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**The Straw That Could Break the Camel's Back:
An Economic Analysis of Subsidies in the Iranian Economy**

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1. Introduction

Speaking on the occasion of submitting to the *Majlis* (parliament) his government's budget for the year 2000, President Khatami outlined his vision of a welfare system for Iran and his government's policy on subsidies. He noted that alongside the present subsidies for basic commodities (which will enjoy a 19.6% increase in the year 2000), the government will institute a system of direct payments to low income families. He envisioned helping 3.5 million families under this arrangement. While acknowledging shortcomings of the present system, he added that any overhaul of it has to take into account the protection of low-income groups.¹

Subsidies and welfare payments play a large role in the Iranian economy. The numbers that appear in the government budget under welfare or subsidy payments are only the tip of the iceberg. A considerable part of subsidies paid by the Iranian government are hidden and do not appear in the budget. The government provides to the populace a number of goods and services at prices below their cost or far below prices prevailing in international markets. One especially important case is supplying petroleum products at a fraction of their international prices. All said, the Iranian economy is crisscrossed with a network of hidden and visible subsidies that threaten the long-term health of the economy that the President himself has referred to as sick.

To be sure, extending a social safety net to individuals and families who are economically vulnerable is a laudable act, and ranks high among the tasks of a modern government. Nevertheless, such undertakings have many economic implications. For a policy to be viable in the long run, all costs, apparent or hidden, and all tradeoffs should be considered. The objective of this paper is to evaluate the economic ramifications of Iran's system of subsidies and President Khatami's welfare proposal.

While the importance of a study of the economic costs of a social welfare and subsidy system can hardly be exaggerated, and a thorough study of all issues involved is highly desirable, we will confine ourselves to only three prominent cases of subsidy payments by the Iranian government. These include subsidies for basic commodities instituted in 1980 and continuing to the present, hidden subsidies for gasoline (which can be extended to all petroleum products), and the system of direct payments proposed by President Khatami. Certain general points applicable to all three cases are discussed before addressing each of the above mentioned subsidies in turn.

2. General Observations on the Question of Subsidies

In the literature on public economics the word subsidies is rarely mentioned. The reason is that subsidies can be considered as negative taxes. For example, direct subsidies based on family income work much the same way as a negative income tax. Similarly, when the government pays a certain amount to producers for each item they sell, the

situation is the mirror image of a sales tax. Therefore, the vast literature on taxation, *mutatis mutandis*, is applicable to subsidies, and the interested reader is referred to texts on public economics and taxation for a more detailed analysis of issues raised here.²

Policy discussions of the budget and subsidies in Iran, and particularly newspaper articles on the subject, focus only on the benefits of subsidies or, equivalently, the hardship that will result from their elimination. Neither the revenue sources for such payments nor the economic consequences of resource transfer from other sectors of the economy to the recipients of subsidies are mentioned. Ostensibly, it is implicitly assumed that the government, acting as a modern day Robin Hood, taxes the rich and pays to the needy.

The bulk of the Iranian government's revenues are from oil royalties. To spend this money on consumption is similar to selling family assets to have a good time in the short run. Oil revenues may dwindle in the future. Neither are Iran's oil reserves infinite, nor is future dependence on petroleum as a source of energy assured. Even if the future of oil revenues were guaranteed, spending them on consumption, rather than expanding production capabilities of the country, is hard to justify.

But let us suppose that subsidies are paid out of taxes, and for the moment let us forget that the lion's share of taxes are paid by government employees. Still, benefits from subsidies should be compared with benefits from other expenditures. Consider that in 1996 subsidies for basic commodities amounted to 6299.2 billion rials or \$1.3 billion at the free market rate (\$3.6 billion at the official rate). In the same year, hidden subsidies on gasoline alone amounted to more than \$3 billion (see Section 5 below). One has to ask how many schools, hospitals, roads, and factories could have been built with that money. There are many deprived and backward areas in Iranian provinces such as Baluchestan, Kerman, Khorasan, Lorestan, and others. Paying subsidies on gasoline and other commodities amounts to depriving Baluchestanis of hospitals and schools so that Tehranis can pollute the air with their cars.

