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PRESENTATION SUMMARIES BY WILLIAM GORNALL**



*Steve Kaplan, University of Chicago
Private Equity Performance: What Do We Know?*

Private equity firms appear to improve performance at the portfolio company level; however, studies have shown mixed results on net of fees returns. In this presentation, Professor Kaplan presented aggregate private equity fund returns calculated using four different datasets: Venture Economics, Burgiss, Preqin and Cambridge Associates. Kaplan argues that returns are mis-coded in Venture Economics. After excluding this dataset, the returns presented in the other three datasets are consistent with each other and consistently higher than public equity returns. From Burgiss, the overall outperformance is on the order of 20% over a fund's lifetime using Kaplan and Schoar's Public Market Equivalent (PME) performance measure. This corresponds to a 3–4% annual excess return and these results are robust to assuming higher betas for private equity investments. The PME's implied by the other databases show similar performance patterns. The

authors find that fund returns are not particularly persistent in the post-2000 period, with most of that persistence coming from a bottom quartile that consistently underperforms. Kaplan also discussed venture capital returns. These results were less strong: returns were high in the 90s but have not exceeded the public equity markets in recent years.

Panel Discussion

Panel discussion moderated by Real Desrochers, Head of Private Equity for California Public Employees' Retirement System (CalPERS). Panelists included Michael Michelson, Co-Head of North America Private Equity, Kohlberg Kravis Roberts & Co. L.P. (KKR), Weijian Shan, CEO, PAG and Margot Wirth, Director of Private Equity for California State Teachers Retirement System (CalSTRS).

The panel discussion touched on a variety of issues. Topics discussed included the issue of

permanent capital and public private equity firms, the special features of the Asian market, the tax treatment of carried interest, and liquidity management.

*John Powers, Stanford Management Co.
Capital Allocation in the University
Endowment Context*

The Stanford Management Company manages an endowment of over \$20 billion invested in a range of assets. The fund has delivered returns of about 10% over the last decade and 15% over a longer period. The fund is heavily invested in illiquid investments and Mr. Powers talked about how the fund dealt with this illiquidity during the financial crisis. Falling markets mean that portfolio values are overstated and there is more of a capital commitment overhang as capital is called less quickly. Many endowments pay out based on smoothed portfolio values. These portfolio values are calculated using the reported net asset values of illiquid assets which are also smoothed. Paying out based on highly smoothed asset values can create problems when there are steep asset price declines, as in 2008. Stanford chose to discard the smoothing formulas and cut spending deeply. Many other universities were less bold and cut a smaller amount. John discussed how the university's proactive view that operating risk and endowment risk are partners enabled the endowment fund to hold its positions. By holding assets until prices rebounded, the fund was able to recover value quickly as the financial crisis abated.

*Weijan Shan, PAG
Is Private Equity Any More than Higher Risk
for Higher Returns?*

Mr. Shan discussed the difficulty of comparing private equity returns to those in the public market. Shan speculated that the outperformance

of private equity may have been due to a prolonged period of economic growth combined with the high leverage of private equity funds. He explained the principles he uses to invest in Asia. He stresses the importance of macroeconomic factors such as market size, political climate, growth prospects, monetary policy, public finance, balance of payments, and infrastructure. If the currency of the country you have invested falls by 25%, which recently happened to the rupee, most potential micro gains are wiped out. In many cases, hedging this is prohibitively expensive. He also discussed the difference between deal structures in Asia and in the US. In China, deals are negotiated privately which allows for more sophisticated structures and greater profits for investors. In the US, deals are done through an auction process with intermediation. Mr. Shan also emphasized the importance of brand in Asia, which allows fund with strong brands to extract more in negotiations.

*Tim Jenkinson, University of Oxford
How Persistent is Private Equity Performance?*

This paper looks at gross investment-by-investment performance and how this persists over time. The authors use data from the due diligence of 3 major fund of funds. These data are a virtually complete record of investment performance of every investment of every fund that one of three fund-of-funds did due diligence on. By looking at the granular investment level, the authors show that performance decreases with deal sequence. The results are economically significant and hold even after controlling for industry, year, and region. A 10% increase in number of deals made results in a 40 basis point fall in IRR and a 0.02 decrease in cash-on-cash multiple and PME. This decrease in returns is associated with a decrease in return volatility, supporting the idea that more mature funds experience lower and less volatile returns. The authors then use

ten deal groups to look at return persistence—they split their investment data into 1000 synthetic funds and look at performance persistence. This synthetic portfolio approach finds performance persistence in the top and bottom quartiles, with persistence disappearing in the post-1998 period except for persistent underperformance of bottom quartile funds.

