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# Ability to Repay: Mortgage Lending Standards After Dodd-Frank

## I. INTRODUCTION

“People respond to incentives.” Gregory Mankiw<sup>1</sup>

Lenders pay brokers a percentage of the loan originated and an additional percentage for including high profit or risky features.<sup>2</sup> Brokers can increase their income by originating more loans, larger loans, and loans with riskier features.<sup>3</sup> A revenue maximizing broker would attempt to include as many high risk features as possible in the largest loan a borrower can afford and make as many of these loans as possible.<sup>4</sup> In the late 1990s through the mid-2000s, securitization effectively eliminated risk to lenders, and with the ability to pass risk on to investors came a race to the bottom in underwriting standards.<sup>5</sup>

On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) was signed into law, placing a number of requirements on lenders regarding mortgage underwriting and lending practices.<sup>6</sup> The most direct attack on

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1. N. Gregory Mankiw, *Mankiw's Ten Principles*, SOUTH-WESTERN, <http://www.swlearning.com/economics/mankiw/principles2e/principles.html> (last visited Feb. 13, 2011). Mankiw is an author of numerous economics texts and is known for his ten “principles” of economics. *About the Author*, SOUTH-WESTERN, <http://www.swlearning.com/economics/mankiw/principles2e/author.html> (last visited Feb. 13, 2011).

2. See Gretchen Morgenson, *Inside the Countrywide Lending Spree*, N.Y. TIMES, Aug. 26, 2007, <http://www.nytimes.com/2007/08/26/business/yourmoney/26country.html>.

3. See *id.*

4. See *id.*

5. Kurt Eggert, *The Great Collapse: How Securitization Caused the Subprime Meltdown*, 41 CONN. L. REV. 1257, 1292 (2009); cf. Geetesh Bhardwaj & Rajdeep Sengupta, *Where's the Smoking Gun? A Study of Underwriting Standards for U.S. Subprime Mortgages* 4 (Fed. Reserve Bank of St. Louis, Working Paper No. 2008-036D, 2008), available at <http://research.stlouisfed.org/wp/2008/2008-036.pdf> (finding that underwriting standards as measured by credit scores did not decrease from 1998 through 2007. However, the article notes that bolstered credit score requirements were often used to offset lower documentation requirements.).

6. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 1400-32, 124 Stat. 1376, 2136-63 (2010) (to be codified at 15 U.S.C. § 1601

irresponsible mortgage underwriting is in section 1411 where Dodd-Frank sets forth basic financial information that lenders must consider in extending mortgage loans.<sup>7</sup> These factors, however, do not provide an adequate picture of a borrower's likelihood of repayment, and section 1411 would better predict loan default if additional metrics were included.<sup>8</sup>

Part II of this Note examines the rise of stated income loans and the role they played in leading to the credit crisis.<sup>9</sup> Part III is a brief examination of relevant portions of Dodd-Frank.<sup>10</sup> Part IV evaluates the potential effectiveness of the factors listed in Dodd-Frank, and Part V proposes two additional factors for lenders to consider.<sup>11</sup> Part VI concludes that while including loan to value as a factor for consideration may be useful, it is not contemplated by the text of Dodd-Frank.<sup>12</sup>

## II. THE RISE OF STATED INCOME LOANS

Stated income loans began as a product designed to facilitate lending to individuals with difficult to document incomes: those working on commission, the self-employed, individuals with incomes that fluctuate from year-to-year, and other non-traditional borrowers.<sup>13</sup> As these products were offered to more borrowers, they earned the name "liar's loans" in industry circles as the perception existed that some borrowers were inflating their stated income to qualify for a loan.<sup>14</sup> In 2006, in some areas of the country, one-half of new mortgages were of the stated income variety.<sup>15</sup> Stated income loans were not confined to the subprime

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et seq.).

7. *Id.* sec. 1411(a)(2), § 129C(a) (to be codified at 15 U.S.C. § 1639c).

8. *See infra* Parts IV-V.

9. *See infra* Part II.

10. *See infra* Part III.

11. *See infra* Parts IV-V.

12. *See infra* Part VI.

13. Mark Gimein, *Inside the Liar's Loan: How the Mortgage Industry Nurtured Deceit*, SLATE (Apr. 24, 2008, 11:25 AM), <http://www.slate.com/id/2189576>.

14. *See* Charles W. Murdock, *Why Not Tell the Truth?: Deceptive Practices and the Economic Meltdown*, 41 LOY. U. CHI. L.J. 801, 843-44 (2010) (reflecting the tendency of loan applications to overstate borrower's income and assets).

15. Although only reaching this level in some parts of the country, this trend encompassed both subprime and prime loans. Gimein, *supra* note 13.

market, as lenders marketed them as products which allowed borrowers to borrow more than they could qualify for based on an accurate statement of their current income, relying instead on an expectation of a future increase in income.<sup>16</sup> A sample of loans from Washington Mutual, a large lender that dealt heavily in stated income loans, had an average credit score of 705,<sup>17</sup> and yet, only twelve percent of the loans were made based on documented income; eighty-eight percent were stated income loans.<sup>18</sup> Less than a year into the life of these loans, eighteen percent were in foreclosure and an additional seven percent in sixty-day default or worse as compared to a usual thirty-day default rate of under one percent for prime borrowers.<sup>19</sup>

In a system where lenders have to retain loans, lenders have incentives to use responsible lending and thorough underwriting to keep risk low.<sup>20</sup> However, the advent of securitization allowed lenders to immediately sell risky mortgages and not only eliminated any direct incentive to responsibly underwrite, but rewarded looser underwriting practices by allowing the lender to originate more loans.<sup>21</sup> Both borrowers and originators had incentives to misuse the stated income loan; borrowers could secure a larger loan with the assurance of refinancing once the property had appreciated and originators would get a larger fee due to the loan type and amount.<sup>22</sup>

The subprime lending trend peaked in 2006 with subprime mortgages – many of which were stated income loans – accounting for almost fifteen percent of the \$10 trillion total mortgage debt by the end of the year.<sup>23</sup> The economy rapidly turned, and by October of 2007, foreclosures were ninety-four percent higher than the previous year and major firms had lost “tens of billions of

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16. Statement on Subprime Mortgage Lending, 72 Fed. Reg. 37,569, 37,569 (July 10, 2007).

