

TEACHING MICROECONOMICS PRINCIPLES IN CHRISTIAN UNIVERSITIES: TOYING AN IDEA OF A MICROECONOMICS TEXT WITH RELIGIOUS APPLICATIONS¹

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Textbooks are an essential tool for the transmission of material in any course. This paper calls for a principles of economics textbook that can be used to apply economics concepts in a Christian setting. Illustrations of how some microeconomics concepts can be used are also presented.

1. Introduction

Post-secondary education is one of the most important channels for transferring knowledge and human discoveries to the next generation. Even though many post-secondary education institutions began as seminaries, most universities are now secularly operated, and it seems that an increasing gap exists between mainstream schools and schools that continue to preserve their religious beliefs. It is not hard to argue that there is a demand for quality Christian education because of the number of Christian post-secondary institutions worldwide³. According to Dr. Harold Heie's book on "learning to listen and ready to talk",

"Although there are institutions of Christian higher education that struggle, often due to financial challenges, the general state of Christian higher education is good. Enrollments are generally growing and the quality of faculty is impressive."

Not surprisingly, when browsing through the vision statements of various Christian schools, one of the most important objectives, if not the primary objective, is to provide quality education with Christian values. Many Christian universities, undoubtedly, are achieving this goal of providing quality education with Christian values; however, there are many that may be struggling with it. Different programmes of study may achieve this same goal with varying levels of success, and it may be easier and more natural to integrate faith

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³ According to the Council for Christian Colleges and Universities, there are 110 member Christian schools with another 70 other affiliated Christian institutions. Together, these schools recruit thousands of students every year.

and learning in courses of religious studies, history and arts than in other programmes like business, science and engineering.

One of the key components of any course is to select the right textbook. Most Christian Universities use the same textbook as many of their secular counterparts, primarily because there is a lack of faith-based textbooks available. The ultimate question is whether these secular university texts, written mostly by non-Christians scholars, are adequate to assist professors in Christian universities with achieving the university's vision of integrating faith and learning in their respective disciplines⁴. The effectiveness of teaching with secular textbooks may not be well suited to achieving the mission and vision of faith-based Christian schools⁵. With second best texts⁶, the goal of providing quality graduates rooted in Christian values becomes more and more challenging⁷.

2. Literature

Being an economics professor in a small Christian liberal arts university, I can hardly find any suitable economic principles texts that can be used to fulfil both the learning objectives of the course and the faith-integration component advertised by the university. Alan Carper has written a high school economics text⁸ for Christian high schools (published by Bob Jones University Press), and Gary North has published a text on the introduction to Christian Economics. Other than these two, economics textbooks designed for Christian schools are virtually non-existent. With hundreds of principles of economics courses offered every semester in Christian universities worldwide, I believe there is a need (and a market) for quality Principles of Economics texts written⁹ in the context of Christianity.

⁴ I want to thank Heather Steeves for making this point.

⁵ I have to emphasise that most economic textbooks are objective and well-written. However, the argument in this paper is that even the most objective text may not be adequate for teaching in the Christian perspective.

⁶ These texts are obviously not second best from a purely content perspective, but rather from an integrationalist point of view.

⁷ It is apparent that quite a few Christian economists can conduct effective faith-based teaching using currently available texts; however, their methods of teaching need to be transferred to the next generation of instructors.

⁸ This textbook introduces economics principles integrating biblical values. Carper argues that economic laws, similar to scientific laws (like the law of gravity), are creations of God. Students should be introduced to the idea of assessing economics principles using a Christian worldview. It is also pointed out that this text is filled with biblical references, and the author applauds Mr. Carper's efforts.

⁹ The demand for the text may be small at first glance, but such a textbook would provide tremendous value to Christian economists struggling to integrate faith and learning in their classrooms.

To clarify, let me say that I am not promoting a separation of material between religious schools and their secular counterparts. Rather, because of the nature of religious schools, there is a need for professors in these schools to teach beyond mainstream learning materials (i.e. integrate of Christian teaching and course material). It is necessary for Christian school professors to teach all fundamental concepts taught in secular universities, but at the same time, discussions, evaluations and applications of these concepts may be further facilitated by a Christian worldview.

