

**The Concept of Cost Considered from Biblical and Business Perspectives: A Faith  
Integration Exercise for Accounting, Economics and Finance Courses**

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**Abstract:**

This paper describes a faith integration exercise that can be used in accounting, economics and finance classes. Cost is an important concept in each of these disciplines, yet each of these disciplines understands the concept of cost differently. Cost is also an important concept in Scripture. Reading, discussing and writing on the chapters in James Buchanan's book *Cost and Choice* combined with reading, discussing and writing on Scripture passages that deal with the concept of cost allows students to compare and contrast the concept of cost as found in accounting, economics and finance with the concept of cost found in Scripture. Buchanan argues for the superiority of a subjective opportunity cost conception of cost, and this is also the concept of cost that one finds in selected passages from the Gospels.

**Motivation for the Paper:**

Like most, if not all, business faculty at Christian colleges, I am constantly looking for opportunities to present business topics from a Christian perspective. The purpose of this paper is to share a faith integration exercise that I have found effective over several years of use. My hope is that other business faculty at Christian colleges might find either this exercise or adaptations of this exercise useful in their teaching endeavors. Another benefit of this exercise is that it provides an opportunity to introduce writing into accounting, economics and finance courses, courses that can be dominated by working problems.

While there is much overlap in the understandings of cost found in accounting, economics and finance, there are also important differences. In general, accrual basis accounting emphasizes that a cost (expense) arises when it is incurred, economics utilizes (or at least starts with) the notion of opportunity cost, and finance focuses on cash outflows in defining cost. Occasionally textbooks in these three areas compare and contrast these different understandings of cost. Similarly, I have used a small, inexpensive paperback written by Nobel Prize winning economist James Buchanan to further probe these different understandings. *Cost and Choice, An Inquiry in Economic Theory, Volume 6 of the Collected Works of James Buchanan* consists of a mere 90 pages of text divided into six chapters, so it works well as an auxiliary to the main text for a course.

Considering these different understandings of cost from related business disciplines directly leads to considering the biblical notion of cost. A passage in Luke's gospel provides a good starting point for considering the biblical notion of cost. Luke

14:25-35 deals with the cost of discipleship. Luke 15:1-32 follows with three parables: 1) the parable of the lost sheep (15:1-7 [Luke 15:4-7 parallels Matthew 18:12-14]), 2) the parable of the lost coin (15:8-10), and 3) the parable of the prodigal (lost) son (15:11-32). The parallel passages found at Matthew 16:21-28, Mark 8:31-9:1, and Luke 9:22-27 use the notion of opportunity cost with regard to the cost of eternal life. The notion of opportunity cost is similarly used in the parable of the hidden treasure (Matthew 13:44) and the parable of the pearl (Matthew 13:45-46). While by no means exhaustive, these passages provide sufficient material for a semester length course.

Students have the opportunity to consider the extent to which the biblical notion of cost is consistent with understandings of cost offered by accounting, economics and finance. The intended result is more than a study of cost in the Bible (accounting, economics or finance) that enhances a student's understanding of cost in accounting, economics or finance (the Bible). Instead, the intended result is that students will develop a biblical understanding of cost that is part of a comprehensive biblical worldview.

This exercise is useful across a broad range of courses including: 1) the introductory economics sequence, 2) the introductory accounting sequence, 3) the finance course typically required of all business majors, 4) upper level cost or managerial accounting courses typically required for accounting majors, and 5) an economic survey course for non-business majors.

### **Why Buchanan Wrote His Brief Monograph:**

Buchanan believes that many of the problems in economic analysis are due to an incomplete or deficient understanding of the nature of cost. Buchanan demonstrates that

the economic understanding of cost develops as weaknesses in economic theory are addressed over time.

For classical economists the cost of an item is based on the inputs necessary to produce the item. Since inputs used to produce one item are not available for producing other items, the notion of opportunity cost is present. Buchanan illustrates this point and its weaknesses using Adam Smith's deer and beaver example. Classical economics, and its emphasis on the supply side, lives on today with a firm's supply function being the firm's marginal cost function, where the shape of the marginal cost function depends on production technology and the cost of inputs.

Chief weaknesses of the classical approach include assuming perfect, objective knowledge about the future and failing to *fully consider* the opportunity cost implicit in the decision to produce with inputs. The decision to purchase one group of inputs requires that one forego purchasing other groups of inputs. Once a group of inputs is purchased, the decision to use these inputs to produce one product requires that one forego producing other products. These decisions are made with imperfect knowledge of the future, with different individuals having different subjective expectations about the future.

