THE GLOBAL RECESSION AND JEWISH LAW

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Abstract

This paper puts the current global recession in the context of Jewish theological thought. We will show that the failed conduct of the players in the subprime sector violates specific moral principles. Moreover, no amount of wrongdoing by these players could spiral into an international financial meltdown without the legal underpinning of the holder-in-due-course doctrine. We demonstrate that Jewish law rejects this doctrine. To prevent the recurrence of the current debacle, Jewish law's *imitatio Dei principle* calls for the restructuring of the incentive system economic actors face. It consists of replacing the perverted system of incentives now in place with sticks and carrots designed to tilt economic actors toward virtue and away from wrongdoing. Beyond fixing the incentive system, the current malaise tells us that we are living in a society of broken promises. Improving the moral climate of society hence entails reinforcing the values of integrity and taking responsibility seriously. Jewish religious thought puts the onus on parents and the educational system to accomplish this.

Introduction

In December 2007, the U.S economy descended into what promises to be the deepest and longest downturn since the Great Depression. The driving force behind the recession was the widespread failure of the subprime mortgage market, the segment of the home mortgage market that extended loans to households with impaired credit histories based on little or no documentation of income. The collapse of that sector occurred in a rapid succession of events beginning with the government takeover of Fanny Mae and Freddie Mac in August 2008, followed by the bankruptcy of Lehman Brothers, the government-assisted takeover of Merrill Lynch by Bank of America, and the massive government loans to AIG, which eventually added up to $170 billion. The effect of those failures cumulated in successive government bailout initiatives: the $700 billion Bush administration bailout of financial institutions and the $787 billion Obama administration stimulus bill.

Jewish law has much to say about the current economic malaise. For one, it can describe the collapse of the subprime market in moral terms and provide a theological framework for designing measures to prevent a repeat of the current debacle. Moreover, in an economy governed by Jewish law, the subprime market would have very limited potential for expansion and would therefore never reach a level where its collapse would have global ramifications.

The Moral Failure of the Subprime Players

Let us begin by putting the failures of the various subprime players in Jewish theological terms. Given that the size of the troubled mortgage market, which includes not only the subprime market but also the Alt-A and the option ARM segments (defined below), totaled $2.5 trillion dollars in 2008,[1] there is plenty of blame to go around.

(1) Some borrowers were guilty of incurring mortgage debt that they knew they could not repay. An example of such an undertaking was the 2/28 mortgage, which calls for very affordable low-installment payments during the first two years, but then fully amortized payments for the next 28 years. The installment payments for the third year could easily amount to more than twice the corresponding payments during the first two years. Taking on debt obligations that one knows or even is not sure that he can meet violates Jewish law's "good faith" imperative. This dictum says that if an individual

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makes a commitment, he must intend to carry it out.[2] The borrower violates this dictum even if he truly believes that God will orchestrate events to make the payments possible, despite his own assessment of inability to pay.[3] Consider also that engaging in "unnecessary expenditures"[4] during the loan period that impair the debtor's ability to repay his debt brands him a wicked person.[5] Now, if the law regulates the borrower's *spending* while the debt is outstanding, entering into the loan with no or dubious ability to pay surely violates the "good faith" imperative.

(2) Some mortgage brokers misled their clients about both the debits and risks they were undertaking. Proffering ill-suited advice (*lifnei iver*)[6] and misleading someone by creating a false impression (*geneivat da'at*)[7] violate Jewish business ethics. Moreover, the lender is obligated to disclose in a forthright manner[8] all the flaws[9] of his mortgage product. This means that the mortgage broker should fully explain the meaning and implications of the standard features of subprime loans such as negative amortization and pre-payment penalties. Unless the borrower agrees upfront to discover these hidden debits on his own, the seller may not shift the burden of discovery to the borrower because that constitutes a "bait and switch" tactic.[10]

The disclosure duty is not merely a matter of ethics. Specifically, if the non-disclosed defect is of the type that the typical buyer would cancel the transaction based on the discovery, the buyer has the right to cancel the deal. The buyer's right here is either to cancel the deal or accept it as is with no adjustment for price. If the defect does not rise to this level of seriousness, the buyer may, nevertheless, have the right for a price adjustment, based on the laws of *ona'ah* (price fraud).[11]

(3) Lenders extended mortgage loans based on borrowers' stated income without requiring verification. That practice was especially common for "Alt-A" loans, which were given to borrowers who presented a good credit score, but who did not verify their stated income.[12]

This practice is illegal. This is so because the borrower's "good faith" imperative effectively imposes an underwriting standard on the lender. The model case here is the prohibition against lending money to someone without witnesses.[13] Standing behind this dictum, according to R. Solomon b. Isaac (*Rashi,* France, 1040–1105), is the concern that the unwitnessed loan encourages the borrower to claim that the loan never took place.[14]

