GLOBAL INSECURITY

BEYOND *ENERGY FUTURE*

A STRATEGY FOR POLITICAL AND ECONOMIC SURVIVAL IN THE 1980S

EDITED BY
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Global Insecurity

A Strategy for Energy and Economic Renewal

AN ATLANTIC INSTITUTE FOR INTERNATIONAL AFFAIRS STUDY

Edited by
Daniel Yergin and
Martin Hillenbrand

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Daniel Yergin, a lecturer at the Energy and Environmental Policy Center at Harvard University's Kennedy School of Government, is coauthor of *Energy Future: The Report of the Energy Project at the Harvard Business School*, which the *Wall Street Journal* described as "a truly magnificent book . . . the most important contribution yet made to the energy debate." He also wrote *Shattered Peace: The Origins of the Cold War*, described by *The New York Times* as "a masterly account of postwar American foreign policy." Dr. Yergin, one of America's best-known experts on energy and international politics, is a Fellow of the German Marshall Fund of the United States and a contributing editor of the *Atlantic Monthly* and the *Japan Industrial Daily*; he also appears frequently on radio and television. He is chairman of the Harvard International Energy Security Seminar and associate director of the Harvard Energy Security Program.

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To Ulf Lantzke,
executive director of the
International Energy Agency,
who has recognized the dangers ahead

Preface

A decade or so ago, high and growing levels of energy consumption were something to be applauded, an indicator of the advance of civilization. Today, such levels are as much a source of worry and insecurity as of satisfaction. So pervasive is the importance of energy in modern life that the insecurity extends beyond concerns about the price and availability of energy to fundamental questions about the possibilities for sustained economic growth and the stability of society, and about war and peace.

This is not a book about energy itself, but about the economic, social, and political consequences of the energy problem. We look not only to the recent past, but also to the future in order to ask how these consequences might be felt in the rest of the 1980s and the 1990s. Our aim is not to offer specific forecasts, but rather to provide a framework for understanding the challenges and choices that the people of the world will face.

Global Insecurity is the result of a four-year research project. Even this relatively brief period has spanned four energy eras — an oil "glut," a major oil shock, a minor oil shock, and another "glut" — all of which have been accompanied by rapid shifts in public attitudes and a great deal of confusion. Indeed, the one sure glut has been that of confusion.

In this work, we try to clear up some of that confusion with what we hope is a coherent and reasonable interpretation.

After 1973 the easy assumptions about limitless cheap energy to fuel economic growth were suddenly dispelled. This change came as a great jolt to the industrial world. It may well have brought full employment to an end, at least in the United States and Western Europe. It certainly brought to the fore grave new security problems. Still, there has been a great temptation to wish the problem away every time the pressure eases a bit; many forget that the easing is bought at the expense of hundreds of billions of dollars of lost economic growth. This is why, during the compla-

cencies and misconceptions that a period of oil surplus encourages, calling attention to realities takes on even greater importance. But this book also aims to point in the directions in which solutions can be found — or, if not solutions, then at least modes of adjustment likely to be less painful than those resulting from neglect or error.

Two basic premises inform this study. One is the need to maintain economic growth. The other is the reasonable probability of recurrent energy problems, which can exact heavy tolls. The interaction of these two issues in the 1980s and 1990s raises serious concern about the social and political stability of democratic systems, about the limits of stress that such systems can endure, and about the potential for conflict.

This work is deliberately international in scope, involving thirteen experts from the United States, Western Europe, and Japan. It is written not only for specialists, but also for decision-makers in the private and public sector, faced with conflicting priorities and dilemmas, and also for citizens understandably perplexed by the developments of recent years and even more perplexed about what to expect in the future. We seek to answer such critical questions as:

How have energy problems affected the political, economic, and social systems of the world? How are these problems interacting with such basic trends as the evolution of technology, shifts in the balance of power, and other kinds of shifts as well — for instance, in values between generations? How might the likely evolution of energy supply make its impact felt through the rest of this century? Need the consequences be more inflation and higher unemployment and continued low growth, accompanied by rising discontent and increased domestic and international tension? What are the dangers and risks both to national stability and to the international order?

As these questions indicate, we are trying to make clear the underlying connections and relations that are so often obscured or totally ignored. In other words, we are offering an antidote to the fragmentary thinking characteristic of so much of the response to the energy problem over the last ten years. For instance, it has been very difficult for many to recognize the primary role the oil shocks have played in the economic downturn, or to see America's economic discontents in a global context, or to relate the imperatives of foreign and security policy to domestic energy policy.

We also hope that this multidisciplinary study will contribute to a deeper understanding of the respective countries and societies discussed, as well as of the changing international order. The role of energy in our lives goes beyond its role as a factor of production. In numerous and frequently unappreciated ways, energy has helped determine many aspects of the way we live. Energy developments during the years ahead could, depending on the

adjustment process, change daily life. Some of the changes could be quite minor. Others, if the adjustment process proves difficult or inadequate, could be major and quite uncomfortable.