Many Christian economists have written articles on how to integrate faith and economics¹⁰, but only a few are simple and practical in terms of teaching the economic principles course. Among those scholarly papers with practical teaching applications, Brad Stamm (2001) of Cornerstone University published an article in the *Journal of Biblical Integration in Business* entitled “Economic Applications to the Bible”. In his article, he uses four biblical messages that have economic applications. First, he uses Jesus’ teaching on gaining the whole world, yet losing one’s own soul in the process (Matthew 16:26), to explain the concept of opportunity cost. Then he uses Jacob’s lentil stew (Genesis 25:29-34) to illustrate the principle of the price elasticity of demand. Next, he uses Jesus’ message that He is the way, the truth and the life (John 14:6) to demonstrate the power of monopoly. Finally, he argues that the only medium of exchange in the Lord’s Kingdom is the blood of Jesus. Besides Stamm (2001), there are a number of other Christian scholars publishing their contributions toward the integration of economics and faith in the classroom¹¹. Chan (forthcoming) extends Stamm (2001)’s arguments and provides additional biblical examples that can be applied in microeconomics. O’Neil (2003) reports the effects of using supplemental texts¹² to support the principles component of classes at the University of North

¹⁰ Tiemstra (1993) reviews literature concerning the integration of faith and economics in the 1980s and early 1990s. Important pieces also include Graham, Monsma, Sinke and Stokey (1990), and Boesema (1999). In the late 1990s, Oslington (1999) summarizes all of the papers that have been published on this topic, and provides a reading guide for over 195 articles in the area of Christian theology and economics. Later, he argues that it is neither desirable nor possible to separate economics from theology, and he identifies “theological economics” as a new and important area of study. He calls for discussions of theology that are implicit in contemporary economics, and better relations between the two disciplines.

¹¹ It appears that more and more Christian economists are studying in this field, as demonstrated by the 2002 “Christian and Economics: Integrating Faith and Learning in Economic Scholarship” conference held at Baylor University. Wilber (2002) discusses how to teach economics while keeping the faith. His study has primarily focused on the role of ethics in economic theory. Recently, Paul Koch (2007) published an article in the *Christian Business Academy Review* on the use of biblical metaphors in teaching economics; his paper contains an excellent review of scholarly publications in this area of interest. Hoover (1998) illustrates how to use Scripture to examine different types of microeconomic models of market structure, and suggests some pragmatic approaches for Christian business to be involved in the world without being of the world.

¹² In microeconomics, Professor O’Neil assigned *Leisure: The Basis of Culture* by Josef Pieper to supplement the main text, *Microeconomics*, by David Colander. In macroeconomics,

Dakota (a secular university). He considers the assignment to be an overall success, and plans to continue using supplemental texts¹³. Berendt (2003) uses examples in Genesis to imply economics principles - he calls it the Genesis approach. With such a supply of Christian literature available, in this present paper, I suggest summarizing these articles into a principles of economics textbook, or a supplement to convey key economics principles using religious behaviors that mainstream textbooks lack.

3. Economic Concepts

Most economics instructors begin with an introduction to basic economic concepts. In the section on scarcity, the text I propose can talk about tradeoffs between time used to attend church and time used for leisure. Time is a scarce resource, and there are only 168 hours within any week. Christians, who are called to be Stewards of the Lord, need to allocate their time in any week. A simple comparison between self-interest and god-interest (one-tenth perspective or the all-the-time perspective) on time usage can also be included. In the section of principal-agent problems, the text can explain how Christian universities and churches use different incentives to promote religious participation. Christian universities may have chapel fines to penalize students not attending chapels, and churches may use guilt feelings or social activities to increase worship attendance. Most Christians understand that church means the congregation; but at the same time, church can be viewed as a production firm that produces a good that God values. The text can classify different factors of production present in church settings: land is the physical building and facility (un-received rent as cost); capital is the amount invested in instruments and machinery; labor is the time devoted by pastoral staff and serving persons; and, entrepreneurialism is the reward given by God to every worshipper.

There are a number of examples the text can use to talk about tradeoffs and opportunity costs. For instance, the church's budget can be used to illustrate these concepts. Usually, church budgets are set in a way that adjusts the priorities of the church. Also, at the individual level, a simple discussion of items on the prayer agenda can be used to compare the conflicts between self and social or God interests. Besides, conversations/positive arguments in church annual meetings can be used as examples of positive and normative statements. If economists have a mission to discover positive statements, it is logical to challenge Christian economists to discover positive statements within the spiritual context.

