

FINANCE FOR STEWARDSHIP, LOVE AND JUSTICE

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May 2012

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ABSTRACT

God created the specific foundations of finance and intends humans to develop the institutions of finance. God does this for His glory and so humans can obediently respond to His call to be stewards of His creation and show love and justice to others. We provide practical examples of how this theology of finance can inform borrowing, lending, investing and vocational decisions. We note that sin has a profound influence on finance and only through Christ's redemption can finance begin to serve God's intentions in society.

INTRODUCTION

Sera has learned about God's big story of creation, fall and Christ's redemption. Sera believes she is a steward of the earth's resources. She tries to love God above all and love her neighbor as herself. She seeks justice by paying taxes and volunteering at a food pantry.

Six years ago Sera purchased a house for herself and her two children to provide a stable place to establish friendships, attend school and be part of a church. Sera was able to purchase her house with the help of a bank loan. When Sera purchased her home her budget was tight but she expected her income and house value to rise over time. However the opposite has happened and she finds that every month she is short of money. She hears that many people are walking away from their houses and giving the keys back to the bank. One of her colleagues did that and at the last minute his bank agreed to substantially reduce his loan payments.

Sera tries to live her life holistically but she cannot figure out what her mortgage loan has to do with her Christian faith. A Christian friend told Sera that her mortgage loan is "just business" and it is fine to exaggerate to the bank when attempting to get reduced loan payments. How can Sera connect her understanding of God's big story, of stewardship, love and justice to her mortgage loan? Is there any connection?

Sera's banker, Peter, is also a Christian and is wondering the same thing. Recently a popular Christian speaker saying came to town and said that debt is bad. Peter's mother still seems disappointed that he took a secular job instead of pursuing full time mission work. A Christian friend implied to Peter that the Bible teaches against charging interest and lending with collateral. Is making loans un-Christian? Is foreclosing on homes un-Christian? Peter feels called to work in finance, but wonders how he squares this calling with his Christian faith.

In this article we develop a Biblical framework which gives guidance to Sera and Peter. We look at the big Biblical truths Sera knows and integrate them with the particulars of finance Peter knows. Our approach is to first reflect on what finance is and how it its basic building blocks are created by God and how God enables humans to build the institutions of finance on His foundation. This as a necessary step which allows us to see that finance is part of God's creation, has been redeemed by Christ and is intended by God to enable us to be good stewards of God's creation and to

love our neighbors and seek justice. We hope to weave these big Biblical themes into the particulars of finance and arrive at some actionable advice for Sera and Peter.

Our goal in developing this theology is to integrate several disparate streams of literature dealing with Christianity and finance. As we note later in this article, in recent years we have seen Christian scholarship dealing with debt, interest rates, risk, institutions, greed and lying. Much of this literature is based on specific Biblical teachings, but is not couched in an overarching or unifying theology of finance. This article is an attempt at such a theological framework which we then apply to some of the above specific questions in finance. We hope that our theology will allow a richer and more useful Christian understanding of finance.

A THEOLOGY OF FINANCE

Our theology rests on three underlying presuppositions. First, we recognize God's sovereignty over all, including finance. We do not relegate some parts of God's creation to the secular, but consider all of creation as being under His reign, authority and redemption.² Second, we keep an eye on the big Biblical narrative of creation, fall, redemption and consummation. We look at how finance is part of God's perfect creation design and human mandate, is utterly impacted by sin, is redeemed by Christ's victory over sin and is being transformed to its original intended purpose. This approach has a long tradition and is explained well by Plantinga (2002) and Wright (2010, chapter 2). Recently Van Duzer (2010) has used this framework to help us better understand God's intended role for business in society. Third, we understand that God reveals Himself to us through both the Bible and through His creation.³ This means we must consider both Biblical teaching and God's created order if we are to fully understand God's intent for the finance part of His creation.

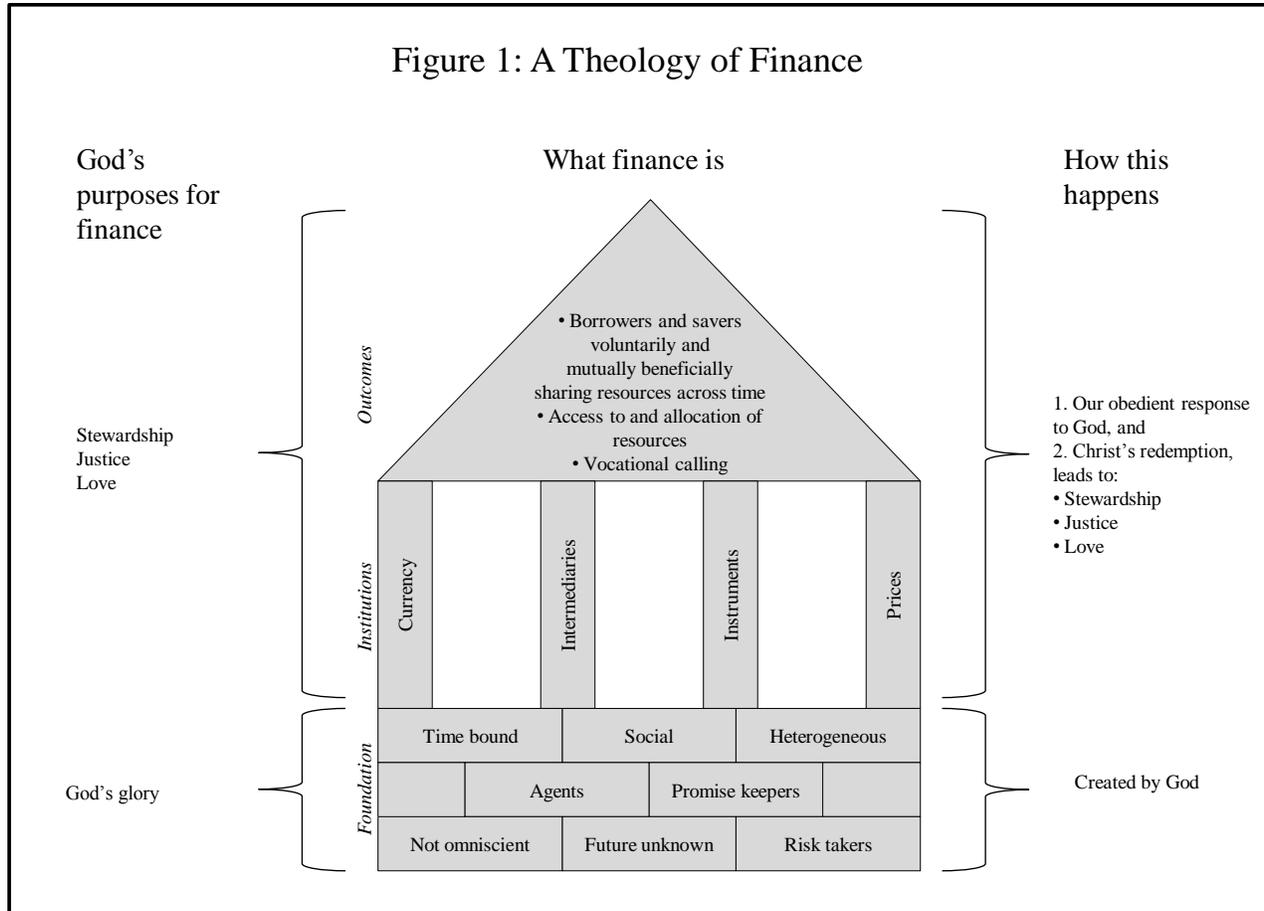
Our specific finance theology is outlined in Figure 1, and this paper is organized around elaborating each of the elements in Figure 1.