17. See Eggert, *supra* note 5, at 1271 (indicating that 620 is the subprime cutoff with scores above that qualifying borrowers for prime loans).

18. Gimein, *supra* note 13.

19. *Id.*

20. See Eggert, *supra* note 5, at 1264-65.

21. See *id.*

22. *Id.* at 1286.

23. David Anderson, *Year in Review 2007: The Subprime Lending Crisis*, 71 TEX. B. J. 20, 20 (2008).

dollars in subprime assets [previously] on their books.”<sup>24</sup> In 2007, Congress attempted to pass H.R. 3915 which would have provided many similar provisions to Dodd-Frank; however, the bill only passed the House of Representatives.<sup>25</sup> H.R. 3915 included many of the same requirements instituted by Title XIV of Dodd-Frank including a reasonable ability to repay standard and required income documentation.<sup>26</sup> Additionally, an amendment to Regulation Z<sup>27</sup> that took effect October 1, 2009 requires lenders to verify the ability of borrowers to repay loans, but only applies to “high cost loans.”<sup>28</sup>

### III. THE ACT

#### A. *Section 1411 Factors*

Dodd-Frank provides in section 1411(a)(2) that “[i]n accordance with regulations prescribed by the Board,<sup>29</sup> no creditor may make a residential mortgage loan unless . . . the consumer has a reasonable ability to repay the loan . . . .”<sup>30</sup> Although the Board will ultimately issue regulations implementing the statute, the Dodd-Frank lists seven factors creditors must consider in determining a consumer’s ability to repay a loan:

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24. *Id.*

25. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-09-741, HOME MORTGAGES: PROVISIONS IN A 2007 MORTGAGE REFORM BILL (H.R. 3915) WOULD STRENGTHEN BORROWER PROTECTIONS, BUT VIEWS ON THEIR LONG-TERM IMPACT DIFFER 2 (2009) [hereinafter GAO].

26. Compare Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 1411(a)(2), § 129C(a), 124 Stat. 1376, 2142 (2010) (to be codified at 15 U.S.C. § 1639c), with GAO, *supra* note 25, at 2.

27. Regulation Z is the Federal Reserve Board issued regulation that implements the Truth in Lending Act. 12 C.F.R. § 226.1(a) (2010).

28. A “high cost loan” is one on which the annual percentage rate exceeds Treasury security rates by a set amount or the points and fees paid are over eight percent. David A. Wolfe, *New HOEPA Rule*, THAT CREDIT UNION BLOG (Jan. 12, 2010, 5:55 PM), <http://thatcreditunionblog.wordpress.com/2010/01/12/new-hoepa-rule>.

29. Although in amending the Truth in Lending Act the text of Dodd-Frank uses “Board,” rulemaking and enforcement authority is given to the Bureau of Consumer Financial Protection. Dodd-Frank Act § 1400(b) (to be codified at 12 U.S.C. § 5481).

30. *Id.* sec. 1411(a)(2), § 129C(a)(1) (to be codified at 15 U.S.C. § 1639c).

credit history, current income, expected income the consumer is reasonably assured of receiving, current obligations, debt-to-income ratio or the residual income the consumer will have after paying non-mortgage debt and mortgage-related obligations, employment status, and other financial resources other than the consumer's equity in the dwelling or real property that secures repayment of the loan.<sup>31</sup>

These requirements presumably are among the factors responsible lenders already consider and in fact closely mirror the minimum mortgage underwriting standards proposed by John Dugan, then Comptroller of the Currency.<sup>32</sup>

In addition to these factors, when calculating a borrower's ability to repay a lender must use a payment schedule that fully amortizes the loan.<sup>33</sup> In the case of nontraditional mortgages such as interest-only loans, a lender must calculate repayment ability with a payment schedule that amortizes the loan by the end of the loan term.<sup>34</sup> When making these calculations, a lender must use third party information such as a borrower's IRS form W-2s, tax returns, or pay stubs to verify income.<sup>35</sup> This third party documentation requirement eliminates the possibility of stated income.

### B. *Qualified Mortgages*

If lenders do not wish to be subject to the ability to repay requirements, they may choose to make "qualified mortgage" loans which establish a presumption that a borrower has a reasonable ability to repay.<sup>36</sup> Although qualified mortgages are

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31. *Id.* sec. 1411(a)(2), § 129C(a)(3).

32. John C. Dugan, *Securitization, 'Skin-in-the-Game' Proposals, and Minimum Mortgage Underwriting Standards*, Remarks before the American Securitization Forum 10 (Feb. 2, 2010), available at <http://www.occ.treas.gov/news-issuances/speeches/2010/pub-speech-2010-13.pdf>.

33. Dodd-Frank Act, sec. 1411(a)(2), § 129C(a)(3) (to be codified at 15 U.S.C. § 1639c).

34. *Id.* sec. 1411(a)(2), § 129C(a)(6)(A).

35. *Id.* sec. 1411(a)(2), § 129C(a)(4).

36. *Id.* sec. 1412, § 129C(b)(1), (2)(A).

exempted from the requirements of section 1411(a), section 1412 provides that a qualified mortgage must also be supported with documentation of the income and assets used to qualify the borrower for the loan.<sup>37</sup> To be a “qualified mortgage,” a loan must be a standard fixed-rate loan<sup>38</sup> that fully amortizes and is supported by income documentation with points and fees under three percent and a debt-to-income ratio under forthcoming guidelines.<sup>39</sup> An adjustable rate loan may also qualify if it adheres to these requirements as well as being calculated at the maximum rate possible for the first five years.<sup>40</sup> A “qualified mortgage” also exempts lenders from the requirement that they retain five percent of the risk when selling mortgages in the secondary market.<sup>41</sup>

### C. Interpretation of “Ability to Repay”

While these changes represent a major step in federal regulation of mortgage underwriting practices, nothing in Dodd-Frank imposes a suitability standard or fiduciary duty<sup>42</sup> on brokers, originators, or anyone in the lending process with respect to borrowers.<sup>43</sup> The ordinary use of the word “ability” would indicate that Congress wants lenders to calculate a borrower’s capacity to repay the loan given the terms of the loan and the borrower’s income.<sup>44</sup> Given that most of the factors a borrower must consider deal with income, employment, and debt burden, this could be a fair assessment of Congress’ interpretation of “ability.”<sup>45</sup> During

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37. *Id.* sec. 1412, § 129C(b)(2)(A)(iii).