“Preaching” and “Cleaning” could be the two goods the text uses to illustrate the concept of production possibility frontier. This example can be used to talk about trade and division of labor between pastoral staff and the janitorial staff. It can also be pointed out that both productions are important (they are more of a complement than a substitute) and God

students were assigned *A student's Guide to Liberal Learning* by James V. Schall to supplement the main text, *Macroeconomics*, by David Colander.

¹³ I want to thank Ian Smith for pointing out that assigning supplementary texts in the UK is a common practice. However, in Canada, having a supplement to teach a course is rare. The experiment with O'Neil gives an extra piece of evidence that having a supplemental text can add tremendous value to the course.

can be praised for the beauty of the unification of Christians with different talents. In summary, these examples are tabulated in the following table:

Table 1: Economic Concepts

Concepts	Suggested Examples
Scarcity	Time attending religious activities vs. Time attending other activities
Incentives	Chapel fines or taxable allowances for giving
Factors of production	Church as a firm. Land is the physical building and facility (un-received rent as cost); Capital is the amount invested in machineries; Labor is the time devoted by the pastoral staffs and serving persons; Entrepreneurship is the reward of every worshipper given out by God.
Self-interest and social interest	Tradeoffs between a person's own well-being and Jesus' teaching on caring for one another. Prayer time allocation can also be viewed as the conflict between self and social interests.
Opportunity Cost	Priority among different church projects: like outreach, building and caring.
Positive and Normative statements	Positive statements like the relationship between church attendance and giving. Normative statements like what a church needs to do in order to promote spiritual growth.
Production Possibility Frontier	Use the example of "preaching sermons" and "cleaning the temple"
Gains from trade	Continue with the example of "preaching sermons" and "cleaning the temple" to illustrate the concept of trades.

4. Supply and Demand

Supply and demand analysis is one of the most important, if not the most important, concepts taught in a principles course. The markets for Christian bookstores, Christian daycares, and Christian educational institutions can be used to explain the basic concepts. Besides, the idea of price beyond monetary value is crucial, especially in the Christian perspective. The price is defined to be the opportunity cost of Christian activities. The text can use examples to demonstrate how contemporary culture and activities affect the equilibrium level of religious activities. The importance of elasticity can be illustrated by the effects of changing the price of religious activities (e.g. starting Sunday worship at an earlier time). It can be argued that giving is a normal good, whereas Sunday worship attendance is an inferior good (because leisure is normal). The famine during the days of Joseph in Egypt is perfect for talking about the idea of buffering in inventory or stabilizing supply.

In efficiency and fairness, specialization among brothers and sisters can promote the efficiency of a congregation. The text can use cleaning the church as an example of division of labor and briefly explain how efficiency can be achieved. In terms of fairness, the text can contrast the utilitarian principle with the max-min principle. Scripture teaches us to care for the sick, and this can be viewed as a max-min principle. With more formally developed fairness concepts, the text can discuss current political and church policies and their implications to the Christian community. These examples are tabulated in the next table:

Table 2: Supply and Demand

Concepts	Suggested Examples
Supply and demand	A Christian bookstore selling Christian books or we can use other Christian ministries like day care and education.
Price	Price as the opportunity cost of a Christian activity, not necessarily the monetary price.
Price Elasticity of demand	Illustrate how to calculate the price elasticity's of the demand for attending worship, Sunday school and other church activities. The impact of the elasticity of giving on total church revenue.
Cross Price elasticity of demand	Substitutes for religious activities: Sunday jobs Complements for religious activities: Selling bibles
Income elasticity of demand	Normal good: giving Inferior good: Sunday worship for some people
Price Elasticity of supply	The possible inter-church competition for pastoral staff. The supply elasticity of worship is more elastic in larger cities.
Efficiency	Specialization within different ministries among pastoral staff and congregation members.
Utilitarian and Fair rules	Biblically, the fairness principle is based on the max-min rather than the utilitarian principle.
Consumer Surplus and Social Welfare	These concepts can be illustrated using a Christian book sale or a religious day care.
Buffering of agricultural goods	Joseph's adventure in Egypt during the famine days.
Policies	We can study the effects of a "tax subsidy" for giving in churches. Also, a discussion of the religious value for minimum wage, rent control and pollution policies.

