

Minibuses in Kuala Lumpur account for more than 50 percent of passenger miles in peak periods



What do Third World cities have that ours don't? Flexible, low-cost transportation. The surprise is how they do it.

By Gabriel Roth

FREE-LANCE TRANSIT

THE CONVENTIONAL WISDOM, at least in countries that are pleased to call themselves "developed," is that urban public transport has to be supplied by a publicly owned or franchised monopoly and that services have to be slow, costly, and unprofitable. Working with George G. Wynne, however, I have found that wisdom eminently open to challenge.* On the basis of evidence from a wide variety of cities on five continents, we were led to conclude that market forces, if allowed to work, can supply—at a profit—high-quality urban transport services at fares that the great majority of travelers would be willing to pay.

How might this be done? What is the secret? A new technology? New methods of "coordination"? New computer

models to aid the hard-pressed transport planners? None of the above! In fact, it is profit that provides motivating force, small independent operating firms that work as the implementing units, and the shared taxi and minibus that turn out to be the appropriate technology. The shared taxis of Belfast, Northern Ireland, are an example of the providers of services that compare favorably, in both speed and cost, with conventional buses.

How is it that these systems, which might be called *informal public transport*, are more successful than the conventional systems in providing higher standards of speed (measured door-to-door), comfort (seats for all), and profitability (higher profits or lower subsidies)? Evidence from both developing and developed countries suggest that there are four factors involved.

PRIVATE SUCCESS

The first is that ownership of the informal public transport is in private hands. That publicly owned bus companies sus-

tain losses is not entirely surprising, since the systems taken over by public authorities tend to be the ones that are not run at a profit by private operators. However, the losses under public ownership tend to rise rapidly, at a rate that bears little relationship to increases in service levels. The losses appear to be due to the higher cost levels (especially wages) that can be afforded by subsidized systems and the inability of publicly owned operators to resist pressures from politicians to hold down fares and expand unprofitable services.

The effect of private ownership on bus operating costs can be seen in Australia. In 1975, 52 percent of the buses in New South Wales, 83 percent of those in Victoria, and 46 percent of those in Queensland were private. In Queensland and Victoria, private operators were not allowed to raise their fares to meet increased costs but received government subsidies to enable them to stay in business. Thus, both publicly and privately owned buses in Australia were

*Our findings have been published in *Free Enterprise Urban Transportation*, by Gabriel Roth and George Wynne (Council for International Urban Liaison, 818 18th Street, NW, Washington, DC 20006).

subsidized in 1975.

What happened under these circumstances? The unit costs of the private firms were found to be substantially lower than those of the public ones. For example, the ratio of total employees to buses owned was typically 1.0-1.5 for private operators but 2.0-2.5 for public ones. Driver wages in the public sector exceeded those in the private sector by 43 percent; payments to traffic staff in the public sector were double those in the private sector; and wage costs for vehicle repairs and maintenance were 12 percent of total costs in the public sector but only 6 percent of private operators' costs, because much of the maintenance of private buses was carried out by the drivers themselves.

Calcutta provides another striking example of the superiority of private ownership, even when using full-size buses. Private buses first appeared in the city toward the end of the 19th century but were banned in 1960 when all bus services were vested in the Calcutta State Transport Corporation (CSTC). The CSTC suffered from managerial and financial problems and in 1966 was paralyzed by strikes. In response to public demand before the 1966 elections and to its own need for ready cash, the government of West Bengal sold permits that enabled 300 private buses to be operated. These operated at a profit, although they charged the same fare (equivalent to about one-half cent per mile) as the money-losing CSTC and had inferior routes.

By the late 1970s, some 1,500 full-sized private buses were operating in Calcutta, in addition to about 500 private minibuses. Today, the private buses account for about two-thirds of all bus trips in Calcutta *without subsidy*. Meanwhile, the CSTC, which operates similar routes at the same fares, has to be subsidized to the tune of \$1 million a month by a government that is desperately short of funds. The success of the private operators has been attributed to adequate maintenance that results in high vehicle utilization, keenness in fare collection, and to the organization of small units in route associations, discussed in detail below.

