Metis Opportunity Fund

Skewed liquidity conceals signs of fatigue in midcaps

October 2017 Newsletter

Oct 26, 2017

Amidst widening disconnects between underlying earnings and prices, our strategy typically trails benchmarks. That said, until now, we had never under paced *BSE 500* for 3 quarters in a row. But then, we hadn't seen as prolonged a period of broad appreciation in prices with nearly no support from earnings. As we have stressed before, this underperformance has little to do with faltering execution within our holdings. We note that underlying earnings at our book have not only been better vs. the benchmarks, but they are also expected to be well ahead of the broader markets over the next year - Over the past 3 quarters, our book earnings (ex-financials) have been flattish vs. 3-4% earnings decline for *BSE Sensex* (ex-financials). Over this period, about 45% of our book (by weight) reported earnings expansion and 55% reported declines. Our book (ex-financials) reported 8% growth in revenues, with 70% of the holdings reporting revenue growth.

Metis Opportunity was up **+0.06%** (in USD; net of all fees) in 3Q17, vs **+2.27%**, **+2.74%**, **+4.93%**, **+4.08%**, and **+2.66%** gains in *Nifty TR*[1], *BSE 500 TR, BSE Midcap TR*, *BSE Smallcap TR*, and *Eurekahedge India* respectively. 45% of our holdings gained in 3Q. Our net exposure at the end of 3Q17 was 84% vs. 86% at the end of 2Q17. We added two new positions in the quarter (most of the orders were filled after Sept end) while adding a bit to an existing holding. We also cut some exposure in an existing outdoor entertainment name.

Over trailing 12 months, *Metis Opportunity* was up **+8.1%** (in USD; net of all fees). That compares with **+17.4%**, **+20.1%**, **+29.5%**, **+21.1%**, and **+14.5%** increases in *Nifty TR, BSE 500 TR, BSE Smallcap TR*, *BSE Midcap TR* and *Eurekahedge India* respectively. Over this period, our volatility was **637 bps**, **424 bps**, **181 bps**, and **95 bps** below that of *BSE Smallcap TR, BSE Midcap TR, BSE 500 TR* and *Eurekahedge India* respectively.

Over the past 3 years, *Metis Opportunity* is up **+30.7%** (in USD; net of all fees) vs. **+20.2%**, **+31.0%**, **+58.3%**, **+45.9%**, and **+34.1%** increases in *Nifty TR*, *BSE 500 TR*, *BSE Midcap TR, BSE Smallcap TR*, and *Eurekahedge India* respectively.

Since inception in April 2011, *Metis Opportunity* is up **+94.3%** (in USD; net of all fees) vs. **+40.0%**, **+53.0%**, **+79.7%**, **+53.6%**, and **+37.3%** increases in *Nifty TR*, *BSE 500 TR*, *BSE Midcap TR, BSE Smallcap TR*, and *Eurekahedge India* respectively.

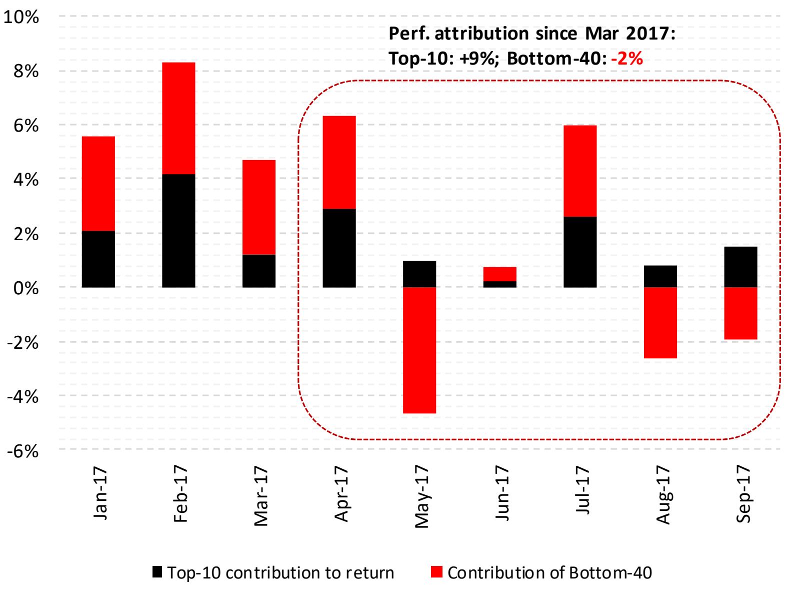
Asymmetric liquidity has driven relatively larger disconnects outside large-caps. As of September end, FPI net inflows within Indian listed equities were about INR 344 Bil YTD, which is just over half of calendar year averages of the past decade and that too on a much higher base now. Elsewhere, much has been made up about how liquidity from domestic Systematic Investment Plans (SIPs) has forced the market higher. We note that year to date SIP allocations are up just slightly ahead of market's overall run. Total SIPs (including allocations to fixed-income funds) make less than 1% of market turnover YTD, in line with last year. Even if one were to take a reasonable multiplier to calculate turnover of this allocation, this in-flow typically isn't enough to move the overall market materially. However, when one disaggregates the allocation by capitalization, we note that about 44% of equity SIP allocation went outside large-caps[2] even as this space accounts for around 30% of total market capitalization and an even lower % of free float capitalization. While this liquidity isn't large enough to drive disconnects in much more 'institutionalized' and liquid large-caps, it has disproportionately contributed towards taking small and midcap indices higher, while also artificially contributing towards performance of supposedly 'large-cap' domestic funds, which have clearly had a very generous exposure to mid and small caps.