Limitations in the ability of the classical approach to address economic problems led to the development of a new approach, marginal utility theory. Marginal utility economics, with its emphasis on demand, was the economic opposite of classical economics, with its emphasis on supply. Instead of looking to relative inputs to determine value, marginal utility economics looks to relative marginal utilities. Since the marginal utility of an item is unique to the individual, marginal utility economics allows

for individual subjectivity. Limitations inherent in the marginal utility approach led to Alfred Marshall's synthesis where he combines the classical and marginal utility approaches, providing the supply-and-demand framework that remains as the foundation of economic analysis.

After completing this review of the development of orthodox or mainstream economic theory, Buchanan goes on to evaluate the contributions of The LSE and Austrian traditions. Ultimately, Buchanan concludes that the pursuit of economics as predictive science has hampered the development of economics as a tool for understanding people and the choices they make. When economics is properly conceptualized as a tool for understanding people and the choices they make, one begins to understand the nature of cost.

Buchanan notes that the costs that are relevant for decision making are subjectively calculated opportunity costs that are never realized. For example, the decision to attend an economics lecture is unique to a given student. The student subjectively evaluates the expected benefit of all possible options. The cost of attending the economics lecture is the subjectively calculated expected benefit associated with the foregone options. These subjectively calculated expected benefits are different from realized benefits, as the economics lecture may turn out to be more or less beneficial than originally expected. The subjectively calculated expected benefit that is the basis of the student's decision is never realized.

### **Using Buchanan in Class:**

The previous section provides a sketch of the argument that Buchanan develops over 90 pages. These 90 pages are divided up into six chapters of approximately fifteen

pages each. Typically I cover one chapter every two weeks over a twelve week period, the amount of time remaining in a semester once exam weeks are removed. Even at this relatively slow pace, the reading remains difficult for students, so I spend the equivalent of one fifty-minute class period every two weeks explaining Buchanan's argument.

In preparation for discussing each chapter I have students come up with two observations or questions per chapter. These observations or questions are written up in one page memorandums that the students submit for evaluation. This preparatory work allows students to better understand Buchanan's argument as I explain it in class. The immediate outcome is that students have a better understanding of how cost relates to choice, making them better decision makers. Following from the immediate result are two additional outcomes.

First, students are able to critique the different understandings of cost inherent in accounting, economics and finance. They better understand the strengths and weaknesses of these different understandings of cost, and they integrate across these three disciplines. For example, they use the understandings of cost found in economics and finance to enhance the analysis of an accounting problem.

Second, students bring this enhanced understanding of cost and choice to the analysis of Scripture. For example, when Jesus considers the cost of being a disciple in Luke 14:25-35, what concept of cost is being employed? What is the cost of choosing to be a disciple of Christ? The opportunity cost of putting Jesus first is not putting one's mother, father, spouse or children first. Choosing to put Jesus first reveals much about one's subjective perspective. The subjective value of putting Jesus first must exceed the subjective value of putting one's mother, father, spouse or children first. One should

carefully consider the cost of choosing to put Jesus first prior to making that decision, because once the decision is made there is no way to completely undo the original decision. This is the point of the tower and army examples.

Inherent in Buchanan's approach is the notion that an individual's evaluation of options is subjective in that it depends on the unique perspective of the individual making the decision. Given their exposure to postmodernism, its embrace of subjectivism, and its rejection of objective reality, some students are wary of any use of "subjective." This provides an opportunity to consider whether objective reality can exist concurrent with differing subjective individual evaluations of objective reality. This Christian epistemology – objective reality exists yet individuals have their own subjective evaluations of objective reality – is at odds with both the modern and postmodern epistemologies. At times this has led to consideration of old and new natures, old and new hearts, and blind and opened eyes, all biblical metaphors for the transformation that happens as part of the new birth. This sheds light on Paul's depiction of the new birth in 2 Corinthians 5:17: Therefore, if anyone is in Christ, he is a new creation the old has passed away; behold, the new has come. (English Standard Version (ESV)) The new birth does not change an individual's environment. What it does change is the perspective from which an individual subjectively evaluates his/her environment. The subjective value attached to a given option depends critically on the perspective from which the individual subjectively evaluates the option.

### **Chapter Summaries:**

What follows are the key points or themes that I emphasize when I discuss each chapter in class. Despite the relative brevity of Buchanan's book, the chapters are rather

thorough and detailed in their recounting of economic history. My goal, then, in class discussion is to sketch the key thematic points in each chapter so that the students can see how each chapter builds on the previous chapter. At the end of the exercise I want the students to have a framework for better understanding “individual choice behavior” (p. 7) so that they are better decision makers as a result of going through the exercise.

