Democratizing Finance: Agency Problems and Investment

This work was inspired by UCLA Professor Michael Brennan's efficient autopsy of the dot.com bubble. Published in 2004, the piece broke down the mania that led to the historic bubble in 2000. A misplaced belief in Efficient Markets, agency problems on Wall Street, and weak accounting rules figured large in his work.

This paper will do the following:

- Update the simple yet powerful evidence he provided that equities had been in a bubble
- Provide compelling evidence that the problems that drove the mania in 1999 are present again today
- Offer a list of stocks where today's accounting rules are most severely misrepresenting economic reality

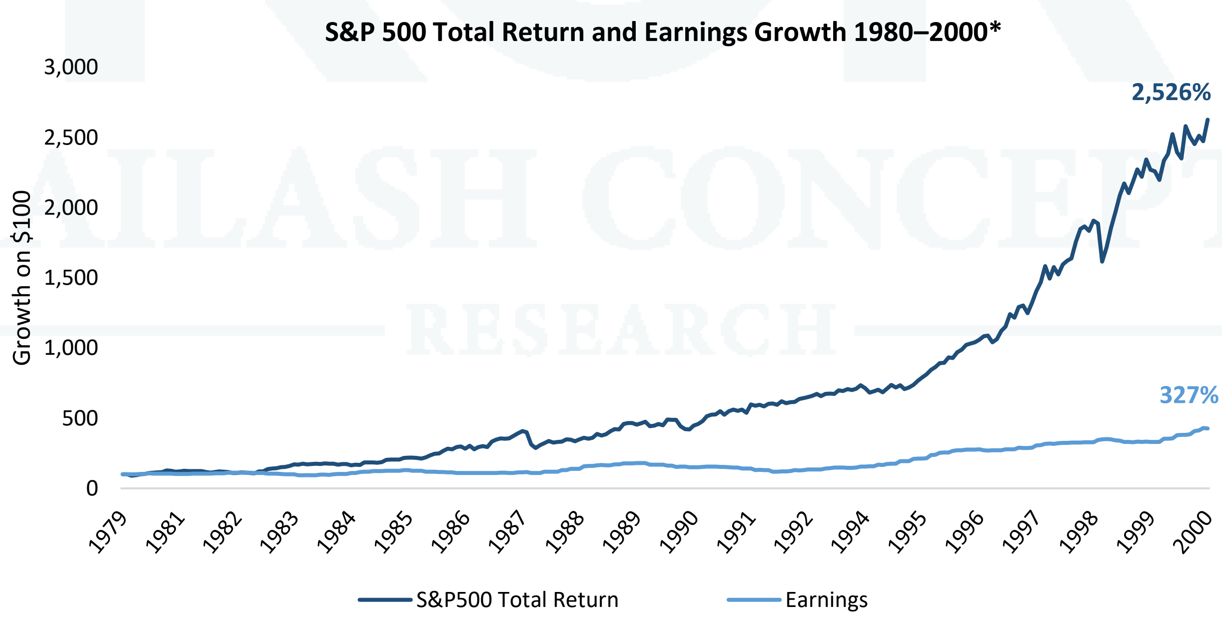
Asset Allocation Gone Wrong: The Cult of Equity

The most basic evidence can often also be the most compelling. In his first sentence, Dr. Brennan explains that price appreciation outstripped earnings growth by a huge margin between 1980 and the peak of the dot.com bubble.[1] **Figure 1 below shows this effect in raw form.**

The **navy blue line** is the total return of the S&P 500 between 1980 and August of 2000. The **light blue line** is the growth in those stocks' **earnings**. **Stocks rose 2,526% while earnings only grew 327%.**

Rarely have we seen a more compelling image of a bubble. With hindsight, the evolution of price and earnings made it painfully clear. Capital markets and fundamental valuations had totally detached.

