

Exploring the Role of Spiritual Capital in Poverty Traps and Microfinance

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Abstract: *Religious participation involves important social relationships and thereby builds social capital, but it can also bring spiritual benefits that shape behavior and outcomes. These spiritual and social connections often represent distinct personal endowments. Recognizing the difficulty of observing and defining spiritual endowments, this paper explores the meaning and merit of spiritual capital in the context of a specific microfinance program. To build intuition, I present a poverty trap model and discuss how social and spiritual capital might affect poverty differently in this model. This intuition then provides a point of departure for exploring spirituality and sociality as capital assets in a current Christian initiative—the Perpetual Education Fund of The Church of Jesus Christ of Latter-Day Saints.*

According to the original disciples of Christ, genuine Christian conversion requires a person both to come unto Christ (John 14:6a) and to become one in Christ with fellow followers (Gal. 3:28, Rom. 12:5). Coming unto Christ involves spiritual relationships with Jesus Christ and His Father. Becoming one in Christ, on the other hand, involves social relationships based on common Christian convictions. When Christ used the good Samaritan and the parable of the sheep and the goats to teach that “inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me” (Matt 25:40), He highlighted how inseparable our spirituality is from all social interactions, not just with fellow followers. In assessing the role of religion in behavior and outcomes, however, social scientists may do better to untangle the spiritual from the social and consider their effects separately. Religious participation surely involves important social relationships and thereby builds social capital, but presumably it also brings spiritual benefits that

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can profoundly shape behavior and outcomes.

Recent attention to religious or spiritual capital is motivated by the recognition that spiritual and social relationships represent distinct personal endowments (e.g., Smidt 2003). Fogel (2000), for example, identifies several spiritual resources and argues that their influence on economic outcomes is so pervasive that their unequal distribution will soon become a pressing social concern. Yet, any attempt to pin a precise and practical definition on spiritual capital ultimately faces a difficult task: capturing with observables inherently non-physical relationships. For example, defining religious capital as “the degree of mastery of and attachment to a particular religious culture” (Stark and Finke 2000) may not really capture spirituality—suggesting there may be important distinctions between religious and spiritual capital—but it does helpfully focus on observable correlates.² As in other nascent fields of inquiry, wrestling with such fundamental questions will initially require some qualitative exploration of spirituality as an asset valued in broader social settings.

This paper aims to provide fodder for ongoing discussions about the meaning and merit of spiritual capital by focusing primarily on microfinance. After providing a short background on poverty and relevant forms of capital, this paper presents a poverty trap model and discusses how adding social capital, and then spiritual capital, might affect poverty as captured in this model. Instead of proposing a complete and formal extension to this model, the paper discusses intuitively how social and spiritual capital might change the analysis. This loose modeling framework then provides a point of departure for exploring spirituality and sociality as capital assets in the case of microfinance. To add some context to the discussion, the paper then describes and explores the role of spirituality relative to other forms of capital in a current Christian initiative—the Perpetual Education Fund of The Church of Jesus Christ of Latter-Day Saints.

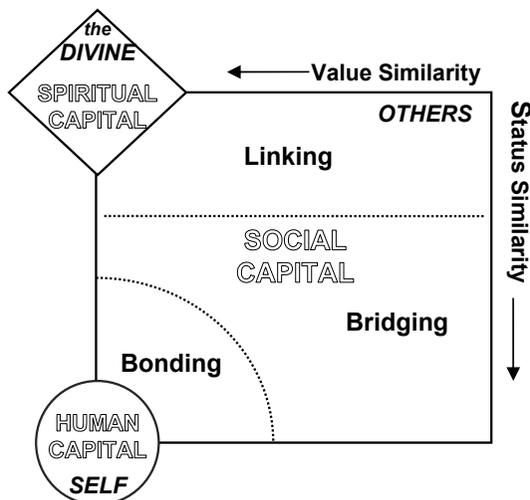
1 Capital and Poverty

Most formal models of poverty traps blame the presence of multiple equilibria on coordination failures or market imperfections. One such imperfection occurs in credit markets in which access to *financial capital* is relatively expensive and those who cannot self-finance do not invest in high-return activities with fixed costs (Banerjee and Newman 1993, 1994, Galor and Zeira 1993), leaving the poor in persistent poverty. With nothing left to lose, the poor may resort to “go for broke” strategies that create moral hazard problems and further magnify the initial credit market imperfection (Banerjee and Newman 1994). In addition, *human capital*

and *social capital* directly shape the dynamics of wealth accumulation as well as the economic development process more generally (see Fafchamps 2006). As a fourth and less defined capital form, *spiritual capital* may likewise influence dynamics through fundamental changes in values, preferences and behaviors. This section contrasts and compares these three additional forms of capital and their potential effects on poverty dynamics.

