FIM Partners

Frontier Equities – The Undiscovered GEM

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Key Highlights
• FIM Partners Frontier Equities strategy has delivered a 13% annualized US$ return since its inception in 2013 outperforming both the EM Index and ACWI Index by 8.3% and 3.8% p.a. respectively • Strong case for an active dedicated FM allocation considering FM benchmark construction flaws and uncorrelated nature of underlying markets that demands a specialized investment approach which active GEM funds cannot undertake • Rapid digitization across FM can increasingly be monetized via the burgeoning FM listed tech space that is poised to expand in the near term with IPOs, representing 230 million unique subscribers generating USD 280bn in annual GMV/TV, on the horizon • Unlike the tech skew of EM & DM returns, FM still offers a diverse sectoral return stream with a balance of new and old economy themes allowing minimization of return concentration risk • FM risks are disproportionately magnified and can be effectively managed without compromising returns and liquidity

Frontier Market equities (FM)[1] are a dichotomy for global investors. On one hand, they represent some of the fastest growing economies in the world with a unique demographic dividend (65% of the population under the age of 30) which sets the stage for a long-term secular consumption story; essentially Emerging Markets (EM) from 20-30 years ago. On the other hand, the underperformance of the FM[2] Index versus EM[3] over the last decade has made investors question the merits of a dedicated allocation to the asset class, especially when considering its perceived higher risks.

This underperformance is misleading as it primarily stems from the shortcomings of index construction. Furthermore, the low correlation of FMs (Appendix 1) to large EMs and low intra-correlation demands a specialized investment approach with a deep understanding of individual markets; an approach that active GEM funds cannot undertake. At FIM Partners, a decade long dedicated experience in FM has given us a unique insight on the intricacies of the asset class and finding avenues to monetize its secular strength without compromising returns and portfolio liquidity. Our long successful track record (US$ 13% annualized

[1] FM are broadly defined as countries included in the MSCI Frontier Markets, MSCI Frontier Emerging Markets, and MSCI Emerging Market (ex. large EMs i.e. China, Taiwan, Korea, Taiwan, Brazil, Russia, India and South Africa) indices

[2] We use the MSCI Frontier Emerging Market (MSCI FEM) as the benchmark for FM due to the frequent country additions & deletions in the MSCI Frontier Markets Index (MSCI FM)

[3] EM is represented by the MSCI Emerging Markets Index

return) puts forth a strong case that a benchmark-agnostic active FM strategy can deliver superior absolute risk adjusted returns versus EM whilst providing unparalleled diversification.

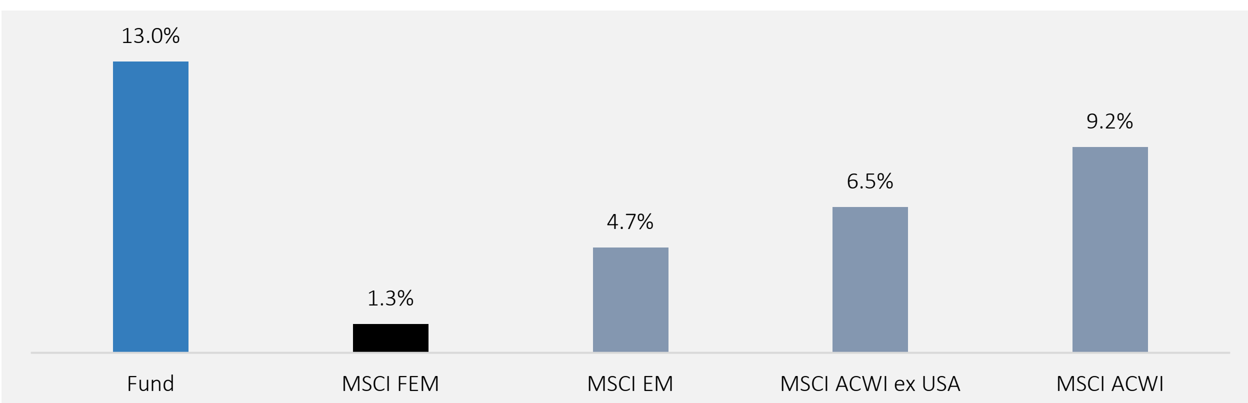
The FM investment case has entered an exciting period as new investment avenues stemming from rapid digitization adoption levels are complimenting the classic consumption themes which were the hallmark of the EM consumer story a decade ago. In this paper, we will share our insights on these developments but importantly also address some of the popular concerns and misconceptions surrounding the asset class which we believe are disproportionately magnified.

FIM Partners – Who We Are

Established in 2008, FIM Partners (FIM) is a specialist investment manager focused on emerging and frontier markets with US$2.4bn in AUM that is managed on behalf of top-tier, long-term global institutional investors.

Our Frontier Equities strategy ("FIM EM Frontier Fund"), which commenced in 2013, is premised on monetizing domestically driven secular themes through an intensive bottom-up process with an emphasis on on-ground research. The strategy is overseen by an experienced team with over 150 years of combined experience and deep personal Frontier roots. Sustainability is a key pillar of our investment approach with all investments assessed under our proprietary ESG exclusion & integration framework. Complementing our bottom-up approach is our in-house Macro Tracker which helps us identify and track key macro & policy developments across our investment universe. The merits of our approach are evident in our superior absolute risk adjusted returns whereby the strategy has delivered a 13% annualized US$ return outperforming both the EM Index and ACWI Index by 8.3% and 3.8% p.a. respectively.

Exhibit A. FIM EM Frontier Fund - Comparative Annualized Gross Returns since inception[4]



Statistic	FIM EM Frontier Fund	MSCI FEM	MSCI EM	MSCI ACWI ex USA	MSCI ACWI
Total Returns	186.5%	11.6%	48.4%	72.1%	113.2%
Annual Returns	13.0%	1.3%	4.7%	6.5%	9.2%
Volatility	14.6%	15.0%	16.2%	13.9%	13.3%
Sharpe Ratio	0.80	-0.00	0.21	0.38	0.60

[4] Strategy inception date is Jan 6, 2013. All indices returns are on a net total return basis. Returns as of July 2021.

