INTERNATIONAL SECURITY ENVIRONMENT TO THE YEAR 2020: GLOBAL TRENDS ANALYSIS

September 30, 1990

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INTERNATIONAL SECURITY ENVIRONMENT TO THE YEAR 2020:

GLOBAL TRENDS ANALYSIS

Executive Summary

This series of analytical summaries attempts to identify and analyze trends which will influence international security policy through the next three decades. An assessment of the changed world that these trends will produce is vital for Army planners. In this survey, we discuss underlying trends driving change and predict realities ten and thirty years hence.

Forecasting events on a global scale is, at best, a hazardous exercise. Crystal balls are sometimes cloudy and Joan Quigley is not always available. Twenty and thirty years ago, futurists predicted the replacement of the automobile by individual jet packs, the decline of market economies and the rise of welfare states, and the fall of Castro. Unmentioned were the toppling of the Berlin Wall, or of the Shah, or of Communism. The fault was not in the futurists. Allowance must be made for the irrational and unexpected in human behavior and the unpredictable of natural disasters.

Analysis of the global security environment requires consideration of a complex range of economic, political, demographic, military, and technological matters. These case studies are intended to encapsulate issues that will be in the forefront of international attention in the next three decades. For each case study, background information, short-term prospects, and long-term prospects are provided. By short-term, we mean prospects for the next five to ten years, perhaps to the end of the century. Long-term refers to the following twenty years. The case studies and the reasons for their choice are delineated below:

-- China, sometimes by dint of its sheer size, is of considerable interest. We address events likely to follow the demise of Deng Xiaoping and his generation of top officials. By early in the next century, we foresee an economically-diverse China with greater political freedoms, gradually increasing in power as it modernizes its economy and tap its resources.

-- The settlement of key territorial disputes dividing Japan and the Soviet Union is expected in the near-term. That settlement may serve to launch a new era of economic cooperation in Northeast Asia. Japan, utilizing its technological prowess and capital resources, may work more closely with the Soviet Union and even China. By tapping into the Soviet Union's enormous natural resources and China's labor force, Japan's efforts will typify the increased the economic interdependence of nations.

-- Europe '92 signifies the increased economic integration of the 12 nations of the European Community and may be a harbinger of even wider economic cooperation among additional West European states and selected East European ones. Over the long term, it may foretell the coming of a political United States of Europe, with allowance for renascent nationalisms. The role of a united Germany and resultant security implications complicate the scenario.

-- In Soviet Union and Eastern Europe, unprecedented and largely unanticipated changes occurred even as we conducted our research. After presenting detailed background on the complex nationalities crises, we advance a number of alternative outcomes for the Soviet Union from civil war to confederation. Likewise, we provide a rapid overview of parallel events in Eastern Europe.

-- The Middle East is of great interest because of repeated realization of its potential as a tinderbox for wars. We examine religio-nationalism (which has been at the heart of much unrest in recent years) in Iran and Israel, and consider the next era in the Middle East.

-- The Third World has provided the settings for international conflicts since the end of World War II. Many problems--mushrooming populations, debt crises, and inadequate health care--commonly afflict developing nations. Mexico serves as a microcosm of Third World dilemmas and its contiguity to the United States makes it of particular importance. We also suggest possible futures for a sampling of other nations in Latin America and Africa.

-- Finally, we consider technology and its impact on the next 30 years. Of all issues covered here, major changes in technology may have the most widely-felt global impact, with energy of prime importance. If much-discussed advances in fusion power occur, as we project, by early in the 21st century, ramifications will be felt internationally. The ability to greatly reduce reliance on petroleum will alter the relative strategic importance and dependence of nations. We discuss the future of fusion power, as well as other alternatives to a petroleum-based economy, in the relative near-term (with the expected construction of large fusion power plants) and the extended future--after 2020 (with the possible creation of fusion generators small enough to power ships or perhaps even vehicles).

Since April 1990, our vision of the future has not changed. It has, however, become clearer. For, as we focused more acutely on short-term and long-term forecasts for the next 30 years, the details of what might transpire became sharper and the logic of our estimates seemed less fantastical. Mini-events of the last four months have moved perceptibly in the direction of our forecasts.

For instance, China's central government is becoming less able to control the national economy when confronted by diverse regional developments containing hints

of future autonomy. The Soviet Union's outreach to South Korea and the end of the Cold War may hasten the cooperation among the Soviet Union, China, and Japan in Northeast Asia that we believe will come to fruition in the coming years. The remarkable spate of declarations of sovereignty by numerous Soviet national republics may signal an acceleration of the coming transformation of that twentieth century empire. The imminence of the chaos that forms one of our possible Soviet scenarios may be delayed by the emergence of Boris Yeltsin as a force to be reckoned with on that national scene. Turmoil in the Soviet Union is continually paralleled in Eastern Europe. The current, unexpected rise in oil prices may foreshorten or hasten the inevitable improvement of the Mexican situation. That the Middle East was, is, and will repeatedly be the ignition of international crises was empirically proven by the 2 August Iraqi invasion of Kuwait. And increasingly attempts are being made to intertwine religion with nationalist justifications for that imbroglio, as our case study foresees. Moreover, the Gulf crisis clearly dramatizes the growing role of a more united Europe on the international stage. It also highlights the need for alternative energy resources. Perhaps, as a result, greater priority will be given to fusion research and the time before fusion technology is on-line may shorten.

Again, our case studies are in no way all-inclusive. Nonetheless, we believe that the issues they address will be extraordinarily influential in the next 30 years.

I. PROSPECTS FOR POST DENG CHINA

A. Background Information

The critical question facing China is what will happen after Deng Xiaoping and the other octogenarians are gone. All of these men played an important part in establishing the political and economic system in effect in China today and have a personal stake in perpetuating that system.

After a short period of adjustment, the People's Republic of China adopted Soviet methods of political centralization, collectivization of agriculture, and a centrally planned economy with emphasis on heavy industry for its First Five-Year Plan (1953-57). Deng, as secretary general of the party and vice premier of the State Council, was active in establishing the party and government bureaucracy and Chen Yun, another powerful octogenarian, was a major economic theorist.

In 1956 the Chinese government launched the Hundred Flowers Campaign, permitting greater intellectual and artistic freedom under the slogan "Let a hundred flowers bloom, let the hundred schools of thought contend." By 1957 this was being interpreted as permission for intellectuals to criticize the party and the government. The criticism soon got out of hand and Mao, with the support of Deng and other leaders, launched the Anti-Rightist Campaign to suppress dissent.

The Anti-Rightist Campaign was followed by a militant approach toward the economy. Encouraged by the success of the First Five-Year Plan and wary of continued Soviet political and economic support, Mao launched the Great Leap Forward--a program of radical economic experimentation based on self-supporting agricultural communes and small-scale local industries--to achieve economic independence during the Second Five-Year Plan (1958-62). The Great Leap Forward was a total failure resulting in widespread food shortages and economic collapse.

In the early 1960s, the Chinese Communist Party, still under Mao's titular leadership, but with dominant influence by Liu Shaoqi, Deng Xiaoping, Chen Yun, Peng Zhen, and others, reinstated the political and economic systems of the First Five-Year Plan. By 1965 the country was well on its way to recovery, but Mao remained suspicious of the bureaucracy. In an effort to dislodge the bureaucracy and retake total control of the party and government, he launched the disastrous Cultural Revolution (1966-76), unleashing millions of middle school and university students, known as Red Guards, armed with the "four big rights"--speaking out freely, airing views fully, holding great debates, and writing big-character posters (broadsides)--to overthrow the party and government apparatus. Many important leaders, including Liu Shaoqi and Deng Xiaoping, lost their positions and were imprisoned or "sent down" to work in factories or on the farm. Liu Shaoqi died in prison.

Following Mao's death in 1976, the Cultural Revolution was repudiated and Deng and others were rehabilitated. Deng wasted no time in exerting his authority. He reestablished the bureaucracy with his protégés in positions of authority and set the economy on course to accomplish the Four Modernizations--agriculture, industry, science and technology, and national defense.

Agriculture was decollectivized and the people's communes were abolished. Peasants were permitted to plant family plots and sell whatever produce they were able to grow over the quota in free markets. Excess rural labor was absorbed into specialized households (cottage industries) established in the villages and towns.

The initial success of the agricultural reforms prompted efforts to reform the urban economy. The responsibility system was carried over to industry. Industrial and enterprise managers were given somewhat greater autonomy. Emphasis on quotas was reduced. Industries were allowed to produce goods outside the plan for sale on the market and were taxed on their profits and allowed to retain the balance for reinvestment and distribution to workers as bonuses. By the mid-1980s, much consumer-oriented industry operated on the free market, while most heavy industry remained under the state plan.

Political reform was not as successful as economic reform. In 1979 Deng permitted, and even encouraged, activists to speak out against the failed policies of the Cultural Revolution and a special "democracy wall" was designated for big-character posters denouncing the Gang of Four (disgraced leaders of the Cultural Revolution). But, when their criticisms turned on present government policies, many activists were jailed and "democracy wall" was shut down. A new State Constitution adopted in 1982 abolished the "four bigs" and gave legal basis to the reinstitution of the government bureaucracy.

Import of Western technical assistance and economic theories was accompanied by Western political and cultural ideas. Artists, intellectuals, and political theorists in government and academic circles called on the leadership to be open to these new ideas and make changes in Chinese political and cultural institutions. Some initial effort was made at political reform and separating party and government functions. But, even minor reforms elicited a strong reaction from conservatives who saw them as threats to party authority and control. Deng gave voice to such sentiments when he spoke out against "decadent, moribund ideas of the bourgeoisie" at the Second Plenum of the Chinese Communist Party Central Committee in October 1983. His speech was followed by a full-scale campaign against "spiritual pollution" which quickly got out of hand, with some lower-level cadres exhibiting extremist behavior reminiscent of the Cultural Revolution. Chinese authorities, led by Premier Zhao Ziyang, took steps to restrict the campaign and, by Spring 1984, it subsided.

A second effort at political reform culminated in nationwide student demonstrations in late 1986. Party General Secretary Hu Yaobang refused to denounce the demonstrators. Instead, he called for more reforms and pluralism in the political system. Hu was removed from office and replaced by Zhao Ziyang. A campaign against "bourgeois liberalization" was initiated to discredit Western political concepts and emphasize adherence to the four cardinal principles--socialism, dictatorship of the proletariat, supporting the party leadership, and Marxism-Leninism-Mao Zedong Thought. Once again the reformists, led by Zhao Ziyang, were able to contain the campaign.

Faced with mounting inflation and income disparity, the Chinese leadership could either maintain a "two-track system," with the planned and market economies existing side by side, or gradually eliminate the planned economy, transforming state enterprises into businesses responsible for their profits and losses and leaving the government with only macroeconomic control mechanisms. Li Peng, the Soviet-trained conservative protégé of Chen Yun who had replaced Zhao as premier, supported the first approach. Zhao and his associates favored the second approach.

Zhao and his associates appeared in control as the 13th Chinese Party Congress in October 1987 called for extensive reforms, including price reform and greater autonomy for factory and enterprise managers. But, these policies were never implemented and, by mid-1988, Zhao was removed from involvement in economic matters. Economic planning failed to curb inflation and the "two-track system," with fixed prices for goods produced to meet the plan and market-determined prices for the same type of goods produced in excess of the plan, led to wide-spread dishonesty, illegal profits, and corruption of cadres responsible for allotting goods, posts, and permits.

In mid-April 1989, the sudden death of Hu Yaobang, a hero to students and other democracy advocates since his purging, gave rise to demonstrations of mourning. On April 18 several hundred students presented a petition to the National People's Congress demanding legal guarantees of freedom of speech and publication; increased spending on education and better treatment of intellectuals; open publication of private bank accounts of top leaders and their families; a reassessment of Hu's historical role and the campaigns against spiritual pollution and bourgeois liberalization; and rehabilitation of the victims of those campaigns. On April 22, more than 100,000 students defied a ban and occupied positions surrounding the Monument of People's Heroes outside the Great Hall of the People, where Hu's funeral was being conducted. While Zhao was in North Korea, Li Peng and Yang Shangkun, the 82 year old state president and vice chairman of the Military Commission persuaded Deng and other senior leaders of the seriousness of the situation. The party and government quickly reacted, condemning the "turmoil" in an April 24 Renmin Ribao editorial intended to frighten the demonstrators into disbanding. Instead, the editorial strengthened their

Zhao Ziyang

Deng Xiaoping

Yang Shangkun

Li Peng

resolve. The next day nearly 50,000 students marched through the streets of Beijing for over 12 hours with only token opposition from security forces.

After a short lull, the demonstrations picked up momentum again in mid-May, winning many supporters from among government functionaries, members of the news media, intellectuals, workers, and ordinary citizens who were disgusted with rampant inflation and corruption and recognized the justness of the demands. On May 17 and 18 more than one million citizens joined the demonstrations in Beijing. These massive demonstrations occurred when Mikhail Gorbachev was visiting China and ruined what had been expected to be a triumphant culmination of Deng's international diplomacy.

When Zhao returned, he opposed the hard line taken in his absence, indicating that the students' demands were "exactly what the party and the government advocates." He proposed that the party and the government: rescind the Renmin Ribao editorial and give him sole responsibility for issuing editorials; establish an organization to look into corruption among children of high ranking cadres (including his own); publish background information on all cadres at the rank of vice minister and above; and publish the salary and emoluments of high ranking cadres and do away with special privileges. Deng and the other senior leaders, remembering the chaos of the Cultural Revolution and fearful that the demonstrations would lead to a breakdown of "stability" and loss of government control, dismissed Zhao, declared martial law in a large part of Beijing, and moved in troops to put down the demonstrations. The suppression resulted in widespread civilian casualties and an estimated 700 killed.

The people of Hong Kong, already wary of their reversion to Chinese control in 1997, followed events on the mainland with great interest. In May and June, they donated blood and over HK $50 million (US $6.4 million) to support their mainland compatriots. When the demonstrations were crushed, the hopes of Hong Kong were dealt a severe blow and applications for emigration increased dramatically. Nevertheless, Hong Kong businesses continued to invest heavily in the Chinese economy.

Taiwan was less directly involved in mainland events. In a positive breakthrough for contacts between Taiwan and the mainland, however, a 12-member Taiwanese delegation headed by Finance Minister Shirley Kuo attended the May 1989 meeting of the Asia Development Bank in Beijing. Reporters who had accompanied the delegation remained to cover the demonstrations. When the demonstrations were crushed, Taiwan put its army on alert. But, at the same time, it restored postal and telecommunications links with the mainland, a major step toward greater contact. Later in the year, Taiwan removed the ban on visits to Taiwan by members of the Chinese Communist Party. Taiwan business investment in the mainland, especially the southeastern part of the country, continued to grow.

Meanwhile the purge of Zhao and his colleagues gave Beijing conservatives free rein to apply their solutions to China's political and economic problems. Jiang Zemin, like Deng a political conservative but an economic liberal, was selected to replace Zhao as party general secretary. Leaders from the "older generation of proletarian revolutionaries" were called on for their advice. In addition to Deng and Yang, they included Chen Yun, chairman of the Central Advisory Commission, former Political Bureau Standing Committee member, and head of the party Discipline Inspection Commission, born in 1905; Li Xiannian, former state president, born in 1909; Peng Zhen, former chairman of the Standing Committee of the National People's Congress, born in 1902; Wang Zhen, former state vice president and former member of the Political Bureau, born in 1902; and Deng Yingchao, widow of Zhou Enlai and patroness of Li Peng, born in 1904. Not surprisingly, they recommended Stalinist policies to quash dissent, reassert political control, and reduce inflation and corruption. But, policies that worked for the Chinese Communist Party of the 1950s, highly regarded for having recently overthrown a corrupt Kuomintang regime, would not work for a party whose reputation was in shambles as a result of 40 years of failure culminating in the merciless massacre of its own young in and around Tiananmen Square on June 4th. Appeals for self-sacrifice "for the good of the people" fell on deaf ears.

B. Prospects

1. Short-Term Prospects

China's prospects into the mid-1990s are bleak. Its economy faces the most serious slowdown since the reform program of 1979. Increased reliance on economic planning will continue to give more authority to already corrupt cadres and draconian measures to curb inflation will exacerbate the slowdown. Compounding the situation are reemphasis on state ownership, the state plan, the central budget, reimposition of extensive price controls coupled with heavy state subsidies for retail food prices, and pressures on peasants to sell produce to the state cheaply.

In addition, many radical reform experiments, such as quasi-privatization of state enterprises, grain free markets, and land leasing are being scrapped. These stringent measures are causing a rapid decline in supply and demand along with a deterioration in the balance of payments and a flight of capital. A growing number of enterprises are losing money and the overall productivity of the state sector is slumping. Massive government investment in 1989 realized only a slight rise in the grain harvest. Thus, at least for the next few years, China will be required to spend a larger share of its precious foreign exchange on foreign grain purchases.

Despite the return to "orthodox" methods, Chinese leaders still say that they are interested in pursuing an "open" policy of joint ventures and economic and technical assistance with Japan and the free market economies of North America and Western Europe. But foreign trade which had already begun to deteriorate in 1988, declined

even more in 1989. Many Western countries suspended high-level government contacts and froze or suspended aid programs in the wake of the Tiananmen massacre, and tourism, a major source of foreign exchange, is declining drastically. Most foreign governments and business interests are waiting out the current government in the belief that a large number--perhaps even a majority--of middle level cadre are opposed to present policies and, on accession to power, will grasp the opportunity to reverse those policies. In the meantime, foreign investments and loans will decline sharply as repayments on previous loans come due. The World Bank's World Debt Table estimates that by 1992 China's total repayments of principal and interest will reach US $4.2 billion. China Daily (Beijing) puts the total at US $10 billion and estimates that 10 to 15 percent of China's export earnings will be required to repay these debts. For a country that until recently had operated in the black, such a burden will require much adjustment. None of the current programs is expected to improve the situation.

2. Mid-Term Prospects

Mid-term prospects are even more dismal. With the older generation of octogenarians gone, there will be no individual or party left with the respect and the backing to govern the country. In the absence of a strong central government, coastal regions, especially in the Hong Kong-Guangzhou area, are likely to divorce themselves further from the planned, centralized economy and develop local textile and light industries to manufacture commodities and components for the export market and products to sell on open domestic markets at competitive prices. Surplus agricultural labor will be increasingly absorbed in local cottage industries. But industrial development will be hindered by local barriers restricting shipment of raw materials and internal tariffs and formal and informal bans on products from other parts of China. Tibetans, Muslims, Mongols, Manchus, and other non-Han Chinese living in areas officially designated as autonomous regions since 1954 will demand true autonomy and insist on their rights to use their own languages, and to practice their religions (especially Lamaism and Islam), and to exercise their traditional customs freely. Although these minority nationalities constitute only about six percent of the total population, most are concentrated in politically sensitive border areas.

Groups proposing political solutions ranging from a return to 1950s Stalinist policies to advocates of truly democratic representative government on the local and the national level will conduct long, difficult, and perhaps violent succession struggles to establish their political system as the standard for the whole nation. The result could be a complete breakdown of central authority with each region pursuing its own political and economic interests.

3. Long-Term Prospects

The situation will become increasingly chaotic until early in the 21st century. By that time most regions will begin to follow the lead of Guangdong and other

economically well off provinces in southeast China in removing all but the largest industries from direct government control and allowing private managers to concentrate on areas where they can operate most efficiently. Industrial managers will find it to their advantage to shift from counterproductive competition in areas where they lack the resources and technical expertise to cooperate with and complement industries in other parts of China. Artificial price supports will be gradually removed. Painful as that will be in the initial stage, it will eventually act as a major stimulant to the economy. By 2020, cooperation will evolve into a confederation of autonomous Chinese regions drawing on their common history and traditions. The government in Beijing, long since having resigned itself to the futility of trying to impose central control over the provinces, will turn its attention to foreign affairs, providing for the national defense, and mediating interregional disputes. Each region will make its special contribution to the national economy. The western and northwestern border areas will provide their vast mineral resources and concentrate on refining and processing those minerals. Hong Kong will furnish the financial and management expertise acquired in its long years as an apolitical free market economy and free port. Taiwan, along with Hong Kong, Guangzhou, Fuzhou, and other coastal areas, will have acquired highly developed consumer and export oriented industries. Other urban areas of the Chinese mainland, especially Shanghai, Wuhan, and Shenyang, will further develop large nationalized high technology, heavy industries. Rural cottage industries will furnish handicrafts for export and peripherals for the larger urban industries. Much of the large nonagricultural village population will be engaged in agriculture-based industry, processing feed and agricultural chemicals and manufacturing farm implements. All regions will concentrate on interregional and international joint ventures to provide technical and financial support, and China's immense population will offer a large work force and a vast domestic market.

Economic progress will be accompanied by a major influx of foreign cultural and political influences, far beyond the ability of Chinese authorities to contain them. While there is little likelihood that the China of 2020 will be a Western-style democracy, it will be an economically advanced nation with a Confucian-authoritarian political system in a much more humane and open society with greater tolerance for cultural and political diversity.

II. JAPANESE-SOVIET RELATIONS: FROM POLITICAL STALEMATE TO ECONOMIC INTERDEPENDENCE

A. Background Information

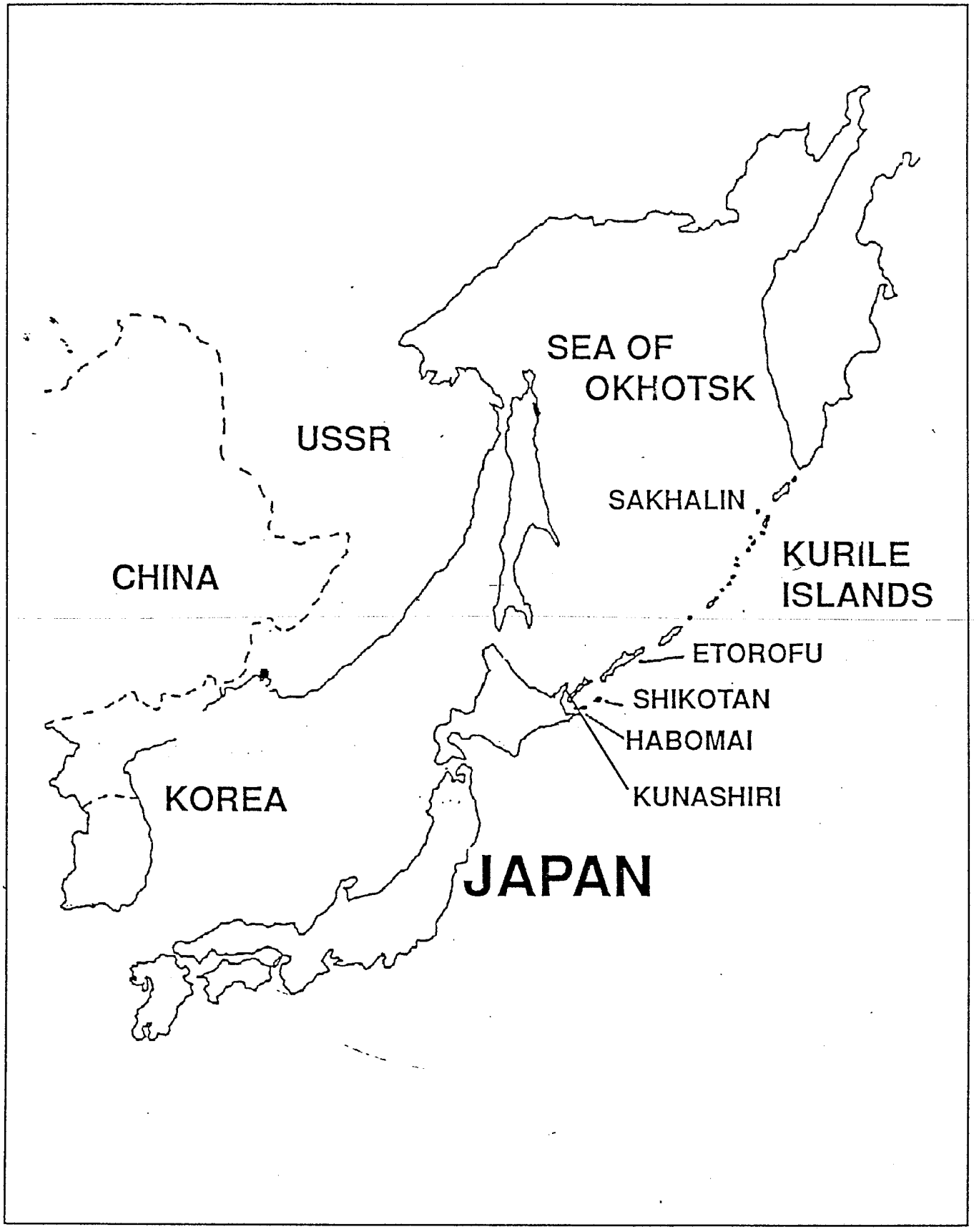
Japan-Soviet political relations, never particularly warm, reached a low point in the 1980s. The general state of East-West relations, especially coolness between the Soviet Union and the United States in the wake of the Soviet invasion of Afghanistan and the military buildup in the Soviet Far East, exacerbated the Japanese perception of the Soviet threat. Two other matters made prospects for improved relations seem extremely bleak: disputes over Kunashiri, Etorofu, Shikotan, and Habomai Islands off Hokkaido, claimed by the Japanese but occupied by the Soviet Union since World War II and considered part of their Kurile Island chain; and the lack of a Japanese-Soviet treaty ending World War II.