Fig. 1: The United States Financial System Decouples from Reality



Source: Kailash Capital, LLC; Data from 12/31/1979 – 8/31/2000;
*Returns are compounded and include the reinvestment of dividends, Earnings are Sum/Sum with a starting value of $100 compounded monthly

Think that's crazy? Look at the next chart…

[1] Brennan, Michael John, How Did it Happen? page 1

Democratizing Investing Gone Wrong

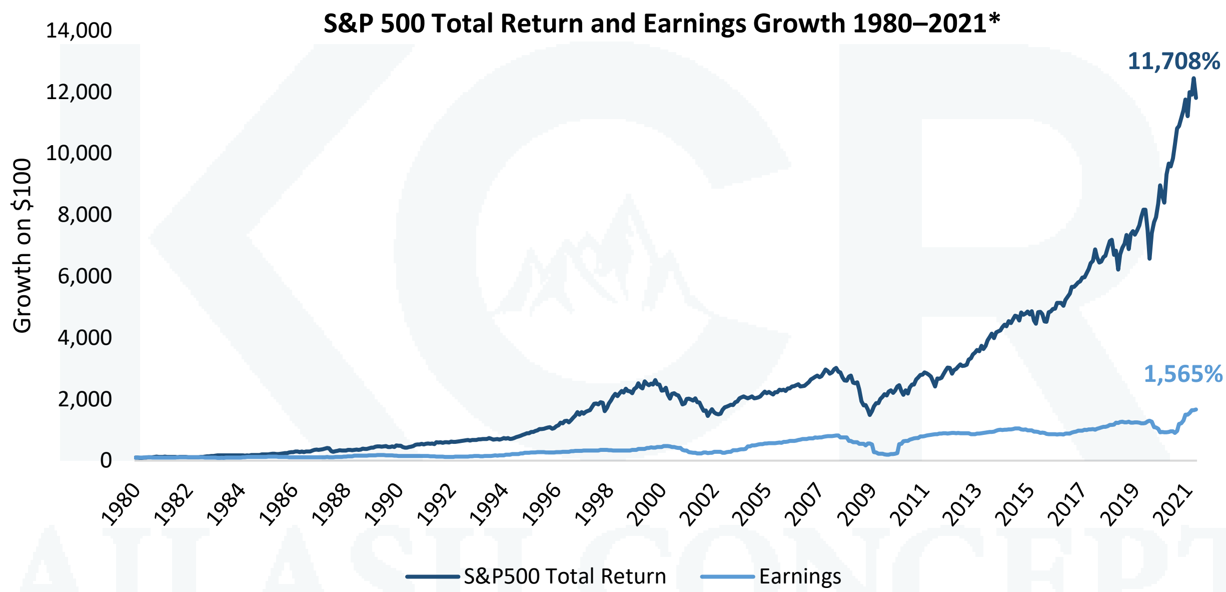
The chart below merely updates the one above. Just another way of visualizing extreme overvaluation. Warren Buffett's valuation metric and its long term predictive accuracy all indicate many investors may not understand the risks they are taking

KCR's research team finds itself writing the phrase **"this isn't complicated"** a lot lately. Look at our chart about zombie firms[2] that can't pay their interest expense. The value of stocks priced for disaster. Or our research on the soaring exposure of index investors to loss-making firms.

These charts conspire to tell one simple story: don't buy stocks that fail the basics of common sense.

Figure 2 shows that between January of 1980 and January of 2022, the S&P 500 rose by **11,708%,** while earnings rose only **1,565%**. **Our team would suggest, yet again, this isn't complicated.**

Fig. 2: Once Again Systematic Risk is Out of Control as Valuations Detach from Fundamentals



Source: Kailash Capital, LLC; Data from 12/31/1979 – 1/31/2022
*Returns are compounded and include the reinvestment of dividends, Earnings are Sum/Sum with a starting value of $100 compounded monthly

Dr. Brennan discusses the massive explosion in brokerage accounts due to a flood of retail investors in the 1990s. As get-rich-quick stories became pervasive, performance chasing became the norm. KCR's team has detailed this exact effect today.

Our research has also been blunt about highlighting firms that advocate for the "small investor" while providing services adverse to their interests. Access to fintech products that turn the task of investing into gambling might seem bad enough. But it has coincided with fad investment vehicles that specialize in giving investors dedicated exposure to these Machiavellian products.