38. *Id.* sec. 1412, § 129C(b)(2)(A)(i)-(ii) (disallowing balloon loans, interest-only loans, and loans with an increasing principal balance).

39. Dodd-Frank Act, sec. 1412, § 129C(b)(2)(A)(iii), (iv), (vi), (vii) (to be codified at 15 U.S.C. § 1639c).

40. *Id.* sec. 1412, § 129C(b)(2)(A)(v).

41. *Id.* sec. 941(b), § 15G(c)(1)(B)(i)(I) (to be codified at 15 U.S.C. § 78c(a)).

42. Suitability means the instrument is “suitable for your objectives, means and even age.” A fiduciary standard is a higher duty that would require the broker to act in the borrower’s best interest. *See, e.g.,* David Serchuk, *Suitability: Where Brokers Fail*, FORBES.COM (June 24, 2009, 6:00 AM), <http://www.forbes.com/2009/06/23/suitability-standards-fiduciary-intelligent-investing-brokers.html>.

43. *See* Dodd-Frank Act (to be codified at scattered sections of the U.S.C.).

44. *See* BLACK’S LAW DICTIONARY 4 (7th ed. 1999) (defining ability as “the capacity to perform an act or service”).

45. Dodd-Frank Act, sec. 1411(a)(2), § 129C(a)(1) (to be codified at 15 U.S.C. §

the subprime boom, consumers were extended loans that, given their incomes and financial means, they would never be able to repay, and eliminating these practices is certainly one effect of requiring documentation.<sup>46</sup>

Credit history, however, is notably different from the other factors contemplated as it is retrospective and informs on the borrower's repayment habits; credit history is summarized by the credit score.<sup>47</sup> Credit scoring uses a formula, usually that developed by Fair Isaac and Co. to evaluate "payment history[,] . . . amounts owed[,] . . . length of credit history[,] . . . new credit [, and] . . . types of credit used" in a single metric, also called a FICO score.<sup>48</sup> Lenders have adopted credit scores as a means of measuring a borrower's riskiness or likelihood of repaying obligations.<sup>49</sup> However, such information only protects lenders as it does not reflect on a borrower's actual ability to repay a loan. The inclusion of credit history in Dodd-Frank suggests that the term "ability" means something more akin to "likelihood," and may suggest that these provisions are intended to protect the financial industry from the risk of poor underwriting as much as they are intended to protect borrowers from predatory lending. Assuming these are the dual goals of Title XIV, mitigating risk by looking at only loan characteristics would be impracticable as more defaults are directly attributable to exogenous shocks than to excessive debt, making proxy variables such as credit history invaluable.<sup>50</sup> Additionally, more than pure financial calculations can be considered in underwriting, and before the proliferation of

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1639c).

46. Statement on Subprime Mortgage Lending, 72 Fed. Reg. 37,569, 37,569 (July 10, 2007).

47. See generally *What's in your FICO score*, MYFICO, <http://www.myfico.com/crediteducation/whatsinyourscore.aspx> (last visited Feb. 13, 2011) (detailing the factors that go into determining a credit score).

48. *Id.*

49. See, e.g., Eggert, *supra* note 5, at 1270.

50. Of the top five reasons for mortgage default, debt load was only cited in 19.8 percent of cases while reduction in income, unemployment, sickness, or marriage issues cumulatively accounted for 52.2 percent of all defaults. See FED. HOUSING FIN. AGENCY, FEDERAL PROPERTY MANAGERS REPORT NO. 5, at 5 (2009).



exclusive “hard underwriting” practices during the crisis, lenders would often consider factors that are not quantifiable.<sup>51</sup>

#### IV. CURRENT FACTORS

Since the likelihood of repayment is not based entirely on the sufficiency of financial means at origination, various borrower and loan characteristics can be used to estimate the risk of a borrower defaulting.<sup>52</sup> Some, like credit score, represent a borrower’s tendency to repay (or not repay) obligations, while others measure the borrower’s ability to weather exogenous shocks. The following sections examine the usefulness of each of the factors lenders must consider by looking at the feasibility of documentation, and any correlation (or lack thereof) to a risk of default.

##### A. *Credit Score*

The FICO score is the predominant tool in the modern mortgage industry for making initial assessments of a borrower’s risk profile.<sup>53</sup> Lenders typically consider a score less than 620 to be high-risk or subprime, a score between 620 and 660 to be suspect, and a score over 660 as qualifying for prime loans.<sup>54</sup> In the 1990s, Fannie Mae and Freddie Mac began using credit scores to evaluate borrowers and have adopted 620 as the bound for subprime loans; the rest of the market has followed suit, although no justification as has been advanced to explain why this cutoff was chosen.<sup>55</sup>

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51. Eggert, *supra* note 5, at 1275 (discussing the role of human judgment in the decision to extend credit).

52. See, e.g., Lucy Delgadillo & Amber Gallagher, *Borrower- and Mortgage-Related Factors Associated With FHA Foreclosures*, 34 FAM. & CONSUMER SCI. RES. J. 204, 206 (2006) (stating that various borrower and loan characteristics are known to correlate with default risk).

53. David M. Harrison et al., *Do Riskier Borrowers Borrow More?*, 32 REAL EST. ECON. 385, 402 (2004).

54. *Id.*; see also Todd J. Zywicki & Joseph D. Adamson, *The Law and Economics of Subprime Lending*, 80 U. COLO. L. REV. 1, 43 n.68 (2009) (discussing the 620 credit score cutoff for prime loans).

55. Harrison et al., *supra* note 53, at 402; see also Zywicki & Adamson, *supra* note 54, at 43 n.68 (discussing the lack of justification for the 620 credit score cutoff for prime loans).