[1] 'Total Return' indices are used for comparison

[2] We are referring to actual allocation (based on how funds report their capitalization-wise exposures) vs. headline categorization of funds. While things may change after the early October circular from SEBI, until now nearly all 'large-cap funds' had a provision of 30% allocation to mid and small caps. Historically, large-cap definition at most of these domestic funds used to be 'top-100' stocks.

Headline midcap performance conceals signs of growing underlying fatigue. While it's quite obvious that the 2017 rally came off of stretched valuations and with no support from underlying earnings, it's not widely appreciated that it hasn't been accompanied by impressive breadth. No year over the past decade had more months when benchmark midcap index gained despite declines outnumbering advances than 2017, and that's with a quarter still left – Declines have outnumbered Advances in 5 of the 7 months that *BSE Midcap* has gained this year (as of the end of September).

Exhibit 1 – Disaggregating Nifty Midcap 50's 2017 YTD returns



Source: NSE

The 'Nifty Midcap 50' is a great case in point of how headline performance has concealed much more muted performance elsewhere within even benchmark names, let alone the wider universe – Even though the top 10 constituents of the index account for 38% of the weight, they have accounted for just under 2/3rd of index's YTD +28% gain. The dichotomy has been particularly apparent over the most recent 2 quarters when headline index performance of +7% was entirely attributable to a highly skewed +9% contribution from the top-10 constituents, with the remaining 40 index constituents dragging the index back by -2% (see **Exhibit 1**).

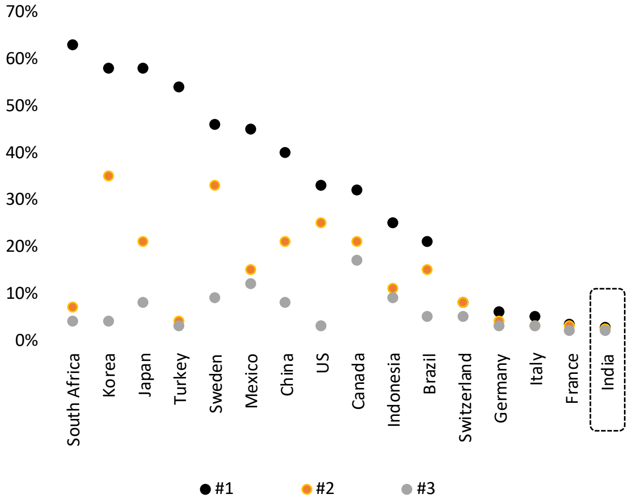
The 2 common denominators among the 2 names we have added in 3Q in one of the sub-strategies were 1. the largely disconnected nature of the demand within these names from near-term macro environment, and 2. highly visible earnings upside from already funded new expansion. Incidentally, both of these new names are down YTD.

New exposure initiated in a diagnostics lab services name. We allocated 2.5% of our book into this name, which began a few years after India's independence. PE investors did the inaugural round in mid 2000s and built the external team for expansion. Towards the end of the last decade, soon after they opened their first reference lab, their growth began to shift materially higher. With nearly 200 clinical labs and almost 1,800 collection centers now, they are firmly positioned among the top three players in the diagnostics space and offer almost 3,000 diagnostic tests, with about a third of those tested at their current reference lab. 'Wellness' testing remains a very small piece of the business and remains one of several low hanging fruits available to them.

Before we detail our thesis on this name, we would briefly address 3 key attributes of this industry, whose ongoing shifts are the building blocks of our thesis – 1. Industry's unusually high fragmentation in India, 2. Rampant referral practices of GPs, and 3. Growing challenges for the bottom 90% of the market.

Global diagnostics services industry remains highly consolidated, with the exception of several EU markets. Our work across markets suggests that, ex-Europe, top-3 players across diagnostics lab services markets corner around 70% share of their respective markets, with top-2 players accounting for around 60%+ share in these markets. Europe is a clear exception - This can be at least partly explained by a bigger reliance on public healthcare services[3] within Europe, where public health facilities hardly outsource laboratory services. In India however, a leading diagnostics player (hospital affiliated) is increasingly tying up public hospitals to provide in-house lab services. Other leading players also continue to press deeper into this space. Idiosyncratic reasons also explain the fragmentation in certain European markets – In Switzerland, for instance, 60% of general physicians operate their own internal labs. India's $6 bil diagnostics services industry is even more fragmented than European markets with top-3 lab services companies accounting for under 7% of the market (see **Exhibit 2**).

Exhibit 2 – Market share of top-3 players across markets



Source: Standard & Poor's

Illegal referral kickbacks from private practices is the dominant channel for client acquisition at smaller players. The Indian diagnostics space is highly fragmented and is mostly made up of unaccredited players. The industry is choc-a-bloc with non-national players that had mushroomed under the murky referral world of private physician practice. Our nation-wide checks across small players confirmed two dominant themes for client acquisition – **1**. As many as half of walk-in customers at locations close to government hospitals were highly price sensitive (and therefore unlikely to shift to pricier national players), and **2**. Private physician practice was the dominant source of customer acquisition at all other locations (and therefore ripe for capturing). If *Medical Council of India (MCI)* could enforce its ruling of banning referrals, we would expect that it would be a severe blow to a vast majority of local players, who already operate on very thin margins.

