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Teaching and educational notes

A teaching note on the tax benefits of retirement savings

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ABSTRACT

Typical textbook treatments of tax-advantaged retirement savings plans focus on legalistic characteristics such as contribution limits and early withdrawal penalties. Popular press articles on these plans often present a myriad of details on the effects of inflation, rates of return, expected tax rates, ordinary income versus capital gains treatment, and other items that tend to obscure their fundamental tax advantages. The goal of this teaching note is to expose the fundamental tax advantages of retirement savings plans by conducting an analysis of a simplified tax setting. We identify four interrelated benefits of existing retirement plans – tax-deferred contributions, tax-deferred earnings, never-taxed earnings, and income smoothing with progressive tax rates. We also provide a more in-depth analysis of the choice between the two most popular forms of retirement savings, traditional and Roth accounts. An understanding of the properties of the tax benefits of retirement savings can be useful for students who are preparing for careers as tax professionals, as well as individuals who wish to understand the financial planning advice they receive.

1. Introduction

The United States Internal Revenue Code (IRC) offers significant benefits for retirement savings. In fact, several authors conclude that tax incentives are one of the primary reasons for the growth of private retirement plans (Blackburn, 2002; Ippolito, 1986). Despite the importance of these tax benefits,

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accounting students are not typically exposed to their basic properties. Textbooks tend to focus on the legalistic aspects of the tax codes such as the deductibility of contributions and the penalties for early withdrawal. On the other hand, popular press articles generally offer a surfeit of detail on inflation, dividends, capital gains and expectations of future tax rates, which tends to obscure the fundamental driver of the benefits. Although both the textbook and popular press approaches are useful, we believe that accounting students can obtain additional benefit from an approach that emphasizes fundamental economic forces.

The purpose of this note is to describe how an accounting instructor might use simple numerical illustrations to introduce students to the basic properties of retirement accounts and how the benefits of retirement savings are affected by the time value of money and income tax progressivity. Specifically, we identify four sources of tax benefits of retirement savings: tax-deferred contributions, tax-deferred earnings on contributions, never-taxed earnings on contributions, and income smoothing with progressive tax rates. Below we identify the four learning objectives of this note:

(1) understand the benefits of deferred taxation that derive solely from the time value of money;
(2) understand how the benefits of deferred taxation interact and how these benefits are affected by the tax and economic environment;
(3) understand the basic equivalence of traditional and Roth-style retirement accounts, as well as some distinguishing factors such as contribution limits; and
(4) understand the benefits of retirement savings that derive from progressive taxation of income.

Students can use this note not only to better understand issues surrounding the taxation of retirement savings, but also to analyze claims made in textbooks that often are unsubstantiated. For example, a popular text states, “if the marginal tax rates remain the same, [traditional] plans and Roth plans will generate the same after-tax rate of return” (Spilker et al., 2015, p. 13-13 Note that tax text books renumber each chapter starting with p. 1, so the first “13” refers to a chapter, and the second to the page number in chapter 13.). Another text (Hoffman & Smith, 2014, p. 19-41) makes a seemingly contradictory statement to the one cited above, “in many situations, a retirement plan participant will earn more wealth with a Roth IRA than with a traditional IRA”. The texts provide little economic intuition as to when and why these claims might be valid. The models and analyses presented in this note can be used by students to better understand and verify these types of assertions, as well as identify the special circumstances under which they may not hold.

It is not our intention to give tax or investment advice, and we do not do so. Instead we hope to increase the financial literacy of the accounting students exposed to the note. There is strong evidence that financial literacy affects the quality of retirement savings decisions (Lusardi & Mitchell, 2011; Mullock & Turcotte, 2012). Therefore, this note can be useful to students who plan to become tax professionals as well as to those who simply want to better understand the financial planning advice they receive. In this sense our objective is related to the movement by the AICPA to promote financial literacy.[1]

Our objective is also related to the recent call for integrated competency-based accounting curricula (Lawson et al., 2014). The Lawson et al. (2014) curriculum framework identifies sets of foundational, broad management and accounting competencies, emphasizing that the accounting competencies should be taught using an integrated educational pedagogy (i.e., the accounting competencies should be taught in conjunction with the other competencies), as discussed and illustrated by Lawson et al. (2015). The current teaching note integrates (1) a foundational competency: quantitative, (2) a broad management competency: process management and improvement, and (3) an accounting competency: taxation compliance and planning. Specifically, time value of money concepts (a component of the quantitative foundational competency; Lawson et al., 2014, p. 301) are used to illustrate the benefits of deferred taxation (the accounting competency of tax compliance and planning; Lawson et al., 2014, pp. 304–305),

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[1] See http://www.360financialliteracy.org/ for information about the AICPA’s financial literacy initiative. In addition, the AICPA emphasizes the importance of CPAs’ knowledge of personal financial planning issues such as estate, tax, retirement, risk management and investment planning advice. The AICPA even offers certification as personal financial specialist (PFS): http://www.aicpa.org/interestareas/personalfinancialplanning/Pages/default.aspx.