Economic relations also stagnated. After the "oil shock" of the 1970's, when an energy-deprived Japan was forced to pay a high price for its petroleum, industry was modernized and made more energy efficient. In addition, Japan began to invest more heavily in "off-shore" plants and equipment, not building domestic production facilities and thereby reducing energy demands. By the time of the Soviet military build-up in the early 1980's, Japan could afford to disregard Siberia's energy resources in favor of political demands for the return of the "Northern Territories". Bilateral trade in 1985 accounted for only 1.4 percent of Japan's total foreign trade. Some 80 percent of all Soviet exports to Japan were raw materials, with timber and forestry resources heading the list, followed by energy resources, oil and coal. Japan was dismayed by the Soviet Union's lack of infrastructure, backwardness of industry, and inefficiency of labor. The Japanese voiced annoyance at the Soviets for wanting only Japanese money for joint ventures while Japan sought more operational control. They were put off by Soviet restrictions on hard currency and the difficulty of repatriating profits. Finally, development of trade relations was severely hampered by a technology transfer scandal in 1987 when Toshiba sold digitally-controlled milling machines to the Soviets and Japan took a great deal of publicized heat from the United States for the action. Japan became fearful of a repeat experience. Japan-Soviet economic ties, therefore, lagged conspicuously behind the overall world trend.

Japan adamantly refused to consider increasing trade or providing the Soviet Union with economic and technical assistance until a peace treaty was signed. And, a peace treaty could not even be discussed until the Soviet Union returned the islands. The political and the economic were intertwined: Japan believed in "linkage."

B. Current Situation

Since Mikhail Gorbachev's accession to power in March 1985, the Soviet Union has exhibited a more conciliatory approach toward Japan, while attempting to sever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KOREA
JAPAN

linkage. Gorbachev appreciates the role of Japanese technology in developing Asia. Seeking ways to revitalize their economy, the Soviets see the Japanese model, which they have analyzed as less "pure capitalist" and a more "state-directed capitalist system," as particularly suited to their needs. In June 1986 a career diplomat fluent in Japanese was appointed Soviet ambassador to Tokyo, evidencing the heightened importance of Japan in Soviet diplomacy. At the same time, the Soviet Foreign Ministry devoted two sections to Japan: one to deal exclusively with Japan-Soviet relations and the other to analyze Japanese internal and external relations in general. This marks a change in the historic Soviet attitude toward Japan which had viewed the island nation as an American satrapy and a policy which had treated the Japanese with insensitivity and contempt.

In September 1988 at Krasnoyarsk, Gorbachev announced significant changes in Soviet Asian policy, emphasizing a desire to participate actively in affairs of the region and to develop Soviet-Japanese relations. It is clear that President Gorbachev wants to see the USSR participate in the "Pacific Century" and more fully integrate the Soviet Far East, historically a mere resource outpost, into the Pacific rim of nations. In 1990, the Soviet Union has moved to the verge of establishing diplomatic relations with the Republic of Korea and has signed the documents necessary to create commercial air links between the two countries. While this has stimulated some queasiness in North Korea's capital, it demonstrates the importance President Gorbachev places on developing economic and commercial links to the "Newly Industrialized Countries" of the Pacific Rim.

In November 1989, a Supreme Soviet delegation, headed by Aleksandr Yakovlev, one of President Gorbachev's closest political advisers and a leading reformer, visited Tokyo and made plans for a 1991 visit to Japan by President Gorbachev. This will be the first visit by a Soviet Head of State to Japan. Finally, in early 1990 the Soviet Foreign Ministry, in recognition of Japan "not only as an economic power, but as a country that is assuming an increasingly large political role on the global stage," upgraded its two Japan sections to departments.

The Soviets have called on Japan to develop economic and cultural relations while a solution is being sought to issues, particularly the territorial dispute, which block a Japan-Soviet peace treaty. The Soviets have established a permanent working group and have proposed various solutions. This is a major policy change. As recently as 1977, the Soviet position was that no territorial dispute existed between the two countries. They now acknowledge that a problem exists. Even earlier, in 1956, the Soviets had offered to return Habomai and Shikotan (the least strategically important islands) to Japan if the US-Japan Security Pact was not renewed and all American troops left Japan, and it appears that the offer still stands. (In May 1989, however, Deputy Foreign Minister Igor Rogachev said that the USSR did not consider the US-Japan security partnership to be an obstacle to a peace treaty.) The Japanese have refused to consider this proposal for fear that once accepted, the remaining two

disputed islands would never be returned. Etorofu and Kunashiri present more of a problem because they form the gateway to the Sea of Okhotsk, home base to the Soviet eastern submarine fleet. Etorofu also presents an obstacle because it is the site of at least two fish processing factories and home to the Soviet whaling fleet. Nevertheless, some Soviet foreign policy planners have come out in favor of joint sovereignty over all four islands. In an interview while visiting Japan in 1989, Boris Yeltsin, recently elected head of the Russian Republic, said that there should be a negotiated return of the islands, probably requiring a period of several years. Still others, such as Member of the Supreme Soviet Yurii Afanas'ev, propose returning all four islands outright.

Japan's initial response to Gorbachev's offer of better relations was guarded. The Japanese historically have been suspicious of the Russians. It has even been called a "deep-seated psychological aversion to Russia." Russia competes with Korea and one or two Southeast Asian countries as the "least-liked nation" in public opinion polls. Trade relations remained at a low level and the Japanese, hesitant to alienate the United States, were not inclined to support technology transfers and joint ventures with the Soviet Union.

Although Japanese-Soviet trade increased by 20 percent in 1988 and Japan ranked among the top three advanced capitalist countries trading with the USSR, evidence of a change in Japanese attitude did not come until early 1990. In January, Japan, after consulting with the United States, announced its support for the Soviet application to join the General Agreement on Tariffs and Trade (GATT). Previously Japan had been one of the strongest opponents of Soviet admission to GATT, because of its policy of linkage. That same month, former General Secretary Abe Shintaro led a 60-member delegation of Japan's ruling Liberal Democratic Party (LDP) on a visit to the Soviet Union. In a meeting with Gorbachev, he signaled a departure from Japan's past inflexible policy of "not separating politics from economics" and called for "positive measures for cooperation in various areas, including economic cooperation, personnel and cultural exchanges and technical exchanges, moving in the direction of expanded balance." Ojawa Ichiro, General Secretary of the LDP, was quoted by Pravda on 9 April 1990 as saying "I would like to reach mutual understanding on the border problem and on problems of economic cooperation.... We must hold talks and be willing to make mutual concessions. There is a need for both the Soviet Union and Japan to show flexibility in their approach to disputes." In May 1990 the Soviet Union was granted observer status in GATT.

Also, encouraged by Gorbachev's plan to make the ruble convertible and revise tax laws and laws on private property, the Japanese indicated an interest in a Soviet proposal for several Japanese-Soviet-Chinese joint ventures. In these joint ventures China would provide manpower, the Soviet Union would supply resources, and Japan would provide funds as well as management and technical expertise. Such enterprises

play to the strengths of each partner and should be especially attractive to the Japanese.

In a further indication of improvement in Japan-Soviet relations, the Japanese Government has accepted a Soviet proposal for Japan to participate in talks with the Soviet Union and the United States on arms control and disarmament in the Asian-Pacific region. The proposal, made by Gorbachev in a speech in Vladivostok in 1987, originally had been rejected by the Japanese. The Japanese Government based its change of mind on the perception of a less threatening posture by the Soviets (the exit from Afghanistan, the withdrawal of troops from the Sino-Soviet border and Mongolia), and the view that East-West tensions are reduced following the December 1989 Bush-Gorbachev Malta Summit and this will undoubtedly affect the Asia-Pacific region.

C. Prospects

1. Short-Term Prospects

It is highly likely that Japan-Soviet economic relations will continue to improve in the short-term (i.e., up to the year 2000). The issue of the Northern Territories continues to be the primary obstacle to increased investment by Japan in the Soviet Union: the Japanese will not readily de-couple politics and economics. The issue, however, solved within a short time (within two years) and Japanese investment in the USSR will begin in earnest.

Many more prominent Soviet political figures are now calling for a settlement of the territorial dispute. Boris Yeltsin, Gorbachev's chief political rival and principal prod toward reform, has called for a staged return of the territories to Japan, covering perhaps five years. With the declaration of sovereignty by the Russian Federated Soviet Socialist Republic, he has called for a treaty to be signed between Japan and the Russian Republic so that trade can develop more fully and with fewer constraints. He is careful to point out, however, that any peace treaty between the two countries ending World War II can only be signed by the two national governments.

Either of two scenarios is most likely: joint sovereignty form of administration over the island groups or a Japanese "buy-out." In the former arrangement the two governments will administer the islands under a United Nations agreement and in keeping with established international norms. In the latter, Japan will pay a cash-starved Soviet Union for the islands through direct payments and/or investment in Soviet plants and equipment. Both of these prospects involve difficulties, namely Soviet unwillingness to yield any territory and Japanese resistance to buying something they feel is already rightfully theirs. Nevertheless, the issue will be resolved soon.

As Gorbachev's economic reforms become bolder, spurred by Yeltsin, the Japanese will see more advantage to economic investment in the Soviet Union.

Gorbachev's willingness to allow foreign majority ownership in joint ventures and businesses, his moves toward facilitating the removal of profits by foreign investors, and his stated desire to make the ruble convertible, all make investment attractive to the Japanese. Without these impediments (the territorial issue and economic shackles), the natural trading talents of both sides will flourish.

A major incentive to Japanese investment is Gorbachev's playing of the "Korea card", to wit: Soviet diplomatic moves toward the Republic of Korea and the expressed eagerness of Korean business to invest in the Soviet Far East. This Korean entree serves two purposes favorable to Soviet interests: a prod to Japanese business to invest now so as not to be left out in the future (allowing Koreans in on the ground floor and establishing the business infrastructure) and a sub rosa avenue for Japanese investment funneled through the Republic of Korea without opposing the official Japanese LDP line.

Which direction will Japan-Soviet trade take? The historical low level of trading activity notwithstanding, the two nations will follow the path nature has dictated: Japan is resource-poor and the Soviet Union is resource-rich, hence, Japan will invest to recover the natural resources and manufacture the finished products. The Soviets have demanded that in their joint ventures Japan must export to the world what they produce in the USSR (in order to earn foreign currency for the USSR) and Japan sees the joint ventures as entree to the vast Soviet domestic market, i.e., a way to expand its own exports. Those philosophical differences will be resolved as the Soviet Union becomes a full member of GATT and subject to the "rules" of world free trade. The Soviets will eventually see that it is in their interest to change their opposition to Japanese business practices.

An energy production resource for Japan lies in Siberia's vast hydroelectric reserves. If Japan can overcome its security fears, the Soviet Union can feed into Japan's domestic power grid. This will become possible when Japan sees the Soviet Union as less threatening.

Another probable avenue for joint Japan-Soviet cooperation is in space. Here the Soviet Union has the experience but its economic travails have made it difficult to sustain the program at its previous level of activity. The Japanese have the financial resources to assist. While Japan has historically performed on its own and its technological skills are deservedly renowned, it has had major problems in its infant space program. Because the countries which have successfully advanced space programs have all had successful ballistic missile development, Japan is at a disadvantage. Japan has no history of trial and error on which to base its space research and development. It has had to learn by starting at the much more basic entry level. This has proved to be quite costly, both in financial losses and in public support. The failures have been so outstanding that many in Japan are questioning the desirability of committing the money needed to turn the nation spaceward. The

technologically fascinated Japanese public has not had its imagination stimulated by the space program. Therefore, if Japan wants to go into space and to the planets, it will need to hitch a ride on the Soviet rocket.

The greatest opportunities for improved relations in the nearest-term will come in 1991 with President Gorbachev's visit to Japan -- the first ever by a Soviet head of government. Japanese expectations are high for a settlement of the territorial issue, although the Soviets have not given them any reason to expect immediate resolution of the dispute. Gorbachev has said that Khrushchev made a serious mistake in 1960 by withdrawing the offer to return Habomai and Shikotan to Japan and settle the matter. He also has said that he intends to make "drastic concessions" to Japan during the visit: he sees no purpose to the visit if there is no progress on the issue that the Japanese have raised to the level of utmost importance. He desperately wants Japanese investment and expertise in finance, currency, and securities. Aleksandr Yakovlev, chief policy aide to President Gorbachev, has said categorically that the territorial dispute with Japan will be resolved.

Leaders of both countries have expressed the desire for expanded trade and economic cooperation. Gorbachev clearly believes that the level of trade and business between the two countries should be higher. "God and history have made us neighbors," hence it is only natural that contacts be closer. At the same time, there has been a slight softening of the Japanese stand. Japan seems willing to pursue more bilateral contacts and do everything possible to foster the economic reform program Gorbachev has announced for his country. Prime Minister Kaifu has continued the historical LDP line on the territorial dispute, but is willing to invest human expertise in the USSR. He has indicated that Japan needs to reform its thinking vis-a-vis the Soviet Union: "the Soviet Union is a neighbor with which we can easily associate." This is a major first step toward expanding trade with the USSR.

In sum, the issues dividing the two nations will be settled and a peace treaty being signed in the near term. Then relations will flourish and contacts will expand greatly. Japanese suspicions of the Russians will subside and the Soviets will profit greatly from the improved contacts.

2. Long-Term Prospects

The well-known and discussed demographic crunch will hit Japan in the early 21st century. Along with a low birth rate comes an aging population, and Japan has been preparing for this day through its robotics engineering and artificial intelligence research. Japan's production industries have come to rely more heavily on mechanized production lines, eliminating the downside of the coming labor shortage. Japan's national wealth is based on "value-additive" industries which take imported raw materials and turn them into manufactured export products. As Robert Rehbein has noted, "the basis of these value added exports is its labor force. Japan exports not

manufactured goods but rather the labor of its well-disciplined, highly-motivated, and intelligent blue-collar workers." The quality, reliability, and serviceability of Japanese manufactured goods are known throughout the world. With the demographic changes coming to the country, robots are increasingly important. This long-term vulnerability is being attacked through technology.

The Soviet Union faces similar problems. While most of the population growth of the USSR comes from the Muslim minority of Central Asia, the European portions of the Soviet Union have experienced a population decline for more than two decades. Siberia, in particular, has always suffered from serious underpopulation. The natural resources are there but extremely costly to extract because of natural conditions (weather, pests, etc.) and insufficient labor. Government premiums have always been necessary to entice workers to the inhospitable region.

Who will do the labor-intensive work required to extract the minerals and other natural resources of the vast Siberian wilderness? There is only one population which exists in sufficient numbers in the region: the Chinese. This is no certain solution, however, since even the Chinese government has great difficulty forcibly moving its urban-dwelling population to the vast Chinese hinterland. Why will the Chinese be willing to move to Siberia to work for Soviet-Japanese-Chinese joint ventures? If they can be convinced through financial rewards, then they offer a very large labor pool for the joint ventures. Otherwise, this will be a major obstacle to the relationship.

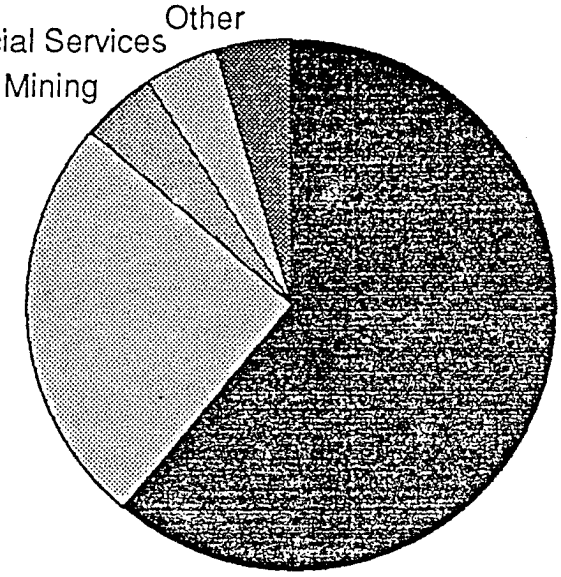
Another factor to consider is the independence/sovereignty movement under way in the USSR. This includes voices from the Siberian Far Eastern Maritime Region calling for independence: Yakutia, Bashkiria, Kamchatka, and Tuva. The Siberian tribes have long considered ill-treated and abused by the "center" (Moscow) and would like to sell their natural resources for their own benefit. Will Japan need to sign separate agreements with each "independent" republic or region for each and every trade transaction?

The re-direction of Japanese assets and investments toward the Pacific region has been occurring for several years. Whether this indicates Japanese pessimism toward the Japanese-U.S. relationship is not known. It is a strategic option. One, however, that holds some peril for the Japanese because of the deep mistrust of other Asian nations toward Japan. The historical record is not a favorable one for the island nation and the countries of Southeast Asia are nervous about the role of Japan in their economies. If the United States begins to withdraw its military presence in the Pacific, who will fill that vacuum? Asian nations are uneasy about the prospect that it could be Japan. The Soviets could be a welcome counterweight to Japan in the eyes of many of Asians.

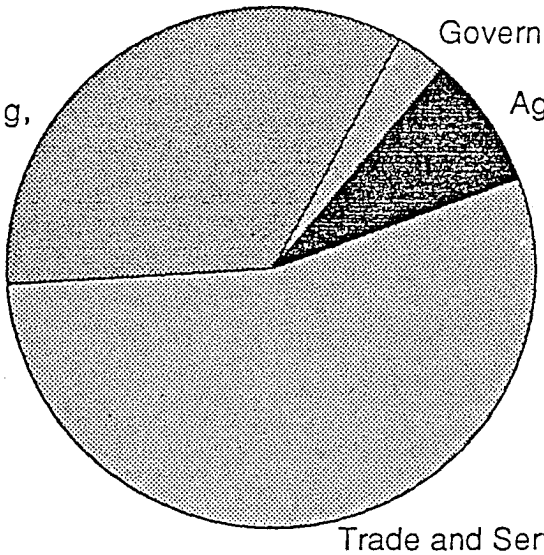
Until 1989 general Japanese public opinion was rather anti-Soviet. Gorbachev's "glasnost'" did not dissuade the Japanese from looking suspiciously at their erstwhile

Varied Economies: A Comparison of Labor Force Activities

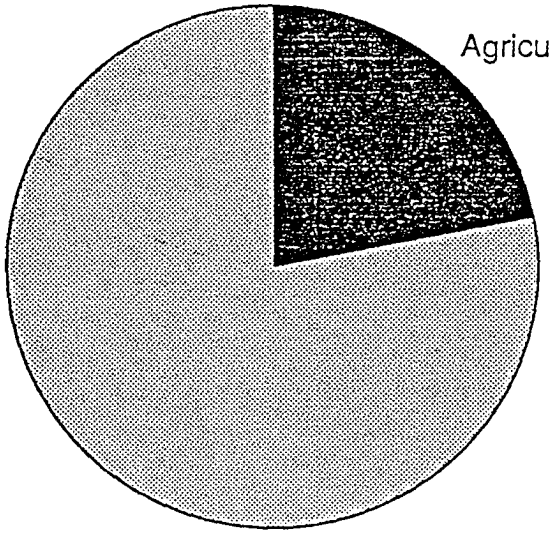
China



Japan



Soviet Union



rival. Increased Soviet maritime and naval air activities in and around the Northern Territories heightened public concern over true Soviet intentions. In the past several months, however, with the pullout of Soviet troops from the Sino-Soviet border area, the peaceful "revolution" in Mongolia and Soviet withdrawal from that area, the Japanese have developed a more favorable impression of President Gorbachev, hence their willingness to accept his statements as genuine. The United States also has been pushing Japan toward a less suspecting attitude.

The question of Japanese re-armament and the rise of militarism remains. The Soviets have made numerous comments about the size of the build-up of the Japanese defense forces in recent years. While Japan has been suspicious of Soviet forces in the region, the reverse is also true. Added to the nervousness is the widespread belief that Japan has been considerably less repentant than Germany about its World War II aggressions and atrocities. The Chinese official protests about Japanese school textbooks deemed less than candid about the realities of Japanese occupation are well known. While the missile age has made Japan too geographically vulnerable to become a global military threat, the military potential of the country which has been rearming cannot be underestimated.

Rather than a cozy trading relationship, the question is whether the Soviet Union and Japan will be serious rivals in the long-term. When the USSR has developed its eastern territories and its economy has been modernized to compete with the developed capitalist world, it will seek to compete directly with Japan and China for a pre-eminent role in the Pacific rim. This will place it in confrontation with Japan (and China) and struggle could result. The Soviet Union seeks to be more than merely a vast natural resource store for Japan. President Gorbachev intends to develop the area in a more balanced manner. (Several members of his cabinet and the leadership of the armed forces are either Siberians or have served for extended periods in the Far East and are sympathetic to the complaints of the Siberians that they have been exploited solely for natural wealth while industry has remained in the West.) Gorbachev hopes to use Japanese investment to develop Soviet Asian industry.

Over the long-term, the relationship between the Soviet Union and Japan will develop into closer economic ties and both will benefit. With the solution to the territorial problem and Japanese investment, the USSR will be able to tap the potential of the Far East. Despite Gorbachev's intentions, the USSR will never be a Pacific power but will prosper from economic rapprochement with Japan and China. There is potential for conflict as the two powers compete for economic influence and markets.

III. THE NEW EUROPE: ECONOMIC INTEGRATION AMIDST POLITICAL DIVISION

A. Background

Before the recent dramatic events in Eastern Europe, the focus of the continent was on "Europe 1992," the formation among the 12-nation European Community (EC) of a free market where capital, goods, labor, and services could pass unrestrictedly. Europe 1992 is a bold response to the declining role of Western Europe in global commerce. In the debate that began in 1984, it was argued that a large internal European market -- with a population of 325 million -- would bring the continent production advantages of scale not possible in relatively small nation-states and allow Europe to meet Japan's economic challenge and compete effectively with the United States.

In the second half of the 1980s, progress toward economic integration was great. Mergers, joint ventures, currency initiatives, and capital investment occurred at an unprecedented rate. Most decisions needed for realization of the internal market did not require unanimity within the EC, and it was believed that integration would be largely complete by the target date of December 31, 1992. Transport advances such as the Channel Tunnel and plans for new rail links through the Alps and Pyrénées were aimed at making a common market and concomitant integration logistically more feasible. Common policies on environmental, social, labor, and monetary issues were looming as the next steps in the integrative process.

Overall, the concept of Europe 1992 brought vitality and optimism to Western Europe. Europeans were coming to see themselves as part of a larger entity that differed from and had separate interests than the two superpowers and the Pacific Rim states. Studies of economic and social integration promised even greater benefits than originally had been envisioned.

The movement towards integration has not been smooth, however. Residual forces of narrow national interests have frequently been impediments to the achievement of 1992. The persistence and strength of nationalism and the insistence of nations on protecting their individual economic, political, and national security interests had long slowed realization of a united Western Europe in the economic realm and continued to make political unity an elusive goal. Anglo-European differences over the pace and ultimate nature of a united Europe remained major stumbling blocks, as did competitiveness and lingering mistrust, particularly vis-à-vis a large and powerful Germany.

