# Research Department Federal Reserve Bank of San Francisco

November 25, 1977

### Nation of Subway Riders?

Not very likely. And we may not turn into a nation of bus riders either, despite an encouraging increase in transit utilization in the past several years. Government subsidies are now beginning to refurbish the transit industry in a massive way, and the result could be a 2 1/2-fold increase in patronage by 1990. But even with a gain of that magnitude, transit's share of total ridership would remain where it is today, at about 6 percent.

The trend in transit patronage has been sharply downward for most of the past generation. In 1950, there were 13.8 billion total revenue passengers — about three-fifths bus riders, and the rest street car and rapid-transit (fixed rail) passengers. A quarter century later, there were only 5.6 billion revenue passengers — about three-fourths bus riders. Transit planners, at their most optimistic, hope to do nothing more by 1990 than to restore transit patronage to what it was in the much smaller economy of 1950.

A survey of commuting patterns, prepared in connection with the 1974 housing survey, emphasizes the modest level of transit patronage. In that year, only a little over a million of the 33 million home owners relied on mass transit to get to work—not many more than those who walked to work. (However, the proportion was larger among the 17 million renters.) Not surprisingly, the private auto was by far the chief means of getting to work, being used by 73 percent of the home owners and 61 percent of the renters.

And in most cases, the commuter drove alone, since only about one commuter out of seven belonged to a carpool.

#### Why drive?

The private auto is used for about 87 percent of all trips taken in U.S. cities. This is not necessarily because of the perversity of the consumer or his ignorance of economics. In the words of the Brookings' Institution's Wilfred Owen, "Part of the reason can be ascribed to public policy that has favored the car, but the basic reason why most urban trips are made by automobile is that the family car, despite its shortcomings, is superior to any other method of transportation" (Transportation for Cities). On a service basis, the auto generally wins out on time savings alone, since the average travel time for the work trip is 21 minutes for the motorist and 37 minutes for the transit rider.

The automobile offers comfort, privacy, limited walking, minimum waiting, and freedom from schedules or routing. It guarantees a seat, protects the traveler from heat, cold and rain; provides space for baggage; carries extra passengers at no extra cost; and for most trips, except those in the center city, gets there faster and cheaper than any other way. The transit rider, in contrast, must walk, wait, stand, and be exposed to the elements. The ride is apt to be costly, slow, and uncomfortable because of antiquated equipment, poor ventilation, and service that is congested in rush hours, infrequent

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during any other time of day, inoperative at night, and practically nonexistent in suburbia.

Owen thus concludes: "Most urban areas of the United States are totally dependent on highway-oriented transportation, and in particular on the private automobile. The idea that there can be a return to rail transportation or other public transit on a scale that will make a decisive change in transport patterns is an illusion."

#### Why not drive?

If all this is so, why has the Federal government undertaken its multi-billion dollar effort to reverse the tide in favor of mass urban transit? Briefly, this represents the nation's response to traffic congestion and pollution, to the mounting social costs of an automobile-dominated environment, and above all, to our dependence on foreign oil to keep the metropolis moving. Between 1972 and 1977, the bill for oil imports has jumped from \$5 billion to \$45 billion a year, reflecting not only soaring prices but also an 80-percent increase in oil-import volume.

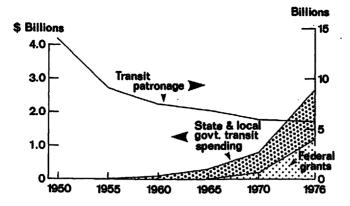
In 1964 Federal assistance to public transit totalled a modest \$30 million; by 1975 it had reached an annual level of \$1.4 billion, and was rising swiftly. Recent legislation has established the first long-term commitment to transit, providing not only for capital investment but for operating subsidies as well. Moreover, the Federal highway program has been greatly expanded in urban areas and modified to allow local

governments to shift road money to bus and rail alternatives.

#### Riding the rails

For a while, it seemed that most of the Federal funds would go into the creation of advanced (fixed rail) rapidtransit systems, typified by San Francisco's BART and Washington's Metro. But the escalating costs and rather modest benefits of the BART system raise doubts about the future of other systems now being built or planned in cities such as Baltimore, Miami, Atlanta, Honolulu and Detroit. According to University of California Professor Melvin Webber. "BART has become the ultra-modern version of the New Haven and Long Island commuter railroads - not the first of a new breed of urban transport, but perhaps the last of a dying species."

Having spent \$1.6 billion - double the planned amount — to reverse the trend of the auto-highway system, BART has attracted only half the passengers expected and is serving a mere 2 percent of the trips within its district. Less than a third of its riders have been diverted from private cars; about half have come from car pools and buses. High capital costs and spiraling operating costs, combined with low patronage, have made the average BART ride cost about twice as much as the bus and about 50 percent more than the private car. According to Webber, the system could buy a fleet of new buses sufficient to carry all BART's passengers projected to 1980 for less than \$40 million, or about half what BART



pays every year for mortgage payments alone.