[2] We chose to link to Lance Robert's terrific piece *"Could the Fed Trigger the Next Financial Crisis?" as he uses our chart on the market cap of stocks that can't make their interest payments from earnings despite record low rates and, in that piece, speaks more comprehensively to the issue of Zombie Firms. For those that don't follow Lance's work on Real Investment Advice we cannot recommend it more highly. Neither KCR or its affiliates has any commercial relationship with Lance or Real Investment Advice.*

How Do Agency Problems Affect Investments? Dot.Com Mania & Today

A significant piece of Dr. Brennan's work highlights how the incentives for Wall Street had become adverse to their customers. Financial services professionals, like analysts and managers responsible for portfolio construction, were faced with an increasingly difficult decision as the internet bubble ran higher.

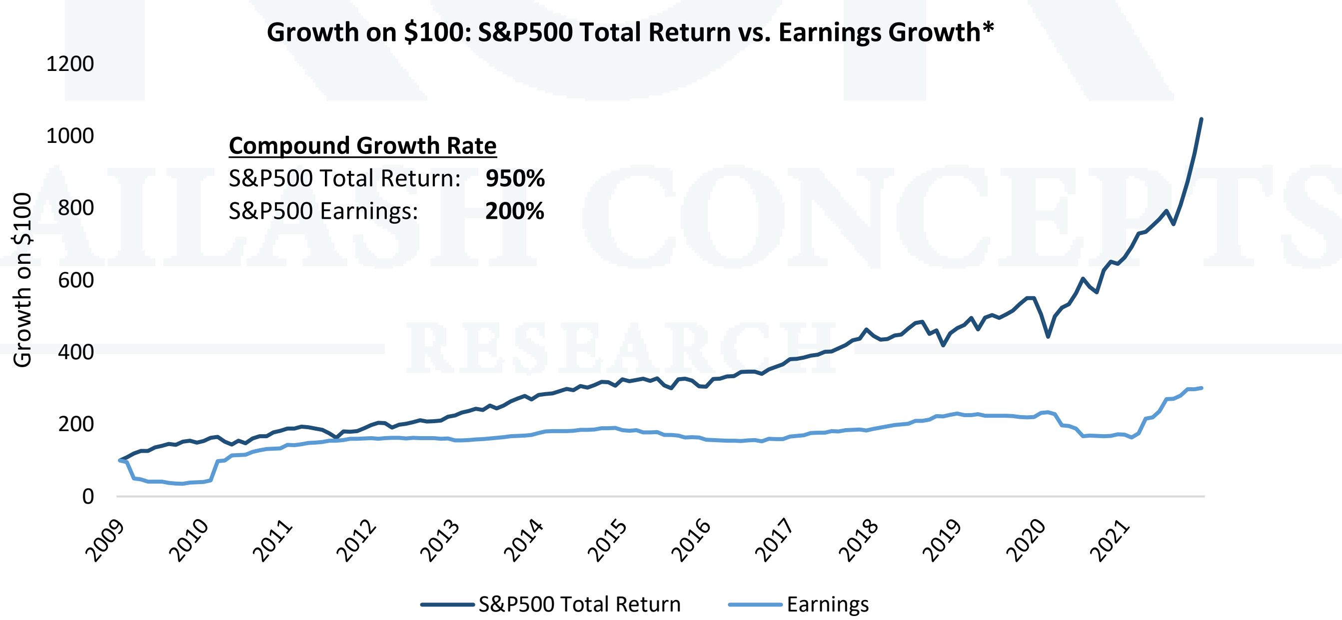
Analysts rationalized ludicrous valuations by warping fundamental analysis to validate firm values. Portfolio management was often reduced to performance chasing. Fundamental approaches to security selection were often abandoned. Technical analysts who "...confidently instruct [investors] as to what some wiggles on a chart portend for a stock's next move"[3] became prevalent then as they have today.

