FYI — For Your Information

An Investment Newsletter from
Monticello Associates

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"XXV"

In July of last year, Monticello Associates reached a significant milestone – we celebrated our twenty-fifth year anniversary as a firm.

It's all a bit of a blur for me as I reflect on the past two and a half decades. I remember when we started in July of 1992 with absolutely no clients and zero assets under advisory. Dozens of well-established firms in the asset management consulting field existed and I'm fairly certain the founding of Monticello was not viewed as a significant event.

However, over the past twenty-five years, we've established a firm in which we can all be proud. Today, we consult almost 200 of America's most eminent endowments, foundations and family offices. We've grown the firm from just myself in an executive suite to 51 professionals who have the immense pleasure of providing guidance to almost $100 billion of client assets. Currently, there are thirteen partners at the firm with an average tenure of thirteen years.

As a lifelong sports fan, I've always been acutely aware of what's known as *The Sports Illustrated Cover Jinx*, which basically means that once an athlete reaches the point in their career where they've achieved a level of prominence, supported by appearing on the cover of a national magazine, they've already passed their peak and have become jinxed. Curiously enough, although this magazine cover hex may seem severe, it's probably true more often than not. Consequently, at Monticello we kept at it through the summer of 2017 and did not pause to celebrate our silver anniversary as the investment markets tend to be unyielding in their quest for those in our industry displaying signs of excessive hubris. As a firm, we are anxiously looking forward to the next twenty-five years and the immense satisfaction of meeting whatever challenges are thrown our way head-on.

The point of this newsletter is not to celebrate ourselves, rather to look over the past twenty-five years and see what we can learn that might help navigate the next 25 years.

On July 27, 1992, the Dow Jones Industrial Average closed at 3,282. On the same date twenty-five years later, the Dow closed at 21,796. A quick look at the more comprehensive S&P 500 shows the same sharp trajectory – the S&P was at 411 in July of 1992 and appreciated to 2,475 by the end of July in 2017. I must admit when I first reviewed these numbers I was struck by the fact that I'd been very fortunate to build an investment firm during such heady days for the U.S. Stock Market. However, a deeper review of these figures tells a somewhat different story.

Focusing on the S&P 500, this Index went from 411 to 2,475, producing a cumulative return of 893.01%, allowing for the reinvestment of dividends. While a return near 900% is compelling, the annualized return that generated this number is actually a bit more modest. Over the aforementioned twenty-five year period, the S&P 500 compounded at 9.62%. That's right, 9.62%. Importantly, this return is actually lower than the 10.2% U.S. Stocks have averaged annually over the past almost 100 years.

However, the real story is what happened when the 9.62% annualized return was allowed to compound over this twenty-five year period – the multiple of invested capital grew by almost 10x.

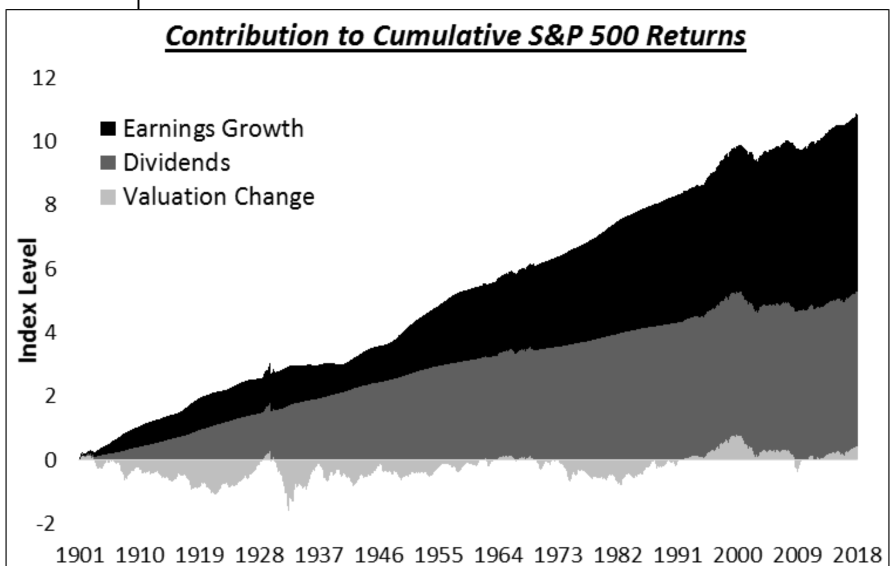
The graph below illustrates this. As you'll note, $1,000,000 invested on 7/27/92 grew to almost $10,000,000 over the twenty-five year investment period.