To see the relevance of this model to subprime lending, we need only take note that before the emergence of the subprime market in 1992, lenders required borrowers to verify their income by providing copies of signed tax returns and pay stubs. Lenders also required verification of the borrower's down payment on a home. "Stated income" and "stated asset" loans did not exist. Finally, the loan to value ratio (LTV) was typically 80%. When the LTV exceeded 80%, lenders required borrowers to obtain private mortgage insurance.[15]

Given the longstanding industry practice of making mortgage loans only when the borrower convincingly made the case that the installments he committed himself to were affordable to him, granting mortgage loans to borrowers with impaired credit histories or without documentation encouraged borrowers to sign up for the loan without a firm commitment to make the payments.

The notion that allowing the applicant to state his income without documentation encourages the borrower to lie about his income finds strong support in the empirical record. In this regard, a study by the Mortgage Asset Research Institute found that almost 60% of the stated incomes that it examined were exaggerated by at least 60%.[16]

The above analysis would seem to suggest that Jewish law regards the entire subprime market as illegitimate. However, this is not so. The law permits it, albeit in a different form. Specifically, the consumer base for a subprime market in a society governed by Jewish law consists of applicants who have impaired credit or insufficient income but who commit themselves to change their standard of living so that they can afford the monthly payments. For example, an applicant's commitment to stop buying cigarettes, liquor, and lottery tickets, or forego vacations and expensive dinners, changes the applicant's lifestyle so significantly that an assessment that the applicant does not have the ability to meet the monthly payments should be revisited. If the borrower is willing to commit to change his lifestyle and document his income, and the lender is willing to give the mortgage and take the chance that the borrower will keep his word, such willingness should amount to acceptable risk-taking in Jewish law.

Other candidates for inclusion in the subprime market are those who intend to purchase a home not to live in but rather for investment purposes; households who cannot come up with the down payment the prime lender demands and households who have only a short credit history.

(4) Brokers and lenders pressured appraisers to inflate the value of the mortgage property.[17] Because both the lender and the borrower suffer greatly in the event of a default, one might expect that their interests would be sufficiently aligned to ensure the loan is both affordable for the borrower and provides an equity cushion in the case of a default. However, this alignment of interest never took place because under the securitization process, which broke up the lending process into its constituent parts, the originator of the loan typically sold the loan to another entity, called a loan aggregator. The loan aggregator, in turn, sold the loans to a securitizer, who sold tranches of the income from the mortgage-backed securities it issued to investors. Because the loan originator had every incentive to ignore quality and concentrate on volume, appraisers naturally felt pressure to inflate home values.

(5) The securitizer failed to disclose to investors the hidden flaws in its mortgaged-backed security (MBS). Fundamentally, the issuer should have explained the securitization process to investors. Doing so would have made it clear to them that buying the securities involved great risk because the securitizer had relied on the originator for the quality of the loan, but the originator had no incentive to conduct thorough due diligence. Another hidden flaw the securitizer failed to disclose was that the value of its investment depended heavily on home prices and interest rates. Moreover, this cautionary advisory should have been concretized by alerting investors to focus on various indices[18] that would give them advance warning about the direction of housing prices.

(6) The credit-rating agencies (CRAs) gave a AAA rating to 80% of the tranches of the MBSs.[19] Since the mortgage pool consisted of borrowers of impaired credit, the AAA rating suggested that the defect of impaired credit inherent in any one of the mortgages of the pool somehow disappeared when an investor bought a bond that entitled him to a slice of income from the entire pool. Given the duty to disclose hidden flaws, the CRA should have explained why the MBS made the flaw disappear. Giving the explanation would have required the CRA to disclose that the issuer of the bond retained a certain portion of the mortgage pool, typically 5%,[20] and thus took the "first hit" in case the default rate exceeded expectations. It addition, the issuer paid a premium to insure the bond against default.

Explaining the hidden risks of these features would have exposed their delicate underpinnings and make even the average investor question the validity of the AAA rating. Consider that the profitability of the investment depends entirely on rising housing prices. Any decline in housing values could easily render the "shock absorber" worthless as a protective device. In addition, a decline in housing values would inevitably require the insurer of the MBSs to post more collateral, which, in turn, could cause the insurer to fail. That scenario is exactly what caused the biggest insurer, AIG, to fall apart and require a massive federal bailout. In addition, investors should have been informed that the insurance contracts on the MBSs, called credit default swaps (CDS), could be traded in the secondary market, which is entirely unregulated. Finally, the investors are entitled to know that the CRA, who ultimately gives the rating on the MBSs, works with the securitizer to introduce the embellishments necessary to achieve the AAA rating.[21]

Wrongdoing in the Subprime Market Spiraling into a Financial Meltdown

No amount of wrongdoing by the primary players in the subprime market could have caused a global recession without a mechanism that continuously replenished the capital of mortgage originators. This mechanism is the securitization process described above. However, for the securitization process to be an effective engine, the MBS must be a very attractive investment. A key element in that process is the immunity investors enjoy against claims by borrowers of fraud and illegal predatory tactics of loan originators and their agents. What protects investors from these claims is the holder-in-due-course doctrine. Under that doctrine, the party who acquires a negotiable instrument in good faith for value and without notice of certain facts, takes the instrument free of claims and defenses.

