Private Equity and the Leverage Myth

Why a levered firm or asset class is not necessarily riskier

Anyone who got a passing grade in Corporate Finance 101 knows that the volatility of a firm’s equity is positively related to its leverage. Following this logic, investors commonly estimate the volatility of highly levered private equity investments by applying a leverage multiple to the volatility of a comparable public equity index. This approach is intuitive, straightforward, and grounded in theory. But it has one important drawback: It is completely wrong.

We put the relationship between leverage and volatility under the microscope. Not just in private markets, but in public markets as well. The results were shocking. To put it bluntly, the relationship is “robustly insignificant” — in other words, there is no relationship. We found no evidence that increasing a firm’s leverage increases its subsequent share price volatility. And we found no evidence that highly levered firms are more volatile than their less-levered counterparts. As a case in point, consider Clorox Co. (NYSE: CLX). The company nearly tripped its leverage during the mid 2000s and subsequently enjoyed lower and more stable volatility than the prior decade when its leverage was lower. Other examples are plentiful. How can this be?

The inherent risks associated with a company’s business, independent of its capital structure, can vary widely from one firm to the next. Think about pension obligations or insurance liabilities, for example. The effect of leverage on volatility is hopelessly obscured by factors like these. But there is still a way forward. The correct way to estimate private equity volatility is to look at longer-interval returns (to offset the effect of valuation smoothing). This approach captures the actual distribution of outcomes realized by private equity investors. And it yields the stubborn conclusion that private equity volatility is similar to public equity volatility despite its higher leverage. This could be because buyout fund managers prefer to invest in companies whose underlying business activities are less risky and can therefore bear higher leverage, increasing their profits. Whatever the reason, the facts are the facts. Private equity is less risky than its leverage alone would imply.

For more on this topic, see our 2020 working paper on SSRN:
“Private Equity and the Leverage Myth” by Megan Czasonis, Will Kinlaw, Mark Kritzman, and David Turkington.
State Street Associates

Our goal is to bridge the worlds of financial theory and practice with innovative investment research for asset managers and owners. We focus on two fundamental drivers of performance to help State Street’s clients exceed their performance goals and manage risk:

**INFORMATION ADVANTAGE**: Our extensive indicator suites provide investors with powerful and practical market intelligence.

**RESEARCH ADVANTAGE**: We partner with renowned academics to develop impactful new ideas for portfolio construction, risk management, and investment strategies.

Learn more about our thought leadership, publications, interactive tools and indicators at [ir3.statesstreet.com](http://ir3.statesstreet.com).

Disclaimers and Important Risk Information

The information provided herein is not intended to suggest or recommend any investment or investment strategy, does not constitute investment advice, does not constitute securities, futures, or swap research, is not market commentary, and is not a solicitation to buy or sell securities, derivatives, foreign exchange or any financial product. It does not take into account any investor's particular investment objectives, strategies or tax status. Clients should be aware of the risks trading foreign exchange, equities, fixed income or derivative instruments or in investments in non-liquid or emerging markets. Derivatives generally involve leverage and are therefore more volatile than their underlying cash investments. Past performance is no guarantee of future results. This communication is not intended for and must not be provided to retail investors. The products and services described in this communication may not be available in all jurisdictions and this communication is not intended for distribution in any jurisdiction where such distribution would be prohibited. The products and services outlined herein are only offered to professional clients or eligible counterparties through State Street Bank and Trust Company, authorized and regulated by the Federal Reserve Board. State Street Bank and Trust Company is registered with the Commodity Futures Trading Commission as a Swap Dealer and is a member of the National Futures Association. Please note that certain foreign exchange business (spot and certain forward transactions) are not regulated. This document is a marketing communication, and the information contained herein has not been prepared in accordance with legal requirements designed to promote the independence of investment research. It is for clients to determine whether they are permitted to receive research of any nature.

The products and services outlined in this document are generally offered in the United States and Latin America by State Street Bank and Trust Company. This communication is made available in Japan by State Street Bank and Trust Company, Tokyo Branch, which is regulated by the Financial Services Agency of Japan and is licensed under Article 47 of the Banking Act. EMEA: (i) State Street Bank and Trust Company, London Branch, authorised and regulated by Federal Reserve Board, authorised by the Prudential Regulation Authority, subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of regulation by the Prudential Regulation Authority are available upon request; and/or (ii) State Street Bank International Gmbh, authorised by Deutsche Bundesbank and the German Federal Financial Supervisory Authority and, in respect of State Street Bank International Gmbh, London Branch, subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority. Details about the extent of regulation by the Financial Conduct Authority and Prudential Regulation Authority are available upon request. Brazil: The products in this marketing material have not been and will not be registered with the Comissão de Valores Mobiliários - the Brazilian Securities and Exchange Commission ("CVM"), and any offer of such products is not directed to the general public within the Federative Republic of Brazil ("Brazil"). The information contained in this marketing material is not provided for the purpose of soliciting investments from investors residing in Brazil and no information in this marketing material should be construed as a public offering or unauthorized distribution of the products within Brazil, pursuant to applicable Brazilian law and regulations. The products and services outlined in this document are generally offered in Canada by State Street Bank and Trust Company. This communication is made available in Hong Kong by State Street Bank and Trust Company which accepts responsibility for its contents, and is intended for distribution to professional investors only (as defined in the Securities and Futures Ordinance). This communication is made available in Australia by State Street Bank and Trust Company ABN 70 062 819 630, AFSL 239679 and is intended only for wholesale clients, as defined in the Corporations Act 2001. This communication is made available in Singapore by State Street Bank and Trust Company, Singapore Branch (“SSBTS”), which holds a wholesale bank license by the Monetary Authority of Singapore. In Singapore, this communication is only distributed to accredited, institutional investors as defined in the Singapore Financial
PRIVATE EQUITY AND THE LEVERAGE MYTH

