FISHER TOP DOWN MACRO ESG INSIGHTS

Fisher Investments (FI) utilises a unique combination of top-down and bottom-up investment processes where ESG risks and opportunities are regularly evaluated to determine potential impact on portfolio macro themes, country/sector allocation, and stock selection. In a top-down approach, country, sector and industry decisions typically account for the majority of both risk and returns.

Our unique ESG analysis does not rely on ESG ratings/scoring screening as such over simplistic screening can lead investors to miss out on investments with both financial and social opportunity. Characteristic differences among Emerging Markets make the space particularly well suited for this type of macro ESG analysis.

In this paper, we will highlight several thematic examples to illustrate how top-down ESG considerations can identify ESG opportunities that are often overlooked by more bottom-up focused peers or passive strategies that simply screen out low ESG rated firms.

Key Macro ESG Themes in Emerging Markets

- Emerging Markets Healthcare
- Latin American Banking
- Chinese Power Generation Transition

Emerging Markets Healthcare (HC)

Emerging Market economic trends are a constant source of investment themes but many bottom-up managers focus on purely economic themes. Alpha opportunities may be missed without a deeper analysis of macro-level demographic, lifestyle, and national policy trends.

Background: In recent years, a simple preference for faster growing countries within the Emerging Markets has been replaced by more complex positioning driven by investor scepticism in the persistence, quality and sustainability of that growth. Furthermore, recent scandals (e.g. Chinese vaccines) and national drug pricing policy tests in China have led investors to shy away from positive investment opportunities.

ESG Perspective:

A strategy that simply screens out lower rated companies may overlook Chinese HC companies as they are amongst the lowest scoring companies; 50% of Chinese HC firms are "ESG laggards" (in the lowest scoring buckets) according to MSCI ESG Research.

"Alpha opportunities may be missed without a deeper analysis of macro-level demographic, lifestyle, and national policy trends."

Net Impact/Macro ESG Perspective:

Investors that focus purely on bottom-up analysis of securities and combine with simple ESG ratings-based screening may miss out on opportunities in Chinese HC. Recent headlines related to a National Drug Safety and Pricing scheme driven by vaccine scandals drove investors away from Chinese HC securities with high valuations and weaker financial ratios. As a macro top-down manager, FI can leverage its key strengths to identify and exploit macroeconomic trends that may otherwise be overlooked. In the case of Chinese HC companies our analysis suggests companies should be able to overcome recent headwinds on the strength of macro tailwinds including positive demographic, consumer preference and rising HC utilisation that comes with rising incomes.

Furthermore, by avoiding such investments, investors also overlook the positive impact produced through investment in Chinese HC companies. Specifically such investment supports UN Sustainable Development Goal (#3) "Good Health and Well-Being."

Latin American Banking

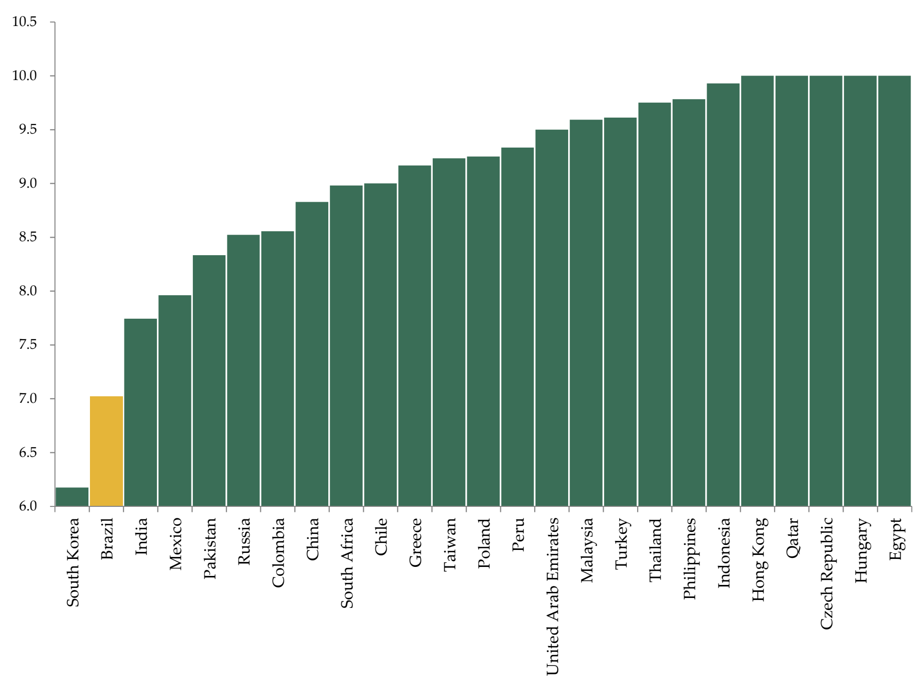
Corporate corruption (specifically bribery & fraud) remains a key risk to EM investors. Such concerns are most often focused on countries where national scandals (e.g. Operation Car Wash in Brazil, South Korean President Park Geun-hye corruption scandal) have caused passive ESG investors to persistently underweight an entire countries. Such simple risk avoidance strategies lead investors to miss out on alpha opportunities not overlooked by top-down macro managers such as FI.

