

Taxing the Internet

A main reason the politicians give to justify a tax on E-commerce is the diminishing share of consumer outlays subject to the sales tax. In fact, the proportion of consumer expenditures subject to sales taxes has been shrinking for many years and has been a result of many factors—including actions by the state authorities themselves. Even so, sales tax revenues have continued to grow.

State and local government officials fear that the growth of internet commerce will lead to substantial revenue losses from general sales and use taxes. Ordinarily, sales tax is imposed on consumers and collected and remitted by sellers. But who collects the tax if the seller is located out-of-state? According to the U.S. Supreme Court ruling in *Quill v. North Dakota*, states cannot require remote sellers without a physical store, or warehouse or other presence in that state—known as “nexus”—to collect sales tax on sales to consumers in that state. The Court said it was too great a burden for companies to navigate the host of different tax rules imposed by 7,500 or so independent taxing jurisdictions.

The ruling, however, does not mean the tax liability is eliminated. Rather, the buyer technically owes a “use tax.” Since states must rely on self-reporting and payment or voluntary compliance on the buyer’s part, the collection of such taxes is almost non-existent, except for goods like cars that must be registered. Given that commerce over the internet is still in its infancy, sales and tax revenue losses have been modest. What troubles state officials are the forecasts for rapid internet-based sales growth—remote sales that will be out of the reach of, not their taxing authority, but their ability to enforce compliance.

The National Governors Association (NGA) forecasts that by 2003, internet-based sales will cost state coffers \$20 billion in lost tax revenue. Such losses, combined with the diminishing proportion of consumption outlays subject to sales tax, would confront officials with several tough decisions: cut expenditures, increase sales tax rates, or shift to another tax source, such as the property or income tax. In an attempt to avoid making such hard choices,

the NGA has called for congressional action to require all merchants to collect use taxes, regardless of nexus. In exchange, states would have to simplify their sales and use tax systems, by adopting a single rate per state for remote sales or using software-based systems to facilitate tax collection. Such legislation would be a boon for states—not only would e-tailers have to collect sales tax, but catalog retailers would have to do so, too.

Sales Tax Trends

State (and local) sales tax collections continue to grow owing to rate hikes, price inflation, and economic growth. Sales taxes now represent the largest source of revenue for state governments, raising more than \$165 billion in 1999. Although sales taxes on average make up roughly one-third of overall state tax revenue, the importance of the tax varies widely across states, as seen in the accompanying table. In Nevada, South Dakota, and Florida, for instance, sales taxes account for over 70 percent of total state taxes, while five states—Alaska, Delaware, Montana, New Hampshire, and Oregon—have no state sales tax.

Although state sales and use tax collections expanded at a compound growth rate of 5.7 percent during the 1990s, taxable consumer spending as a percent of total consumer spending has been declining owing to increasing remote sales, shifting spending patterns, and politically-based exemptions. Remote sales, including mail order and cross-border shopping, have become increasingly popular in recent years. In 1996, Americans purchased \$141.8 billion worth of consumer goods and services by mail, phone, or fax. The U.S. Advisory Commission on Intergovernmental Relations estimates that mail-order sales resulted in an aggregate sales

and use tax revenue losses of \$3.3 billion—approximately 2.4 percent of total sales and use tax collections or 0.1 percent of total state tax revenue. Cross-border shopping tends to thrive in instances when the ticket prices of goods are high and sales tax differentials exist.

The shift in spending patterns away from the consumption of goods toward services has also contributed to the erosion of state sales tax revenue. In 1970, spending on services was 44.9 percent of all personal consumption expenditures. By 1998, services accounted for 58.9 percent of consumer spending. Most services, including those of legal and medical practitioners that account for a large part of the increase in expenditures for services, are not subject to sales and use tax.

Politically motivated exemptions have also further narrowed state sales tax bases. Certain tangible goods, such as groceries and prescription drugs, are exempt from sales tax in many states, or taxed at reduced rates. Not only does eliminating food, medicine, and the like add to administrative costs and lead to enforcement problems, but it ultimately lays the base for other exemptions. Sales tax holidays are the latest fad sweeping across states. For instance, Texans get a going-back-to-school break from state and local taxes on the purchase of certain clothing and footwear priced under \$100. The justifications for such gimmicks have varied widely, ranging from lessening the regressivity of state sales taxes to promoting economic development within the state.

Absent the adoption of a genuinely neutral tax (such as one on land values), there is considerable appeal in the principle of taxing people on the basis of what they take out of the economy rather than on what they put in to it. Public sector services, such as education, police, and fire protection, are appropriately financed with sales taxes. At bottom however, state legislative activity has not always moved toward the ideal qualities that a sales tax should possess, resulting in the problems outlined above.

