

Testimony of
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on
EMERGING THREATS TO STABILITY: CONSIDERING THE SYSTEMATIC RISK OF
LEVERAGED LENDING

Before the
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCIAL INSTITUTIONS
COMMITTEE ON FINANCIAL SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES

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Room 2128, Rayburn House Office Building

Good afternoon, Chairwoman Waters, Ranking Member McHenry, and Members of the Subcommittee. Thank you for inviting me to speak today. I am Victoria Ivashina, Professor of Finance at Harvard Business School, Research Associate of the National Bureau of Economic Research and Research Fellow at the Center for Financial Economic Policy Research. I speak only for myself today.

To understand if the leveraged loan market could be a source of systemic risk, we have to ask whether there are credible signs of accumulation of hidden risk in this segment, whether that risk could be amplified through the entities investing in this market, and how quickly it could be propagated to a broader economy. These are the points that I would like to discuss today.

To preview my conclusions, there are signs of continuous buildup of risk through erosion of creditors' rights and elevated levels of leverage. The strong amplifying forces that brought down the financial system in 2008 are not present today; as such, the risk to financial stability is not severe. However, other important mechanisms that could impact economic stability at longer horizons could be at work.

I. Is there risk in the leveraged segment that is not currently recognized by investors?

There are several indicators that this is the case.

First, there is an important parallel to a key weakness that characterized the mortgage boom that led to the Global Financial crisis: that is lack of visibility into the quality of collateral backing of securitized products, which was at the heart of the loss of market confidence and the 2007 shut down of securitization across all asset classes – not just mortgages.¹ The opacity surrounding the value of mortgages was driven by lack of public information, the highly illiquid nature of mortgages, and corrupted origination standards. These factors are less relevant in the market for corporate loans. Many issuers of leveraged loans are public firms with regularly disclosed financing statements. There is a reasonably vibrant secondary market for loans. Plus, these are transactions among sophisticated investors and professional management. However, it is key to understand that the quality of the loans in CLO portfolios is dictated not solely by the firms'

¹See Efraim Benmelech, Jennifer Dlugosz, and Victoria Ivashina, 2012, "Securitization without Adverse Selection: The Case of CLOs," *Journal of Financial Economics* 106: 91–113.

fundamentals, but also by the credit agreements that define the terms of the loans. These agreements are long, complex, and display substantial variation in contracting terms.

Together with my colleague Boris Vallée we examine over a thousand leveraged loan contracts signed between 2011 and 2016.² We show that inclusion of restrictions covenants on six sets of borrower actions is the norm, including (i) restrictions on liens (or restrictions on the use of collateral), (ii) restrictions on indebtedness, (iii) restrictions on payments to investors, (iv) restrictions on asset sales, (v) restrictions on affiliate transaction, and (vi) restrictions on capital expenditure. We find, however, that the use of “fine print” types of clauses known in the industry as “baskets” and “carve-outs” is equally prevalent. As an illustration, Figures 1.a through 1.c, reproduced from our work, show that 92% of loans have a restriction on further indebtedness of the borrower; however, 86% of these contracts with seemingly strong restrictions on further indebtedness have “baskets” (i.e., deductibles) that loosen the negative covenants. The economic magnitudes are large, averaging more than a 2.3x EBITDA multiple, nearly half of the 5x EBITDA debt level, which is common for leveraged loans. On average, half of the six core negative covenants have deductibles, with only 10% of the credit agreements examined not having any deductible. This illustration does not even account for carve-outs, of which an average contract has 72. Moreover, higher contractual loosening appears in cases where leverage is highest, and when a loan backs a leveraged buyout.

It is important to highlight that erosion of creditors’ rights through contractual complexity has little to do with financial covenants, or whether the financial covenants are enforced only on the incurrence basis (the so-called “cov-lite” loans).³ Identifying cov-lite loans is largely objective and easy – it is likely that this is precisely why this is not the right proxy for contractual weakness. In fact, I see pervasive use of “cov-lite” as a comprehensive metric of contractual weakness as a sign of concern; to me, this practice reflects misunderstanding of contractual design and scope for erosion of lending standards.⁴

² See Victoria Ivashina and Boris Vallée, 2019, “Weak Covenants,” Working Paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3218631.

³ Not by definition, but in the data.

⁴ More details on this point can be found in Becker and Ivashina (2016), “Covenant-Light Contracts and Creditor Coordination,” Working Paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2871887.