Incremental challenges for non-national players. Non-national players continue to struggle with several operating challenges – higher cost of customer acquisition (substantial %share paid out at pick-up points, besides the murky 'referral' payouts), higher reagent costs, higher (effective) device costs, and lower overheads absorption. Quality, trust (physician support), and information security are increasingly shifting the landscape in favor of national players that have the scale, responsiveness, and service breadth to consistently capture share. Furthermore, a recent order from *MCI* now makes it mandatory for all diagnostic lab reports to be signed off by doctors, potentially further increasing cost pressure.

3 key reasons we initiated this exposure were:

1. **New labs (internally funded) would significantly expand business in U.P. and Eastern India**. Besides de-risking the business, centralized labs with scale significantly expand revenues as turnaround time and servicing cost for consumers shortens significantly – The only operational centralized lab of this player (opened in 2010) currently processes 40-50K samples/day (capacity of 100K/day), or about 2/3rd of all testing done nationally vs. just about 10K samples/day processed at the prior reference lab. They are now in the process of opening 2 more labs, with

[3] In markets such as France, public hospitals account for a quarter of all hospitals but account for 2/3rd of all inpatient volume

one of them nearly finished. Both the new locations to be launched are substantial locations and directly account for a fifth of India's urban population[4]. Neither of the two locations is particularly new with prior organic and inorganic presence already established. As mentioned, capex for one of the labs has already been fully accounted for and would need just about INR 50-60 mil of incremental expenditure in F2018E (Mar).

2. **Superior economics ensure that it makes sense for majority of non-national players to come into fold or quit**. We combed the lab services market nationally and it was evident that the non-national players were already well stretched to use pricing as a lever to compete with large national/regional lab chains – Vast majority of labs don't own machines and operate on low-mid single EBITDA margins. Even smaller private hospitals running their internal labs need to jettison the asset-light lab model in order to get into double digit margins.

   Since the primary port of call in India is overwhelmingly GPs, the primary focus of national players remains to capture share from mom and pop labs. We anticipate a multi-dimensional shift in favor of national players from smaller non-national players that perform the most basic of tests (few biochemistry tests in-house) while outsourcing the rest to a relatively larger regional player. Our work on economics of such players suggest that they are better off just being part of the franchisee network of a national diagnostics player. Our discussions across the country confirm that about a fourth of all such players expect to fold their labs while another 50% remain distressed. Consider this – A typical franchisee of a national player (outside Delhi NCR) collecting as few as 15 samples/day can generate an EBITDA of 10-15% on gross invoice, a profitability level exceeding what a non-national lab 4-5x larger doesn't report. Returns on investment aren't comparable. Elsewhere, our discussions with our pick's franchisees that shifted from franchisee network of regional players confirmed a material increase (post-shift) in direct footfalls i.e. footfalls that aren't a result of referral fees paid to GPs.

3. **We expect solid incremental growth in the B2B lab business**. Just to provide some context, just under 40% of all diagnostic tests in the US are on hospital patients (inpatient and outpatient). In sharp contrast, India is an overwhelmingly GP-focused market with large hospitals accounting for immaterial portion of diagnostic tests. Nonetheless, this is clearly a material catalyst within an industry where B2B space is far less fragmented than the B2C space described earlier.

   Just about 15% of all Indian private hospitals (including nursing homes) have 30+ beds[5] and only about 5% have 100+ beds. Our discussions across smaller hospitals/clinics confirmed that even today, >2/3rd of private hospitals outsource all or part of their diagnostics to non-national players. We note that our player features well within the other third that outsource to national players and we expect it to gain further foothold at the expense of non-national players that service 2/3rd of current outsourced lab work. All said, our conviction on margin levels on the incremental EBITDA captured as a result of continued B2B traction remains somewhat low and we have been very conservative in pricing upside from this specific catalyst.

This stock is down more than -25% YTD and now trades a bit below what we believe is a fair multiple for this business. Accordingly, our thesis here isn't dependent on any material multiple expansion. Instead, as we have explained, our thesis is built on what we strongly believe is an extremely solid base for delivering mid-

[4] Public health expenditure in these 2 states accounts for less than a fifth of India's total public health expenditure. Medical expenditure (as share of total non-food expenditure) is also considerably higher vs. national average

[5] Hospitals with under 30 beds account for about half of 1.2-1.4 mil beds across facilities.

teens or higher annualized earnings growth over the next decade, with little to no assistance from macro tailwinds.

New holding in a consumer name – Lot of moving parts but a patient holding period would likely ensure solid upside. We allocated 3% of a sub-strategy to a $50 mil niche consumer name. This is the lowest we have ventured into the capitalization spectrum and is a name where we see substantial multiple expansion opportunity (we expect the multiple to at least double from here). With very limited institutional coverage, this is one of the most uncrowded positions we have initiated in recent past.