In mid-1990, opponents of a unified Europe seemed to be losing ground. Margaret Thatcher, the most prominent antagonist, was steadily becoming isolated, even within her own party. Analysts noted her ever greater aptitude for making political blunders and predicted that her political career would end sometime in the next few

years. Her main rival for the leadership of the Conservative Party, Michael Heseltine, revealed himself as a full-fledged Europeanist. Thus, it appeared likely that Great Britain, the principal nay-sayer to integration in the 1980s, might join the European mainstream in the early 1990s. Not to do so might mean the United Kingdom would miss the opportunities presented by a rejuvenated Europe.

There are, however, developments in Eastern Europe, and especially in Germany, that might seem to act as a brake on Europe 1992 momentum. Some observers contend that newly liberated nations of Eastern Europe are draining West European financial resources. Poorer European Community members -- e.g. Spain, Portugal, Greece -- that had been looking forward to an influx of investment capital are noting a shift of capital toward Eastern Europe. West Germany will obviously be investing a great part of its financial resources in East Germany in the coming decade, perhaps as much as 10 percent of its annual capital investment or 2.25 percent of its gross national product. Japan, on occasion, is also attracted by new East European opportunities at the expense of the West. For instance, Suzuki cancelled a deal with Spain in favor of a more profitable one with Hungary. Writ large, this might be a trend inducing competition among nations for scarce financial resources with potentially deleterious effects on European integration.

B. Prospects for the Future

1. Short-term Prospects

Although Europe 1992 first concerns only the 12 nations of the European Community, it most likely will be just a step toward full-fledged European economic integration in the following decades. At the beginning of the 1990s, however, the EC seems intent on deepening ties among its present members, rather than widening of its membership. The organization's current primary interests are the arrangement of an economic and monetary union (EMU) that would involve establishing a central bank (sometimes referred to as Eurofed) and taking the first steps toward political unity.

At the same time, some EC energies are being spent on working out a satisfactory relationship with its largest trading partner, the European Free Trade Association (EFTA), comprising Austria, Finland, Iceland, Norway, Sweden, and Switzerland. All are eventually likely to become EC members because of shared economic and political traditions. Informed opinion foresees an initially close relationship between EFTA and the Community via a so-called European Economic Space in which EFTA will participate in shaping the EC's decisions, but not in final decision-making. The main obstacle to this provisional relationship is a lack of unity within EFTA itself, with individual countries seeking exceptions from EC regulations. A long-term solution might be a core set of binding primary requirements for membership, permitting EFTA and other future members a fair amount of freedom on secondary issues. This solution

has been termed "Europe à la carte," and may be the means of broadening EC membership in the coming decades.

Terms of membership will be changed by end of the Cold War which may make the neutrality of some EFTA members, long an absolute bar to EC membership, a matter of no consequence. Neutral Austria applied for membership in 1989 and is regarded as most likely to join the organization next because of its close economic and social ties to Germany. A decision on Austria's application is not scheduled before 1993, but pressure is mounting for an earlier decision date. Sweden is likely to seek admission in 1991 and, despite its long tradition of neutrality, also is a strong candidate for membership. Finland's special security relationship with the Soviet Union probably no longer prevents its entry into the EC. By the same token, Norway's membership in NATO may not add much to the high probability of its joining the organization. Once these nations join, remaining EFTA countries may follow suit. Switzerland's unique political and military tradition, however, may lead it to go its own way. Although the EC may make special provisions for Swiss membership.

Many see events in Eastern Europe as an additional impetus for European integration. The vacuum left in by Soviet withdrawal will be filled by the countries of Western Europe acting bilaterally and in concert. The newly democratic nations in Eastern Europe need West European financial resources and political and social expertise. These needs will intensify contacts between the West and the East.

The transition from a command socialist economy to a liberal capitalist market system will be very difficult, if not impossible. Forty years of Soviet rule extinguished Eastern Europe's entrepreneurial class. The region's commercial traditions exist only in memory and will have to be recreated. Social upheaval and inevitable inequities resulting from an economic transformation could generate tensions and make it exceedingly difficult to implement necessary long-term reforms. Yet another hurdle for these feeble economies will be the Soviet Union's January 1991 conversion to world market prices for items such as petroleum and the requirement that they be paid for with hard currencies.

Political dangers also threaten the East. The fragile democracies have little deep popular support. Even with abundant Western aid, they may not succeed in building successful economies. Inexperienced with democracy, their citizens might perceive dictatorship as the easiest solution to economic depression. In some countries, communists will wait to "come to the rescue." In others, right-wing authoritarian forces may take control. Economic hardship also could ignite traditional national antagonisms and minority problems. Developments of this nature would undermine movement toward broader economic integration with the West and each other.

For Europe as a whole, the economic trends that are diminishing the significance of national borders will not be matched to the same degree by political

trends. As a result of the decades of Soviet domination, Eastern Europe is not yet ready for full integration with the West. Furthermore, some recently resurgent nations will not readily surrender their sovereignty, whatever the economic attractions. These nationalist forces will yield fragmentation rather than unification. A politically united Western Europe also seems out of reach in the short term, although progress toward this goal will be made.

The future configuration of Europe -- economically, politically, and with regard to security -- remains an open question and is the subject of endless discussion. The one point on which all analysts and experts agree is that Europe in 1990 has entered a period of change and transition that is likely to last well into the new century, and the eventual outcome is not yet clear.

2. Long-Term Prospects

While the 1990s will be a period of working out new relationships both within Western Europe and with the rest of the world, the new century is likely to see a larger and unified Western Europe. National differences over political, economic, and social policies will not disappear, but a larger and more powerful European Parliament will be accepted by all member states, if not always graciously. The nations of this larger Europe will not cease to exist, but will concern themselves mostly with local issues. The European Parliament will determine Europe-wide policies dealing with larger international issues such as monetary decisions, how to protect the environment, cooperation on welfare and pension plans, establishing educational norms, and long-term industrial planning. Europe will be, in effect, a United States of Europe, with the traditional nation states corresponding to a kind of "superstate" like California or Texas. There will be a greater devolution of local political power than in the United States of America today, but a number of once sacrosanct perquisites of the traditional nation states will be ceded to the larger European governing body.

The decline of the traditional nation state in much of Europe is likely to be accompanied a rebirth of regionalism. Within an Europe-wide political body, ancient regions such as Scotland, Bavaria, Slovakia, Sicily, the Provence, and Catalonia are likely to campaign for representation, or the right to function as political entities with their own interests. Some regions may even achieve independence. Relatively poor and underdeveloped regions such as Wales and Sicily have more in common economically with each other than they do with the wealthier areas of their respective countries. Rather than have their concerns represented by delegates from the capitals, they could join with other poorer areas for common European policies that would serve their interests best. The addition of a Senate made up of both national and regional representatives would offer a venue for politics of this nature. The result might be a European governing body highly responsive to regional needs and considerably more flexible than one based only on national boundaries. This parliament perhaps might defuse some regional tensions that have persisted for centuries within even the most

firmly established nation states. Europe's long-term political well-being would benefit from increased regional harmony, particularly given the likelihood that in the turbulent 1990s regional movements will gain in strength and contest the traditional dominance of the national capitals.

Increased regionalism will take place, paradoxically, within the context of increased integration for Europe as a whole and against the background of an ever greater globalization of the world's economy. Economic integration will not stop at the EC's borders, whether it contains 12, 18, or even 24 to 30 members. Companies based in the United States or the Pacific Rim states, will play an expanding role in Europe through direct investment, mergers, offshore commercial entities, and broad-based marketing campaigns. For their part, European companies will have a stronger presence outside the Community. In the coming decades, globalization often will make it impossible to determine the nationality of a company. What nationality can be ascribed to a company that has its headquarters in Germany, is owned by Middle Eastern interests, employs mostly Asians, and sells most of its product in the United States? Globalization will contribute to reducing the importance of European national borders, and make the discussion of national economies increasingly irrelevant in the Europe of the twenty-first century.

By the early years of the next century, Europe also will be much more close knit physically. The tunnel connecting France with Great Britain will be in operation by the mid-1990s. Bridges connecting Sweden with Denmark and eastern Denmark with Germany probably will be in place by the end of the 1990s. In addition, there may be a bridge connecting Sicily to Italy. A network of high-speed trains will traverse half of France in a morning by the mid-1990s and will become international. Germany, Belgium, the Netherlands, and Spain will be connected to an extensive system of regularly scheduled trains that travel 150 miles an hour and rival air travel for speed and convenience. Highway construction also will make advance and eliminate notorious Alpine bottlenecks that have long impeded road connections between Germany and Italy. A superhighway built through Yugoslavia, the Autoput, will end Greece's ancient isolation from the heartland of Europe.

Traditional ties between Eastern Europe and the West will facilitate transfers of assistance to inhibit economic decline, although there will be many difficulties to surmount. Some East European states may become members of the EC by the year 2000, e.g. Hungary, Czechoslovakia, several Yugoslav republics, and perhaps the Baltic States, all of which seem capable of evolving into liberal capitalist market economies paired with democratic rule. Others such as Poland, Bulgaria, Romania, with little experience of either capitalism or democracy, will face greater difficulties, and the prospects for their inclusion in the EC, at least as full-fledged members, are less rosy even in the longer term.

The European Community will help solve the unprecedented problem of making transitions from socialist command economies to liberal market-driven economies by instituting programs similar the Marshall Plan. All of the Eastern nations will need assistance, some more than others. The poorest and most backward will receive funds for the creation of simple production systems yielding exportable goods, thereby enabling them to become part of the larger European economy.

Failure to include all areas in a united Europe could threaten the continent as a whole. Traditional ethnic and national enmities may survive with renewed force in those areas or countries that do not share in the general prosperity. Long-standing tensions may exacerbate economic jealousies and resentments toward wealthier societies. Analysts envision the possibility of social chaos so extensive that it would prevent a fully united Europe, leaving instead a rich, socially and economically integrated Western Europe with some of the more advanced Eastern states, and a poor, backward segment in the East riven by poverty and rancor.

The most striking recent event in Europe is the rapid unification of the Germanies. It also poses the greatest quandary for other European nations. Eventual unification of Europe probably will depend on the successful answer to the "German Question," for a united Germany will have economic strength equalling one-third of Europe 1992. West Germany, already the strongest economic power in Western Europe, will be further enriched by the addition of East Germany, long ranked about the world's tenth-ranking industrial power. Although East Germany has profound economic problems, it also has a highly educated workforce and easy and knowledgeable access to Soviet and East European markets. Developing the industrial plant and social infrastructure should occupy a significant part of West Germany's energies in the next decade, but investments are expected to yield profits quickly.

The unification of Germany will spur European integration. West Germany and France have been the protagonists of European integration since the 1950s and will continue to be so. Two world wars have convinced their leaders of the necessity of Franco-German friendship and cooperation. For France it is crucial that European integration continue. Now outclassed by Germany's economic strength, France's desire to remain a world power can only be guaranteed by its remaining a dominant power in a united Europe. The stakes also are high for Germany, because its main interests lie in the developed West, rather than the impoverished East. German economic health is dependent on exports, few of which are purchased by Eastern Europe. In the late 1980s, for example, the European members of COMECON (Council of Mutual Economic Assistance), excluding the Soviet Union, took only 3 percent of West Germany's exports. Germany's traditional role of intermediary between Western and Eastern Europe will become more evident in the coming decades, but there is no likelihood of the country abandoning the West. Europe's core will remain Western, with only a handful of Eastern states participating as full members of the Community.

The incorporation of East Germany in the EC will be accomplished when it becomes part of West Germany, already a member. The union of these two nations should not create serious economic problems, because intra-German trade has been exempt from EC external tariffs since the Treaty of Rome of 1957 and, as a result, East German goods always have had ready access to Western markets.

There also are some concerns that a united Germany, easily the most powerful European nation, could dominate the EC, but this is unlikely. A united Germany will have a population of 77.5 million compared with the present 61 million of West Germany and its economic activity will amount to 31 percent of the EC's economy compared to 26 percent at the end of the 1980s. This increase is not an enormous one. However strong Germany becomes, the nature and purpose of the EC are such that no one state can dominate the organization. All member states are subject to the same regulations and Brussels' procedures limit the sovereignty of all members, large and small. EC membership requires the delegation of a growing sector of national economic policies to a supranational body. Voting in this body is weighted and any state can be overruled by a majority. Moreover, individual actions of any member are closely controlled and subject to the rulings of the European Court of Justice.

Moreover, there are fears that Germany, larger and stronger than it is today after the incorporation of East Germany, could pose a threat to the stability of Europe. Some analysts see Europe of 1990 as not moving forward in time, but backward, back to 1914, when Germany led the continent into disaster. The Europe of 1914, however, consisted of highly independent states, each seeking its own advantage, in a world in which military strength determined a nation's status. In post-Cold War Europe, economic and social success, rather than military capabilities, bring recognition. Germany and Japan, each without nuclear weapons, are perceived as far more powerful than the United Kingdom or France, each with them. For these reasons, an economically powerful Germany, an integral part of a larger and more unified Europe, -- one that contains the EC countries, and the countries of EFTA and some Eastern states -- is unlikely to pose a threat to its neighbors, however great its economic power.

Security trends are fairly clear for the 1990s. In the short term, Germany will stay in NATO. Germany will address its legitimate security concerns from within the alliance rather than unilaterally. This will solve the problem of its access to nuclear weapons and avert other potential political or security problems. With regard to Soviet forces, negotiations might allow the Soviets to retain some troops in Eastern Europe in the 1990s. West Germany already has agreed to pay much of the expenses the Soviet Union will incur in maintaining troops in East Germany during the first half of the 1990s.

In the longer term, however, the demise of the Warsaw Pact will be accompanied by significant change in NATO. The transformation of the Western

alliance could begin with its European members progressively merging their military planning and security policies. This would continue and broaden the process of political integration. With the two superpowers increasingly preoccupied with domestic concerns, Europeans may manage their own security via a European military force, rather than national armies. Peace in Europe will allow large force reductions; remaining military forces will have top-flight capabilities for limited police actions. They will deal with threats to European security that grow out of severe social disorders originating in ethnic or even international conflicts in Eastern Europe, or stem from actions of pariah states. A Europe-wide professional armed forces (consisting of fully integrated elements from both NATO and the Warsaw Pact) will deal more easily threats of these kinds than an alliance of sovereign national states. The new European armed forces will have military and political advantages over a traditional alliance.

The Conference on Security and Cooperation in Europe (CSCE) may provide the venue for the creation of a pan-European (to include the Soviet Union, East European states, and the United States) security alliance. Again, it may be the German Question that will prompt this initiative. If achieved within a CSCE framework, the potentially destabilizing effects of German unification might be mitigated or contained. The CSCE process would have the advantage of limiting the actions of all countries, not just those of Germany, thus avoiding the tensions inherent in treating Germany as a special case. Other forces enhancing the likelihood of a CSCE alternative include the broader changes in East-West relations, the desire to escape the confrontational dynamics of the NATO-Warsaw Pact era, and the US domination of NATO. With the collapse of the Warsaw Pact, the Soviet Union would have every reason to regard its permanent membership in a body that established an extensive regime of arms control and verification procedures, coupled with confidence-building measures, as a very good security bargain.

IV. RESURGENT NATIONALISM AND ETHNIC FORCES IN THE SOVIET UNION

A. General Causes

1. Political

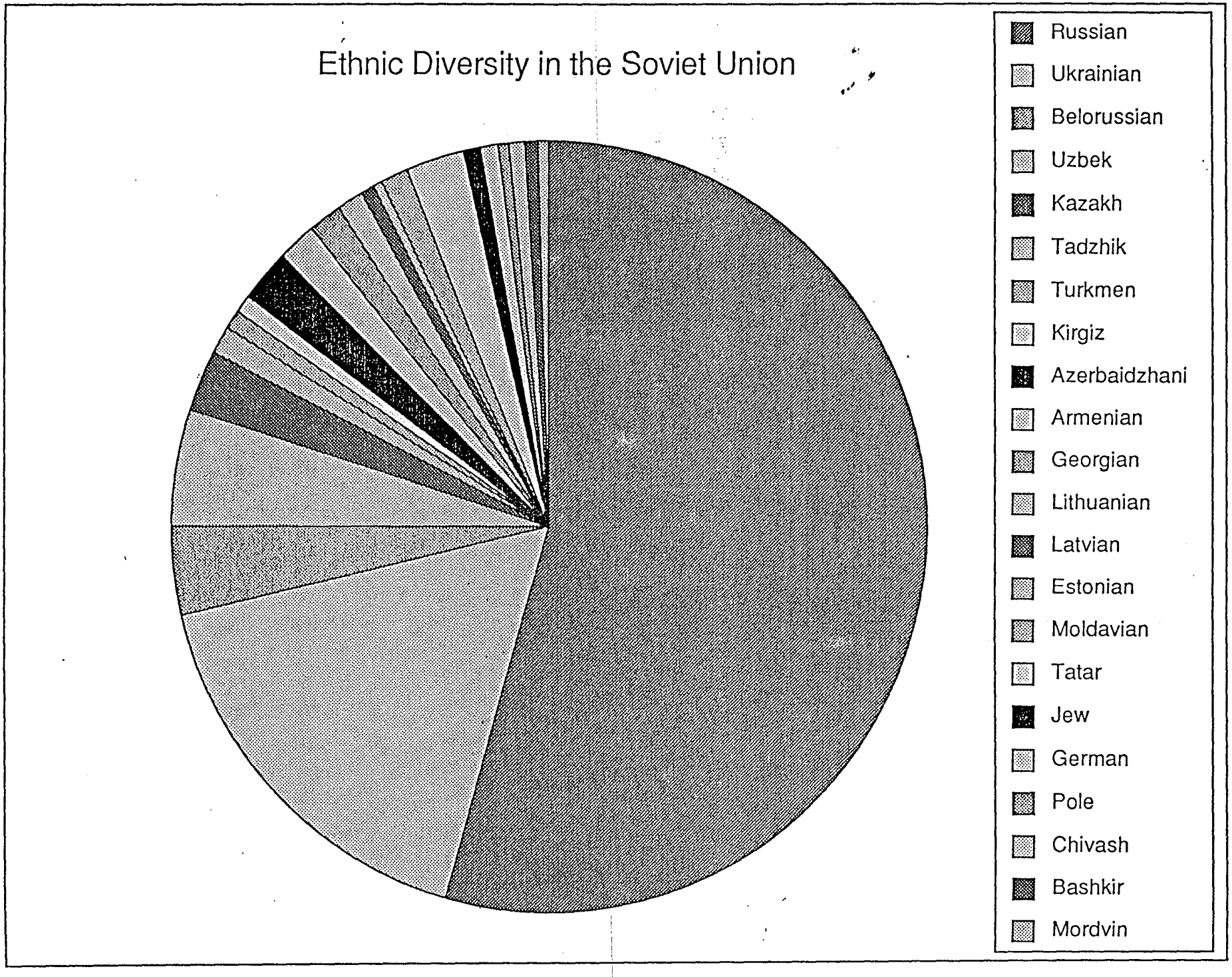
Gorbachev's policy of "glasnost" or openness catalyzed the smoldering nationalities' crisis in the Soviet Union, ending, almost overnight, the passivity and caution that had characterized non-Russian nationalities. Emboldened by the relaxation of police controls, strict television, radio, and press censorship, and restrictions on public discourse and meetings, and by the collapse of Soviet domination in Eastern Europe, the nationalities began to demand cultural, economic, and political sovereignty. Gorbachev's announced intentions to redefine Soviet federalism, giving the republics far greater political and economic autonomy, spurred nationalities to make increasingly bolder demands.

a. Russian Domination

One of the main driving forces behind nationalist ferment is resentment by non-Russian nationalities of the dominant position of Russians in the Soviet Union. As the Russian Empire expanded over the centuries, Russians often came to occupy the most important administrative, economic, and cultural posts in the newly acquired territories. Also, conquered peoples were expected to adopt Russian language, customs, and culture, and eventually to assimilate into Russian society.

The Soviet Union retained many characteristics of the Russian Empire. The over 100 non-Russian nationalities failed to be assimilated into a Russian nation. Some 40 percent do not speak Russian. Major ethnic groups enjoyed symbolic rights of statehood while Russians dominated almost every phase of Soviet life. In 1989, Russians made up 89 percent of the Politburo of the Communist Party of the Soviet Union (CPSU), even though they comprised only slightly more than half of the population. Russians usually held the positions of second secretary of the CPSU and chief of the KGB in most non-Russian republics. Disproportionately high numbers of Russians held important posts in government, industry, agriculture, education, arts, and sciences in non-Russian republics. Russians continue to migrate in large numbers into non-Russian republics, rarely bother to learn native languages, and insist on the primacy of the Russian language.

The growing anti-Russian sentiments among the non-Russian nationalities in the Soviet Union have led to an upsurge of Russian nationalism. Russians increasingly began to perceive themselves as victims. They point out that the Russian republic receives only a small portion of the benefits of its wealth of resources and industrial output. They believe that an inordinate amount of their resources go to the other


Ethnic Diversity in the Soviet Union
Russian
Ukrainian
Belorussian
Uzbek
Kazakh
Tadzhik
Turkmen
Kirgiz
Azerbaidzhani
Armenian
Georgian
Lithuanian
Latvian
Estonian
Moldavian
Tatar
Jew
German
Pole
Chivash
Bashkir
Mordvin

republics. Also, they view other nationalities as having polluted the purity of Russian society, culture and language.

b. Communist Party Decline and Fragmentation

Assailed by a religious revival, by nationalist movements, and by rising demands for implementation of Western political and economic models, Communist ideology is becoming increasingly irrelevant in Soviet society. The airing of Stalin's crimes and increasing criticism of Lenin himself has badly undermined the morale of the party faithful. Gorbachev's program of reform, which calls for the party to decentralize power and yield control over governmental functions, has resulted in fragmentation within the party. The Constitution was changed to remove the party's exclusive right to hold power and Gorbachev has given approval, in principle, to a multi-party system. The Party's Politburo, until now the most powerful executive body in the Soviet Union, was reorganized at the 28th Party Congress in July 1990 and ceded most of its powers to the newly created Presidential Council. The Central Committee has been equally weakened. The Congress also witnessed the defection from the Party of some of its most prominent members, followed by continuous exodus among the Party's rank and file. The new office of the presidency was meant to create a power base for Gorbachev independent of the party, but it lacks true legitimacy. The CPSU's decline opened the way for nationalist and popular movements in the republics. Indeed, many Communist Party members support national movements and ran as candidates of opposition democratic fronts in the last Soviet parliamentary elections. Even some Communists who ran on the Party ticket are now supporting nationalist and democratic movements and programs.

2. Economic

a. Malaise

In early 1989, Gorbachev admitted that previously published figures for Soviet economic growth were misleading and that the economy had been declining for years. After four years of perestroika, the economy continues to worsen. Living conditions are deteriorating and there are pressing shortages of basic foodstuffs and consumer goods, giving rise to worker discontent and labor strikes. The most serious outbreak of labor unrest since 1917 occurred in July 1989 when massive coal miners' strikes began in western Siberia and spread to the Ukraine and Central Asia. In 1990, a critical shortage of cigarettes led to near-riots in a number of cities and forced Gorbachev to dismiss a first Deputy Prime Minister and head of the State Procurement Commission.

The so-called Ryzhkov proposal for a new economic program, introduced in May 1990 and backed by Gorbachev, aroused great opposition because it envisioned a sharp rise in food prices and unemployment during years of transition from a command economy to a more Western economic model. The proposal was attacked by

conservatives for being too radical and by liberals for not going far enough. It has since been discarded and Gorbachev has apparently accepted his rival's, Boris Yeltsin's more liberal, market-oriented plan as the basis of his own economic reform.

b. Military Spending

Gorbachev's announcement that the 1989 defense budget was 77.3 billion rubles disclosed inordinate defense expenditures. It was followed by a pledge to reorganize the Soviet military drastically, to cut troops, and to professionalize the armed forces by establishing a voluntary army. The intended reorganization of the military and shift of existing defense industry capacity to civilian production will most likely meet with strong military and bureaucratic resistance. Also, as national and civil unrest increases, Gorbachev will be hard pressed not to alienate the military establishment further.

c. Unequal Distribution of Resources

The worsening economic situation has reinforced the nationalities' belief that the central government's distribution of resources shortchanges them. Russians feel that the borderlands benefit disproportionately from investments in industry and defense. They complain that the standard of living is lower in Russia than almost everywhere else in the Soviet Union. Nationalities consider themselves exploited as suppliers of raw materials, at artificially low prices, to Soviet industry located largely in Russian areas. Gorbachev's new economic program most likely will lead to even stronger demands by both the Russian and the non-Russian republics for economic sovereignty.