To frame these forms of capital, figure 1 depicts human, social, and spiritual capital respectively as a circle representing the self, a square representing others, and a diamond representing the divine.³ This figure uses the self, characterized by complete value and status similarity, as the point of reference for situating and comparing these forms of capital. Human capital refers to the stock of productive skills and knowledge possessed by an individual. In contrast, social capital resides in relationships rather than individuals and refers to the empathy, norms and networks that facilitate collective action (see Coleman 1988, Putnam, Leonardi, and Nanetti 1993, Woolcock 2001). While this instrumental value of social relationships can be extremely important, it is normally secondary to the intrinsic value of relationships, which can motivate individuals to form relationships with no or negative instrumental value (Akerlof and Kranton 2000, Barrett 2003). Spiritual capital emanates from spiritual relationships that connect the individual to the divine, whether embodied as deity or not. Before exploring spiritual capital further, consider a more detailed characterization of existing notions of social capital.

Figure 1: Human, Social and Spiritual Capital in Reference to the Self



Different relationships create different forms of social capital. According to Putnam (2000, pp. 22–23), *bonding* social capital resides in strongly homophilous relationships (i.e., between similar individuals) and acts as “sociological superglue,” while *bridging* social capital resides in less homophilous relationships and acts as a “sociological WD-40.” Bonding and bridging social capital are endpoints on a homophily spectrum that captures an array of different relationship types. In contrast to bonding and bridging social capital, which metaphorically suggest horizontal connections, *linking* social capital resides in vertical, heterophilous relationships (Woolcock 2001). These three types of social capital are best understood in two similarity dimensions: status similarity from social, demographic, and economic likenesses and value similarity based on shared values, beliefs, and attitudes (Lazarsfeld and Merton 1954). Whereas bonding social capital requires a high degree of status and value similarity, bridging capital requires differences in the values. Linking social capital requires differences in status with or without value similarities.

Distinctions between homophilous and heterophilous relationships matter to the poor. While greater homophily may improve cooperation and efficiency among a group, a degree of heterophily can offer very valuable connections to new ideas and resources (Barrett 2005). Not surprisingly, then, marginal increases in bonding, bridging, and linking social capital are not of equal value to those trapped in poverty. The poor normally have sufficient bonding and bridging social capital, but seriously lack linking social capital (Woolcock 2000). Such linking relationships with “friends in high places” can dramatically help the poor deal with commercial, financial, educational, or political organizations (see Fox 1996, Heller 1996).

Collectively, these types of social capital interact importantly with financial and human capital. Social capital can facilitate access to credit (e.g., Guiso, Sapienza, and Zingales 2004), thereby helping the poor to escape Galor and Zeira (1993) type poverty traps (e.g., Grootaert, Oh, and Swamy 2002). Microfinance does this by leveraging social capital as collateral in order to provide access to needed financial capital (see Morduch 1999). Furthermore, the value of existing human and financial capital is often amplified by one’s social capital (Gomez and Santor 2001). The dynamics of the human and social capital link are particularly pronounced. Social capital can directly affect access to education, which typically further increases social capital (Robison, Siles, and Schmid 2002). Thus, the most robust result emerging from social capital research is the strong positive correlation between formal education and social capital

(Glaeser 2001). Religiosity is the only other correlate of social capital that rivals education in significance and consistency (Putnam 2000). This correlation between religiosity and social capital is often attributed to interpersonal connectedness (Putnam 2000). Whatever the mechanism, “faith communities... are arguably the single most important repository of social capital in America” (Putnam 2000, p. 66). The importance of religious involvement in building social capital is perhaps even more evident in developing countries where “sharing a common religious fervor is the basis for trust and the religious hierarchy provides the necessary leaders” (Fafchamps 2006).

While these social aspects of religious participation are clearly important, most religions of the world seem to deliver more than this. This leads Woodberry (forthcoming) to ask: if religious involvement is primarily a means of building social capital, why then does research on religiosity (e.g., Gorsuch 1988) consistently find that those who are religious with spiritual motivations differ significantly from those with primarily social motivations? Those with spiritual motivations would likely agree that: (1) Religious participation confers spiritual benefits in addition to meaningful social relationships, and (2) Many of these spiritual benefits are transferable to other aspects of life and have (incidental) instrumental value in social and other settings. These statements jointly suggest that social and spiritual capital, however intertwined, are probably distinct in some important ways.

For Christians, spirituality involves a personal relationship with Jesus Christ and a commitment to follow His teachings. The social benefits of a faith community may be vitally important, but this personal connection to a divine power ostensibly distinguishes a religious community from a bowling club. Treating both purely as purveyors of social capital is problematic and limits our understanding of human behavior and social outcomes. As Loury (2003, p. 9) has written, even with an appreciation for social relationships “social scientists leave out that which most makes a person human ... the soul.” This amounts to a massive oversight in many cases since people’s “self-understandings, which devolve from their more fundamental convictions about who they are, who made them, and what obligations follow in light of their certain knowledge of who and whose they are” lead them to “qualitatively different ways of approaching” problems (Loury 2003, p. 9).

Woodberry (forthcoming) cites a number of incidental spiritual benefits, including improved health (e.g., Hummer et al. 1999), increased volunteerism and more generous charitable donations (Smidt 2003).