KCR would like to be clear: for right or wrong, we have enormous sympathy for those that engage in this behavior. We have seen the horrendously timed firings of skilled and proven veterans at bubble peaks. We have seen how the pressure to generate banking fees and beat benchmarks bloated by low-quality securities that seem to revalue higher daily creates a dystopian "plato o plomo" type decision for investment research professionals.[4]

Figure 3 highlights the post-GFC conundrum faced by PMs and analysts today. The S&P has risen at nearly 5x the rate of earnings over the last 10+ years. To be "right," researchers have **had** to bet on epic and relentless multiple expansion.

Even worse, as our chart on multiple expansion showed, the stock market's most expensive firms were the primary driver of this re-rating. This effect became particularly pronounced post the 2017 period when the mania really took off. You either bet on successive price increases in the most expensive firms due to the "greater fool" theory, or you looked dumb. This required the wholesale disposal of any **margin of safety**.

Fig. 3: Betting on the "Greater Fool" Theory Was the Only Way to Win



Source: Kailash Capital, LLC; Data from 2/28/2009 – 1/31/2022
*Returns are compounded and include the reinvestment of dividends, Earnings are Sum/Sum with a starting value of $100 compounded monthly

[3] Warren Buffett, Letter to Shareholders, 2020, Page 12
[4] We understand this may seem hyperbolic. But when you have to choose between making a lot of money or being sacked at what is often the low-point of your track-record and career, this stuff creates existential stress in our view.

Academic Insight on Investing & the Failure of GAAP to Present Economic Reality

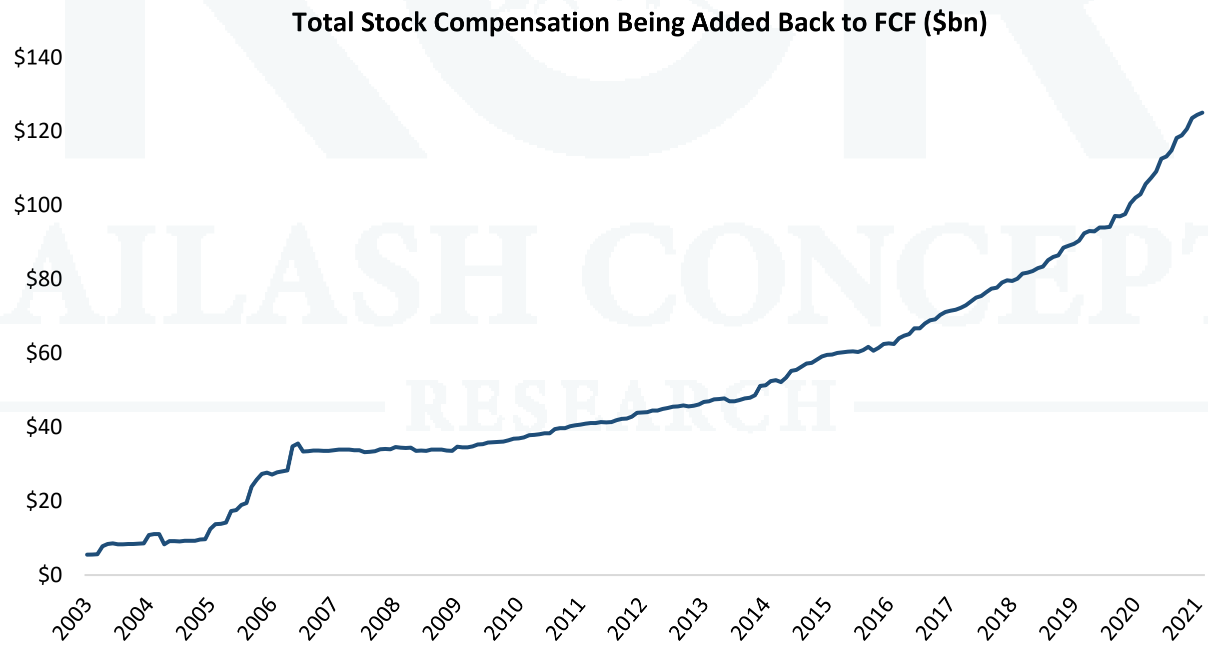
The academic approach to investment analysis is often misconstrued with the assumption that all academics believe in the "Efficient Market Hypothesis." KCR hopes our piece on *Inefficient Markets* puts that concept to rest. But Dr. Brennan was right about 2000. Many market participants had come to believe that "the price is always right" due to misplaced faith in EMH.