SMALL IS SENSIBLE

Another critical difference between most publicly and privately owned systems is the size of the vehicles they operate. One of the established but questionable principles of public transport operation is that large vehicles are more economical to operate than small ones. Over two-thirds of bus operating costs are attributable to labor. So the idea is

that it pays a bus company to have large vehicles—even if they are full for only a fraction of their working lives—to avoid the additional labor costs that would be required to meet peak demand with small vehicles. This reasoning, though apparently sensible, can be questioned on two grounds:

First, the capital cost *per seat* seems to increase with the size of the vehicle. For example, operators in San Juan, Puerto Rico, can expect to pay \$17,000 for a minibus seating 17 but \$140,000 for a full-size bus seating 50. Thus a full-size bus can cost almost three times as much per unit of passenger capacity as a minibus. This is mainly because small vehicles can be mass produced and bought "off the shelf," while large ones tend to be made on special order and assembled as separate units.

But there is a second reason favoring the small bus. While more subtle, it may be more important. For a given route capacity, small buses provide more frequent service than large ones and therefore involve less waiting time per passenger. This factor might not matter to a franchised operator who has to bear the costs of his crew but not the waiting time of his customers; hence the preference of monopoly operators for big vehicles. Where competition is allowed, however, those who provide transport have to respond to the needs of the passengers, most of whom dislike waiting for buses. To reduce waiting, it is necessary to use small vehicles providing frequent service.

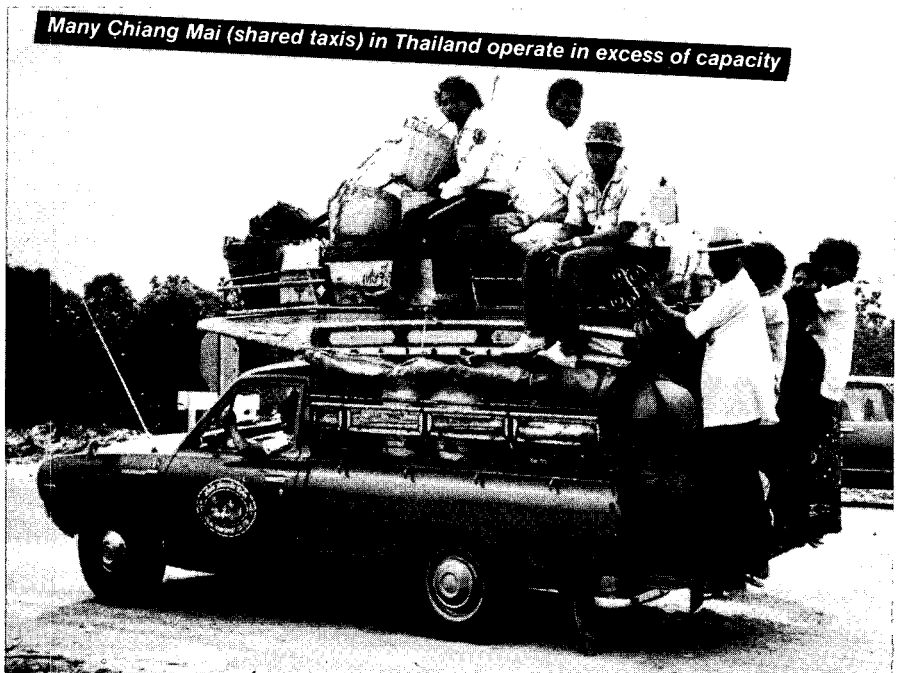
The small bus has other advantages: as it holds fewer passengers, it is easier to fill with people starting at one point and

wishing to travel to another, so it tends to stop less frequently than large buses. Being more maneuverable, it also can often make its way more quickly along congested roads.

It is significant that when private bus operators took over the municipal service in Buenos Aires in 1962, one of their first actions was to replace the large municipal buses with smaller ones. Indeed, whenever a private operator has the freedom to choose the size of his vehicles, he generally chooses something less than a full-size bus.

The effect of vehicle size on speed and occupancy—and the effect of invidious regulation—is illustrated by the case of Kuala Lumpur, Malaysia, which introduced minibus services on a limited basis in 1975. Over 2,000 applications were received in response to the government's invitation. By the end of 1975 there were about 100 minibuses plying routes in the city; and by 1978 the number had risen to 400, at which level the number was frozen. (It might be asked why, given the market demand for the minibuses, the government did not issue more licenses. One of the reasons for this was that the minibuses were taking traffic from the conventional buses, and the authorities were reluctant to license more minibus capacity while there were underutilized, full-size buses.)