The Case for an Active Dedicated Allocation

The underperformance of the FM vs. EM over the last decade has made investors question the merits of a dedicated FM allocation. But this underperformance is misleading given FM indices are a poor reflection of the opportunity set and consequently its return potential. Relative to EM, the sectoral concentration and lower diversity of the FM index does not provide the opportunity to express high growth secular stories reflective of the economic transformation and demographic attributes that define these markets i.e., structural reforms, behavioural evolution (traditional to modern retail, durable goods ownership), and more recently the digitization boom at the hands of these young tech savvy populations, to name a few.

Recognizing these drawbacks, a benchmark agnostic approach can deliver superior returns. For example, we assess investment opportunities based on the power of the secular themes they represent and liquidity thresholds (in line with our capacity ceiling & risk guidelines) rather than index membership, creating a broader and more diverse investment universe.

Figure 1. MSCI FEM - Top 10 Sectors

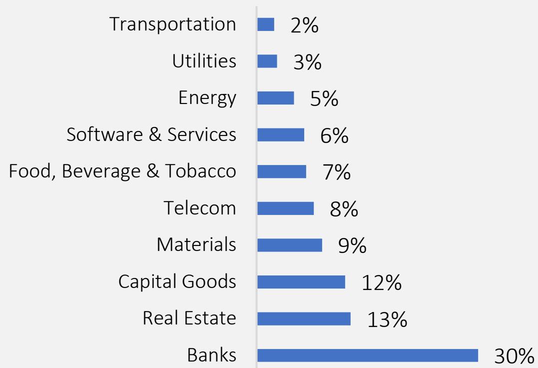
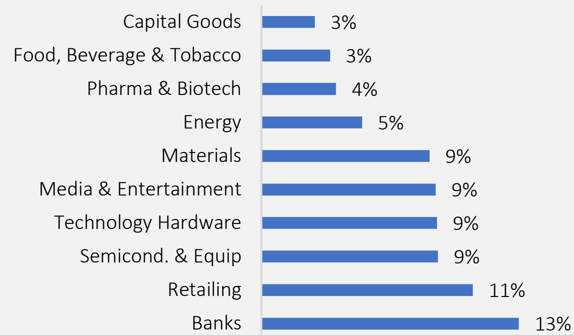


Figure 2. MSCI EM - Top 10 Sector Weights



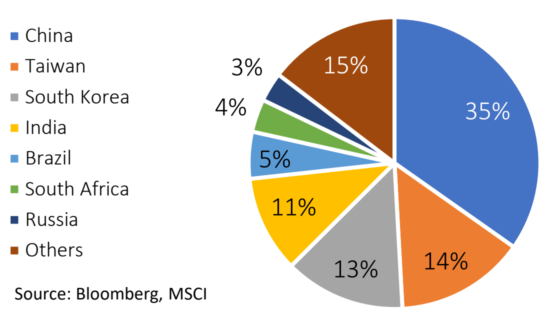
Source: MSCI, Bloomberg (as of July 2021)

FM via Active GEM Funds – A Flawed Approach

Investing in FM via an active GEM allocation is a popular approach. The purported logic is why take on the entire perceived asset class risks of FM (macro, political, liquidity, etc) from a dedicated allocation when one can get a token access of sorts? We believe this approach has several inherent flaws:

- The EM index is highly concentrated with the seven largest countries ("large EMs") having a combined weight of 85% (Figure 3). This in-turn has led to active GEM managers maintaining country allocations largely in-line with the benchmark (See Table 1). Looking at it another way, GEM funds today have had a combined allocation of 2% towards FMs such as

Figure 3. MSCI EM Country Weights



Source: Bloomberg, MSCI

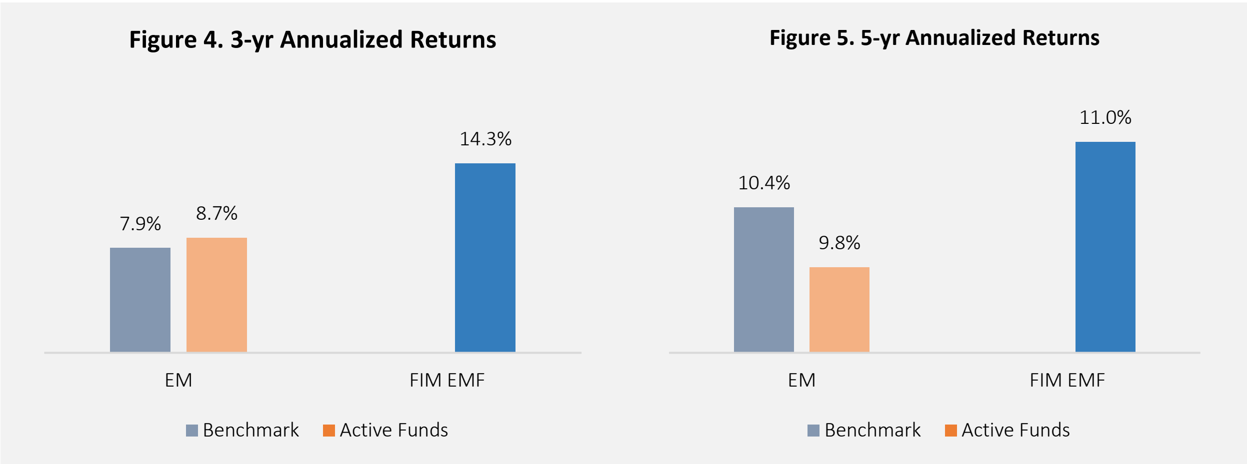
Pakistan, Philippines, Indonesia, and Egypt. As such, the likelihood of a meaningful FM allocation in a GEM portfolio is minimal.

Table 1. Active GEM Equity Country Weight relative to the MSCI EM Index Weight

Market	Current	5 Year Average	10 Year Max	10 Year Min
China	0.94	0.88	0.95	0.75
Taiwan	0.84	0.71	0.86	0.51
South Korea	0.95	0.81	0.97	0.60
India	1.06	1.24	2.00	1.06
Brazil	1.06	1.15	1.28	0.88
South Africa	1.01	0.96	1.05	0.78
Russia	1.45	1.43	1.63	0.81

Source: EPFR, Bloomberg (as of July 2021)

- The low correlation of FMs to large EMs and low intra-correlation (Appendix 1), while making them an enticing avenue for diversified & un-correlated returns, also demands a specialized investment approach with a deep understanding of individual markets. The large EM concentration of the EM index makes the time and effort to develop this FM-specific expertise unreasonable from an active GEM manager's resource allocation perspective, thereby restricting any token allocation to index constituents. The opportunity cost of this constraint for GEM managers is best gauged by looking at a comparative returns analysis of our strategy against active GEM funds which reinforces the merits of a dedicated active FM allocation.