And that belief, mixed with executives having large economic exposure to their stock prices, proved disastrous. Brennan states "*...[investors] had generally overlooked the fact that high-powered incentives to create stockholder value are also high-powered incentives to misrepresent the true state of the firm through the production of accounting statements that were at best misleading and at worst fraudulent.*" **He goes on to state that this was partially due to *"...failures of the accounting profession to adopt standards that reflected economic reality."*[5]**

Brennan is specifically discussing stock compensation which was, in the 1990s, in the form of options. He notes the resulting disasters of **Worldcom, Tyco and Enron**[6] represented among the worst of these situations. **KCR has spilled a tremendous amount of ink on the misrepresentation of cash flows due to the dishonest treatment of stock compensation today.**

Figure 4 below shows that since FAS123 was passed, the amount of "free cash flow" being reported due to stock comp has exploded. Over $120 billion of the S&P 500's reported cash profits are, quite simply, not actual cash profits. **They are simply false information due to reporting rules that, once again, fail to reflect economic reality.**

Fig. 4: Over $120 Billion of the S&P 500's Reported Free Cash Flow is Equity Issuance to Executives



Source: Kailash Capital, LLC; Data from 12/31/2003 – 1/31/2022, Data is for the S&P 500 ex-financials

[5] Brennan, Michael John, How Did it Happen? page 9 and page 2, respectively
[6] To see KCR's Index of "Enron Look-Alike Stocks" today click on our post offering a free Enron Hat to our subscribers - originally written in jest we have been stunned as some of the most accomplished and experienced Fund Managers in the industry have taken us up on the offer. We would like to thank them for sharing our appreciation for the need to keep financial history's darkest moments close!

Stock-Based Compensation Accounting: The Gap in GAAP

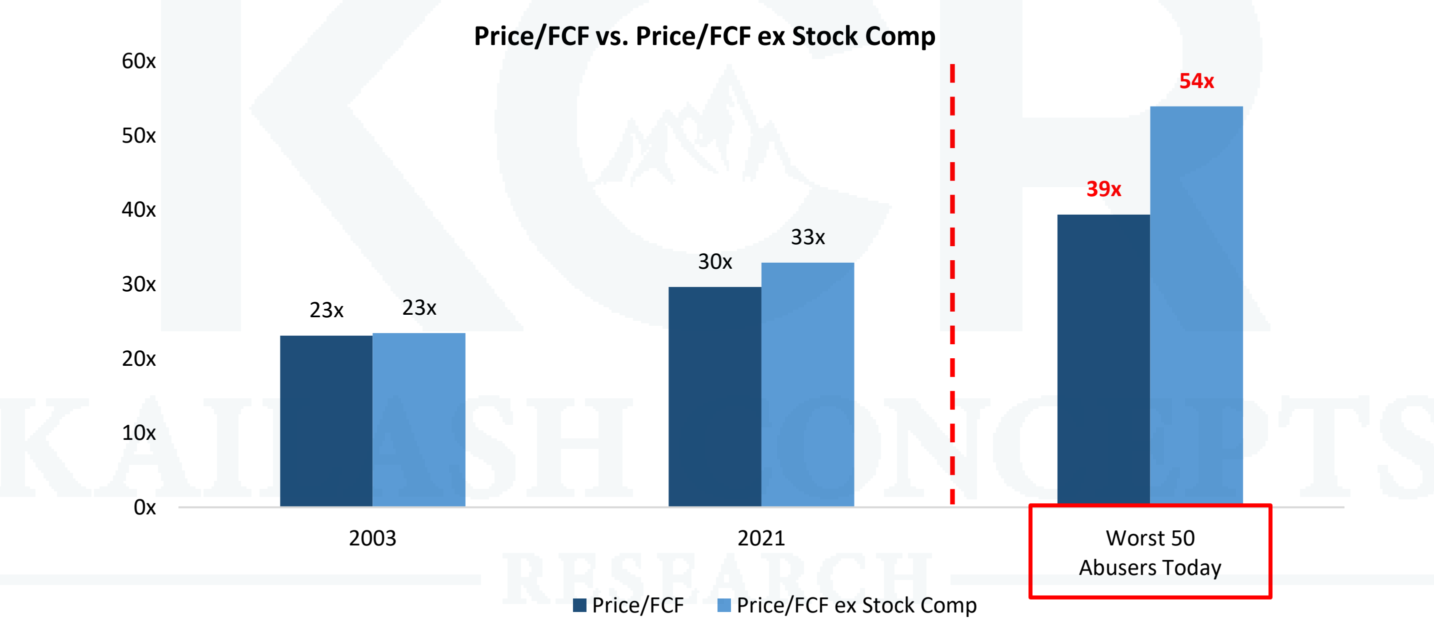
Post the internet bubble, earnings restatements "...wiped out large amounts of profits that had been booked in the boom years."[7] KCR believes we will see something similar post this cycle. Our research team has cited Galbraith's work as evidence of the inevitable fury that erupts when small investors realize they were lied to.