Will E-tail lead to sales tax E-rosion?

While the internet’s commercial potential may be promising, at present there

is little commerce on the web to be taxed. The Census Bureau, in the first official government estimate of retail electronic commerce, reported that retail E-commerce sales for the fourth quarter 1999 totaled \$5.3 billion (not adjusted for seasonal variations). This estimate does not include online revenue generated from firms primarily engaged in activities not classified as retail, such as travel services, financial brokerages, ticket sales agencies, manufacturers, or wholesalers. E-tail sales accounted for 0.6 percent of the total retail sales estimate, which was \$821.2 billion for the quarter.

Although the estimates of current online activity made by the Department of Commerce, trade associations, and consulting firms are more or less consistent with each other, any projections about future activity must be regarded as highly uncertain. For example, one independent internet research firm estimates that by 2003 yearly online retail spending will grow to over \$140 billion and will be well in excess of \$1 trillion per year within ten years. Internet sales *might* double every year for the next decade—or do even better. Then again, they may not.

There are several reasons to believe the estimated revenue losses cited by the National Governors Association are overstated. (See column 3, Table 1.) First, the vast majority of internet-related commerce is business-to-business, or B2B. B2B transactions—made over the internet or otherwise—are largely exempt from sales tax either because they are nontaxable business services, or exempt under sale-for-resale provisions. Where sales and use taxes do apply to B2B transactions, states are willing to incur enforcement costs to encourage compliance. Unfortunately, no precise estimates are available regarding B2B use tax compliance.

Ignoring B2B transactions leaves business-to-consumer, or B2C sales. The table on the facing page breaks down online sales for March 2000 by product type. What is taxable differs across states. Products and services generally not taxable include the following: personal financial services (e.g., stock broker services and insurance), travel tickets, much of food and beverage purchases (e.g., food for consumption at home), some health and beauty expenditures (e.g., prescription drugs and glasses), and a portion of apparel. Estimates of the tax revenue lost on the balance of B2C sales for 1999 vary widely. However, an-

1998 State Sales Tax and Projected Losses for Year 2003 (Millions)

State	Sales tax	% of total state taxes	Est. losses	% of total state taxes
AL	1,584	29.3	270	2.1
AR	1,492	41.6	189	3.0
AZ	2,368	48.0	341	2.8
CA	21,260	37.4	2,780	2.7
CO	1,536	31.2	291	2.2
CT	2,762	34.5	288	2.5
FL	11,838	70.0	1,403	4.6
GA	4,143	37.2	621	3.0
HI	1,425	50.0	159	3.3
IA	1,515	33.9	163	2.7
ID	653	32.9	67	2.6
IL	5,312	32.8	845	3.0
IN	3,279	32.9	325	2.7
KS	1,537	39.9	190	2.9
KY	1,981	34.6	239	2.6
LA	2,012	38.5	454	3.7
MA	2,963	21.2	304	1.7
MD	2,161	29.9	294	2.4
ME	791	40.0	79	2.8
MI	6,713	35.3	758	2.9
MN	3,697	36.5	409	2.8
MO	1,706	26.7	395	2.8
MS	2,035	44.8	206	3.9
NC	3,255	28.3	445	2.0
ND	316	41.4	39	2.8
NE	804	38.2	106	2.8
NJ	4,766	33.7	511	2.4
NM	1,121	44.6	191	3.6
NV	1,656	80.2	191	4.4
NY	7,308	21.2	1,581	1.7
OH	5,266	37.1	671	2.6
OK	1,328	32.4	298	3.4
PA	6,152	34.6	667	2.5
RI	530	33.2	56	2.4
SC	1,742	37.3	231	3.0
SD	388	71.5	58	4.4
TN	4,070	60.3	546	4.7
TX	14,706	59.1	1,736	4.9
UT	1,252	38.8	158	3.3
VA	1,919	21.9	364	2.2
VT	202	25.1	32	2.6
WA	4,964	52.6	646	3.4
WI	3,047	32.3	320	2.3
WV	878	34.7	105	2.8
WY	175	39.6	39	3.4

Source: Census Bureau, University of Tennessee.

nualizing the Census Bureau's estimates, and multiplying by the average state tax rate of 6.3 percent amounts to \$1.3 billion, or 0.8 percent of aggregate state sales tax revenue.