85% of the business is B2B (to foreign governments and multi-lateral aid organizations[6]) and 15% is contract manufacturing, but that would shift over the next few years. Materials are completely sourced locally but 80% of current revenues come from exports. The primary material is sourced from an industry that has an installed capacity that can support 3x current production and typically exports more than a tenth of production. Imported material pricing (landed cost) is about in line with domestic pricing. 3 critical ongoing shifts here that attracted our interest are:

1. **Return to local B2C business**. They had quit their small but growing B2C business in 2013 when their products were brought into government price regulation. Subsequent appeals have ensured that government cannot cap prices in this category - cases brought in Delhi and Chennai courts have yielded the same result. We note that B2C margins in this product have the potential to likely exceed its existing margins within 2 years (and come with shorter cash cycles).

2. **Very solid order book, aided by larger tenders from existing clients.** Current order book suggests that F2018E (Mar) revenues will likely be 40% higher. Expected tender activity is likely to be very strong in F2019E too. The entire expansion (60-70 mil) across product lines (for B2C foray and servicing existing business) would have required little over a third of current net cash. However, apparently the management wants to retain cash for potential acquisitions and is mulling a capital raise.

3. **Hiring of external CEO will take off the succession overhang**. This team is now actively looking to hire an external CEO, who is expected to come on board within the next 6 months. We expect the event to take off what we believe is some succession overhang on the stock.

Given how niche the business is and possibility of further adding to this position (subject to improved visibility on the few moving parts), we have hesitated from providing detailed commentary on this name at this time. We'll be glad to discuss this position further with investors in 1x1 conversations.

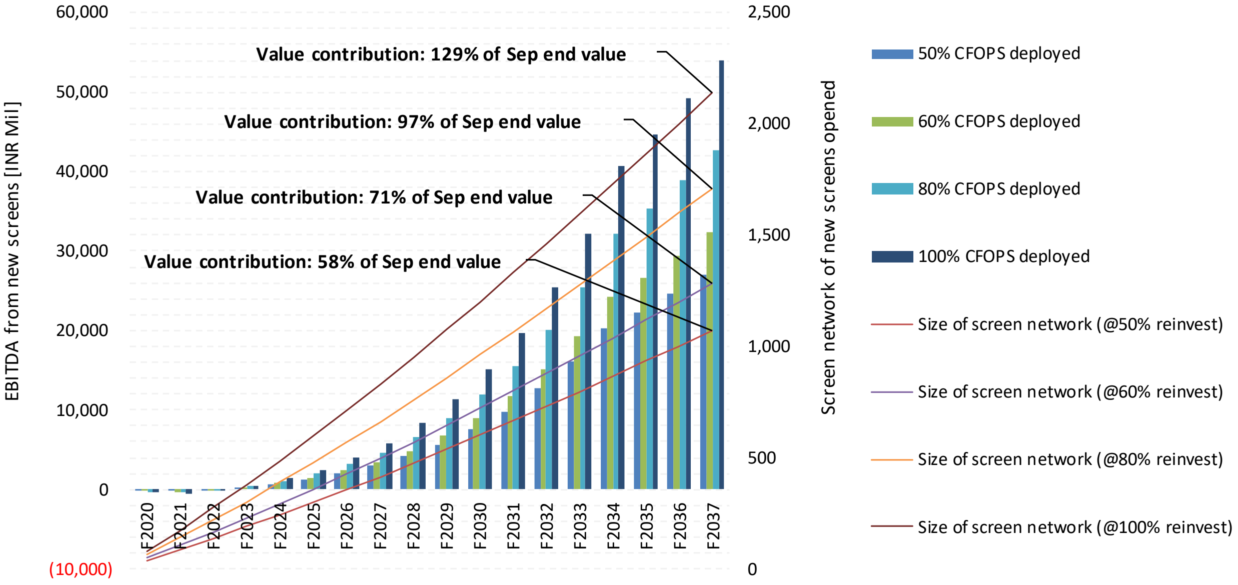
We added about 1% to an existing holding, which is the largest organized PVC leather manufacturer in India. No small rate increase in USA or money flow changes will have more than passing effect on this passionately run company. The promoter (owns around 60% of the ~20 Bil company) was in China to order machines for a new manufacturing line so was unavailable for his usual quarterly commentary/Q&A in the latest conference call. He, along with his son-in-law who serves as ED, is a big reason for our optimism in this company - they have clear and consistent ethical passion for the business and focused on smart growth while keeping eagle eye on any competition ("we have to compete with China" and is accordingly trying to improve underlying margins and make sure that no meaningful competitive threats emerge (for instance, by backward integrating for knitted fabric used in PVC leather manufacturing to lower costs). They are busy diversifying

[6] Nearly all is tender-based

away from their historical 50% exposure to basic footwear industry and towards higher margin auto exports (getting audited by Mercedes for their new auto programs), fashion, and PU leather (currently only producing PVC) line coming up in next 16 months (invested 1 Bil in Gwalior including land) which will increase their overall leather capacity by over 25% and has large consistent demand from Indian manufacturers of higher quality shoes/sport shoes, bag lines, and ladies footwear. Currently, most of this demand is being met by low quality PU imported from China. Given their existing strong long-term relationships with customers, there is a clear visibility of earnings and minimum 15% upside on current price (we added to our position in late August). This upside does not include any sustainable positive demand/pricing power level due to GST (large quantity of lower quality/reliability unorganized players getting squeezed and forced to raise prices) and higher growth due to approval at Mercedes and other auto OEMs.