3. Military

Ethnic discontent has affected the Soviet military. Traditionally, the Soviet Army has had a high percentage of Slavic, mostly Russian, officers while Central Asian and non-European conscripts performed most of the menial functions and were harassed. Recent reports of increased inter-ethnic friction in the Army reflect rising ethnic discontent in Soviet society as a whole. Most outspoken are soldiers from Georgia, Armenia, and the Baltic republics. Georgian human rights activists claim that 32 Georgian conscripts died in 1989 as a result of increasing officer brutality which seems to be tied to the growing demand for independence by the non-Russian republics. As a result, draft defiance has reached alarming proportions. Only 7.5 percent of draftees from Armenia and 28 percent of draftees from Georgia have reported for duty this year. In addition, some republics have come out against their young men serving outside their borders or being used to put down ethnic conflicts in other republics. Lithuania has abolished the Soviet draft and nine republics have set up their own national military units.

The anticipated reduction in the size of the Red Army will worsen problems of rising unemployment and critical housing shortages. The reactions of Soviet soldiers

leaving Czechoslovakia suggest a potentially explosive situation with many unemployed and dissatisfied young men joining nationalist forces in their republics.

4. Social

Crime is rising spectacularly. Drunkenness is increasing. Drug addiction is more and more prevalent. Inflation, unemployment, poverty, lack of housing are additional social ills confronting Soviet society.

Health care is appalling. The condition of provincial hospitals is horrible. Many lack basics such as running water. Pharmaceuticals are scarce. AIDS is becoming an epidemic and infant mortality is alarmingly above that of most developed countries.

Ecological conditions are among the worst in the world. Much of the landscape is blighted by pollution. The concentration of dangerous substances is at least ten times as high as Soviet standards permit in over 103 cities. One of the most disastrous environmental catastrophes in recent history was the nuclear accident at Chernobyl, whose toll will be known only over the long-term.

The republics sense that central authorities are not capable of dealing with these problems and that only strong or independent republican governments can address them properly.

B. Specific Causes

1. Baltic States

All three Baltic states, forcibly annexed by the Soviet Union in 1941 as a result of the Soviet-Nazi Non-Aggression Pact, consider their incorporation illegal. They resent the great influx of Russians since World War II and the large deportations of their natives. As a result, Latvians barely hold a majority within their own republic. A pivotal cause of discontent in Lithuania was the suppression of the Roman Catholic Church. The industrious and advanced Balts oppose the central authorities' constraints on economic life and on intercourse with the West.

2. Moldavia

Moldavian ethnic unrest may be attributed to the attempt by Soviet authorities to create an artificial Moldavian nationality and language. Most Moldavians consider themselves ethnic Romanians and their language a Romanian language. They resent Soviet imposition of Cyrillic alphabet on their language. They also resent domination by Russians in their republic.

3. Ukraine and Belorussia

The long standing policy of Russification in Ukraine and Belorussia and Moscow's interference in their internal affairs have led to smoldering national discontent. Liquidation of the Ukrainian Catholic Church and the Ukrainian and Belorussian Autocephalous Orthodox Churches after World War II and the continuous influx of Russians also created resentment. In the Ukraine, which provides the Soviet Union with much of its industrial production and agricultural output, Russians constitute about 22 percent of the population but hold a disproportionately greater share of power and influence. Stalin's artificially-imposed famine of 1932-33 which killed about six million Ukrainian peasants, forced deportations of millions of Ukrainians to Siberia, and the Chernobyl disaster are other past and present causes of national discontent in Ukraine.

4. Central Asia

Russians or Slavs dominate all important posts and steadily migrate to Central Asia. Until 1989 Russians outnumbered native Kazakhs in Kazakhstan. Another cause of ethnic discontent is the presence of numerous national minorities who were forcibly deported there during World War II.

Central Asian Muslims are perhaps the most conservative of the Soviet populace. The intrusion of Russian culture is particularly galling to them. Growing Islamic fundamentalism and local nationalism in Central Asia and Azerbaydzhan has been stimulated by the Islamic revolution in Iran and the success of the mujahidin in Afghanistan.

5. Caucasus

The historic animosity between Muslim Azerbaydzhanis and Christian Armenians characterizes inter-ethnic strife in the Caucasus. The presence of numerous Azeris across the border in Iran has fed the fires of Muslim revival in Azerbaydzhan and anti-Armenian sentiment. In Georgia the desire for secession from the Soviet Union is growing daily. The presence in the Caucasus of a large number of smaller ethnic groups and the lack of clearly defined national borders make the Caucasus potentially the most explosive area for ethnic strife.

C. Current Events

In September 1989 Azerbaydzhan declared its sovereignty and set in motion the political disintegration of the Soviet Union that continued in 1990. Thirteen Soviet republics have declared sovereignty or independence. Only the Central Asian republics of Kazakhstan and Kirgizia have failed to follow suit. In addition, other nationalities, from the 3.6 million Tatars in the Russian Republic to the 100,000 Abkhazians in the

Georgian Republic, have declared their sovereignty and asked for equal status with the country's fifteen union republics.

Although Lithuania's declared secession from the Soviet Union was the most radical step, it was the Russian Republic's declaration of sovereignty that legitimized the process of disintegration. That declaration, followed by a similar one by the Ukrainian Republic, deprived the central government, in its drive to deter the process of disintegration, of the support of the two largest, richest, and most populous republics.

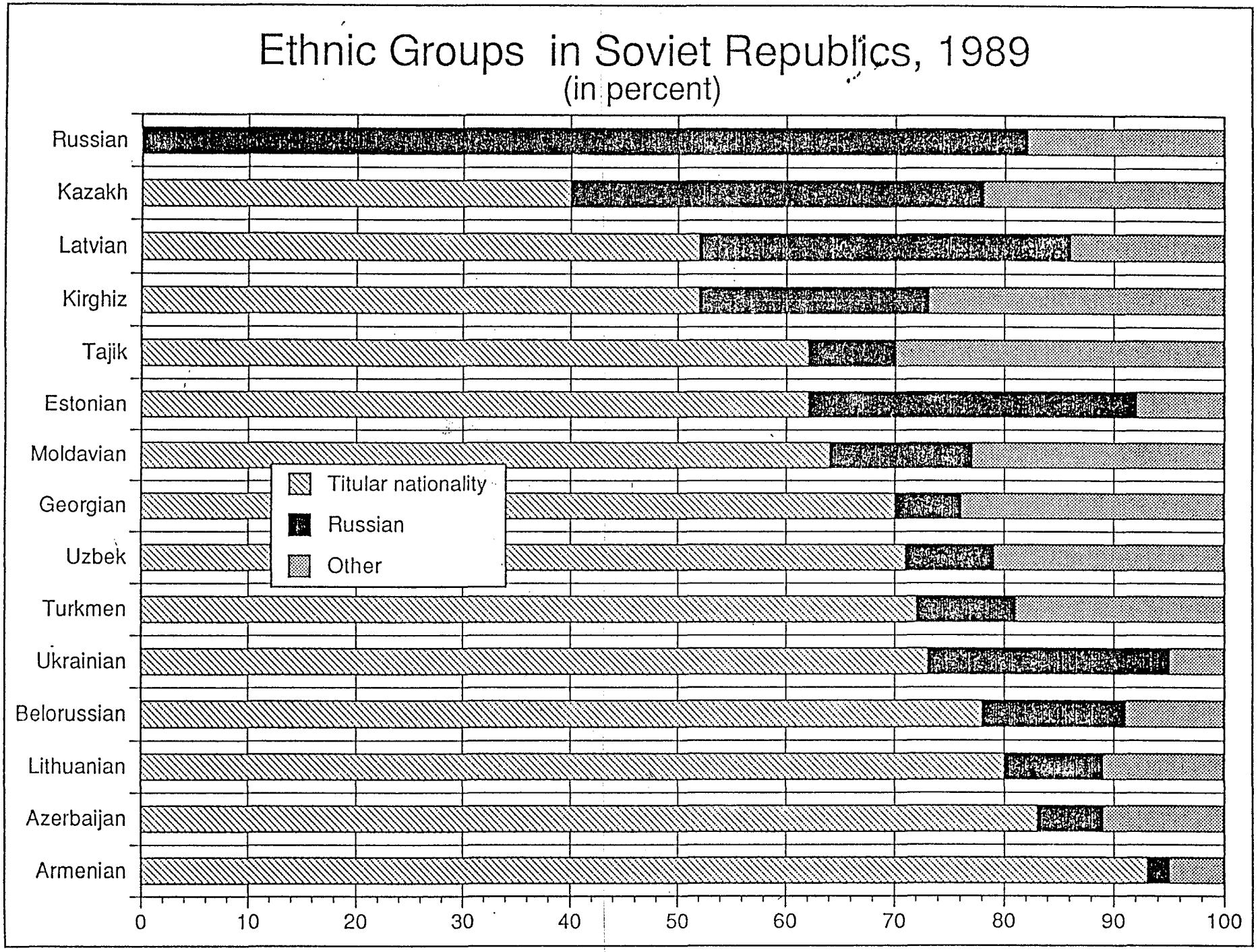
1. Baltic States

While all three Baltic republics have pressed for independence, Lithuania has set the pace. The Lithuanian Restructuring Movement, "Sajudis," won an overwhelming victory in the March 1989 elections to the Congress of People's Deputies of the Soviet Union, indicating that the majority favored independence. In May, the Lithuanian Supreme Soviet changed the Lithuanian Constitution, granting Lithuanian laws precedence over all-Union legislation and, in November 1989, it passed laws instituting Lithuanian citizenship. On March 11, 1990, Lithuania proclaimed itself fully independent, formed a non-Communist government, and seceded from the Soviet Union. When Gorbachev responded with an economic blockade and political intimidation, the republic agreed to suspend its declaration of secession for 100 days in exchange of negotiations with Moscow and the lifting of economic sanctions. In the meantime, Lithuania insisted it would behave as if it were independent and announced a plan to institute its own draft for a new independent national defense force.

Both Latvia and Estonia followed Lithuania's example and declared their independence. Although Gorbachev has condemned the declarations, he has agreed to negotiate with the two republics. Formal negotiations with the Estonian Republic began in August 1990.

2. Moldavia

Moldavians declared their sovereignty in June 1990, made Moldavian their official language, and declared themselves to be fully in control of the republic's economy. In July, the Moldavian Republic instituted its own national defense service. Although there is strong sentiment among Moldavians for union with Romania, recent upheavals in Romania have undermined their desire for unification. At the same time, a declaration of autonomy by the republic's Gagauz minority, which numbers over 150,000, was rejected by the Moldavian Supreme Soviet.


Ethnic Groups in Soviet Republics, 1989
(in percent)
Russian
Kazakh
Latvian
Kirghiz
Tajik
Estonian
Moldavian
Georgian
Uzbek
Turkmen
Ukrainian
Belorussian
Lithuanian
Azerbaijan
Armenian
Titular nationality
Russian
Other
0
10
20
30
40
50
60
70
80
90
100

3. Ukraine and Belorussia

A remarkable series of events has characterized the national movement in Ukraine. In 1989, the conservative and detested Ukrainian First Party Secretary was replaced by a more moderate leader. Strong support developed for the Popular Movement of Ukraine, "Rukh," a coalition of democratic forces including strongly nationalist groups, Russified workers, and most minorities, including Russians. A robust ecological movement supports most of Rukh's program. In local elections, Rukh and its supporters gained about a third of the seats in the Ukrainian Supreme Soviet. Nationalist forces passed a law in the Ukrainian Supreme Soviet making Ukrainian the official language. In Western Ukraine, the democratic movement replaced Communist governments in most major cities and oblasts. These developments culminated in July 1990 when the Ukrainian Supreme Soviet overwhelmingly declared Ukraine a sovereign state. According to the declaration, Ukraine henceforth was to control its resources, would issue its own currency, institute a national army, and develop its own foreign policy. Following the declaration of sovereignty, the Ukrainian Supreme Soviet called for the return to Ukraine of all Ukrainian recruits serving in regions outside Ukraine.

Religion has been a major factor in the nationalist revival in Ukraine. In September 1989, 150,000 faithful marched through Lvov, demanding that the Ukrainian Catholic Church be legalized. This was followed by a peaceful takeover of old churches which Stalin had given to the Russian Orthodox Church. The Soviet government has permitted Ukrainian Catholic parishes to register and has asked the Russian Orthodox Church to negotiate the return of parishes, churches, and property that had belonged to the Ukrainian Catholic Church before World War II. A parallel development has been the resurgence of the Ukrainian Autocephalous Orthodox Church. To counteract these developments, the Russian Orthodox Church in Ukraine has renamed itself the Ukrainian Orthodox Church.

Within days of the Ukrainian declaration, Belorussia declared itself sovereign. Belorussia announced that its laws have primacy in the republic and that it would establish its own army and security forces.

4. Central Asia

Although Central Asian republics have lagged in embracing the extreme course pursued by nationalists in other republics and in establishing radical opposition groups, recent developments indicate that nationalist ferment is growing. Since June 20th, three predominantly Muslim Central Asian republics have declared their sovereignty. Most ethnic activity in Central Asia, however, consists of inter-ethnic strife. In Uzbekistan, attacks on Meshketian Turks, who were deported to the republic from Georgia during World War II, resulted in more than 100 deaths. Young Kazakhs attacked Chechens and other minorities deported into Kazakhstan during World War II from the Caucasus. In Turkmenistan, indigenous Muslims attacked the Armenian

minority. Border clashes erupted between Tajiks and the Kirgiz over land and water rights. Although clashes were local, it is probable that Russians will ultimately be blamed for the social and political conditions which brought them about.

5. Caucasus

The political situation in Georgia is very unstable. Although Georgia has declared its sovereignty, various Georgian nationalist groups are warring with each other and seem incapable of overcoming differences to form a unified front against Moscow. Georgia's treatment of its minorities undermines its moral high ground; simultaneous demands by the Abkhaz, the Adzhar, the South Ossetian, and Azerbaydzhan minorities for secession from the Georgian Republic or the creation of autonomous entities have triggered a violent response by Georgians. At least 20 people were killed in the autonomous republic of Abkhazia in ethnic conflicts last year.

The most serious ethnic confrontation to date was between Muslim Azerbaydzhanis and Christian Armenians. Although Azerbaydzhan declared its sovereignty in September 1989 and Armenia declared its independence in August 1990, their virtual civil war dates to the summer of 1988. Ethnic strife over the Nagorno-Karabakh Oblast resulted in over 120 dead and hundreds of thousands leaving Azerbaydzhan for Armenia or vice versa. All Soviet attempts at peaceful resolution have failed so far. Both republics have their own national military forces. In Armenia competing nationalist militias are fighting each other, as well as Azerbaydzhani nationalist forces and regular Soviet troops. A fragile truce is maintained only by the presence of these Soviet troops. Gorbachev's order to the republics to disarm their paramilitary forces has been ignored by both the Armenians and the Azerbaydzhanis.

6. Russia

Russians, both in non-Russian republics and in Russia, feel threatened by the resurgence of national assertiveness among non-Russian nationalities. Strong Russian nationalism has surfaced, ranging from groups concerned with the preservation of culture or the environment to countermovements in non-Russian republics, to extremist organizations such as "Pamyat," a virulently xenophobic and anti-semitic right wing group.

The dramatic choice of Boris Yeltsin to be president of the Russian republic demonstrated the growing strength of the more moderate, democratic strain of Russian nationalism. The Russian Republic's declaration of sovereignty in June 1990, its willingness to enter into negotiations with other republics on a number of issues, and its general leadership in the movement by the republics for political and economic sovereignty from Moscow have badly undermined the Soviet government's efforts to prevent the disintegration of the Soviet Union.

D. Prospects for the Future

1. Short-Term Prospects

For the next five years, interethnic relations will remain the dominant issue in the Soviet Union. The remaining two Central Asian republics will declare sovereignty. All republics will move unilaterally toward ever greater political and economic autonomy, to greater participation in foreign affairs, and to control over their military forces. The response of central authorities to secession will be twofold:

(l) Despite political and economic pressure to prevent it, Moscow will accept an arrangement for the secession of the Baltic republics, provided close political and economic ties with the Soviet Union are maintained and the rights of minorities, particularly Russians, are safeguarded. The Soviet Union will also demand and be granted territorial adjustments for security reasons, such as the right to maintain naval bases along the Baltic coast. Ultimately, the rationale for granting independence to the Baltic states will be Moscow's acceptance of the illegality of incorporation following the Molotov-Ribbentrop Pact. The main pressure for this solution will be Moscow's desire for friendly relations with the West, particularly the United States, and its need for economic assistance from the West; and

(2) Moscow will intensify efforts to keep the remaining republics from seceding from the Soviet Union. It will create a very cumbersome and prolonged constitutional procedure for secession and work out a new form of federalism granting extensive political and economic autonomy to the republics. The difference in approach to secession of the non-Baltic republics will be based on the assertion that they willingly joined the union in 1922-24.

Moscow's concessions most likely will include the following. It will permit the breakup of the Communist Party of the Soviet Union into Communist parties of each republic. It will allow the formation of new political parties whose nuclei will be the informal groups which presently make up the so-called popular fronts. It will grant the republic governments and parliaments much of the political and economic power and decision-making now held by Moscow. A military pact among the republics will be modeled on the Warsaw Pact, national armies tied together by a unified command. In short, Moscow will try to move the Soviet Union toward a truly federative system. It will have to take these steps relatively quickly if it intends to implement meaningful economic reform and prevent political chaos.

The political solution will fail, however, if Moscow does not implement radical economic reforms, make a clear break from socialist command economy and implement capitalist market economy in the Soviet Union. Gorbachev will be forced, therefore, to adapt Yeltsin's "500 days" plan or some version of it.

Moscow also will make social, cultural, and religious concessions. The republics will be granted much greater responsibility for solving their enormous ecological problems. More importantly, they will be permitted to develop national cultures, to enhance the use of national language at all levels of daily activity, to pursue the elimination of the so-called "blank spots" from their history, and to free themselves from pervasive Russian political and cultural influences. Since religious issues are closely tied to nationality questions, Moscow will grudgingly permit the legitimization of Ukrainian Catholic (Uniate) Church, persuade the Russian Orthodox Church to allow greater autonomy to the Orthodox Church in Ukraine and Belorussia, and allow the registration of Ukrainian and Belorussian Autocephalous Orthodox parishes. The new Soviet law on religion will allow all denominations greater freedom of religion than ever before. It should have an impact in Central Asia, where "unofficial Islam" will openly claim the allegiance of the majority of Muslims.

These measures are clear concessions to national demands; in many cases, however, they will only intensify ethnic tensions. The growing national awareness of non-Russian nationalities will probably spur them to seek complete independence for their republics. This tendency will increase especially if democratization and economic progress continues in neighboring East European states. Should economic progress follow the secession of the Baltic states, it would serve as an incentive for secession demands by other republics. Economic reform in the Soviet Union will, in the short run, have a negative effect as disruptions and shortages in the economy intensify during the transition period. Also, any concessions to the republics by central authorities will only intensify growing Russian nationalism, particularly its more extreme elements.

Under such conditions, violent confrontations between Russian minorities and national majorities in non-Russian republics are possible. What is uncertain is the capability of either local authorities or the central government to suppress conflicts quickly. This is particularly so if rising national consciousness and ethnic antagonisms are paralleled in the armed forces. The loyalty of Soviet troops will be in doubt if Moscow allows the stationing of soldiers in their native republics. Even more probable is increased interethnic violence among non-Russian nationalities in the Caucasus and Central Asia. No solution other than military crackdown has been advanced, nor does one seem to exist. Antagonism between the Muslim Azerbaydzhanis and Christian Armenians in the Caucasus is steadily increasing. Any political concessions to the Central Asian republics will make the unenviable position of many minorities in Central Asia more perilous. Added to this is the problem of refugees. According to Pravda, interethnic violence in those two regions is responsible for some half a million refugees. In the next five years there will be far greater migration of nationalities seeking to return to their "native lands," even in the absence of interethnic violence. This migration will put a great economic burden on central and republican governments and lead to further dislocation and more violence.

In short, the next five years will be a period of great danger and instability in the Soviet Union. Concessions made to non-Russian nationalities will not satisfy but intensify demands and lead to a reaction by Russian nationalists. Increasingly the government will have to rely on a military solution, which may prove unworkable. Order may break down completely and a civil war may erupt, especially in the Caucasus, Central Asia, and Ukraine. These are the same areas where civil war was most intense after the Bolshevik Revolution in 1917.

Chances for a peaceful resolution of the ethnic problem have increased, however, with Yeltsin's assuming a more prominent role in Soviet politics. Yeltsin's approach to the interethnic relationships within the Soviet Union, his economic policies, and his reliance on the democratic process to solve Soviet political problems offer the best chance for a peaceful transformation of the Soviet Union.

2. Long-Term Prospects

Continuing ethnic unrest and increased demands for political and economic autonomy or outright independence make it likely that a radical transformation of the Soviet Union will take place. There are a number of forms that the new political entity may assume:

a. Military Dictatorship

Unless Gorbachev is willing to make far-ranging concessions to non-Russian nationalities, ethnic tensions will continue, will spread, and will become more violent. With the Communist Party having lost much of its authority, the only force capable of maintaining order is the military. In this scenario, either an outright military dictatorship or a civilian head of state with greatly increased political power and backed by the military will keep the union together. This is only a short-term solution for it would not eliminate the causes of ethnic unrest.

b. Democratic Confederation

It is possible, and since Yeltsin's victory increasingly likely, that Soviet authorities will be persuaded by Lithuania and other secessionist movements to transform the Soviet State into a democratic confederation. This would require taking immediate measures to give the republics political and economic sovereignty, resolving outstanding interethnic issues, and setting up some federal mechanisms and institutions.

c. Civil War

A civil war and the violent breakup of the Soviet Union is a distinct possibility. Historic border disputes among the nationalities and increasing Christian-Muslim

antagonism would fuel this process. This course of events becomes more likely if the Soviet military loses its discipline and cohesiveness and non-Russian soldiers refuse to put down local national movements.

d. Confederation of Independent States

If, in the next decades, the Soviet Union should break up into separate independent states, economic factors as well as security considerations make it imperative that eventually they would move towards an economic and political union resembling an upgraded version of the European Community.

e. Confederation of Non-Muslim Republics

A confederation of non-Muslim republics would most likely result if Soviet Muslim republics seceded from the Soviet Union. This would require a strengthened Islamic fundamentalist movement, support from outside Muslim power(s), and unity among the various Muslim nationalities. A Muslim threat would force Moscow to seek accommodation with the non-Muslim republics.

V. TRANSFORMED NATIONS AND ETHNIC UNREST IN EASTERN EUROPE

A. Background Information

Ethnic unrest in Eastern Europe assumes different proportions from country to country. In Yugoslavia it threatens to split the federation or lead the country into a civil war. In Romania and Bulgaria, it undermines political stability, threatens economic welfare, and harms relations with neighboring states. On the other hand, ethnic strife does not threaten the political order or economic health of Poland, Hungary, or East Germany. Even in Czechoslovakia, where Slovak nationalism is a significant force, traditions of ethnic tolerance and cooperation, as well as economic considerations, are a strong bulwark against dissolution into two states. Some ethnic unrest has led to violence that may not only continue but escalate. In other cases, ethnic concerns are discussed in democratic forums and institutions and will be resolved peacefully.

The forces driving ethnic revival in Eastern Europe are the changes in the Soviet Union, the virtual collapse of the Warsaw Pact, democratization processes, and the declining power or virtual collapse of Communist Parties. Imminent German unification has heightened apprehension and led to a rise of national consciousness in some East European countries.