Our focus is on those countries known as the "consumers" — the United States, Western Europe, Japan, and the oil-importing developing world. It became obvious early on that to focus only on the industrial countries was to deal only with part of the problem. The developing world also directly and seriously felt the impact of developments in oil prices and supplies. Future energy developments will have a major, even a decisive, impact on these countries as they attempt to struggle, perhaps under increasingly unfavorable circumstances, out of poverty and economic backwardness.

A quick word on the plot. Chapter 1 is an overview that sets out the themes. Chapter 2 presents two realistic scenarios for energy supply in the rest of this century. We have tried to separate what is practical and likely from what people wish for. The results do suggest further constraints ahead. Chapter 3 explores the strong connection between energy difficulties and the stubborn problems of inflation and low economic growth in the United States. Chapter 4 examines how the energy issue has challenged and might continue to challenge America's political system and its society. Chapters 5 and 6 follow in the same sequence for Japan, as do Chapters 7 and 8 for Western Europe. The onerous burdens and lost opportunities imposed on the developing countries by the energy problem provide the subject of Chapter 9. In Chapter 10, we analyze the difficulties that have developed in the international payments and trading systems and the stimulus given to a new protectionism. The strains and demoralization in the Western alliance are discussed in Chapter 11, and Chapter 12 focuses on the dangers for the entire international order.

Not everything can be covered in one book, and so we leave for subsequent research two important subjects: the consequences of the energy question, first, for the Soviet Union and its bloc and, second, for the countries that make up the Organization of Petroleum Exporting Countries. Some of the latter group are going through the most massive and rapid process of modernization in world history. We deal with their problems and choices at some length in Chapters 1 and 10, but the subject requires a considerable research project of its own.

Global Insecurity points to the very real risks and dangers ahead. The costs of two oil shocks have already been great; the cost of future constraints and crises could be even greater. We hope to stimulate an international debate that will help to avoid or at least minimize the risks. This is an optimistic work, for our conclusion is that a reasonable adjustment, while not foreordained by any means, is certainly possible. That, then, is the theme of this work — crisis and adjustment, and the race between the two.

* * *

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Daniel Yergin *April 1982*
Cambridge

Martin Hillenbrand
Paris

Global Insecurity

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Crisis and Adjustment: An Overview

by Daniel Yergin

The energy question is really a question about economic growth and security, which in turn means it is a question about the future of Western society. The relation of energy to economics and to security is a most appropriate issue to take up in a time much troubled by inflation and unemployment, when confidence is eroding both in the economic machine itself and in the competence of government — or, indeed, in anybody else — to do much to improve its performance. The central role of economic growth for democratic societies is inescapable. It makes possible rising real incomes for people. It means jobs rather than unemployment. It provides opportunities and a reason for optimism and confidence rather than for disenchantment and despair. It helps to resolve conflicts and tensions within the framework of democratic society. And it allows nations to harmonize their goals, laying the basis for common purpose rather than conflict.

These are fundamentals. Stagnation and unemployment and depression sorely tested democratic systems in the years between World War I and World War II. The disaffected turned to political idols on the right and the left, and in some countries democracy gave way to dictatorship, and dictatorships turned to war. The ultimate toll was measured in tens of millions of deaths and in the endless stretch of devastated landscape.

It was hardly surprising, therefore, that economic growth was at the top of the national and international agenda at the end of World War II. For it was essential to demonstrate that democratic societies, based on market systems, could deliver the goods — jobs and opportunities and rising incomes — without the dislocations of inflation and monetary instability.

That may have been the hope; yet, with the memory of interwar stagnation and unemployment still fresh in people's minds and the tasks of re-

construction so large before their eyes, the hope had to be kept within modest bounds.[1] As it happened, the actual results went far beyond what anybody might have reasonably anticipated. We can look back on a very impressive — some might even say stunning — achievement, and one in which great pride can be taken. Between 1950 and 1973, Japan's gross national product increased tenfold; Western Europe's, almost three and a half times; and the United States', almost two and a half times.

Many factors drove this sustained surge of growth: the momentum of postwar reconstruction and recovery, successive waves of trade liberalization, the stability provided by an international economic regime based on the dollar, European integration, technological innovation and higher productivity, managerial dynamism, various government policies — and energy, in particular, oil.