Cinema exhibition names once again overreact to box-office vagaries. While GST has clearly not been a 'net +ve' to exhibition margins, even a 100-125 bps net negative impact to EBITDA margins, at most, isn't a large enough drag to warrant the recent weakness, particularly within our holding. Given that 15%+ of our holding's screen network was still <2 yrs old as at the end of F2017 (Mar)[7], we conservatively expect run-rate EBITDA margin to be in the 15-16% range in two years. We note that just 6-7% annualized same-store revenue growth at existing locations (and assuming ZERO new screens in the future) is large enough to support run-rate profitability levels that command a valuation at least 30% ahead of where this name closed in September 2017, let alone the optionality of the huge organic opportunity that exists for ramp-up. Just to add some context to the same-store growth expectations baked into above estimates, this business has averaged same-store growth rates of 6%, 14%, and 19% for ticket prices, F&B spends, and advertising revenues respectively over the past 5 years.

Exhibit 3 – 4 incremental value contribution (unlevered) scenarios from re-investing free cash into new screens



Notes/Assumptions: Growth contribution is calculated as CFROIC on deployment of free cash flow from existing screens, beyond a 10% hurdle rate; Capex/screen is assumed at INR 30 mil, with maintenance assumed at 2.5% of revenues; Different %ages of free cash flow from existing screens are re-invested into new screens in the 4 scenarios above; Gross ATP starts at INR 200 and maintains 5% inflation; First year occupancy is at 25% and stabilizes in third year at 35%; F&B spending is assumed at 45% of gross ATP; Sponsorship revenues begin at INR 4 mil/screen; Typical location is assumed to be a multiplex property on ~44K sq ft, with 250 seats/screen; Rent starts at 100/pmpsf, and escalates at 8%/yr.
Source: Internal estimates; Company reports

[7] Even as it's very location-specific, it typically takes 2 years for multiplex footfalls to reach maturity at a location

Not only have box-office vagaries capped upside in this name in an otherwise disconnected market, focus on very near-term earnings (of whatever little focus that earnings are getting) means that potential growth within highly underpenetrated businesses such as this one often remains nearly unpriced. Admittedly however, as underpenetrated as the space is, its expansion depends upon continued mall openings. We note however that if this business re-invests say 80% of its operating cash flows into opening new screens going forward (~1.7K screens over next 15-17 years; assuming no leverage), that by itself would suggest that even this growth should appropriately be valued as much as the value of the current screen network noted above [see 2nd scenario (80% reinvestment) in **Exhibit 3** above].

Several names in our book are expected to report very robust earnings growth, coming off of depressed earnings from F2017 (Mar). Since our last update, earnings expectations for the broader market have been rightly revised lower. While our holdings have seen earnings downgrades too, not only have the magnitude of downgrades been lower but this is also happening off of a much larger F2018E (Mar) base expectation for us. We believe that the majority of stories in our book today face unique idiosyncratic tailwinds that ensure that earnings at these names remain relatively disconnected from the broader market. This is the reason why we expect 2018 to be a year when we distinguish ourselves particularly vs. market and peers. A few such stories are shared below:

> ***An auto-parts exposure initiated within our India Underserved sub-strategy in early 2016 is back on track after getting pegged back by demonetization and EESL dealings*** – This stock has lost just under a fifth of its value YTD. We had initiated exposure in this name when the thesis was based on how well the business was coupled with a major two-wheeler OEM that continues to gain share[8]. Furthermore, the underlying product life cycle was such that it ensured that this parts maker supplied at 'cost plus', making underlying earnings among the most stable in the wider Industrials universe. However, while we hadn't priced in the potential upside from the then fledgling initiative within LED Luminaires, we certainly didn't expect the business to be a net material drag on overall earnings.
>
> EESL's effective jettisoning of the 'Make in India' focus ended up hurting several businesses that had installed LED assembly capacities, including this auto-parts holding of ours - Except for immaterial sub-contracting revenues, nearly all revenues from the LED Luminaires business in recent past have been 'returns'[9]. With almost all EESL returns now received, 2HF2018 (Mar) core earnings would have no more material drag from the LED business, except for limited ongoing depreciation for installed capacities. With it's largest 2W OEM set to report 20%+ volume growth in F2018E (Mar), this is another name where we expect material earnings growth over the next few quarters.
>
> ***Another holding coming off of very depressed earnings in F2017 (Mar) is a radio name that has launched several new stations post-Phase III auctions*** – This stock is down about -7% YTD. Inventory utilization at newly launched stations was barely 20% in F1Q (Jun), with these stations collectively offsetting nearly a fifth of legacy stations' EBITDA. That said, this is coming off of 15% utilization level for F2017 (Mar). Overall, newly launched stations are expected to at least break even on the EBITDA line in F2018E (Mar) vs. a –ve EBITDA contribution of ~INR 300 mil last year. Critically, this is at least in part a function of lower launch related marketing spends as nearly all major stations were launched earlier. That by itself would be a 20% EBITDA swing, assuming legacy stations stay flat for the full year, which admittedly would be dependent on how second half shapes up when the industry would be

[8] In the first half of the current fiscal, this OEM's volumes are already up +19%, with low comparisons in second half likely suggesting that F2018E (Mar) volume growth could surpass +25%, taking it to second spot in motorcycles while further firming its leadership within scooters.