Fogel (2000, pp. 205–207) explicitly identifies fifteen spiritual resources that constitute spiritual capital, including a sense of purpose, a vision of opportunity, a strong family ethic, an ethic of benevolence, a work ethic, discipline, a thirst for knowledge, and self-esteem.⁴ Such spiritual assets clearly have direct instrumental value—even if they are incidental to the spiritual relationships that matter to an individual. These assets may also affect one’s accumulation of social capital. The teaching “inasmuch as ye have done it unto the least of these my brethren, ye have done it unto me” (Matt. 25:40) should affect a person’s compassion and respect for others and, by extension, her civic involvement and stock of social capital. This is clearly related to Putnam’s (2000) “connectedness” concept, but has spiritual rather than social roots. Whereas social connectedness indicates one’s proximity to and relationships with others, spiritual connectedness involves a linkage to the divine.

Figure 1 provides a convenient diagrammatic summary of human, social, and spiritual capital in reference to the self. Social relationships—whether based on secular or religious interaction—can provide bonding, bridging, or linking social capital, depending on the degree of homophily as measured relative to the self. Spiritual connections to the divine provide a potent form of linking capital—one that combines perfect value homophily with extreme status heterophily and can convey a powerful sense of identity, discipline, self-esteem, purpose, and potential. Moreover, because pure spiritual capital links the self to the divine, these spiritual relationships and the convictions they spawn are not situational. Unlike social capital, which is ultimately situational, genuine spiritual capital is therefore more transferable across social settings. On the other hand, both spirituality and sociality are inherently dynamic. Sudden and dramatic conversions (e.g., Paul on the road to Tarsus) and serendipitous new or improved friendships—as well as their counterparts in the other direction—suggest that neither is stationary over time.

2 The Galor-Zeira Poverty Trap Model

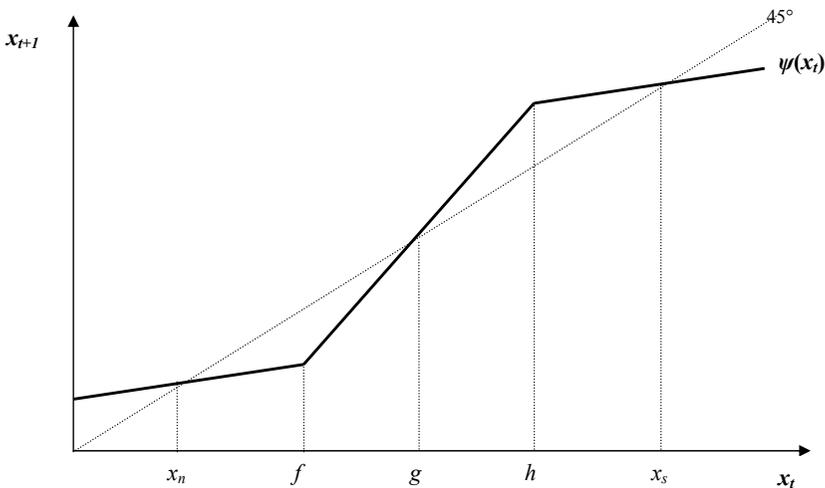
The Galor and Zeira (1993) model (henceforth GZ) illustrates how a credit market imperfection and an indivisible human capital investment can conspire to create a poverty trap. This section provides a cursory overview of key features of this model, then discusses social capital and spiritual capital in the context of the GZ model. Rather than formally extending the GZ model, this section simply explores how social and spiritual dimensions might alter the model’s poverty dynamics and serves as a point of departure for the next section’s more inductive, qualitative

description of social and spiritual capital in the case of microfinance.

The GZ model consists of overlapping generations of individuals who value consumption and bequeaths to posterity. Individuals begin with an inheritance x_t and live for two periods. They have the option of investing h in education in period 1 to raise their period 2 wages, which yields three possible choices. First, regardless of their inheritance, individuals can save x_t at interest rate r and work for unskilled wage w_n both periods. Second, if they cannot self-finance the cost of education (i.e., $x_t < h$), individuals can borrow an amount $(h - x_t)$ at interest rate i , invest h in education in period 1 and work for skilled wage w_s in period 2. Third, if they can self-finance (i.e., $x_t > h$), individuals can invest h in education in period 1, save any surplus $(x_t - h)$ at interest rate r and work for skilled wage w_s in period 2.

Lenders in this model must track borrowers to prevent them from defaulting, which raises the cost of borrowing and introduces a credit market imperfection. Specifically, if a lender spends an amount z to track a borrower, the borrower will incur a cost βz to evade the lender, where $\beta > 1$ is an evasion multiplier. Assuming a competitive credit market with zero profits, a lender who considers loaning an amount d must set the lending interest rate i high enough to recover the opportunity cost of money r and the tracking costs z , but no higher, implying that $di = dr + z$. The lender must also choose z high enough to discourage default such that

Figure 2: Galor-Zeira Recursion Diagram (Figure 1 in Galor and Zeira 1993)



$d(1+i) = \beta z$. These two equations yield $i(\beta) = i = \frac{1 + \beta r}{\beta - 1} > r$.

