



About the Firm

Nottingham Investment Advisers, Ltd., is a registered investment adviser founded in May 1996.

Nottingham is owned by the seasoned professionals serving its clients, and effectively managing the assets of those clients, taxable as well as tax-exempt, is the Firm's only business. The twin results are commitment and focus.

Total Portfolio Management, or TPM, is Nottingham's largely passive, balanced approach to the management of a client's overall portfolio, and Indexed Total Portfolio Management, or ITPM, is the totally passive variation. In both cases, portfolios contain three sectors: Equities, either passively managed or governed by the Firm's Value Plus Equity Strategy; U.S. Fixed Income, either passively managed or governed by the Firm's Select Four Bond Strategy; and the totally passive Alternatives Group. TPM and ITPM are two complete, widely diversified answers to any client's investment needs.

Seasoned investment professionals. Commitment and focus. Two complete, widely diversified answers. Nottingham is your ideal partner.

*Southampton Square
7414 Jager Court
Cincinnati, OH 45230
513.624.3000 Tel
513.624.3003 Fax
www.nottinghilladvisers.com*

An Update

SCORECARD

	2019 Q1	One Year	Three Years	Five Years	10 Years
S&P 500 Index	13.65%	9.50%	13.51%	10.91%	15.92%
10-Year Treasury Note	2.95	5.74	0.77	3.09	3.56
Gold	1.33	-1.93	1.56	0.08	3.54

All multi-year returns are annualized, and all returns are associated with time periods ending March 31, 2019

2019 Q1 — Falling Interest Rates and a Stock Market Rebound

As the worldwide economy emerged from the long, dark night of 2008-2009, the U.S. economy was the first one out of the gate, and generally has outperformed the economies of our trading partners in the 10 years since. That continues to be the case. Granted, there are signs of cyclical slowing here and abroad, but we, for the most part, are in better shape than both Europe and Asia, including China. One factor clearly is the pro-growth agenda that has guided both our monetary and fiscal policies in recent years. Europe, in particular, could take a lesson.

U.S. equities rebounded strongly from the chaos of late-2018. The broadly based and more growth-oriented S&P 500 Index provided a first quarter investment return of 13.65%, while our Russell 1000 Value Index came in at 11.93%. Smaller-company (U.S.) equities performed even better, and emerging markets equities also kept pace. But, an equally noteworthy first quarter story might be interest rates. The Fed's 2019 plan called for three hikes in short-term rates, but that became increasingly unlikely as each bit of economic data came across the tape. The same sentiment impacted longer-term yields, i.e., the yield on the widely followed 10-year Treasury note fell from 2.68% to 2.41%. Good news for bond investors — the note's first quarter investment return was 2.95%. Gold? The U.S. dollar was somewhat weak, and gold responded (1.33%).

All the capital market and portfolio rowers were rowing in the first quarter, so where are we now? As usual, we break things down under three headings:

- **Worldwide Economy**

The economic data here and abroad indicate that a cyclical slowing is upon us. Still, we in the U.S. are in better shape than our trading partners, and seemingly are in a position to pull the others out of their malaise. More of a pro-growth agenda in Europe would help out a great deal, as would a trade agreement with China and the free trade that would follow.

- **Equities**

The first quarter brought back all those good 2017 memories, and the rebound of the Cyclical/Value stocks in which we specialize was noteworthy. Still, Cyclical/Value yields remain attractive. Likewise, emerging markets stocks continue to sell at a discount to U.S. stocks, and continue to have the demographic and other characteristics that have made these stocks so appealing. And, the fixed income competition for equity dollars? Not competitive.

- **Interest Rates**

Back to the drawing board. The Fed would like nothing better than to get short-term interest rates back into their traditional 3-5% range, but the economic data that were a little soft at year-end have become softer still, particularly in Europe and China. The three hikes that were planned for 2019, therefore, are off the table. For some time, we have referred to the path of least resistance as being up, but Chairman Powell et al. clearly have called a time-out for now.

The worldwide economy is showing signs of slowing. The alarm bells have yet to go off, however, because Europe's structural problems practically are a given and China's problems appear to be manageable, i.e., more of the international trade/tariff variety. We in the U.S. are in better shape, and the U.S. equity market reflects this healthier backdrop: low and stable interest rates, low unemployment, low inflation.

* * * * *

And now, "The Path Ahead..." followed by a review of the balanced strategies.

The Path Ahead... Problem Solving in the Modern Era

"The most powerful force in the universe is compound interest."

- Albert Einstein

Long ago, when today's "classic rock" actually was on the Billboard charts and "financial planning" was something GM did, you really could tell the players without a program. The investment advisers were over here, the stockbrokers were over there, the insurance people were somewhere between here and there, etc., etc. Now, the lines increasingly have become blurred as everyone embraces the so-called wealth management model, and tries to be all things to all people.