Many analysts predict that B2C sales will quickly eclipse \$100 billion, resulting in a fivefold loss in sales tax revenue, assuming the numbers above. While in-

ternet-based sales may reach analysts' forecasts, the associated erosion in tax revenues will not likely materialize. First, B2C sales over the internet are likely to cannibalize non-taxed catalog sales rather than brick and mortar retail stores. Currently, most online revenue is accounted for by so-called multichannel retailers, like Dell, Eddie Bauer, and Lands End, that use a combination of retail methods, including websites, catalogs, and even retail outlets. Specific categories of goods such as computers and software, are just as easily purchased online as by catalog or phone.

Traditional retailers—with brand name recognition, bricks and mortar stores, and distribution facilities—also are now beginning to market on the web. In short, integrating retailing methods—what the industry calls “bricks and clicks”—will create legal nexus for sales and use tax purposes. The lines between new and old, that is e-tailing and bricks and mortar, are blurring. E-commerce is already becoming integrated with the other marketing strategies of established retailers.

Outlook

The proportion of consumer outlays subject to sales tax has been eroding for years. E-commerce does not introduce a new “threat”; rather, it merely continues an apparent trend. States have demonstrated a propensity to raise tax rates to offset previous base reductions. However, raising rates at some point becomes counterproductive: As tax rates rise, consumers will tend to spend relatively more on nontaxable items, as well as purchase more items that are taxable from remote sellers. The most expedient solution from policy makers' perspective is to lobby Congress to force remote sellers to collect the tax for them.

In 1998, Congress passed the Internet Tax Freedom Act (ITFA). The ITFA imposes a 3-year moratorium on the creation of new, multiple or discriminatory taxes on electronic commerce. It bars state (or local) governments from taxing internet access and bars the federal government from levying federal taxes on the internet and electronic commerce. It also declares that the web should be a tariff-free zone. The Act does not prevent states (or localities) from collecting existing sales or use taxes made on transactions over the internet.

The ITFA also created the Advisory Commission on Electronic Commerce

March 2000 Online Retail Spending

Category	Sales (mil\$)	% of Sales
Software	102.5	3.4%
Books	139.0	4.6%
Music	121.1	4.0%
Videos	73.4	2.4%
Office supplies	93.2	3.1%
Apparel	142.9	4.7%
Footwear	33.0	1.1%
Jewelry	47.3	1.6%
Flowers	39.5	1.3%
Linens/home décor	45.9	1.5%
Small appliances	34.3	1.1%
Toys/video games	86.6	2.9%
Sporting goods	45.6	1.5%
Tools and garden	28.7	1.0%
Computer hardware	317.7	10.5%
Computer electronics	181.8	6.0%
Appliances	23.0	0.8%
Furniture	36.9	1.2%
Food/beverages	130.8	4.3%
Health and beauty	122.2	4.1%
Air tickets	509.7	16.9%
Car rental	108.1	3.6%
Hotel reservations	278.3	9.2%
Other	272.4	9.0%
Total	3014.1	

Shoppers

11.9 million

Sales per shopper

\$252

Source: National Retail Federation

(ACEC) to examine tax laws that impact electronic commerce, and to make recommendations to Congress.

A majority of ACEC members reached agreement that states should simplify their

tax would seem politically almost irresistible as a new means of trading votes for favors—and of conducting back-door economic policy in the name of “restoring lost revenues.” □

VOLATILITY IN THE STOCK MARKET

Huge daily point changes in the Dow have become almost commonplace this year. These overstate the increase in market volatility, but by other measures it is exceptionally high. The previous years of peak volatility, 1974 and 1987, were not good years for common stocks.

A few years ago, it was all but unheard of for the Dow Jones Industrial Average, the most widely cited barometer of the stock market, to close up or down by 100 points or more in a single day. In fact, there were no movements of this magnitude until 1987, and until 1997 they occurred just a few times a year if at all. In the past few years, however, such large daily movements have become relatively common, occurring 88 times in 1999, or one third of the trading days last year. From January through April of this year, the Dow has closed up or down by 100 points or more 41 times, or half of the trading days.

Daily movements of 50 points or more, once a rarity, have become commonplace.

There were 146 such days in 1998 and 154 in 1999. During the first four months of 2000, daily moves of 50 points or more occurred 63 times, which is more than the total for all of 1996. (See Chart 1.)

This increased frequency of large daily point changes overstates the increase in market volatility, however. One obvious, but often overlooked, factor is that a given point change in the Dow represents a much smaller change in percentage terms nowadays than it did in the past, due to the rapid gains in the Dow in recent years. When the Dow was at 5,000 (as it was in 1995) a 100-point change represented a 2 percent movement. At the Dow’s recent level of roughly 11,000, however, a 100-point move equates to less than 1 percent.

sales and use tax regimes, that nexus rules should be clarified, and that the current internet tax moratorium be extended. But what the eventual outcome might be no one can know—or if an internet tax, if imposed, would produce the expected result.