In his analysis of the securitization process, Kurt Eggert attacks the holder-in-due-course doctrine and regards it as the culprit that fueled predatory lending in the subprime-mortgage market. In

Eggert's opinion, the surest solution to the problem of predatory lending is to force the markets that fund subprime lenders to police those lenders. Making the purchasers of MBSs responsible for the predatory practices of the lenders is the surest way to accomplish this. Significant mitigation of the problem of predatory lending therefore calls for the elimination of the holder-in-due-course doctrine for all loans secured by the residences of the borrowers.[22]

Jewish law rejects the holder-in-due-course doctrine. Let's show this by use of the following example: Suppose WaMu, which combined the functions of loan originator and loan aggregator, sells its pool of mortgages to a securitizer, say, Citigroup. Crucial in determining the legal status of this transaction is which party assumes the risk of default. If Citigroup assumes this risk, the transaction is treated as a bona fide sale, with the consequence that Citigroup becomes the new creditor of record[23] for the borrowers. This will hold even if WaMu guarantees the loans against fraud.[24] In contrast, if Citigroup does not assume the risk of default, the law will regard the transaction at hand as a loan transaction: Citigroup's payment is a loan and the income the loan pool generates serves merely as a reference sum as to what WaMu owes Citigroup. However, WaMu remains the creditor of record for the borrowers in the loan pool.[25] Consider that in the securitization process, the securitizer assumes the risk of default, albeit not the risk of fraud. Accordingly, if the borrowers feel that WaMu defrauded them and therefore refuse to make payment, Citigroup will have to sue the borrowers for non-payment. In that litigation, the burden of proof of fraud will reside with the borrowers. If the borrowers win the litigation, the law will regard the prior sale of the pool of loans between WaMu and Citigroup as a *mekah ta'ut* (transaction conducted in error) and will require WaMu to return the purchasing price to Citigroup.[26]

The upshot of the above analysis is that the securitization process does not result in the borrower falling through the cracks and losing his rights. Instead, the securitizer, by accepting the risk of default, becomes the party that the borrower must deal with if he has reason not to pay. Accordingly, the "true sale" that is set up between the loan originator and the securitizer does not immunize the securitizer from the predatory claims of the borrowers. Jewish law hence rejects the holder-in-due-course doctrine.

If investors cannot count on the law immunizing them from class-action lawsuits brought by borrowers claiming predatory practices by lenders, investor enthusiasm for purchasing MBSs will be considerably dampened. Making the holder-in-due-course doctrine illegal hence considerably slows down the securitization process and thus prevents a constant replenishing of the capital of the loan originator.

Counteracting the Forces that Caused the Global Financial Meltdown

Jewish law has much to say regarding how to counteract the forces underlying the current economic downturn and thereby prevent these forces from causing another recession. The central moral dictum here is the *imitatio Dei* principle. This principle says that in our interpersonal conduct, we should emulate the various attributes of mercy and compassion G-d displays in His relations with human beings.[27]

For the issue at hand, the most relevant attribute of Divine mercy that informs our conduct is the weakening of the power of the Evil Inclination that God effects for those who strive for moral betterment. Regarding this dimension of Divine mercy, Resh Lakesh (Israel, third century CE) states "[I]f one wishes to defile himself [with sin], the door is merely opened for him; but if one comes to purify himself, he is assisted."[28]

The seductive power of the Evil Inclination is greatest when man is thrust in a pressurized environment to sin or finds himself in a setting that gives him the opportunity to engage in veiled misconduct.

To be spared the challenge of a test of piety is regarded in Jewish religious thought as ideal. Witness both the warning of the sages not to deliberately enter into a situation that will involve us in a test of piety[29] and the plea we make to God in our daily prayers not to thrust us into a test of piety.[30]

As private citizens, we are very limited in what we can do to assist our fellow man in his battle against the Evil Inclination. However, *imitatio Dei* is a mandate for government too,[31] and government can accomplish much in this area.

The government's duty is to change the incentive structure of the marketplace to eliminate settings for veiled misconduct and pressurized settings to engage in wrongful conduct.