The central structure in the figure describes what finance is, and would be agreed by most finance scholars whether faith-informed or not. The foundation stones are the created human attributes which form the basis for the primary finance institutions of currency, intermediaries, instruments and prices. These lead to the outcomes in the top part of the structure.

The left side of Figure 1 outlines God's purposes in creating and enabling finance. We draw on the primary Biblical themes; i) The finance part of God's creation reveals His glory, ii) finance is one way God provides for humans to fulfill His creation mandate to be stewards, and iii) finance is one way God provides to enable justice and love among humans.

The right side of Figure 1 reflects how God's purposes are accomplished via finance. In our finance theology i) the finance foundation is created by God, ii) the finance institutions are obedient human responses to God's creation design, and iii) by Christ's redemption finance enables humans to seek stewardship, justice and love.

Figure 1: A Theology of Finance



WHAT FINANCE IS

Finance is that human activity involved in the allocation of resources with respect to time. It is the myriad of activities which represent saving resources for the future and which represent borrowing resources which will be repaid in the future, and the countless institutions and mechanisms with which these savings and borrowing activities are facilitated. For purposes of this article finance means those resource timing allocations which are undertaken by households, businesses and governments in a market context, that is, in a mutually beneficial voluntary manner.⁴ In this paper we will not develop a theology regarding other types of resource allocation decisions such as governmental allocation of resources, charitable reallocation of resources, labor markets, or markets for goods and services.

Finance occurs when people who want to borrow some resources in a particular time period do so by entering into mutually beneficial voluntary arrangements with people who have more resources than they currently need. Throughout history humans have been saving some resources for future use, or borrowing some resources for current investment. The earliest example may have been lending a hunting instrument to a fellow clansman for a period of time with the understanding that it would be returned later along with part of the kill. Perhaps a somewhat later example would be lending a neighbor some seed with the understanding that that amount of seed plus a little extra would be returned at the end of the growing season. Later with currency the same economic arrangements are made except the storage and movement of meat and grain can be delinked from the borrowing and lending of resources. A farmer can borrow money, buy seed, grow grain, sell some of the grain crop

and repay the borrowed money with some interest. The lender can sell the prior season's seed grain in exchange for money, lend the money and be repaid at the end of the growing season with interest. Finance history is rooted firmly in the earth's resources.

Micro finance is perhaps the easiest to understand current example of the societal role of finance. Micro finance emerged in the 20th century when small groups of women got together and agreed to pool their resources and lend the resources to the group members who had productive opportunities but not enough resources to pursue those productive opportunities. If each member of the group gave up access to some resources (i.e., saved some money) they could then let another member of the group use those resources (i.e., borrow) for a period of time. The micro finance borrower is willing to pay some interest to use those resources and the micro finance lenders receive some interest for deferring the opportunity to use those resources.

In recent years with advances in communication and information technology the texture of finance has changed significantly. However the fundamental societal role of finance continues to be the reallocation of resources over different time periods. Borrowers now include households, businesses, NGO's or governments which in a particular time period need more resources than they have and hence obtain funds from savers via the financial system. Savers are those households, businesses, governments, foundations or endowments which in a particular time period have more resources than needed and hence are suppliers of funds to the financial system.

Over the centuries several types of institutions have developed which greatly facilitate this sharing and allocation of resources. Financial intermediaries have emerged which help borrowers and lenders find each other but also reshape the resources to fit the needs of the savers and borrowers. The contracts or instruments used in finance include debt and equity instruments as well as many hybrids designed to suit particular borrower or saver needs. We can conceptualize the financial industry as sourcing "raw materials" from savers and via many business-to-business layers manufacturing these savings into instruments which allow people, business and governments to easily and efficiently borrow funds needed for housing, business expansion and infrastructure. The retail part of finance which involves individual customers is sometime called "Main Street" and the wholesale part of finance which involves business-to-business customers is sometimes called "Wall Street" in the USA. In reality these are both part of the same finance industry which serves borrowers and savers.

GOD'S PURPOSES FOR FINANCE

We argue that finance is part of God's big story as revealed in the Bible. Thus we see that the three primary God-intended purposes for finance are to i) reveal His glory, ii) enable stewardship, and iii) provide for love and justice.

The Finance Part of God's Creation Reveals His glory

In the Biblical narrative God creates everything, including finance, for His glory and honor (Colossians 1:16, Revelations 4:11). The created foundations of finance are wondrous and reveal God's unmatched creativity. God created various time periods, seasons and life times and He knit us together so that we have the desire and ability to live and flourish in community by sharing resources over time. Further, God designed this and sustains this to work with billions of people simultaneously making a multitude of resource timing decisions. Like lofty mountains and blossoming trees, great music and delicious foods, finance reveals God's glory. We will gain a more granular appreciation for God's glory in the next section when we see that God created the eight very specific finance foundation stones shown in Figure 1.

Finance Helps Us Fulfill the Creation Mandate and Be Good Stewards

God gave us a mandate is to fill the earth and subdue it and to work God's creation and take care of it (Genesis 1:28-30, Genesis 2:15). To help us understand His original creation God uses the image of a garden filled with plants and animals and with a few people who are in perfect communion with God. When God wants us to understand his future re-creation He shows us a God-illuminated city teeming with people from every nation praising God, but also with foundations, walls, gates, tree-lined streets, iron, gold, domesticated animals and ships (Isaiah 60, Revelation 21). This development of creation from a garden to a city filled with humans and their cultural elements is consistent with our mandate to fill the earth, subdue it, work it and take care of it. Even though God's creation at the beginning was perfect and full of resources, it was not complete as God intended it to become. Mouw (2002, page11) argues that "God intended from the beginning that human beings would fill the earth with the processes, patterns, and products of cultural formation". We are God's creative hands and continue his creative work, building by the grace of God on his perfect and abundant creation foundation. Van Duzer (2010, page 35-38) argues that this perfect but incomplete creation provides an excellent foundation for business. Similarly if, as we argue in the following section, finance has its foundations in God's perfect creation then it follows that God intended finance to also be part of our mandate to work and take care of His creation. Allocating resources well over time is vital to fulfilling this creation mandate. Examples of how finance helps humans obey God's creation mandate include saving money to buy seeds in the spring time, gathering the upfront resources to purchase mining equipment which will produce ore in future years, a young family borrowing money to buy a house, and community issuing bonds to build a school. Without finance humans would live each day with only the resources they could garner that day. Each member of the human race would be daily living "hand to mouth" without the borrowings and savings of finance.