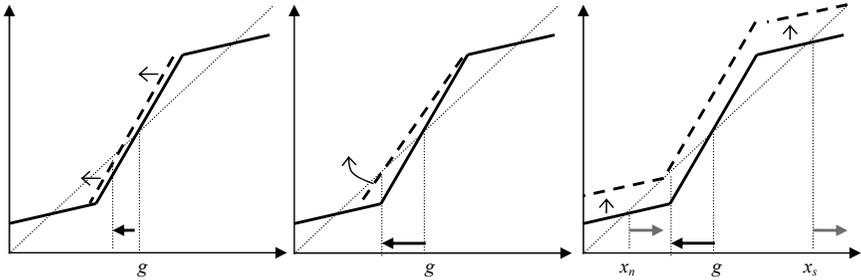
The poverty trap in this model is depicted graphically in Figure 2 using the recursion function $\psi(x_t)$. This function describes the bequeath behavior of an individual with an initial inheritance of x_t and, hence, the wealth dynamics of the individual's posterity. As shown in GZ (1993), this function is derived as:

$$\psi(x_t) = \begin{cases} (1-\alpha)[(x_t + w_n)(1+r) + w_n] & \text{if } x_t < f \\ (1-\alpha)[(x_t - h)(1+i) + w_s] & \text{if } f \leq x_t < h \\ (1-\alpha)[(x_t - h)(1+r) + w_s] & \text{if } x_t \geq h \end{cases}$$

where $(1-\alpha)$ is the Cobb-Douglas utility function exponent on bequeaths. In this recursion function, f is determined by the intersection of the optimal bequest function for an unskilled worker earning w_n and the optimal bequest function for a skilled worker who took out an educational loan. The steeper slope of this middle segment reflects that borrowing costs are higher than the return on savings and generates three equilibria: a stable high equilibrium at x_s , an unstable middle equilibrium at g and a stable low equilibrium at x_n . Which of these equilibria obtains for an individual's posterity is thus completely determined by his own inheritance.

To remedy this trap, GZ (1993) propose a Pareto improvement that involves taxing skilled workers' period 2 earnings in order to subsidize all education in period 1.⁵ This improvement lifts subsequent generations from the trap by shifting g to the left as shown in figure 3 (left). A second possible approach involves subsidizing educational loans. This approach benefits individuals in proportion to the size of their educational loan. Because subsidizing loans targets those trapped in poverty more effectively than subsidizing education generally, it will shift g relatively further to the left as shown in figure 3 (middle). One major problem remains however. Assuming a closed system, subsidizing educational loans in the GZ model can only be Pareto improving if each borrower finances his own subsidy with his period 2 earnings so that no one is worse off under this subsidization scheme. But unless the borrower can find a more favorable interest rate for what is effectively a second loan, such a self-financed subsidy will have no practical effect. The only way for educational loan subsidies to be Pareto improving is to relax the assumption that all individuals face the same evasion multiplier $\beta > 1$. Consider how adding social capital to the model may change precisely this assumption.

Figure 3: Shifts in Recursion Due to Subsidizing



Note: Shift due to subsidizing education (left), subsidizing educational loans (middle), and increasing relative preference for bequeaths (right).

For every dollar a lender spends tracking a borrower, the borrower must spend β dollars to evade successfully the lender. β should capture not just out-of-pocket evasion costs, but also social, emotional, psychological, and (possibly) spiritual costs of evading the lender and renegeing on the terms of the loan. Suppose there existed a subset of high integrity individuals with high non-pecuniary evasion costs such that $\beta_H > \beta$. If these evasion multipliers were observable to lenders *ex ante*, then $i(\beta_H) < i(\beta)$ since $i'(\beta) < 0$. The recursion diagram for this subset of high integrity individuals would pivot clockwise as in the middle panel of figure 3. There are of course many good people in the world who would simply not default even if $\tau=0$, implying $\beta \rightarrow \infty$. If this trait was observable to lenders, good people would never be trapped in poverty in the GZ model since

$$\lim_{\beta \rightarrow \infty} i(\beta) = \lim_{\beta \rightarrow \infty} \frac{1 + \beta r}{\beta - 1} = r.$$

When lenders cannot observe β in this modified GZ model, even good people get stuck in poverty and classic signaling and screening issues become relevant (Akerlof 1970, Rothchild and Stiglitz 1976, Spence 1973). One way for individuals to use social capital to signal a higher β is to collateralize their social relationships, either with the lender directly or, less directly, with a group of borrowers (see Morduch 1999). This standard microfinance approach gives them something to lose if they were to default, which provides a “costly-to-fake” signal to potential lenders. Non-pecuniary evasion costs clearly increase when social relationships (R) are at stake such that $\beta = \beta(R) + \epsilon$, where $\beta'(R) > 0$ and ϵ indicates that R

provides an imperfect signal of the individual's true β . Even though social capital in this form and even the generalized principles that may come with it are ultimately relationship-dependent and therefore non-transferable,⁶ in the proper context these relationships can give the poor something to put up as collateral, something to lose.