Source: Bloomberg, Monticello Associates

Reviewing the much longer-term market history below confirms the same fact. In this graph, we're looking at a much longer time period – 1901–2018. The three primary drivers of long-term equity returns: valuation, earnings and dividends, are combined by contribution to return to the cumulative S&P return. Valuation change over more than 115 years provided virtually no assistance – the 10% or so annualized return was purely a combination of earnings-per-share growth and dividends.

10 times your money as an investment return is a serious and productive outcome. The fact it was achieved in public equities and it was produced in only two and one-half decades is surprising. We've invested in numerous venture capital and private equity funds and many of them have done very well. However, not a single one has produced an outcome of 10x.

How was this 9.62% annualized return generated during this 25-year time period? After all, there were some great periods of returns in the 1990's as well as over the past decade. Inflating valuations via escalating Price/Earnings multiples must have been contributory?

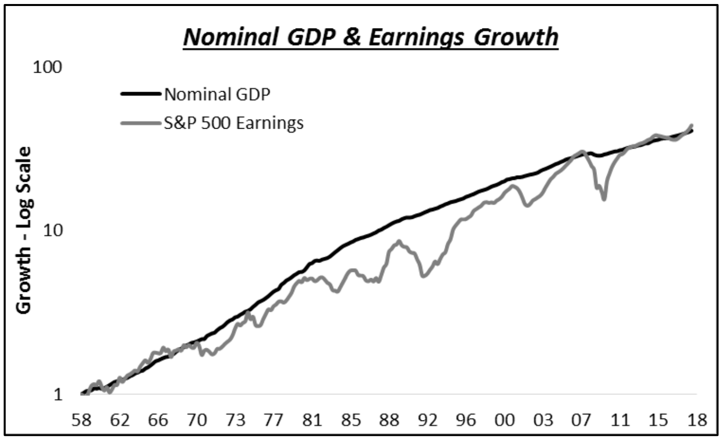


Source: Bloomberg, Monticello Associates

Again, the results are surprising. The S&P 500 was selling at 22x forward earnings in July of 1992 and ended at 17.5x forward earnings in July of 2017. Thus, valuation expansion provided absolutely no meaningful impact. In fact, it was a distinct negative effect as multiples sharply contracted. The 10x return was generated exclusively by the compounding of earnings-per-share growth and dividends – the two long-term pillars of equity performance.

I consider this conclusion to be vital to the high probability of success over long-term time periods that equity investors have always enjoyed. Moreover, the timing of a valuation expansion or contraction has a high element of luck involved, while the steadiness of earnings and dividends should be a key takeaway for investors.

As you'll note in the graph below, a period between 1958-2018, earnings steadily march upward – they grew annually during this period at 6.5%. Additionally, they are highly correlated to nominal GDP growth, and nominal GDP growth has been more or less a given over several hundred years.



Source: *St. Louis Fed*

The primary reason for this continual GDP growth is America's economic system of free-market capitalism. By forcing resources into a competitive, democratic and non-state driven economic system these same resources continually grow. Add the world's largest and most liquid capital markets and an efficient legal system, based on judicial precedent and the rule-of-law, and you tend to produce a continually growing economy that allows the mother's milk of equity returns, earnings-per-share growth, to almost always expand in the intermediate to longer term.