Comparing the relative default rate of loans grouped by FICO score has generally lead to the conclusion that a lower score leads to an increased risk of default.<sup>56</sup> In a 2007 study, the Government Accountability Office conducted an analysis of four different nonprime loan products with respect to compliance with the stalled precursor to Title XIV (GAO Study).<sup>57</sup> For each loan product, the default probability for a credit score in the 75th percentile was compared to the default probability for a credit score in the 25th percentile.<sup>58</sup> The two products showing the largest increases in default probability also had the lowest 25th percentile credit scores.<sup>59</sup> The greatest increase in default probability was associated with short-term hybrid adjustable rate mortgages (ARMs) which were the only product where the 25th percentile score was below the 620 threshold, but also had an initial default probability much higher than the other products.<sup>60</sup> The other two products, while showing a smaller increase, still showed a relationship between decreasing credit scores and increasing likelihood of default.<sup>61</sup>

In a study of mortgages issued in New York City, researchers compared the default risk of mortgages made to borrowers with FICO scores over 720 to the risk of those made to all other borrowers, grouped by credit score.<sup>62</sup> For both ARMs and fixed-rate mortgages (FRMs), as the credit score declined, the

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56. Sewin Chan et al., *The Role of Neighborhood Characteristics in Mortgage Default Risk: Evidence from New York City 30* (June 29, 2010) (unpublished manuscript), available at [http://furmancenter.org/files/publications/working\\_paper.pdf](http://furmancenter.org/files/publications/working_paper.pdf); GAO, *supra* note 25, at 32; Yuliya Demyanyk, *Did Credit Scores Predict the Subprime Crisis?*, REGIONAL ECONOMIST 12, 13 (Oct. 2008).

57. GAO, *supra* note 25, at 27.

58. *Id.* at 32.

59. The short-term hybrid ARMs showed a 7.3% point increase when moving from a 675 score to a 600 score, and the FRMs showed a 5.5% increase going from a 725 score to a 625 score. *Id.* at 34.

60. Short-term hybrid ARMs had an initial probability of 13.3 percentage points as compared to initial probabilities ranging from 2.5 to 4.5 percentage points for the other products. *Id.* at 34.

61. Long-term ARMs showed a 3.3% increase when moving from a 750 to 675 score, and payment-option ARMs showed a 2.1% increase in the same score range. *Id.* at 34.

62. Chan et al., *supra* note 56, at tbls.4, 6.

risk of default increased.<sup>63</sup> Interestingly, for ARMs, the only range of credit scores where default risk did not significantly increase was from the 620-650 range to the 590-620 range.<sup>64</sup> This is counterintuitive as 620 is often the divide between lower risk prime borrowers and higher risk subprime borrowers.<sup>65</sup> One explanation for the discontinuity is the difficulty in selling and securitizing loans below 620, thus lenders had an incentive to more thoroughly underwrite and verify loan applications since they would be retaining the risk on these loans.<sup>66</sup>

Some recent research has challenged the accuracy of FICO scores in predicting subprime or prime mortgage defaults in changing market conditions.<sup>67</sup> As the subprime crisis continued, the percentage of mortgages in serious delinquency across all credit scores rose dramatically with the largest proportional increases being among those borrowers with the highest credit scores.<sup>68</sup> The data presented shows delinquency rates for borrowers with a score of over 700 almost quadrupling from under 3% to around 11% while delinquency rates for borrowers with scores in the 500-600 range nearly doubled going from just over 10% to just over 20%.<sup>69</sup> The 2007 delinquency rate for those in the top bracket was the same as the 2005 delinquency rate of borrowers in the bottom bracket of scores.<sup>70</sup>

While the disproportionate increase is problematic for FICO-based predictions of risk, the absolute difference between the delinquency rates of the lowest and highest credit scores stands at ten percentage points, which indicates that although borrowers

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63. For ARMs, the default risk of a borrower with a FICO score less than 530, the lowest range considered, is ninety percent greater than a borrower with a score over 720. For FRMs, the increase is on the order of 500%. *See id.* But see Yuliya Demyanyk & Otto Van Hemert, *Understanding the Subprime Mortgage Crisis*, REV. FINANC. STUD. 7 (2009), available at <http://rfs.oxfordjournals.org/content/early/2009/05/04/rfs.hhp033> (indicating that FRMs are much less common in the subprime market).

64. Chan et al., *supra* note 56, at tbl.4.

65. Harrison et al., *supra* note 53, at 402.

66. Mike Konczal, *Doing the Homework*, RORTYBOMB (Apr. 27, 2009), <http://rortybomb.wordpress.com/2009/04/27/doing-the-homework>.

67. Demyanyk, *supra* note 56, at 13.

68. *Id.*

69. *Id.*

70. *Id.*

with high FICO scores were defaulting at a higher rate, they were still less risky than borrowers with lower scores in the same year.<sup>71</sup> One explanation for the disproportionate increase in defaults by borrowers in the highest FICO range is that by the later years of the crisis, loans with historically subprime features were increasingly offered to borrowers with credit scores that would qualify for a prime loan.<sup>72</sup>

Although the studies seem conclusive in indicating that an increase in FICO score correlates with a decrease in default probability, the discontinuity in the default rate at the subprime cutoff<sup>73</sup> and disproportionate responsiveness of high FICO scores to declining markets<sup>74</sup> indicate that the correlation is subject to the influence of confounding variables. At best, FICO scores seem capable of providing valuations of borrower risk as compared to other borrowers at a particular time, but they offer no absolute valuation of a borrower's risk or a borrower's responsiveness to market conditions.<sup>75</sup>

#### B. Debt-to-Income Ratio

The term "debt-to-income" (DTI) ratio is used to refer to the "back-end ratio" of a loan, or the sum of the monthly mortgage payment and all other recurring non-mortgage debt divided by monthly income.<sup>76</sup> According to industry regulators, a borrower's DTI ratio is a crucial consideration in making a loan because it determines whether sufficient income remains for living expenses.<sup>77</sup> Currently, Fannie Mae and Freddie Mac require that

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71. This data does not control for differences in mortgages based on FICO score, thus some or all of the difference between high FICO default rate and low FICO default rate may be explained by different loan products offered to these groups. *Id.*

72. Gimein, *supra* note 13.

73. Chan et al., *supra* note 56, at tbl.4; Konczal, *supra* note 65.

74. Demyanyk, *supra* note 56, at 13.

75. *See id.* (finding a disproportionate increase in default rate of high credit score loans during the credit crisis).

