

Energy. Investment. Hua.

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I am going to touch on three topics that bear heavily on the fortunes of Pacific countries: the so-called energy crisis, the economic prospects of the Association of South East Asian Nations (ASEAN) and neighboring countries, and the implications of Chairman Hua's presumed pragmatism. I find myself holding unusual views on all of them.

Until 1973 I thought there might be a shortage of energy in the 1980's because energy was so obviously being temporarily underpriced. Since 1973 I have believed there is more likely to be a glut of energy in the 1980's because energy is being temporarily overpriced.

The possibility that OPEC might be able to maintain its cartel has, admittedly and unhappily, been increased by President Carter's and Congress's energy policies. These policies seem to me (although I know many who disagree) to be a glum example of the way in which politicians' misunderstandings now override economic logic and history's lessons. If you want to reduce your dependence on an expensive but substitutable foreign material, then economic logic suggests that you give incentives to domestic producers to find those substitutes by allowing something more than the full free market price to work through. Instead, the Carter energy policy relies on price controls that do just the opposite. If you want to encourage introduction of new technologies in the United States, then all of America's history shows that you must *not* set up bureaucratic federal regulatory agencies, which inevitably become the prisoner of existing interests increasingly determined to defend the somnolent status quo. The Carter energy program seems likely to establish a big bureaucracy, and it is bound to be a force that will end up by doing in part the opposite of what it originally intended to do.

Despite this, I find it difficult to believe that it can manage to create a worldwide energy shortage. There are too many known and emerging ways of releasing the

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energy stored in matter. The story of the past two hundred years since the start of the Industrial Revolution is that new technology has progressed in sudden bursts toward the more powerful sources. It happens that the discontinuity in power between the most popular existing sources of energy and new energy sources is very great. While we get 20,000 BTUs by burning a pound of petrol, we get 250 million BTUs from the fission of the U-235 isotope in one pound of natural uranium, and we will probably get 260,000 billion BTUs from the fusion to helium of a pound of hydrogen. Note that this last system, in which the waters of the ocean could serve as a limitless reservoir of fuel, will probably be more than ten billion times more effective per pound of the earth's resources than burning a pound of the Arab's oil.

Whenever man has moved from the less powerful to the more powerful energy sources—e.g., from the horse to the railway and the automobile—there has been a cry from what we would now call the environmentalists that the new source would be (a) more dirty or pollutant and (b) more dangerous than the trusted old one. Argument (a), that the new sources would be more pollutant, has always proved quite untrue. The filthiest motor car allowed on any road today emits only about 6 grams of pollutant of any sort while progressing through a mile of urban road; the average horse passing through that distance would emit 600 grams of solid pollutant and 300 grams of liquid pollutant. Argument (b), that the more powerful power sources are more dangerous, has always proved entirely true. If we had known in 1885 how many people would be killed on the roads in traffic accidents in 1977, congresses across the world would have voted to ban the motor car. I'm glad they didn't know.

I have three other reasons for believing that the next stage of energy revolution will drive past present environmental objections. First, in the past eighteen months the environmentalists have had sharper defeats than I expected they would. I had thought that Proposition 15 in California and the various antinuclear referenda on American presidential election day last year might go against the power industry, and they didn't. In

Europe the violent demonstrations against German and French nuclear plants have turned public opinion (though not the media) against the demonstrators.

Second, the next few energy sources—whether nuclear fission, fusion, solar, geothermal, or whatever—all have the same economic characteristic: high initial capital costs but low marginal running costs. With that characteristic the usual economic prognosis is: Specialists will forecast grave shortages, but these forecasts will by themselves create overinvestment and gluts.

Third, the short-term march to glut has been quicker than expected. At the end of 1973, when we in Britain were issued petrol rationing coupons and one leading British newspaper was saying that we must all realize that petrol would be rationed for the rest of this century, I was writing an article I called "Sell Your Petrol Coupons Now" (but the lawyer crossed this title out; he said it was encouraging a felony). I wrote then that the raising of the petrol price was really more likely to cause a surplus than a shortage and that I expected service stations to be competing again with cut-price wars and trading-stamp offers by 1977. Actually, they were doing this again before the middle of 1974. The price system is working better than we pretend.