Moreover, the fact that the companies contained within the S&P 500 are publicly traded also is a strong incentive to the continued longevity of returns. Publicly traded executives and board members are fully accountable for their actions and liquid markets enable investors to enforce that accountability. Thus, their incentives to grow the business overall and focus on earnings growth are aligned with that of the shareholders, helping to ensure that earnings growth continues.

It is this combination of earnings and dividend growth that produces competitive returns, but, more importantly, also dramatically increases the probability of these returns -- because 10% returns are based upon fundamentals and have strong underlying math to back them up. If you are an investor for any time period longer than a decade it is this growth of earnings and dividends that dramatically increases both your odds of making strong returns but also the odds of those returns continuing to exist. If anything, this ***"Enduring Power of Equity Investing"*** is dramatically misunderstood and certainly underappreciated. Warren Buffett and Charlie Munger have figured it out and have based their magnificent careers as investors on the premise. Fortunately, each has written extensively about this subject.

That does not mean you won't lose money as an equity investor. In fact, that's inevitable over the short term. Once again, reviewing the period from July of 1992 through July of 2017, we've outlined the number of corrections and bear markets that happened during this magic run to a 10x return.

S&P 500: Market Corrections and Recoveries

		Peak / Start	Trough / End	# of Months	% Change Correction	Recover by Date	# of Months	Cuml. Perfor.
	1)	10/7/97	10/27/97	0.6	-10.8%	12/5/97	1.3	12%
	2)	7/17/98	8/31/98	1.5	-19.2%	11/23/98	2.8	25%
	3)	9/23/98	10/8/98	0.5	-9.9%	10/21/98	0.4	12%
	4)	7/16/99	10/15/99	3.0	-11.8%	11/16/99	1.1	14%
Bear Mkt	**5)**	**3/24/00**	**10/9/02**	**30.9**	**-47.4%**	**10/24/06**	**49.2**	**91%**
	6)	11/27/02	3/11/03	3.4	-14.2%	5/6/03	1.9	17%
Bear Mkt	**7)**	**10/9/07**	**3/9/09**	**17.2**	**-55.3%**	**4/4/12**	**37.4**	**121%**
	8)	4/23/10	7/2/10	2.3	-15.6%	11/4/10	4.2	20%
	9)	4/29/11	10/3/11	5.2	-18.6%	2/3/12	4.1	23%
	10)	7/20/15	8/25/15	1.2	-12.0%	4/18/16	7.9	14%
	11)	12/29/15	2/11/16	1.4	-11.8%	4/1/16	1.7	14%
		Median		**2.3**	**-14.2%**		**2.8**	**17%**
		Average		**6.1**	**-20.6%**		**10.2**	**33%**
		Highest Recovery		--	--		--	**121%**
		Lowest Drawdown		--	**-55.3%**		--	--

Source: *Monticello Associates*

In total over the twenty-five years, there were eleven market corrections averaging a loss or drawdown of -20.6%. Two of these corrections evolved into bear markets – moreover, these were two of the worst negative markets in the past 100 years of U.S. Equity investing.

From March 24, 2000 through Oct. 9, 2002 the stock market declined 47.4% and again, from October 9, 2007 to March 9, 2009, the market declined an even sharper 55.3%. Thus, in either time period investors lost on average one-half their money on the run to a 10x return over twenty-five years.

Fortunately, time, or in this case earnings-per-share growth and dividends, marched on, and after the 2000-2002 decline it took 49.2 months for investors to recover their losses. In 2007-2009 it took even less time, just over 37 months. As such, correctly calculating your time horizon and developing the right framework is absolutely fundamental to a successful outcome. We don't know what the next 25 years will hold, and there will certainly be some bumps along the way, but we can say with a high degree of confidence that equity investors with a sufficiently long time horizon stand a high probability of achieving success.