76. *See, e.g.,* Demyanyk & Van Hemert, *supra* note 63, at 9 tbl.2 (defining debt-to-income ratio); Delgadillo & Gallagher, *supra* note 52, at 209 (defining front-end and back-end ratio).

77. GAO, *supra* note 25, at 21-22.

loans exceeding a DTI of forty-five percent be re-underwritten,<sup>78</sup> and the FHA places a forty-one percent hard cap on a borrower's DTI ratio.<sup>79</sup> The FHA also places a similar cap on a borrower's "front-end ratio," the total monthly mortgage payment divided by monthly income, of twenty-nine percent.<sup>80</sup>

Some recent research indicates that a 45 percent DTI standard may be effective in curtailing risky mortgages.<sup>81</sup> Of all the securitized subprime ARMs originated in New York City from 2004 through 2007, those over a DTI of 45 percent were 13 percent more likely to default than those with a DTI of less than 45 percent.<sup>82</sup> Similarly, securitized subprime FRMs made to borrowers over a 45 percent DTI were 10 percent more likely to default than securitized subprime FRM borrowers with a DTI less than 45 percent.<sup>83</sup> This analysis renders little information about the nature of the correlation between DTI ratio and risk of default as it merely compares those groups on either side of a certain benchmark.<sup>84</sup>

A random sample of all securitized nonprime mortgages originated between 2000 and 2006 showed a weak positive correlation between DTI and the risk of default.<sup>85</sup> This is consistent with the data from New York as a weak correlation, although not well approximated by an equation, would show a generally increasing trend that would be evident in comparing the upper and lower half of a sample.<sup>86</sup> Some difference between these

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78. News Release, Fannie Mae, Fannie Mae Clarifies Undisclosed Liabilities Policy: Company Describes When Re-Underwriting is Necessary (Aug. 13, 2010), available at <http://www.fanniemae.com/newsreleases/2010/5126.jhtml> [hereinafter Fannie Mae News Release]; FREDDIE MAC, LOAN PROSPECTOR DOCUMENTATION MATRIX 19 (Oct. 2010), <http://www.freddiemac.com/learn/pdfs/uw/docmatrix.pdf>.

79. *FHA Requirements: Debt Ratios*, FHA, [http://www.fha.com/fha\\_requirements\\_debt.cfm](http://www.fha.com/fha_requirements_debt.cfm) (last visited Feb. 13, 2011).

80. The FHA definition of total monthly mortgage payment includes such things as insurance, payments into escrow for taxes, and payments to homeowners' associations. *Id.*

81. Chan et al., *supra* note 56, at 17, 43 tbl.6.

82. *Id.* at 17.

83. *Id.* at 43 tbl.6.

84. *Id.* at 17, 43 tbl.6.

85. GAO, *supra* note 25, at 30.

86. See MICHAEL O. FINKELSTEIN, BASIC CONCEPTS OF PROBABILITY AND STATISTICS IN THE LAW 34 (2009) (noting that the closer a correlation coefficient is to one, the closer the data matches an increasing line and a weak correlation can

two studies may be explained by differences in sample selection. The study of New York City mortgages, although analyzing seventy-eight percent of its sample, was geographically restricted and limited to originations from 2004 to 2007.<sup>87</sup> The GAO data set was a nationwide sample of securitized nonprime mortgages which spanned a longer time frame.<sup>88</sup> Additionally, the GAO study only had complete data for sixty-three percent of its sample.<sup>89</sup> Irrespective of the difference in sampling and methodology, both studies showed an average DTI ranging from approximately thirty-three percent to forty-two percent for the various loan products evaluated.<sup>90</sup>

While both of these studies analyzed the correlation between the back-end ratio and default risk, an analysis of 179 FHA loans originated in Utah between 2000 and 2001 estimated the impact of a borrower's front-end ratio as well.<sup>91</sup> This study found a weak correlation between front-end ratio and default risk but no correlation between DTI and default risk.<sup>92</sup> Although these results do not square exactly with other findings, it may be due to the lack of variation in DTI ratios in this particular sample.<sup>93</sup> The lack of variation in DTI ratios but wide range of front-end ratios would seem to indicate that borrowers with less recurring non-mortgage debt at origination were more likely to default.<sup>94</sup> This

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indicate a meaningful relationship).

87. Chan et al., *supra* note 56, at 2, 7, 9.

88. GAO, *supra* note 25, at 45.

89. *Id.* at 56.

90. Chan et al., *supra* note 56, at 36 tbl.1; GAO, *supra* note 25, at 53-56.

91. Delgadillo & Gallagher, *supra* note 52, at 211-12.

92. *Id.* at 214.

93. The mean back-end ratio is 38.53 with a standard deviation of .07, whereas the mean front-end ratio is 29.42 with a standard deviation of 7.25. The relatively small standard deviation for the back-end ratio indicates that most of the samples are clustered around the mean value. The lack of a similar clustering for front-end ratios may have to do with the characteristics of FHA borrowers or other confounding variables. *See id.* at 215.

94. The data indicate that most borrowers had total debt obligations of approximately thirty-nine percent of their income. For sixty-eight percent of borrowers, the portion of that debt that was mortgage related varied from twenty-two to thirty-six percent. Additionally, sixteen percent of borrowers would have had mortgage debt that was less than twenty-two percent of their income while the other sixteen percent would have had mortgage debt over thirty-six percent of their income. *See id.*

may be a failing of lenders to estimate non-mortgage debt the borrowers have not yet incurred but are likely to (e.g. car payments), an indication of a sensitivity of FHA borrowers to a higher proportion of mortgage debt, or some unexplained factor. The forty-one percent cap placed on DTI ratios by the FHA<sup>95</sup> may also explain the lack of correlation if DTI variation up to that amount has little impact on a consumer's default probability.