### **Chapter 1 – Cost in Economic Theory:**

Buchanan covers much ground in this chapter, starting with the attempts of the classical economists to develop a cost of production theory of exchange value. Limitations in the efforts of the classical economists created the conditions that led to marginal utility economics. Exchange value is no longer based on cost of production or, alternatively, on the supply side. Instead, exchange value is based on marginal utility or, alternatively, on the demand side. Along with this change in focus from the supply side to the demand side, as its name implies, marginal utility economics developed the notion that value is determined at the margin. In contrast to the cost of production theory being objective, Buchanan notes that marginal utility economics is often called subjective value economics. (p. 10)

As with the transition from classical to marginal utility economics, limitations in the efforts of the marginal utility economics created the conditions that led to Alfred Marshall’s combining of supply and demand to determine exchange value. Following closely after Marshall and his work were the first neoclassical economists, and the neoclassical approach remains the mainstream approach to this day.

Throughout this chapter a common tension persists: Is economics a science primarily concerned with developing “a predictive theory of normal exchange value” (p.

9) or is it a tool for helping a person to understand “individual choice behavior”? (p. 7)

While most would agree that mainstream economics has pursued the former objective, I trust that most will also agree that pursuing the latter objective makes economics most useful to students as they prepare for careers in business. Pursuit of this latter objective keeps the notion of opportunity cost at the front and center of the study of economics.

## **Chapter 2 – The Origins and Development of a London Tradition:**

Chapter one ends with the beginnings of neoclassical economics and its notion of cost. In chapter two Buchanan contrasts the neoclassical approach to cost with the similar approaches of the London School of Economics (LSE) and the Austrian economists.<sup>1</sup> In general, the neoclassical approach understands cost as being objective, while the LSE and Austrian approaches understand cost as being subjective, especially cost as a basis for making decisions.

In this regard, Wicksteed notes that the objective cost of production does not effect supply, instead “anticipated cost ‘in the sense of alternatives still open which must now be relinquished in order to produce this specific article’; this cost ‘influences the craftsman in determining whether he will produce or not.’” (p. 17) Thus, “the critical relationship between any measurement of cost and the act of choice is established.” (p. 17) When one looks back in time he/she sees only foreclosed alternatives. When the same person looks forward in time he/she sees alternatives that remain open, requiring that he/she choose among these alternatives. This choice among alternatives is made based on the subjective evaluations of the person making the choice.

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<sup>1</sup> “In his monumental, polemic, and much neglected treatise, *Human Action*, Mises advances a theory of opportunity cost that is, indeed, almost equivalent to the full-blown LSE conception to be described later.” (p. 21)

Consistent with Wicksteed, Hayek distinguishes “between the subjective apparent sense data of the person who chooses in the economic process and the objective data that are available to any external observer.” (p. 22) Note that subjective as used here by Hayek differs from the use of subjective as part of marginal utility economics. “The dependence of price (value) on marginal utility, subjectively determined, can be fully recognized, while essentially an objective theory of cost is retained.” (p. 23) There is an important but subtle distinction between the economics of subjective value that are an integral part of marginal utility economics and the subjectivist economics of the Austrians, most notably Hayek and Mises. “*Subjectivist economics*, for Hayek and Mises, amounts to an explicit denial of the *objectivity* of the data that informs economic choice....The difference between these two approaches, the objectivist and the subjectivist, is profound, but it continues to be slurred over in the neoclassical concentration on the idealized market interaction process in which all individuals behave economically.” (p. 25) Yet, the neoclassical approach has carried the day, as “the concept of opportunity cost which emerged from both the subjectivist-Austrian and the common-sense approaches-the concept that blossomed for two decades at LSE-seems to have lost in its struggle for a place among the paradigms of modern economics. Along with other conundrums in intellectual history, this is not easy to explain.” (p. 34)

### **Chapter 3 – Cost and Choice:**

To some extent, Buchanan continues his contrast of the neoclassical approach to cost with the similar approaches of the LSE and the Austrians. Suffering from a case of “physics envy” neoclassical economics is often associated with the goal of transforming

economics into a predictive science. In contrast, the economics of the LSE and the Austrians is an economics devoted to developing a logical theory of human interaction.<sup>2</sup>

For economics to be a predictive science, it must generate conceptually refutable hypotheses, hypotheses about the effect of specific changes in the environment on human behavior. For these hypotheses to be testable, both the cause (specific changes in the environment) and the effect (human behavior) must be measurable. Given this goal of generating and testing hypotheses, one can see how and why neoclassical economics utilizes objective notions of cost. Subjective notions of cost are not measurable, hence they are not testable. In this chapter Buchanan questions the extent to which neoclassical economics has been successful in its quest to become a predictive science.