The tendency in subsidy payments to increase over time can easily be seen in the case of Iran (see figures in sections 3 and 4). The reason is that more and more people and groups use every available means to be included among the recipients of the government largess. Any time the government tries to reduce the number of people on a program, it has to face a large pressure group with strong incentives (in some countries street riots have broken out because of a cut in subsidies). On the other side no one will lobby or pressure the government for the elimination of such programs—no one has a stake in such an action. This has been the experience of far more efficient and accountable governments than that of Iran.

Many countries have experimented with subsidies. Countries as economically, socially, and culturally diverse as Bangladesh, India, Egypt, Russia, France, England, and Germany have instituted subsidy systems. None have had a success story. Noble laureate Gary Becker noted that "generous subsidies to persons without jobs that discourage them from looking for work" is among the factors causing Europe's employment problems.³

Finally, we should clarify a misconception about subsidies. Proponents of such payments pretend that they benefit mostly the poor. While in some cases this is true, there are many instances where subsidies benefit the rich. Again consider the hidden subsidies on gasoline. A man or woman who rides buses to work benefits (through a lower bus

fare) very little from such a subsidy. A family that has a car benefits much more. Moreover, the more cars a family has the more benefits it receives.

3. Subsidies for Basic Commodities

In 1980 the Iranian government started subsidizing, through the Organization for the Protection of Producers and Consumers, a number of commodities deemed essential or foodstuff.⁴ Of course, this was not the beginning of subsidy payments in Iran—the affair has a much longer history. But it was the start of a systematic subsidy regime that has lasted till now. The subsidies are for a variety of commodities including chemical fertilizer, milk, cheese, oil, rice, meat, and others.⁵ At the beginning the total amount was small—37.3 billion rials in 1980. During the eight-year war that followed the invasion of Iran by Iraq, the total amount fluctuated around 100 billion rials. After the war, however, the payments took off and amounted to about 6300 billion rials in 1996. Based on the president's report to the Majlis, it will reach 7950 billion rials in the year 2000.

To understand the effect of these subsidies on the economy, remember that they can be considered as a negative tax. Since they are mostly paid for specific goods and services, they act much the same way as a negative sales tax. That is, they lower the price of these goods and services to consumers. The main effect of subsidies, therefore, is an increase in consumption. Indeed, between 1979 and 1995, per capita private consumption rose by about 10% while, during the same period, real per capita GDP showed a 5% decline. This is not to say that the increase in per capita consumption was due to subsidies. On the contrary, the amount of subsidies compared with aggregate private consumption is too small to allow the detection of a statistically significant relation between the two. Yet for a country that needs savings, encouraging consumption even if its effect is negligible cannot be defended. Iran is suffering a 20% annual rate of inflation, which is demand driven, and the central bank has been incapable of curbing it. An increase in consumption will not bode well for controlling demand and inflation.

Another effect of subsidies is to boost the production or importation of subsidized commodities. This in turn will result in a reallocation of resources, which may not make any economic sense. For example, a country may not have comparative advantage in producing coffee, but subsidizing its production could result in investment that would need financial help in the long run.