God mandates us to not only work his creation but to also take care of His creation.⁵ By His grace He also gives us the tools to do so. Finance is one of the tools and allows good stewardship in two ways. First, finance allows a long term multi-period perspective to decision making and thus can allow funds to flow to those things which best care for creation. Second, finance allows projects to be undertaken which enable a more efficient use of resources. For example because of finance a city can expand its public transportation system which will better uses God's carbon resources and will also provide retirement income to the municipal bond investors.

Finance Enables Justice and Love Among Humans

Wright (2010, pages 88 – 92) shows that the major Biblical themes of righteousness and justice are closely related concepts meaning "what needs to be done in a particular circumstance or relationship" to restore things to what they ought to be. Wright (2010, pages 92 – 94) goes on to argue that God chose Abraham specifically as a way to advance His mission of blessing the nations with justice and righteousness. It follows that the reason God chose us was to bless those around us with justice and righteousness.

Jesus said His most important teaching is to love God with all our heart, mind, soul and strength and to love our neighbor as ourselves (Mark 12:30, Luke 10:27). When asked who our neighbor was Jesus told a parable to illustrate that anybody we could show mercy to is our neighbor (Luke 10:25-37). In these teachings Jesus did not exclude human institutions such as the marketplace

or finance. Consistent with this, Chaplin (2010) urges us to transform institutions, perhaps radically, so they “embody the central norm of love” and so they serve as “conduits” for love and justice.

Thus when we are thinking about God’s purpose for the finance part of His creation, we need to understand how finance can be used for justice and how we can love our neighbor through finance. If the acts of saving resources for the future or borrowing resources against the future do not bring justice and love, then surely we are not using the finance part of God’s creation as He intended. Later in this paper we will explore examples of how via Christ’s redemption finance can bring about love and justice. But first in the next section we show how the foundations of finance are part of God’s creation and reveal His glory.

FINANCE FOUNDATION CREATED BY GOD

It was God’s choice and divine wisdom to make us in that very particular way which would enable finance. We can see this in the eight below foundation stones which represent unique elements of God’s creation. The stones as a whole provide the created foundation of finance.⁶ For each stone below we argue that it is part of God’s creation design and then demonstrate how it is part of the finance foundation.⁷

Humans are Timebound

God created a world with time and where time is limited, where we have days, seasons, generations and life times (Genesis 1). Further we need to be aware of time and will be held accountable for our time (Psalm 90:12, Ecclesiastes 3, Proverbs 6:6-11, Proverbs 20:4). God is not time bound but for now we live in a world with time. Kana (2010) argues that time is God’s resource and we are stewards of time.

Reallocating resources across different time periods is the theoretical and practical underpinning of finance. Financial resources are needed for a few days because of production or shipping time, or a few months due to seasonal business, or a half year due to a growing season, or for several years for new product development and launch, or for decades to buy a house, or for most of a life time for retirement savings. We have developed specific measures of time and conventions of counting time, but these reflect the underlying created order where humans are time-bound.

Humans are Social

Humans are created to be social and to live in community. We are created in God’s image (Genesis 1:26-27, 2 Corinthians 3:8) and the holy trinity existing in perfect unity is a model for us (Galatians 4:1-7). We have been given touch, sight, hearing and language to support our communal living. More importantly we have a created desire to be with other humans. Biblical evidence of this is abundant but perhaps the best examples are God deciding to create Eve because it was “it is not good that man should be alone” (Genesis 2:18), God designing his chosen Israelite people to live in community and God planning for his church to be a body of believers (Romans 12:4-5).

This aspect of creation is the most basic building block of markets, including financial markets. Adam Smith and many others recognize that our ability and desire to be social is of fundamental importance in markets. Alvey (2004) argues that Adam Smith held that humans must live in society to survive, and importantly this was not discovered by humans as a means to the end of preservation of the species, but that this is due to the construction of nature. God created humans as social beings and must have planned that this would lead to mutually beneficial voluntary exchanges of resources.

Humans are Heterogeneous

Human are created with a wide variety of skills, needs and desires. This was evident from the beginning when God created the second human different from the first human, and is consistent with humans being created in a triune God's image where each person of the trinity is unique. We see evidence of God's creation design in this regard when he endowed people with a wide variety of skills to build the tabernacle (Exodus 35:30 - 36:5) and to rebuild Jerusalem upon the return of the remnant from the Babylonian captivity (Ezra 7:6-7, Nehemiah 1, 2). When Paul is helping us understand God's design of His church he emphasizes that we are each gifted differently (1 Corinthians 12: 12-31). Finally, since we were not all born at the same time we have a rich variety of ages and life stages in the human race. Some are young and not yet able to provide their own food and shelter, others are just beginning to be able to do so, others are in their prime productive years and have resources in excess of their current needs and still others are older and need help in supporting themselves, or need to draw on resources accumulated during their earlier years.

This heterogeneity is a foundation stone of financial markets. For example some of us will be involved in business or government and be desirous of borrowing some money to pursue an opportunity to expand our business or build some infrastructure to fulfill some unmet need in society. Others will be savers at some periods of their lives and will be able to meet that borrowing need. Mainstream finance theory and practice takes it as given that humans are heterogeneous. It seems likely that when God decided to create heterogeneous humans He anticipated the development of financial markets.

Humans Act as Agents

Humans were created to act on others behalf, to be stewards or agents. The prime example of this is that humans are mandated by God to steward his creation and steward His grace (1 Peter 4:10). We also see that Joseph was called by God to act as a steward for both Potiphar and Pharaoh (Genesis 39:2-6, Genesis 41:41-44). Jesus' parable of the bags of gold illustrates that we are His stewards, and will be held accountable as such (Matthew 25:14-30).

The finance part of creation prominently features humans acting on behalf of others. We can own part of a company via a stock purchase and have an agent acting on our behalf to manage the company. We can own shares in a mutual fund and have a mutual fund manager acting on our behalf to decide which stocks or bonds to invest in. We can have a pension plan with trustees deciding what investments are prudent for the plan. An entire branch of the academic finance literature is devoted to better understanding the many agency relationships in finance. Finance exists because God created humans to be able to act on behalf of others.

