Tax Payments and the Stock Market 'Crash'

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ON FRIDAY, APRIL 14, THERE WAS A STOCK market “crash.” The close-to-close decline in the NASDAQ was 9.7% (25.3% for the week); the Dow Jones Industrial Average (DJIA) fell 6.6% (7.8% for the week); and the broad-based Standard and Poor’s 500 Composite index declined 6.9% (10.9% for the week). Widespread panic, anticipation, and individual investor needs for liquidity only exacerbated these declines.

The primary cause of this decline was the surprising “bad news” of high inflation, which fueled fears of a Federal Reserve increase in interest rates to cool the economy. In general, bad news tends to cause investor overreactions. Adding to the decline, CNBC’s market experts suggested, were actual or anticipated (continuing) stock market margin calls and the April 17 federal income tax return filing date and related tax payments.

The April 17 filing date actually represented a potential “double hit.” Not only was it the day of tax payment for the balance of 1999 calendar year taxes, but it also represented the due date for the first quarterly estimated tax payment of 2000. And to the extent that taxpayers were surprised by higher 1999 calendar year tax bills, they were also surprised by higher first-quarter estimated tax payments. Both payments require liquidity, and marketable equity securities represent a current asset that is relatively easily—though not always profitably—liquidated.

The “tax (estimated tax) payment effect” has been present and statistically detectable, intermittently, throughout the entire history of individual taxation. But these historical instances weren’t economically significant. This is the case with most stock market “seasonals” (for example, “holiday effects” and the highly publicized and tax loss selling-related “January effect”). This year’s tax payment effect was probably, for the first time, both statistically and economically significant.

Tax payment effects on stock values were easily identified during the 1917 and 1918 “War Tax” period, when individual federal income tax rates rose significantly to finance World War I. For a more contemporary example, tax payment effects were easily detected during much of the post-World War II period. During and after World War II the U.S. (1) moved from a “class tax” to a “mass tax,” (2) imposed self-employment taxes (1951), (3) increased self-employment tax rates, and (4) increased wage bases to which self-employment taxes were applied. During the 1980s, self-employed taxpayers were frequently “caught by surprise” by increasing self-employment taxes and related increasing tax payments. Therefore, the self-employed represented an easily identifiable (and statistically testable) group likely to experience this need for cash.

Tax payment effects are a function of John Maynard Keynes’ theory of individual investor liquidity prefer-
ences and, in particular, the investor’s need for cash. This effect is easily detected during periods of rising tax rates or, simply, rising taxes due to a robust economy (for example, realized capital gains for the 1999 calendar year).

Generally, contemporary tax payment effects on the stock market have followed a three-day decline-correction sequence. As noted by Cataldo and Savage:1 “… the strongest effect [is] for the combined April estimated tax payment and final payment/return filing month.”

How much of the April 14 decline was due to tax payment effects? We don’t know. It takes two to three years for the Internal Revenue Service’s Statistics of Income Division to release individual taxpayer data. But once this data is released to the public it will be possible to approximate the combined impact of the April 17 tax return payments. Based on prior research, we suspect that the April 2000 crash will be both statistically and economically significant.

Will economically significant tax payment effects recur in April 2001? Probably not, or at least not to the same degree. First, overreactions to economic bad news were probably the primary and most significant cause of the decline. Second, for investors to be caught by surprise with higher tax bills, the stock market increases experienced during 1999 would have to reoccur during 2000. Finally, the memory of this year’s “crash” is likely to be publicized in next year’s financial press. As is the case with all stock market seasonals, publicity tends to reduce the magnitude of their effects.

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