Advisers Act ("FAA"). Note that SSBTS is exempt from Sections 27 and 36 of the FAA. When this communication is distributed to overseas investors as defined in the FAA, note that SSBTS is exempt from Sections 26, 27, 29 and 36 of the FAA. The products and services outlined in this document are made available in South Africa through State Street Bank and Trust Company, which is authorized in South Africa under the Financial Advisory and Intermediary Services Act, 2002 as a Category I Financial Services Provider; FSP No. 42671. This communication is made available in Israel by State Street Bank and Trust Company, which is not licensed under Israel’s Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995. This communication may only be distributed to or used by investors in Israel which are “eligible clients” as listed in the First Schedule to Israel’s Regulation of Investment Advice, Investment Marketing and Portfolio Management Law 1995. This communication is made available in Qatar by State Street Bank and Trust Company and its affiliates. The information in this communication has not been reviewed or approved by the Qatar Central Bank, the Qatar Financial Markets Authority or the Qatar Financial Centre Regulatory Authority, or any other relevant Qatari regulatory body. This communication is made available in Malaysia by State Street Bank and Trust Company, which is authorized and regulated by the Federal Reserve Board. State Street Bank and Trust Company is not licensed within or doing business within Malaysia and the activities that are being discussed are carried out off-shore. The written materials do not constitute, and should not be construed as constituting: 1) an offer or invitation to subscribe for or purchase securities or futures in Malaysia or the making available of securities or futures for purchase or subscription in Malaysia; 2) the provision of investment advice concerning securities or futures; or 3) an undertaking by State Street Bank and Trust Company to manage the portfolio of securities or futures contracts on behalf of other persons. This communication is made available in Turkey by State Street Bank and Trust Company and its affiliates. The information included herein is not investment advice. Investment advisory services are provided by portfolio management companies, brokers and banks without deposit collection licenses within the scope of the investment advisory agreements to be executed with clients. Any opinions and statements included herein are based on the personal opinions of the commentators and authors. These opinions may not be suitable to your financial status and your risk and return preferences. Therefore, an investment decision based solely on the information herein may not be appropriate to your expectations. This communication is made available in the United Arab Emirates by State Street Bank and Trust Company and its affiliates. This communication does not, and is not intended to, constitute an offer of securities anywhere in the United Arab Emirates and accordingly should not be construed as such. Nor does the addressing of this communication to you constitute, or is intended to constitute, the carrying on or engagement in banking, financial and/or investment consultation business in the United Arab Emirates under the rules and regulations made by the Central Bank of the United Arab Emirates, the Emirates Securities and Commodities Authority or the United Arab Emirates Ministry of Economy. Any public offer of securities in the United Arab Emirates, if made, will be made pursuant to one or more separate documents and only in accordance with the applicable laws and regulations. Nothing contained in this communication is intended to endorse or recommend a particular course of action or to constitute investment, legal, tax, accounting or other professional advice. Prospective investors should consult with an appropriate professional for specific advice rendered on the basis of their situation. Further, the information contained within this communication is not intended to lead to the conclusion of any contract of whatsoever nature within the territory of the United Arab Emirates. This communication has been forwarded to you solely for your information, and may not be reproduced or passed on, directly or indirectly, to any other person or published, in whole or in part, for any purpose. This communication is addressed only to persons who are professional, institutional or otherwise sophisticated investors. This communication is made available in South Korea by State Street Bank and Trust Company and its affiliates, which accept responsibility for its contents, and is intended for distribution to professional investors only. State Street Bank and Trust Company is not licensed to undertake securities business within South Korea, and any activities related to the content herof will be carried out off-shore and only in relation to off-shore non-South Korea securities. This communication is made available in Indonesia by State Street Bank and Trust Company and its affiliates. Neither this communication nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations. This communication is not an offer of securities in Indonesia. Any securities referred to in this communication have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations. This communication is made available in Oman by State Street Bank and Trust Company and its affiliates. The information contained in this communication is for information purposes and does not constitute an offer for the sale of foreign securities in Oman or an invitation to an offer for the sale of foreign securities. State Street Bank and Trust Company is neither a bank nor financial services provider registered to undertake business in Oman and is neither regulated by the Central Bank of Oman nor the Capital Market Authority. Nothing contained in this communication report is intended to constitute Omani investment, legal, tax, accounting, investment or other professional advice. This communication is made available in Taiwan by State Street Bank and Trust Company and its affiliates, which accept responsibility for its contents, and is intended for distribution to professional investors only. State Street Bank and Trust Company is not licensed to undertake securities business within Taiwan, and any activities related to the content herof will be carried out off-shore and only in relation to off-shore non-Taiwan securities. Peoples Republic of China (“PRC”). This communication is being distributed by State Street Bank and Trust Company. State Street Bank and Trust Company is not licensed or carrying on business in the PRC in respect of any activities described herein and any such activities it does carry out are conducted outside of the PRC. These written materials do not constitute, and should not be construed as constituting: 1) an offer or invitation to subscribe for or purchase securities or futures in PRC or the making available of securities or futures for purchase or subscription in PRC; 2) the provision of investment advice concerning securities or futures; or 3) an undertaking by State Street Bank and Trust Company to manage the portfolio of securities or futures contracts on behalf of other persons.

State Street Global Markets® is the business name and a registered trademark of State Street Corporation®, and is used for its financial markets business and that of its affiliates. State Street Associates® is a registered trademark of State Street Corporation, and the analytics and research arm of State Street Global Markets. Please contact your State Street representative for further information.

SSA MMD 2020-01.

© 2020 State Street Corporation – All Rights Reserved