Humans Keep Promises

God is a God of promises and covenants. The Biblical narrative is a story of God's promises kept. God promised to Noah that He would never again send a flood, and sealed that promise with a rainbow (Genesis 9:8-17). God promised to Abraham and his many descendants that He would be their God, and sealed it with the sign of circumcision (Genesis 17:1-27). God promised a savior, and that has been fulfilled. We also see examples of humans entering into contracts with each other. The story of Ruth is a story of promises between humans (Ruth 1: 16 -18). Paul references human promises in Galatians 3:15. Humans are created to be able to make and keep promises to each other.

Every financial instrument is a promise between two or more humans, and would not be possible if promises were not part of God's creation. A mortgage loan is a promise to pay a certain amount each month. A share of stock is a promise for a portion of future dividends and a right to elect board members. In modern finance our promises tend to get quite complicated and detailed so it has

become common practice to write them down. This helps everybody remember exactly what was promised. However these written contracts simply reflect our created ability to make and keep promises. If we did not have this ability from God, then the written contracts “would not be worth the paper they are written on”. This ability is so central to finance that the Bible teaches us to not over promise in our finances (Proverbs 22: 26-27).

Humans Are Not Omniscient

God did not create humans to be all knowing. We do not know everything other humans know. God created each of us with our own unique mind which takes in, processes and remembers things differently from any other human. This attribute is partially reflected in persons of the trinity, when Jesus surprisingly states that only the Father knows when He will return (Matthew 24:36).

This aspect of creation where information is uneven or asymmetric has a big impact on financial markets. This means that when a loan is entered into the borrower has more information about the ability to repay than the does the lender. This means that when we buy a stock it is possible that the seller knows something about the stock that we do not. This asymmetry will impact our willingness to participate in financial markets and will impact financial prices. Finance practitioners and scholars spend a lot of energy understanding how this asymmetric information impacts financial markets and prices. We have instituted laws which prohibit using certain types of private information for gain in the financial markets. One wonders what God’s intent is in creating this foundation for finance, which seemingly works against well functioning financial markets.

Humans Do Not Know the Future

God created risk, in that we do not know what the future holds (Ecclesiastes 8:7). Not only did God create us so we cannot predict future events, but He also created us so that humans influence future events. Miller (2007) outlines three conceptions of risk, the third being “opportunity creation” wherein human imagination and creativity make the future indeterminate. Buchanan and Vanberg (1991) argue that the markets are best understood as a creative process, as opposed to a discovery process or allocative process. The future is not given, but an unfolding process impacted by human choice.

The fact the God created us so that the future has many unknowns has a profound impact on financial decisions⁸. Most financial instruments and the pricing of those instruments reflect this uncertainty. Loans get turned down due to uncertainty. Stock prices rise and fall due to uncertainty. Debt contracts have reporting and collateral provisions because of uncertainty. Financial markets are greatly complicated by uncertainty, but also have a greater potential benefit to society due to uncertainty.

Humans Are Risk Takers

God created us to be able to take risk and we have Biblical support for taking some risks (Matthew 25:14-30, Luke 19:11-27, John 12:24). God created us so we feel risk, but we know God will provide⁹. However we also have much Christian teaching to be prudent in our risk taking¹⁰. Gregersen (2003) defines risk as the sum of three things: natural events, social events and the meaning these hold for a person. Gregersen quotes Luhmann who argues that trust is a risk-willing position; creating a virtuous cycle between trust and risk. Gregersen argues that the Bible teaches “the world is created by a benevolent God in such a manner that invites a risk-taking attitude and rewards it in the long term” (page 368).

Human attitudes toward risks are pervasive in both academic and practiced finance. Finance models which seek to describe human behavior incorporate some kind of human willingness to take

some risk but not too much. This ability to take risk along with an aversion to taking risk unnecessarily is part of God's creation design. With this understanding we can understand that a risk understood, managed, or priced is consistent with God's creation design.

FINANCE AS OUR OBEDIENT RESPONSE TO GOD

On the above eight God-created foundation stones humans have developed institutions which form the primary structures of finance, as shown in Figure 1. By institutions we mean those structures and mechanism which society uses to organize its activities. The four primary finance institutions are currency, intermediaries, instruments and prices. In this section we explore each of these four institutions, show how they are built on God's created finance foundation, and are a way in which we obediently respond to God through stewardship, love and justice.

Van Duzer (2010, pages 144-146) argues that institutions may be amongst the powers and principalities referred to the Bible, and that as such were created by God for good. Van Duzer argues that Colossians 1:16-17 may be referring to institutions such as business or markets¹¹. He quotes Yoder who argues that God created institutions to provide "regularity, system, order" to His creation.¹² We argue that finance institutions are enabled by God as excellent ways to steward God's creation and to enable love and justice. Thus in this section we take an optimistic view of finance; a "what was intended by God" view of finance. Later we look at how God's intentions for finance can be hijacked by a fallen humanity.

Currency

God enabled humans to represent material value in media that are durable, storable and transportable. In his original creation design God made some physical elements, such as gold, to be attractive, small, and relatively scarce. He also created in humans an ability to understand and impute value to such articles. Later God allowed humans to establish governments which would use non-scarce resources, such as paper, to represent scarce resources, such as gold, which in turn could be exchanged for a wide variety of resources¹³. We have money which is in modern times very easy to transport and which provides access to real resources such as food, housing, education and capital goods. Being able to easily allocate resources via currencies is an important part of fulfilling the creation stewardship mandate and also an excellent way to show love and enable justice.

The Bible contains much teaching about money. Several famous teachings are that "the love of money is a root of all kinds of evil" (1 Timothy 6:10) and "You cannot serve both God and money" (Matthew 6:24). These teachings are not about money as a medium of exchange, but rather about the resources we can purchase with money. The love of the things you can buy with money or the love of the feeling that you control a lot of resources is evil. One cannot serve both God and material resources. However, money as a medium of exchange is not the root of evil. Money as a medium of exchange is a blessing enabled by God.

Intermediaries

Intermediaries are institutions that "remanufacture" savers' money into a form that is useful to borrowers. A simple example is when a bank intermediates between several savers and one mortgage loan borrower. Intermediaries include all the various types of banks, but there are several other important types of intermediaries such pension funds, life insurance companies, mutual funds, private equity funds, hedge funds and securitization vehicles. Any financial vehicle which aggregates savers money and invests it in borrower obligations is performing the function of financial intermediation. Intermediaries exist because God created humans social, heterogeneous, to act as agents, to make promises and to be prudent risk takers.

Intermediaries allow humans to fulfill God's stewardship mandate in two key ways. First, intermediaries transport resources across geographies to those areas of God's creation where resources can be usefully used. Second, intermediaries make resources scalable by enabling many savers' resources to be aggregated. For example, these two factors make it possible that an individual household's savings in China to be used in a small way to build the Australian National Broadband Network.

