	(0.1)	1.5	(0.1)	2.8	3.4
Dividend Yield (%)	0.9	1.0	1.3	1.5	1.8

Source: Company, HDFC sec Inst Research

RECOMMENDATION HISTORY



Date	CMP	Reco	Target
20-Mar-18	289	BUY	425

Rating Definitions

- BUY : Where the stock is expected to deliver more than 10% returns over the next 12-month period
- NEUTRAL : Where the stock is expected to deliver (-)10% to 10% returns over the next 12-month period
- SELL : Where the stock is expected to deliver less than (-)10% returns over the next 12-month period

INSTITUTIONAL RESEARCH

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