Would spiritual capital change things? It might change β and might signal an individual's identity and true β with greater accuracy. Suppose that the lender could observe R and some features of a person's spirituality (S) that directly reduce her tendency to default such that $\beta = \beta(R, S) + \varepsilon_s$, where $\text{var}(\varepsilon_s) < \text{var}(\varepsilon)$. In conventional lending arrangements, observing and using S may be difficult or impossible for a lender.⁷ A prospective borrower's spirituality would likely affect more than the person's β . More fundamentally, an individual's spiritual capital endowment should change her utility function through altered priorities, motivations, and convictions. For example, spirituality often brings peace or "shalom" which leads one "to enjoy living before God, to enjoy living in one's physical surroundings, to enjoy living with one's fellows, to enjoy life with oneself" (Wolterstorff 1983). As a result of these deeper alterations in preferences, individuals in the GZ model might value bequeaths relatively more and individual consumption relatively less. As shown in figure 3 on the right, this would be reflected in the recursion function by a higher value of $(1-\alpha)$ and an upward shift in the entire function, which would improve the prospects of their posterity.⁸ Ultimately, however, spiritual changes such as this pose enormous modeling difficulties. As Loury has written, while social scientists typically prefer the predictability of "deterministic accounts of human action:"

It may be more plausible to think of material and institutional givens as establishing only a fairly wide range within which behavior must lie, with the specific behavior within this range for any particular person being dependent upon factors of motivation, will, and spirit—factors having to do with what that person takes to be the source of meaning in his or her life, with what animates him or her at the deepest level (Loury 2003, p. 10).

Rigorously modeling a person's spiritual capital may be nigh impossible, but the source of this impossibility—spiritual convictions that "animate ... at the deepest level"—only reinforces the profound influence this form of capital can have on human behavior. Rather than formal deductive models, what is most needed at this nascent stage of spiritual capital research is a more inductive exploration of spirituality as a form of capital.

3 Spiritual Capital and Microfinance

This section builds on the earlier discussion of human, social and spiritual capital and on related insights from the GZ model above to explore the role of spiritual capital in the context of microfinance. Beginning with Mohammad Yunus and his Grameen Bank, much of microfinance directly and explicitly leverages participants' social capital through group lending arrangements. The motivating principles of microfinance also have clear links to many of the spiritual resources identified by Fogel (2000). In the words of Mohammad Yunus, "Grameen methodology is not based on assessing the material possession of a person, it is based on the potential of a person. Grameen believes that all human beings, including the poorest, are endowed with endless potential" (Yunus 2007). The Grameen Bank likewise aims to instill discipline, hard work, cleanliness, and benevolence in borrowers. Thus, while the Grameen Bank is not explicitly faith-based, it seems to both build and leverage the spiritual capital of its borrowers. Not surprisingly, the microfinance movement it sparked also resonates unmistakably with many faith-based programs. This section surveys a few of these efforts, then focuses on a program that targets a GZ-type poverty trap to explore the potential role of spiritual capital in microfinance. By discussing the structure of this program, the section aims to take a qualitative step beyond the limits of abstract models.

In the past decade—and culminating with a Nobel Prize awarded to Yunus and the Grameen Bank—microfinance has attracted significant attention and inspired countless poverty alleviation efforts. One of the earliest NGOs to embrace microfinance was the faith-based Opportunity International, which operates microfinance programs in twenty-eight countries and is motivated by Jesus Christ's call to lift the poor. Many faith-based organizations and efforts, including small-scale church fund raising, have followed suit. These initiatives can be characterized by the degree to which they are faith-based. On one end of the spectrum are organizations like Opportunity International and Mercy Corps that are *donor faith-based*: they use faith to motivate donors but not potential beneficiaries. At the other end are others like the one described below that are *fully faith-based*: they use faith both to motivate donors and to screen potential beneficiaries. Somewhere between these end points are organizations that use faith to motivate donors and to influence (but not screen) potential beneficiaries. For example, Evangelical Social Action Forum based in India integrates teaching and preaching into its microfinance program but does not explicitly condition participation on beneficiaries' faith. Hope

International similarly involves local church resources and volunteers to administer their microfinance program but does not screen on faith. The initiative described in the remainder of this section proactively screens potential beneficiaries on faith and likely represents the most fully faith-based, large-scale microfinance program currently in operation. This section exploits the transparent structure of this program to better understand spiritual capital and microfinance.

In April 2001, The Church of Jesus Christ of Latter-Day Saints (LDS Church or “Mormons”) established the Perpetual Education Fund (PEF) to provide low-interest loans for occupational training to young LDS members in Central and South America, Asia, and Africa to help them escape the “pit of poverty” (Hinckley 2001). The logic behind the Perpetual Education Fund follows closely that of Galor and Zeira (1993) in which poverty traps arise due to credit market imperfections and indivisible human capital investments. Donor response within the LDS Church has apparently been strong (Carmack 2004), and the fund is apparently nearing its target of \$250 million, which is expected to generate sufficient returns to perpetuate the fund indefinitely. The PEF involves an important interaction of social and spiritual capital. Appreciating the social capital involved requires an understanding of the logistics and social aspects of the PEF. Appreciating the spiritual capital involved requires an understanding of the spiritual principles behind the PEF. After presenting the social and spiritual aspects of the PEF, I discuss more explicitly the roles of human, social, and spiritual capital in the PEF. It is not my intent to assess the efficacy of the PEF, to compare the PEF to other initiatives, or to compare PEF borrowers to their peers. Instead, my approach is to use the structure of the PEF to explore the connections and distinctions between social and spiritual capital.