With this in mind, the question becomes whether institutional investors – and CLO managers in particular – have the resources and the right incentives to do proper due diligence and monitor different loans in their portfolios. Tensions surrounding recent debt restructurings of some companies indicate that at least some of these terms are misunderstood by creditors. Notably, in 2017, J.Crew Group, which was battling several years of declining operating income, was able to issue new senior debt using a sizable fraction of its pledged collateral by using a deductible on liens.⁵ This was unprecedented, yet similar transactions by other companies followed. In our study we show that, consistent with the presence of mispriced credit risk, there was a general market reaction for contracts characterized by weak contractual provisions.

Beyond increasing contractual complexity, we see other elements that would be consistent with increase in risk that is potentially misunderstood. Figure 2 shows that average indebtedness for borrowers that issue leveraged loans was 5.2x EBITDA at the end of 2018 (5.4x EBITDA in 2019:Q1), as compared to 4.9x in 2007, its previous peak, and substantially higher than its historic average. The lower panel of Figure 2 shows that the rise was driven by increase in the first lien senior secure debt, i.e., increase in the most senior claim on the firm or “loans” (leveraged loans, in this case). In 2007, indebtedness through loans was 3.7x EBITDA, in the last quarter it was 4.5x. Of course, the recovery rate on a loan that cuts at 4.5x EBITDA is much lower than the recovery rate on the claim that cuts at 3.7x EBITDA,⁶ yet both “enjoy the senior-most claim on all the related company’s assets in the event of a bankruptcy and represent the least risky investment in these companies.”⁷ Put simply, use of historical recovery rates for loans to price risk would be

⁵ J.Crew was followed by a lawsuit, and several of the documents filed by the creditors in this case indicate that they were caught by surprise. For example, the first point in the preliminary statement the lawsuit filed by a group of creditors on September 7, 2017 in State of New York reads: “Defendants in this case supposedly found a secret “trapdoor” in their senior secured debt facility. Assisted by teams of lawyers and consultants, Defendants claim to have opened this trapdoor and dropped out substantially all of the value of J. Crew Group, Inc., the parent company of the well-known apparel retailer (the “Company”). This value was then pledged to other creditors in exchange for financial accommodations. As a result, the Company’s senior secured creditors, whose loans were meticulously secured by liens on a comprehensive collateral package, are now left holding what looks like an empty sack.”

⁶ That is assuming that the liquidation value stays more or less constant.

⁷ This language is representative of a typical way this market segment is described in the industry. This particular quote is taken from Guggenheim Investments, “Understanding Collateralized Loan Obligations,” May 2019

(<https://www.guggenheiminvestments.com/cmspages/getfile.aspx?guid=4510f36e-7ed3-4af3->

misleading. Again, understanding the expected recovery rates becomes not impossible, but difficult and nuanced. And again, the question is whether creditors that dominate this market are properly measuring the risk.

II. What do we know about who holds the risk?

The second parallel to the subprime mortgage crisis is the central role of securitization. As mentioned earlier, securitization is paramount to the existence of the leveraged loan market, with roughly half of the outstanding leveraged loans held by CLOs. To be clear, securitization, broadly speaking, is an important financial structure that brings together different pools of capital and ultimately helps to lower the cost of borrowing. It is also the case that the fundamentals of a corporate loan securitization are different than securitization of mortgages. However, as any securitized structure, creditors holding investment grade tranches—about 88% of the CLO capital—do not conduct, and are not expected to conduct thorough due diligence and monitoring of the pool of underlying collateral. Instead, these investors rely on accuracy of credit ratings, structural alignment of incentives between junior and senior tranches of the securitized structure, and other market disciplining mechanisms. Unfortunately, we have seen these mechanisms fail in the past.

One mitigating element to note about the leveraged loan market is that, unlike securitization of other assets, securitization of corporate loans is only partial. Due to its size, at origination, a large leveraged loan has a group of about 65 lenders, on average. This includes banks (about 14 on average), CLOs, mutual funds, insurance companies, and hedge funds. Overall, only about half of any given loan is held by CLOs. So, it takes many players of different sophistication and with different economic incentives to make the same mistake for things to go wrong at the loan inception.⁸

Yet, we should not overlook the erosion in incentives of pursuing careful risk assessment given the pressure from CLOs and mutual funds. Especially because for the same loan, the part of the

98c5-6b667d7464e9). The same primer emphasized historical recovery rates (p.2): “As you can see in the charts below, leveraged loans’ senior secured status has consistently led to lower default rates and higher recoveries compared to unsecured high-yield bonds.”

