IMPAX Asset Management

Carbon risk for investors: Building a "SmartCarbon™" portfolio

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EXECUTIVE SUMMARY

There is an increasing likelihood that governments of major economies will act within the next decade to reduce greenhouse gas emissions, probably by intervening in the fossil fuel markets. Impax argues that investors should model the impact of this potential intervention and replace their market-weighted basket of energy stocks with a new energy basket that includes lower weightings of some fossil fuel stocks with equivalent higher weightings in stocks of companies active in energy efficiency markets, thereby maintaining exposure to energy price factor risk.

• Government intervention to reduce pollution is typically based on taxation, "cap and trade" schemes or standards; in the context of policy to mitigate climate change, we focus on "Carbon Pricing" as a proxy for these policy instruments.

• There are strong indications that today's prices of energy stocks do not account for the risk of such government intervention. The recent rapid, catastrophic demise of coal stocks suggests an important precedent regarding market mis-pricing.

• Given the complexity of the issue, investors seeking a comprehensive analysis may struggle to implement their ideas. We recommend an approach that focuses on "first order" issues.

• The most popular methodologies to date rely on "carbon foot-printing"; however, as this typically fails to take account of a company's pricing power, investors who use it to guide portfolio changes may actually be increasing risk.

• Impax has concentrated on listed companies engaged in the exploration and production of fossil fuel assets ("E&P Stocks"). As suppliers of globally traded commodities, these companies are unlikely to be able to pass on the full effect of Carbon Pricing to their customers or to quickly adjust their revenue or asset base to avoid this exposure.

• Using a scenario approach to Carbon Pricing, Impax has analysed the economic risk of major stocks in the MSCI World Energy Index, computing an expected valuation anomaly in those potentially affected. The expected valuation anomalies have informed the appropriate level of re-allocation of each stock.

• We recommend that re-allocated amounts are reinvested in a basket of stocks of companies providing goods/services that enhance energy efficiency; these stock prices are typically correlated more closely with the retail price of energy(which is expected to rise with Carbon Prices) than with the wholesale price of energy (which is expected to fall).

• We have not included companies active in renewable energy markets as the corresponding stock universe is dominated by a small number of large cap names – investing in it would, we believe, introduce material, additional risks.

• Our portfolio optimisation model currently recommends a reallocation of 30% of the holdings of a typical portfolio in oil and coal producers.

• To implement this strategy, investors may choose to replace their traditional basket of energy stocks with a new basket/index that reflects the recommendations for reallocation.

• We also recommend that investors (a) seek additional information from fossil fuel asset owners (in order to improve their risk analysis), (b) engage with regulators to mandate further disclosure of this information, and (c) continuously refine their assumptions and modelling of this issue in order to adjust their positioning as to the quantum, timing and likelihood of Carbon Pricing.

• Investors who wish to engage with management teams of fossil fuel asset owners can still do so if they opt for partial re-allocation.

• In time, it is likely that the market values of all stocks will incorporate carbon risk. However, investors who position themselves ahead of this have the potential to out-perform.