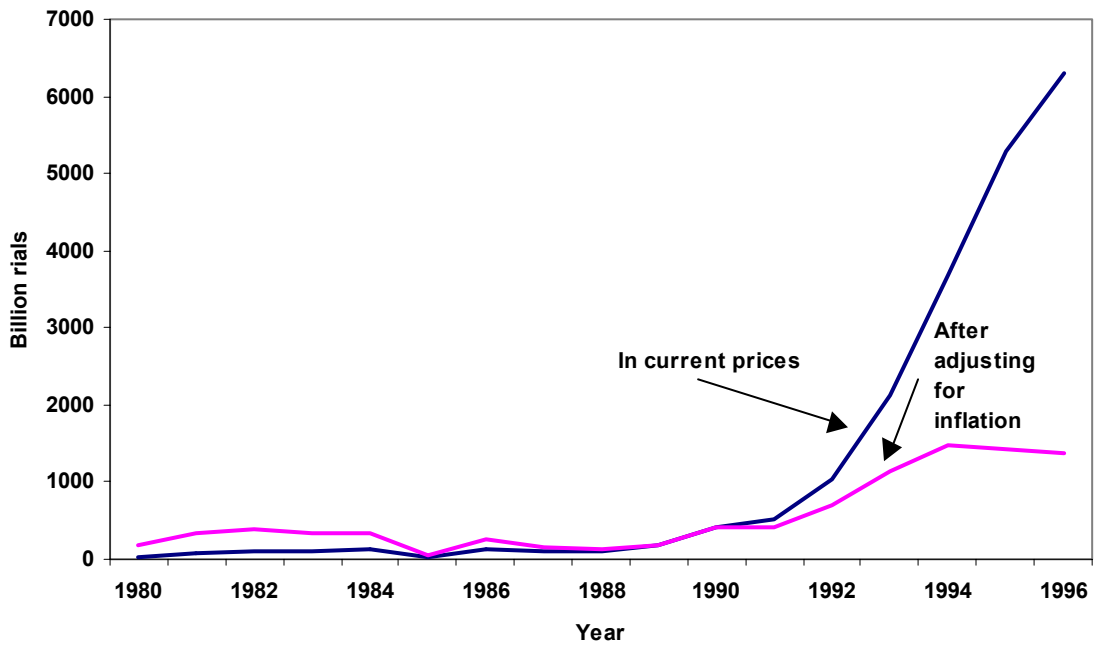
As Figure 1 shows, a good deal of the purchasing power of these subsidies is eaten up by inflation. For instance, the amount in real terms of subsidies budgeted for the next year is below their level in 1996. A reasonable policy would be to hold the nominal level of these subsidies constant and allow their real value to become insignificant and approach zero. While this policy may sound painless, it still requires political will of the government to pursue it over the long haul.

4. Hidden Subsidies for Gasoline

In addition to direct subsidies for basic commodities, the Iranian government spends billions of dollars on providing a multitude of different goods and services for the population. These range from health and education to public transport and communications such as telephone and postal services. Some of these services are

provided by other governments and may be considered to belong to the public domain. But the Iranian government's commercial activities encompass many goods and services, which are not generally deemed as the realm of the government. Subsidies paid for the provision of these goods and services are hidden because many government enterprises are not profitable. That is, general revenues have to be used to cover their losses. A particular type of subsidy is selling foreign exchange to government agencies at the ludicrously low rate of 1750 rials per dollar when the exchange rate in the free market is around 8500 rials.

Figure 1. Subsidies for Basic Commodities

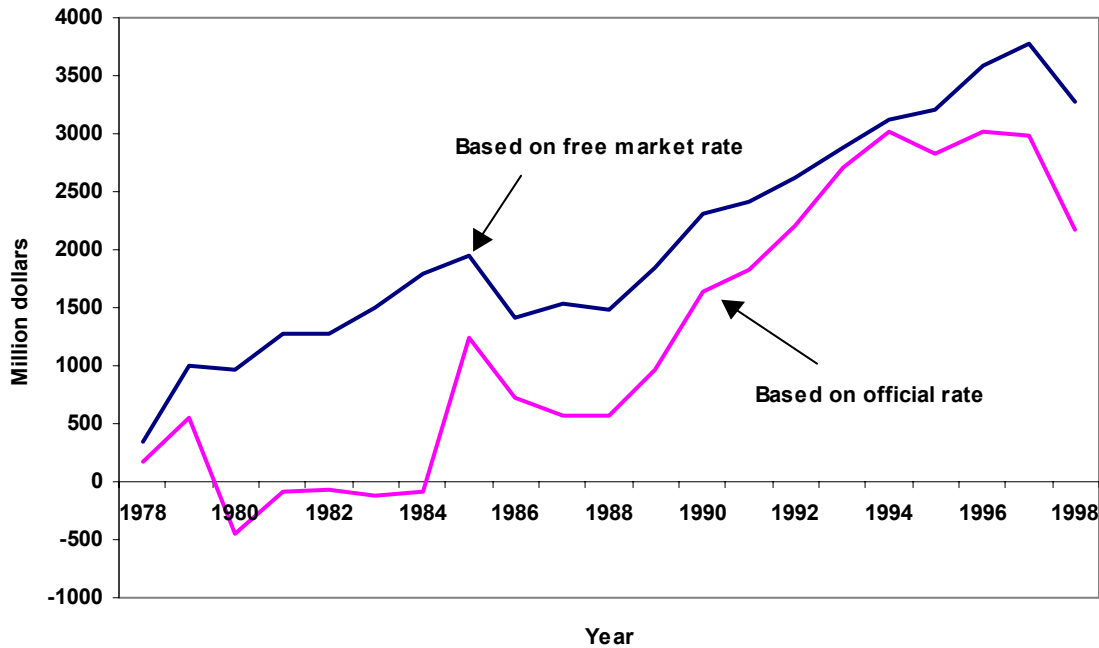


There is no way to calculate all such hidden subsidies, and the limitations of the present paper do not even allow their full enumeration. Here we calculate the amount of one rather egregious example of such subsidies, that of gasoline, and reflect on its economic and environmental consequences.