If relative energy prices do rise sharply in the next few years—i.e., if I am quite wrong and most other conventional people are quite right—then the implication for ASEAN countries will be that manufacturing will move down relatively from the more capital-intensive forms of production to the more labor-intensive forms. This will be good for the poorer countries in the region.

If, as I expect, relative energy prices fall, this will be to the advantage of the countries in the region I call the "new Japans," for example, the Republic of Korea. But there will be awkward political implications when we do move on to more powerful energy sources. An actual majority of the 159 heads of government in the world will go to bed tonight fearful that they might be murdered in a coup d'état before breakfast tomorrow morning. This does not make for calmness of mind among what will become the nuclear trigger-minders' profession as nuclear power becomes a normal technology.

My guess is that sometime in the next twenty years there will be some joint Soviet-American gunboat operation, the equivalent of the Israelis' raid on Entebbe, to curb some latter-day equivalent of Idi Amin who will by then be threatening to throw nuclear bombs about. This reversion to gunboat operations—for the world's sake—will arouse lots of suspicions about attempts to restore hegemony by consortia of big powers. That might cause an especial problem for this part of the world. Asia still has some countries unsophisticated enough politically that near-equivalents of Idi Amin might possibly come to power. East Asia also has now no natural definition of who the gunboat-operation-mounting big powers might be.

We are now at the expected stage of the world trade cycle where the old manufacturing countries need a surge of investment to carry forward the process of recovery from the recession. That surge is not occurring because the old manufacturing

countries have such an excess of capacity.

I had thought Japan would be one of the first to recover and move into investment for the postmanufacturing age that is now needed. Japan's advance during the manufacturing age was dramatically investment-led, and I took hope in the fact that in each big Japanese company there is a large group of executives whose job is planning next year's investment. The hope is proving unfounded. Instead, the only surge of investment for the post-manufacturing age is now taking place in the Sunbelt states of the United States.

When I was in Japan last year I asked Japanese motor manufacturing and other companies about their investment plans. The answers were universally depressing. They said such things as "We will invest to make the paint shop environmentally more pleasant." It seems to me that Japan may be passing into the welfare stage that has slowed the growth of many advanced countries before it. In Japan the welfare state will probably be organized by paternalist big employers rather than government. But they will then ask for tax reductions to help finance this. That will drive budgets into deficit, and the Japanese welfare state may not be so very different in its growth-checking habits from our Western models.

I expect bigger growth in the decade ahead for the new Japans, like Korea, Taiwan, and most of the ASEAN countries. I visited Korea for the first time in February of last year. If you translate 1977 dollars into 1961 dollars, Korea's GNP per head is not now very much smaller than Japan's when I first visited there in 1961. Korea's growth over the past ten years has actually been slightly faster than Japan's was in the 1950's. I think this is one of several countries in the region that may blossom dramatically in the next fifteen years, as Japan has done in the past dramatic fifteen. But there may be at least one major difference in the new Japans.

Japan and Germany after 1948 did not have serious trade union problems. But countries usually do have industrial relations problems at periods of great industrial growth. The young men in the new growth countries like Korea and some of the ASEAN countries look "more Italiano" than Japanese, and there may be labor troubles ahead in these countries. We are, possibly, going to see new Italys in this area rather than new Germanys or Japans.

Will Chairman Hua's China join the growth race? The world will be transformed if the mainland Chinese in these next twenty years become even one quarter as dynamic economically as all groups of expatriate Chinese already are. And China would be a new Japan, not a new Italy. But my guess is that China is passing out of the stage of ideology into the stage at which it will concentrate on whatever policy gives least worry and most enjoyment to the small band of men at the top. I hope this policy will prove to be concentration on economic growth, which in China should now be quite easy. I hope (and on balance believe) that it will not prove to be concentration on internal power politics, including politics by the military. But the latter is the more usual development in history after a figure like Mao has left the scene.