[9] LED Luminaires business made up 17% of aggregate operating profits in F2016 (Mar). Over the past two quarters, operating losses (primarily because of returns) at this business shaved off about 13% of core auto parts' operating profits.

comping adverse demonetization effects from last year. For details on our longer-term expectations for Phase III stations[10], please refer to our April 2017 investor letter.

For an outdoor entertainment holding, excessive provisioning for prior service-tax collections (to provide for ongoing service-tax litigation) ended in June quarter, after the onset of GST. Management remains confident that the courts will rule in their favor and cumulative provisioning of INR 400 mil of prior service taxes will likely be reversed. The amount isn't large enough to make a material impact on the value but has certainly been a material drag on earnings over the past few quarters. Elsewhere, plans for a new park in Southern India remain on track with construction set to begin in a few months. This is another name that would almost certainly be reporting high-teens or higher earnings growth in F2018E (Mar). Nonetheless, we reduced our exposure slightly after cutting our new estimates of ongoing earnings power (largely because sharp tax hikes haven't been fully passed through).

Other names within our book that were severely hurt by demonetization and would be coming against easier comparisons in 2HF2018 include a consumer glassware name whose revenues dropped nearly 20% in last December quarter. To conclude, between very company-specific catalysts (post expansion tailwinds) and easier 2H comparisons for businesses that operate within largely cash-transacting categories, we expect earnings within our book to comfortably outpace the broader market.

[10] We won't be surprised if EBITDA contribution (from just the first batch of acquired stations) for our holding breaches INR 1 Bil mark in next3 years (@90% collective utilization across these stations).

Performance and Attribution summary

55% of our holdings declined in 3Q. Our two best performing positions in the quarter were a Plastics name (up **+22%**), and a Paper name (**+20%**), with the latter benefiting from very high utilization levels after a major expansion over the past few years. Our two worst performing positions during the quarter were a state-owned bank (down **-20%**), and a Business Services name (down **-15%**). For our historical position-wise benchmarking vs. peers and *BSE 500*, please see **Exhibit 4d**.

Since inception in April 2011, *Metis Opportunity* is up **+94.3%** (in USD; net of all fees) vs. **+40.0%**, **+53.0%**, **+79.7%**, **+53.6%**, and **+37.3%** increases in *Nifty TR*, *BSE 500 TR*, *BSE Midcap TR, BSE Smallcap TR*, and *Eurekahedge India* respectively (see **Exhibit 4a** and **4c**). Over trailing 12 months, *Metis Opportunity* was up **+8.1%** (in USD; net of all fees). That compares with **+17.4%**, **+20.1%**, **+29.5%**, **+21.1%**, and **+14.5%** increases in *Nifty TR, BSE 500 TR, BSE Smallcap TR*, *BSE Midcap TR* and *Eurekahedge India* respectively. Over this period, our volatility was **637 bps**, **424 bps**, **181 bps**, and **95 bps** below that of *BSE Smallcap TR, BSE Midcap TR, BSE 500 TR* and *Eurekahedge India* respectively (see **Exhibit 4b**).