If a person is content to use economics as a tool for helping him/her understand human behavior, specifically human decision making or the act of choice, he/she is freed from many of the constraints faced by the neoclassical economist. For such a person there is a direct relationship between cost and the act of choice. Cost is the negative side of any choice, any decision, it is the obstacle a person must overcome before an alternative is selected. (p. 41) Here are some specific implications that result from this choice based understanding of cost:

1. Most importantly, cost must be borne exclusively by the decision-maker; it is not possible for cost to be shifted to or imposed on others.
2. Cost is subjective; it exists in the mind of the decision-maker and nowhere else.
3. Cost is based on anticipations; it is necessarily a forward-looking or *ex ante* concept.

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<sup>2</sup> Note that Mises chose *Human Action* as the title of his main work on economics.

4. Cost can never be realized because of the fact of choice itself: that which is given up cannot be enjoyed.
5. Cost cannot be measured by someone other than the decision-maker because there is no way that subjective experience can be directly observed.
6. Finally, cost can be dated at the moment of decision or choice. (p. 41)

When economics is understood as a theory of choice, cost must be understood in a utility (i.e. subjective) dimension. In contrast, when economics is understood as a predictive science, cost must be understood in a commodity (i.e. objective) dimension. (p. 41)

#### **Chapter 4 – The Cost of Public Goods:**

Buchanan invests the first three chapters in sketching his economic framework. He now switches focus, spending the last three chapters of his book applying his economic framework. It is this application of his economic framework that led to Buchanan receiving the Nobel Prize in Economics. Along with Gordon Tullock, Buchanan authored *The Calculus of Consent*, the foundational work in the public choice school of economic thought.

Buchanan begins this chapter by continuing a theme from the previous chapter. One of foundational hypotheses from the predictive science of economics is that persons behave economically. “They act so as to minimize ‘cost’ in some objectively identifiable sense.” (p. 49) But, as Milton Friedman notes in his essay *The Methodology of Positive Economics*, the purpose of a predictive theory is to offer accurate predictions, not to explain the actual human action of the economic agent.

Buchanan notes that mainstream (i.e. neoclassical) economists have forgotten this distinction, as they “have applied the postulate of behavior that has proved helpful in deriving positive predictions as a *norm* in a theory of choice. Throughout applied

economics, the theory of economic policy, or welfare economics, we find norms that are defined in terms of specified relationships between ‘costs’ and ‘prices,’ relationships that embody conceptually measurable objective magnitudes....In their zeal to apply economic theory not to an analysis of institutional interactions but to real choice, they indirectly propose that decision-takers, singly or in the aggregate, *should* minimize objectively measurable outlays.” (p. 49)

Regardless of whether cost is viewed from an objective or subjective perspective, taxes are, or can be, an important component of cost. Yet, it is individuals and firms that pay taxes, hence “shifting and incidence analysis examines the choice behavior of individuals and firms.” (p. 50) However, “this is not the choice behavior that involves either the financing of public goods or the selection among taxing alternatives.” (p. 50) Hence, it is an error “to relate the tax-induced increase in a consumption-goods price-hence, in its ‘cost’ to the buyer-with the wholly different ‘cost’ of the public good which the tax revenues somehow represent....Orthodox tax-shifting and incidence analysis is concerned almost exclusively with tax-induced changes in the costs of undertaking *private* activities of production, investment, and consumption and with predictions of the effects of such changes on behavior. If the analysis yields no information about the costs of public goods, what value does it have for anyone?” (pp. 50-51) “There are obviously many reasons why the taxpayer may not evaluate alternative tax instruments in the same way that the applied welfare economist evaluates them.” (p. 52)

Buchanan spends the remainder of the chapter using the economics-as-a-tool-for-understanding-human-action approach to analyze governmental decision making

concerning the provision of public goods and the levying of taxes to finance these public goods.

### **Chapter 5 – Private and Social Cost:**

Buchanan begins this chapter by noting the optimality criteria from welfare economics since the time of Pigou, that marginal private cost should equal marginal social cost. Buchanan goes on to note that this criteria fails to distinguish between (subjectively conceived) costs that influence choice and costs that are objectively measured. This is the same point that Buchanan made in the previous chapter, that predictive hypotheses concerning human decision making should not be confused with norms for human decision making.