As a result of the freeze, the minibus service—which was conceived as a luxury service for long-distance commuters—became degraded by overcrowding and standing passengers. The ratios of load to capacity (based on 58 seated passengers for a conventional bus and 16 for a minibus) were 68 percent in



In Ethiopia, taxi service is often provided by owner-operators



the morning and 78 percent in the evening peak periods for conventional buses and 114 percent and 125 percent, respectively, for the minibuses, the occupancies in excess of 100 percent representing standing passengers. Surveys carried out in 1978 indicated that in peak periods the minibuses accounted for 35 percent of all bus trips to the central area and 53 percent of the passenger miles. (The percentage of passenger miles was higher than the percentage of trips because the average trip length by conventional bus was 2.4 miles, compared to 5.1 miles by minibus.) Thus, a fleet of 400 16-seat minibuses "produced" more passenger miles than did the 600 58-seat conventional buses that were estimated to have been operating at the time.

THE SIZE OF SUCCESS

A third factor in the success of informal public transport is that the organizational units that run them are relatively small. Units supplying public transport range from the one-man bicycle rickshaw in East Asia to fleets with thousands of buses in cities such as New York, Chicago, London, Bombay, and Bangkok. Numbers of employees per bus also vary widely, from under two in Australia to 58 in the Office des Transports en Commun du Zaïre (OTCZ) of Kinshasa (as only about 50 percent of the OTCZ buses are on the road at any time, the staffing is actually 116 people per working bus).

Attempts have been made to assess the effect of fleet size on the efficiency of public transport systems, but the results

are not conclusive. A study comparing different-size firms in Britain reported that unit costs increase with fleet size, while the opposite effect was found in India. There is thus no clear evidence that increases in the size of bus fleets result in lower costs or higher profitability.

On the other hand, there is much evidence that large bus fleets incur financial losses under the same conditions in which small operators—owner-drivers—make profits. Although operators the world over are reluctant to admit to making profits, the competition to obtain permits to provide service in Hong Kong, Kuala Lumpur, Manila, and other cities is a sure indication of profitability. In London, there is a case of a route that was given up by London Transport because it lost too much money and was subsequently operated, without subsidy, by a private operator.

The reasons for the financial viability of the small transport firm, be it a mover, a taxi driver, or a bus operator, are well known and typical of other types of small business in the service sector. The owner will be willing to work longer and less regular hours than would a paid bus driver in a large fleet. He will clean his own vehicle (or enlist the help of family members), and realizing the importance of servicing and maintenance, he is likely to do the work himself. He will not have his own depot but will service his vehicle on the street or at a local garage. His record keeping will be minimal. He will make a greater effort than a paid driver to collect fares from passengers and to

ensure that the amounts collected do not get lost on the way. An extra driver can be employed if two shifts a day have to be run. Some facilities, such as two-way radio service, can add to earnings without the owner relinquishing control of his vehicle.

In passenger transport, the basic operating unit is the vehicle and, as the taxi business proves, it is possible for the owner of even one vehicle to operate it successfully at a profit. Indeed, in Colombia and Argentina, it is common for a group of people to own a small bus and to operate it at a profit. The owner-driver is in a particularly strong position to control the maintenance of his vehicle and the revenues obtained from customers. Hence there are real advantages to the operators of small transport units.

COOPERATIVE COMPETITION

The final advantage of small private firms is that they can provide a high level of service over a wide area as long as the organizational structure of the industry is appropriate. Taxis are a case in point. While some may be operated as one-person firms and others in large fleets, there is no need for any formal coordination to achieve an acceptable level of service. Taxis find their way to where the business is most profitable and provide an example of coordination through competition.

In order to make the maximum contribution in the provision of transport, however, the individual unit does have to work within an appropriate organizational framework. For example, a taxi looking for business has to be recognized by the public as being available for hire. If it is a vehicle intended to carry more than one person, its destination has to be clearly indicated. It is also important for the potential passenger to know the fare that is being charged and the places at which vehicles can be readily found. Some of these features are provided by route associations, which are to be found in many cities in Latin America, Africa, and Asia, and in this country in several towns in New Jersey.

The essence of the route association is that each vehicle remains under the control of its owner or owners, who are responsible for both driving and maintenance. What is shared is the route—that is, the members of the association ply a specified route in conjunction with others, thus offering travelers a frequent service. Fares are generally, but not invariably, fixed by the association. In Hong Kong and Istanbul, for example, higher fares are charged in peak periods when demand is higher and traffic congestion more acute (a similar system is in

effect with Washington, D.C., taxis, which are allowed to charge higher fares in peak periods than in off-peak ones). The revenues in some associations are retained by the individual members and in others (such as in New Jersey) are pooled among the members.