Exhibit 4a – Perf. since inception

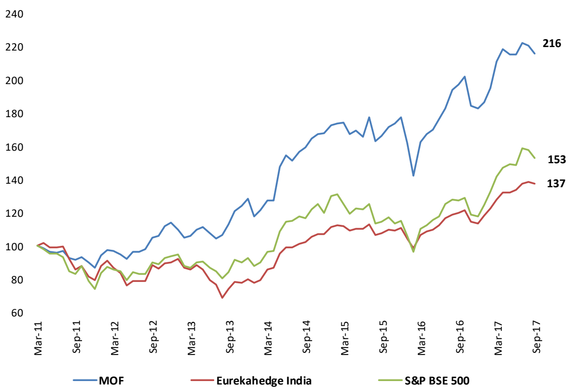


Exhibit 4b – TTM volatility

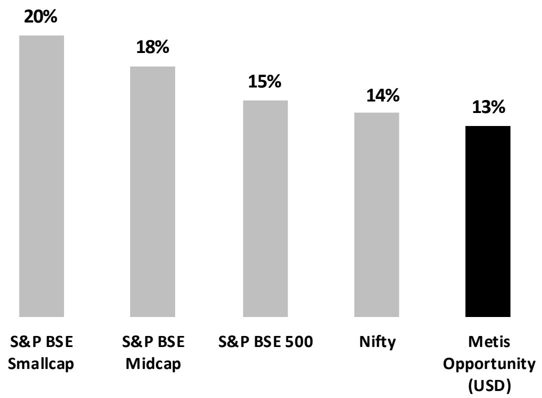


Exhibit 4c – Calendar year benchmarking

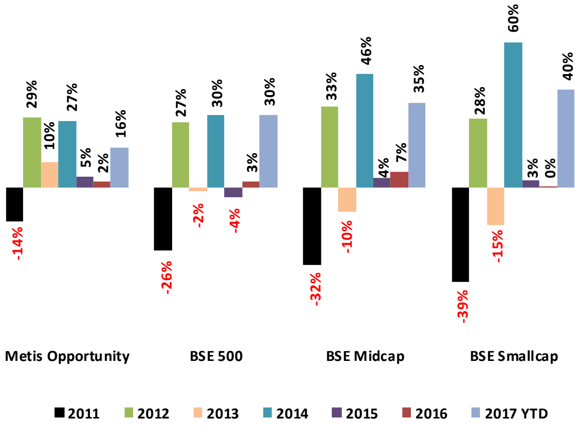
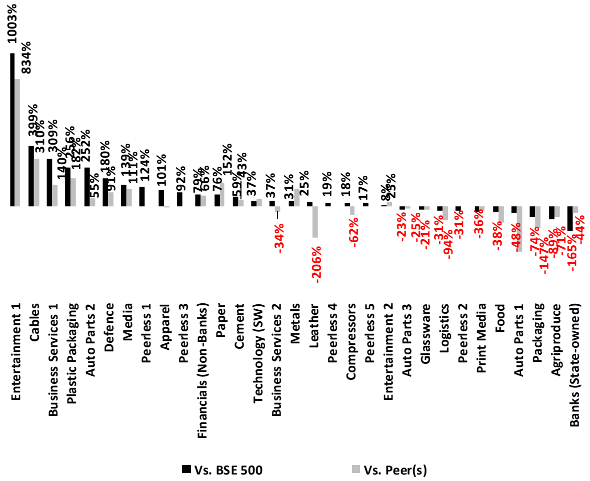


Exhibit 4d – Industry-wise benchmarking for positions



Note: Metis Opportunity went live on Mar 11th 2014; Industry-wise benchmarking compares position-wise performance (relative to BSE 500 and Industry-peers) from initial cost basis (NOT average cost basis) to present/exit.
Source: Internal Sources; NSE, BSE, Eurekahedge

Exhibit 5a – Relative rolling 12-mth returns

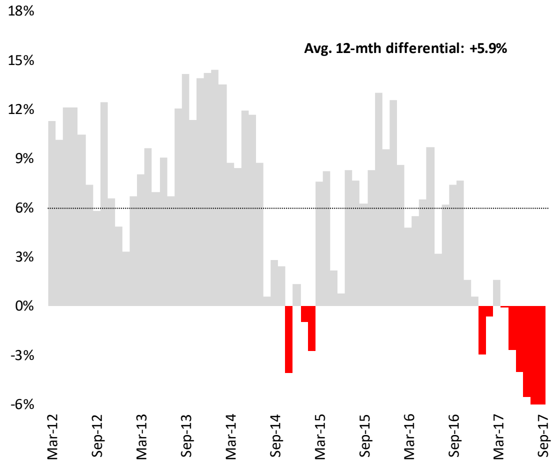
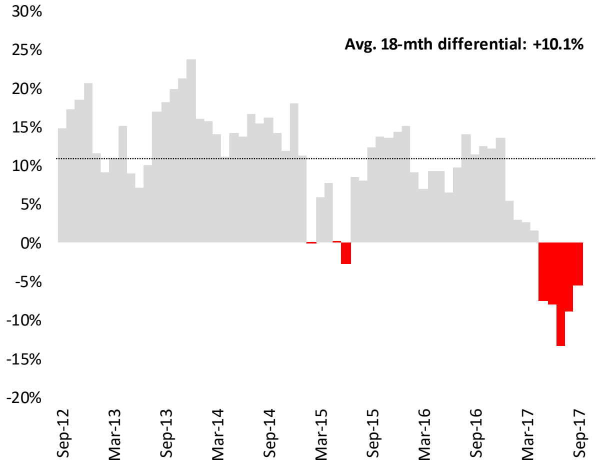


Exhibit 5b – Relative rolling 18-mth returns



Note: Relative return differentials are calculated vs. S&P BSE 500 Total Return index returns
Source: Internal Sources

Exhibit 6 – Time window analysis for our sub-strategies

	India Underserved		*India Undervalued*	
	3 Month	*12 Month*	*3 Month*	*12 Month*
Number of periods	76	67	81	72
Average period return	**5%**	**22%**	**4%**	**20%**
Number of profitable periods	52	65	52	63
% profitable periods	**68%**	**97%**	**64%**	**88%**
Best period	24%	55%	26%	66%
Gain Standard Deviation	6.0%	13.3%	6.6%	17.3%
Sharpe Ratio @10% RFR	0.29	0.89	0.21	0.50
Sharpe Ratio @5% RFR	0.45	1.26	0.34	0.76
Sharpe Ratio @0% RFR	0.61	1.62	0.48	1.01
Loss Standard Deviation	2.4%	0.4%	4.4%	5.8%
Downside Deviation @10% MAR	3.6%	2.9%	5.0%	7.2%
Downside Deviation @5% MAR	3.0%	1.3%	4.4%	5.2%
Downside Deviation @0% MAR	2.4%	0.2%	3.8%	3.6%
Sortino Ratio @10%	0.61	4.17	0.38	1.35
Sortino Ratio @5%	1.14	13.20	0.70	2.84
Sortino Ratio @0%	1.94	13.22	1.13	5.54
Average Gain/Loss	2.4	26.9	2.0	2.8
Profit/Loss Ratio	5.2	873.2	3.5	19.7