⁸ In Benmelech, Ivashina and Dlugosz (2012, *Id.*) we argue loan syndication before securitization reduces the potential for adverse selection in the CLO collateral.

loan that is retained by banks—arguably, the agents with the best grasp of fundamentals, contracting terms, and the general economic environment— and the part that is acquired by CLOs is regularly priced differently,⁹ and it is increasingly contracted differently.¹⁰ In addition, in the current context, banks’ holding of leveraged loans are substantially lower than they had been historically. In 2007, banks’ share represented 15%, and 25% just two years earlier. Today, this number is about 8%.

So, in the current environment, CLOs should not count on the scrutiny of the primary loan origination to protect their interest. Overall, to have confidence in this market, we need to understand who is holding equity in CLO structures, and whether these agents are incentivized to screen and monitor the underlying risk (on which the rest of the CLO structure heavily depends). Specifically, how big is the share of business development companies (BDCs)?¹¹ How big is the role of hedge funds? And, relatedly, who is providing their leverage?

So far, I have been focusing on elements that could help us avoid an accumulation of neglected risk among creditors in the leveraged loan market. But another point that is relevant for systemic risk is: who are the investment grade investors in CLOs? Do they have stable funding? How levered are they?

We are not completely in the dark on these questions. We know that U.S. banks do not have major direct exposure to CLOs.¹² Other large institutions that typically invest in investment grade fixed income and might be acquiring CLO tranches are foreign banks, and pensions and life insurers (domestic or foreign). All of these institutions had been known to “reach-for-yield.” An educated guess, therefore, is that these are the institutions behind the CLO boom. We also know that

⁹ See Victoria Ivashina and Zheng Sun, 2011, “Institutional Demand Pressure and the Cost of Corporate Loans,” *Journal of Financial Economics*, 99: 500–522.

¹⁰ See Mitchell Berlin, Greg Nini, and Edison Yu, 2017, “Concentration of Control Rights in Leveraged Loan Syndicates,” Working Paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2960757. Banks’ exposure through the revolving part of the loan. Contracts that restrict covenant structure to revolving lines (“quasi cov-lite” loans) effectively allow for different contracting terms between revolving line component and the term loan tranches.

¹¹ BDCs bring yet another layer of pooled capital which further diffuse incentives to scrutinize the underlying loans.

¹² See “Business Debt and Our Dynamic Financial System,” remarks by Jerome H. Powell at “Mapping the Financial Frontier: What Does the Next Decade Hold?” 24th Annual Financial Markets Conference, sponsored by the Federal Reserve Bank of Atlanta, May 20, 2019.

pensions and life insurers are not levered, have stable funding, and are generally able to withstand temporary market fluctuations.¹³ And at least pension funds had not been shown to contribute to the systemic risk of the financial system. It is these elements that lead market observers and myself to conclude that, currently, leveraged loans do not present elevated risk to the stability of the financial system.

This is not to say that the prospect that U.S. pensions and/or insurers are holding over \$500 billion of CLO tranches is not something that merits attention on its own.¹⁴ Pension funds and insurance companies host savings and form a safety net of a broad segment of the population, and, therefore, the soundness of their investment is relevant to understand economic stability. This is especially so given that the U.S. state retirement system has been known to be in a vulnerable funding position.¹⁵

An alternative scenario where \$500 billion of CLO tranches instead sits on the balance sheet of foreign banks should not be easily dismissed either. Foreign banks have a significant presence in the U.S. large corporate loans market. European banks originate about 25%, and Japanese banks originate about 5% of syndicated loans in the U.S.. This means that there is potential for some direct spillovers to U.S. firms. Naturally, there are other, indirect effects that the U.S. would experience if the financial system of another major economy is destabilized.

In sum, it is important and reassuring to know that the U.S. banking system is not directly exposed to potential risk in the leverage loan segment, that it is carefully watched, and that it is sufficiently capitalized to withstand negative shocks. This guarantees that if leveraged loan market experiences a negative adjustment, this shock will not be amplified and quickly propagated through the U.S. economy, as it happened in 2007 and 2008. But we can do even better than avoiding the worst case scenario. To do so it is important to move beyond educated guesses,

¹³ For example, see Gabriel Chodorow-Reich, Andra C. Ghent, and Valentin Haddad, 2016, "Asset Insulators," Working Paper, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2810553.