Call them what you like, we'll state unequivocally that successful advice-givers in the modern era have to be solution-oriented. Sure, performance, benchmarks, etc., always will be important; but, investment advisers increasingly are being called upon to be problem solvers offering custom solutions. Want an example? Let's discuss a situation that came our way a few years back.

The Situation

When we first were introduced to the individual involved, he unexpectedly had inherited \$1 million, which constituted his entire investment portfolio at that time. But, he was in his early-30s, and, with a set of skills and after-tax income of \$5,000 per month, all was not lost. His solution-seeking question: What happens to the investment portfolio over time if his monthly expenses are increased to \$8,000, thereby requiring \$3,000 per month from the investment portfolio? Interesting question.

The Investment Strategy

The Nottinghill solution in this case was determined to be Indexed Total Portfolio Management (ITPM), our completely indexed approach to conservative balanced portfolio investing. Nine low-cost portfolio components in a three-sector Baseline (65% equities) structure. Why Baseline? Because, while a steady, reliable level of monthly income is vital in this case, so is long-term growth of capital in order to stay ahead of the inflation wolf. ITPM-Baseline with a 65% equity commitment was the logical compromise and logical Nottinghill solution.

Investment Return Possibilities

So, we decided to go with ITPM-Baseline, and then discussed the investment return possibilities. For openers, over the 2002-2019 QI period, ITPM-Baseline would have provided an annualized, gross-of-fee investment return of 7.52% (source: Nottinghill research). In the interest of conservatism, we believed that this individual could expect a future investment return of 6.50%, with the approximate 7.50% of 2002-2019 QI being the upper bound and 5.50% being the lower bound of the range of possibilities. To get a net-net figure, the next step was to deduct ITPM's 0.50% annual management fee and 0.30% for taxes. The net-net range, therefore, became 6.70% to 4.70%, with 5.70% being the most likely outcome.

The Path Ahead — Future Asset Values

At that point, all concerned knew the starting value of the investment portfolio, the required level of monthly withdrawals, and the range of likely future investment returns, net-net. But, the path ahead in this and all situations like it is defined best by available portfolio assets at various points in the future, and Einstein's powerful force, compounding interest, is on full display in this exercise. At 5.70%, the investment portfolio's market value will increase somewhat after 10 years (even with monthly withdrawals of \$3,000), and will increase considerably after 30 and 50 years. But, while the absolute dollars may be important, what about the purchasing power of those future assets?

The Path Ahead — Purchasing Power

Again, the absolute dollars are important, but what these dollars actually will buy at various points is a very important consideration as well. For

this individual, an assumed inflation rate of 1.50% per year seemed reasonable, therefore, the range of assumed, real investment returns was 5.20% to 3.20%, with 4.20% being the most likely outcome. The results are in Figure 1. At 4.20%, purchasing power essentially is maintained after 10 years, and then in fact does increase after that. At 5.20%, no complaints at all. Only at the lower level of 3.20% does purchasing power decrease over the long-term. As a footnote, however, what such a long-term, real investment return implies for the U.S. economy and the capital markets suggests that this is a low-

probability outcome. So, we felt comfortable going with the 4.20%, and voilà, the path ahead and the specific way to go down that path were defined for this individual.

* * * * *

In thinking about the above circumstances, the phrase "could be worse" comes to mind, but, all too often, the circumstances requiring an investment portfolio to deliver are not the best. No matter how fortunate or challenging those circumstances are, the goal is to figure out how best to deal with the circumstances from a financial standpoint, and to come up with the right plan for the individual involved. That plan constitutes the path ahead. We have illustrated a process for defining that path, from an analysis (usually detailed, but oversimplified for our purposes here) of the individual's current situation and what will be required going forward, to the actual management of the assets involved. That process in turn illustrates the awesome power of even fairly modest investment returns compounding over extended periods of time. We provided this individual with a solution, and the process we have illustrated can provide other solutions involving expected asset totals at various points in the future. Solutions provided by problem solvers.

Figure 1			
The Path Ahead — Purchasing Power			
	Annual Investment Return*		
	5.20%	4.20%	3.20%
Portfolio Purchasing Power after:			
10 Years**	\$1.2 million	\$1.1 million	\$1.0 million
30 Years**	2.1	1.4	0.8
50 Years**	4.8	2.0	0.5

*Net of assumed management fees, taxes, and inflation
**Beginning portfolio market value \$1 million; withdrawal rate \$3,000 per month

Total Portfolio Management

Portfolio Structure

Total Portfolio Management, or TPM, is a largely passive, balanced approach to the management of a taxable individual's or tax-exempt institution's overall portfolio. TPM portfolios consist of three sectors: Equities, U.S. Fixed Income, and the Alternatives Group. The Firm's Value Plus Equity Strategy, an active approach, governs the large capitalization component of the Equities sector, which also includes three other, passively managed ETF components. The U.S. Fixed Income sector is a combination of three actively managed bond mutual funds and intermediate Treasuries. And finally, positions in three alternative asset classes (ETFs) constitute an Alternatives Group that adds yet another layer of diversification. The result: a complete, largely passive destination for all of the taxable individual's or tax-exempt institution's investment needs.