Source: EPFR, Bloomberg, FIM Partners (as of July 2021)

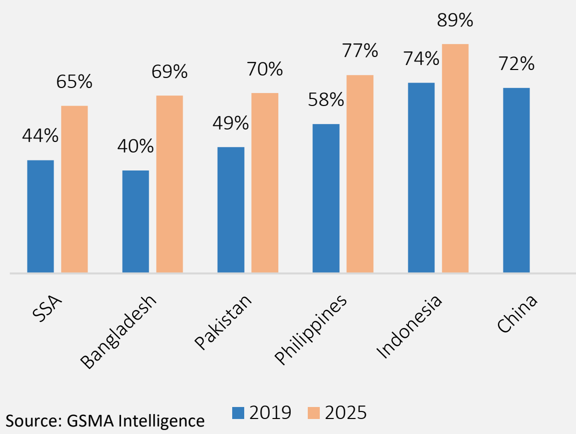
The FM Digitization Story – GEM 2.0

As early as five years ago, the FM investment case was predominantly about monetizing old economy themes stemming from the changing consumption habits of these young urbanizing populations. While most of these historical themes will continue offer superior growth rates to large EMs in the medium-term (see next section), the FM investment case has recently evolved with the rapid proliferation of digitization. Given the pivotal role of the tech space in EM and DM equity returns over the last decade, we won't spend time on its return potential but rather focus on how the FM tech space is distinct in today's global investment environment.

Late Adoption & Scale of the Tech Opportunity

Despite favourable demographic attributes conducive to technology adoption, the FM tech space has emerged much later than its peers primarily due to lack of access. Unlike DM where 4-G technology came as early as 2010 or 2013 in the case of China, FMs such as Pakistan and Vietnam have barely had five years of 4-G availability. At the same time, lower disposable incomes initially restricted smartphone adoption levels. But rapidly falling smartphone prices combined with increasing 4-G coverage has led to a rapid increase in smartphone adoption levels. In fact, it is now projected that by 2025, most FMs will achieve smartphone adoption levels close to or above where China is today. Bangladesh is a good reflection of these rapid adoption levels, as its 4-G user base has already reached 59 million users, representing 53% of total mobile internet users, despite 4-G being launched only three years ago. This delayed start has also meant that FMs trail DM & EM when it comes to digital lifestyle habits. Comparing population penetration levels across the likes of ride hailing and digital food ordering apps, the stark difference is evident; bringing us to our first distinction point; the scale of the opportunity.

Figure 6. Smartphone Adoption Trends



Source: GSMA Intelligence

Figure 7. Ride Hailing Pop. Penetration

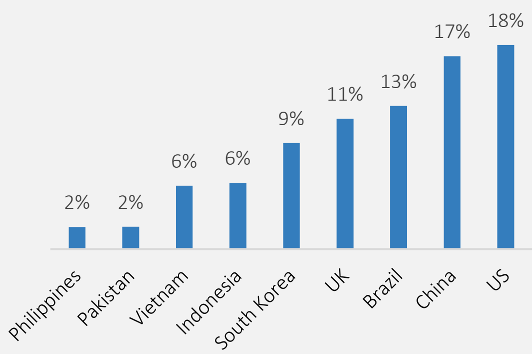
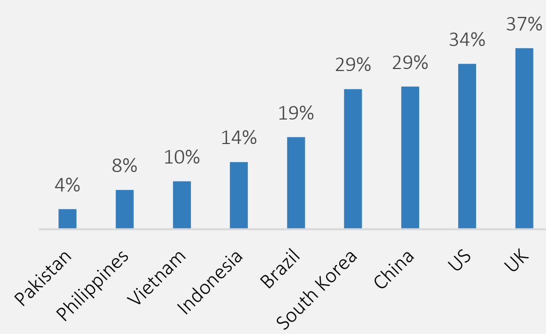


Figure 8. Digital Food App Pop. Penetration



Source: Data Reportal and Statista

Across tech verticals such as e-commerce, fintech, digital lifestyle apps, etc, FM adoptions levels are growing at an exponential pace. Looking at e-commerce for example, compared to the 35% retail penetration rate of China, e-commerce penetration rates are relatively dispersed across FM with the likes of Vietnam and Philippines at 4-5% whilst SSA, Bangladesh and Pakistan still below 2%. Hence forecasts which peg E-commerce GMVs growing 2x-5x in the next 5 years should not be surprising considering where FM smartphone adoptions will be by that time. But what is more impressive is the pace at which total spending will move to the digital realm. In a recent study by Facebook and Bain & Co, it is estimated that the average GMV per digital customer in Southeast Asia will increase 5x by 2026 compared to 2019. Despite this exponential growth, e-commerce penetration in countries like Vietnam will only reach 10% by 2026, implying substantial growth potential beyond the next 5 years.

Figure 9. E-Commerce GMV Outlook (US$ bn)

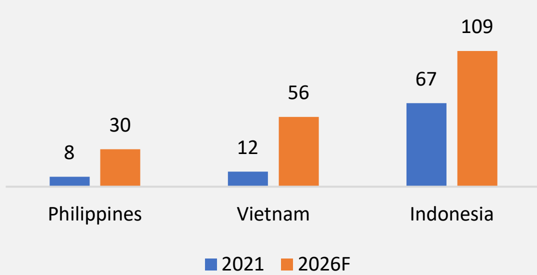
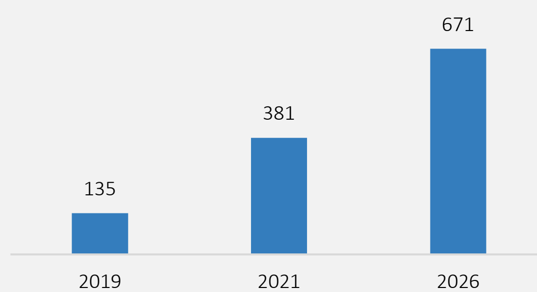


Figure 10. Avg GMV per digital consumer (US$)



Source: Southeast Asia: The Home for Digital Transformation (Facebook & Bain & Co) – August 2021

Comparing growth prospects across the different tech verticals, the fintech/payments sub-segment truly stands out as it epitomizes the convergence of old and new economy themes. With low levels of financial inclusion in these countries and smartphones already exceeding the number of bank accounts, e-wallets and digital payment platforms will achieve what brick & mortar banks in these markets never could. Recent data coming out of the Philippines affirms our thesis where the number of e-wallets today exceed total bank accounts. Whilst the bulk of online transactions today are settled in cash, the trend is rapidly shifting towards digital payments with e-payments expected to account for 50% of all retail transactions in the next two years.