Figure 5 below shows the change in valuation multiples due to stock compensation:

- The two bars on the left show the shift in valuations in 2003 due to stock compensation was ~0
- The two bars in the middle shows that the market, already at a stunning 30x FCF, is 10% **more expensive** after deducting stock comp [33x ex stock comp vs. "only" 30x as reported]
- **The final two bars** show the degree to which the biggest beneficiaries of stock comp are perverting reported multiples
- You can see these already expensive firms see their multiples soar from 39x to over 50x FCF
- **Remarkably, the 50 stocks that make up the final two bars represent ~20% of the Index Weight**

As you might guess from the data: this isn't complicated. Investors, particularly small ones, are being woefully deceived in our view. This will not end well.

Fig. 5: Stock Comp Mis-Represents Economic Reality, Particularly Among the Worst Offenders



Source: Kailash Capital, LLC; Data from 12/31/2003 & 1/31/2022
*Worst Abusers looks at Firms with starting positive FCF greater than $100m with the highest proportion of Stock Compensation

The list below shows the firms that enjoy the most significant benefit from exploiting this loophole in the reporting of stock compensation in the calculation of free-cash-flows.

[7] Brennan, Michael John, How Did it Happen? page 9

Exhibit: Worst Offenders Using Stock Compensation to Inflate Reported Free-Cash-Flows