Logistics and social aspects of the PEF

The PEF is administered primarily through the Church Education System of the LDS Church, which oversees roughly two thousand Institutes of Religion worldwide that involve 300,000 students, but involves local and regional ecclesiastical leaders and LDS Employment Services as well. Potential PEF applicants begin the loan application process with a consultation with their local Institute of Religion director to discuss trends in the local labor market, relevant vocational training (e.g., refrigeration engineering, web design), and funding options. Applicants are also interviewed by local and regional ecclesiastical leaders to assess spirituality and willingness to abide by the terms of the loan. With the endorsement of these local leaders, completed applications are sent to a central PEF loan committee for final review, which approves most (more

than ninety percent) of applications and returns the rest for revisions to the training proposal (Carmack 2004). Since its inception in 2001, the PEF has made about 27,000 loans to students in thirty-nine countries (Walch 2007).¹⁰ The PEF anticipates 65,000 active loans by 2010 (Carmack 2004).

The average PEF loan amount is about \$800 (Jones 2004). Applicants are expected to borrow as little as possible and to work part-time during their training. Borrowers begin making small payments of about \$5 each month shortly after classes begin. Within ninety days of completing their training, borrowers begin paying larger installments and are generally expected to repay their loans within eight years at an interest rate of 3% plus a small inflation premium designed as a repayment incentive (Hinckley 2001).

During their training, borrowers continue to meet regularly with local leaders to track their progress, to ensure their compliance with the terms of the loan and worthiness standards, and to receive career counseling based on local employment opportunities. This process leverages and strengthens the participants' relationships with ecclesiastical leaders, Church Education System and Employment Services employees, other PEF participants, and fellow students in their selected training programs.

Spiritual principles of the PEF

The doctrinal motivation behind the PEF sheds light on some of the spiritual capital at play. In assisting needy students, the PEF taps two core principles: (i) education is the key to opportunity and (ii) self-reliance¹¹ is key to a healthy life (Hinckley 2001). These are further based on a doctrinal understanding that makes them, foremost, spiritual principles. For example, the LDS Church teaches that “the glory of God is intelligence” (Doctrine & Covenants 96:36) and that “the obtaining of an education [is] a religious responsibility . . . because of our sacred regard for each human intellect” (Nelson 1992). The emphasis on self-reliance stems from the belief that “work is always a spiritual necessity even if, for some, work is not an economic necessity” (Maxwell 1998), and is firmly rooted in “the biblical tradition [that] is troubled by prolonged dependency for otherwise able-bodied individuals—and because of the harm it does to the family as much as to society” (Mason 2001, p. 11).

Through regular interviews that assess individuals' temporal and spiritual progress, the PEF explicitly connects temporal matters to personal virtue¹² and spirituality. This interconnectedness of temporal and spiritual is a Christian theme that is common in LDS Church doctrine. The LDS Church teaches that all things are spiritual to the Lord (Doctrine & Covenants 29:34) and that “a religion which will not help a man in this

life will not likely do much for him in the life to come” (Smith 1905). According to the current director of the PEF, “without such temporal hope [as] an honorable career and full development of [one’s] skills and talents, the spiritual hope of salvation can seem unreal; ideally, the gospel makes possible both kinds of hope” (Carmack 2004, p. 181).

On the other end of the PEF, the role of donors extends beyond temporal assistance and is based on fundamental Christian principles about our collective responsibility—and privilege—of helping the down-trodden. This “process of giving exalts the poor and humbles the rich...[and] in the process, both are sanctified” (Romney 1982).

Human, social, and spiritual capital in the PEF

There are four kinds of capital that are operational in the PEF. Since the PEF is an educational loan initiative, *financial* and *human* capital enter importantly. The initiative also explicitly leverages and attempts to enhance borrowers’ *social* and *spiritual* capital. This sub-section focuses on the human, social, and spiritual capital dimensions of the PEF as summarized in table 1. These dimensions consist of two parts: capital leveraged by the PEF and prospective capital gains for PEF borrowers. The discussion here aims to highlight how human, social, and spiritual capital are interrelated, yet distinct, forms of capital.

Capital Leveraged: Before even submitting a loan application, prospective PEF borrowers have specific capital endowments that qualify them for PEF loans. The PEF leverages these endowments in the hopes of bumping participants onto higher temporal and spiritual planes. Applicants initiate the application process themselves and are expected to have formulated some general career goals. They are thus expected to bring to the table human capital in the form of a motivation and vision to improve their career prospects.

Applicants also bring substantial social capital endowments in the form of relationships with those involved with the PEF. This includes personal relationships with local ecclesiastical leaders and Church Education System administrators, as well as with friends and other local members of the LDS Church. These local relationships provide primarily bonding social capital (figure 1). Another key social capital endowment comes from more distant, normally anonymous connections with PEF donors, mostly fellow LDS Church members. This network is homophilous in values, but heterophilous in status and provides valuable linking social capital (figure 1). This critical linking social capital arises from a common LDS identity and shared, if adopted, LDS heritage. As in most churches, faithful LDS Church members feel a strong connection among themselves. Historical

persecution and isolation, and the current strong central government of the LDS Church seem to reinforce this common connection and, hence, the vertical link between rich and poor members of different nationalities. The PEF owes its very existence to these vertical linkages in the contemporary LDS Church.