Figure 11. PH -% of Adults

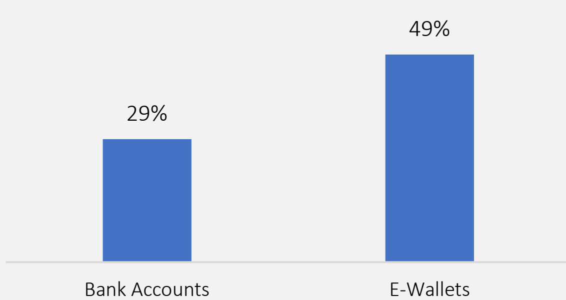
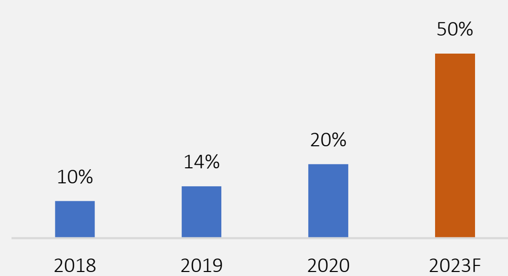


Figure 12. PH -E-Payments as % of Total Retail Transactions



Source: BSP, Regus Partners

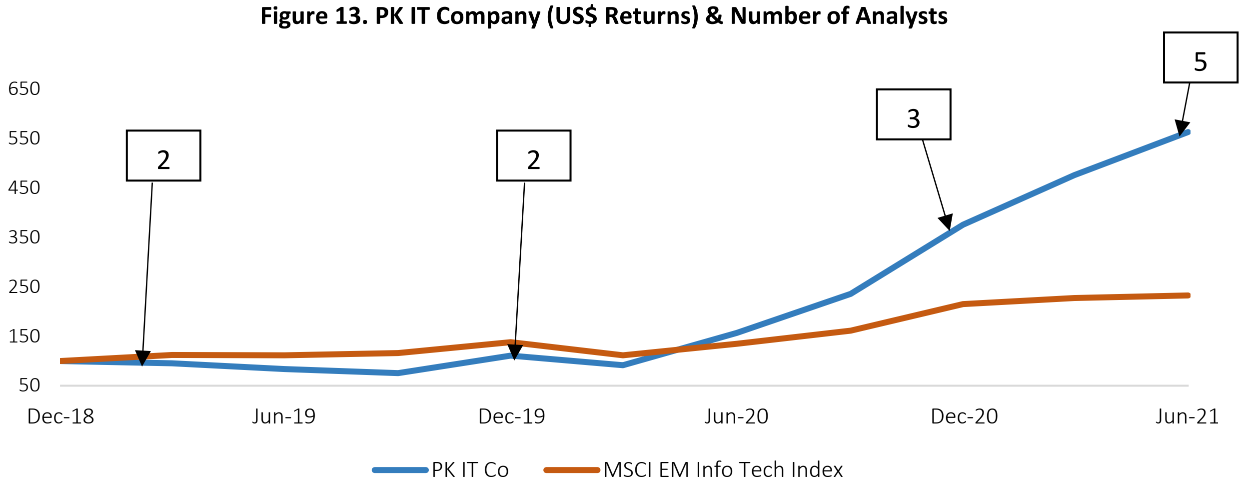
Regulatory Tailwinds

Contrary to the regulatory headwinds (anti-trust concerns, Chinese tech crackdown, etc.) looming over the DM and EM tech space, FM is seeing an increased proliferation of supportive government policies as governments seek to harness the sector's economic diversification whilst achieving the twin goals of financial inclusion and economic documentation. For example, the Vietnamese government has developed a National Digital Transformation Roadmap for 2030 focussing on 3 pillars: (i) E-government - Overhaul the entire government infrastructure, from digitalizing all public services and administrative procedures to developing an integrated system of databases, (ii) E-economy – Increase the share of the digital economy from 5% of GDP in 2019 to 30% by 2030 with e-commerce to be the primary driver, and (iii) E-Society – Bridging the digital gap by increasing internet penetration from 60% currently to 100% by 2030 via infrastructure investments and to boost e-payment usage to 80% by 2030.

The Value Discovery Proposition

FM are relatively under-researched compared to EM and DM considering there are 11x and 7x more analysts covering a top 10 DM or EM stock, respectively. The impact of this coverage deficit is even more pronounced in the FM tech space where local sell side (bulk of coverage) are ill-equipped to appreciate the hidden value drivers of these new economy verticals given their single country focus and the relatively short time frame that these opportunities have been around. We experienced this first-hand when we invested in a Pakistani IT Services company which has delivered a 25% US$ earnings CAGR over the last 5 years. At the time of our investment, our regional expertise helped us identify the value drivers of this business as we saw similarities to InfoSys in India and Fawry in Egypt, in which coincidentally we were also early-stage investors. But it wasn't until the last two years that we saw the business growing into its valuation as increased sell-side awareness and coverage coincided with a sharp earnings multiple re-rating.

Figure 13. PK IT Company (US$ Returns) & Number of Analysts



Source: Bloomberg

The good news though for investors is that despite these exponential growth trends, the FM public listed tech space is just getting off the ground. The nascency of the space is understandable considering that the delayed tech adoption in these markets means a number of these businesses have only recently achieved the right scale to come to the capital markets. But as we see it, the USD 70 billion listed tech space is set for rapid growth in the near term with IPOs, representing an estimated 232 million unique subscribers that generate USD 280bn in annual GMV/Transaction Values, on the horizon.