The precise organization of a route association varies from city to city. Any group operating a route has an interest in limiting its numbers and also in ensuring that its members work harmoniously with one another. This means that conditions must be imposed on entry (possibly an entrance fee) and that rules are laid down to prevent members from "stealing" traffic from following vehicles by traveling behind their schedules. In many cities, however, including Buenos Aires, Manila, Calcutta, and Hong Kong, route associations compete with one another so that no group has a monopoly over an entire route. There are reports of in-fighting between competing groups of operators, but the route associations definitely work, serving both the public and their members.

"DEVELOPED" FOLLIES

None of this is, of course, new. Even before World War I, jitneys were successful in the United States, both technically and economically. Why, then, are market forces not allowed to supply public transport in most cities of the "developed" countries? There are three reasons: an obsession with cross-subsidization, defense of entrenched positions by vested interests, and the attitudes of urban officials.

Any organization providing a variety of services inevitably earns higher profits from some than from others. A profit-seeking management will generally try to expand its high-profit operations and to eliminate those which incur a loss. In some fields, however—and urban public transport is a notorious example—loss-making services are subsidized by profitable ones as a matter of deliberate policy. This policy, called cross-subsidization, is incompatible with free competition and can only survive under the protection of an area-wide monopoly. Without such protection, competitors will inevitably eliminate the excess profits earned on the profitable operations and leave no surplus with which to subsidize the unprofitable.

Cross-subsidization is pervasive in the provision of urban public transport. Not only do "good" routes support "thin" ones, but off-peak services support the peak-hour ones (which are generally the least profitable because of their use of equipment that is idle for most of the time); and, under the flat-fare system,

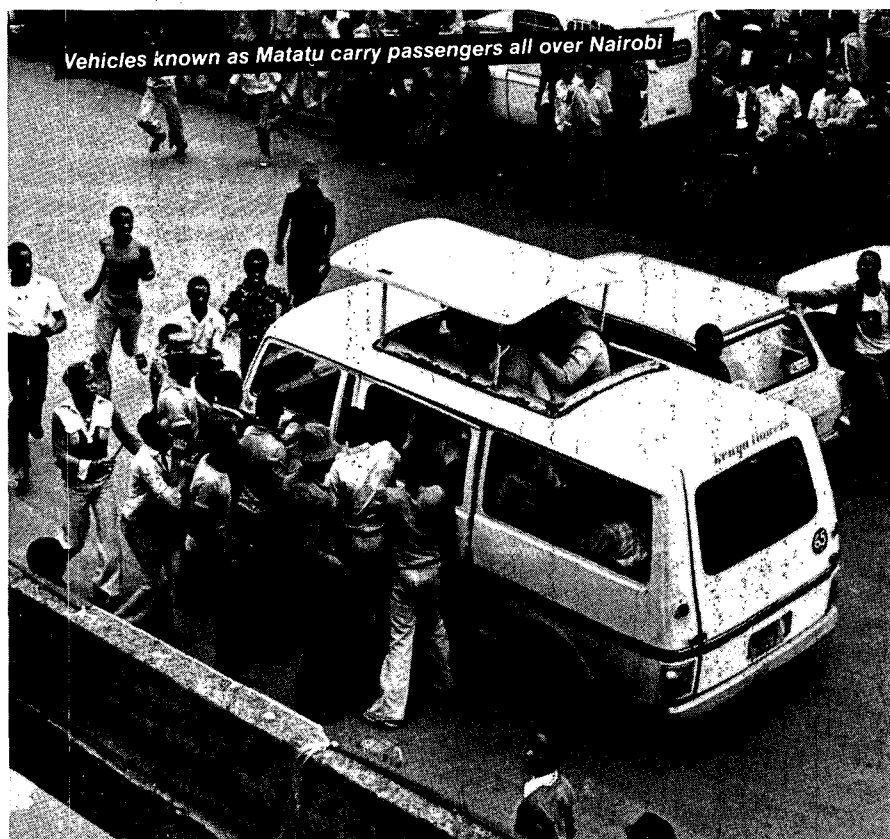
short-distance (inner-city) riders subsidize the long-distance ones from the outer suburbs.