Many of the social relationships that PEF applicants bring to the table have important spiritual dimensions. Relationships with local ecclesiastical leaders (called “bishops”) normally stem from spiritual, not social, convictions. Similarly, the important linking social capital is strengthened by shared convictions about Jesus Christ, along with more distinctive beliefs such as continuing revelation through a modern prophet. In the context of the GZ model, this dimension of spiritual capital directly increases the cost to the applicant of evading the lender (β) by bundling the loan with spiritual convictions and spiritually-based social relationships.

PEF applicants’ spiritual capital usually extends beyond these spiritually-based social relationships, however. In principle, their spiritual capital fundamentally emanates from a personal relationship with God the Father and Jesus Christ as formed through encounters with the Holy Spirit. These spiritual relationships and convictions may dramatically affect their worldview and aspirations. They also lead, by extension, to deeply-rooted beliefs in the inspiration of church leaders and in the inseparability of temporal and spiritual affairs—and thus in the spiritual importance of self-reliance, education, and supporting one’s family as highlighted above. This deeper, very personal aspect of applicants’ spiritual capital shapes preferences in a way that is roughly analogous to a greater relative weight on bequests ($1-\alpha$) in the GZ model.

While an applicant’s spiritual endowment is not directly observable, there are observable correlates such as church attendance, fulfillment of service assignments, and the payment of tithes and other financial offerings. The goal of the initial worthiness interview is to check applicants’ spiritual self-assessment against these correlates. Given the information asymmetry that may exist between the interviewer and the applicant in such an interview, these correlates superficially function as a “costly-to-fake” signal of the applicant’s convictions. But the applicant’s spiritual capital is more than a passive signal of likely behavior. It is also invoked explicitly in the terms of the loan. In a direct reference to repayment, these terms require applicants to “solemnly covenant” to repay their loan in order to build personal integrity and allow others to benefit from subsequent loans (Carmack 2004). For LDS Church members, a covenant represents a binding promise with the Lord and, in this case, openly leverages an applicant’s spiritual capital. In 2006, the average repayment rate for the

PEF as a whole was ninety percent (Walch 2007). While the ten percent who default might suffer some negative social stigma among the local church community, such a default cannot justify excommunication from the LDS Church. The violation of this solemn covenant with the Lord, however, is considered to be spiritually egregious. As far as repayment is concerned, therefore, the PEF appears to leverage spiritual capital more than formal social capital.

Prospective Capital Gains: It is difficult to document empirically the effect of the PEF since access to PEF borrowers is restrictive. To date, the only assessment of the PEF involved group discussions conducted by an internal PEF team with borrowers at different stages in the training process and in a variety of countries. Because this assessment was designed to be neither structured nor comprehensive, concrete inferences about the impact of the PEF are as yet impossible. Amidst the occasional design flaw and borrower problem, comments from these borrowers apparently suggest that the PEF is largely achieving its stated objective (see Carmack 2004, Chap. 10).¹³ Instead of attempting to assess the PEF, I take the PEF team’s word that the fund is on track and ask: how, then, will borrowers benefit? These prospective benefits were mostly laid out in the initial announcement of the PEF (Hinckley 2001) and are summarized in table 1 as prospective gains in human, social, and spiritual capital.

Table 1: Human, Social and Spiritual Capital Dimensions of Perpetual Education Fund Borrowers

	Human Capital	Social Capital	Spiritual Capital
Leveraged Capital	<ul style="list-style-type: none"> • Motivation • Career goals and “vision” 	Relationships with: <ul style="list-style-type: none"> • Bishop • Church Education System administrators and instructors • LDS peers (bonding) • PEF donors (linking) 	<ul style="list-style-type: none"> • Spiritual relationship with God and Jesus Christ • Commitment to gospel principles • Belief that LDS Church leaders are ordained and inspired of God • Desire to have and support a family
Prospective Capital Gains	<ul style="list-style-type: none"> • Vocational training • Career planning and expanded vision • Self-reliance, responsibility and independence • Thrift and budgeting 	Relationships with <ul style="list-style-type: none"> • Classmates (bridging/bonding) • Prospective employers thru Employment Services (bridging) 	<ul style="list-style-type: none"> • Self-reliance, responsibility and independence • Hope • Gratitude • Spirituality • Service

The primary prospective human capital gain obviously comes from the vocational training and education. Borrowers also stand to learn helpful career planning and management skills, and to formulate loftier local career expectations—valuable benefits for those whose vision of future possibilities is often beat down by dire circumstances. Borrowers who successfully repay their loan will also build self-esteem through self-reliance and independence. Finally, loan repayments begin during borrowers' training by design in order to instill thrift and teach personal budgeting skills.

Since education contributes substantially to individuals' social capital, PEF borrowers will almost surely see important social capital gains as a result of their training and interaction with classmates and instructors. They may also reap important social capital gains from more active involvement in local church activities and religious education. Through continued career counseling through Employment Resource Centers of the LDS Church, borrowers will likely reap bridging and, more importantly, linking social capital gains in the form of networks with local businesses and prospective employers.