ESG Perspective:

A strategy that simply screens out lower rated companies could likely exclude an entire country or generally create a chronic underweight position to areas like Brazil; one of the countries with the worst Bribery and Corruption scores (Exhibit 1).

"A strategy that simply screens out lower rated companies could likely exclude an entire country or generally create a chronic underweight position to areas like Brazil..."

Exhibit 1: Bribery and Corruption Controversy by EM Country



Source: FactSet, data as of April 2019.

Net Impact/Macro ESG Perspective:

Investors looking to avoid unforeseen risks associated with corporate corruption may simply exclude entire countries, deeming them ill-suited for investment given unknown risks. As a top-down manager Fisher Investments acknowledges those risks but also balances those risks with the alpha opportunity associated with depressed stock sentiment and fundamental economic tailwinds (such as in Brazil).

Furthermore, by over simplistically avoiding entire countries or sectors due to fears of corporate corruption investors also overlook the positive impact produced through the Brazilian Banking system. Specifically such investments support UN Sustainable Development Goal (#1) "No Poverty". One way for investors to reduce poverty is through investment in banks that provide credit to underserved communities supporting an escape from poverty.

Chinese Power Generation Transition

China is widely known as the largest consumer of coal on the planet and a strategy that simply screens out lower rated companies may result in investors overlooking important alpha and positive environmental impact opportunities.

Background: Although China uses coal as its primary form of electric power generation (Exhibit 2), China is also the world's largest producer of electricity from renewable sources (Exhibit 3).

Exhibit 2: Current Mix of Chinese Electric Power

Source	Total Percentage of Power (%)
Coal & Fossil Fuel	71%
Renewables	25%
Nuclear	4%

Source: China Energy Portal, data as of December 2018.
**Renewables: Wind, Solar and Hydro.*

Exhibit 3: Total Electricity Generation by Renewables

Rank	1	2	3	4	5
Power					
Renewable power capacity (including hydropower)	**China**	United States	Brazil	Germany	India
Renewable power capacity (*not* including hydropower)	**China**	United States	Germany	India	Japan
Renewable power capacity per capita (not including hydro)	**Iceland**	Denmark	Germany & Sweden		Finland
Bio-power generation	**China**	United States	Brazil	Germany	Japan
Bio-power capacity	**United States**	Brazil	China	India	Germany
Geothermal power capacity	**United States**	Phillippines	Indonesia	Turkey	New Zealand
Hydropoewr capacity	**China**	Brazil	Canada	United States	Russian Federation
Hydropower generation	**China**	Brazil	Canada	United States	Russian Federation
Solar PV capacity	**China**	United States	Japan	Germany	Italy
Solar PV capacity *per capita*	**Germany**	Japan	Belgium	Italy	Australia
Concentrating solar thermal power (CSP)	**Spain**	United States	South Africa	India	Morocco
Wind power capacity	**China**	United States	Germany	India	Spain
Wind power capacity *per capita*	**Denmark**	Ireland	Sweden	Germany	Portugal
Heat					
Solar water heating collector capacity	**China**	United States	Turkey	Germany	Brazil
Solar water heating collector capacity *per capita*	**Barbados**	Austria	Cyprus	Israel	Greece
Geothermal heat capacity	**China**	Turkey	Iceland	Japan	Hungary

Source: REN21, data as of December 2017.