Rather, to date the internet tax debate simply seems further confirmation of the *modus operandi* of virtually all tax regimes. Namely, if it exists an attempt should be made to tax it, whatever or whoever “it” may be. In the current circumstance, it has been not only private-sector marketing innovations that have reduced the proportion of taxable sales, but the actions of state governments themselves, which for many years have exempted one or another category of goods or services from taxation for political purposes. Even so, the absolute volume of sales tax receipts has continued to grow.

It is impossible at this time to know whether, or to what extent, internet commerce might have markedly different effects—say, by promoting an absolute reduction in tax receipts. But whatever its fiscal effects, a new internet

To cite a more extreme example, when the Dow plummeted 508 points on October 19, 1987, this equated to a remarkable decline of 22.6 percent — by far the largest daily percentage loss in the Dow’s history. In contrast, the 618 point loss on April 14, 2000, while it was the largest daily loss ever in terms of points, was only a 5.7 percent decline, and was not even in the top twenty percentage decreases in the Dow’s history.

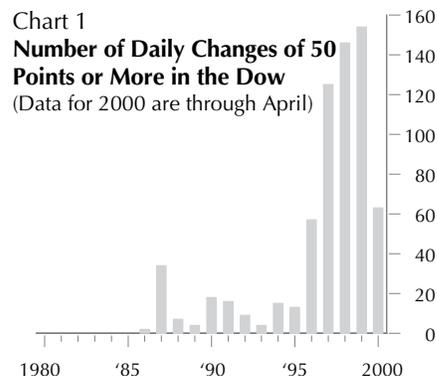
Percentage point changes clearly are a better statistical measure of volatility in the stock market. On this basis, how does the Dow’s recent performance compare with the past?

Chart 2 shows the number of daily changes of 2 percent or more in the Dow for each year from 1946 through 1999, and for the first four months of 2000. (At a Dow level of 11,000, a 2 percent change equates to 220 points.) In the early part of the 1990s, trading was unusually tranquil, with the Dow moving up or down by more than 2 percent or more on no more than four days each year from 1992 through 1996. After that, volatility increased. In 1997, the year the Asian financial crisis hit the markets, there were 19 2-percent days. There were 20 in 1998, when Russia’s financial problems and the near-failure of the Long-Term Capital Management hedge fund roiled the markets. Last year there were 16 such days. Since the start of this year, the rate of 2-percent days has surged. There were 18 of them through the end of April — more than there were during all of last year, and 2000 still has eight months to go.

By this measure, the Dow’s volatility since the start of the year is unprecedented.

The two most volatile years were 1974, when the Dow closed up or down by 2 percent or more on 44 days, and 1987, when it did so 42 times. If the present pace of volatility persists, there could be more than 50 2-percent days by the end of the 2000.

Another measure of volatility is the standard deviation of daily movements in the stock market. Through April of this year, the Dow lost 0.07 percent each day, on



average. The standard deviation of daily price changes — a measure of the range of daily price changes covered by the 0.09 percent average — was 1.68 percentage points. This figure is plotted in Chart 3, along with the standard deviation of daily fluctuations in the Dow for each of the preceding years from 1946 to 1999.

This measure confirms that stock market volatility fell sharply in the early 1990s, hitting a 40-year low in 1993, and increased markedly in 1997. It has been relatively high since then, compared with much of the postwar period. Thus far in 2000 it has been higher than it was in 1974 and second only to the turbulent trading of 1987.

What Happened to “Circuit Breakers”?

An increase in stock market volatility is of interest not only to investors but to regulators. Following the October 1987 stock market crash, the Securities and Exchange Commission introduced so-called “circuit breakers,” which are designed to slow a market decline by temporarily suspending trading. It may seem surprising that the recent large downturns have not triggered these trading curbs. However, they are designed to take effect only in response to a decline of extraordinary magnitude.

Circuit breakers are triggered if the Dow Jones Industrial Average drops by 10, 20, or 30 percent. These percentages are converted into point levels at the beginning of each quarter, using the average closing values of the Dow in the previous month, rounded to the nearest 50 points. The current thresholds, which were set April 1 using March data, are as follows:

- A 1,050 point drop in the Dow before 2 p.m. will halt trading across the market for one hour; for 30 minutes if between 1 p.m. and 2 p.m.; and will have no effect if at 2:30 p.m. or later.
- A 2,100 point drop in the Dow before 1 p.m. will halt trading for two hours; for one hour if between 1 p.m. and 2 p.m.; and for the rest of the day if at 2 p.m. or later.
- A 3,150 point drop will halt trading for the remainder of the day regardless of when the decline occurs.