We can best understand this subsidy by an example, and the reader should bear in mind that the Iranian government has a monopoly over all petroleum products within that country. In 1998, one liter of gasoline sold for 200 rials in Iran, that is, 757 rials for a gallon.⁶ If we take the official rate of 1750 rials per dollar, a gallon of gasoline in Iran costs slightly more than 43 cents. If we use the free market rate of 6500 rials per dollar the price of a gallon of gasoline amounted to less than 12 cents. During the same year a gallon of unleaded gasoline sold for \$1.06 in the United States. We acknowledge that the Iranian price is for regular gasoline, but keep in mind that, compared with European countries, gasoline prices are quite low in the United States. Using the U.S. price as a benchmark, the Iranian government paid 63 cents (based on the official exchange rate) or 94 cents (based on the free market rate) per gallon to subsidize Iranians' use of gasoline. Since in 1998 Iranians purchased 13.14 billion liters (3472 million gallons) of gasoline,

total subsidies amounted to about \$2.2 billion (official rate) or \$3.3 billion (free market rate). Considering that, in the best of years, Iran's total oil revenues do not exceed \$20 billion, the amount of hidden subsidies for gasoline alone is astronomically high. Such subsidies have been on the rise for the past 25 years (see Figure 2). Note that negative hidden subsidies (extra taxation) in the early years of the revolution are due to the unrealistically low exchange rate for the dollar rather than pricing gasoline economically.

Figure 2. Estimated Hidden Subsidies for Gasoline



Also note that in 1980 the U.S. price of gasoline was only 2.6 times the price in Iran. Thus, twenty years ago adjustment could have been made easily over a short period of time. In 1998, the U.S. price was nine times that in Iran, and the adjustment could have caused a big uproar.

What are the implications of such subsidies? Lowering the price of gasoline leads to an increase in its demand, and we should expect to observe a rise in its consumption disproportionate to the rise in the national income. Indeed, as a result of hidden subsidies, annual per capita gasoline consumption in Iran rose from about 138 liters in 1978 to 212 liters in 1998, an increase of more than 53%. Considering that during the same period per capita income in Iran declined, the adverse effect of hidden subsidies becomes more apparent.

But perhaps there is no better graphic illustration of the damage done by these subsidies than the headlines in Iranian and international news media. On December 22, 1999, the BBC reported, "Special measures have been announced in the Iranian capital, Tehran, to combat the city's worsening air pollution problem." It added, "Motor vehicles are the main culprit. There are over two million in the city; their average age is over 15 years. They are officially believed to be responsible for more than 70% of the pollution."

⁷ On December 26, 1999, the BBC reported that "Schools and kindergartens have been closed in Tehran as a blanket of dangerous smog envelops the city. Iranian state-radio has

urged the city's 10 million residents, especially children, the elderly and the sick, to stay indoors, and for people to use public transport instead of their private vehicles.”⁸ The Iranian President called Tehran pollution “intolerable” and ordered necessary funds to be allocated to the Tehran municipality to combat air pollution. Subsequently, the government announced that it has approved a 10-15 year project to reduce air pollution in Tehran. The cost was estimated at \$2 billion to be made in foreign currency plus 138 billion tumans to be paid in domestic currency.⁹

To sum, the government pays more than \$2 billion a year to Tehran inhabitants to pollute the air and then spends another \$2-3 billion over 10-15 years to combat it.