Table 2. FM Tech IPO Pipeline

Name	Country	Platform	Users	GMV/TV (USD bn)
GCash			40mn	40bn
airtel money	SSA		23mn	52bn
MTN Mobile Money	SSA		46mn	152bn
goto			100mn	22bn
momo mobile money		Super App	23mn	14bn

Source: Bloomberg, Company Managements', FIM Partners

It should be pointed out that we are not merely relying on the expansion of listed tech sector to monetize the FM tech boom; in fact it has already arrived. Across our portfolio, old-economy players have launched their own digital platforms; whether it be hospitals now that offer tele-health services, retailers with proprietary e-commerce platforms or banks that have obtained digital licenses as they wean off brick & mortar growth strategies. FM corporates have an immense advantage in this regard as they had the opportunity to learn from the early mistakes of their DM and EM counterparts and have chosen to embrace this behavioural evolution and be part of the disruptors than become the disrupted.

Old Economy – Resilient & Convergence with the New Economy

The enticing growth prospects of digitization does not detract from the fact that old economy themes reflective of FM's demographic attributes and rising incomes will offer superior growth prospects to EM. Looking at the trends across consumer categories, FM's superior growth history and outlook stems from its relatively lower income base and urbanization levels as many of these customers are first time buyers and/or are adjusting their rural consumption habits. Considering FM's GDP per capita is one-third of EM, there is substantial growth headroom for these defensive consumer themes, which incidentally have begun to plateau in EM.

Figure 14. EM vs. FM Consumer Sub-Sectors Growth Rates

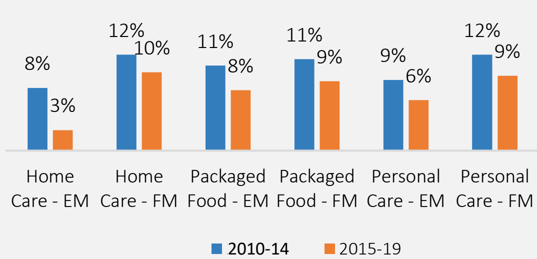
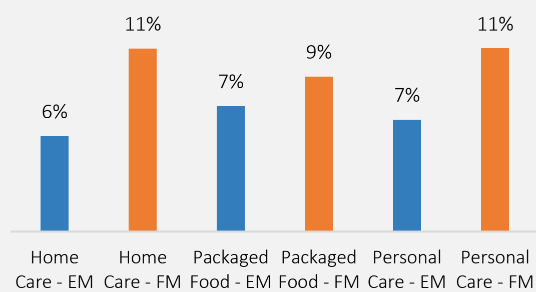


Figure 15. Growth Outlook (2021-25)



Source: Euromonitor

The slowdown in EM consumer products growth rates is also reflected in the respective sector indices returns (Figure 16) with defensive categories such as Food Products depicting negative returns in the latest period. This highlights an important aspect of the FM investment proposition in that unlike EM, FM offers a unique sector return diversity with a balance of new and old economy themes, as depicted in our portfolio attribution since inception (Figure 17).

Figure 16. MSCI EM Sector Indices Annualized Returns

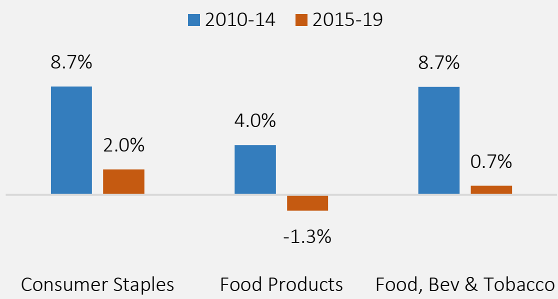
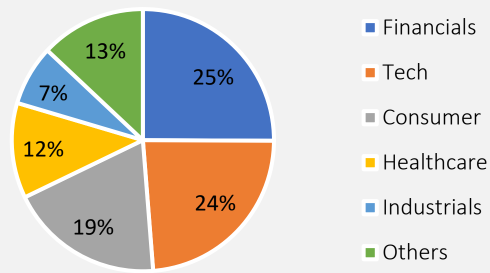


Figure 17. FIM EMF Return Attribution (ITD)



Source: Bloomberg, MSCI, FIM Partners

The ample growth headroom in old economy themes also means that technology will not have the disruptive impact that it did in DM and can in fact become a conduit for acceleration. In a 2019 investor letter, Lyft management indicated that an estimated 300,000 Lyft riders had given up their personal cars as they increased their app usage. The resultant fallout in U.S. automotive sales is understandable considering 57% of U.S. households are multi-vehicle owners and embrace the convenience that ride hailing offers in terms of lower vehicle ownership costs. On the contrary, ride hailing apps will not have the same disruptive impact in FMs considering the majority have yet to buy their first vehicle (Figure 18). In fact, they are spurring a new class of FM buyer; for who a vehicle is not only a means of transport but can also become a source of income. Driver profile data from Careem Pakistan (Figure 19) supports this assertion as the driver mix has rapidly pivoted towards independents who own or lease their own vehicles implying growth opportunities not only for automotive manufacturers but also for banks and insurance companies who will fund and insure these vehicles. In the case of Pakistan, this new class of buyers has heavily contributed towards the 2x auto financing growth in the last 5 years.

