Solving the Energy Challenge

With Sarbjit Nahal
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Please see important information at the end of the program

Hi, I'm Sarj Nahal, head of the thematic investing strategy team. What we try to do in our day-to-day work is look at some of the big picture issues, the megatrends that we think are changing the world that we live in.

Issues that we might not think about on a day-to-day basis, but from the long term perspective are going to change the way we operate, which are going to change the way we live, which are going to change the operating environment for corporations.

[NEW CHAPTER]
The Future Is About Efficiency

Let's take an issue like energy.

[INSERT LOWER 3RD]
By 2030, global energy demand could increase by 33% to 50%
Source: International Energy Agency

If we look forward to 2030, global energy demand is going to increase by anywhere from 1/3 to 50%. We think that current energy use is unsustainable.

[WIPE LOWER 3RD]
The world currently spends about 9% of global GDP on energy.
Source: IMF, BP, Bloomberg, BofA Merrill Lynch Global Commodities Research

We're currently spending 9% of global GDP on energy. That's simply not affordable, particularly for a lot of emerging markets.

We think energy efficiency provides a simple answer. Think of the fridge that you had in 1973, think of the fridge that you have today. Today's fridge consumes 60 to 70% less energy and is able to do far more. And we're seeing those same sorts of trends happening in the auto sector, the building sector, industrials as well as the IT sector.
I think auto is an excellent example of energy efficiency in action. If we take a look around the world, fuel economy standards are ramping up significantly.

[U.S. fuel economy standards are on track to reach 56 miles per gallon by 2025. (Source: National Highway Traffic Safety Administration)]

In the U.S., we're now looking at a target of 56 miles per gallon by 2025. That's going to represent a significant jump from the 34 miles per gallon that we're currently at today.

This is going to mean a significant sea change for the automakers. Increasingly, they're going to have to be looking towards downsizing the engine, reducing weight.

[Reducing the weight of a vehicle improves efficiency by 6 to 8%. (Source NHTSA, EPA, BA, BofA Merrill Lynch Global Research)]

You reduce the weight of a vehicle by 10% you improve the efficiency by 6 to 8%. Things like adding in a turbocharger, you improve the efficiency of the engine by 30%, you reduce carbon emissions by 20%.

It's also about identifying some of the hidden issues that aren't so evident. Take a look at data centers.

[Data centers in developed countries represent 5 to 8% of total electricity use. (Source BofA Merrill Lynch Global Research)]

Data centers now represent between 5 to 8% of global electricity use in Western developed markets. They've actually overtaken airlines as a source of carbon emissions. Now, from a long term perspective we think this is all about reducing costs.

Rather than setting up a data center in Death Valley, why not set it up off the coast of Finland where you can use simple technologies like free cooling or channeling through cold sea water and totally eliminate the need for air conditioning.

It's clear that these issues are going to be changing the way that we live, we operate ... And increasingly, we can use our power as investors to change this for the positive.

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