



Contents lists available at ScienceDirect

## Advances in Accounting, incorporating Advances in International Accounting

journal homepage: [www.elsevier.com/locate/adiac](http://www.elsevier.com/locate/adiac)

# The impact of tax rate changes on intercorporate investment<sup>☆</sup>

Robert F. Gary<sup>a</sup>, Jared A. Moore<sup>b,\*</sup>, Craig A. Sisneros<sup>c</sup>, William D. Terando<sup>d</sup><sup>a</sup> Anderson School of Management, MCS 05 3090, University of New Mexico, Albuquerque, NM 87131-0001, United States<sup>b</sup> College of Business, Oregon State University, 443 Austin Hall, Corvallis, OR 97331, United States<sup>c</sup> Business School, University of Colorado Denver, Denver, CO 80217-3364, United States<sup>d</sup> Lacy School of Business, Butler University, Indianapolis, IN 46208, United States

## ARTICLE INFO

## Article history:

Received 28 April 2016

Accepted 14 July 2016

Available online xxxx

## Keywords:

Corporate investment

Marketable securities

Individual tax rates

Corporate tax rates

Capital gains tax rates

## ABSTRACT

We examine how tax rates impact investment by corporations in the stock market. We regress changes in intercorporate investment on changes in the various individual and corporate top statutory marginal tax rates (MTRs). We find a significant negative association between changes in individual capital gains MTRs and changes in intercorporate investment, while no such association is evident for changes in either individual ordinary or dividend MTRs. These results support the notion that corporations respond to the after-tax rate of return and/or market efficiency consequences brought about by a change in individual capital gains MTRs. We find a significant positive relation between changes in intercorporate investment and changes in corporate MTRs on ordinary income. These results are consistent with corporations scaling back expansion plans and instead investing free cash flows in equity securities as MTRs increase.

© 2016 Published by Elsevier Ltd.

## 1. Introduction

This study investigates whether individual- and corporate-level federal income taxes influence the level of investment in the stock market by corporations. Our study is unique in the sense that it simultaneously considers whether the differential tax costs imposed on individual and corporate ordinary income, capital gain income and dividend income incrementally impact firm investment behavior. The impact of taxes on business decisions has been a topic of great interest in the accounting and finance literatures for more than four decades. Branches of this line of inquiry include the impact of taxes on capital structure (e.g., Aier & Moore, 2008; Cloyd, Limberg, & Robinson, 1997; DeAngelo & Masulis, 1980; Dhaliwal, Trezevant, & Wang, 1992; Graham, Lang, & Shackelford, 2004; Lin & Flannery, 2013; MacKie-Mason, 1990; Modigliani & Miller, 1958, 1963), dividend policy (e.g., Bradford, 1981), compensation policy (e.g., Balsam, Halperin, & Mozes, 1997; Balsam & Ryan, 1996; Gordon & Slemrod, 1998; Hite & Long, 1982), and investment. However, to date, studies that investigate the interaction of taxes and corporate investment decisions have focused primarily on investment in fixed assets (e.g., Billings & Hamilton, 2002; Black, Legoria, & Sellers, 2000; Campbell, Chyz, Dhaliwal, & Schwartz, 2013; Cummins, Hassett, & Hubbard, 1996; Edgerton, 2010; Hageman,

Bobek, & Luna, 2015; Kaufman & Gitman, 1988; Kern, 1994), in research and development (R&D) (e.g., Black et al., 2000; Finley, Lusch, & Cook, 2015; Waegenare, Sansing, & Wielhouwer, 2012), or in foreign direct investment (FDI) (e.g., Brandstetter & Jacob, 2013; Drebler, 2012; Waegenare et al., 2012). We extend this literature by considering another type of corporate investment, marketable equity securities.

Understanding the factors that drive corporate investment in marketable equity securities is important because the stock market is a likely investment alternative for free cash flows in periods that lack positive net present value projects (e.g., long-term investments, fixed assets, and/or R&D). Further, intercorporate investment comprises more than 14% of the total value of the three major stock exchanges in the United States (French & Poterba, 1991).