5. Direct Subsidies to Low Income Families

Generally speaking, direct subsidies as proposed by President Khatami are preferable to subsidizing a group of commodities. This is because direct subsidies go to the source of the problem in trying to alleviate economic hardship. If a group of people needs a social safety net, it is because they do not earn enough income. By giving them extra cash, the government faces the problem head on. But more important, direct subsidies do not distort the allocation of resources. If the government subsidizes a particular type of fabric or foodstuff, it encourages its production and consumption, regardless of whether consumers prefer such a commodity or the country has a comparative advantage in producing it. Direct payment puts more resources at the disposal of low-income families, which they can spend as they wish. The market then decides to allocate resources according to the new arrangement. Therefore, the allocation of resources is changed only to the extent that low income groups' preferences differ from those who would have received these funds had there been no welfare payments. As such it has minimal distortion effect and achieves equity at little cost to the efficiency of resource allocation. But direct subsidies are not a panacea, nor are they without complications.

Such subsidies can be paid in two different ways, as a set lump sum subsidy to families whose earnings are below a certain level, or as a percentage of the difference between family earnings and a set level of income that the government chooses as a benchmark. Families whose incomes are at or above this level will not receive any subsidies.

The first issue to be addressed is the determination of eligible families. It is natural to assume that a government agency will be charged to determine who can be a beneficiary of government welfare payments. There will be ample room for favoritism and corruption here and there will be a tendency for the number of eligible individuals to increase. Even in the United States where extensive data on taxable income and social security taxes are reported and available, the number of welfare recipients has skyrocketed over time, and many instances of abuse have been discovered; hence the push for welfare reform. Neither does Iranian government have the capabilities of such record keeping nor does the typical behavior of its employees leave much room for optimism that abuses of the system will not occur.

A second, more important effect would be an increase in consumption and an aversion to work. It is not difficult to see that since these families will have more income, they will consume more. Indeed, it is the intention of the program that these families

enjoy more amenities of life. The second effect, however, requires clarification. We will first consider the case where welfare payment is made lump sum and then the case where the payment decreases proportional to family earnings.

A family will be richer after receiving a lump sum payment from the government compared with previously. The more income a family has the more it values leisure compared with work. Thus, such a family has less incentive to seek work. Especially it will shun work that provides enough earnings to make it ineligible for receiving welfare benefits. The consequences are, therefore, a perpetuation of dependency on the state, and an increase in unemployment. It may be argued that Iran is suffering from high rates of unemployment, and the welfare recipients would not have found jobs anyway. That may be true but it is also true that in some advanced countries the rate of unemployment has doubled after introducing generous unemployment benefits.

If payments were reduced proportional to earned income, the effect would be like the lump sum payment above plus a surcharge tax on recipients' earnings. This is because for every additional hour worked, instead of receiving the full amount of hourly wage the worker will receive his/her wages minus the reduction in welfare benefits. The wage rate is the price of labor, and a decrease in the wage rate makes working less desirable because one earns less for giving up leisure. If the wage rate is 1500 rials, then a two-hour nap in the afternoon will be worth 3000 rials. But if the wage rate is halved the same nap costs only 1500 rials, and it would be much easier to give up 1500 than 3000 rials for a nap. Thus, a decrease in the wage rate reduces the incentive to work and the supply of labor.

In recent years while countries around the world benefited and prospered from the process of globalization, Iran was left behind. Now it has to play catch up by joining the World Trade Organization and by attracting foreign capital. Subsidy payments may harm these efforts. Globalization increases elasticity of demand for labor, that is, any increase in wages will sharply cut the demand for labor. Subsidies that will lead to higher wages will necessarily cause higher unemployment. Presently, Iran is facing a double-digit unemployment rate, and subsidies will aggravate the situation. Moreover, the unemployment problem can be alleviated through investment and job creation. A system of subsidies constitutes a long-term contract between the government and the recipients. The contract, in turn, entails a liability for the government, which has to be covered by taxing businesses and workers directly or by printing money and indirectly taxing everyone through the ensuing inflation. Either way, businesses will be wary to invest in a country that has already committed itself to a costly entitlement program. A much better use for the money is in education.

A side effect of subsidies, which will run counter to the original intent of the government, will be a widening of the urban-rural income gap and a worsening of urban problems. The larger share of subsidies will go to the urban population, and city dwellers will have an easier time obtaining them. Availability of subsidies in cities will entice the rural population to migrate to cities. Thus, on the one hand the labor force in agriculture will decline and, on the other, urban problems will intensify.