The application of the *imitatio Dei* principle to the conduct of the subprime players calls for reform in the form of setting up the work environment in this sector with an incentive system that tilts actors toward virtue and away from misconduct.

(1) Most importantly, requiring borrowers to document their ability to pay puts an end to "liar (no proof of assets)" and "NINJA (lit., no-income-no-job-assets)" loans. Adopting this simple "stick" immediately raises underwriting standards to acceptable levels.

(2) In response to the widespread reporting of predatory practices by mortgage brokers, Congress passed legislation that called for the establishment of a nationwide mortgage licensing system and registry system. Its purpose was to oversee and track all loan originations to ensure that they followed educational, ethical, and legal requirements.[32]

One can frame the new legislation in terms of *imitatio Dei*. Specifically, to prevent both the criminal and those who do not know mortgage law from originating loans, a number of "sticks" were implemented in the form of licensing and registration requirements. However, the *imitatio Dei* principle would argue that regulation must do more. To promote better disclosure and greater transparency, the government should have adopted the proposal[33] that called for loan originators to be bonded. The bonding requirement adds a "stick" by telling the loan originators that they might lose their own assets if they are sued for fraud or misrepresentation.

(3) To prevent interference with an appraiser's job, the law should not allow the lender to select a particular appraiser for an assignment. Instead, a lender should be required to hire one from a number of designated professional appraisal organizations. Those organizations, in turn, would randomly assign an appraiser for the job from a pool of its members who live within a reasonable radius of the assignment.

(4) A great paradox and irony of the subprime crisis is that the ousted CEOs of the companies that sustained the biggest losses left their companies with huge severance packages. E. Stanley O'Neil, CEO of Merrill Lynch, for example, left his company with a $161 million severance package. Similarly, Charles O. Prince III, CEO of Citigroup, left his company with a severance package consisting of a bonus of $10 million, $28 million in invested stock and options and $1.5 million in annual perquisites.[34]

Had companies linked compensation to performance, better decision-making would have occurred, and disaster might have been averted. The manner in which those financial firms approached risk management sharply illustrates this point. In the years leading up to the financial meltdown, the use of a mathematical model called Value at Risk (VaR) was already firmly entrenched in the industry. VaR gave the boundaries of risk for a portfolio over a short duration, assuming normal market conditions. For example, if a portfolio of assets has a VaR of $50 million, it means that over the course of the next week, there is a 99% probability that the portfolio will not lose more than $50 million dollars.

Though VaR is as powerful risk management tool, it does not take into account all relevant risks and hence making uncritical use of it could prove, and did prove, disastrous. For example, the model cannot accurately evaluate the thinly traded, arcane assets in the company's portfolio. The model also does not take into account the risk of a liquidity squeeze. Moreover, as one noted authority, Nassim Nicholas Taleb, points out, the model tells us nothing of what the losses would be in the 1% abnormal condition case when the unthinkable happens in the form of, say, the simultaneous meltdown of all the equity markets. Taleb dubs this unthinkable event a "black swan" event.

One using VaR must also exercise good judgment. The Goldman Sachs experience of abandoning VaR in the summer of 2007 illustrates this point. In the face of ten straight days of losses in its portfolio and the judgment of its risk management group that the housing market was headed lower, Goldman's management decided to pare down its investments in MBS and increase its investments in hedging instruments to offset the possible decline in the value of its MBS holdings. By exercising proper caution in the use of VaR and relying on market-experienced people over computer models, Goldman Sachs avoided the multi-billion dollar losses that other major financial institutions suffered in the summer of 2007.[35]

What the *imitatio Dei* principle implies for executive compensation is that, regarding the risk-profit conundrum, aligning executive compensation, including severance, with performance achieves better decision-making.

In this regard, firms should institute Bebchuk's and Fried's innovative ideas for executive compensation reform. Critical in their thinking is that firms should not link compensation to market or sector increases that are beyond managerial control. Among the ideas they propose for reducing windfalls of this sort is for firms to index the strike price of options to the market as a whole or specifically to their sector and to set rewards for outperforming peers. Most importantly, severance packages should not reward failure.[36]

Paul Krugman advances another idea for reforming compensation. His idea relates to how firms should award bonuses. In the boom of the housing bubble, traders leveraged capital with debt and earned huge bonuses based on the unrealized appreciation of the MBS they bought. However, when the value of these securities declined, shareholders and investors suffered losses while the traders kept the bonuses they already earned. Linking bonuses to realized gains rather than to paper gains would better match compensation with performance.[37] At the minimum, firms should set the unpaid compensation aside in a memorandum account for a minimum number of years, say three, and reduce such notional bonuses by the same percentage decline, if any, of the underlying securities, i.e., a clawback.