> "A strategy that simply screens out lower rated companies would likely overlook Chinese Utilities companies as they are amongst the lowest scoring companies in the world on average"

While it's important to remain sceptical of the country's targets until additional evidence confirms the country's trajectory, the country recently increased its renewable energy production targets 35% by 2030. It did so, in part, because its last target proved too easy to meet.ESG Perspective:

A strategy that simply screens out lower rated companies would likely overlook Chinese Utilities companies as they are amongst the lowest scoring companies in the world on average (Exhibit 4). Further, a simple "Coal Power Exclusion" strategy that excluded companies with a large portion of power generation from coal would also exclude all major Chinese utilities.

Net Impact/Macro ESG Perspective:

Investors that use purely exclusionary or ratings-focused strategies can easily miss out on positively impacting environmental trends. As a macro top-down manager, FI leverages its key strengths to identify and exploit ESG-related trends that may otherwise be overlooked. Furthermore, by avoiding investments that overlook such macro trends, investors also overlook the positive impact such trends produce. China's efforts for example specifically support the UN Sustainable Development Goals (#13 & #7) "Affordable and Clean Energy" & "Climate Action".

Exhibit 4: ESG Scores by Country/Sector

Weighted Avg ESG Score	Information Technology	Financials	Consumer Staples	Communicaton Services	Consumer Discretionary	Utilities	Energy	Health Care	Industrials	Materials	Real Estate	Overall
South Africa	--	6.7	5.5	6.6	5.8	--	7.0	6.9	6.7	4.5	6.6	6.0
Czech Republic	--	6.0	--	--	--	5.9	--	--	--	--	--	6.0
Hong Kong	5.9	--	--	--	--	--	--	--	--	--	--	5.9
Thailand	5.7	7.6	3.9	6.3	7.3	4.1	5.7	5.3	5.0	6.0	7.2	5.8
Hungary	--	4.8	--	--	--	--	8.5	3.9	--	--	--	5.6
Taiwan	5.9	5.7	5.2	7.3	4.0	--	1.5	1.6	4.7	2.6	2.9	5.4
Malaysia	--	6.7	5.2	6.5	2.3	4.1	3.8	4.6	4.0	2.3	4.2	5.2
Chile	--	4.8	4.1	4.1	4.4	6.0	6.9	--	5.2	4.9	--	5.2
India	7.5	5.3	6.5	4.8	4.5	3.0	3.7	2.4	1.8	3.4	--	4.9
Poland	--	6.9	1.9	4.1	4.8	1.7	5.6	--	--	5.0	--	4.8
United Arab Emirates	--	5.2	--	3.3	--	--	--	--	3.8	--	2.1	4.8
Egypt	--	5.0	3.8	--	--	--	--	--	2.5	--	--	4.8
Colombia	--	5.9	--	--	--	5.0	2.8	--	--	6.6	--	4.7
Brazil	6.2	4.9	6.0	6.0	4.2	4.7	3.7	2.8	4.6	1.3	3.5	4.6
Indonesia	--	4.4	3.1	4.8	7.0	3.0	5.8	5.8	4.3	1.8	2.3	4.6
Greece	--	5.5	--	4.5	4.3	--	4.6	--	--	5.7	--	4.5
South Korea	5.2	2.9	5.0	4.4	2.6	3.7	5.3	1.9	2.9	4.5	--	4.5
Turkey	--	4.3	2.6	6.7	6.0	--	2.3	--	5.3	2.4	--	3.7
Pakistan	--	4.4	--	--	--	--	2.6	--	--	--	--	3.6
Peru	--	5.2	--	--	--	--	--	--	--	1.7	--	3.6
Mexico	--	5.7	5.2	0.9	4.0	7.9	--	--	2.9	2.8	2.4	3.6
Phillippines	--	3.7	2.1	4.0	2.6	3.5	--	--	3.1	--	3.8	3.5
Qatar	--	3.8	--	5.8	--	1.7	--	--	1.9	--	1.8	3.4
Russia	--	3.9	1.9	2.4	--	6.8	3.3	--	--	2.8	--	3.3
China	4.4	3.7	2.6	3.6	3.1	2.4	1.4	4.1	2.7	1.4	2.1	3.2
Overall	5.7	5.0	4.8	3.9	3.8	3.7	3.5	3.4	3.3	3.0	2.9	4.3

Source: FactSet, data as of April 2019.

Should you have any questions about any of the information provided above, please contact FIE by mail at 2nd Floor 6-10 Whitfield Street, London W1T 2RE or by telephone at +44 (0)800 144-4731.

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The foregoing information has been approved by Fisher Investments Europe.

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