Despite the problems discussed above, direct welfare payment is preferable to other forms of subsidies because it will cause the least distortion in resource allocation in the economy. But its effectiveness in Iran is doubtful because of the inefficiency and corruption of the government bureaucracy. If the 2122 billion rials allocated for direct

subsidies in the year 2000 budget are divided among 3.5 million households mentioned by President Khatami, then each family will receive 606286 rials. At the unrealistic official exchange rate of 1750 rials per dollar, it amounts to \$346 per family and, if we assume the market rate to remain around 8500 rials per dollar, it will be the equivalent of \$71. Although the amount doesn't seem much in a country like the United States, it would be enough in Iran to induce bribery and corruption.

6. Concluding Remarks

Protection of the weaker segments of the society is an important function of a modern government. The responsibility of the government to provide a decent living for the disabled who cannot work, the mentally handicapped, and children without families cannot be disputed. Indeed, we can go one step further and say that it is the duty of the government to provide equal opportunities (but not outcome) for all members of the society. Only when the playing field is approximately even can we speak of equality before the law, and democracy.

But subsidies are not the right way to achieve these lofty goals. We have tried to show the costs associated with them and to argue that these costs outrun any possible benefits. In particular, we have suggested that if instead of spending its resources on subsidies, the government invested in education, health, and other social goods, it would achieve better results. A welfare system of direct payment to deserving families is theoretically superior to subsidies for goods and services. But it comes up against inefficiencies and corruption in the Iranian government.

The final point is that the subsidy payments and the proposed welfare system should be studied carefully to see if such expenditures, compared with competing demands on public funds, are justifiable.

Endnotes

* We would like to thank Steven Morrison for helpful comments.

1. A translation of the relevant passage of the President Khatami's speech of December 15, 1999 follows:

"One of the innovations of the budget for the year 1379 [2000] is the establishment, alongside of the present arrangements, of a system of direct subsidies within the framework of the Third Plan policies. As I mentioned before, allocated funds for subsidies of basic commodities are predicted to grow by 19.6 percent to 7950 billion rials in the next year. While we believe that the present system of subsidies for basic commodities has noticeable weaknesses, we are also committed to the point of view that replacing the system with any other option has to be contingent on finding appropriate ways to protect low income groups and avoiding damaging the society. To this end indirect subsidies will continue in the year 1379, and in addition, we have allocated 2122 billion rials for direct payment to families whose income falls below a certain level. By covering approximately 3.5 million

households, we hope to lay the foundations of a purposeful subsidy system and gradually expand it.

Segments of public sector employees, retired civil servants and military personnel, those who sacrificed during the war, social security recipients, needy people of both urban and rural areas, self employed individuals of urban areas, and households whose head is a low income woman are covered under this project. Needless to say, successful implementation of this project not only will be effective, to a great extent, in providing a minimum livelihood for low-income groups, and in eliminating the stark manifestations of poverty, but will also lay the foundations of a comprehensive social security system." (*Ettela'at International*, Thursday December 16, 1999, p. 3.)

2. See, for example, Anthony B. Atkinson and Joseph E. Stiglitz, *Lectures on Public Economics*, New York, McGraw-Hill, 1980; or the more recent but less technical book by Joel Slemrod, *Tax Policy in the Real World*, New York, Cambridge University Press, 1999.
3. Gary Becker, "Don't Blame High Tech for Europe's Job Woes," *Business Week*, July 7, 1997, p.26.
4. Data for this section are from *Economic Report and Balance Sheet of Bank Markazi Iran*, different years; and Plan and Budget Organization, *Gozaresh Eqtessadi Sal 1375* (Economic Report of 1996), vol. 1, Tehran, 1997, p.175.
5. In addition, certain other activities such as "Basij committee expenses," "structural investment," "coupon printing charges," and the like, whose connections to basic commodities and foodstuff are not clear, were also subsidized under the same title.
6. We are indebted to Dr. Abbas Valadkhani of Iran's Plan and Budget Organization for providing us with some of the data used in the analysis of this section.
7. BBC News on the Internet, December 22, 1999:
news.bbc.co.uk/hi/english/world/middle_east/newsid_575000/575109.stm
8. Ibid, December 26, 1999:
news.bbc.co.uk/hi/english/world/middle_east/newsid_579000/579092.stm
9. *Ettela'at International*, January 5, 2000, p.2.