Had reform measures for compensation been in place, the severity of the financial meltdown might have been considerably mitigated because there would have been less incentive to take risk.

(5) The failures of Fannie Mae and Freddie Mac illustrated most clearly how a perverse incentive system can wreak havoc. Because Fannie and Freddie were government-sponsored entities (GSEs) that held or guaranteed 50% of the $12 trillion dollars of the outstanding home mortgages, it was widely believed that the government would not allow them to fail. Because they were "too big to fail," the moral hazard problem took hold and the ordinary disciplinary forces of the marketplace against taking excessive risk did not work. Exacerbating the perverse incentive Fannie and Freddie faced was their organizational structure. As GSEs, their mandate was to increase support for affordable housing. However, the fact that they were privately owned drove them to spend huge sums on lobbying to ensure that Congress would not reduce their profitability by increasing their capital requirements or imposing new regulations on them.[38]

The bailout legislation that put Freddie and Fannie under government management has made some progress in protecting the public against excessive risk and insulating those entities from political pressure. In this regard, the legislation placed Fannie and Freddie under a new regulatory body, the Federal Housing Finance Agency. This body promptly increased Fannie's and Freddie's capital requirements.

The *imitatio Dei* principle would, however, argue that the reforms do not go far enough. Most importantly, let's not lose sight of the fact that Fannie and Freddie have the mission of setting the underwriting standard for the home mortgage market. This standard must strike a delicate balance between making home ownership affordable, but at the same time not entailing the taking on of excessive risk. Given their public policy role, "sticks" must be put in place to insure that the regulators and employees of these institutions are not subject to bias against the public interest. In this regard, R. Moshe Sofer (Hungary, 1762–1839) posited that anyone who assumes the role of making public interest judgments is subject to the judicial code of ethics.[39] One aspect of this code of ethics is the biblical adjuration: "You shall take no gift (*shohad*)" (Exodus 23:8). Exegetical interpretation of this verse prohibits the judge from accepting payment from one of the opposing litigants even with the instruction to acquit the innocent, or to condemn the guilty.[40] Rava's (d.352) rationalization of the latter point of stringency is very telling: "What is the reason for [the prohibition against taking] *shohad?* Because as soon as a man receives a gift from another he becomes so well disposed toward him that he becomes like his own person, and no man sees himself in the wrong. What [is the meaning of] *shohad? She-hu had-*'he is one with you'"[41]

Consider that over the last decade Freddie and Fannie spent over 170 million dollars on lobbying activity.[42] The bailout legislation does not prohibit these institutions from continuing their lobbying activity.[43] To be sure, employees of these institutions should not be stifled from expressing their opinions as to what constitutes regulation in the public interest, but *imitiatio Dei* demands that lobbying activity be strictly limited to insure that biasing influences do not impinge upon decision makers.

To insure improved decision-making, *imitatio Dei* would also demand the implementation of reforms, mentioned earlier, that better link compensation to performance.

Who Watches the Watchdog? The Paramount Importance of Moral Education

The subprime-mortgage crisis is essentially the story of broken promises and the widespread failure of people to meet their responsibilities. These abuses continued in increasingly brazen forms because government was either remiss in its oversight responsibility or naïve about the likely outcomes. In the face of overwhelming evidence that applicants of home mortgages lie when asked only to state, but not document, their income and assets,[44] Fannie Mae and Freddie Mac continued to buy and securitize those mortgages and therefore should shoulder much of the blame.

Beyond the moral hazard problem mentioned earlier, Jewish religious doctrine probes deeper: the failure of the agencies charged with upholding responsible underwriting standards mirrors a lackadaisical attitude of society toward truth-telling and taking responsibility seriously.

From the perspective of Jewish law, the most fundamental lesson of the financial meltdown is the need to invigorate the moral fiber of the building blocks of society, namely parents and the educational system. If we live in a society that condones broken promises and shirked responsibility, parents and schools must be the agents to change this moral climate and inculcate integrity and a rarefied sense of responsibility.

The core of Jewish moral education is training in truth telling and in the ethos of responsibility.

Let us first look at truth-telling. In the thinking of R. Isaiah ha-Levi Horowitz (Poland, 1565–1630), training in truth-telling is the centerpiece of the moral training of youth. The ideal is for the father to spare no effort in emphasizing to his child the importance of truth-telling. Toward this end, in the presence of his child, a father's reaction to a lie should be consternation and his reaction to truth speaking should be praise. If the child is caught lying, the father should admonish him harshly, instilling great trepidation in him. That approach will guarantee that the child will always go on the straight path, even when not under parental supervision. Because the child will feel forced to tell the truth, he will always feel compelled to depart from evil and do good.[45]

In designing the educational reforms necessary to inculcate the value of responsibility, the biblical personalities of Judah and Joseph provide grist for the curriculum.