B. Glasnost, Perestroika, Tolerance of Change

Gorbachev's policies of glasnost and perestroika echoed in Eastern Europe, where Hungary and Poland were already engaged in reform. Democratization in Eastern European countries permitted minorities to demand rights for the first time. Widespread publication of newspapers and periodicals in minority languages helped arouse national pride among minorities and sparked greater cultural and political activity. As Gorbachev manifested willingness to tolerate radical changes in Eastern Europe, ethnic ferment increased.

1. Replacement of Old Leadership

Gorbachev's tolerance of change accelerated the process of replacing aged and conservative leaders of Eastern Europe. Unlike hardline Communists of the past, new leaders are more attuned to the voice of the people. They loosened party controls over the media. Even more important, they are willing to recognize that the societies they govern are not ethnically homogeneous and that minorities should have rights. These factors allow ethnic minorities to pursue actively their political and cultural goals.

2. Demise of Communist Parties and Rise of Mass Popular Movements

Gorbachev's tolerance of change also contributed to the demise of Communist Parties. Political pluralism and mass participation in the political process permitted

ethnic minorities to engage in political activity, to form cultural and political organizations, and to elect representatives who articulate their grievances and demands in parliament. The new era in Eastern Europe of politics of the people encouraged the emergence of popular leaders, among them leaders of ethnic minorities.

C. Unification of Germany

The prospect of German unity arouses the specter of an economically and militarily strong Germany pursuing its political goals aggressively. There is fear in Eastern Europe that Germany will encourage German minorities in Poland and Czechoslovakia to agitate for readjustment of borders to their pre-World War II positions. Poland is particularly concerned with its border security. Polish fears have been alleviated somewhat by the assurances of both West German and East German statesmen that Germans have no territorial claims against Poland. In April 1990, the first freely elected government of East Germany reaffirmed the unconditional recognition of present German borders. Finally, during a one day meeting of West and East Germany and the four World War II allies, the two Germanys promised to guarantee the postwar Polish-German frontier in a treaty to be signed with Poland "in the shortest possible time" after the unification. United Germany would consist of Berlin and what is now the territory of East and West Germany; it also would forswear any territorial claims and would remove from its laws any language suggesting that the Polish-German border is provisional.

D. Current Events and Future Prospects

1. Yugoslavia

a. Current Events

In the past two years, ethnic tensions have escalated throughout Yugoslavia, a country whose multinational character has had a strong decentralizing effect since its establishment after World War II. Violence is concentrated in Kosovo, an autonomous province in Serbia, between the predominantly Muslim Albanian majority and the Orthodox Serb minority which holds most of the political power in the province. Only the presence of the army since February 1989 has prevented a major outbreak of violence in the province. In July 1990 Serbia suspended the authority of the local government and placed Kosovo under control of the central government. The military crackdown on Albanian discontent, however, has only added to the animosity between Albanians and Serbs and aroused the sympathy and outrage of Slovenian and Croatian political and intellectual leaders.

Croatia is another area of potential violence. The Serbian minority, constituting about 11 percent of the population, is demanding autonomy in reaction to the landslide victory of anti-Communist forces in the April election and the end of the Communist

rule. Serbs and Croatians, the two largest ethnic groups in Yugoslavia, have been rivals throughout Yugoslavia's history. Serbia accuses Croatia of trying to break-up the Yugoslav federation of six republics into independent states. Croatia accuses Serbia, the biggest republic, of trying to maintain its dominance over the other republics and deterring a transformation of Yugoslavia into a truly federative state.

The most liberal, and also most homogeneous, of the Yugoslav republics is Slovenia. In March 1990, Slovenia held the first free elections in Yugoslavia which resulted in an overwhelming victory by the democratic forces over the Communists. In June, Slovenia declared its sovereignty but stopped short of secession.

The three remaining republics, Bosnia-Herzogovina, Macedonia, and Montenegro, have been relatively calm so far. The Communist Party is still in control in all three. However, in Bosnia-Herzogovina, ethnic animosities run deep among Serbians Croatians, Muslims, and other communities. In Macedonia, the Muslim population is susceptible to Islamic fundamentalism and Bulgarian claims to territory.

b. Future Prospects

In the near future, interethnic confrontations in Yugoslavia will continue and are likely to escalate into violence or even civil war. Serbian intransigence will make it very difficult for democratic forces to bring about a peaceful transformation of Yugoslavia into a loose confederation. As a consequence, it is very likely that Slovenia and Croatia will break away from the federation. Two possible but contradictory scenarios may result. In the first, Serbia, Bosnia-Herzogovina, and Montenegro will fight to prevent the disintegration of Yugoslavia. The primary confrontation will be between Serbia and Croatia with the Serbian minority in Croatia playing a crucial role in the struggle. Kosovo would become Serbia's Achilles heel, with an insurrection in there supported by Albania. Bulgaria most likely would attempt to incorporate Macedonia and Greece would a counterclaim to this republic.

The second scenario resulting from Slovenia's and Croatia's secession from the Yugoslav federation is predicated on these moves having a sobering effect on Serbia. Confronted with ethnic confrontation among minorities within its borders, hostile and threatening neighbors of Albania and Bulgaria, an economic crisis, and the condemnation of the international community, Serbia will be forced to accept a peaceful transformation of Yugoslavia.

In the long run, independent Slovenia, Croatia, Montenegro, and enlarged Serbia will emerge, with Kosovo likely to be united with Albania. The fate of Macedonia is difficult to predict. Borders will be redrawn and major shifts of populations will have taken place. Having achieved their independence, the new states will find it easier and expedient to form a loose political and economic union, which may also include Albania, Bulgaria, and Greece.

2. Hungary

a. Current Events

Minorities include Germans, Croatians, Serbs, Slovenes, Slovaks, Romanians, Gypsies, and Jews. None is very numerous or has caused problems. They have, however, asked that minority political and cultural rights be recognized in the proposed constitution. The Hungarian government has agreed to recognize these rights and proposed that each minority have one member in parliament.

b. Future Prospects

While there is no reason to expect any serious minority problems in Hungary, the subjection of the Hungarian minority in Romania is becoming very acute and may lead to hostilities between the two neighboring states. However, Hungary is leading East European states in economic revival and political democratization and will hardly risk these in a confrontation with Romania. Hungary would be satisfied if the Hungarian minority in Romania were permitted to exercise full minority rights. In the immediate future, however, the flow of Hungarians from Romania into Hungary, especially with the unsettled political situation in Romania, will accelerate.

3. Romania

a. Current Events

There are a number of minorities in Romania, including Hungarians, Germans, Ukrainians, Russians, Jews, Gypsies, Czechs, Serbs, and Turks. For the two decades prior to his fall, President Nicolae Ceausescu pursued an aggressive policy of minority assimilation. Applied to almost 2 million Hungarians, the largest minority in Romania, this policy resulted in rising antagonism between Hungarians and Romanians and also in almost complete severance of relations between the two Warsaw Pact partners. Since 1988, some 40,000 Hungarians have fled Romania for Hungary. The Hungarian minority question sparked the Romanian Revolution when a Hungarian Reformed Church pastor and champion of human and national rights was arrested. Subsequent protests in Timisoara and bloody suppression of demonstrators by police and army units led to massive demonstrations in Bucharest and the fall of the Ceausescu regime. However, any hopes that Romania would be transformed soon into a democracy like Hungary, Poland, or Czechoslovakia suffered a severe setback in the post Ceausescu elections when the democratic forces were badly defeated by the National Salvation Front composed mostly of Romanian Communists.

b. Future Prospects

The fate of minorities in Romania remains uncertain. Members of an extreme nationalist movement have attacked Hungarians, causing a number of deaths. Thus, although authorities have taken some steps to guarantee minority rights, the loosening of central authority has led both to greater demands by minorities and to growing nationalism among some segments of Romanian population. The newly elected government is composed of hard-line Communists and the fairness of the last elections is questionable. The indiscriminate use of force by newly elected President Ion Iliescu to break up an anti-government demonstration and to crush the democratic opposition led by the Liberal Party portends difficult times ahead for ethnic minorities in Romania.

For the immediate future, conditions in Romania will continue to deteriorate with increasingly more violent clashes between the Iliescu regime and the anti-government, more liberal forces. The massive demonstrations that overthrew the Communist Government of Nicolae Ceausescu will be repeated, but with more violence. Ultimately, democratic forces will prevail. The Hungarian minority in Romania, as well as other minorities, will benefit. A modus vivendi between Romania and Hungary will grant extensive autonomy to the Hungarian minority. In the meantime, violent confrontations between Romanians and the Hungarian minority will continue. The flight of Hungarians from Romania also will intensify. While the possibility of Hungary taking military action to protect its co-nationals in Romania cannot be ruled out entirely, it is difficult to foresee Hungary taking such action.

4. Czechoslovakia--Current Events and Future Prospects

Czechs, Slovaks, Hungarians, Germans, Gypsies, Ukrainians, and Poles are the nationalities of Czechoslovakia. Although past relations between Czechs and Slovaks, the two major groups, were generally good, the demise of the Communist regime and repression has fostered a Slovak separatist movement. A dispute over the country's name was resolved peacefully, but friction between Czechs and Slovaks is rising. Accusations of discrimination, intolerance, and extreme nationalism also have been exchanged by Slovaks and the large Hungarian minority in southern Slovakia. Slovaks express fear that Hungarian demands for autonomy may precede a demand for border adjustments between Hungary and Slovakia. Nevertheless, parliamentary elections in Czechoslovakia in June 1990 were a great victory for moderate democratic forces committed to the preservation of the union of Czechs and Slovaks and to granting extensive rights to ethnic minorities in Czechoslovakia. The Slovak National Party, whose campaign centered on Slovakia's secession from Czechoslovakia and called for the formation of an independent Slovak state, garnered barely 11 percent of the vote.

Although the Slovak independence movement will remain strong for some time, the federation of Czechs and Slovaks in one state will survive and prosper. Slovakia,

however, will assume greater control over its resources, economy, and even military than in the past.

A possible source of ethnic strife is the rise in racial violence in which young right-wing extremists attack ethnic groups, particularly Gypsies and Vietnamese residing in Czechoslovakia. While German unification may also cause some concern, the German minority in Czechoslovakia is small and not likely to cause serious problems. Therefore, while ethnic tensions may occur, the last election confirmed that the problem of national minorities in Czechoslovakia will be solved peacefully.

5. Poland

a. Current Events

Until recently Poland did not admit the existence of minorities. In the last two decades, the Communist regime expelled most Jews from Poland and allowed only very limited cultural activity by other minorities. However, the Solidarity movement emboldened minorities, especially Ukrainians and Germans, to demand greater rights.

b. Future Prospects

The German minority may become particularly troublesome in the future, stimulated by the unification of the two Germanies and cognizant that the territory in which it lives (Silesia) was once part of Germany. Therefore, despite the likelihood of a treaty guaranteeing the inviolability of the present border between Germany and Poland, the national consciousness of Poland's Germans will rise in the next few years and their demands for full minority rights will become louder. Ukrainians also will ask for increased minority rights but will not pose any serious problem. The guarantee of the Polish-German border will undermine the claims of Polish revanchists to Western Ukraine and promote harmonious relations between these two Slavic people. The same will be true of the relations between Poles, Belorussians, and Lithuanians. Thus, German reunification ultimately will put to rest historic disputes between a number of nations.

6. Bulgaria--Current Events and Future Prospects

Repression of the Muslim Turkish minority in Bulgaria, 10 percent of the total population, officially ended with the fall of the Zhivkov regime in 1989. Some 300,000 ethnic Turks had fled from Bulgaria to Turkey to escape Zhivkov's "denationalization" policies, in which Turkish names were changed to Bulgarian. As a result of these policies, Bulgaria's relations with Turkey were badly damaged, its declining economy suffered, and political instability increased. Current authorities have taken some steps to redress abuses of the Turkish minority and some Turks have begun to return to their homes from Turkey. In the first free elections in 58 years in June 1990, the

Movement for Rights and Freedoms, which represents Bulgaria's Turks, won 23 seats in the 400-seat Parliament. Yet antagonism between Christian Bulgarians and Muslim Turks continues. Hundreds of Bulgarian nationalists demonstrated against the Turkish deputies on the first day of the Parliament's session. Demonstrations against the Movement for Rights and Freedoms were held throughout Bulgaria, calling on central authorities not to register the Movement as a party.

Gypsies are another ethnic minority undergoing a revival of its social and cultural identity. Recently disclosed statistics put the number of Gypsies in Bulgaria at between 800,000 and 1,000,000. Still largely uneducated, economically deprived even by Bulgarian standards, and victims of extensive prejudice, Gypsies seek social, economic, and ethnic rights. The two largest Gypsy organizations are the Democratic Union of Romanies and the Roma Democratic Union.

Facing political chaos and economic disintegration, Bulgaria can hardly afford to antagonize its Muslim minority. Whether the Bulgarian government, the weakest in Eastern Europe, can lessen ethnic tension and violence by granting Turks full national and religious rights is unclear. Sporadic violent confrontations between Bulgarian Christians and Muslim Turks, however, can be expected to continue in the coming year or two. Eventually, Turks will have to be accepted by Bulgarians as full fledged citizens of the country. This is especially so since there is little evidence to doubt this large minority's loyalty to Bulgaria. The government also will have to promote the integration of Gypsies into the mainstream of society.

7. Conclusion

Although lacking some of the more virulent and negative aspects of the pre-World War II era, nationalism is a potent force in Eastern Europe and will remain so until the aspirations of East European nationalities are fulfilled. Major nationalities which live within their own national boundaries, as constituent republics in Yugoslavia or Czechoslovakia, will seek ever greater sovereignty. Having achieved that status, they will move toward political cooperation and economic integration with neighboring states or join already existing blocs.

The prospects for violent confrontation are greater where large national minorities live across the border from their mother country, for example, Hungarians in Romania, Turks in Bulgaria, or Albanians in Yugoslavia. For the short term future, continuous ethnic upheavals will occur in these areas and confrontations may take place between the countries in which ethnic minorities reside and their mother countries. Considering the long history of national and ethnic antagonisms, the present unstable conditions, and weakened central authority throughout Eastern Europe, today's relatively low level of interethnic strife is encouraging. It is an omen that slowly and painfully democracy, ethnic tolerance, and national cooperation will ultimately prevail in Eastern Europe.

VI. THE MIDDLE EAST: RELIGIO-NATIONALISM AND THE QUEST FOR PEACE

A. Introduction

Political activism using the symbols of religion has been the most potent force influencing events in the Middle East during the past 15 years. In Iran, a popular movement based on Shia Islam overthrew a powerful monarchy in 1979 and established an Islamic Republic. In Egypt, one of several secretive and extremist Sunni Islamic political groups assassinated President Anwar as-Sadat in 1981; more moderate religious parties that accept the legitimacy of the government now participate openly in the political process and have had an impact on policies. In both Algeria and Jordan, Islamic parties made significant gains in elections during 1989 and 1990. In Syria, a radical Islamic uprising against the government was crushed in 1982 after several thousand persons had been killed. In Lebanon, Christian militia have been fighting to maintain their political privileges. In Israel, Jewish parties have reinvigorated the political right. In the late 1960s and early 1970s, few analysts foresaw the rise of political groups based on religion, focusing instead on leftist forces and terrorism. Aware of the lessons thereby learned about the uncertainties of projections, we focus predominantly on Iran and Israel in considering the future of the Middle East.

B. Iran

1. Background

Iran's role as a regional ally of the United States ended suddenly in February 1979 when the Shah was overthrown in a popular revolution. During his long reign (1941-79), Shah Mohammed Reza Pahlavi's policies and authoritarian style of rule alienated increasingly broader segments of the population. Nevertheless, antagonisms between secular and religious political groups impeded the organization of an effective opposition for many years. During 1978, however, secular and religious forces united under the leadership of Ayatollah Ruhollah Khomeini, a charismatic Shia cleric forced into exile in 1964 because of his implacable opposition to the Shah's government.

The coalition of secular and religious parties began to break up soon after the success of the revolution. In the political contest to determine the nature of the new government, Shia clergy proved more adept at mobilizing mass support--90 percent of Iranians are nominally Shia--for their vision of an Islamic republic. By the end of 1979, a new constitution that vested ultimate authority in the clergy had been approved in a nationwide referendum. Khomeini was recognized as the chief political-religious leader. The Constitution also provided for an elected assembly, the Majlis, whose laws must be reviewed by a special council of clergy to ensure conformity with Islamic principles. The Majlis, which cannot be dissolved, is elected every four years.

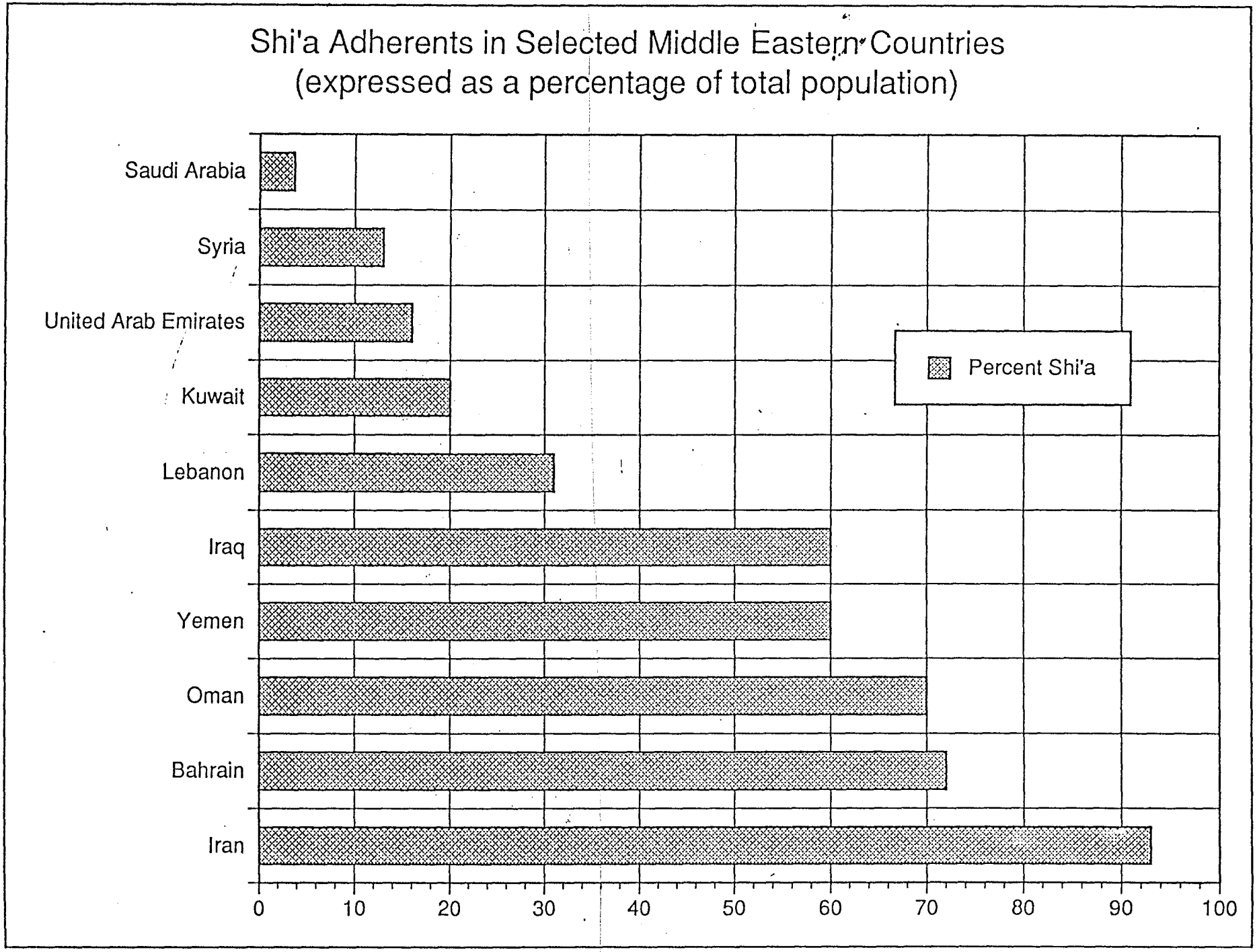
2. Effects of the Iranian Revolution

The Iranian Revolution has had a profound impact both within Iran and in the Middle East. Internally, opposition to theocratic rule was intense, coming from both religious and secular parties. One religious group that rejected a theocracy, the Mojahedin-e Khalq Organization, initiated a major anti-government uprising in 1981. At least 12,000 political dissidents and 1,000 officials were killed during the government's effort to crush the rebellion. Several thousand additional regime opponents escaped Iran; many participated in exile political parties dedicated to the overthrow of the clergy. Although political repression significantly abated after 1983, Iranians suspected of opposing rule by the clergy have not been permitted to organize political parties or publicize their views. Meanwhile, the government has striven to desecularize society, rewriting criminal and civil laws to conform with Islamic legal practices and revising textbooks to ensure that students receive religious education. In addition, regulations require public and private institutions to provide space and time for employees to perform mandatory daily prayers and participate in other religious rituals. Finally, appropriate Islamic dress codes are enforced for both men and women.

The direct economic consequences of the revolution have been less dramatic than the social and political ones. Although commercial banks and many large industrial enterprises were nationalized in 1979, most of the economy remains controlled by private interests. The government has resisted demands for nationalization of foreign trade and redistribution of large agricultural holdings to peasants. Nevertheless, inadequate capital and uncertainty about government policies have tended to discourage investment. More profoundly adverse has been the indirect economic impact of the revolution: the Iran-Iraq War (1980-88) and the depression in international oil prices between November 1985 and July 1990. Continuing inflation, wages widely perceived to be inadequate, and high unemployment rates have helped create a climate of general dissatisfaction that constitutes a potential source of opposition to the government.

During the 1980s, Iran advocated exporting Islamic Revolution, especially to countries in the Persian Gulf region and to Lebanon. The example of an Islamic movement overthrowing a pro-Western monarch, whose regime had been one of the strongest and most stable in the region, was extremely unnerving for Arab leaders. Bahrain and Kuwait, which have large Shia populations, felt particularly vulnerable. Even republican Iraq sensed a threat from the Islamic Republic's rhetoric. Iraq's population is 60 percent Shia, and in the late 1970s an underground opposition movement to the secular policies of the regime was organized among the Arab clergy. Thus, one of the motives for Iraq's 1980 invasion of Iran was to crush any local appeal for the idea of Islamic Revolution.

The Iraqi invasion failed to destabilize Khomeini's government, but it did initiate a costly and devastating eight-year conflict. Iran accused the Arab countries of the


Shi'a Adherents in Selected Middle Eastern Countries
(expressed as a percentage of total population)
Saudi Arabia
Syria
United Arab Emirates
Kuwait
Lebanon
Iraq
Yemen
Oman
Bahrain
Iran
Percent Shi'a
0
10
20
30
40
50
60
70
80
90
100

Persian Gulf, especially Kuwait and Saudi Arabia, of assisting Iraq. Iran's neighbors in turn suspected that Tehran was retaliating by aiding local dissidents. Concern about Iran's export of revolution was particularly strong during the early 1980s as a rash of antigovernment incidents swept Bahrain, Kuwait, and Saudi Arabia. Regional fears began to recede once actual hostilities in the Iran-Iraq War ended in August 1988. Both countries agreed to observe a UN-supervised cease-fire in accordance with provisions of UN Resolution 598 calling for a cessation of fighting and a peaceful settlement of the conflict.

Despite the concerns of its neighbors, Iran's promotion of Islamic Revolution actually has been more evident in Lebanon than in the Persian Gulf. Following the 1982 Israeli invasion of Lebanon, Iran began providing assistance to the Lebanese Shia militias. Iran perceived the Lebanese Shia as a repressed and disadvantaged community ready for revolution. Even though Shia political grievances prompted the original growth of Shia militias, Iranian financial aid helped to sustain them.