Investment Objectives

- **A positive inflation-adjusted investment return** — A Life of the Strategy investment return greater than the inflation rate of the overall U.S. economy
- **Value-added** — A Life of the Strategy investment return superior to that of a balanced index weighted in accordance with the portfolio's asset allocation structure
- **Value-added with balanced index volatility** — Life of the Strategy investment return volatility comparable to that of a balanced index weighted in accordance with the portfolio's asset allocation structure

Investment Return Summary

	2019 QI	2002-2019
TPM Baseline*	12.06%	7.65%
S&P 500 Index	13.65	7.53
Barclays Capital US Aggregate Bond Index	2.94	4.36

*65% equities

Nottingham Investment Advisers, Ltd., is an independent investment adviser utilizing a number of large capitalization equity and widely diversified balanced strategies. The above Total Portfolio Management - Baseline performance data are associated with the Total Portfolio Management - Baseline model portfolio. The data were developed with all due care; however, they are simulated, and simulated data have certain inherent limitations. First, unlike an actual performance record, simulated results do not reflect actual trading. Second, since trades have not actually been executed, results may contain an under- or over-compensation for the impact, if any, of certain market factors. These data are provided net-of-transaction costs, and net-of-management fees. Furthermore, the data are associated with time periods ending March 31, 2019, are annualized for the multi-year period, are expressed in U.S. Dollars, and are compared in this case to the broadly based, all-equity S&P 500 Index and the all-fixed income Barclays Capital US Aggregate Bond Index. Whether simulated or actual, past performance is no guarantee of future results. A complete list of Nottingham performance composites and model portfolios and additional information regarding the calculation and reporting of Nottingham performance are available upon request.

Investment Strategy Advantages

- A seasoned team of investment professionals
- The complete, partially-indexed answer
- Low management fees, transaction costs, and taxes
- Solid performance at a low level of risk

Now, let's talk about ITPM in 2019. Details on the next page.

Indexed Total Portfolio Management

Portfolio Structure

Indexed Total Portfolio Management, or ITPM, is a totally passive, balanced approach to the management of a taxable individual's or tax-exempt institution's overall portfolio. ITPM portfolios consist of three sectors: Equities, U.S. Fixed Income, and the Alternatives Group. A total of nine components within those sectors, and all nine consist of ETF positions performing in line with an associated equity market index, bond market index, or commodity price. ITPM portfolios combine the traditional performance advantages of passive management, along with ultra-low transaction costs and management fees. The result: a complete, totally passive destination for all of the taxable individual's or tax-exempt institution's investment needs.

Investment Objectives

- **A positive inflation-adjusted investment return** — A Life of the Strategy investment return greater than the inflation rate of the overall U.S. economy
- **A structure-consistent investment return** — A Life of the Strategy investment return consistent with the component investment returns weighted in accordance with the portfolio's asset allocation structure
- **Low, structure-consistent volatility** — Life of the Strategy investment return volatility consistent with that of a low-volatility, indexed asset allocation structure

Investment Return Summary

	2019 Q1	2002-2019
ITPM Baseline*	9.64%	6.89%
S&P 500 Index	13.65	7.53
Barclays Capital US Aggregate Bond Index	2.94	4.36

*65% equities

Nottingham Investment Advisers, Ltd., is an independent investment adviser utilizing a number of large capitalization equity and widely diversified balanced strategies. The above Indexed Total Portfolio Management - Baseline performance data are associated with the Indexed Total Portfolio Management model portfolio. The data were developed with all due care; however, they are simulated, and simulated data have certain inherent limitations. First, unlike an actual performance record, simulated results do not reflect actual trading. Second, since trades have not actually been executed, results may contain an under- or over-compensation for the impact, if any, of certain market factors. These data are provided net-of-transaction costs, and net-of-management fees. Furthermore, the data are associated with time periods ending March 31, 2019, are annualized for the multi-year period, are expressed in U.S. Dollars, and are compared in this case to the broadly based, all-equity S&P 500 Index and the all-fixed income Barclays Capital US Aggregate Bond Index. Whether simulated or actual, past performance is no guarantee of future results. A complete list of Nottingham performance composites and model portfolios and additional information regarding the calculation and reporting of Nottingham performance are available upon request.

Investment Strategy Advantages

- A seasoned team of investment professionals
- The complete, fully-indexed answer
- Ultra-low management fees, transaction costs, and taxes
- Solid performance at a low level of risk