Intermediaries also allow humans to show their love for each other, albeit it indirectly. The intermediary enables the borrower to obtain the needed funds more easily and more cheaply than if the borrower relies only on family and friends. Intermediaries also enable savers to save for the future in lower risk and higher return ways. Although the saver and borrower never meet, they are showing their love for each other.¹⁴

Intermediaries enable justice by allowing households and small businesses to gain access to resources. Without intermediaries a household's access to resources would be limited by the social relationships of that household. Poor households would likely stay poor. With intermediaries a poor household can borrow the resources to buy a house, car, college education or start a small business. This allows for a more just society.

Instruments

Financial instruments are promises between two or more parties with differing resources needs which are tailored to allow both parties to be prudent risk takers when the future is unknown. As argued above, God created humans to be a promising keeping people. That element of creation along with the fact that God created humans social, heterogeneous, time bound, and to be prudent risk takers in a world of uncertainty, gives rise to financial instruments. Financial instruments are the products "manufactured" by intermediaries to meet the needs of savers and borrowers and allow humans to obey God's creation mandate and to show their love for each other in important and significant ways.

Financial instruments enable good stewardship because they can be tailored to fit the risk, return and time profile of the particular stewardship opportunity. Thus if a borrower company has a particular stewardly project whose outcome is quite contingent on an uncertain future (i.e., it is risky), then a financial instrument can be crafted which anticipates this risk and thus helps the saver and borrower mutually agree on how exactly to share the requisite resources.

A mortgage loan is an example of love enabled by financial instruments. The saver helps the borrower obtain a physical place in which she can flourish. In turn, the borrower helps the saver prepare for later in life when he is old and no longer productive enough to support himself. Through God's creation design He anticipated that we would develop financial instruments which would enable humans to love each other in such meaningful and useful ways. Of course, the borrower and saver do not specifically know each other but they do know of each other and can thus love each other in this way.

Financial instruments also allow for a more just society. Instruments can be tailored for the needs of those members of society whose needs are the greatest. Student loans are an instrument which has provided great opportunity for less advantaged members of society. The special tailored instruments used in micro-lending also enable justice. Specialized housing loans with smaller down payments and government insurance have enabled countless low income families to gain the benefits of homeownership. Financial instruments allow those members of society with ample resources one way to show justice to poorer members of society.¹⁵

Prices

Prices in financial markets are expressed as interest rates on debt instruments and, more generally, expected rates of returns on all types of financial instruments.¹⁶ Why exactly would the borrower and saver agree to pay or receive interest? Is that part of God's creation design? We argue yes, as follows.

First consider this from the borrower's perspective. The borrower will be willing and able to pay interest because she can do something useful with the borrowed resources which will likely provide more resources in future. These productive opportunities have been created by God and include things like shelter so the borrower can stay healthy, planting seeds to grow a crop, gaining skills through education, building a road or factory or buying a machine that can make something useful. Time periods and productive opportunities are both parts of God's created order. This is one-half of the important creation foundation of interest rates.

For the second half, consider this from the saver's perspective. The saver is willing to give up access to some resources until some future period for two reasons. First, he is time bound and knows there is likely to be a future period during which he will need some resources. He needs to regularly eat food for the rest of his life. Second, he has limited need for resources this period. His stomach is reasonably full, he has a shelter and some other comforts in life. He could consume some more resources in this period but his desire to do so is diminished. He would rather transfer some resources to the future when they are relatively more useful for him. Thus he is pleased to let the borrower who has a more productive use for the resources use them for a period of time. To give up control of the resources for a while the saver will want some small compensation at least equal to his next best use for the resources. The saver's diminishing appetite for current consumption and knowledge of likely future time periods in his life are both direct results of the way God made humans.

Thus God's created foundation along with the way He created productive opportunities and human consumption needs form the basis for interest rates. Interest rates are not some aberrant human idea frowned on by God; rather interest rates are an institution which flow directly from God's creation design.

Interest rates are a key part of stewardship. This price mechanism allows for clarity and discipline in resource allocation decision making. We are forced to think hard about stewardship by asking whether a particular use of resources will generate more future resources. The interest rate mechanism will encourage the vast majority of resources to be allocated to stewardly uses over time. However we caution against assuming that this mechanism will automatically lead to the "care" part of God's creation mandate. It will take thoughtful finance participants to work within the context of interest rates to care for God's creation.

Can interest rates allow love between humans? Recall that interest rates are the mutually agreed prices that balance saver multi-period needs with borrower productive opportunities. Without interest rates (i.e. a zero interest rate) financial activity would be a gift from the savers to borrowers. Without interest rates borrowers would be attempting to gain free access to savers' resources. This would look a lot like begging, which is not a good way to show or receive love. However, God in His creative genius arranged for love to occur via sustainable voluntary mutually beneficial activities among humans, one of which is what we call interest rates. Of course as we discuss below there are many other ways to love and there are times when interest rates do not best express love.

Interest rates facilitate and stimulate a just re-allocation of resources. Interest rates provide a way for those members of society without resources to gain access to resources simply by agreeing to fairly compensate the saver for the temporary use of the resources. A world without interest rates would be akin to a world where people without food were not allowed to buy food at the going price but rather had to find free food. There would be no justice in that.

Christians have debated the applicability of the Biblical texts which prohibit interest.¹⁷ We hope that we have already informed the debate by showing that God created the foundations for financial markets and for the prices in these markets. However we also want to emphasize that finance is only one of many institutions which God anticipated in His creation, and that markets rightfully coexist with other institutions in support of human love and justice. Markets are likely not the best way to show love to family members and to the underprivileged in society and the Bible contains teaching in that regard. If we consider the grain market we see that God created the foundation for grain markets in that we are social, not everybody is equally skilled to grow grain, grain does not grow equally well everywhere, grain cannot be harvested every day of the year, grain is nutritious and our bodies cannot ingest enough grain at the time of harvest to last until the next harvest. The Bible does not prohibit buying and selling grain and Christians do not question whether having a grain market is Biblical. However the Bible does encourage us to not hoard grain and to give grain away to the poor, the widow and fatherless (Leviticus 19, Luke 12:16-21). In this way we honor God and show love and justice to fellow humans. The Bible teaches the same about financial resources. The Bible's directive to not charge interest to family and the underprivileged is similar to giving away grain. In this way there is no dissonance between allocating some financial resources via markets with a price (interest rates) as intended by God in his creation design, and sharing other financial resources freely (zero interest rates) with family or the poor. Both cases show love to our fellow humans. Lending with interest to fellow humans who have productive opportunities shows love to those borrowers. Lending interest-free to family and the poor also shows love.