3. Prospects for the Future

a. Short-term Prospects

Khomeini's death in 1989 removed the most important force holding rivalries among the clergy in check. Three major tendencies have emerged among the clergy: conservative, centrist, and radical. Each has specific ideas of how an Islamic economy should be managed and how an Islamic foreign policy should be implemented, and each has representation in the Majlis. Centrists have united around President Ali Akbar Hashemi Rafsanjani. The centrists' majority in the Majlis will hold until the 1992 elections and probably be retained in the Fourth Majlis (1992-96). Their overall strength generally is enhanced by support from conservatives on key policy issues. Rafsanjani, whose term as president runs to mid-1993 and under the Constitution may be re-elected for an additional four-year term, has listed his primary domestic goals as economic reconstruction and development, including reprivatization of those large industries that had been nationalized after the revolution. His major foreign policy objectives are to end Iran's international isolation and restore normal diplomatic and commercial ties with the countries of Western Europe and the Persian Gulf.

Reinvigorating Iran's unhealthy economy will be Rafsanjani's severest test. Since 90 percent of government revenues come from oil exports, his administration is vitally interested in the price of petroleum on international markets and will continue its current policy of supporting stable oil prices and mandatory quotas for Organization of Petroleum Exporting Countries (OPEC) production. In addition, Rafsanjani is encouraging foreign investments and credits for development projects and domestic industry. Radicals bitterly oppose these policies, arguing that accepting loans and investments will make Iran dependent on foreign powers. The economy's performance

will be crucially affected by the manner in which economic policy disputes are resolved; and the economy's performance will affect popular attitudes toward the government.

In matters of foreign policy, the present trend toward normalizing relations with Iran's neighbors will continue and strengthen in the next few years. There are no major divisive issues with Turkey and Pakistan, and relations with these countries are expected to become closer. Among the Arab states of the Persian Gulf, Iran maintained relatively good relations with Oman and the United Arab Emirates throughout its war with Iraq, a factor that aided the successful process in early 1990 of repairing formerly severely strained relations with Kuwait. The Iraqi invasion and annexation of Kuwait in August 1990 has shifted political concerns among the Arab regimes of the Persian Gulf away from perceived Iranian threats to the dangers emanating from Baghdad. The emerging consensus that the Rafsanjani government is a moderate force will induce enven Saudi Arabia, the country which has had the deepest suspicions of Iran's intentions, to reach an accommodation with Tehran by 1992.

One consequence of the international crisis precipitated by the Iraqi assault on Kuwait has been Baghdad's willingness to end the stalemate over peace negotiations, which has prevailed since the UN-mediated cease-fire in the Iran-Iraq War took effect in August 1988. Saddam Husayn's readiness to satisfy Tehran's two minimal demands, complete Iraqi evacuation of Iranian territory and the reinstatement of the 1975 Algiers Accord that established the common border down the middle of the Shatt al-Arab waterway, has paved the way for the former foes to begin normalizing their relations. The sudden resolution of the issues in that conflict has disinclined Iran to support military actions against Iraq. Nevertheless, the Rafsanjani administration is opposed to the Iraqi occupation of Kuwait, retains a lingering mistrust of Saddam Husayn, can be expected to support international sanctions against Iraq as long as the current crisis continues, and will remain wary of dealing with Husayn's regime.

The emphasis on normalizing relations means that the Rafsanjani government has been quietly abandoning the policy of exporting revolution. This is most evident in Lebanon where Iran has begun disentangling itself from intra-Shia politics. The internecine conflicts among Lebanon's rival Shia militias have baffled and frustrated Iranian leaders. Furthermore, the militias themselves have proven adroit at exploiting political differences between Iran's centrists and radicals. The centrists in particular believe that Iran's involvement in Lebanon has failed to achieve any positive gains and has been a major reason for their country's negative international image. The Rafsanjani administration thus will strive to manage relations with Lebanon's Shia community so that developments in that country, such as the holding of Western hostages, will cease to have an undesirable influence on Iran's relations with the West.

b. Long-term Prospects

In the absence of another revolution, the clergy will continue to rule Iran well into the twenty-first century. If current policies lead to sustained economic growth, centrists will consolidate and maintain control of the government during the next 30 years. Iran, whose population will exceed 100 million by 2020, will become the major power in the Persian Gulf, but it will tolerate more political pluralism, relax some restrictive social conditions, pursue market-oriented economic policies, cease promoting the export of revolution, continue cultivating balanced relations with the Soviet Union and Western Europe, and normalize relations with the United States. On the other hand, if economic stagnation prevails in Iran during the next several years, conditions will favor the strengthening of extremist political forces. Rivalries among clerical factions will contribute to domestic political instability, and this instability inevitably will spill over into the Persian Gulf region.

C. Israel

1. Background

Israel was founded as a Jewish state in 1948; thus, from its earliest days the role of Judaism in public life inevitably has been an important political issue. Although Israel's dominant politicians have been secular, traditionally they have cooperated with religious leaders and accommodated some of their demands. Since 1977, religious parties have gained increasing prominence because neither of the two principal secular party coalitions, Labor and Likud, has been able to win a majority of seats in the Israeli Knesset (parliament). Each has been forced to seek alliances with one or more religious parties to form a government. The several religious parties can be divided into two categories: Orthodox and ultra-Orthodox. The Orthodox parties seek to protect and promote the status of Judaism in a generally secular society and also tend to be extremely nationalistic. The ultra-Orthodox parties generally shun secular society and support legislation that limits the power of the state to interfere with their communities.

Although the Orthodox and ultra-Orthodox parties generally cooperate on religious issues, their perspectives on the occupied territories tend to differ sharply. Younger members of the most important Orthodox party, the National Religious Party (NRP), co-founded the extreme nationalist movement known as Gush Emunim, a group dedicated to establishing Jewish settlements in the West Bank (which Israelis call Judea and Samaria) and Gaza Strip. The NRP supports these settlements and opposes restrictions on Israeli control of the West Bank and Gaza. An extremist splinter from the NRP favors outright annexation of the West Bank and Gaza Strip and the expulsion of the 1.5 million Palestinians who live there. Some ultra-Orthodox believe that the occupied territories are not an appropriate issue for devout Jews to deal with.

The territorial and Palestinian issues are major sources of division among Israel's secular parties. The Labor alignment and other parties on the left generally support compromises. After 1967, Labor politicians favored returning at least part of the West Bank to Jordan, although many believed it was possible to create a network of economic links between Israel and the occupied territories that would ensure a continuing relationship after Israeli control ended. Accordingly, the Labor government permitted West Bank and Gaza Palestinians to work in Israel and allowed residents to maintain contacts with Jordan. In contrast, the Likud bloc and other parties on the right believe that the West Bank is part of "historic Israel" and envisage some form of permanent Israeli control of the region. Likud's support for the creation and expansion of Jewish settlements in the West Bank aimed at assuring this objective. Although a Likud government negotiated the Camp David Accords, no steps have been taken to implement the clauses pertaining to autonomy for the West Bank and Gaza.

2. Recent Political Events

The 1988 elections failed to resolve the stalemate between the right-of-center Likud bloc and the left-of-center Labor alignment, winning 40 and 39 seats respectively in the 120-member Knesset. The ultra-Orthodox parties--Agudat Yisrael and its two splinters, Shas and Torah Flag--won almost 11 percent of the total vote, double their 1984 electoral strength, and increased their representation from 6 to 13 seats. Combined with the 5 seats held by the NRP, the religious parties control a total of 18 Knesset seats and thus are perceived as essential to forming a governing majority (61 seats). During the postelection bargaining, the religious parties demanded concessions, including a controversial proposed law defining who is a Jew: Orthodox rabbis oppose accepting as Jews persons who have been converted to Judaism by Conservative or Reform rabbis--who constitute the majority of American rabbis--arguing that only conversions performed by Orthodox clergy are valid.

General frustration with the religious parties' demands finally led Labor and Likud to agree on a second National Unity Government. Nevertheless, Labor and Likud's perspectives are so different that their coalition collapsed within one year, falling over Likud's opposition to a United States' proposal for peace talks between Israel and Palestinians. Thus, in the spring of 1990 the religious parties once again were being wooed by Labor and Likud leaders. The demands of the religious parties included more government revenues for religious education, action on a law defining who is a Jew, restrictions on recreational activities and transportation during the Sabbath, and censorship of television programs, movies, and public advertisements that feature women considered to be improperly attired.

The territorial/Palestinian issue also has become more acute on account of the uprising (intifadah) in the West Bank and Gaza Strip against Israeli rule. Since the uprising began in December 1987, a massive show of force by the Israeli military has failed to intimidate Palestinians who engage in daily protests and demonstrations.

Frequent army curfews on West Bank and Gaza towns, villages, and refugee camps have often prevented Palestinian laborers from coming to Israel to work. This has led to labor shortages, especially in the service sector and agriculture. A Palestinian-organized boycott of Israeli-made goods has resulted in some Jewish workers losing jobs because factories supplying consumer items to the West Bank and Gaza have closed.

3. Israeli Prospects for the Future

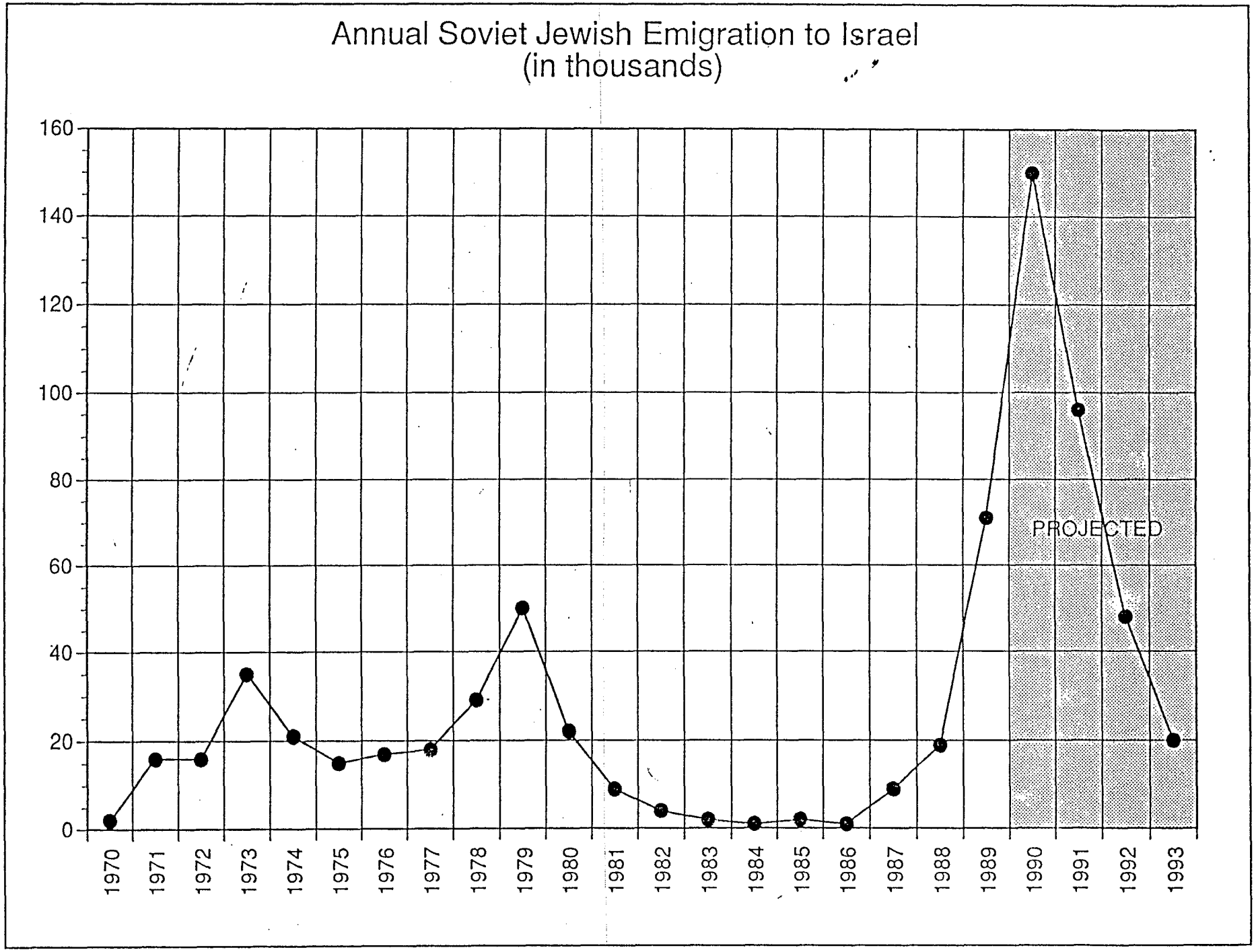
a. Short-Term Prospects

Israel's politics will remain polarized between Labor and Likud's differing perspectives on whether and how to deal with the Palestinians in the peace process and the developing religious-secular confrontation. It is unlikely that either Labor or Likud will be able to win a majority in the Knesset in the next few years. Both seem resigned to this prospect and thus are reluctant to support calls for new elections; both fear that the religious parties may gain even more seats in another election. It is unclear, however, whether the religious parties' show of strength in 1988 represents a temporary phenomenon or the beginning of a major trend. The rabbis who lead the ultra-Orthodox parties are revered by their followers, but they are aged--more than 85 years old--and likely to pass from the scene during the 1990s; younger rabbis do not yet command the same respect and may not be able to mobilize the ultra-Orthodox community as effectively.

The Palestinian intifadah is unlikely to cease in the immediate future. Labor alignment leaders indicate that they understand the inherent dangers of a prolonged uprising. Likud bloc leaders express optimism that an appropriate show of force eventually will contain it. The Likud-led coalition formed on June 8, 1990, with strong representation of the religious parties but with a narrow one- or two-vote majority in the Knesset, has announced that it will "strengthen, expand, and develop" Jewish settlements in the occupied West Bank and the Gaza Strip. No member of the government favors US Secretary of State Baker's plan for initiating Israeli-Palestinian peace talks. Because three of the small religious parties in the coalition advocate perpetual control of the West Bank and the Gaza Strip, it is unlikely that Prime Minister Yitzhak Shamir will pursue his own peace plan, thus undermining regional peace prospects. Moreover, in the short term, the crisis in the Gulf will diminish pressure on him to do so. Israel will benefit and the Palestinians lose as international attention shifts from the intifadah to Iraq/Kuwait.

b. Long-Term Prospects

During the 1990s an estimated 350,000 Soviet Jews are expected to immigrate to Israel. Their political impact will be felt in the early years of the twenty-first century. Although Soviet Jewish immigrants have been raised in an extremely secular society,


Annual Soviet Jewish Emigration to Israel
(in thousands)
160
140
120
100
80
60
40
20
0
PROJECTED
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

many who choose to resettle in Israel are religiously motivated. Thus, their presence may strengthen the religious parties in the long run. Although it is unlikely that religious parties will gain a majority of seats in the Knesset--at present they hold 15 percent of the seats, if they increase their representation to 25 percent, their political influence will expand dramatically. Further concessions to the religious parties will probably intensify social conflicts between religious and secular Israelis.

If Israeli politics remain polarized into the twenty-first century, the prospects for regional peace will be dim. Israel will confront enhanced military capabilities of Arab states. Although, at present, Israel is the only Middle East country that possesses a nuclear weapons capability, it is likely that an antagonistic state such as Iraq also will acquire one within the next 20 years. Iraq's impressive quantities of chemical weapons, its demonstrated willingness to use them (against Iran in the Iran-Iraq War and against its own rebellious Kurdish population), its explicit threat to launch them onto Israel if there is interference with its nuclear research program, and its readiness to confront most of the international community over its efforts to absorb Kuwait are all factors that probably will deter Israel from a preemptive strike such as it carried out in 1981.

D. Prospects for the Middle East

Political stability in the Middle East is closely linked to a resolution of the Arab-Israeli conflict. The continued absence of a peace accord will encourage extremists in the Arab states and in Israel. The Palestinian desire for self-determination lies at the heart of the Arab-Israeli conflict. As long as Israel refuses to address the Palestinian issue and continues to occupy the West Bank and the Gaza Strip, the Arab countries will not be able to deal with other issues that divide Israel and its neighbors.

Without a peace agreement, Arab governments probably will be held accountable for failure to redress the grievances of the Palestinians. Indeed, Saddam Husayn has tried to exploit popular frustrations by calling for a linkage of an Iraqi withdrawal from Kuwait with an Israeli withdrawal from occupied Palestinian territories. Islamic political movements in Algeria, Egypt, Jordan, Kuwait, and Tunisia derive some of their popular support from criticizing the foreign policies of Saudi Arabia and other countries that they accuse of being more sensitive to the interests of the United States than to the plight of fellow Muslims and Arabs. In effect, religion and nationalism have become fused, and governments are in danger of losing both their religious and nationalist legitimacy, a situation not unlike the Shah's prior to his being overthrown. Frustration with Israeli intransigence and concern about the growing strength and militancy of Islamic political movements may lead moderate Arab governments such as Jordan and Tunisia to stress nationalist positions that would involve less cooperation, even confrontation, with the United States, but would undermine popular perceptions that these governments are unpatriotic.

The regimes of Egypt and Jordan are probably the most vulnerable to charges by Islamic groups that they have betrayed both religious values and national identity through dependence on the United States. The Muslim Brotherhood has become a strong political force in both countries. It won 9 seats in Egypt's 1984 elections for the National Assembly, and more than quadrupled its representation to 38 seats 3 years later. It is expected to become the largest opposition party in the National Assembly in the 1990s and to exercise powerful influence in domestic and foreign policy issues. In the 1989 parliamentary elections in Jordan, the Muslim Brotherhood won 20 of the 80 seats, while more extreme Islamist groups captured another 14 seats. The Brotherhood's firm support for the Palestinians and their denunciations of Israeli use of force to suppress the intifadah appeal to many Egyptians and Jordanians who have become disillusioned with their governments' policies. Concern about the broad appeal of the Islamist criticisms of the US military buildup in the Persian Gulf has prompted Jordan's King Hussein to adopt a very cautious attitude toward Iraq.

Syria is likely to remain most suspicious of the United States and most opposed to bilateral peace talks with Israel. Syria views the recovery of the Golan Heights--occupied by Israel in 1967, then annexed in 1981--as a top national priority. Syria's leaders are convinced that an international peace conference cosponsored by the United States and the Soviet Union is the only feasible way to regain its territory. Syria probably would accept demilitarization of the Golan Heights. Syria's second major foreign policy objective is to extract its troops from Lebanon; but it is unwilling to do so as long as Israel retains control of the 24-kilometer wide "security zone" in southern Lebanon. It is also likely that Syria will retain ties with Iran. Syria originally allied itself with Iran during the Iran-Iraq War largely because it believed that the rival Baath government in Baghdad was supporting a then strong Syrian underground opposition movement. The alliance with the Islamic Republic also has provided the secular Assad regime with a religious mantle and helped to erode the legitimacy of his religious opponents.

Iraq, which pursued generally moderate foreign policies during the 1980s, has reasserted more militant policies in an effort to establish itself as the major Persian Gulf power. Saddam Husayn's ambitions to exercise more influence in Middle East politics may have been sidetracked temporarily by the international reaction to its invasion and occupation of Kuwait. Even if Iraq eventually is forced to withdraw from Kuwait, its relatively large population -- almost double that of the other six Arab countries of the Persian Gulf -- and its oil resources ensure that Iraq will continue to be an important political force in the region well into the twenty-first century.

In the unlikely event of an Arab-Israeli peace, political leaders will have more opportunities to focus on economic development issues. Religion is still likely to remain a potent political force, and tensions between secular and religious visions of society will remain in Egypt, Iran, Iraq, Israel, Jordan, and Syria.

VII. MEXICO AS A MICROCOSM FOR LATIN AMERICA AND THE THIRD WORLD

A. Introduction

Although developing countries show an amazing diversity of culture, language, religion, and history, the problems that they face are often similar. These problems tend to fall into several broad categories: economic, demographic, political, ecological, and the newest category of narcotics.

Economic ills are perhaps the most severe difficulties facing the Third World. A large external debt, dependence on one or two commodities for export revenues, unequal distribution of wealth and land, and lack of infrastructure all stifle economic growth. Years of populist or nationalistic governments have resulted in protectionist policies with high tariffs, state ownership of large enterprise, and laws or regulations which discourage foreign investment. Demographic burdens include a rapid population increase, explosive growth of large urban centers, significant numbers of migrants or refugees, and a high illiteracy rate. Erosion, pollution, and destruction of the native habitat diminish agricultural output and degrade the quality of life. And, finally, these same societies face the challenge of dealing with illegal drug production.

Individual nations' responses to underdevelopment vary widely depending on each country's particular culture, history, and geography. By analyzing their challenges and responses an assessment of stability in the year 2020 can be made.

B. Background Information on the Third World

Large foreign debt stunts development in the Third World. Encouraged by industrialized nations and lending institutions, many countries borrowed heavily in the 1970s and early 1980s from developed nations and from banks flush with petrodollars. Indebtedness often rose to dangerous levels. A disproportionate share of gross domestic product went to debt service; in worst case scenarios, the debt was so great that the economy was even unable to make interest payments. Money was exported instead of retained at home for development, economic growth stagnated, and standards of living declined. Unemployment increased and social services deteriorated, while the middle class, a major force for democracy, diminished.

Steady economic deterioration and austerity measures taken to pay off debts often created social tensions. Venezuela and Argentina, more developed and with larger middle classes than much of the Third World, experienced food riots as austerity programs caused a sharp drop in buying power in 1989. Such incidents of social unrest may become widespread in the 1990s.

Succeeding populist or nationalistic administrations have sought to encourage domestic industries by protectionist measures, including high tariffs on imported goods.

Government ownership of utilities or large corporations is usually extensive. These government-owned enterprises typically employ large numbers of workers at higher-than-average salaries, acting as an informal welfare system for countries with few or no formal social programs. In Brazil, for example, almost a third of the work force is employed by the government. The result of these policies are products that cannot compete on world markets; large amounts of government funds subsidize the inefficient plants or artificially high salaries.

States with diverse economies are better able to withstand downturns. Those dependent on the sale of one or two commodities, especially agricultural ones, have economies that can be ruined by a bad harvest, by competitors producing the same commodities more cheaply, or when access to markets is denied for any reason. In this way, economic swings severely hurt oil-dependent Mexico, sugar-dependent Cuba, and Central American states dependent on coffee or bananas.

Disparity between the rich and the poor is generally greater in developing countries but is a statistic masked by a nation's per capita income. Most "poor" countries have a small elite with wealth and a standard of living as high as the developed world. The percentage of individuals in the middle class is small and a large percentage of people are poor and often disenfranchised from land ownership. In Guatemala, for example, 2 percent of the farmers own two-thirds of the arable land.

Poor transportation and communications infrastructures inhibit growth. Lack of highways, railroads, ports, air facilities, and a modern telephone system impedes exploitation of mineral resources and slows the shipment of agricultural goods. New manufacturing tends to be placed in the capital or one or two large cities to the detriment of rural development.

Rapid population growth is another serious problem. A high birth rate "eats up" any economic advances when population growth rates equal or exceed the growth of the GNP. The population of Latin America, now over 400 million, is expected to double in 25 years. This dramatic increase will undoubtedly result in high unemployment rates and lower standards of living.

Besides increasing in absolute numbers, the young and the poor are migrating to urban areas. Municipal governments strapped for cash are unable to provide even basic services such as water, sewers, electricity, employment, or housing for millions of new residents and vast new urban slums are fertile breeding grounds for unrest. At the beginning of this century, most of the largest cities of the world were in Europe. In 1985 United States Census Bureau estimates showed six of the ten largest cities in developing nations (Mexico City, Sao Paulo, Buenos Aires, Calcutta, Bombay, and Rio de Janeiro). By the beginning of the next century, Cairo, Teheran, Jakarta, Manila, and Lagos are expected to have over 10 million inhabitants each.

Dwindling resources and environmental degradation are global problems that hit developing countries hard. Latin America, Africa, and South Asia depend on their natural resource base--soil, water, and crops--for capital to finance development. Agriculture employs and feeds much of the population; erosion destroys cropland and reduces yields. Mal- and undernourished citizens result. Pollution makes life increasingly intolerable in large urban centers.

The international drug market and the narcoterrorist groups which have sprung up to control the drug trade (the Medellin Cartel in Colombia, for instance) are unbearably destructive. The huge rise in narcotic growing and trafficking has spawned corruption and created tremendous distortions in local economies which threaten governments.

C. Mexico as a Microcosm

Mexico exhibits most of the problems that plague developing nations. A crippling foreign debt, a young and rapidly growing population, and an inability to provide services and employment for citizens of the largest city in the world all could lead to unrest.