The attitude of the conventional public transport providers, and the pivotal role of cross-subsidization, can be seen from the following report of a leading transport consultant on the St. Louis "Service Cars," an association of jitney operators whose services accounted for 70 percent of all public transport trips in St. Louis in 1957:

Although the Service Cars offer a more frequent service than could be given a similar passenger volume by either streetcars or buses, this is not sufficient justification for their parasitical activity. Operation of this type of transit serv-

travelers or trips, such subsidies could be given directly, as are food stamps. There seems to be no good reason, other than administrative convenience, for requiring them to be paid by other travelers. On the other hand, cross-subsidization has major disadvantages:

- It is undemocratic, in that it gives power of taxation and subsidy to bodies that are not elected and not equipped to decide who should be forced to give how much and to whom.
- Insofar as a cross-subsidy requires surpluses from some operations to be used to maintain others, it prevents the fullest development of the services that earn the surpluses.
- By allowing public transport operators



ice has a capacity of only 8 persons as compared to the 50 or more seats in a transit vehicle. Since individually-operated vehicles cannot be expected to exchange transfers, general coverage of the city by Service Cars, instead of transit, would require about half of the riders to pay two fares. Competitive services of this character should not be permitted. They can survive only in areas where there is heavy transit riding, and these are the areas in which an area-wide transit system needs all of the business to average out the thin areas in which noncompensatory service is being operated.

Even if there were compelling reasons for subsidizing certain classes of

to look only at their total expenses and revenues, it discourages them from assessing the expenses and revenues of individual service elements, with a view to changing the fares when called for, expanding profitable services, and dropping unprofitable lines and schedules.

- Cross-subsidies are an inefficient way of helping those in need, in that many who get the benefits do not really require them.

Cross-subsidization has done immense damage to the public transport systems of New York, Chicago, and other American cities, where it has proven to be as unworkable in practice as would be expected from theory. A key reason for its failure has been the availability of private

transport, a mode that received much stimulation from the poor quality of public transport. The evidence from many countries, including the United States, suggests that the demise of cross-subsidization and its replacement by a

cept is the proposition that some of the tasks currently being undertaken by its staff may actually be superfluous. For all these reasons, proposals to reform or abolish licensing systems are apt to be resisted by insiders who operate them.

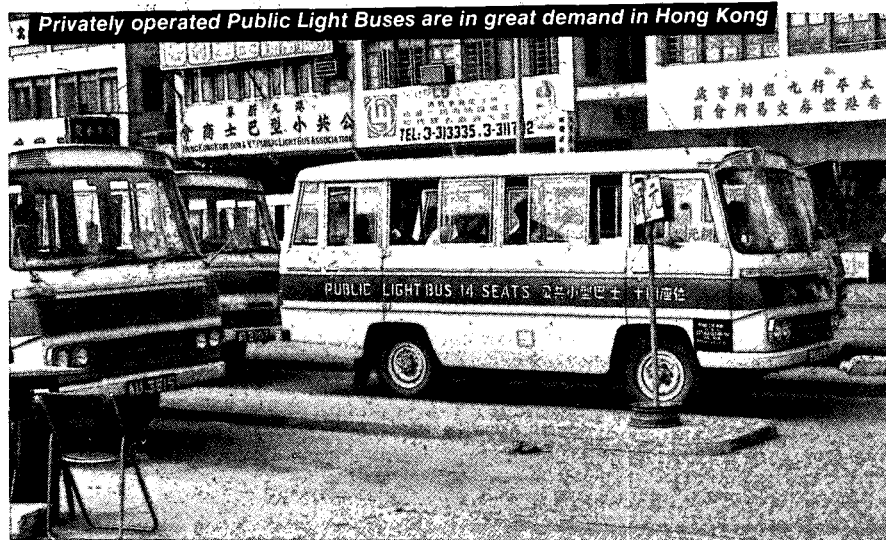
the county did not have the necessary funds. The taxi firm was not allowed to increase the charge, and the only way the service could be continued was by degrading its quality—by increasing the waiting time to one hour, then to two hours, and then to whatever interval was needed to balance supply and demand. The publicly funded service failed because even though it was meeting an obvious need, it did not possess a mechanism for expansion—the capability to raise the price it was charging and then to expand service to the extent that additional costs were covered by additional revenues.

Identifying the problem, while important, is easier than solving it. As the responsibility for licensing transport services in the United States generally rests with county and city governments, there is little that federal and state authorities can do other than to press for deregulation as a condition of financial support. The main action has to be at the local level. The role of local government should generally be permissive. That is, would-be operators of public transport should be allowed to provide services in the same way that would-be shopkeepers are allowed to set up shops.