We investigate how various individual and corporate statutory marginal tax rates (MTRs) impact intercorporate investment. Specifically, we focus on the highest statutory MTRs applicable to ordinary and capital gain income for corporations and individuals as well as individual dividend income. In each of these cases, existing theory and evidence suggest that a relation between tax rates and intercorporate investment could exist in either direction. As such, predicting the direction of any such association is difficult, and the impact of MTRs on intercorporate investment becomes an empirical question.

To illustrate this point in the context of individual capital gains tax rates, prior research provides evidence consistent with the notion that individual-level capital gains taxes have a negative impact on corporate investment in fixed assets and R&D (e.g., Becker, Jacob, & Jacob, 2013; Black et al., 2000; Campbell et al., 2013; Jugurnath, Stewart, & Brooks, 2008; Poterba & Summers, 1983). These findings are generally

<sup>☆</sup> Jared Moore gratefully acknowledges financial support from the Mary Ellen Phillips professorship. Robert Gary gratefully acknowledges financial support from the REDW lectureship endowment.

\* Corresponding author.

E-mail address: [jared.moore@bus.oregonstate.edu](mailto:jared.moore@bus.oregonstate.edu) (J.A. Moore).

attributed to the traditional view of taxes and corporate decision making, which argues that firms make economic decisions based on after-tax returns considering both corporate- and individual-level taxes. Specifically, higher (lower) taxes at either the corporate or individual level lower (raise) the overall after-tax rate of return, consequently driving down (up) the level of corporate investment.

It is less clear, however, whether and how changes in individual capital gains MTRs will impact a firm's decision to invest in equity securities. On one hand, corporations may decide to reduce or delay expansion-related expenditures when higher individual capital gains taxes reduce the overall after-tax return on investment in fixed assets and research and development. In this instance, a corresponding increase in corporate investment in the stock market would reflect a substitution effect for these corporate funds. Accordingly, we would expect to see a positive association between intercorporate investment levels and changes in individual capital gains MTRs.

On the other hand, the traditional view of taxes also suggests that an increase in individual-level capital gains MTRs will reduce the overall after-tax rate of return on intercorporate investment. As such, one might expect a negative association between corporate investment in the stock market and changes in individual capital gains MTRs. Further, individual capital gains tax rates may impact market efficiency by affecting the supply of shares available in the market. Specifically, to the extent that higher capital gains MTRs influence individual investors to hold rather than sell or trade their shares (i.e., the lock-in effect), fewer shares are available for trading. This reduction in market efficiency may act as a disincentive for corporations to participate as investors in the market, also leading to a prediction of a negative association between individual capital gains tax rates and intercorporate investment.

Using a sample of 40 annual observations covering the period 1969 to 2008, we examine how changes in the MTRs on ordinary income, dividends, and capital gains for individuals and ordinary income and capital gains for corporations are associated with corporate investment behavior by regressing changes in aggregate corporate investment in marketable securities on changes in these individual and corporate MTRs.<sup>1</sup> We find a significant negative association between changes in individual capital gains MTRs and changes in the aggregate level of corporate investment in marketable securities while no such association is evident for changes in either ordinary or dividend MTRs for individuals. These results support the notion that corporations respond to the increase (decrease) in overall after-tax rate of return and/or to the market efficiency consequences brought about by a weakening (strengthening) of the lock-in effect once individual capital gains MTRs are lowered (raised).

We also find a significantly positive relation between changes in the aggregate level of corporate investment in marketable securities and changes in the corporate MTR on ordinary income and an insignificantly positive association between changes in intercorporate investment and changes the corporate MTR on capital gains. These results are consistent with corporations scaling back expansion plans as MTRs increase and instead investing free cash flows in equity securities. Further, given that the MTRs on corporate ordinary income and capital gains were the same for much of our sample period, the effects for both rates may be reflected in our finding for MTRs on ordinary income. Thus, these results are also consistent with the notion that as the tax price of capital gains for corporations increases, corporations have more incentive to generate capital gains to offset current capital losses and/or unused capital loss carryforwards (i.e., the ability to deduct capital losses becomes more valuable).