Encouraged by new oil discoveries in the Gulf of Mexico and the rapid rise of world oil prices in the early 1970s, the Mexican government embarked on a policy of large government projects to raise the standard of living. Revenues from oil sales were not enough to finance the projects but foreign banks were eager to makes loans based on expectations of Mexico's rosy economic. Foreign debt rose from US $6 billion in 1970 to $103 billion in 1990. In the early 1980s, however, world oil prices collapsed and a worldwide recession took place. Mexico found itself exporting 5 percent of its GDP to service foreign debt. The economy, which had shown healthy growth rates in the four decades before 1980, began to contract and real wages dropped, by some estimates as much as 40 percent during the 1980s.

A growing dependence on oil for revenue led to economic disaster when the price of oil fell. Mexican petroleum sold at $26.70 a barrel in 1984; but plummeted to $8.60 in 1986. Oil revenues provided over one-third of government revenues before 1984, in 1986 they were less than one quarter.

Prior to the December 1988 inauguration of the Salinas de Gotari administration, Mexico had some of the most protectionist policies of any nation. Tariffs on imported goods ranged as high as 200 percent, and foreign investment was limited to no more than 49 percent of any company. Regulations on foreign companies were stringent and often petty, for example all products sold in Mexico were to change their names to a "Mexican" one by the mid-1990s (Coca-Cola planned to become Mexi-Cola).

Mexico's rail system dates from the turn of the century when dictator Porfirio Diaz allowed US railroads to expand into Mexico. The lines were built to transport agricultural goods north to the United States; little consideration was given to constructing lines to open up remote areas of Mexico or move its population. Today, large areas of the south and the Pacific Coast remain without railroads.

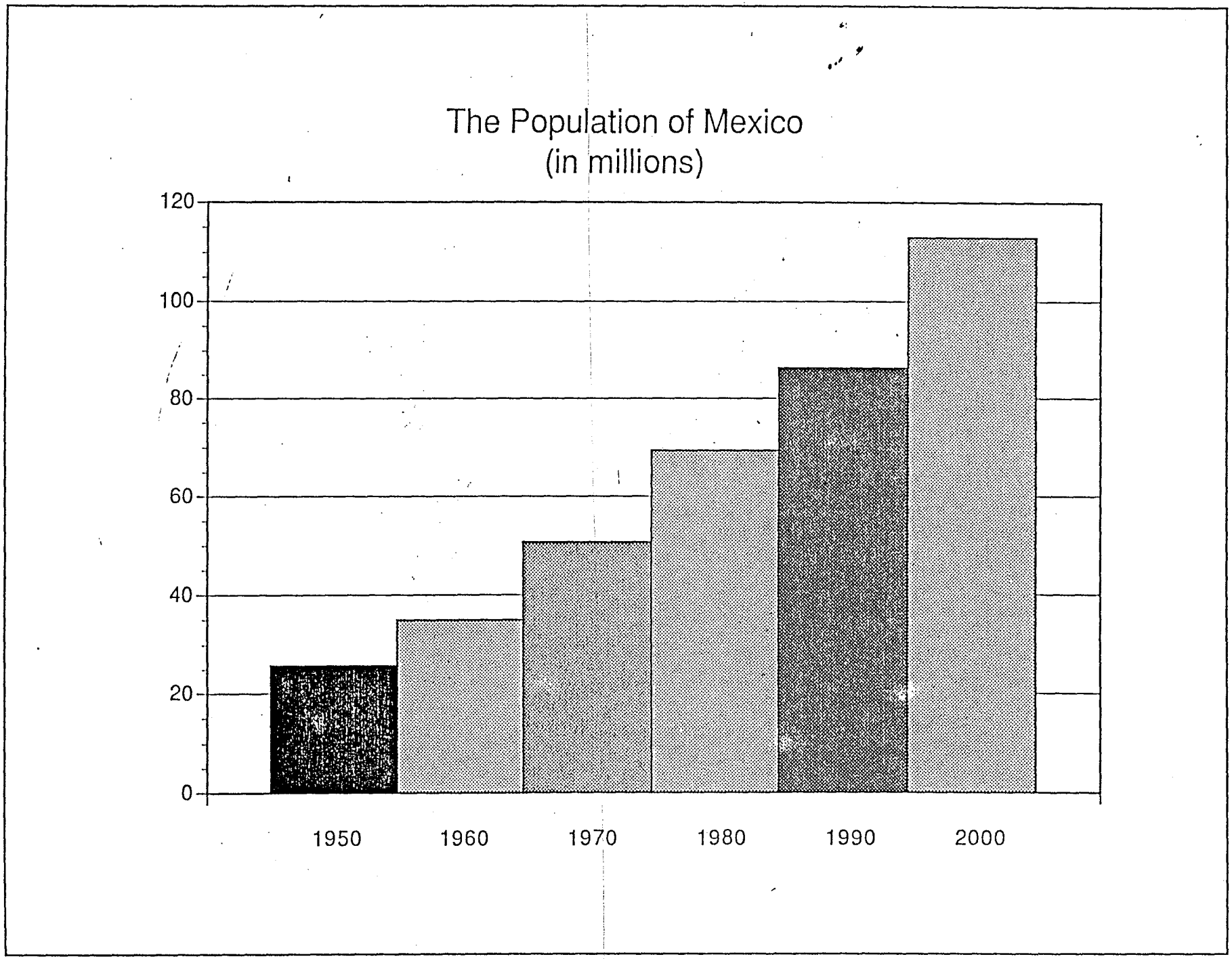
In 1989, Mexico's population was 87 million, more than three times that of 1950. Declining death rates and a high birth rate contributed to a population growth of over 3 percent for much of this century. Although an aggressive government campaign promoting birth control has lowered the birth rate, by the year 2000 Mexico will have over 110 million people, an increase of 40 percent. Fourteen million people are unemployed or underemployed today; 20 million will be by 2000.

The shift from rural to urban dwellers has been profound. In 1950 over half the population was rural, by the year 2000, 75 percent will be living in urban areas. Mexico City alone has 25 percent of the urban population and, if present growth rates continue, it will have close to 30 million residents in 2000. Already, Mexico City has severe housing shortages, traffic congestion, and air pollution with its 16 to 20 million inhabitants. It appears unable to provide for the 10 million new citizens expected in the next decade. The attendant urban blight of escalating crime, possibly in the form of gangs, as well as increased drug problems in slum areas are predictable.

Formally a democracy for the last seven decades, Mexico is more aptly described as a one-party corporate state. Despite the trappings of elections, the dominant Institutional Revolutionary Party (Partido Revolucionario Institucional--PRI) has carried all national and, until 1988, all state elections, either by manipulation or outright fraud. Recent polls show that the majority of Mexicans feel that the PRI "stole" the 1988 presidential election. An unresponsive system breeds cynicism and causes many citizens to feel the only way to effect change is through illegal or violent means.

Pollution and loss of arable land are serious problems. Mexico City is one of the most polluted urban areas in the world. Residents choke on air from dirty industry, from 3 million cars, and from fecal dust generated by a sewerage treatment system that manages to treat only one-third of all solid human waste produced daily. Some sources estimate that 70 percent of usable farmland has been degraded by erosion. In the northwest, the deserts claim over 2,000 square kilometers a year and one-tenth of irrigated land suffers from high salinity.

Mexico supplies about a third of the marijuana and heroin consumed in the United States. Although a source of cash for poor rural farmers, large scale involvement in drug cultivation leads to local lawlessness and corruption, strains the Mexican political system, and harms US-Mexican relations.


The Population of Mexico
(in millions)
120
100
80
60
40
20
0
1950
1960
1970
1980
1990
2000

Despite these overwhelming problems, Mexico has strong stabilizing factors peculiar to its history and geography that work against unrest boiling over. Emigration to the United States acts as a safety valve for millions of unemployed or underemployed who might otherwise work against the existing political system. Although not democratic, Mexico's unique political system, made up of a strong coalition of labor, industry, and peasant interests, still manages to deflect discontent from below. And the United States' desire for a stable, friendly neighbor often makes it flexible and beneficent in dealing with Mexico's financial and political problems.

D. Prospects for the Future

1. Short-Term Prospects for Mexico

Mexico's short-term prospects are for a continuation of some forms of political and social turmoil as the gains provided by the improving economic situation are offset by a growing population.

Economic predictions for Mexico in the year 2000 are good; one optimistic analyst states that Mexico has the potential to be the "South Korea of the 1990s." In early 1990, Mexico signed the "Brady Plan", an agreement designed by US Treasury Secretary Nicholas Brady to cut foreign debt by about 20 percent. The Plan immediately reduced the portion of Mexico's GDP that services debt from 7 to 2 percent, thus freeing capital for investment. Petroleum revenues are rising as instability in the Middle East and a growing demand for world oil drive up prices.

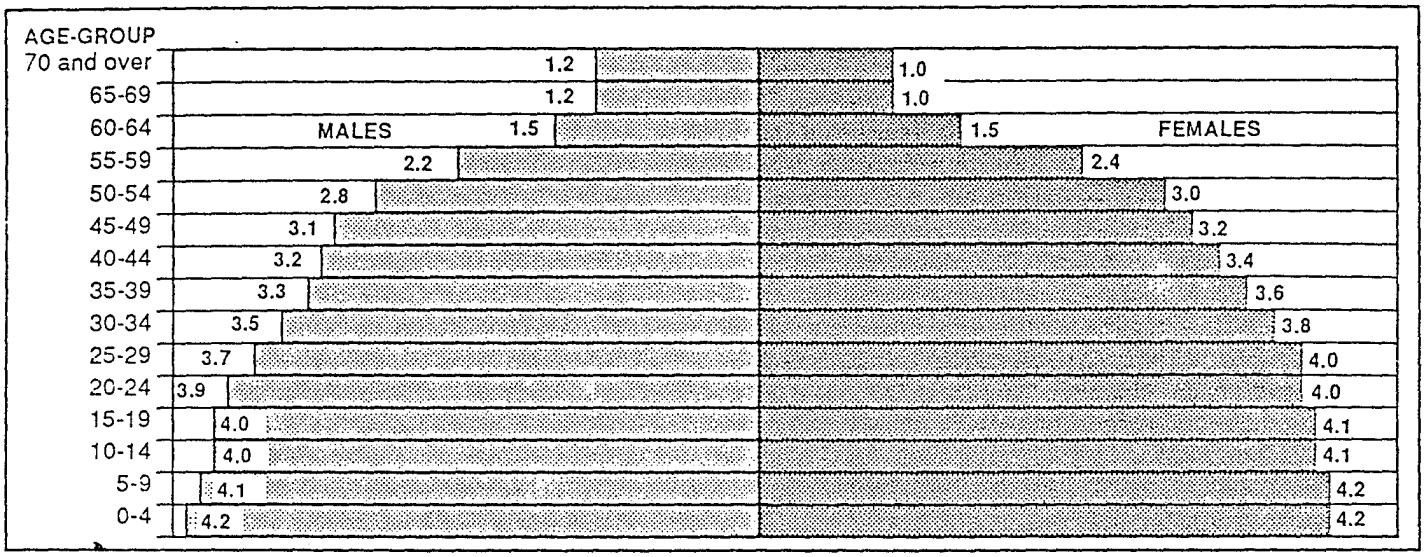
The present administration of Salinas de Gotari has also made a strong effort to reverse Mexico's traditional policy of protectionism. Mexico joined the General Agreement on Trade and Tariffs (GATT) in 1986 and, by the end of 1988, all import tariffs had been lowered from as high as 200 percent to a maximum of 20 percent. The law which limited foreign investment was modified to allow for up to 100 percent foreign ownership in most industries.

The net result of these policies (if continued by subsequent administrations) should be a growth of labor-intensive export-oriented industries. Most analysts foresee a steady growth in the economy in the next decade particularly in the assembly (maquiladora) industries which have developed in cities near the US border.

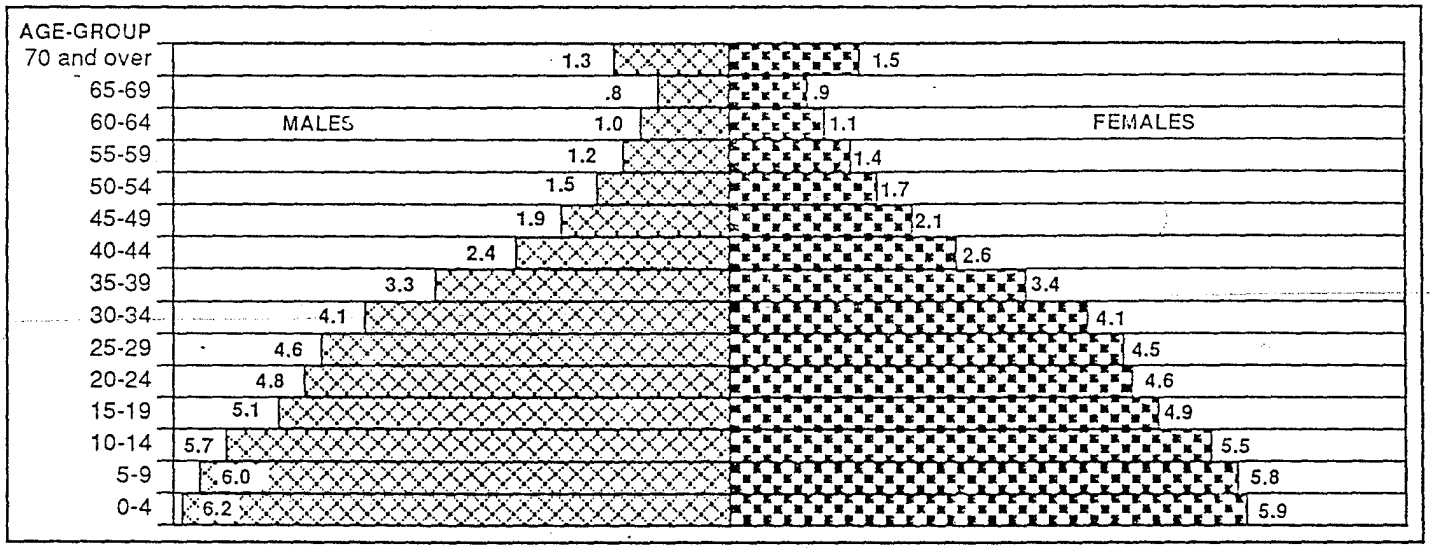
The birth rate, which at 3.4 percent was one of the highest in Latin America in the 1970s, had dropped to 2.5 percent in the early 1980s. A vigorous government-sponsored family planning program has the goal of lowering the population growth rate to 1 percent by the end of the century. Although data on illiteracy are extremely unreliable, the trend in Mexico is clear--in 1940 the government estimated the illiteracy rate at 57 percent, in 1980 it was believed to have dropped to 16 percent. An

Mexico's Population Distribution 1980, 2000 and 2020

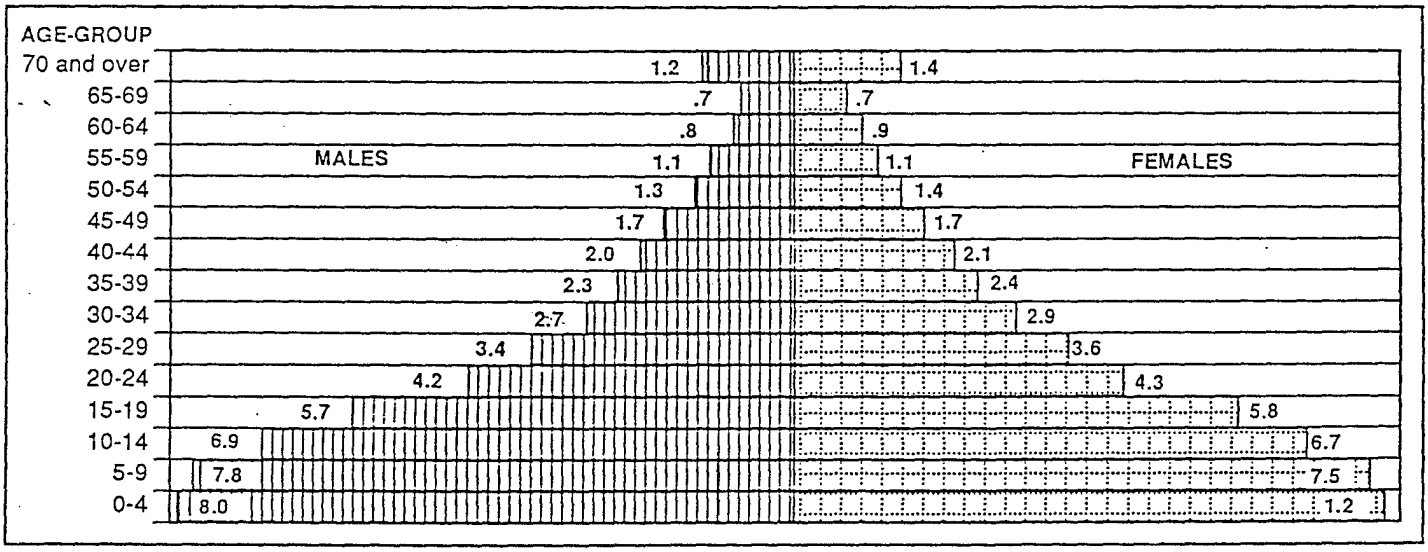
(Percentage Distribution by Age and Sex)



2020 Percent of total population estimated



2000 Percent of total population estimated



1980 Percent of total population

increasingly literate population will be more receptive to family planning and public health programs.

Although birth rates have decreased in the last decade and can be expected to drop even further in response to an aggressive government campaign, it takes many years for the children of high-birth years to age to the point where a rapidly expanding economy is not necessary just to provide new jobs. For example, it is estimated that over the next 20 years, the number of new jobs must grow by over 3 percent annually simply to employ the young adults entering the work force.

In spite of an improved economic situation for the country as a whole, population growth will continue to preclude a rising standard of living for much of the lower class in the near future. Short-term predictions are for continued emigration to the United States and possible social unrest in Mexico City as the area struggles to handle 10 million new inhabitants. Upcoming elections, particularly those on state and local levels, probably will be marked by turbulence as the ruling PRI is slow to democratize and to respond to the strains on Mexican society. Over the next few years, parties on both the left and right will multiply as will concomitant problems of fragmentation. Nonetheless, a more democratic regime will emerge from such turmoil.

2. Long-Term Prospects for Mexico

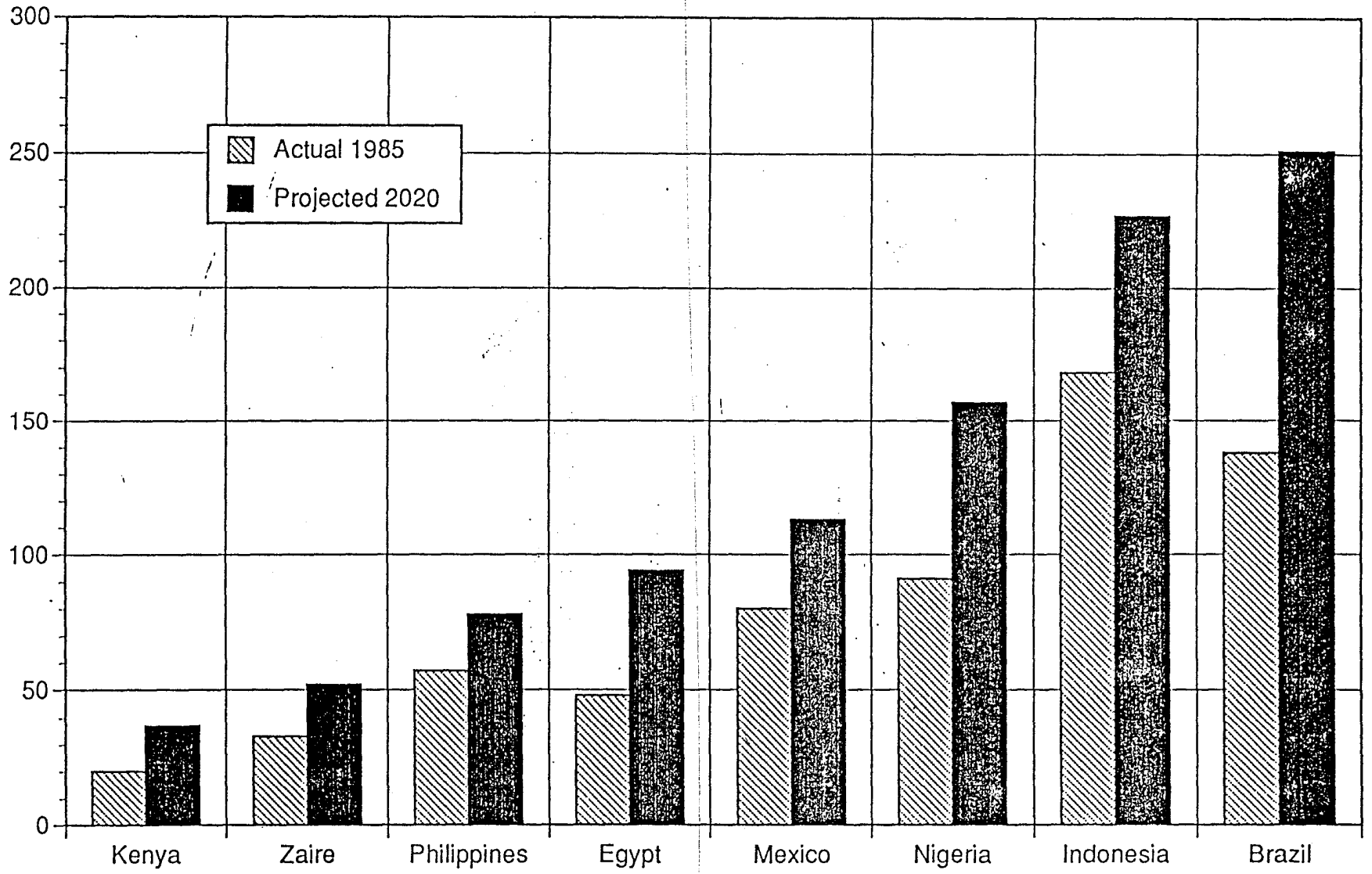
Long-term prospects are more encouraging. An increasingly diverse economy, a continued flow of tourist money, and the growth of non-oil related industries, particularly the maquiladora industries in the north, will generate new revenues. Petroleum will continue to be an important export, and the price Mexican oil is expected to rise during the next 30 years. And finally, Mexico will work out a free trade agreement with the United States and Canada, a "North American Common Market" that will stimulate the growth of labor-intensive industries and agricultural products.

An export-oriented economy with the state owning fewer utilities and industries will encourage more efficient labor practices. An improved climate for foreign investment will allow American and Japanese industry to set up plants in Mexico, taking advantage of lower labor costs. Finally by the year 2020, these economic gains will more likely be distributed among an older and more slowly growing population.

3. Prospects for Other Developing Countries

A brief review the prospects for stability of other developing countries shows a variety of outcomes. Brazil, plagued by problems similar to those facing Mexico, has short-term prospects for increasing turmoil. Like Mexico City, Sao Paulo and Rio de Janeiro can scarcely provide jobs or services for the millions of new inhabitants pouring in from Brazil's impoverished northeast. Politics will remain turbulent as populist candidates capitalize on Brazil's large underclass. Long-term prospects show more

Projected Populations of Selected Developing Countries in the Year 2020 (in millions)



promise as economic burdens are offset by vast resources and a broad industrial base. The present Collor administration has made a strong attempt to reverse long-standing protectionist trade policies by lowering tariffs and selling off wasteful government-owned industries. And Brazil has the luxury of untapped arable land; rapid population growth can be absorbed by underpopulated areas in the interior.

The short- and long-term future of El Salvador appear bleaker. A small percentage of the population controls most of the wealth and owns most of the land; the resulting frustrations have fueled much of the present turmoil. Even if land ownership were ceded to the peasants (an unlikely event considering El Salvador's history), the population has still overgrown the land's ability to support it. In the Philippines, demands for agricultural reform and the lack of government responsiveness are among the root causes of Philippine instability with no end in sight. The Philippines has a large foreign debt and rapidly growing population. The outlook for the year 2020 is decidedly not optimistic. Egypt also has a large foreign debt, a rapidly growing population, a high illiteracy rate, few resources, and little arable land. Thirty years hence, economic conditions may be worse, with increasing prospects for unrest.