Ticker	Company Name	Market Cap ($m)	Price/FCF	Price/ FCF ex Stock Comp	Ticker	Company Name	Market Cap ($m)	Price/FCF	Price/ FCF ex Stock Comp
ILMN	ILLUMINA INC	54,765	117x	-121x	INTU	INTUIT INC	151,701	47x	66x
TWTR	TWITTER INC	29,990	92x	-117x	ADSK	AUTODESK INC	55,004	39x	63x
DXCM	DEXCOM INC	41,714	299x	2279x	XLNX	XILINX INC	48,063	45x	62x
TSLA	TESLA INC	940,467	231x	503x	TTWO	TAKE-TWO INTERACTIVE SFTWR	18,818	45x	61x
CHRW	C H ROBINSON WORLDWIDE INC	13,644	92x	309x	PYPL	PAYPAL HOLDINGS INC	201,858	41x	59x
CZR	CAESARS ENTERTAINMENT INC	16,277	103x	229x	CDNS	CADENCE DESIGN SYSTEMS INC	42,164	45x	58x
NOW	SERVICENOW INC	116,567	73x	219x	CTXS	CITRIX SYSTEMS INC	12,704	23x	55x
TMUS	T-MOBILE US INC	135,108	114x	209x	ANET	ARISTA NETWORKS INC	38,231	42x	52x
DIS	DISNEY (WALT) CO	259,919	131x	187x	EA	ELECTRONIC ARTS INC	37,631	30x	49x
HWM	HOWMET AEROSPACE INC	13,312	119x	182x	INFO	IHS MARKIT LTD	46,599	39x	48x
DHI	D R HORTON INC	31,764	119x	181x	INCY	INCYTE CORP	16,418	30x	45x
MAR	MARRIOTT INTL INC	52,477	86x	127x	SNPS	SYNOPSYS INC	47,526	34x	45x
CMG	CHIPOTLE MEXICAN GRILL INC	41,827	82x	119x	ORCL	ORACLE CORP	216,778	30x	43x
NVDA	NVIDIA CORP	612,640	86x	116x	AON	AON PLC	61,204	32x	43x
MPWR	MONOLITHIC POWER SYSTEMS INC	18,571	66x	111x	VRTX	VERTEX PHARMACEUTICALS INC	62,271	32x	42x
EPAM	EPAM SYSTEMS INC	27,001	72x	98x	ACN	ACCENTURE PLC	223,493	31x	38x
ENPH	ENPHASE ENERGY INC	18,942	65x	92x	AKAM	AKAMAI TECHNOLOGIES INC	18,606	26x	37x
TYL	TYLER TECHNOLOGIES INC	19,403	60x	85x	GOOGL	ALPHABET INC	1,798,676	27x	36x
PTC	PTC INC	13,621	40x	82x	FFIV	F5 INC	12,593	20x	34x
CRM	SALESFORCE.COM INC	228,908	42x	78x	FB	META PLATFORMS INC	874,935	24x	32x
PWR	QUANTA SERVICES INC	14,290	51x	77x	JNPR	JUNIPER NETWORKS INC	11,320	19x	30x
ABMD	ABIOMED INC	13,461	58x	75x	QCOM	QUALCOMM INC	197,730	23x	28x
BKNG	BOOKING HOLDINGS INC	100,856	59x	75x	VIAC	VIACOMCBS INC	21,609	21x	27x
ISRG	INTUITIVE SURGICAL INC	101,509	54x	70x	WDC	WESTERN DIGITAL CORP	16,091	16x	24x
ANSS	ANSYS INC	29,653	50x	69x	EBAY	EBAY INC	38,024	15x	18x

Source: Kailash Capital, LLC; Data from 1/31/2022
*Worst Abusers looks at Firms with starting positive FCF greater than $100m with the highest proportion of Stock Compensation

Disclaimer

The information, data, analyses, and opinions presented herein (a) do not constitute investment advice, (b) are provided solely for informational purposes and therefore are not, individually or collectively, an offer to buy or sell a security, (c) are not warranted to be correct, complete or accurate, and (d) are subject to change without notice. Kailash Capital, LLC and its affiliates (collectively, “Kailash Capital”) shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions or their use. The information herein may not be reproduced or retransmitted in any manner without the prior written consent of Kailash Capital. In preparing the information, data, analyses, and opinions presented herein, Kailash Capital has obtained data, statistics, and information from sources it believes to be reliable. Kailash Capital, however, does not perform an audit or seek independent verification of any of the data, statistics, and information it receives. Kailash Capital and its affiliates do not provide tax, legal, or accounting advice. This material has been prepared for informational purposes only and is not intended to provide, and should not be relied on for tax, legal, or accounting advice. You should consult your tax, legal, and accounting advisors before engaging in any transaction.

Nothing herein shall limit or restrict the right of affiliates of Kailash Capital, LLC to perform investment management or advisory services for any other persons or entities. Furthermore, nothing herein shall limit or restrict affiliates of Kailash Capital, LLC from buying, selling, or trading securities or other investments for their own accounts or for the accounts of their clients. Affiliates of Kailash Capital, LLC may at any time have, acquire, increase, decrease or dispose of the securities or other investments referenced in this publication. Kailash Capital, LLC shall have no obligation to recommend securities or investments in this publication as result of its affiliates’ investment activities for their own accounts or for the accounts of their clients.