BART's designers assumed that commuters choose private cars because of their high speed, so they built into BART the expensive capabilities of 80-mile-per-hour service. But apparently commuters were less interested in speed than in the door-to-door, nowait, no-transfer features of the private auto. Would-be BART riders thus prefer using either the buses that come close to their homes or their private cars parked out front.

#### Back on the bus

The inflexibility and high costs of BART and other fixed-rail systems tend to rule them out of contention as the final answer to the urban-transportation problem, despite the billions of Federal funds allocated to this purpose. (The argument isn't completely one-sided, since fixed-rail supporters claim that these systems will pay back their investment over the long run, and in the meantime will reduce the pressure on highway traffic.) One of the leading critics of fixed-rail systems has been President Carter, who last spring sent a handwritten note to Transportation Secretary Adams: "I suspect that many of the rapid-transit systems are grossly over-designed. We should insist on: a) off-street parking, b) one-way streets, c) special bus lanes, d) surface rail/bus as preferable alternatives to subways."

Wilfred Owen argues that transit planners should make better use of the al-

ready sizable transport investment in urban areas, especially by utilizing relatively low-cost bus systems. This strategy would emphasize a variety of policies (traffic management, and tax and pricing measures) to discourage the use of cars, as well as flexible work schedules and other measures to improve traffic efficiency. Under this approach, he claims, capital costs for transit and urban highways could be held well below \$3 billion a year, or half the recent level.

Indeed, in Owen's eyes, the urbantransportation problem is only one facet of a more basic problem. "A reordering of national priorities calls for avoiding excessive investments in transportation and dedicating resources instead to the transformation of blighted urban areas and to more self-contained communities designed to reduce transportation needs and thus energy needs." Much urban traffic arises from journeys that are either an escape from poor surroundings or a necessity imposed by the disorderly layout of cities. Efforts to remedy these conditions through urban redevelopment and a more rational process of suburbanization could reduce the length of home-to-work trips and eliminate some trips altogether. Transforming the cities could substitute access for mobility. Meanwhile, the task is to make effective use of the multibillion-dollar highway network. that is already in place, including such measures as the operating subsidies that are now being used to stimulate increased bus patronage.

William Burke



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### **BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT** (Dollar amounts in millions)

Amount Outstanding 11/9/77	Change from 11/2/77		e from ago Percent
104,712 81,290 2,740 24,633 26,435 13,912 8,443 14,979 100,541 29,716 68,587 5,224 31,692 29,519	+ 1,390 + 858 + 783 + 163 + 147 + 17 + 192 + 340 + 1,541 + 920 - 73 + 512 - 57 + 25 + 437	+ 13,540 + 11,561 + 974 + 2,096 + 5,361 + 2,013 - 229 + 2,208 + 10,316 + 3,551 - 180 + 6,309 + 399 + 2,878 + 3,049	+ 14.85 + 16.58 + 55.15 + 9.30 + 25.44 + 16.92 - 2.64 + 17.29 + 11.43 + 13.57 - 52.63 + 10.13 + 8.27 + 9.99 + 11.52
	11/9/77 104,712 81,290 2,740 24,633 26,435 13,912 8,443 14,979 100,541 29,716 162 68,587 5,224 31,692	11/9/77 11/2/77  104,712 + 1,390 81,290 + 858 2,740 + 783 24,633 + 163 26,435 + 147 13,912 + 17 8,443 + 192 14,979 + 340 100,541 + 1,541 29,716 + 920 162 - 73 68,587 + 512 5,224 - 57 31,692 + 25 29,519 + 437	Outstanding 11/9/77         from 11/2/77         year Dollar           104,712         + 1,390         + 13,540           81,290         + 858         + 11,561           2,740         + 783         + 974           24,633         + 163         + 2,096           26,435         + 147         + 5,361           13,912         + 17         + 2,013           8,443         + 192         - 229           14,979         + 340         + 2,208           100,541         + 1,541         + 10,316           29,716         + 920         + 3,551           162         - 73         - 180           68,587         + 512         + 6,309           5,224         - 57         + 399           31,692         + 25         + 2,878           29,519         + 437         + 3,049

Weekly Averages of Daily Figures	Week ended 11/9/77	Week ended 11/2/77	·Comparable year-ago period	
Member Bank Reserve Position				
Excess Reserves(+)/Deficiency (-)	+ 21	+ 1	- 3	
Borrowings	225	228	هٔ ا	
Net free(+)/Net borrowed (-)	- 204	- 227	- 3	
Federal Funds—Seven Large Banks				
Interbank Federal fund transactions			}	
Net purchases (+)/Net sales(-)	+ 1,415	+ 1,430	+ 366	
Transactions with U.S. security dealers	. ,,	' ','.50	]	
Net loans (+)/Net borrowings (-)	+ 575	+ 280	+ 706	

 $<sup>\</sup>hbox{*Includes items not shown separately. $$\sharp$ Individuals, partnerships and corporations.}$ 

Editorial comments may be addressed to the editor (William Burke) or to the author.... Information on this and other publications can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 544-2184.