The very essence of Judah's personality was the assumption of, and owning up to, responsibility. Judah rose to the crisis of the moment by taking charge and proclaiming to his father, Jacob: "Send the lad (Benjamin) with me. Let us get going and travel. Then we will live and will not die (of hunger) . . . I will guarantee his (safe return). You can demand him from my hand. If I do not bring him to you, standing up (alive) before you, I will have sinned against you forever (Genesis 43:9–10).

Judah not only assumed responsibility but also owned up to responsibility, even when doing so caused consequences of the most ignominious nature. He showed this character trait in an incident involving his daughter-in law, Tamar. Thinking that she was guilty of harlotry, Judah gave the order "Take her out and let her be burned [Genesis 28:24]." However, when Tamar reacted to her death sentence by issuing the challenge to Judah, "I am pregnant from the man to whom these belong," Judah confesses and says: "She's right. She became pregnant from me (justifiably), because I did not give her to my son Shailah [Genesis 28:26]."

Responsibly rises to its most rarefied level when moral failure is personalized by the offender as a betrayal of his or her moral mentors, i.e., parents and educators. The biblical figure Joseph personified this character trait. In rejecting the wiles of Lady Potifar, Joseph tells her, "In this house, there is no one greater than me, and he (your husband) has not withheld anything from me except you, since you are his wife. So how could I do this extremely wicked (act), and sin against God. [Genesis 39:9]." Joseph thus treats a consensual illicit liaison as an act of betrayal against God and against Potifar. Supplying additional detail to the biblical narrative, *Midrash* tells us that Joseph's father, Jacob, appeared to Joseph at this moment and exhorted him not to commit the sin.[46] In the final analysis, Joseph resisted temptation because the thought of submitting to sin overcame Joseph with the feeling that he would be betraying his

God, the teachings of his father, and the trust of his master, Potifar.

The home and school are natural settings for training in truth-telling, making children accountable for their promises, and assigning responsibilities to them. By having parents and the school hold children accountable to make good on their promises and not to shirk their responsibilities, the sparkle of Judah and Joseph permeates society. Once the moral building blocks of society consisting of parents and educators transform the moral climate of society, both the government and the private sector will see the need to set up the work environment for every organization with an incentive system that tilts economic actors towards virtue and away from sin. Moreover, under a rarefied climate of responsibility, decision makers will be driven to identify all aspects of risk and not to rely blindly on mathematical models, even to the extent of not suppressing the possibility that a "black swan" event could suddenly occur.

Notes

1. For treatment of Alt-A and option ARM mortgages, see discussion in text encompassing endnotes 3 and 11. In 2008, the subprime and Alt-A markets were $1 trillion each, while the option ARMs were approximately $500 billion. "*A Second Mortgage Disaster on the Horizon?*" (CBS News 60 Minutes, Dec. 14, 2008).
2. *Bava Metzia* 49a.
3. R. Joshua Boaz Mevorakh (Spain, mid. 16th Cen.), Ein *Mishpat on Tosafot Betzah* 15b.
4. R. Joseph Caro (Israel, 1488–1575), *Shulhan Arukh, Hoshen Mishpat* 97:4 on interpretation of R. Joshua b. Alexander ha-Kohen Falk (Poland, 1555–1614), *Sma* at *Sh.Ar.,* op.cit. note 5.
5. *Shulhan Arukh,* op. cit.
6. *Torat Kohanim,* Leviticus 19:14.
7. *Shulhan Arukh,* op.cit. 228:6.
8. For exposition of this principle in general terms, see *Shulhan Arukh,* op. cit., 232:8–9.
9. The seller's duty to disclose the flaws in his product applies even when the flaw in question is non-material and the price is "fair" in respect to what the buyer actually gets. In the latter instance the rationale behind the disclosure requirement is that non-disclosure causes the buyer to feel an unwarranted indebtedness to the seller on account of the bargain he mistakenly thinks he got.