At this point in our discussion of the four finance institutions we need to caution against thinking that just because God created the foundations for markets and prices we should somehow think that it is the only or most important institution which God uses to enable human love and justice. We must be careful not to worship the market or justify something because it is an outcome of a market transaction. The marketplace is a blessing from God but it is not the only blessing and will not be a blessing in every circumstance. Governments and nonprofit organizations are also blessings from God. Further, in a fallen world markets can cause great harm to society and to individual humans. The market is not the hand of God and needs to be balanced with other institutions in society and always evaluated against God's will for us as revealed in his word¹⁸. A society with some market-based interest rates and some non-market-based subsidized or zero interest rates is consistent with Biblical teaching.

To sum up our discussion thus far, we have argued that the purposes of finance are to bring glory to God, to enable humans to be creation stewards and to allow humans to show love and justice. We showed that God created the foundations of finance and that he enabled humans to build four specific institutions on those foundations. These institutions enable humans to obey God's creation stewardship mandate and God's love and justice mandate. Below we provide several examples of how in this Biblical finance framework Christ's redemption can enable stewardship, love and justice.

EXAMPLES OF REDEEMED FINANCE

God in His grace offered His Son to be punished to that we can be reconciled to Him and so that his entire creation can start to be freed from the effects of sin. Christ and His Spirit allow us to be better stewards and to be loving and just. We have argued that finance's foundation is created by God and that finance institutions are built directly on that foundation. Thus it would be surprising if God's redeeming and sanctifying grace was not available to the finance part of God's creation. By God's grace humans through finance are able to honor God, be good stewards and show justice and love to other humans. Using the above framework in this section we provide some brief examples of how this

can work when acting as a borrower or saver and when acting as a professional working for a financial intermediary.

Borrowers

The Right Amount of Debt

Let's think again about Sera the mortgage borrower. How should Sera think about her mortgage loan and her Christian faith? We have argued that she should view finance as an integral part of God's creation and that she should view her mortgage loan as an act of stewardship and love, enabled by God's creation design. We have also argued above that she should view her mortgage loan as a matter of justice. The mortgage loan allowed Sera who had limited resources to gain access to more resources which enabled her and her children to flourish.

In addition upon further reflection Sera can see several specific Biblical principles regarding debt which arise from God's created finance foundation. First, in her time bounded world borrowing is meant to be temporary during certain seasons of life. If Sera borrows it should be only early in life when she has not yet had time to save and when she has plenty of productive use for resources, such as education or obtaining a home in which to raise a family. Second, borrowing is meant to allow Sera to obtain resources which can be put to productive use. Sera must ask if the resources acquired by the borrowing will better enable her to repay the debt. Borrowing to take a vacation, purchase a bigger television, purchase a new car or simply live beyond her means seem not to fit God's model. Third, Sera must be very certain she can repay the debt. Savers are loving Sera by lending the money (via several intermediary layers) and Sera should love the savers in return by paying interest and repaying the loan. Will borrowing the money allow Sera to love the savers in this way? Fourth, Sera should be a prudent risk taker. Is the debt going to be relatively modest compared to her ability to repay it? Will the loan expose Sera to more risk than God intends for her family? Fifth, Sera needs to carefully assess whether she has borrowed out of a sinful greedy desire to acquire some possessions? The Bible teaches against greed of all kinds, which includes borrowing money to buy possessions (Luke 12:14).

Offering Collateral to Get a Loan

Sera's banker, Peter, has now read some verses in the Bible which teach about collateralized loans. This Biblical teaching is mostly from the lender's perspective, with much of the teaching seemingly telling lenders not to take collateral (Exodus 22:26-27, Deuteronomy 24:6,12-13,17, Ezekiel 18:7, Job 24:3). Examples include criticisms of loans secured with a widow's ox (Job 24:3), widow's garment (Deuteronomy 24:17), sleeping cloak (Deuteronomy 24:13) and millstone (Deuteronomy 24:6). Peter notes that these teachings recognize that lending with collateral exists and do not impose a blanket prohibition on it. The prohibitions in the Bible are quite specific and are centered on showing love and justice for our fellow humans. The Bible prohibits seizing collateral if the borrower is poor (Deuteronomy 24:12) or a widow, or if the collateral is a cloak that gives warmth at night or is a tool that provides someone's livelihood, or if doing so would be oppressive (Ezekiel 18:7). Importantly the Bible does not prohibit collateralized loans in any other case.

The Bible also does not generally prohibit borrowers from offering collateral. However in one instance the Bible does caution against pledging collateral because your bed may be taken if you cannot pay. Proverbs 22:26-27 says "Do not be one of those who give pledges, who become surety for debts. If you have nothing with which to pay, why should your bed be taken from under you." This passage is part of Sayings of the Wise whose preamble states that these sayings are so that our "trust may be in the Lord" (Proverbs 22:19). The tone of these sayings is wise advice so we can grow in our trust in God.

Is Proverbs 22:26-27 a Biblical prohibition against home mortgage loans? The mainstream Christian view is that using your house as collateral for a loan is not contrary to Biblical teaching. This view is consistent with our arguments regarding the God-intend role of finance in society. However in light of Proverbs 22:26-27 and in light of the Biblical teaching to be prudent risk takers, it seems that at a minimum Sera should not pledge her home as collateral unless she is very certain she will be able to repay the loan. Similarly, according to Biblical teaching Peter should not accept her house as collateral unless he is very certain that she will be able to repay the loan. This is in stark contrast to current lending practices in United States which allow a person to get a loan which is quite large relative to their level and stability of income and relative to their history of repaying debts. With collateral there is a tendency for the borrower to think “if I cannot make my payments the bank can have the house and I’ve done no harm” and a tendency for the lender to think “I can foreclose if need be so I don’t need to think too hard about whether this is good for the borrower or can be repaid.” Neither party’s thinking is consistent with Biblical teaching and with the God-intended role for finance. Finance is supposed to be a path to love and justice. When a borrower takes out a loan so large that it is not likely to be repaid and thus the collateral becomes the most important part of the loan, it does not seem like a good way for the borrower to love the lender, and for the lender to love the borrower. The Bible allows the use of collateral, but it should be used only in the context of prudent loan amounts. Borrowers should only offer collateral for loans where it is hard to imagine not being able to repay the loan. A borrower should find a cheaper house and then surprise their banker by asking how small of the loan they can get.

Bankruptcy

The created foundation stones include social humans who take risk and who do not know what the future holds. When these humans get together and share resources by lending and borrowing from each other, inevitably there will be cases where the funds borrowed cannot be repaid. This is consistent with God’s creation design. A loan which cannot be repaid is not necessarily a result of sin. Of course a loan default may very well be a result of sin for any number of reasons such as the loan was an imprudent risk, the borrower was incompetent in managing his or her affairs, the borrower is hiding or shielding income from the lender, the borrower lied to the lender when the loan was made, the lender lied to the borrower when the loan was made or the lender is imposing loan conditions that are not designed to help the borrower flourish.