5. Preferences and Costs

This section is about preference, utility, cost and production. In most textbooks, the section on preference and utility consists of analysis using the budget line and the indifference curve. This text can also use time (just like a case of fixed income) instead of money to illustrate these concepts. The two goods can be time in church (C) and time outside church (TC). This way, the budget of any individual line is: $24 = C + TC$. Also, Christians are heterogeneous in terms of their preferences between C and TC. Indifference curves among Christians with

differing preferences can be graphed. With this framework, the equilibrium can be constructed.

Unlike other goods, the marginal utility of “religious goods” for certain Christians may be argued to be increasing. The marginal cost of producing “religious goods” is decreasing. In fact, religious goods produced by a church have a decreasing cost function. Even though the marginal utility may be positive for some Christians, it is well-documented that the problem of free-riding increases with church size; that is, the larger the congregation, the smaller the per-person giving level and per-person participation rate. A summary of this discussion can be found in the next table:

Table 3: Preferences and Costs

Concepts	Suggested Examples
Budget line	Time as the scarce resource and how time is allocated between church activities and other activities
Preference	Contrast between different indifference curves for different attitude towards Christian personal beliefs.
Equilibrium	The optimal equilibrium of time allocation can be illustrated using an indifference curve/budget line analysis.
Marginal utility	It may be argued that the marginal utility of religious goods is actually increasing. Based on different assumptions, different types of indifference curves can be drawn
Production Costs	An example on how to run a bookstore or a church. The concept of free-riding may be included.
Returns to scales	Worshipping can be viewed as a decreasing cost product.

6. Market Structures

The last section on microeconomics talks about market structures. Market concentrations can be determined quantitatively using the Herfindahl-Hirschman Index. These indexes on the market of religious goods can be used: Chan(forthcoming) uses data from the Atlantic Baptist Convention to calculate these numbers at the regional, provincial and the city level. In the section on monopoly, salvation can be viewed as a monopolized good; Jesus is the only provider and no one can get to heaven except through Him. When a denomination has more than one church within a geographical area, it is an oligopolistic market structure. Since these churches belong to the same denomination, it can be argued that they are providing a homogenous good. On the other hand, when there is more than one denomination of Christianity within a community, this is a monopolistic competitive market. Different denominations offer a slightly differentiated good, but these goods are substitutes (Christians cannot be going to two different churches to worship at 11am on Sundays). In perfect competition, the market has homogenous goods, and every person is a price taker. It is not easy to find a good that fits these attributes. Most currently available (non-religious) economics texts use the example of an agricultural product. Perhaps the market of grapes is an example that this proposed text can use. Grapes are used to make wine for communion every month. A summary of these discussions is tabulated in the following table.

Table 4: Market structures

Concepts	Suggested Examples
Market concentrations	HHI and the four-firm-concentration ratio can be used to calculate market concentrations for the religious worship market.
Monopoly	Jesus as a monopolist. No one can go to heaven except through Him - He is the price setter.
Oligopoly	Churches in a city. There are a few big churches, but quite a few smaller ones.
Monopolistic Competition	An introduction of different denominations, arguing the slight heterogeneity of religious offerings.
Perfect competition	The market of grapes for communion purposes.

7. Macroeconomics

This textbook can provide a biblical perspective on money, wealth, and other macroeconomic problems. The textbook can illustrate stylized facts about the giving and attending patterns at any church, and the effects of unemployment and inflation from a religious perspective.

8. Conclusion

In conclusion, I argue that there is a need for an economics textbook that can integrate principles in economics and Christian beliefs. Further, it is argued that this textbook should not reduce or eliminate any economic principles contained in secularly-written texts. Instead, this text should take a step beyond conventional texts by enriching the learning experience with Christian exemplifications. I believe this text will dramatically enhance the quality of economics education in Christian universities. For Christian colleagues who are teaching in secular universities, they may use this text to bridge economic principles and religious behaviors. It is time to show every student that religion and economics can be connected. Religious people are also rational people. I think Christian economists, especially those who are called to educate in secular universities, can step-up and teach economics in a way that have more meaningful impacts on future generations using a Christian worldview.

With this in mind, I have suggested a method to write a “principles of microeconomics” textbook that uses both biblical and religious examples in this paper. I have to admit that these examples are not necessarily perfect, but nonetheless, they shed some light on how a Christian economics text can be written.

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