The Oil Way of Life

For oil, increasingly cheap and available, was a key ingredient, truly the fuel of economic growth. Between 1950 and 1973, petroleum reserves in the free world increased eightfold. Almost 90 percent of that growth was in the Middle East and Africa, where the costs of extraction were very low. This increasing abundance was reflected in the price of oil, which, in real terms, declined by 50 percent during those years. Industrial and individual consumers responded, and some governments encouraged switching to oil as a way both to modernize their industries and to escape the social problem of coal mining. The growth was awesome; oil consumption in the free world increased fivefold between 1950 and 1973, and oil came to play a larger and larger role in the total energy mix (see Table 1.1). To give one example, between 1950 and 1973, the share of coal — the traditional fuel

Table 1.1 The Structure of Energy Consumption in the Industrial World*

	1950	1973	1980
Oil	29%	52%	47%
Natural Gas	12	23	24
Coal	57	22	25
Primary Electricity*	2	3	4

* hydropower, nuclear, geothermal
Source: World Energy Industry Information Services.

of industrial society — in Western Europe's total energy mix declined from 86 to 25 percent, while oil's share rose from 12 to 59 percent.[2]

But there were limits to the available supply of oil. In the late 1960s and early 1970s, the demand for oil had been growing very rapidly because of economic growth, because oil was cheap, and because oil burns more cleanly than coal. This interest had been accentuated by a growing concern about air quality in the industrial world, which provided yet a further reason to replace coal with oil. In 1970, oil production in the United States reached its peak, then began to decline. Meanwhile, consumption continued to grow, and the United States began to draw heavily on the world oil market to meet its requirements. At the same time, market conditions made it possible for the oil-exporting countries to win control of oil production from the international companies.

The Cost of the Oil Shocks

A year of "almost universal boom" is how 1973 has been described. It was also a watershed in modern economic history. The world's production of goods and services grew almost 7 percent in that year, the last year of that kind of growth, with the result that the demand for oil strained the supply system. At the same time, the high concentration of oil production and reserves in the Middle East made the overall supply system highly vulnerable to "accidents," particularly political accidents. In 1973, the accident was the October War, which interacted with the basic market conditions to set off the first oil shock — a fourfold increase in the price of oil. Five years later, in the midst of a widespread complacency about a permanent oil glut, the shah of Iran was ousted from the Peacock Throne, setting off the second oil shock — this time raising the price of oil to two and a half times its former level. Though not widely recognized, in absolute terms, the second shock was actually more significant than the first. In 1973–74, the price of oil went up about $8 a barrel; in 1979–80, the increase was about $21.

With oil so important in the economy, the two oil shocks inevitably had to have a dramatic impact upon the fortunes of an industrial world that had become dependent upon this fuel. And these shocks did have pervasive effects, both in that which can be measured — inflation, recession, and unemployment — and that which cannot so easily be measured — eroding confidence and growing discontent.

These are the consequences we struggle with today. The oil shocks appear to have ended the era of high growth and full employment — what has been called the era of "flamboyant growthmanship." In its place, they have initiated a new and uncertain and uncomfortable era of "stagflation," a dual visitation of high inflation and low growth.[3]

After 1979, national concern was primarily on inflation, which engenders insecurity and bitterness, devalues savings and currencies, destabilizes the social order, and shortens the time horizon against which people spend and invest. But, very recently, attention has shifted to the issue of employment.

While the goal of full employment may always have extended somewhat further than the reality, there was still a rough approximation of full employment throughout the Western world. But now there is increasing evidence that the goal has been forsaken both in the United States and in Western Europe. Only Japan still delivers on the promise, although there are those who ask how long Japan can maintain its commitment. This abandonment is a major development; but its implications have hardly begun to be addressed, so intense has been the attention given to inflation.

Certainly our intention is not to suggest that growing economies must be a thing of the past. Rather, it is to point out the considerable challenge: Industrial economies that advanced so far on the basis of cheap and easy oil in the postwar years have to find ways to change and adjust in order to resume stable economic growth in a world in which oil is expensive and not so secure. To be sure, it would be foolish, a case of tunnel vision, to attribute all the unpleasant economic news of recent years to the oil shocks. World inflation was already gathering momentum in the early 1970s in response to such factors as food prices and a commodity boom, declining productivity, the financing of the Vietnam War, and growing rigidity in the labor markets — perhaps even in response to rapid growth itself.[4] The Bretton Woods international monetary system was under pressure. Even in Japan there was a growing concern about the "refraction" of its remarkable growth trend. Yet perspective is required. The inflation rate that terrified the Nixon administration into wage and price controls in August 1971 was just 3.8 percent.[5]

Indeed, the two surges in oil prices clearly have been a driving force behind today's stagflation. Curiously, though, some analysts have gone into very considerable intellectual acrobatics to deny this obvious reality, with the result that a part of recent economic debate has been strangely irrelevant.

The rapid rise in oil prices has driven inflation in several ways. It has, most obviously, affected the price index directly. So pervasive is the place of oil in the economy that its price has also had a significant impact on the cost of much partly finished and finished production. The prices of substitutes or alternatives have also been bid up, whether they be coal or housing insulation or Hondas. Finally, increases in oil prices can, through compensating wage hikes and shifts in expectations, become embedded in the "home-grown" or underlying inflation rate.

At the same time, the oil shocks have extracted a considerable toll on economic growth through severe recessions and economic slowdown. This