Adopted in 1988, circuit breakers originally halted trading for one hour with a 250-point drop and two hours with a 400-point decline. From February 1997 until April 1998, circuit breakers called for halting trading for 30 minutes with a 350 point decline and one hour with a 550 point decline. If triggered during the last 30 or 60 minutes of the trading day, respectively, the market was to be closed until the next trading day.

Circuit breakers were triggered for the

Chart 2
Number of Daily Changes of 2 Percent or More in the Dow
(Data for 2000 are through April)

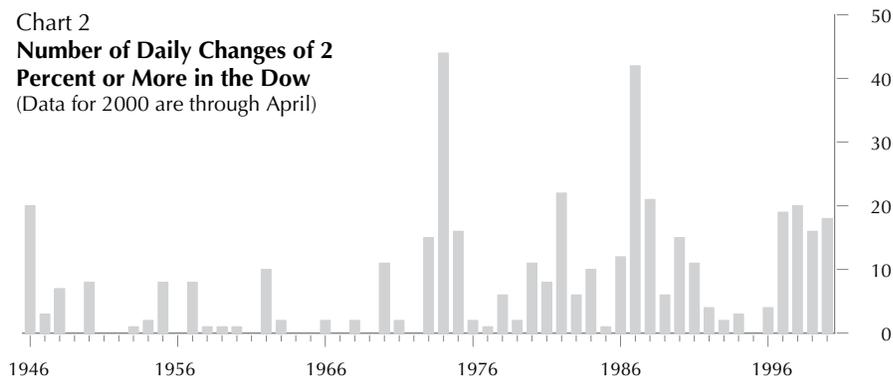
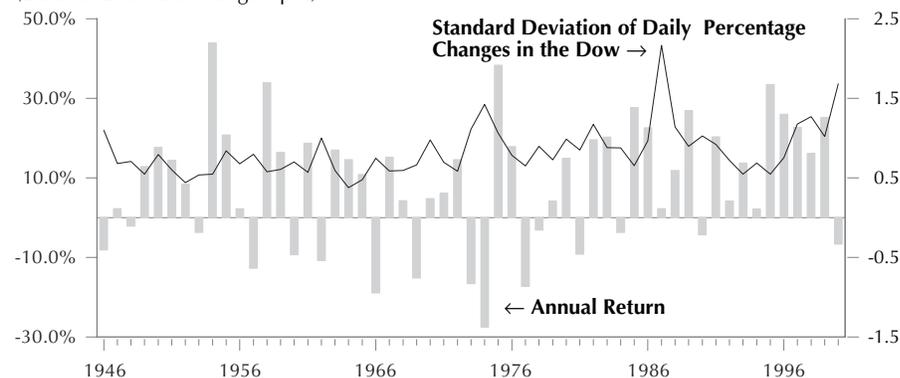


Chart 3
Dow Volatility and Returns
(Data for 2000 are through April)



first and only time on October 27, 1997, when the Dow fell 350 points at 2:55 p.m. and 550 points at 3:30 p.m. That decline, which represented nearly a 7 percent drop in the Dow, was sufficient to halt trading for the remainder of the day. In April 1998, the SEC adopted the current system in which trading curbs are based on percentage rather than point changes. Since then, the circuit breakers have not been triggered. There are no provisions for halting trading based on declines in the NASDAQ or other market indexes.

Volatility and Returns

Does the increased volatility of the Dow imply anything about the likely direction of the market for the rest of the year? The previous years of peak volatility, 1974 and 1987, were not good years for common stocks. The Dow lost 28 percent in 1974 and gained only 2.3 percent in 1987. Most other years when the Dow declined have been relatively volatile, such

as 1962 and 1990. However, in some volatile years the Dow has posted large gains, as in 1980, 1982, and 1997-99. Overall, in the postwar years there is little correlation between the degree of volatility and the size of market gains or losses for the year. This can be seen in Chart 3, which shows the annual gain or loss in the Dow and the standard deviation of daily movements in the Dow.

What is most notable in Chart 3 are the remarkable stock market returns of the past four years. The string of gains since 1995 is unprecedented. So is the 10-year stretch since the Dow last had a down year (1990). Newcomers to the market may not fully appreciate how unusual the recent experience is. From a historical perspective, the market is long overdue for a correction. The extraordinary volatility of recent weeks suggests there is a great deal of uncertainty about whether this period of spectacular gains is coming to a close. □

PRICE OF GOLD

	1998 May 7	1999 May 6	2000	
			Apr. 27	May 4
Final fixing in London	\$298.10	\$287.95	\$276.00	\$280.00

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