Of more than passing interest given the purpose of this paper, Buchanan has a section titled “Pigovian Economics and Christian Ethics.” Buchanan defines Christian ethics indirectly: “The ‘economic man’ of Wicksteed can adhere to a Christian ethic without neurosis, since he can, if he so chooses, incorporate in his behavior pattern some recognition of the interests of all his fellows except those with whom he is directly trading. He may continue to ‘love his neighbor,’ as long as his neighbor is not trading with him.” (p. 73) Apparently, a Christian ethic involves practicing the “golden rule,” the second commandment of the two commandment summary that Jesus provides of the Law, or the Ten Commandments. (Matthew 22:36-40)

### **Chapter 6 – Cost Without Markets:**

In this third application chapter, Buchanan continues to illustrate the superiority of the LSE-Austrian approach as compared with the neoclassical approach for analyzing common problems in public economics. Chapter four focused on the provision of public

goods; chapter five focused on transactions that have both private and social (i.e. public) costs; now chapter six focuses on costs in non-market transactions. In all three chapters the examples are standard fare for an introductory public finance textbook, examples that students can relate to and understand.

My experience is that these three application chapters firm up a student's understanding of the subjective opportunity cost model of human decision making that Buchanan develops over the first three chapters of his book. By the end of the book, then, students have a relatively solid grasp of a decision making model that will help them make better decisions and better understand the decision making process of others.

### **Concluding Comments:**

What follows is a sample schedule for incorporating both Buchanan's book and an analysis of cost as utilized in the Bible in a typical semester length class. In this sample schedule I have limited myself to Scripture references to cost contained in the Gospels. I have at least two reasons for this limitation. First, the references are all instances of Jesus using the concept of cost, mostly in parables. This makes it easier to search for common themes across the various references. Second, there are several good quality, relatively inexpensive commentaries covering the Gospels. Thus, I can add Buchanan's book and these commentaries to my required texts for a class without increasing the cost of the class inordinately. These commentaries are listed in the references that follow.

Students generally conclude that the notion of cost found in these passages is consistent with the subjective opportunity cost model of human decision making sketched by Buchanan. For example, the cost of following Jesus, the lifestyle that a follower of

Jesus is called to, is objective in its requirements and specifications, yet how one perceives or evaluates that lifestyle is subjective, it critically depends on the perspective of the person making the perception or evaluation. Fallen, unredeemed people have one perspective, while redeemed children of God have an entirely different perspective. This is part of what happens when blind eyes are opened and a heart of stone is replaced. This is the sense that “if anyone is in Christ, he is a new creation. The old [subjective perspective] has passed away; behold the new [subjective perspective] has come.” (2 Corinthians 5:17, ESV) It is at least an interesting to ponder that the concept of cost advocated by Buchanan (and the LSE and Austrian traditions) is also the concept of cost found in the Gospels.

**Sample Semester Schedule:**

<b>Week</b>	<b>Reading Assignment</b>	<b>Writing Assignment</b>
1	Buchanan chapter 1, Cost in Economic Theory, pages 3-16	One page memorandum with two questions and/or observations from chapter 1
2	Luke 14:25-35, the cost of discipleship	One page memorandum analyzing the use of cost in this passage
3	Buchanan chapter 2, The Origins and Development of a London Tradition, pages 17-36	One page memorandum with two questions and/or observations from chapter 2
4	Exam #1, no assignments	
5	Matthew 18:12-14 and Luke 15:1-7, the parable of the lost sheep	One page memorandum analyzing the use of cost in this passage
6	Buchanan chapter 3, Cost and Choice, pages 37-48	One page memorandum with two questions and/or observations from chapter 3
7	Luke 15:8-10, the parable of the lost coin	One page memorandum analyzing the use of cost in this passage
8	Exam #2, no assignments	
9	Buchanan chapter 4, The Cost of Public Goods, pages 49-64	One page memorandum with two questions and/or observations from chapter 4
10	Luke 15:11-32, the parable of the prodigal (lost) son	One page memorandum analyzing the use of cost in this passage
11	Buchanan chapter 5, Private and Social Cost, pages 65-76	One page memorandum with questions and/or observations from chapter 5
12	Exam #3, no assignments	
13	Matthew 16:21-28, Mark 8:31-9:1, and Luke 9:22-27, the cost of eternal life	One page memorandum analyzing the use of cost in this passage
14	Buchanan chapter 6, Cost Without Markets, pages 77-92	One page memorandum with questions and/or observations from chapter 6
15	Matthew 13:44, the parable of the hidden treasure, and Matthew 13:45-46, the parable of the pearl	One page memorandum analyzing the use of cost in this passage
16	Final exam week, exam #4, no assignments	

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