Interest Rates

Amazingly, the global benchmark interest rate known as the United States Ten-Year Treasury was yielding 6.69% in July of 1992. The ten-year then began an episodic twenty-five year plunge, settling at a very low 2.32% in 2017. So, the ten-year dropped well over four hundred basis points for this time period. A similar trend was visible in the money market world as cash yields dropped from 3.25% to just .60%

This secular decline in interest rates helped to dramatically change the landscape in institutional investing and in asset allocation in particular. The U.S. Ten-Year Treasury is an important security in global finance as it helps to establish the discount rate, which is the financial equation involved in calculating the transaction price on an investment. Generally speaking, the lower the discount rate, the higher the price paid on a new transaction or the higher the gain on the sale of an existing asset.

Not surprisingly, as yields plunged, the leveraged asset classes of real estate and private equity, which rely heavily on borrowed debt, began to experience outstanding performance when compared to stocks and bonds as the discount rate also fell.

In the institutional world, strong performance rarely goes unnoticed and often brings a crowd. Endowments and foundations were the first to notice, sharply shifting their asset allocation to fund more private equity and real estate as well as venture capital. As you'll see in the chart below, equities and fixed income were 65.6% allocations in 2002 and dropped to 39% by 2017. Real Estate and Private Equity were primary beneficiaries of this move as their allocations moved from a combined 8.6% to 18%.

NACUBO-Commonfund Study of Endowments
Historical Asset Allocation

Asset Class	2002	2017	Change
Equities	45.1%	32.0%	-13.1%
Fixed Income	20.5%	7.0%	-13.5%
Real Estate	4.3%	6.0%	1.7%
Cash	1.9%	4.0%	2.1%
Hedge Funds	17.8%	20.0%	2.2%
Private Equity	4.3%	12.0%	7.7%
Venture Capital	3.9%	7.0%	3.1%
Natural Resources	1.7%	8.0%	6.3%
Other	0.5%	4.0%	3.5%
Total	*100.0%*	*100.0%*	*0.0%*

Source: NACUBO

Endowments and foundations are generally sophisticated investors and can fend for themselves as they've been long-term investors in private equity and real estate.

Public pension funds have more recently increased their exposure to illiquid alternatives as interest rates reached all-time lows. Pension funds were always strong allocators to fixed income, but as rates dropped the prospective return of bonds dropped so far under the pension's expected return that they were left with being forced to migrate to higher returning asset classes.

As you are undoubtedly aware, public pension funds in America are really struggling. The total unfunded amount throughout the U.S. public pension programs is almost at $1.4 Trillion, although some experts put it closer to $4 Trillion. These funds are chronically underfunded, as the average funding ratio in the U.S. is currently 72%, and targeting an investment return of approximately 7.3%, which may or may not be realistic. Consequently, public funds have embraced risk assets in the form of passive equity investing and a dramatic increase in alternative investments and private equity in particular.

Over the past decade, many public funds have sharply raised their allocations in this area. Not surprisingly, given the size of the overall public pension marketplace, this has led to a surge in fundraising by private equity firms. Preqin lists 3,000 funds currently seeking to raise almost $1 trillion in new assets – a dramatic increase when compared to all past fundraising cycles. Accordingly, this has had a dramatic effect on the valuations being paid for new private equity deals. In 2017, according to PitchBook, the average multiple paid across the industry was 10.5 times EBITDA, an all-time record high. Moreover, because of all the capital that's been raised in the past few years, there is already $1.1 trillion in funds that have been committed and not drawn-upon. This enormous reservoir of current capital seeking a nice private investment opportunity guarantees there will not be a reduction in the record high valuations being paid as somebody will always seek to do the deal you pass on.

Returning to interest rates, it's important to point out that private equity's return premium, which most institutional investors target at a minimum of 3% over domestic equities, has been achieved in a long-term environment of massively falling interest rates, which increased valuations through the lowering of the discount rate and risk premia. Obviously, the question to ask is what will happen to private equity as an asset class in the future and will the more or less guaranteed 300 basis point premium continue to exist?