   A slight exception to this rule obtains in a face to face transaction where the defects of the object of transfer can be ascertained by means of visual inspection. This would be the case, for example, if the object of transfer was an animal. Here, the duty of the seller is only to point out to the buyer the non-obvious defects present in the object of transfer. As far as the obvious defects, the buyer is expected to pick up these defects himself. Accordingly, if the buyer demands cancellation of the deal based on his discovery subsequent to the closing of the transaction of an obvious defect, his claim lacks credibility. Instead, we take his silence at the close of the deal as an acceptance of the defect. See *Sh. Ar.* op. cit. 228:6, 232:4, 6,7; R. Jehiel Michel Epstein (Belorussia, 1829–1908), *Arukh ha-Shulhan, Hoshen Mishpat,* 232:6–7; R. Yehudah Itra (Israel, contemporary, *Netiv Yosher,* Jerusalem, 1992, pp. 139–140).
10. The "bait and switch" tactic violates the prohibition against causing someone needless mental anguish (Leviticus 25:17). For a discussion of this case in general terms, see Aaron Levine, *Moral Issues of the Marketplace as Treated in Jewish Law* (New York: Yashar Books, 2005), pp. 218–220, 395–396.
11. *Sh. Ar.,* op. cit., 232:4, 6, 7, *Ar. haSh.,* op. cit., 232:6. For the rules of *ona'ah* as they apply to the modern marketplace, See Aaron Levine, "*Ona'ah* and The Operation of The Modern Marketplace," *Jewish Law Annual,* Hebrew University, vol. XIV, 2003, pp. 225–258.
12. C.F. Alan Zibel, "'Liar Loans' Threaten to Prolong Mortgage Crises," USA Today, http://www.usatoday.com/money/economy/2008-08-18-1913231564_x.htm.
13. *Bava Metzia* 75b.
14. R. Solomon b. Isaac (France, 1040–1105), *Rashi,* at *Bava Metzia* 75b.
15. Alex Nackoul, "Mortgage Brokering: A Short History," *Scotesnan Guide,* http://www.scotsmanguide.com/default.asp?ID=1299
16. Mary Kane, "How Fraud Fueled the Mortgage Crisis," *The Washington Independent, May 1,*

2008, http://washingtonindependent.com/view/how-fraud-fueled-the-mortgage-crisis

17. Kenneth R. Harvey, "Appraisers Under Pressure to Inflate Values," *Washington Post,* February 3, 2007, F.01.
18. One index is the S&P /Case-Shiller Home Price Index. Calculated on a monthly basis, the index measures the nominal value of the residential real estate market in 20 metropolitan regions in the United States.

    Another index is the ABX index. That index tracks the price of credit default swaps, which are insurance contracts on subprime mortgages. When concerns about mortgage defaults rise, the cost of insuring the risk of default rises and the ABX falls. Long before the subprime financial crises hit, it was evident that this market was deteriorating because the ABX was falling.

    Last, the securitizer should alert investors to follow the ratio between housing values and the rental cost of housing, *i.e.*, the price-to rent ratio. Other things remaining equal, the higher this ratio, the more attractive rental becomes relative to home ownership. Following this index, in the opinion of Mark Zandi, would have given investors ample warning that the housing market was in a bubble and this bubble could burst at any time. Consider that over the last quarter century this ratio has varied from 12.5 to 16.5. When the housing bubble began, which Zandi identifies as July 2003, this ratio stood at 18.5, and when the bubble burst in April 2006 under the weight of soaring housing prices and tight monetary policy, the ratio was over 24. Mark Zandi, *Financial Shock,* (Upper Saddle River, New Jersey: Pearson Education, Inc. 2009), pp. 161–165.
19. Zandi, op.cit., p. 115.
20. http://www.pascalroussel.net/cdo_cds.htm
21. The description of the securitization process draws from Kurt Eggert, "Held Up in Due Course: Predatory Lending, Securitization, and the Holder In Due Course Doctrine," *Creighton Law Review,* vol. 35, 2002, pp. 534–550.
22. Eggert, op. cit., pp. 608–609.
23. Let's take note that in this scenario Citigroup merely acquires the right to collect the debt from the pool of borrowers (*B*). Citgroup does not, however, **replace** WaMu **entirely** as *B's* creditor. This is so because by entering into a loan agreement with WaMu, *B* obligates himself both **personally** (*shibud ha-guf*) and with his property *shibud nekhasim*) to pay back the loan. The sale of the debt can only transfer *B's* duty to obligate his property to the payment of the loan from WaMu to Citigroup. However, the personal obligation *B* made to WaMu remains intact, notwithstanding WaMu's sale of the loan to Citigroup. The circumstance that *B's* ***personal*** **obligation** to pay back the loan to WaMu remains intact, notwithstanding the sale of the loan, has a very serious consequence. This consequence is that if WaMu forgives *B's indebtedness,* the mortgage becomes canceled and Citigroup can no longer collect the debt from *B.* The rationale here is that B's commitment to obligate his property to pay off the loan is treated as a **guarantor** (*arev*) of his personal commitment to make the payments. Once *B's* personal commitment is waived on account of WaMu's forgiveness, *B's* commitment of his property which is treated as a guarantor of his personal commitment also falls off (See *Shulhan Arukh, Hoshen Mishpat* 66:23 and *Sma*, *Shulhan Arukh,* ad locum note 55). Notwithstanding its legality, forgiving the loan is a **wicked** action because it causes Citigroup a financial loss. It is therefore prohibited for WaMu to forgive the loan once it has sold the rights of collection to another party. If WaMu forgives the loans after it has already sold them to Citigroup, Citigroup will have a claim against WaMu (for a summary of the views of the authorities on this matter, see, *Pithei Hoshen,* op. cit., 202.