¹⁴ According to Guggenheim Investments, currently, the CLO market is about \$590 billion, and investment grade tranches represent about 88% of the capital.

¹⁵ For example see Robert Novy-Marx and Joshua D. Rauh, 2011, "Public Pension Promises: How Big Are They and What Are They Worth?" *Journal of Finance* 66: 1207-1245.

and clearly understand what the significance of other key financial institutions in the CLO market is.

III. What happens if the leveraged market freezes?

As mentioned earlier, through securitization, the leveraged loan market is fueled by capital that is searching for yield and is relying on third parties to accurately assess the complex and evolving risks of the underlying loans. These are the ingredients for a market freeze, which is what likely would happen if the market undergoes a correction. So, it is worth reflecting on what kind of pressures would play out in such scenarios. There are two things to consider that are relevant for general economic stability.

First, borrowers gain from mispriced weak contracting terms: a weak credit agreement depletes lenders of governance rights and gives the borrower restructuring flexibility (at the expense of the lenders).¹⁶ In other words, it is much harder to trigger a borrower's default.¹⁷ As a result, we will not see a wave of defaults, should the leverage market contract or the economy enter into a recession. This is also what would likely happen if leverage does not freeze, but the U.S. economy enters a recession. And we saw something similar play out during the Great Recession. However, this is not to say that high leverage would not put pressure on the corporate sector. And this is a good point to be clear about what "cov-lite" actually means.

Most of the contracts still have financial covenants. According to the S&P Global Market Intelligence Quarterly Leveraged Lending Review, incidence of total indebtedness restrictions is roughly at the same level that it was in 2006 and 2007. However, enforcement of financial covenants for about 70% of outstanding leveraged loans is no longer done continuously, but instead is conditional on the borrower's incurrence of a set of actions. This includes acquisition and raising of additional financing. (This is what cov-lite means.) So, in an economic downturn, a company with a cov-lite loan is in a better position to avoid a default, but not to do much more than that, as most of the pro-active moves by the company (other than cutting costs) would make the financial covenants binding.

¹⁶ Whether the borrowers should be taking on high levels of leverage is a separate question, but conditional on this decision, borrowers gain from weak contractual features.

¹⁷ The risk for creditors is higher because the losses in default would be deeper, but the defaults would be relatively rare.

Second, if the leveraged loan market shuts down, there is a danger of refinancing risk. We saw something similar during the last financial crisis with multiple market observers including the Loan Syndications and Trading Association (LSTA) sounding alarms on “refinancing cliff” – large corporate maturity concentration in three to five years out – in the leveraged loan market.¹⁸ Refinancing pressures are not imminent: Figure 3 shows that, in 2007, no more than 15% of loans were due by the end of 2009. However, in 2008, the shut down in CLO issuance was largely a result of market dislocation and the capital aggressively returned to the leveraged loans starting in 2010. This helped avoid the “refinancing cliff” turning into a systemic risk. If instead the leveraged loan market shuts down because of lack of confidence triggered by deterioration of lending standards, the solution for the new refinancing cliff might not arrive in a timely manner. As Figure 3 illustrates, the pressure in the short term also appears to be higher than what we observed during the Financial Crisis, with about a quarter of loans due within two years and 40% of loans due within three years as of 2019:Q1.

IV. Final remarks

What can we do today to avoid a build-up of risk in the leveraged segment becoming a systemic problem? A thorough public discussion like the one we are having today is certainly helpful, but there is only so much we can do without knowing the data. And, unfortunately, most of the financial entities driving the leveraged loan market fall within so-called “shadow banking.” Data collected through the Shared National Creditor Program provides insight into creditors investing in the primary market; however, it does not have the ability to gather information on holdings of CLO tranches. Investors in CLOs are not required to disclose their holdings, and to the best of my knowledge, to date, there is no private data provider that holds information that would even partially help us gain insight into holdings of CLO tranches. Together with two of my colleagues, we have been searching for any comprehensive data about participants in the CLO market for several months now, but so far without much progress.

