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Oil supplies have remained steady for 40 years despite disruptions such as the Kuwaiti well fires in 1991.

ENERGY

Burning desires

An obsession with oil distorts an account of the security of energy supplies, argues **Vaclav Smil**.

An incessant flow of energy is the basis of modern civilization, so a secure energy supply — particularly the availability of oil — is inevitably the focus of much public and media interest. Energy expert Daniel Yergin duly focuses on the past, present and future supply of crude oil and on concerns about the security of the fuel's supply. But with his narrow focus on oil, he passes up the opportunity to delve more deeply into our energy challenge.

In *The Quest*, Yergin, chairman of the US consultancy IHS Cambridge Energy Research Associates, ranges over the history of modern oil and gas production and electricity generation, the security of petroleum supplies and the evolution of concerns about global warming. He deals with key episodes of modern oil development, such as increasing Russian production, rising Chinese demand, supply disruptions, the controversy over peak oil production and unconventional resources such as oil shale. Yergin then turns to global warming and alternative energy, with an emphasis on photovoltaics and wind.

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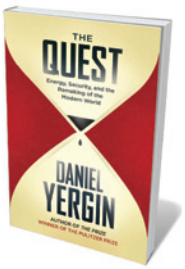

The Quest: Energy, Security, and the Remaking of the Modern World
DANIEL YERGIN
Allen Lane/Penguin Books: 2011. 704 pp. £30.00/$37.95

The book, which is sliced into more than 400 short sections, covers policy and economics more than science and technology. Its analysis of energy sources is uneven. Coal, for example, warrants a single page. Yet during the twentieth century, coal supplied the world with more energy than did oil. In 2010, coal combustion accounted for 30% of all global commercial energy (compared with nearly 34% for oil) and 40% of electricity generation.

Yergin is no catastrophist. He presents ample evidence to counter the notion that we are running out of oil: new discoveries, exploitation of additional reserves in existing fields and unconventional oil resources will maintain the flow for the foreseeable future, he says. Globally, the market has remained well supplied despite the comings and goings of dictators and ayatollahs, and major disruptions in output.

Since the early 1970s, there have been many such disruptions, starting with the embargo by the Organization of the Petroleum Exporting Countries (OPEC) in 1973–74, and the decline of extraction in the United States, which was the world's largest producer until 1975. These were followed by the Iranian revolution in 1979; Iraq's takeover of Kuwait in 1990; the demise of the Soviet Union in 1991; the rise of oil imports by China, which was a net exporter of oil until 1994; the US invasion of Iraq in 2003; and, most recently, the Libyan civil war.

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Through all of this, global oil extraction rose by two-thirds, from 2.3 billion tonnes in 1970 to 3.9 billion tonnes in 2010. Adjusted for inflation, crude oil is cheaper than it was 30 years ago, and in many countries, governments take a larger chunk of the price of petrol in tax than goes to the demonized OPEC or multinational oil companies.

Nevertheless, Yergin is sufficiently worried about maintaining an undisrupted oil supply that he feels energy security should be integral to foreign policy, given the high costs and long lead times of energy development. But I would argue that, particularly in rich countries, energy security depends more on using fuel and electricity rationally.

More important than OPEC's manoeuvrings is our continuing reliance on hundreds of millions of inexcusably inefficient vehicles, our preference for poorly insulated houses, our often mindless mobility and our consumption of energy-intensive junk. And as for the rapidly modernizing countries, is China's only choice to copy the US model of mass car ownership?

Yergin makes no comparisons of what nations actually do with energy — for instance, how much they need to secure a decent quality of life. Poor people in developing countries obviously need more energy, but how much more? As much as is already consumed, per capita, by their urban compatriots? Or, eventually, as much as in the United States, where the usage per head is twice as high as that in the richest European countries?

The book is silent on these matters. Instead, Yergin concludes that "this quest for energy goes without end". But it cannot — and should not. ■

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