Nevertheless, there is a correlation between debt load and default risk.<sup>96</sup> It is perhaps best dealt with in the manner currently in use by Fannie Mae and Freddie Mac (GSEs) – a cap in the vicinity of forty-five percent.<sup>97</sup> The evidence from FHA loans suggests that such a cap is effective at reducing the risk of default.<sup>98</sup> Confining borrowers to manageable debt burdens with such a cap would all but eliminate any predictive value associated with DTI since a correlation only exists above this cap.<sup>99</sup>

This factor also includes a provision that a lender may consider DTI “or the residual income the consumer will have after paying non-mortgage debt and mortgage-related obligations.”<sup>100</sup> This provision will likely only affect those with very high or very low monthly incomes. For those with high monthly income, a DTI approaching or over the usual threshold may not be a serious constraint as there is still ample income or liquidity remaining for monthly expenditures or unplanned expenses. On the other end of the spectrum, those with very low monthly incomes may require a greater proportion of their income to cover living expenses and emergencies and thus should be more closely scrutinized when seeking a high DTI ratio.

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95. *FHA Requirements: Debt Ratios*, *supra* note 79.

96. *See supra* pp. 301-04.

97. Fannie Mae News Release, *supra* note 78; *Loan Prospector Documentation Matrix*, *supra* note 78.

98. Delgadillo & Gallagher, *supra* note 52, at 219.

99. *Id.* at 219.

100. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 1411(a)(2), § 129C(a)(3), 124 Stat. 1376, 2143 (2010) (to be codified at 15 U.S.C. § 1639c).

C. *Current Income/Current Obligations*

The calculation of DTI includes both income and non-mortgage obligations,<sup>101</sup> thus the requirement that lenders evaluate current income and obligations is superfluous.<sup>102</sup> A study of FHA loans from 1992 and 1994 showed no correlation between individual borrower income and default risk.<sup>103</sup> Some empirical and theoretical evidence supports the contention that if there is any relation between income and default risk, it is either a bimodal or inverse correlation as the costs associated with default are higher in proportion to a lower income borrower's income.<sup>104</sup> Absent use in the DTI ratio, there seems to be little use for income or obligations in calculating ability to repay.<sup>105</sup> Even if substantial evidence of a correlation between income and default risk did exist, Community Reinvestment Act obligations would make these factors difficult or impossible to consider.<sup>106</sup>

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101. See, e.g., FREDDIE MAC, A CLOSER LOOK AT UNDERWRITING BORROWER CAPACITY (2009), available at [http://www.freddiemac.com/singlefamily/uw/docs/A\\_closer\\_look\\_at\\_underwriting\\_borrower\\_capacity\\_837.pdf](http://www.freddiemac.com/singlefamily/uw/docs/A_closer_look_at_underwriting_borrower_capacity_837.pdf).

102. Dodd-Frank Act, sec. 1411(a)(2), § 129C(a)(3) (to be codified at 15 U.S.C. § 1639c).

103. ROBERT F. COTTERMAN, U.S. DEP'T OF HOUS. AND URBAN DEV., NEIGHBORHOOD EFFECTS IN MORTGAGE DEFAULT RISK 28 (2001).

104. Robert Van Order & Peter Zorn, *Income, Location and Default: Some Implications for Community Lending*, 28 REAL EST. ECON. 385, 390 tbl.2, 395-96 (2000) (showing the highest default probability for those borrowers in the highest income range, lower default probabilities for those borrowers in mid-range income brackets, and the default probability for the lowest income borrowers approaching that of the wealthiest borrowers. The article proposes default costs are the reason for the observed distribution.); David Streitfeld, *Biggest Defaulters on Mortgages Are the Rich*, N.Y. TIMES, July 9, 2010, at A1 ("More than one in seven homeowners with loans in excess of a million dollars are seriously delinquent . . . [whereas] [a]bout one in 12 mortgages below the million-dollar mark is delinquent.").

105. See COTTERMAN, *supra* note 103, at 28; Van Order & Zorn, *supra* note 103, at 395; Streitfeld, *supra* note 103 (supporting the proposition that no clear correlation exists between current income and default risk).

106. The Community Reinvestment Act requires that lenders are evaluated by lending patterns with respect to borrower income. If low income was treated as a risk factor, lenders may not be able to make satisfactory ratings under the evaluation system imposed by the Community Reinvestment Act. 12 C.F.R. § 228.22(b)(3)(i) (2010).



*D. Employment/Expected Income*

Presumably, the intent of this provision is to assure that the borrower will be able to continue making loan payments in the foreseeable future. However, beyond ensuring a job is not seasonal or inaccurately portrayed,<sup>107</sup> there seems to be little predictive use for either of these metrics.

Lenders and attorneys have already raised a number of potential questions about how a lender can document that a consumer is “reasonably assured of receiving”<sup>108</sup> a certain level of income.<sup>109</sup> In a poor economic climate, a borrower who works for a company in the midst of rounds of layoffs may not meet the standard.<sup>110</sup> Other issues may lie in proving a borrower is capable of making a balloon payment at the end of a loan period,<sup>111</sup> or documenting expected income that is based largely on discretionary bonuses or commissions.<sup>112</sup>

## V. PROPOSED FACTORS

Given the shortcomings discussed above, Dodd-Frank is essentially only mandating three considerations for lenders: a credit check, an acceptable DTI, and a verification of the borrower’s employment.<sup>113</sup> Given that credit score is the only

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107. See, e.g., Jeff Horwitz & Kate Berry, *A No-Doc Paradox at Center Of Many GSE-Lender Tussles*, AM. BANKER, Aug. 13, 2010, available at 2010 WLNR 16113408 (discussing hourly wage earners applying for mortgages in excess of \$500,000 at the height of the crisis).

108. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 1411(a)(2), § 129C(a)(3), 124 Stat. 1376, 2143 (2010) (to be codified at 15 U.S.C. § 1639c).