Figure 18. Passenger Cars per 1000

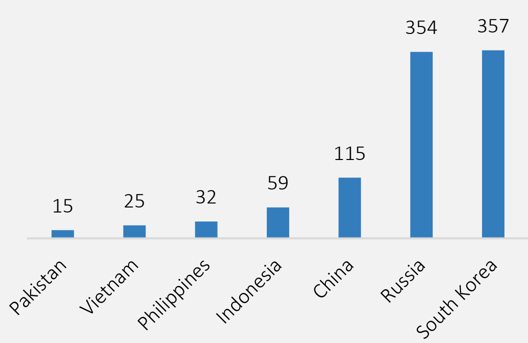
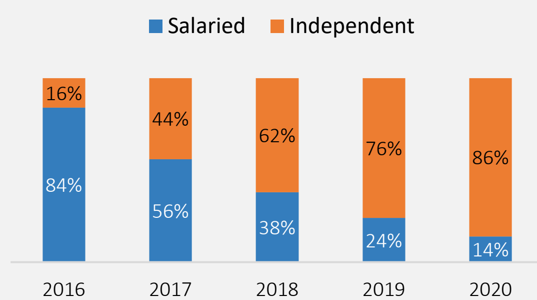
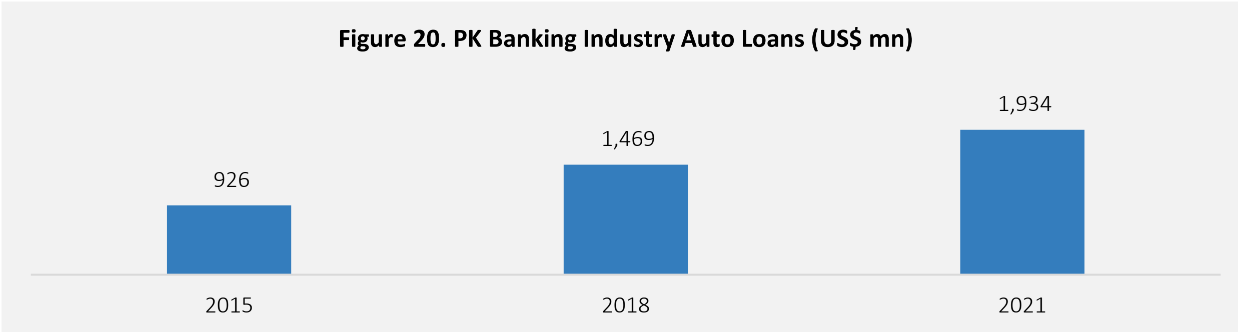


Figure 19. Careem Pakistan - Driver Profile





Source: Helgi Library, Careem Management, SBP

FM Risks & Misconceptions– Disproportionately Magnified

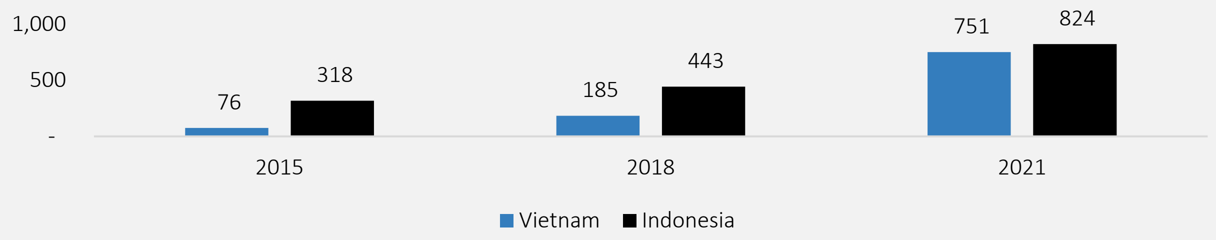
All asset classes carry risks, but the under-researched aspect of FM can lead its risks being disproportionately magnified or misconceived. A common misconception is of it being a commodity cycle play, which is addressed separately in Appendix A.

The low intra-correlation amongst FM makes it unreasonable to assign a homogenous risk premium to the entire asset class. Different FM countries are at various stages of their economic and political journeys, similar to large EMs where the East Asian bloc (China, South Korea, and Taiwan) is distinct from the likes of Russia, South Africa, and Brazil. Given country-specific risks, it is prudent to be nimble across markets and can done so effectively with the right toolkit. Aside from a research process built around on-ground knowledge, having an in-house macro strategist and tools like our proprietary Macro Tracker help us assess and pre-empt these very risks and conversely identify unappreciated opportunities.

The asset class size and relative illiquidity is also a frequent concern for allocators. Compared to EM's USD 24 trillion market cap, FM is just over the USD 1 trillion mark today; an understandable differential given large EMs represent close to 45% of global GDP vs. 7% for FM. Hence, we agree that it is not realistic to allocate the same quantum to FM but rather propose a smaller allocation should be considered to diversify portfolio risk. But the smaller size of the asset class does not automatically imply private equity type liquidity, which is a common misconception. Keeping our capacity ceiling in perspective, we construct our portfolio such that we can divest our entire portfolio in 45 days assuming 33% volume participation. Hence, it is possible to generate significant alpha without compromising returns and liquidity.

But taking a static view on FM size & liquidity would mean ignoring an important attribute of these markets i.e., capital market development. We are seeing this play out across our investment universe, particularly in Vietnam where the number of listed companies has grown 25% in the last 5 years with the market size increasing 4.5x to USD 250bn and liquidity surging almost 10x in the same period. Growing domestic capital market participation is also a powerful liquidity catalyst considering retail account ownership in countries such as Bangladesh and Pakistan is less than 1% of the population. We foresee the digital evolution in FM transcending to the capital markets as the historical red tape of establishing a capital market account is now a few simple clicks away. A recently launched online trading platform in Pakistan has aggregated 200,000 users in the span of 2 years and is targeting 10 million users in the next 5 years backed by an aggressive investor education campaign. Similarly, Vietnam has been adding close to 100,000 new retail accounts per month in 2021 alone, which is an astronomical figure considering there were 2.8 million accounts at the end of 2020. As such, it is imperative to be cognizant of these dynamics when assessing the liquidity risk premium for the asset class.

Figure 21. Average Daily Liquidity (US$ mn)



Source: Bloomberg

Stepping aside from FM risks, it also makes sense to balance the risk equation against other global equity asset classes. Although DM & EM offers higher diversity and liquidity, the value of that diversity is questionable given that the tech sector has been the primary driver of returns over the last decade. This contribution skew poses a material concentration risk especially considering the recent regulatory headwinds surrounding EM & DM Tech. Conversely, as illustrated earlier via our portfolio sectoral returns attribution, the superior growth prospects of both old and new economy themes allow FM to offer a relatively diverse sectoral return stream with technology being a new avenue rather than the entire investment proposition.