*Matthew Rhodes-Kropf, Harvard Business School
Is a VC Partnership Greater Than the Sum
of its Partners?*

Venture capital is important for innovation but risky for investors. A small number of investments generates most of the industry's returns: 85% of returns come from 10% of investments. This naturally leads to the question of performance attribution—do good investments and thus good performance come from the firm or the partner? Is a firm more than the sum of its partners? Using VentureSource augmented with hand collected data, the authors tie investments to partners using board seats. They find that type of exit is persistent across investments—partners with past IPOs have more IPOs and similarly for acquisitions and failures. Firm effects and fund effects reduce but do not eliminate these effects. Using the movement of partners across VC firms, the authors show that the partner is more important than the firm. When partners switch firms, they tend to take outperformance in exit valuations and IPO rates with them to the new firm. Firm effects exist, however partner effects are 3 to 5 times as strong. This result is robust to adding industry fixed effects or focusing on biotech investments.

*Per Stromberg, Stockholm School of Economics
Private Equity and the Resolution of Financial
Distress*

Most buyout funds use significant leverage—what drives this high use of leverage and is this

a good or a bad thing? Leverage can bring discipline and better monitoring, but it can also increase the risk of financial distress. Professor Stromberg argued that the data show little association between the leverage use in deals and factors that proxy these economic concerns. Rather, leverage levels appear to be driven primarily by the accessibility of credit. This appears to be bad for investors, as deal performance for private equity (PE) funds is negatively related to the amount of leverage used in funds. This holds both in time series and in the cross section. PE-backed companies default more frequently than non-PE-backed companies; however, this difference disappears after controlling for leverage characteristics. Conditional on bankruptcy occurring, there are significant differences in bankruptcy between PE-backed and non-PE-backed companies. Compared to similar companies without PE-backing, PE-backed companies are more likely to have “pre-pack” bankruptcies, spend less time in bankruptcy, liquidate less frequently, and experience more pre-bankruptcy capital infusions. These differences support the idea that the PE-backed companies that do default restructure more efficiently.

*Yu (Ben) Meng & Pu (Paul) Zhang, California
Public Employees' Retirement System (CalPERS)
Making French Onion Soup A LP's Perspective
of Private Equity*

Private equity appears to have outperformed public equity over the past twenty years. Mr. Meng and Mr. Zhang deconstruct this outperformance. First, they quantify the required illiquidity premium using the Ljung-Box Q Statistic. Based on this measure, private equity and venture capital appear to be very illiquid. Extrapolating liquidity cost from estimates of the liquidity costs for equity and bonds, they find trading costs of 8% for venture capital and 3% for private equity—this amounts to 48 basis points annually for their

reference portfolio. Next, the authors correct for the smoothing introduced by NAV estimation. Removing this smoothing increases both the volatility and beta of private equity. They evaluate this corrected data in a multifactor model with real interest rate, market implied volatility, inflation, and growth factors. After adjusting for these factors, they find private equity outperforms public equity markets by 4.2%. Adjusting for the lock up requirement and the call option on capital, they still find private equity is a worthwhile investment and delivers higher returns than the public equity.

*Mark A. Wolfson, Managing Partner, Oak Hill Investment Mgmt
The Evolving Structure of the Private Equity and Venture Capital Industry*

The private equity industry is very young and the popularity of alternative assets is a relatively new phenomenon. The Yale endowment model that invests heavily in alternative asset classes has recently gained popularity as a way to diversify risk and increase returns. Mr. Wolfson argued that limited partners need to improve their liquidity budgeting when they invest in assets with complicated liquidity structures. Many institutions attempted to manage liquidity by haircutting returns or increasing standard deviations, however this is more of an ad-hoc adjustment than a true correction. Institutions need to take a more robust approach. Mr. Wolfson also argued that institutions need to put in place better systems to avoid selling at the bottom of the market—some institutions are forced to do this through hard coded risk budgets, but others did this due to a misunderstanding of equilibrium effects. When market risk increases, naturally risk tolerant investors should embrace that rather than paying premiums to offload their risk. In terms

of the future of the industry, Mr. Wolfson predicted that funds will start giving discounts to limited partners that commit to filling liquidity shortfalls. He also predicted new fee structures—the current industry is clustered around 20% carry and 1.5–2% management fees but Wolfson sees an opportunity for lower fee, lower skill funds to create value. Finally, he talked on the changes in taxation of carried interest. He speculated that this may lead to a reduction in carried interest versus management fees and might erode the alignment of interest between GPs and LPs.

*Joshua Rauh, Stanford University
Local Overweighting and Underperformance in Limited Partner Private Equity Investments*

Like many other types of investors, public pension plans overweight in-state investments. For most investors and asset classes, this local bias is associated with higher performance; however, public pension funds experience significantly lower returns from their in-state investments, on the order of 2–4%. The authors use Preqin data augmented with other data sets to look at investments and returns. They show that public pension funds overweight local investments more than private sector pension funds, endowments, or other comparable investors. This overweighting is particularly strong in venture capital and real estate. The performance of these in-state investments is worse than comparable investments made by out-of-state public pension funds and the pension fund's own out-of-state investments. This overweighting could be justified by a preference for local investments or investments that generate social value in state; however, it is notable that the underperformance is correlated with state-level measures of corruption.