109. KRISTIE D. KULLY ET AL., K&L GATES, THE SENATE MOVES TO REFORM MORTGAGE LOAN ORIGINATION AND UNDERWRITING PRACTICES 4 (May 19, 2010), available at <http://www.klgates.com/newsstand/detail.aspx?publication=6428>; JOSEPH BARLOON ET AL., SKADDEN, CONSUMER PROTECTION PROVISIONS IN THE DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT 6 (July 9, 2010), available at [http://www.skadden.com/newsletters/FSR\\_A\\_Consumer\\_Protection\\_Provisions\\_in\\_Dodd-Frank.pdf](http://www.skadden.com/newsletters/FSR_A_Consumer_Protection_Provisions_in_Dodd-Frank.pdf); Stuart Saft, *Viewpoint: Anti-Predator Act? It's More Anti-Lender*, AM. BANKER, Sept. 1, 2010, available at 2010 WLNR 17340241.

110. KULLY ET AL., *supra* note 109, at 4.

111. BARLOON ET AL., *supra* note 109, at 6.

112. Saft, *supra* note 109.

113. See *supra* Part IV.

factor with significant predictive value,<sup>114</sup> prudential underwriting should likely include other considerations. Research and industry practice indicate that loan-to-value ratio (LTV) and the interest rate charged are highly correlated with risk of default and should therefore be considered for inclusion.<sup>115</sup>

#### A. *Loan-to-Value Ratio*

An increase in loan-to-value (LTV) ratio is consistently correlated with an increase in delinquency.<sup>116</sup> However, this does not mean that LTV is necessarily a good predictor of ultimate defaults.<sup>117</sup> A high LTV places a borrower in a position where a small drop in home prices may put the borrower in a negative equity situation; as long as default costs are not prohibitively high, rational borrowers with negative equity should choose to default.<sup>118</sup> Although the GAO study determined that for all categories of subprime loan products moving from the twenty-fifth percentile LTV to seventy-fifth percentile LTV resulted in an increase in the default rate,<sup>119</sup> the strength of this claim is tempered by the fact that the study defined “default” to include loans in ninety-day delinquency.<sup>120</sup>

Two models have been advanced as to how LTV affects default rates.<sup>121</sup> The more basic of the two states that while LTV may be a modest indicator of loan default, current loan-to-value

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114. See *supra* Part IV.A.

115. See, e.g., GAO, *supra* note 25, at 32-33 (finding a correlation between LTV and default risk as well as a correlation between interest rate spread and default risk).

116. Michelle A. Danis & Anthony Pennington-Cross, *The Delinquency of Subprime Mortgages*, 60 J. OF ECON. AND BUS. 67, 71, 77 (2008) (finding a correlation between delinquent loans and high LTVs at origination and citing previous work with similar findings).

117. See *id.* at 77 (finding no connection between a high LTV and default. The authors conclude that a high LTV at origination indicates a propensity to miss payments and enter delinquency without losing the home in default).

118. Demyanyk & Van Hemert, *supra* note 63, at 20.

119. GAO, *supra* note 25, at 32-33 (noting that short-term hybrid ARMs, long-term ARMs, payment-option ARMs, and FRMs showed default rate increases of 4.4, 4.7, 6.3, and 3.7 percentage points).

120. *Id.* at 50.

121. See Chan et al., *supra* note 56, at 17 (noting that default is correlated with current loan to value); Harrison et al., *supra* note 53, at 408 (finding that default rate is dependent on an interaction between LTV and “default cost”).

ratio (CLTV) is a more accurate predictor of loan performance as the loan term progresses.<sup>122</sup> This reduces the effectiveness of LTV at origination as a predictor of default risk, but it may still have some value predicting the success of loans proximate to origination as the GAO study shows.<sup>123</sup> Additionally, if lenders have information or strong beliefs about falling house prices in an area, higher LTVs are riskier due to the fact that it takes less price fluctuation for strategic default to become an economically optimal choice.<sup>124</sup>

A more complex model suggests that the presence of default costs confounds what would otherwise be a clearer correlation between LTV and default risk.<sup>125</sup> The study posits a model where riskier borrowers<sup>126</sup> self-select into lower LTV ratios in the presence of significant default costs and thus raise the default rate of loans originated with low LTVs.<sup>127</sup> Although default costs encompass a variety of actual material and non-material costs, the most readily observable default cost is damage to a borrower's credit score, with those having the most to lose located immediately above the subprime range, from 620-660.<sup>128</sup> The study finds that borrowers in this range do behave as the model predicts with riskier borrowers consistently having lower LTVs than lower risk borrowers.<sup>129</sup>

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122. The study found that the default risk for ARMs with a CLTV over ninety was double that of similar loans with a CLTV under sixty. Similarly, FRMs showed a default risk two and a half times as large for loans with a CLTV over ninety as compared to loans with a CLTV under sixty. Chan et al., *supra* note 56, at 17, 23.

123. GAO, *supra* note 25, at 32-33 (showing a correlation between LTV and default risk for loans within twenty-four months from origination).

124. See Demyanyk & Van Hemert, *supra* note 63, at 20 (explaining that when LTV is sufficiently high, the costs of keeping the mortgage outweigh the costs of default).

125. See Harrison et al., *supra* note 53, at 408.

126. *Id.* at 403 (defining risky borrowers as those with high DTI ratios or the self-employed).

127. *Id.* at 399, 407-08.

128. *Id.* at 402.

129. When default costs are high, self-employed borrowers have LTVs 12.1 percentage points lower than those of borrowers that are not self-employed. Similarly, with high default costs, borrowers with high debt have LTVs 26.4 percentage points lower than those with low debt. Both of these distinctions are erased in low default cost scenarios. *Id.* at 405-6.

If this model remains accurate,<sup>130</sup> a requirement of heightened scrutiny on borrowers immediately above the subprime range may help better assess the risk. In theory, any loan sold to Fannie Mae or Freddie Mac already receives such scrutiny if the borrower's credit score is close to 620,<sup>131</sup> but currently lenders are restricting their purchases of loans with credit scores under 640.<sup>132</sup> However, regardless of the accuracy of this particular model, lenders behave as if increased LTVs are correlated with increased default risks.<sup>133</sup> Given the apparent interpretation of "ability to repay"<sup>134</sup> as something more akin to "likelihood of repaying," LTV is an appropriate metric to include in assessing potential borrowers.