Figure 22: MSCI EM vs. MSCI Info Tech Index (normalized to 100)

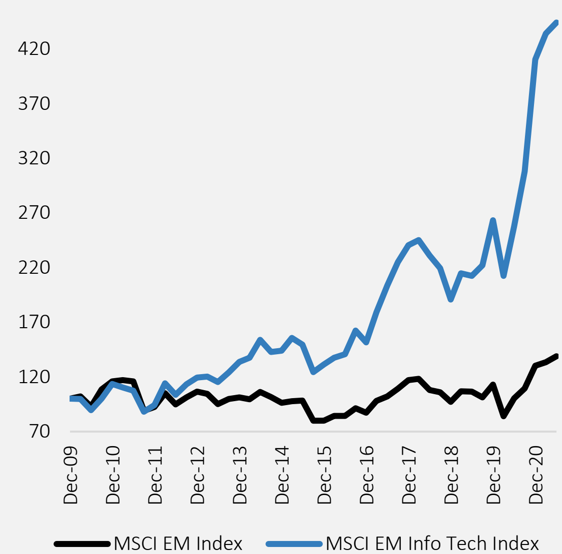
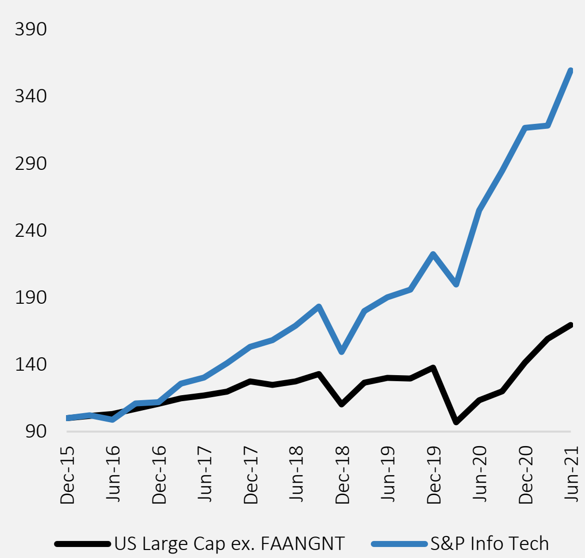


Figure 23. US ex. FAANGNT vs. S&P Info Tech Index (normalized to 100)



Source: Bloomberg (both charts)

Conclusion

For global investors, we recognize that FM is an off-benchmark position and is evaluated against a much higher threshold than other equity classes. And while investors may choose to utilise an active GEM manager to take token positions into FM, we would argue that this approach is sub-optimal considering the high GEM portfolio concentration levels in large EMs which negates their ability to employ the specialized investment approach that FMs mandate thereby preventing them from delivering the superior absolute risk adjusted returns that a dedicated FM allocation can offer. It is also imperative to consider the unique investment proposition FM offers in the context of today's global investment environment i.e., the ability to monetize secular consumption stories with unmatched growth rates whilst simultaneously accessing the fastest growing tech space globally. Like any asset class, FM has its risks, but their magnitude may not be as colossal as perceived. More importantly, our track record and investment approach have shown that they can be managed effectively without compromising returns or demanding private equity type liquidity.

We hope that this paper has provided a unique insight to the FM investment case and has cleared some of the popular misconceptions surrounding the asset class. By doing so, we hope that a strong case has been made for FM deserving a staple allocation in a global equities' allocation.

Appendix A -Debunking the Commodity Myth

FM economies today for the most part are net commodity importers with Nigeria, Peru, and Colombia being the main exceptions. But the FM-oil correlation from 2002-19[5] shows a high positive correlation of 50%. This anomaly can be traced back to index construction where up until 2014, 62% of its weight was derived from commodity driven economies, which benefitted from the oil price boon in the period leading up to and immediately following the global financial crisis until 2013. Following the graduation of some of the larger GCC constituents to the EM index, the oil price correlation has significantly declined, and we expect this to continue as capital markets continue to deepen in favour of new economy sectors such as technology and renewables.

Figure 7. MSCI FEM Weight

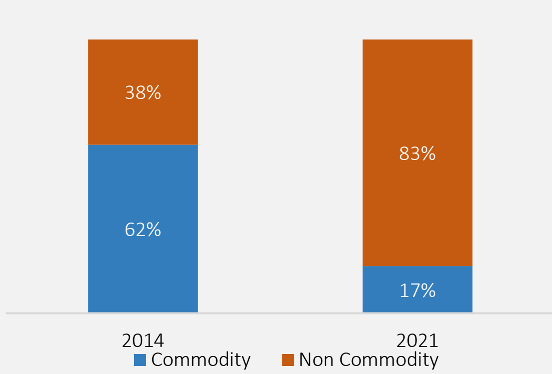
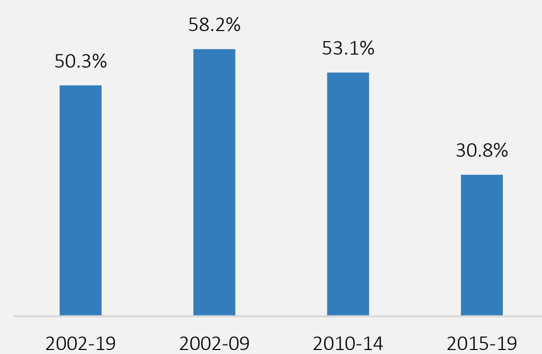


Figure 8. FM Oil Price Correlation



Source: MSCI,Bloomberg, FIM Analysis

The strong performance of FM during these oil price boons has created a misconception that FM represent a commodity cycle play. In fact, taking a more granular look, the majority of FM countries exhibit a significantly lower correlation to oil prices than their larger EM peers. (Appendix 2).

Taking the 2003-2008 period as an example, where the FM outperformance to EM was erroneously attributed to commodity prices and returns of the index heavy commodity bloc, commodity net importers such as Pakistan and the Philippines were in fact flourishing with internally driven stories that were un-related to the global commodity boom. In the case of Pakistan, which averaged GDP growth of 6.3% from 2003-08, it was the period of the Musharraf reform era that introduced structural reforms to remove the productivity bottle necks that held back the economy whilst improving economic governance via the revival of key institutions.