    Jewish law's treatment of how forgiveness by the loan originator affects the party that bought the loan creates a further complication for investors in MBSs and hence is another factor that slows down the securitization process.
24. *Shulhan Arukh, Yoreh De'ah* 173:4.
25. R. Mordechai Jaffe (Prague, 1530–1612), *Levush, Yoreh De'ah* 173; R. Joshua ha-Kohen Falk (Poland, 1555–1614), *Perishah, Tur, Yoreh De'ah* 173 note 4; R. Samuel ha-Levi (Poland, 1586–1667), *Turei Zahav, Shulhan Arukh, Yoreh De'ah* 173 note 3.
26. R. Yeshayahu Yaakov Bloi (Israel, 1929–), *Pithei Hoshen, Dinei Halva'ah,* p. 172.
27. *Sotah* 14a; *Sifrei* at Deuteronomy 10:12. In the opinion of R. Naftali Zevi Yehudah Berlin

(Russia, 1817–1893), *imitatio Dei* extends beyond a duty to emulate those attributes of God's mercy explicitly enumerated at *Exodus* 34:6–7. Instead, we are required to emulate God in every manifestation of His mercy. He bases his contention on Joel 3:5 (*Emek Netziv, Sifrei* at Deuteronomy 10:2, *piska* 13).

28. Yoma 38b.
29. *Sanhedrin* 107a.
30. *Berakhot* 60b.
31. Maimonides, *Guide of the Perplexed,* trans. S. Pines (Chicago: University of Chicago Press, 1963), chap. 54, pp. 126–127.
32. Janet Morrissey, "Housing Law Cracks Down on Loan Originators; New Rules Could Boost Industry's Battered Image," *Investment, News,* August 4, 2008, p. 3.
33. "MBA Board of Governors Calls for Broker Accountability," *Mortgage Law Central,* Nov. 19, 2007, http://www.mortgagelawcentral.com/ME2/audiences/dirmod.asp?sid=339D1B5C714F4FFF8568FEC5AFA683F5&nm=Departments+%7C+Association+News&type=Publishing&mod=Publications%3A%3AArticle&mid=1C9702F6E35247CE93DC9A209439F0C2&AudID=D34E2DC8880E4180BBCFFDD27A1EBF7E&tier=4&id=9D2BEA920FFE4EF488FE5E987EEDF520.
34. Gretchen Morgenson, "Panel to Review Payouts Given by Troubled Firms," *New York Times,* March 7, 2008, p. C3.
35. Joe Nocerno, "Risk Mismanagement," *New York Times Magazine,* January 4, 2009, p. 24.
36. Lucian Bebchuk and Jesse Fried, *Pay Without Performance* (Cambridge, Mass: Harvard University Press, 2004), pp. 88–89, 132–136, 140–146, 189–200.
37. Paul Krugman, "The Madoff Economy," *New York Times,* December 19, 2008, http://www.nytimes.com/2008/12/19/opinion/19krugman.html.
38. Peter J. Wallison and Charles W. Calomiris, "The Last Trillion Dollar Commitment," *American Enterprise Institute for Public Policy Research,* September 30, 2008, http://www.aei.org/docLib/20080930_Binder1.pdf.
39. R. Mosheh Sofer, *Responsa Hatam Sofer, Hoshen Mishpat* 160.
40. *Shulhan Arukh, Hoshen Mishpat* 9:1.
41. *Shulhan Arukh, op. cit.*
42. Tom Raum and Jim Drinkard, "Fannie Mae and Freddie Mac Spend Millions on Lobbying," USAToday, http://www.usatoday.com/money/companies/2008-07-17-fannie-freddie-lobbying_N.htm
43. William Poole, "Too Big to Fail or to Survive," *New York Times,* July 27, 2008, http://www.nytimes.com/2008/07/27/opinion/27poole.html?ref=opinion
44. The Mortgage Asset Reporting Institute (MARI) first reported on May 24, 2006 how stated income loans increased frauds, http://www.marisolutions.com/pdfs/mba/MBA8thCaseRpt.pdf. Over the years, the organization has frequently reported to congressional Committees. See www.marisolutions.com/reports.
45. R. Isaiah ha-Levi Horowitz, *Shenei Luhot ha-Brit, Sha'ar ha-Otiyot* 4.
46. *Midrash Tanhumah* at Genesis 39:8.