The PEF was designed, above all else, to deliver spiritual benefits. Many of these expected spiritual benefits will translate incidentally into temporally-valuable assets and therefore qualify prospective spiritual capital gains. The self-reliance, responsibility, and independence learned in the process of training and repaying the loan will likely build borrowers' self-worth, an important spiritual capital gain that shapes fundamental expectations and attitudes. A related prospective benefit comes from increased hope and gratitude, which brighten one's view of the world and of others. Borrowers who successfully train for a vocation that is locally-relevant will also substantially improve their temporal well-being, which will allow them to support their immediate families, serve others,¹⁴ and focus on higher-order spiritual matters. While not all prospective spiritual benefits map into a spiritual capital gain, many of these spiritual aspects of the PEF stand to enhance borrowers' capacities in economically important ways—ways that are distinct from prospective social capital gains.

4 Conclusion

Personal spirituality often shapes individual attitudes, aspirations, and even abilities in ways that alter individual behavior. While some of these changes stem from one's membership in a religious community and social relationships with others who share similar spiritual convictions, some changes arise from spiritual relationships and one's linkage to the divine.

Many of these spirituality dimensions confer incidental but valuable benefits. This paper has sought to draw out this distinction between social and spiritual capital. Although it is unlikely that economists will ever be able to model personal spirituality in any rigorous way, it is important to frame existing models of behavior with an understanding of these personal and profound forces.

Understanding the role of social and spiritual capital may be particularly important when dealing with difficult problems of persistent poverty, the focus of this paper. Whereas interlinked factor markets (e.g., labor, credit, land in the case of sharecropping) are often blamed for vicious outcomes, decades of microfinance experience have demonstrated that interlinking credit and social capital can produce virtuous outcomes instead. In similar but distinct ways, spiritual capital might be leveraged to overcome an information asymmetry regarding credit worthiness in microfinance arrangements. The key to this outcome is that one's identity constrains one's behavior. This identity involves important social and spiritual aspects. While both social and spiritual capital therefore often serve as important signals under information asymmetries, spiritual capital has the added benefit of being less situational and therefore more transferable across social settings. At a deeper level, one's personal spiritual linkage to the divine can confer a powerful sense of purpose, a reserve of conviction and discipline, and a commitment to integrity and service to others. Though difficult to model explicitly, these spiritual assets can totally alter individual preferences.

Introspection and induction suggest that personal spirituality can dramatically shape economic outcomes and may confer spiritual capital that is distinct from other forms of capital and that magnifies both human and social capital by enhancing relationships and adding meaning and depth to one's self-worth. This highlights a sharp distinction between social and spiritual capital in the context of poverty dynamics: whereas social capital can help the poor escape poverty by giving them something to lose, spiritual capital may offer them something to gain.

Endnotes

- 1 Biblical references throughout are taken from the King James translation.
- 2 Measurability is a critical practical benefit since any empirical analysis of spiritual capital would face identification issues even more daunting than those associated with empirical social capital analyses (see Fafchamps 2005).

- 3 The divine is intended to denote the object of an individual's spiritual worship—e.g., God and Jesus Christ for most Christians—but might also include other deities, prophets, or inspired principles and teachings in other theological contexts.
- 4 The other seven resources Fogel (2000) identifies are a sense of the mainstream of work and life, a sense of community, a capacity to engage with diverse groups, the capacity to focus and concentrate one's efforts, a capacity to resist the lure of hedonism, a capacity for self-education, and an appreciation for quality. Fogel describes these as spiritual resources or assets since they are immaterial; he explicitly intends them to encompass both sacred and secular assets. While I intend spiritual capital to refer primarily to sacred spiritual resources, Fogel's broader definition poses little problem since (i) the distinction between sacred and secular spiritual resources is not always clear and (ii) spiritual resources that are secular but not spiritual might equally fall under human capital.
- 5 This Pareto improvement is possible as long as debt collection costs (z) exceed tax collection costs. GZ observe that this is a plausible assumption since "the government avoids the need to keep track of each individual borrower, by giving the subsidy to all students and by taxing all those who have a higher income, without even knowing how much each individual borrows" (1993, p. 43).
- 6 Social capital that embeds general principles such as generalized trust is more widely transferable, but in its standard definition is still socially-conferred and therefore ultimately situational.
- 7 A group lending arrangement might help alleviate this observability problem by relying on self-selection of individuals (who may know something about the spirituality of potential group members) into groups.
- 8 This would be an unconditional improvement (on average) in the sense that both stable equilibria (x_n and x_s) increase and the unstable equilibrium (g) shifts leftward.
- 9 Its predecessor, the Perpetual *Emigration* Fund (1849-1887), similarly aimed to help LDS converts in England and northern Europe escape a cycle of landlessness and poverty by offering emigration loans. This fund ultimately assisted more than 100,000 emigrants with over \$12,500,000 in loans (Arrington 1958), representing "the most successful example of regulated emigration in US history" (Coman 1912).
- 10 Roughly 40% of PEF borrowers have been female (Carmack 2004).

- 11 “Self-reliance, the height and perfection of man, is reliance on God” (Emerson 1929) as cited by the current director of the PEF in Carmack (2004).
- 12 Many of the moral reformers of the nineteenth century similarly taught virtue as the path out of poverty (see Schwartz 2000).
- 13 The PEF team’s complete assessment is only available internally, but the borrower comments that are publicly available in Carmack (2004) suggest that that at least some borrowers are indeed reaping these prospective benefits.
- 14 The desire and ability to serve others is particularly important in the LDS Church, which relies on local members to function as lay clergy.

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