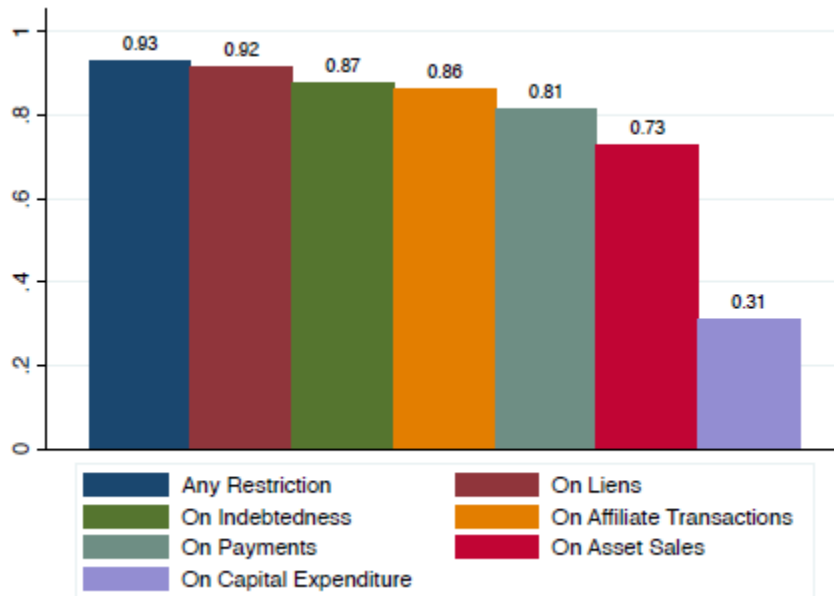
¹⁸ For example, see presentation by Meredith Coffey, LSTA’s EVP, “Breaking Down the Wall of Debt: The Leveraged Loan Market,” July 14, 2010 available at [https://www.chicagofed.org/~media/others/events/2010/private-equity-conference/07-21-coffey-presentation-pdf.pdf](https://www.chicagofed.org/~/media/others/events/2010/private-equity-conference/07-21-coffey-presentation-pdf.pdf).

The proposed “Leveraged Lending Data and Analysis Act” fills this important data gap, and for reasons discussed in my statement, the semi-annual report to the Financial Stability and Oversight Council should give a unique insight into the developments in this market. Similarly, the proposed “Leveraged Lending Examination Enhancement Act” should facilitate integration and comparison of information on the leveraged loan market collected through different federal financial institutions’ regulatory agencies.

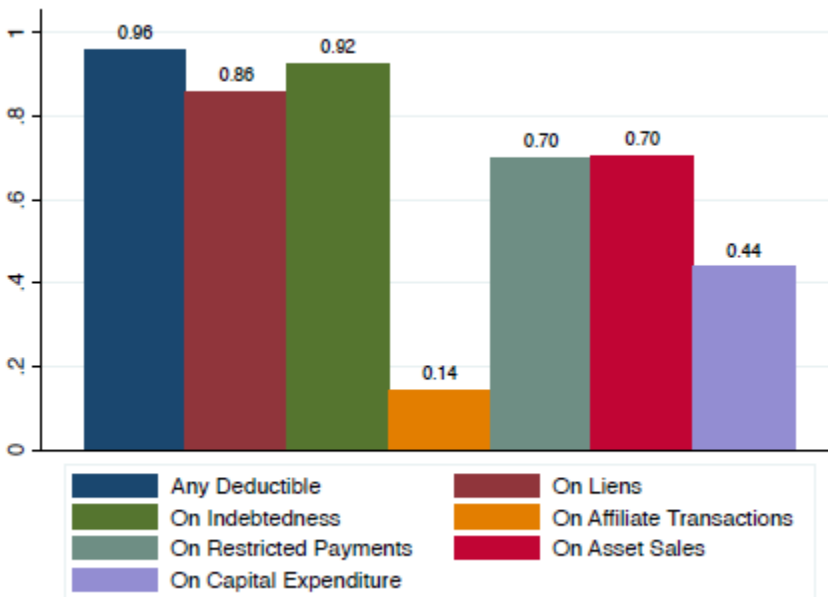
I appreciate your timely efforts in this important area, and I am delighted to answer any questions.