The finance framework developed in this paper is useful for understanding what to do when a loan cannot be repaid. God’s overarching directives are love and justice, even in finance. This means lenders should be willing to forebear, restructure and forgive debts. Borrowers should do whatever they can to repay their debts. Chewning (2000) argues, based on God’s immutability and Proverbs 6:1-5 that if we cannot pay our debts we should humble ourselves and plead with our lenders for mercy, rather than seek bankruptcy court protection from our lender. Tiemstra (2009) urges us to treat risk as a serious matter and that borrowing is not “an easy way to make money instead of working: it is a serious expression of our responsibility before God.” These author’s views are consistent with our Biblical finance framework. Finance is about serious love and justice, and when events unfold different from what a prudent lender and borrower expected, the love and justice should not cease, but indeed should be increased on both sides.

Sera schedules a meeting with Peter to discuss her difficulties with making her loan payment. She also looks again at her monthly budget and finds a few things she can do without. She determines to be honest and loving when she meets with Peter. Peter with his new-found Biblical finance understanding hopes this meeting will be opportunity for love and justice.

Savers

Socially Responsible Investing

A company issuing stock is a “borrower” who has more productive opportunities than resources and wants to borrow some resources by selling stock to savers. The saver (i.e., investor) is loving the company by letting it use some resources for a while and the company is loving the saver by providing an appropriate return. Since this is the God-intended role of finance then it is important that savers only give resources to companies who are being good stewards of God’s creation and who are showing love and justice to fellow humans in the products and services they sell and in their employment practices. In practice this is hard for savers to do since it is time consuming to gather and analyze the information on thousands of borrowing companies. However there are now several options wherein investors can invest in mutual funds where the mutual fund manager will filter out companies that are especially bad at stewardship, love and justice and will invest more heavily in companies that are exceptionally good at these things. Much has been written on socially responsible investing and Biblically responsible investing, and a detailed treatment of this is beyond the scope of this paper¹⁹. However this approach to investing is completely consistent with, and indeed is mandated by, the framework developed in this paper. We do not see any Biblical basis for delinking the Christian faith from stock investment decisions.

Vocational Calling to Finance

Working in Finance

When our banker Peter first felt gifted and called to work in finance he encountered his mother’s unspoken question about whether finance is a good way to serve society or whether the Peter is being attracted to finance solely in hopes of high earnings potential. This is an excellent question which every person working in finance (or any other profession) needs to answer. The framework developed in this paper can help Peter understand the general concept that God created the foundation on which the finance institutions are built for the purposes of stewardship, love and justice. However every finance professional should also be able to articulate how they specifically play a part in this overall enterprise of love and justice. Finance workers should figure out how their exact function within a financial intermediary is connected to love and justice for savers or borrowers. Then focus their efforts at being especially good at that kind of love and justice.

A member of a bank loan resolution department should try hard with his colleagues to figure out how they can fix problem loans with love and justice. A human resource professional at a bank should be aware that the people recruited to the bank will be involved in love and justice for savers and borrowers and should be especially good at that. If one cannot over time figure out how one’s work promotes love and justice for savers and borrowers or if one cannot transform the organization in that direction, then one should find a different finance organization which is more about love and justice.

Two creation foundation stones are particularly important for finance professionals. First, finance professionals are usually acting as their client’s agents or stewards. Second, finance professionals are frequently negotiating and entering into contracts, or promises. Stewardship and promise keeping are literally the sacred foundations of finance and finance professionals must thus act before God.

Making Lending Decisions

Bankers decide whether to make a loan to a particular customer and at what interest rate. How does our finance theology inform those decisions?

Several created foundation stones are relevant here. First, since the banker is not omniscient the banker should take the time and care to understand the potential borrower's situation and needs. Second, neither party can know the future and both parties should be prudent and conservative in thinking about future scenarios. Third, the banker needs to consider which loan is best at showing love and justice to the borrower. A loan that the borrower can repay without hardship is a loving and just loan. A loan that does not feature an almost certain future increase in the interest rate is a loving and just loan. Conversely a loan that is likely to lead to more accrued debt in the future is not a good way to show love and justice to a fellow human.

The interest rate on a loan should reflect the risk of the borrower's ability to repay the loan, and we would expect to see riskier borrowers paying higher interest rates. But a high interest which does not allow the borrower to flourish is contrary to the intending purpose of financial markets. High interest rates to the poor who are usually perceived as riskier also seem contrary to Biblical teaching. This is a difficult Biblical teaching. Is justice served when a lender rejects a loan application from a poor customer for a loan with a 15% interest rate because the lender does not think it is good for them? Where else will they get the money? Biblical principles offer two courses of actions. First, make the loan at a lower or zero interest rates since they are poor. Second, find a way to come along side them and help them out of their poverty. Neither of these solutions involve a voluntary mutually beneficial exchange of resources and thus both of these fall outside of mainstream finance. Perhaps the most Biblical solution for loans to the poor are zero interest rate loans extended by a nonprofit organization coupled with financial and livelihood counseling.²⁰ Lending to the poor is very challenging, which is almost certainly why the Bible teaches specifically on this type of lending.²¹

Working at a Hedge Fund

A hedge fund is a special type of mutual fund. A hedge fund has investors and invests in financial instruments in an attempt to provide investors an attractive return for the risk. Unlike most mutual funds a hedge fund is more lightly regulated, can use leverage, and can invest in a wider variety of financial instruments, including derivatives. Finally a hedge fund manager typically charges the investors an management fee which is larger than that of a mutual fund. Hedge funds have been in the news recently because a few hedge fund managers have earned huge management fees, a few hedge fund managers have been accused of insider trading, and because when stock prices sharply decline hedge funds tend to be blamed.

Hedge funds can be understood with the help of our finance framework. Hedge funds can love savers by providing an alternative savings opportunity and by working hard to provide a good return for the risk. Many hedge funds invest in derivatives and as such provide risk reducing opportunities for the parties on the other side of the derivative contracts. In this way the hedge fund can show love to firms that are looking to reduce risk. However, many hedge funds take short position in stocks they believe are overvalued and will decline in value. It is hard to say how shorting stocks shows love to any particular person in the economy.

Hedge funds typically try to take advantage of small inefficiencies or mispricing in the securities markets. Hedge funds can be viewed as wholesalers in the securities market who are in the business of buying oversupplied product and selling undersupplied product, and thus both attempting to make a profit and helping to make the market work better. In this way they are serving society by helping security prices to more accurately reflect their intrinsic value.

Some hedge funds because of their particular investment strategy can be quite clear about how they are loving savers and borrowers, whereas other hedge funds will have a harder time doing so. Our advice for finance professionals is to think hard about whether a particular hedge fund has a goal to

serve society through love and justice or has a goal of trying to make as much money as possible for the hedge fund managers. Many times these two are not coincident.