Some progress is being made. For example, San Diego deregulated its public transport services in 1979 and, in consequence, the number of taxicabs operating there increased from 400 to 700 in two years. Knoxville established a "transportation broker" to develop and promote all forms of public transport. Within a few years it eliminated, by means of legislation, all controls on vanpools and carpools in Tennessee; it enabled third-party insurance to be obtained for vanpools not only in Knoxville but all over the United States; and it got passed a taxi cab ordinance in Knoxville that allowed shared riding. Indianapolis has allowed the introduction of an unsubsidized jitney service, despite opposition from the heavily subsidized local transit service. Meanwhile, organizations such as the Local Government Center and the Council for International Urban Liaison have disseminated information about the advantages of privately owned urban transport services.

As persuasive as the arguments may be for such services in both the developed and developing countries, the task of privatizing urban transport faces daunting political obstacles. Still, it is a task well worth undertaking. □

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competitive system would do more good than harm.

In addition to the obsession with cross-subsidization, there are other powerful factors working against a shift to informal public transport in developed countries. Important beneficiaries of the existing systems are the people who work for them. In the January 1982 REASON, Peter Samuel cited the example of the token booth attendants of the New York subway, who in 1978 earned about twice as much as intermediate-grade tellers in New York banks. Similar examples can be found in London, where a group of workers were recently discovered to have beds at their workplaces to ease the burden of the night shift. (This and other practices led to a public outcry and to changes in London Transport's top management.) It is to be expected that those who benefit from the existing system will resist change, but it may be far cheaper for cities to compensate displaced workers than to continue the operations of expensive services that do not meet the public demands for convenient and speedy transport.

The power to give or withhold a license, whether for transport, cable television, or for any other service desired by the public, confers status on those who wield it, even where there is no trace of self-seeking or corruption. The suggestion that licensing procedures might be amended, or even—heaven forbid—abolished, implies that the present system is less than perfect, an idea that is not easy for the practitioners to accept. Even more difficult for an organization to ac-

THE ROAD TO REFORM

When considering possible approaches to solving the problem of urban public transport in the United States, it may be worth reflecting on what the problem is. It is not, How can the performance of bus systems be improved? nor, How can public transport subsidies be reduced? Rather, the problem to be solved is, How best can urban travel be improved, particularly for people without ready access to private automobiles? It is a mistake to believe that urban Americans use private transport for reasons of prestige or because of some irrational "love affair with the automobile." Automobiles are used because they enable ordinary people to make more and longer journeys than would be possible by other means: the taxi alternative is expensive (unless shared) and the bus alternative too slow.

The public transport mode required by urban America, therefore, is one that can provide quick door-to-door service in reasonable comfort. It is because the shared taxi and minibus can provide a superior public transport service, and not merely because of low cost, that they have a proven record of success.

But, it may be said, why cannot public agencies provide such services? The answer may be illustrated by the case of a "dial-a-ride" service introduced some years back in Orange County, California. A local taxi firm was contracted by the county to provide door-to-door shared taxi service at low fares, with a waiting time guaranteed to be less than 30 minutes. The service proved to be so popular that it had to be expanded, but