Note: Metis Opportunity is a blend the above onshore sub-strategies
Source: HedgeAlytix

Exhibit 7 – Long-book snapshot

Top position as % of book	12%
Smallest position as % of book	0.1%
Top 5 positions as % of book	42%
Avg. weighted market cap of book (mil)	$930
Avg. weighted free float of book	41%
Net Exposure	84%
# of positions	22

Source: Internal Sources

Exhibit 8 – Historical Quarterly Performance

	Metis Opportunity	*Nifty TR*	*S&P BSE 500 TR*	*S&P BSE Midcap TR*	*S&P BSE Smallcap TR*	*Eurekahedge India*	*India-focused CE Funds**
2Q11	-4.4%	-4.2%	-4.5%	-5.8%	-8.2%	-1.1%	-6.1%
3Q11	-4.4%	-13.5%	-13.0%	-11.9%	-16.0%	-13.5%	-21.9%
4Q11	-5.8%	-7.8%	-10.8%	-17.5%	-20.5%	-7.5%	-16.4%
1Q12	11.6%	13.1%	15.6%	22.1%	17.9%	9.6%	20.0%
2Q12	-1.1%	-0.9%	-1.8%	-4.0%	-2.3%	-9.3%	-8.0%
3Q12	8.4%	7.1%	7.1%	6.9%	7.0%	12.3%	14.1%
4Q12	7.6%	2.4%	4.1%	6.5%	4.0%	1.9%	-0.8%
1Q13	-7.3%	-4.9%	-7.6%	-14.7%	-22.4%	-4.9%	-2.6%
2Q13	1.5%	1.7%	0.1%	-4.1%	-4.2%	-7.1%	-9.5%
3Q13	4.4%	-3.1%	-3.1%	-6.7%	-3.6%	-7.1%	-4.5%
4Q13	12.5%	8.3%	9.9%	17.9%	18.2%	8.0%	11.0%
1Q14	-1.2%	4.8%	4.5%	4.3%	6.3%	7.5%	13.0%
2Q14	19.6%	14.1%	18.7%	32.8%	44.6%	15.8%	15.5%
3Q14	2.9%	2.4%	1.9%	-0.2%	2.8%	3.1%	7.8%
4Q14	4.9%	1.3%	2.6%	5.9%	1.1%	4.4%	3.2%
1Q15	3.5%	3.9%	4.5%	3.4%	-0.5%	4.5%	7.7%
2Q15	-5.3%	-2.8%	-2.7%	-0.8%	0.0%	-1.4%	-3.5%
3Q15	0.1%	-7.6%	-6.1%	-1.2%	-3.0%	-2.2%	-5.6%
4Q15	6.6%	-0.8%	0.6%	2.4%	6.5%	3.0%	-3.8%
1Q16	-9.0%	-2.4%	-3.8%	-4.3%	-10.6%	-4.1%	-2.0%
2Q16	8.7%	5.7%	6.6%	8.4%	9.9%	5.6%	7.3%
3Q16	11.4%	5.8%	8.0%	14.5%	10.3%	6.8%	5.3%
4Q16	-7.2%	-6.6%	-7.4%	-10.2%	-7.5%	-5.2%	-11.0%
1Q17	14.1%	17.8%	20.3%	23.3%	25.7%	12.3%	19.6%
2Q17	2.0%	4.4%	4.9%	4.3%	7.0%	4.7%	4.8%
3Q17	0.1%	2.3%	2.7%	4.9%	4.1%	2.7%	2.2%
Trailing 1 year	8%	17%	20%	21%	30%	14%	14%
Trailing 2 years	27%	27%	34%	47%	50%	28%	21%
Trailing 3 years	31%	20%	31%	58%	46%	34%	23%
Trailing 5 years	89%	53%	70%	110%	103%	55%	60%
Since inception	**94%**	**40%**	**53%**	**80%**	**54%**	**37%**	**24%**
2017 YTD	16%	26%	30%	35%	40%	21%	28%
2016	2%	2%	3%	7%	0%	3%	-1%
2015	5%	-7%	-4%	4%	3%	4%	-6%
2014	27%	24%	30%	46%	60%	34%	45%
2013	10%	1%	-2%	-10%	-15%	-11%	-7%
2012	29%	23%	27%	33%	28%	14%	25%
2011	-14%	-24%	-26%	-32%	-39%	-21%	-39%
TTM Volatility	13%	14%	15%	18%	20%	10%	16%
Sharpe Ratio	0.54	0.21	0.29	0.39	0.27	0.20	0.12

*Note: Fund went live on March 11, 2014; *Close-ended funds in US*
Source: Internal Sources; NSE; BSE; Bloomberg; Eurekahedge

Investment Managers

Piyush Sharma, is the co-investment manager of Metis Opportunity Fund. Having spent time with Citigroup and Bombay Stock Exchange in India, he moved to United States in 2002, where he covered stocks within Business Services, Autos, Consumer Products and Financials with Sanford Bernstein, Longbow Research, and Avondale Partners, working in teams that received accolades by leading institutional research arbiters, including Institutional Investor (II) and Greenwich Associates. Piyush received an MBA from University of North Carolina at Chapel Hill, MS from MNNIT, and BS in Accounting from University of Allahabad.

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