Kenya and Zaire have perhaps the greatest chances for success among larger African countries, yet predictions for both foresee no better than the status quo in their relative economic positions by the year 2020. Both have large foreign debts. Kenya has the highest birth rate in the world and a lack of arable land. Zaire is endowed with numerous resources, but nationalistic economic policies, extensive government corruption, and a poor transportation infrastructure hamper their exploitation. The population of Zaire is increasing but a rapidly rising death rate from AIDS make predictions of future population numbers difficult.

In short, the problems facing Third World countries hold within them the seeds of positive change. Export-oriented policies coupled with slow-growing populations may allow some nations to develop healthy, diversified economies. Protectionist policies, demographic problems, and economies based on a single product or distorted by large-scale narcotic production, however, will provoke only increasing discord and unrest.

VIII. ENERGY TECHNOLOGY IN THE NEXT THIRTY YEARS

A. Introduction

Energy technology must be considered as one of the major factors that will affect national and international policies in the next 30 years. In this century, we have already experienced a quantum change in energy generation with the advent of nuclear fission for generating electricity after World War II. We are now on the verge of a second and even greater quantum leap, which will be the transition to nuclear fusion technology. Fusion is foreseen as replacing both fossil fuel and fission as the mass energy source of the future.

The goal of mastering the controlled fusion process in the laboratory, which has been pursued for several decades, is now within sight; experts in the field agree that the question is not if, but when. While estimates differ, those involved in fusion research world-wide predict that fusion will become the major mass energy source within the first half of the 21st century.

Here we examine the advent of fusion technology, and consider some of the probable effects that thetransition to fusion power will have in the next 30 years.

B. Background

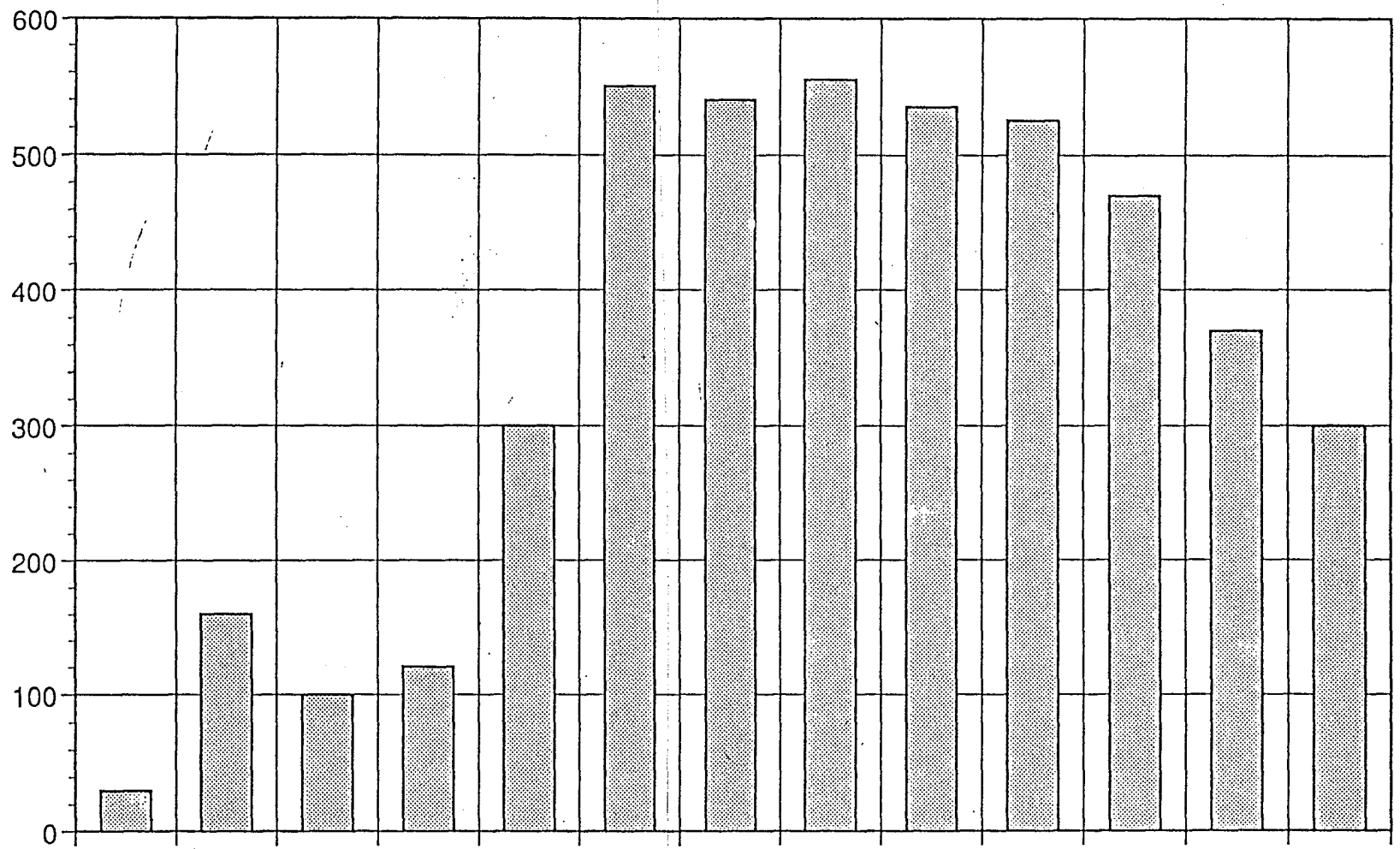
1. Basic Fusion Process

To understand the thrust behind fusion research, it is useful to compare the fission and fusion processes briefly. The two processes have a common factor, namely that they both capitalize on the heat generated by induced nuclear reactions. In the fission process used in today's nuclear power plants, heat is a product of induced breakup of atomic nuclei. Whereas in fusion, heat occurs from the induced combining of light nuclei (hydrogen isotopes). The fission process was relatively easy to master, once the physics was understood, and it had the added impetus of the atomic bomb research mounted in World War II.

The physics of the fusion process is also straightforward in theory, but the technical difficulties in reducing it to practice have been much greater than for fission. A critical factor for fusion to occur is temperature, which has to reach on the order of millions of degrees around the fuel before fusion will commence; fusion in effect has to reproduce the conditions of the sun. The problem of how to confine and heat a fuel plasma to practical fusion temperatures has been the major obstacle to harnessing this energy source, and various solutions have been sought for it since the 1950s.

Two different general approaches are being pursued: magnetic confinement and inertial confinement fusion, or ICF. In magnetic confinement the plasma containing the

Magnetic Fusion R&D Funding, 1955-1987
(million of 1986 dollars)



Note that, by 1987, outlays had dropped to 197.

Federal Research Division/The Library of Cong

fuel isotopes is suspended and heated inside a surrounding magnetic field, thus avoiding the problem of container walls. ICF research is currently concentrating on high-power laser implosion of a microscopic fuel element, which achieves the required temperatures within the imploding mass. Research on ICF has military constraints and is largely classified, whereas magnetic confinement research is not.

While both these techniques have their strong advocates, the bulk of funding support has been for magnetic confinement. A recent report on the potential of fusion energy issued by the Office of Technical Assessment is devoted virtually entirely to magnetic confinement as the leading candidate, with only brief mention of ICF as a possible alternative. It may be that either (or both) of these techniques will come into use in future fusion power plants. For the purposes of this paper, we will assume OTA's conclusion that magnetic confinement will predominate.

2. Rationale for Fusion

The main advantages of fusion power are the following:

* For all practical purposes, there is an inexhaustible fuel supply. The principal natural fuel for fusion is deuterium, an isotope of hydrogen which occurs in trace amounts in all the earth's water. The natural level of deuterium is only a tiny fraction of the hydrogen in water. If one considers that the world's oceans have a net volume of over 260 million cubic kilometers, it is safe to say we would not run out of deuterium any time soon, even if the entire world were to run on fusion power. It has been calculated that the deuterium contained in the rainwater falling annually on one-half square mile of San Francisco would supply the fusion energy for all present electrical demand in the United States for one year.

* Fusion reactors would be vastly superior to fossil and fission power plants in their environmental impact. They produce no carbon dioxide and no long-lived highly radioactive waste; the chemical byproduct is helium. Tritium waste will be the only radioactive product, and this would be at a fraction of the radioactive waste of today's nuclear fission plants; in addition, tritium has a half-life of about 12 years, compared to many thousands of years for some fission byproducts.

* Fusion plants have a potentially much higher safety factor than today's nuclear plants. Fusion reactors could not run away because of malfunction or operator error; also, if emergency cooling or shutdown systems were required, they would be much simpler than for fission reactors. The OTA report further postulates advanced fuel cycles without tritium, which would eliminate the radioactive escape hazard.

It is nearly impossible to fault fusion power on technical grounds, since it would be so demonstrably superior to existing technologies for the reasons cited. There is one caveat that should be considered, and that is the fact that fusion could be

combined with fission reactors in the so-called hybrid type, in which the fusion process could help generate radioactive byproducts for use in nuclear weaponry. As OTA points out, however, this would only be possible for those who already possess nuclear capability, so that one could not start with fusion alone to acquire such capability. Thus fusion technology might pose a possible, but not inherent, source for nuclear proliferation in the future.

C. Prospects for the Future

1. Short Term

Advances in fusion technology have been achieved incrementally over long periods of time, and there is no reason to think that this will change radically in the near term. It is possible, however, that some important technical milestones may be reached within the next few years. Probably the most significant of these would be attaining the "break-even" point, where the fusion energy being produced equals the energy input to the process. Present predictions are that break-even should be achieved some time early in this decade.

2. Long Term

a. Fusion Timetable

Despite the promise of fusion power for solving a variety of the world's energy problems, the timetable for the practical application of fusion research remains uncertain, for a number of reasons. One major factor is that fusion research is a hostage to federal funding. Serious fusion research has been underway in the United States for over 30 years now, and with few exceptions, it has been entirely government funded. This has been the case because the enormous research costs, long time frames, and high risks involved have been disincentives for private sector investment. It seems clear that fusion studies will remain a federal obligation at least until commercial feasibility can be demonstrated.

In the OTA Report, the authors estimate that the remaining technical problems on the fusion process should be resolved by the early 1990s, and it will then take several decades after research is concluded for commercialization to become a reality. According to this scenario, fusion power would not become a major energy factor before 2050.

Being a part of the Federal budget, fusion research has thus had to compete with other government priorities, with varied success. A big boost occurred with the OPEC oil crisis in the 1970s, when a major domestic effort was mounted to seek alternative energy sources. The energy crisis, together with growing awareness of the environmental hazards of fossil and nuclear power generation, have been the major

drivers of fusion support in the 1970s and 80s. Unfortunately, as the OPEC oil crisis receded, other budget priorities prevailed in the 1980s, and fusion research was substantially curtailed. In 1987, fusion funding accounted for only 19 percent of the energy research and development budget, for example. An overview of fusion funding shows that in constant (1986) dollars, funding in 1987 was back down to the 1975 level. The result has been that many existing fusion programs have been either slowed down or phased out altogether.

Given the history to date, one can speculate on the probable level of effort devoted to fusion in the next several decades. A worst case scenario would be that some unforeseen budget crisis, such as international conflict or a recession, could severely reduce fusion research, or put it on hold for some indefinite time. This seems unlikely at present, given the rapidly improving relations between the United States and the Soviet Union and the decreasing likelihood of military confrontation between them. If there is indeed a "peace dividend" from reduced defense spending, fusion research could be one of the beneficiaries.

A best case scenario would be if the United States were to mount a maximum effort on fusion, such as we did in the Apollo program. Fusion proponents point out that as of 1986, cumulative expenditures on all fusion research amounted to less than 10 percent of the Apollo costs, and yet the benefits of fusion power would be immeasurably greater that those of Apollo, on a world-wide scale. It has been estimated that with an effort of the Apollo type we could have working fusion power plants early in the next century. But this scenario also seems unlikely; at least at present there is no looming energy crisis foreseen in the next several decades that would justify a crash fusion program. The OTA assessment goes further, and recommends against any crash program as being unnecessary and inherently wasteful. The lean US budget forecasts for the near future also add weight to this argument. We should not rule out the crash program scenario altogether, however; another oil embargo, or another nuclear disaster of the Chernobyl type, could be a powerful incentive to get fusion power on-line as fast as possible.

A prudent conclusion would be that we will see something between the worst and best case scenarios, and that development of fusion technology will continue at a slow and steady pace, to become commercially viable somewhere within the 2025-2050 time frame.

b. International Effort

Fusion research is being actively pursued abroad as well as in the United States. Major research efforts have been under way in the USSR, Japan, and in a Western European consortium, and all these programs are considered to be at a comparable level of development with the US In fact, a recent study on the Western European fusion program concludes that their research has put them in the forefront

of magnetic confinement technology, and that there is a good chance they will be the first to demonstrate fusion breakeven. The Soviet work most closely parallels that in the U.S., both in level of effort and sophistication. Fortunately, there has been a general sharing of information in fusion studies among countries that has proved mutually beneficial. A notable example of this is the fact that the Soviet design for a magnetic confinement vessel, the tokamak, has been generally accepted as the most promising of the designs under study, and various versions of it are being tested in all the major fusion laboratories in the world.

One compelling reason for international cooperation to continue and be supported at the highest government levels is that such joint efforts tend to spread the enormous costs of fusion research, so that no one country bears an undue burden. Given the current and foreseeable improvement in the international climate generally, there seems to be no reason why such cooperation not only should continue but even increase in the coming decades, with mutual benefits all around. There is in fact a current plan for mounting a major effort to design and build a proposed International Thermonuclear Experimental Reactor, or ITER. The US Department of Energy isnegotiating with other interested countries on how to proceed with the ITER, which is estimated to cost over $1 billion. As it now stands, the US would be involved only in the design phase of this system.

Thus fusion research has to date transcended international politics, and society at large stands to benefit from the ultimate achievement of practical fusion power, regardless of who develops the first successful design. Fusion technology is already being freely transferred worldwide, so that when fusion power becomes a reality, there will be no question of "have" and "have not" nations in terms of access to it.

c. Economics of Fusion

The economics of fusion power as a commercial alternative to other forms of energy production are at this point an open question, with the technology still in its infancy. While the fuel (water) may be free, the fusion process will decidedly not be, and present estimates are that fusion plant construction and maintenance costs will, at least at the outset, make fusion a process that may not be competitive based on costs alone. This is emphasized by the authors of the OTA report, who discuss some of the factors that will bear on the delivered cost of fusion power.

Fusion will be a capital-intensive technology, in which most of the cost of the generated electricity will come from plant construction. At this stage one can only speculate on what this will involve. Costs of present experimental facilities are not a very useful guide, as OTA points out, since these are inherently more conservatively designed, and more heavily instrumented, than a commercial plant would be. Perhaps a more useful comparison would be with the current costs of nuclear fission plants,

including the non-technical costs such as construction time, licensing and regulatory requirements.

A positive factor for fusion is that with its inherently safer technology, it should be able to avoid the tremendous construction and licensing costs that have plagued the fission industry. Also, there are related technologies evolving that may contribute to reducing the cost of the fusion process, such as advances in high-temperature superconductivity. While advanced materials technology will be critical to the fusion process, no constraints are now foreseen on fusion plant construction because of potential shortages of critical materials.

One scenario suggested by OTA is that fusion power may prove to be as costly to produce as other methods, but would still be preferable because of its lesser social costs of environmental degradation. In sum, however, there are too many imponderables at present to make a valid estimate as to what the commercial viability of fusion power may prove to be, once it is past the research phase.

d. Population Factor

A future energy scenario should include some estimate of projected demand in terms of world population. Population is now growing at a rate that will currently double the total every 35 years, and this rate is expected to increase. Demographic predictions on the dynamics of world population vary substantially, but indications are that it will reach on the order of 15 billion, and still be growing, by 2050. This has given rise to some bleak scenarios of a general lowering of living standards and large-scale starvation occurring within the next century.

A more rosy picture is painted in the 200-year forecast published in 1976 by Herman Kahn et. al. The authors agree that population growth rates will increase to a peak of about 2 percent per year around the year 2000, but will then gradually decline to zero over the next two centuries. In this scenario, world population would level off at some 15 billion people. But Kahn says that despite the vastly increased demand on earth's resources, general standards of living should rise, not drop, in the long term. A major reason given for this will be the increasing technology transfer, including energy technology, from what Kahn calls the "coping" to the "non-coping" countries. This trend is seen as increasing over time, with the advances in information transfer and computer technology, increase of multinational corporations, and other factors. Fusion power should be a major factor in raising the living standards of "non-coping" nations, and historically, birth rates drop as living standards rise in any given society, hence the prediction of a stabilized world population.

Kahn concludes his discussion of energy by stating that, except for temporary fluctuations caused by bad management, or bad luck, the world will not need to worry about energy costs or shortages in the future. According to Kahn, this optimistic

scenario would still hold true, even if th e world population were to increase to as much as 30 billion.

e. Other Energy Technologies

There are several other types of energy technologies besides fusion that are being researched to a greater or less degree. While none of these presently holds out the great promise of fusion as a mass power source, they could be refined over time to play a useful role in any future energy scenario.

Solar energy is being developed as a potentially attractive mode, having a free and inexhaustible energy source. Most research to date has been in photovoltaic conversion of solar radiation directly to electric current in arrays of semiconductor cells, typically of silicon. This technology will continue to be actively researched, but even optimistic estimates do not suggest that solar will supply more than a small percentage of worldwide long-term energy needs. This is mainly true now because of economics; delivered solar power still remains at least ten times more expensive than present conventional power.

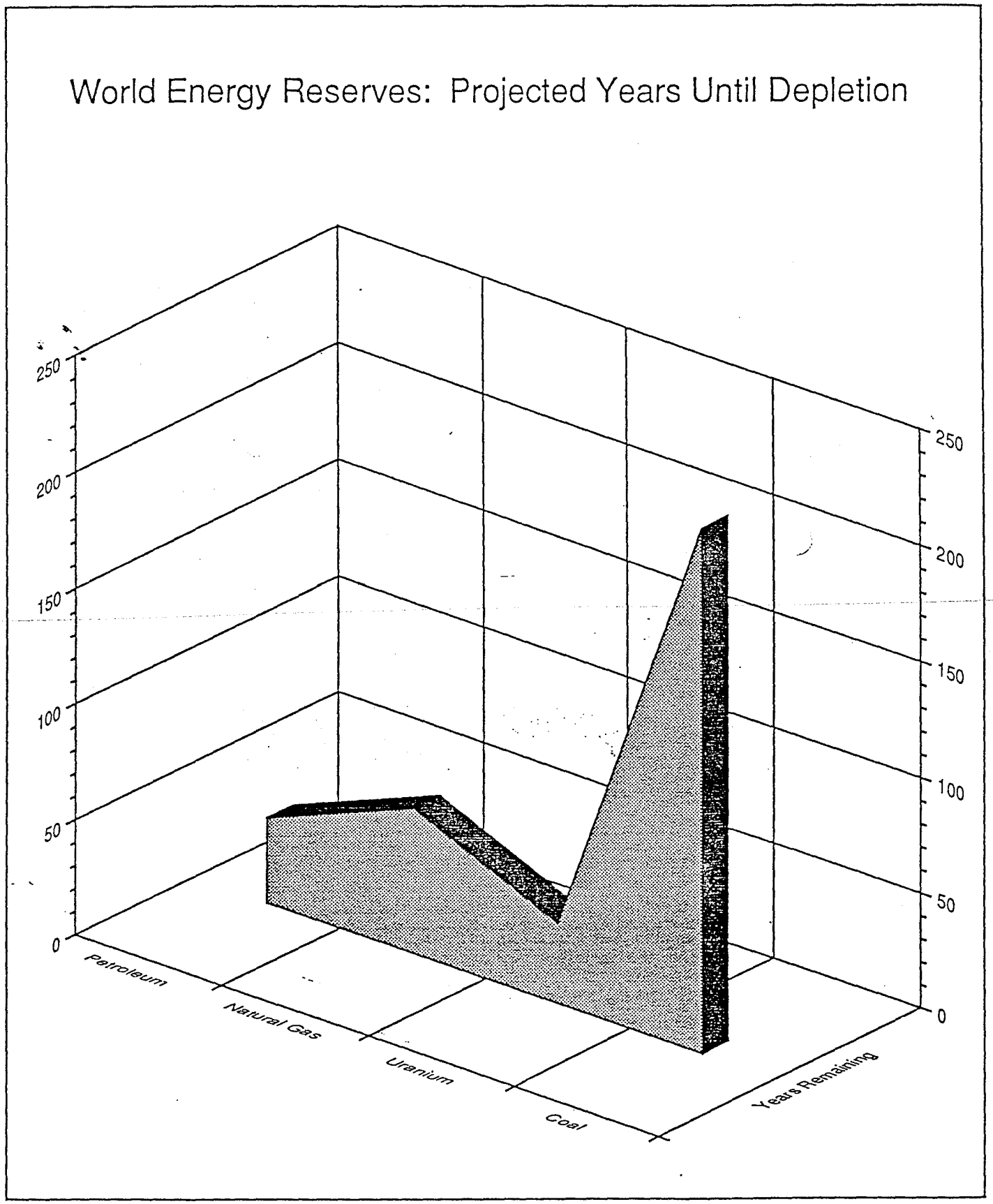
Some research has begun on the possibility of space-based solar power converters. The Soviets, for example, have examined the theoretical feasibility of geostationary satellites that would convert solar to microwave energy, which would then be beamed to collector stations on earth. This technology is in its infancy, but could be an attractive variant of a future solar power source.

There are a number of other promising energy technologies which may be developed for special applications, or to take advantage of local conditions. These would include magnetohydrodynamic (MHD) generation; biomass, e.g. alcohol from grains; fuel cells; ocean thermal engines; tide and wind power, etc. Our conclusion is, however, that even if one or more of these should become commercially viable, they would fall into the category of interim technologies, along with fission, until fusion power comes into mass use in the next century.

f. Impact of Fusion Technology

As with the costs of fusion power, it is difficult to foresee this far in advance what the specific impacts of a fusion economy might be. But if we assume that at some point fusion power does come into mass use worldwide, there are results that can be predicted with some confidence.

Environmental impacts, as already mentioned, would be enormous. If fusion were to replace fossil fuel and fission power plants, the world could enjoy a gradual end to acid rain problems, a reduction in carbon dioxide emissions, thus reducing the


World Energy Reserves: Projected Years Until Depletion
250
200
150
100
50
0
Petroleum
Natural Gas
Uranium
Coal
Years Remaining

greenhouse effect, and a halt to ozone depletion. The difficult problem of radioactive waste disposal would also become negligible.

The geopolitical consequences of transferring from a fossil fuel to fusion economy would also be enormous. An end to world dependence on OPEC oil would greatly diminish the strategic importance of the Middle East, allowing national interests to be shifted elsewhere. Fusion power, if freely available, would benefit all nations, particularly the heavy energy users led by the United States. Nations now going increasingly to nuclear power, such as France and Japan, would be relieved of the problems associated with dependence on fission energy; this should allow Japan, for example, to become even more competitive in the world economy.

Finally, we can speculate that once the technology for mass fusion power plants is mastered, there is the possibility of scaling down, say to ship power plants and perhaps eventually to smaller vehicles. The spinoff from cheap fusion power could also enhance the possibilities for developing advanced fuel cells and other battery-type sources, such as for automobiles. Any such scaling-down would of course have to evolve from the initial mass technology, which would put it well into the next century.

D. Conclusions

We believe that the technology for generating power from the fusion process will be mastered, and that commercially viable fusion power plants should be coming on-line within the next 30 years. The development of fusion technology will continue to be a cooperative international effort, and the technology when developed should be available world-wide.

The economies realized from fusion power should result in a general increase in standards of living, even with a rapidly growing world population. The transition to fusion will also effectively eliminate most of the environmental degradation problems of present mass power generation. Initial application of fusion will be limited to large-scale power generation, replacing fossil fuel and nuclear fission plants. Later refinements in the technology could lead to scaled-down applications such as in ships or vehicles.