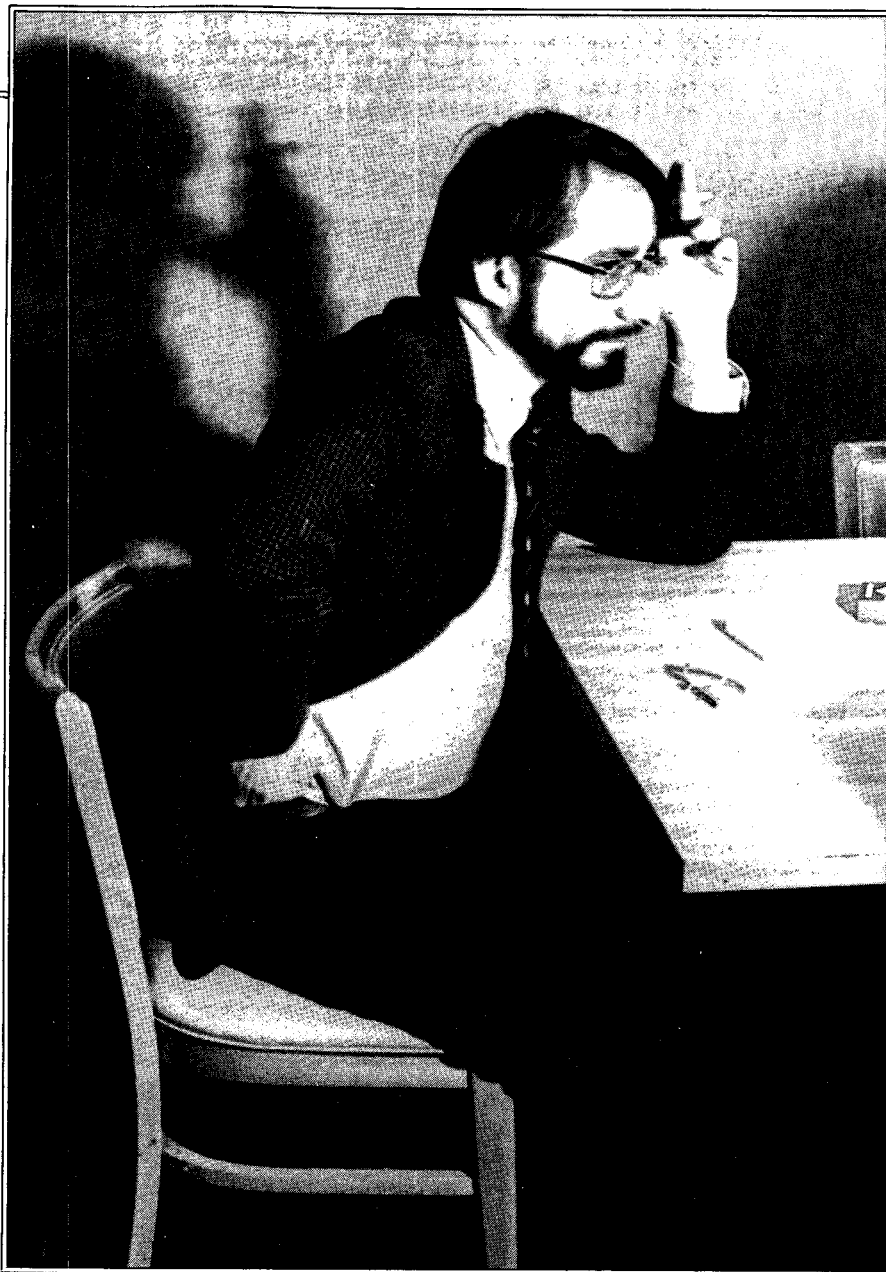
France is a country where well-read people become Marxists almost automatically, a country where the Communist Party has been one of the most powerful political parties, a country which experienced the traumatic "events" of May 1968, and the country where Francois Mitterrand swept to power last year, with a pro-Western foreign policy but a domestic policy hardly less statist than the Communists'.

Amid this apparent headlong rush to the Gulag, something astounding occurred in 1978. A book appeared by a Frenchman, arguing loud and clear for a free market and a libertarian society. Bizarre? Futile? Senseless? The book became an overnight bestseller. Suddenly the press was full of reports on the book, interviews with its author, and discussions of the issues it raised. It made free-market liberalism—"neoliberalism" in France—a force to be reckoned with in the country's politics.

*The book was translated into six European languages, became a best-seller in Sweden, and had respectable sales everywhere. The book was *Demain le capitalisme* (Tomorrow, Capitalism); its author, Henri Lepage, an economic journalist (and one of REASON's foreign correspondents).*

The key to the book's success was that it presented recent developments in American economics as a unified whole that could be fascinating and exciting to ordinary noneconomists if described simply, clearly, and accurately. Now it has had to be translated into English to provide us with the only readable summary of these developments. As with Alexis de Tocqueville, it has required a Frenchman to interpret what is going on in America and make it understandable to Americans.

While touring the United States to promote Tomorrow, Capitalism (Open Court), Lepage was interviewed for REASON by Leonard Ligio and David Ramsay Steele.



REASON INTERVIEW

Henri Lepage

REASON: You have done more than anyone else to popularize free-market ideas on the European continent. How did you discover these ideas?

LEPAGE: It started with the "May events" of 1968. I remember that I had filled up the tank of my car the day before the general strike began, so I was one of the few people in Paris still to have a car running three weeks later. I was a journalist, and we found we could not get the paper out, so we pro-