Our findings are useful to policymakers concerned with behavioral responses to changes in tax policy, particularly in light of our finding that changes in *individual* tax policy may affect intercorporate

investment behavior. This study should also be of interest to academics who seek to understand the impact of individual and corporate level taxes on corporate investment decisions.

The remainder of this paper is organized as follows: the next section provides a review of prior literature, and we develop our hypotheses in the third section. The fourth section discusses the methodology and data used to test the association between corporate investment and changes in tax rates. The fifth section presents the results of our analyses while the last section discusses our conclusions and possible limitations.

## 2. Prior literature

Slemrod (1992) posits that “there is a hierarchy of behavioral responses to taxation. At the top of the hierarchy – the most clearly responsive to tax incentives – is the timing of economic transactions.” “In the second tier of the hierarchy are financial and accounting responses.” “On the bottom of the hierarchy, where the least response is evident, are the real decisions of individuals and firms.” Our study investigates the bottom of this hierarchy (theoretically the least responsive to tax changes) as we study how firms shift investments into and out of the stock market as a result of changes to various individual and corporate tax rates.

### 2.1. Individual taxes and corporate investment

#### 2.1.1. Taxes on dividends and capital gains

2.1.1.1. *The traditional view and tax capitalization.* There are multiple views on the effects of dividend and capital gains taxation on corporate investment. The traditional view regards the taxation on corporate distributions as a ‘double tax’ that discourages corporate investment by emphasizing the importance of considering both corporate and individual tax rates when assessing the impact of taxes on corporate investment decision-making. This implies that the combined corporate/individual effective tax rate on corporate income (which would include both dividend and capital gains taxes) influences a firm's economic decisions and that the distribution of the tax burden between the shareholders and the corporation is irrelevant (Poterba & Summers, 1983). The alternate view posits that the stock market capitalizes the tax on dividends and capital gains into a firm's stock price, and therefore it will have no impact on corporate investment decisions. The capitalization of dividend and capital gains taxes has been widely studied with conflicting results (e.g., Ayers, Cloyd, & Robinson, 2002; Collins & Kemsley, 2000; Dhaliwal, Erickson, Frank & Bany, 2003; Dhaliwal, Li & Trezevant, 2003; Erickson & Maydew, 1998; Hanlon, Myers, & Shevlin, 2003; Harris, Hubbard, & Kemsley, 2001; Harris & Kemsley, 1999; Kemsley, 2001a, 2001b; Lang & Shackelford, 2000).

Poterba and Summers (1983) find support for the traditional view that dividend taxes discourage corporate investment. Alstadsaeter, Jacob, and Michaely (2015) concur that cash-poor firms increase investment following a dividend tax cut, but also find this increase to be offset by a decrease in investment by cash-rich firms. Campbell et al. (2013) provide evidence supporting both studies' conclusions through investigating the Jobs and Growth Tax Relief Reconciliation Act of 2003, which reduced shareholder-level taxes on dividends and capital gains. Campbell et al. find that the increase in investment following the Act is largest for cash-poor firms and that a small subset of larger, older, and cash-rich firms increased dividend payout instead. Nadeau (1988) and Becker et al. (2013) also find that personal income taxation affects corporate investment through its effect on dividend payout.

Black et al. (2000) investigate the adoption of dividend imputation systems in 1987 by both New Zealand and Australia. Dividend imputation eliminates the double taxation on corporate profits by providing a tax credit (based on corporate taxes) to shareholders when they receive a dividend. At the same time, Australia also imposed a new tax on capital gains, which mitigates (or offsets) the advantages of dividend

<sup>1</sup> Federal tax law currently imposes only one corporate tax rate applicable to all taxable income. However, prior to 1988, a preferential rate was imposed on corporate capital gain income.

Download English Version:

<https://daneshyari.com/en/article/7340009>

Download Persian Version:

<https://daneshyari.com/article/7340009>

[Daneshyari.com](https://daneshyari.com)