Some groups have raised issues with the use of LTV in connection with qualified mortgage safe harbor requirements.<sup>135</sup> Imposing a LTV requirement would necessitate that borrowers advance a down payment for any home purchase in order to qualify for the safe harbor.<sup>136</sup> Such a down payment requirement would reduce the access of less wealthy, otherwise creditworthy borrowers to mortgage lending.<sup>137</sup> This consideration may be why LTV has been left out of the ability to repay factors.

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130. The loan data used are from loan originations in 1989, 1990, and 1991 and may be less applicable to current market structure. *Id.* at 399.

131. Harrison et al., *supra* note 53, at 402.

132. Jody Shenn & John Gittelsohn, *Home Buying Gets Tougher as Lenders Restrict FHA Loans*, BLOOMBERG (Nov. 17, 2010, 2:41 PM), <http://www.bloomberg.com/news/2010-11-17/home-ownership-gets-harder-for-americans-as-lenders-restrict-fha-mortgages.html> (noting that two large lenders recently raised the minimum credit score for an FHA loan to 640).

133. Demyanyk & Van Hemert, *supra* note 63, at 25.

134. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 1411(a)(2), § 129C(a)(1), 124 Stat. 1376, 2142 (2010) (to be codified at 15 U.S.C. § 1639c).

135. Letter from AFL-CIO et al. to Timothy F. Geithner, Sec'y, Dep't of the Treas., et al. (Jan. 25, 2011), *available at* <http://www.responsiblelending.org/mortgage-lending/policy-legislation/regulators/QRM-Letter-Consumer-Civil-Rights-Labor.pdf> (having also been signed by Americans for Financial Reform, Leadership Conference on Civil Rights, NAACP, National Association of Neighborhoods, National Council of La Raza, National Fair Housing Alliance Union, National People's Action, Service Employees International Union, Center for Responsible Lending, Consumer Action, National Association of Consumer Advocates, and National Consumer Law Center).

136. *Id.*

137. *Id.*

## B. Interest Rate

The loan spread, the difference between a borrower's rate and the best rate offered on the market, may serve as another signal of the probability of default.<sup>138</sup> The GAO Study found that for three categories of subprime loan products moving from the twenty-fifth percentile loan spread to seventy-fifth percentile loan spread resulted in an increase in the default rate for each product.<sup>139</sup> Similarly, a study of FHA loans found that there was a "moderately strong" correlation between default rate and the interest rate of the loan.<sup>140</sup> Two theories emerge to explain the correlation of higher mortgage rates and increased default. Lenders would wholly explain the relationship as an intentional effort to make lending to higher risk borrowers profitable.<sup>141</sup> If this is the case, assessing a borrower's ability to repay a loan by measuring the interest rate would be redundant as the interest rate itself is wholly a measure of risk.<sup>142</sup>

A second theory recognizes the relationship between risk and return, but since increasing the interest rate on a loan increases payment amounts, loans with higher rates are more difficult to pay off.<sup>143</sup> Essentially, in a subprime loan "the seller's attempt to compensate for risk of default increases the very risk at issue."<sup>144</sup> Under this theory, merely having a high mortgage rate is not predictive; the relevant statistic is the mark-up from the prime rate.<sup>145</sup> Two problems then arise in the usefulness of interest rate in predicting default: its limitation to riskier borrowers purchasing subprime products<sup>146</sup> and the fairly strict curtailment of loan spread

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138. GAO, *supra* note 25, at 29; Delgadillo & Gallagher, *supra* note 52, at 214.

139. GAO, *supra* note 25, at 29 (noting that short-term hybrid ARMs, long-term ARMs, & FRMs showed default rate increases of 4.0, 1.8, & 2.6 percentage points).

140. Delgadillo & Gallagher, *supra* note 52, at 214.

141. *See id.* at 219 (discussing higher rates as premiums charged to riskier borrowers).

142. *Id.*

143. *See* L. Randall Wray, *Lessons from the Subprime Meltdown*, 51 CHALLENGE 40, 46 (2008).

144. Eggert, *supra* note 5, at 1272.

145. Wray, *supra* note 143, at 46.

146. Prime loans should experience comparatively little loan spread. *See* Eggert, *supra* note 5, at 1272 (noting that increased interest rates are compensation for the increased risk inherent in subprime loans).

under Dodd-Frank by setting a maximum loan spread for “qualified mortgages” and lower minimum spread that makes a loan a “high cost mortgage.”<sup>147</sup>

## VI. CONCLUSION

The factors a lender must consider in underwriting a home mortgage loan under Dodd-Frank provide limited information on loan performance.<sup>148</sup> Credit scores only provide information on relative risks in a given year, DTI is not predictive when under the FHA and GSE caps, and the remainder of the factors, while important to verify, do not have any predictive utility.<sup>149</sup> A more complete analysis of likelihood of default should include consideration of the LTV and any significant loan spread as both of these factors have been shown to reflect an increased risk of default.<sup>150</sup> Although the Bureau of Consumer Financial Protection has some discretion in issuing regulations to implement the new legislation, the factors listed in section 1411 cannot realistically be construed as including either LTV or interest rate spread.<sup>151</sup> Nevertheless, mandated metrics can only provide a finite amount of assistance in predicting a borrower’s likelihood of meeting mortgage payments, and a return to a mixture of “soft” and “hard” underwriting practices could help account for difficult to quantify variables associated with mortgage lending decisions.<sup>152</sup>

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147. See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 1412, § 129C(b)(2)(C)(ii), 124 Stat. 1376, 2147 (2010) (to be codified at 15 U.S.C. § 1639c) (setting a maximum loan spread for a mortgage to be classified as a “qualified mortgage”); *id.* sec. 1431(a), § 1602(aa)(1)(A)(i)(I) (to be codified at 15 U.S.C. § 1602(aa)) (setting the threshold for qualifying a mortgage as a “high cost mortgage”).

148. See *supra* Part IV.

149. See *supra* Part IV.

150. See *supra* Part V.

151. See Dodd-Frank Act, sec. 1411(a)(2), § 129C(a)(3) (to be codified at 15 U.S.C. § 1639c).

152. Eggert, *supra* note 5, at 1272-73.