Figure 1: Negative Covenants and Use of Deductibles (“Baskets”)

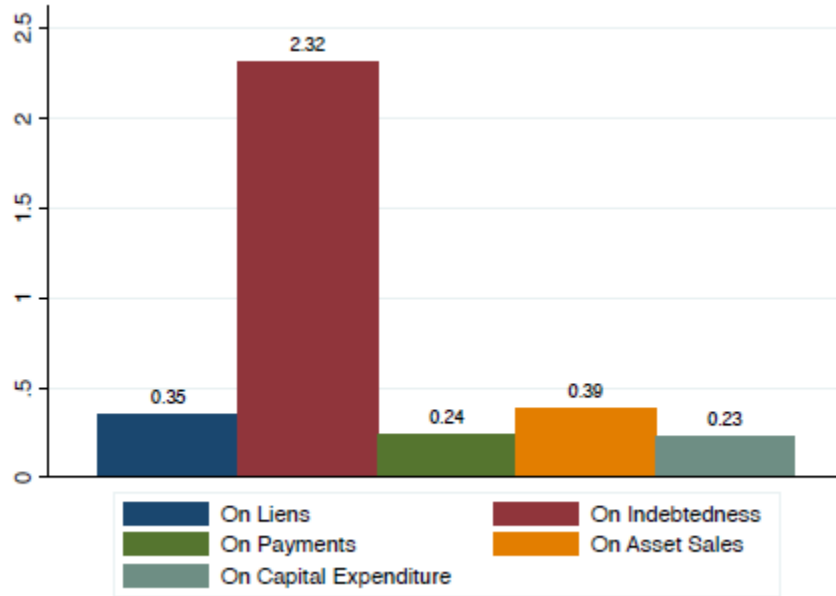
1.a) Incidence of Negative Covenants



1.b) Incidence of Deductibles

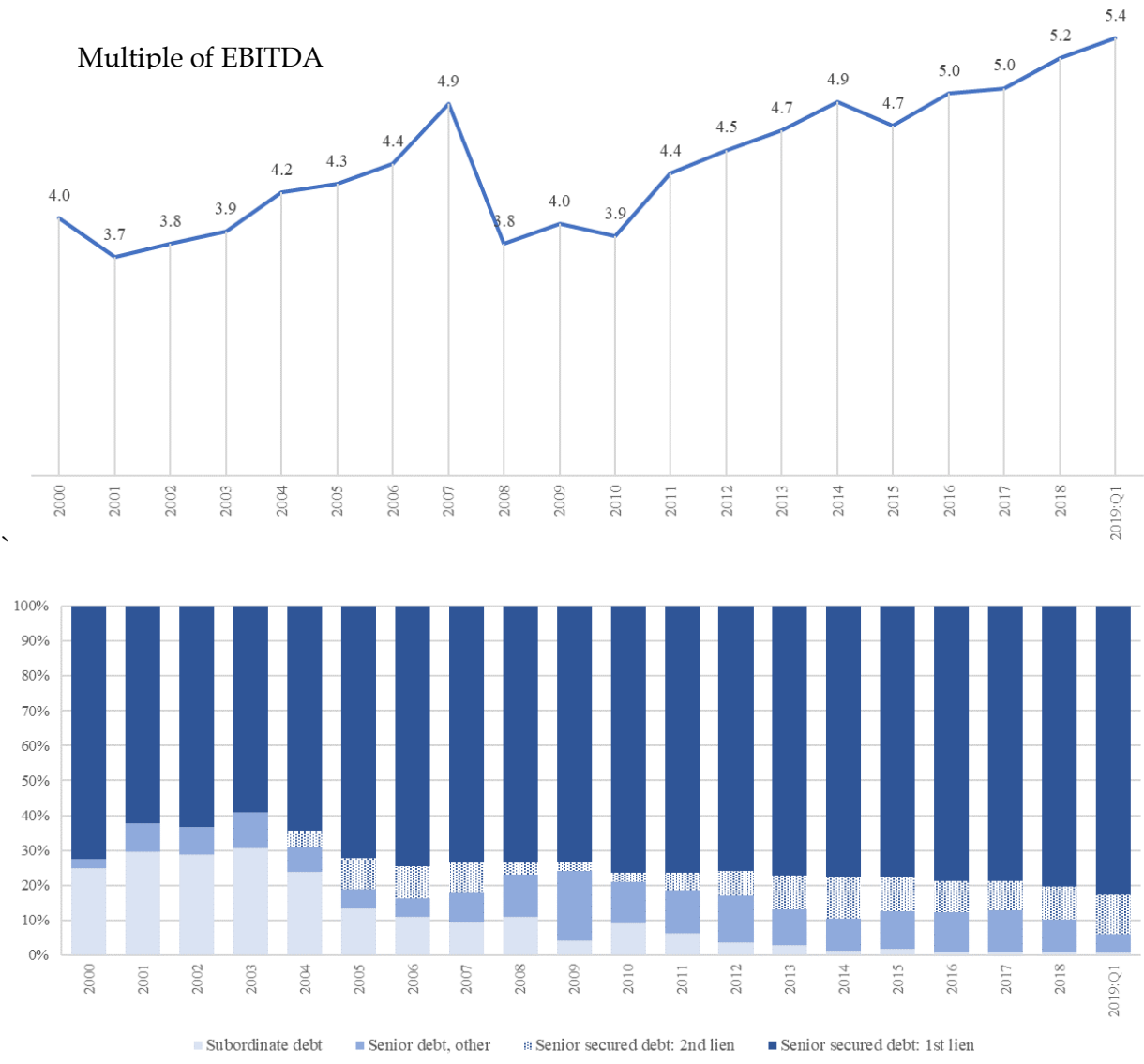


1.c) Aggregate Size of Deductibles



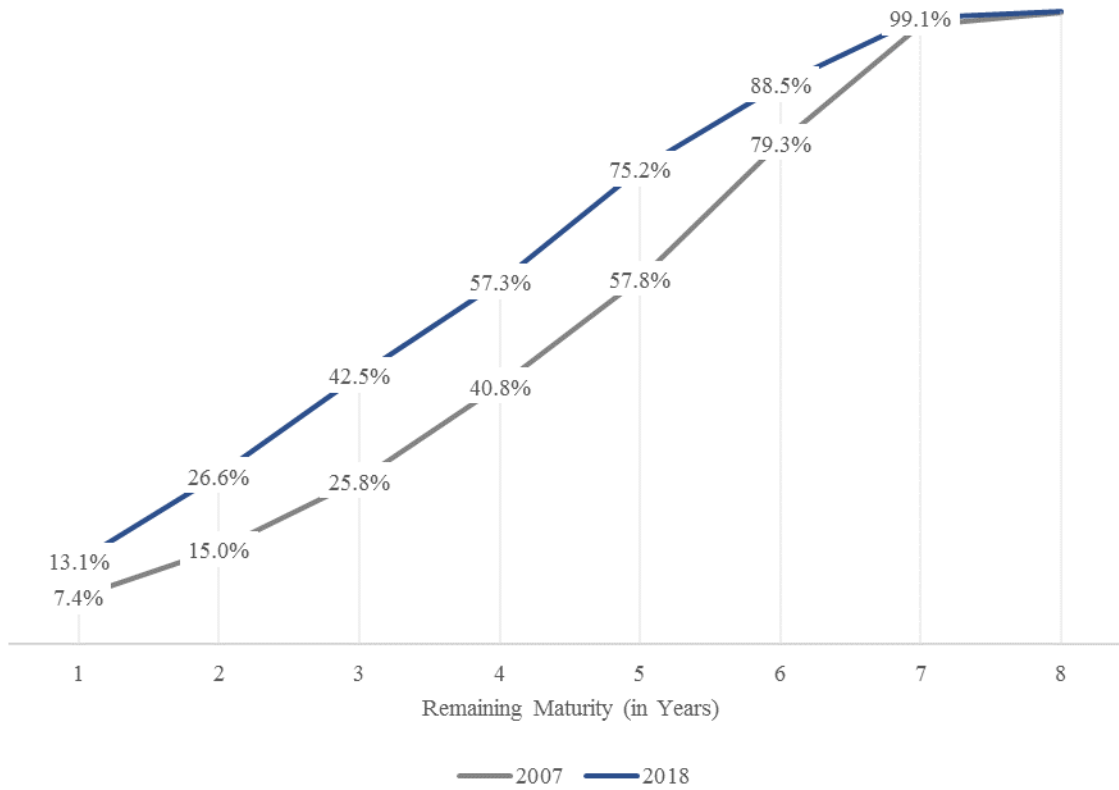
Source: Victoria Ivashina and Boris Valleé (2019), "Weak Covenants," Working paper.

Figure 2: Evolution of Overall Leverage in the U.S. “Leveraged” Segments and Its Composition



Compiled from S&P Global Market Intelligence.

Figure 3: Distribution of Leveraged Loan Maturities as of 2007 and 2018



Compiled using DealScan data. The figure plots cumulative distribution of remaining maturities for loans outstanding as of 2007 and loans outstanding as of 2018. This figure does not adjust for re-financings of loans issued before 2007, doing so would further amplify the difference between maturity distribution for 2007 and 2018 in the initial years.