past dozen years. Growing North American demands have recently been added to these eastern hemisphere demands.

U.S. share

Despite the rapid growth of the rest of the industrialized world, the United States alone still accounts for nearly one-third of the world's consumption of oil. It moved past the point of self-sufficiency in the Fifties and currently must look beyond the western hemisphere to meet almost the whole growth in its demand. This means that the oil-fields of the eastern hemisphere, and particularly those of the Persian Gulf area, are now looked to in order to supply the whole absolute growth in North American demand each year on top of rapid Western European and Japanese requirements growth. By the logic of the process, forecasts were recently current that Saudi Arabia, which as recently as 1970 was producting fewer than 4,000,000 barrels a day, would be required to produce close to 20,000,000 a day by the end of the decade if anticipated demands were to be met.

During the past few months, the members of OPEC have driven the lessons of this situation home in rough, dramatic, and painful fashion. All through the Sixties they had sought by co-operative endeavour both to raise oil prices and to raise their shares of gross oil revenues. On the second count they had had some success, but relatively little on the first. Now, in a brief space of months, they have been able to multiply the prices of world oil and raise their own revenues from oil many times. In the process they have gained absolute control of prices and their own revenue-take, have assumed a large measure of control over operations and have freed themselves from any remaining contractual constraints.

In effect, the demand and supply position has rather suddenly reached the point which makes monopoly response both feasible and profitable. In the longer term, the costs of alternate energy sources, such as tar sands, shale oil, and coal gasification, will set upper limits to the international price for oil, but during the next few years it is difficult to see any constraints other than those resulting from consumer refusal to buy, producer perception of their own longer-run self-interest, or consumer-producer co-operative arrangements.

Like the price actions, the arbitrary supply and embargo restraints imposed by the Arab members of OPEC have equally given warning of the future situation. The Arab nations may not find it profitable to continue to use oil as a political weapon, but they are not likely to find it in their interests to expand production over the next few years to anything like the levels which would match what have been expected to be the requirements. The not untimely warning, then, is that the world as a whole must urgently seek and develop alternate sources of energy. These are likely to involve long "lead" times, especially where new technologies must be developed, and the new energy supplies will be more expensive than what we have been used to.

Painful readjustments

In the meantime, there are some painful readjustments to be faced and some difficult challenges for both domestic economies and international economic relations. Four questions of immediate concern are: 1) To what extent will energy-supply shortages depress economic activity? 2) How serious will dramatic rises in energy costs be in a world already beset by inflation? 3) Can an international monetary system already in some disarray cope with the huge balance-of-payments shifts caused by multiplied oil prices? 4) Will the drastic rearrangement of incomes and of capital accumulation impede the supplying of the large amounts of capital required to develop new sources of energy supply?

If the advanced economies cannot obtain, or the developing countries like India cannot afford, the energy supplies from oil upon which they had been counting, the result could be a recession, or worse, in the short term and a marked restriction in growth in the longer term. As has already been suggested, economic activity and levels of income have been tightly tied to energy consumption. Japan, Western Europe, and perhaps the United States all appear likely to be significantly affected in the next few months by supply limitations felt or threatened. Canada is not likely to feel much in the way of direct effects but, with its major trade dependence on external customers, could feel significant indirect effects from any slow-down abroad.

Longer-term outlook

In the longer term, the advanced economies should be able to stand limitations on energy supply better than the developing countries. First of all, they can learn to make more effective use of the energy available. Then, their levels of income are already at heights which can be lived with more comfortably, even though threats to future growth cannot be accepted with equanimity. The people of the developing countries, however, aspire to achieve something like the levels of income already gained by the advanced economies and if these aspirations are seen to be thwarted by energy supply limitations, their economic, cultural, and political prospects could be bleak indeed — an outcome of no small concern to those of us in the already industrialized world.

Inflation today is endemic and in many cases virulent in most of the national economies of the industrialized world. From that standpoint, drastic and almost overnight increases in the price of the main source of energy for those economies could scarcely be more uncomfortable in their timing.

It is possible, however, to overestimate these price effects. First of all, the increases which we hear about are usually in the well-head prices of crude oil or natural gas. There are many other costs incurred between the well and the point of final consumption and most of these costs are going up only at rates dictated by inflation. The end result in terms of consumer cost is, therefore, much less in percentage terms than the startling figures reported in the media.

To give one basis for perspective, by the end of January of this year the Persian Gulf OPEC countries had raised their own government "take" to something like $7 a barrel. This is still less than the government take in Canada on a typical barrel of gasoline from provincial road taxes and federal sales tax, quite apart from corporate income taxes. Basic as it is to almost every form of economic activity and to consumer needs such as home heating and transportation, the total energy requirement of the Cana-