OUR REJECTION OF GOD AND HIS DESIGN

God designed a fully resourced world with the foundation of finance and planned that those He created in his own image would work it and take care of it. He planned for us to live in perfect communion with our maker and our fellow humans. However we listen to a lie and decide to do things our own way. This has a profound impact on the finance part of God's creation. Sin has severely damaged the ability and propensity of humans be stewards and to show love and justice through financial markets.

Many authors have detailed the problems in finance and explore the underlying causes. Shiller (2009) reminds us that Keynes argued that we have a spontaneous urge to action, which he called animal spirits, which causes financial markets to have problems. He calls for needed government intervention and stabilization. Stiglitz (2010) outlines many of the problems with investment banks (the wholesale financial intermediaries), with a special focus on compensation structures. He argues that "the financial system failed to perform its key roles: managing risk, allocating capital, and keeping transaction cost low". Terrill (2010) understands the created purpose of finance and quotes several leaders in finance who echo that understanding. Terrill argues that a moral breakdown has occurred in investment banking and with consumers, and that we need a soul change to pursue what is "good and right". Van Duzer (2010) has a chapter detailing how sin impacts markets, including finance. He shows how broken relationships between humans and God and between humans and other humans cause many problems in the marketplace. Davis (2009) argues that over the past three decades some elements of finance (specifically institutional investing and securitization) have contributed to the waning of organizations which contribute to society and to the rise of a trader mentality which has a shorter term view and can damage society. He calls for new frameworks to help understand and shape the markets part of society.

We contend that what is needed is a return to the original God-created framework. God originally designed finance to enable human love and justice by allowing resources to be shared for mutual benefit over different time periods. The Fall did not eliminate that role for finance. However the Fall does mislead us about the role for finance. The Fall makes it much harder for us to serve our fellow humans through finance²².

Several sins are especially damaging to finance. Since finance is fundamentally about sharing resources the sin of greed has a big impact on finance.²³ Since God did not create us to be omniscient and since information is important in finance, the sin of lying also has a big impact on finance. Greed and lying explain most of the failures of finance when it comes to love and justice. It is easy to find greed and lying amongst finance professionals working in finance intermediaries, and we read about that in news regularly. But it is important to remember the no human is immune from greed and lying. Savers, borrowers and finance professionals are all guilty of greed and lying and contribute to the brokenness of finance. Only through God's creation redemption plan can finance start to be restored to His original creation design.

CONCLUSION

God created the foundation of finance which has led to the development of the modern finance institutions we have today: currency, intermediaries, instruments and prices. God mandates us to steward His world in a way which shows love and justice for our fellow humans. We have argued that finance is one of the many ways God has provided for us to obediently respond to this mandate. However the sins of greed and lying are pervasive in finance and severely cripple our ability to obey

God's plans. We provide several encouraging examples of how finance can be redeemed by God's grace and can be used as a way to show love and justice. By providing these examples we have attempted to show how specific God-created finance foundation stones can inform our finance decisions.

Further work needs to be done to better understand God's intentions for finance. First, tighter connections between specific elements of our framework and specific practices could usefully be developed. One might ask, for example, how this framework informs specific practices in mortgage lending or investment management. Second, although the theological framework developed in this article could be adapted to derivatives and insurance, this article does not address those topics. Third, we have argued that financial markets do not always enable humans to serve each other, especially when it comes to the poor. We contend that according to Biblical teaching in those cases non-market financial solutions are needed. The interplay between market and non-market finance from a Biblical perspective could be productively developed. One could ask for example, who are the underprivileged in society and what exact intermediaries, instruments, and interest rates are appropriate for them?

Finance is part of God's creation design and through it we are enabled to do immense good, but we are also capable of doing great harm. We need thoughtful, creative, diligent and faithful Christians actively engaged in the financial markets, where we can be God's heart and hands. We need to better understand that finance is about stewardship, love and justice, and then act accordingly.

ENDNOTES

¹ Leonard Van Druen is the contributor to this research draft for the Theology of Work Project, Inc. The contributor thanks the Calvin Center for Innovation in Business for grant support and thanks the participants in a seminar jointly organized by the Kirby Laing Institute for Christian Ethics and Transforming Business at Tyndale House, Cambridge University, June 2011.

² This is a Kuyperian or Augustinian approach, as argued by Smith (2012).

³ These can be labeled God's special revelation and God's general revelation. See Berkhof (1933), pages 26-31.

⁴ We take the view that individual humans are given by God certain limited property ownership rights and responsibilities over resources. Wright (2004, pages 312-314) argues that although individual property rights are clear and legitimate they are subordinate to human need. Similarly Lott (2011) argues from a Catholic perspective that property is a divine gift and that a system of individual property rights is allowable for human freedom but those rights must respect the equally important principle that God intended the earth's resource for all humans and peoples.

⁵ For an explanation of the broader Biblical basis of caring for creation which goes beyond the creation mandate in Genesis 2:15 see Wright (2004, 2010).

⁶ Note that The eight foundation stones are not sequential stepping stones with each one leading a step closer to finance.

⁷ Liang (2012) identifies three of the eight foundation stones (risk aversion, time preference and information asymmetry) but is does not identify them as part of God's created foundation of finance.

⁸ See Phelps (2009).

⁹ See Philippians 4:11-13 and VanderWell (2009, pages 12-13).

¹⁰ See for example Proverbs 11:15; Proverbs 22:26,27; Boersema (1991), Brooks (1996), Liang (2010) and Tiemstra (2009).

¹¹ Colossians 1: 16-17: For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together.

¹² Van Duzer (2010, page 145) quoting Yoder (1994, page 141).

¹³ Some have argued that paper money which is not backed by gold is morally wrong. Exploring those arguments is beyond the scope of this article and would not inform the main points of this article.

¹⁴ McIlroy (2011) urges us to structure intermediaries in ways, perhaps smaller, which allow a stronger connection or “fellowship” between borrowers and savers as a way to better serve both parties.

¹⁵ We consider the topics of charging interest to the poor and of charity to the poor later in this article.

¹⁶ We will use the term “interest rate” in this article to denote the more general concept that two parties to a financial instrument anticipate some sort of rate or return for transferring resources over time. In finance this more general concept is expressed as time value of money.

¹⁷ For more on this see Elder (1999), Porter (1999) or Liang (2010).

¹⁸ See Van Duzer (2010, Chapter 6) for a caution against worshipping the market and for an analysis of how markets fit with governments and NGOs.

¹⁹ For one example see Moll (2008).

²⁰ McIlroy (2011) refers to this as the “virtue of generosity” and calls for interest free loans and other support for the poor.

²¹ Microfinance is an example of loans at high interest rates to the poor extended in loving supportive community. Although this model seems currently to work in certain cultures, it is hard to argue that charging a high interest rate to the poor is a Biblical model.

²² This follows along the same lines as the argument Van Duzer (2010) makes about business after the Fall.

²³ Rosner (2008) argues that greed is closely associated with idolatry and represents an attack on God’s exclusive claim to our worship.

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