

CLIMATE CHANGE

Ken explains why it will be a sustainable trend



What is the concern?

The IMF in its latest report highlighted that “climate change is a potentially catastrophic global externality and one of the world’s greatest collective action problems”. The global climate is expected to continue to warm in coming decades, as greenhouse gas (GHG) emissions are projected to increase due to energy-related emissions of carbon dioxide. This growth in emissions is driven by growth in GDP per capita and increases in population, especially in large and fast-growing economies such as those of China, India, Brazil and Russia.

Global warming would have a potentially damaging impact on climate changes. Precipitation would increase at high latitudes and decrease in most subtropical land regions. Other phenomena would include increasing acidification of the ocean, melting of snow, and an increase in the intensity of extreme events like heat waves, droughts, floods and cyclones. These events would have negative economic consequences. Some of the economic estimates of this impact relate to GDP losses due to increases in temperature. These include adverse effects on climate-sensitive sectors such as agriculture, forestry, fisheries, and tourism; damage to coastal areas from sea-level rise; changes in energy expenditures; and changes in water resources. One benchmark study, the Stern Review, has estimated GDP losses at up to 3% of world GDP for a 3 degree warming.

The climate change of global warming would have an adverse impact on crops and farming globally. This will result in changes in yields in some regions and crops, due to warmer weather. Pressures on water resources are also increasing due to changes in climate. Droughts may become more common, creating a need for water conservation and efficiency of usage in this vital resource. Rising sea levels and increased floods will become major problems for many populated areas. This will increase the risk of the people living around coastlines to be permanently displaced in the near future.

Increasing car ownership in emerging economies has been singled out as a major factor in causing climate change. It is expected that with rising GDP per capita in the emerging economies, car ownership is going to increase significantly in key developing and emerging economies. This accompanying increase in GHG emissions is going to require innovative and dramatic improvements to car fuel consumption efficiency in order to keep global warming to a manageable level. Policymakers in these economies will also have to promote investments in appropriate public transportation infrastructure like subway or rail transportation systems. All these requirements will have significant impacts on the corporate strategies of the various automotive and transportation companies.

How could the challenges be met?

To meet the challenges caused by climate change, the United Nations Framework Convention on Climate Change (2007) estimates that additional annual investment in agriculture, health, water and coastal protection of about US\$40 billion per annum by year 2030 is required. The study also estimates that additional infrastructure needs of up to \$130 billion would be required. Further, financial markets are expected to assist in the reduction of the macroeconomic costs of adaptation to climate change by developing financial instruments like weather derivatives and catastrophe bonds.

Increasingly, countries are expected to institute policies that will mitigate GHG emissions. Under the Kyoto Protocol, signatory countries agree to reduce their GHG emissions by 8% relative to 1990 levels by 2008-12. In addition, many countries have instituted domestic policy measures that would mitigate GHG emissions. These measures are as summarised in Exhibit 1.

Exhibit 1

Domestic Policy Measures Affecting Emissions

CHINA



Expand renewable energy generation to 30% of total capacity by 2020

- Reduced taxation on renewable electricity generation
- Strong central and local government R&D support
- Enforce energy-efficient standards on vehicles and gradually on other energy-using appliances

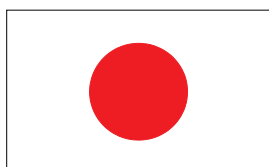
EU



To reduce emissions by 20% against 1990s levels by 2020

- Implementation of the EU Emissions Trading Scheme (ETS) to control emissions within the energy and heavy industry
- Support for climate research and technologies amounting up to \$3 billion and a further \$1.8 billion on nuclear research
- Extensive taxation on fuel and diesel
- Regulations of buildings, appliances and vehicles on energy efficiency

JAPAN



To reduce energy intensity by 30% from 2003 to 2030 and sticks by Kyoto Protocol agreement to reduce emissions by 6% from 1990 levels by 2008-12

- High taxes on gasoline, kerosene, coal and electricity
- Provide subsidies to cover one-third of the expenditure related to greenhouse gas reduction

US



Voluntary objective to reduce GHG intensity level to 18 percent below 2002 levels by 2012

- Tax incentives totaling \$3.6 billion over 2006–11 for use on cleaner, renewable energy and more energy efficient technology
- Support for research and development, domestic and international climate-related programs (for example, “Methane to Markets” and Asia Pacific Partnership) of \$37 billion during 2001–07
- Efficiency standards for buildings, vehicles, and appliances. ENERGY STAR performance labeling program covering 1,400 products, and extended through partnerships with six international markets

Source: IMF 2008

Given the international policies to reduce GHG, it is likely that there will be major changes to the areas of power generation, transportation and provision of lighting in the consumer sector. In the power sector, there will be increasing impetus to move towards nuclear power from thermal power. In the transportation sector, the use of next-generation vehicles like electronic vehicles (EVs) and hybrid electric vehicles (PHVs) will increase significantly. In the consumer sector, it is likely that there will be a growing shift to energy-saving models of electronic products (such as TVs, air-conditioners, PCs and refrigerators) to reduce GHGs.

In addition, with the expected impact on crop yields, investment in technologies that will mitigate the impact of lower yields will be required. Similarly, more investments in water infrastructure and desalination will be required.

Fund Selection

For exposure to the global climate change sector, we recommend investing into the Schroder Global Climate Change Equity Fund.

Schroder Global Climate Change Fund is rated 1st for its annualised returns for the past 3 years. The comparative performance of these funds is presented in Exhibit 2 below. Exhibit 3 shows the geographical and sector allocation of the recommended fund.

Exhibit 2: Comparative performance of funds invested in the Climate change sector

Financial Funds Performance Ratios	Annualised Bid-to-bid price returns (SGD)			Ann Std Dev
	1 Mth	6 Mth	1 Yr	
Schroder ISF Global Climate Change Equity	-6.03%	-10.28%	-4.9%	-
DWS Global Climate Change	-11.57%	-20.96%	n.a.	-

Source: www.fundsupermart.com

Prices and returns as at 30 June 2008

Exhibit 3: Geographical and sector breakdown of Schroder Global Climate Change Fund

Schroder Global Climate Change Fund					
Geographical breakdown			Sector breakdown		
1	US	29.3%	1	Industrials	28.5%
2	Japan	11.2%	2	Materials	18.0%
3	UK	9.1%	3	Utilities	13.0%
4	Germany	8.8%	4	Energy	11.5 %
5	Canada	8.0%	5	Consumer Discretionary	10.1%
6	France	6.2%	6	Information Technology	8.5%
7	Netherlands	3.4%	7	Consumer Staples	5.5%
8	Australia	3.1%	8	Financials	2.4%
9	Others	19.9%	9	Others	1.6%
10	Cash	1.0%	10	Cash	1.0%
	Total	100.0%		Total	100.0%

Source: latest fact sheet