The short answer is we don't really know, but if private equity becomes an under-performing asset class, rather than a perennial outperformer, then there will be seismic effects in the institutional investing industry. I've always felt the illiquidity inherent in privates has been underappreciated. Historically, this has not been a problem as declining interest rates provided a nice tailwind for a very long period – and over-committing to the asset class became mandatory for compelling overall performance. However, that's over and it may be over for a very longtime. Importantly, as all investors in private equity need to over-commit to reach their targets, an environment could possibly surface where investors would be forced to continue to fund, due to previous commitments, an illiquid asset class that they'd rather be avoiding.

I am not forecasting the end for private equity, but I do feel that all investors should at least be aware of the wall of capital that has flooded the asset class and have a plan for dealing with the situation. In fact, I am certain there will be funds that out-perform, but I'm also pretty certain the median fund will provide disappointing performance – or how about the 49% that will be destined to reside below the median? Throughout the twenty-five year history of Monticello, an abundance of cash flow through the excess supply of capital has been certain to produce asset class under-performance, sometimes dramatic, at some point in time.

In conclusion, I believe it's possible that institutional investors have underappreciated the role of public equities in a portfolio. Stocks are relatively inexpensive to own, easy to liquidate and provide very competitive returns. It is also not well known that those returns are mostly predicated upon long-term earnings growth, which has a very high probability of continuing. Finally, equities have a lengthy history and track-record and have lived through, often thriving, in many higher interest rate environments. After-all, 10x over 25 years is a pretty good return.

B. Grady

China 1992 – 2017

China Facts	Starting	End	% Change	Dates: Starting / End	Source
GDP - Tril. - USD	$0.43	$12.23	2771%	*1992/2017*	*World Bank*
Per Capita GDP - USD	$366	$8,827	2309%	*1992/2017*	*World Bank*
Per Capita Household Consumption - USD	$194	$3,059	1481%	*1992/2016*	*Nat. Bureau of Stat. of China*
GDP Rank Largest Economies (192 Countries)	9th	2nd	-	*1992/2017*	*IMF*
Share of Global GDP - based on PPP	4.5%	18.2%	-	*1992/2017*	*IMF*
Poverty Ratio (% of Pop.) - $1.90/Day	57%	1%	-	*1996/2015*	*World Bank*
Population Size - Bil. of Persons	1,172	1,390	19%	*1992/2017*	*IMF*
College Enrollment - Mil. of Persons	7	24	243%	*2001/2012*	*Nat. Bureau of Stat. of China*
Chinese Students Studying Abroad - Thous. of Persons	90	400	344%	*2001/2012*	*Nat. Bureau of Stat. of China*
Foreign Exchange Reserves - Bil. - USD	$105	$3,119	2870%	*1996/2017*	*People's Bank of China*
Stock Market - Market Capitalization - Bil. - USD	$503	$8,712	1633%	*2001/2017*	*Shenzhen SE & China Sec. Index*
# of Listed Domestic Companies	323	3,485	979%	*1995/2017*	*World Bank*
Holder of U.S. Treasury Securities - Bil. - USD	$59	$1,177	1894%	*2000/2017*	*U.S. Treasury Dept.*
Trade Deficit w. U.S. - TTM - Bil. - USD	-$23	-$376	1549%	*1993/2017*	*U.S. Census Bureau*

China also has been a terrific story over the past 25 years. In fact, I'm not sure the world has ever seen economic triumphalism of this magnitude. For instance, China's GDP grew from just over $400 Billion to $12.2 Trillion, allowing China to become the world's second largest economy. The number of publicly traded equities also soared, moving from just 323 to 3,485 by 2017. Going forward getting Chinese equities right in your portfolio may have a huge impact on investment performance as the economy will continue to grow.

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