[5] We have excluded 2020 given the distortive impact of the pandemic on global markets

Figure 8. FM vs EM - relative equity performance and Brent oil price

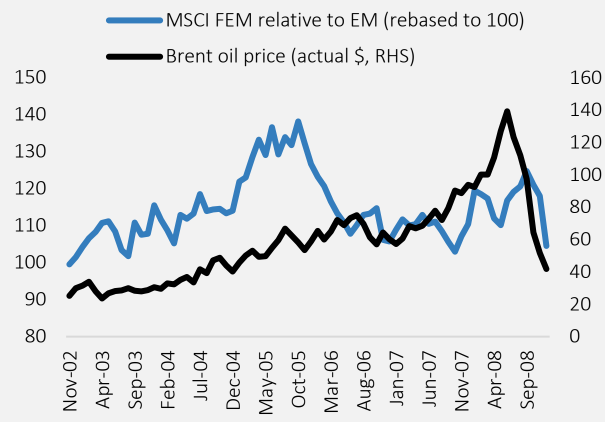
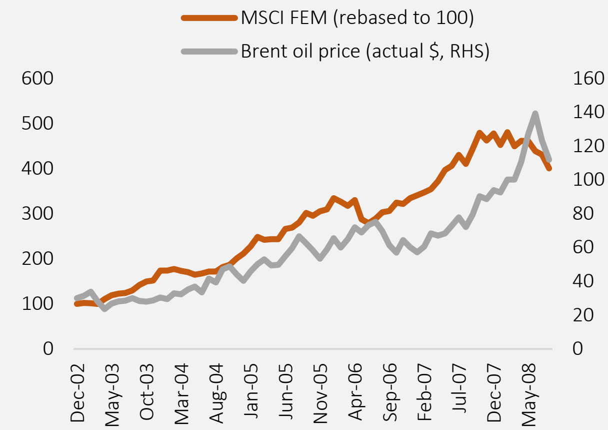


Figure 9. FM vs. Brent Oil Price

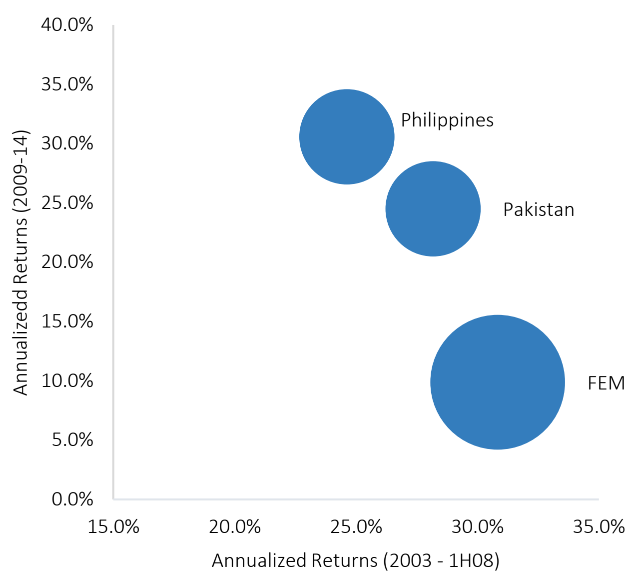


Source: Bloomberg

In the Philippines, the proliferation of BPOs which brought in high paying jobs and a strong impetus to local office space demand, also led to a substantial turn around in the country's CA position which moved to a surplus. At the same time, tax reform with the introduction of the new VAT law in 2005 plugged historical loopholes/exemptions, leading to a substantial reduction in the fiscal deficit.

So, while it appeared that commodities were driving asset class returns, and perhaps were so at the index level, the commodity agnostic reform stories have in fact delivered superior returns. This reinforces our view that FM are primarily internally driven stories and mandate an intricate understanding of their individual dynamics rather than treating them as a homogenous asset class.

Figure 10. Annualised Returns (in US$)



Appendix 1: Correlation Matrix (2010 – 2020)

	DM	Large EM						FM										
	MSCI World	China	Taiwan	Korea	India	Russia	Brazil	Philippines	Indonesia	Pakistan	Bangladesh	Vietnam	Kenya	Nigeria	Egypt	Argentina	Colombia	Peru
MSCI World	100%																	
China	63%	100%																
Taiwan	64%	69%	100%															
Korea	73%	71%	76%	100%														
India	61%	57%	61%	62%	100%													
Russia	63%	51%	52%	59%	49%	100%												
Brazil	63%	51%	53%	60%	55%	62%	100%											
Philippines	54%	52%	56%	61%	56%	47%	54%	100%										
Indonesia	55%	52%	56%	60%	58%	49%	56%	66%	100%									
Pakistan	17%	22%	23%	20%	22%	15%	18%	25%	24%	100%								
Bangladesh	1%	-6%	3%	8%	11%	-5%	-8%	8%	9%	23%	100%							
Vietnam	36%	31%	34%	30%	25%	33%	23%	28%	25%	27%	29%	100%						
Kenya	15%	16%	15%	14%	12%	13%	14%	25%	18%	20%	-1%	19%	100%					
Nigeria	14%	13%	14%	12%	13%	15%	7%	16%	9%	23%	10%	22%	28%	100%				
Egypt	42%	40%	38%	43%	56%	38%	24%	45%	40%	27%	11%	40%	38%	25%	100%			
Argentina	52%	36%	34%	37%	31%	40%	44%	30%	32%	13%	3%	21%	8%	10%	13%	100%		
Colombia	66%	46%	52%	59%	42%	55%	63%	54%	56%	13%	5%	30%	17%	11%	40%	35%	100%	
Peru	60%	50%	53%	55%	46%	51%	63%	50%	53%	24%	0%	30%	18%	9%	39%	38%	54%	100%

Notes

1. Developed markets (DM) is represented by the MSCI World Index (MXWO)
2. Weekly Correlation Data for all countries
3. Data Source: Bloomberg

Appendix 2: Correlation Matrix vs. Oil Prices (2010-19)

	EM	Large EM						FM									
	MXEF	China	Taiwan	Korea	India	Russia	Brazil	Philippines	Indonesia	Pakistan	Bangladesh	Vietnam	Kenya	Nigeria	Egypt	Argentina	Colombia	Peru
Oil	41%	30%	31%	33%	21%	48%	37%	20%	22%	8%	-9%	20%	2%	9%	10%	20%	49%	34%

FIM Partners

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