



A FRAMEWORK FOR EVALUATING OUTSOURCED CHIEF INVESTMENT OFFICE PERFORMANCE

Institutions are increasingly relying on outsourced solutions to meet their investment needs. *Pensions & Investments* reported in June 2018 that outsourced chief investment officer assets had reached \$2.1 trillion worldwide as of March 31, 2018, having grown 19% in the last¹ year on the heels of substantial growth in prior years. This astonishing growth rate reflects the growing recognition of the benefits of OCIO for governance, service and performance reasons.

Outsourced investment office services take many forms and degrees of discretion granted to the outsourced investment management provider but can collectively be considered as “Outsourced Chief Investment Office,” or OCIO services. Angeles is an OCIO firm with \$28 billion in assets, serving in this capacity for clients since 2002². All of Angeles’ OCIO assignments are fully customized, with each client having a unique asset allocation policy and portfolio that they hold

directly. Choosing an OCIO partner is a multi-faceted task. An OCIO partnership goes deeper than most investment-related vendor relationships, encompassing everything from investment management implementation and back office services, to helping institutions clarify their investment objectives, hiring and firing managers, serving as an educator on governance and new investment approaches/topics, consolidated reporting on results and portfolio structure, and much more. The traditional “Ps” for evaluating any prospective investment - People, Process, Portfolio Structure, Performance and Price - are all relevant when evaluating OCIO services and should be considered in a multi-dimensional and holistic fashion.

A central contention of Angeles is that a GIPS performance composite is an essential evaluation tool when hiring an OCIO.

¹ Pensions & Investments, June 25, 2018, <http://www.pionline.com/article/20180625/INTERACTIVE/180629962>

² As of August 31, 2018 \$4.2 billion of these assets are fully discretionary; the remaining assets are non-discretionary assets. For purposes of the Global Investment Performance Standards (GIPS®), the \$4.2 billion represents the Angeles “GIPS Firm” and includes those client assets assigned to a performance composite and those excluded from the composites due to trading or other restrictions.

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Performance alone should not determine an OCIO selection, but failure to comprehensively analyze a GIPS-compliant track record unnecessarily leaves a source of potential insight on the table.

Among the “Ps”, Performance is often the least used and least understood method of establishing whether an outsourced investment office firm is likely to be a good fit for meeting an institution’s needs. This paper seeks to remedy that shortfall by providing a framework for evaluating past performance of outsourced investment office providers as an input to selecting an OCIO. In this paper we use Angeles as an illustration of our points, but these points can be generalized to other firms’ performance. A central

contention of Angeles is that a GIPS performance composite is an essential evaluation tool when hiring an OCIO.

This paper identifies several ways in which analyzing quantitative performance – especially in conjunction with other qualitative understandings - can allow an institution to “look under the hood” of an outsourced manager’s process and investment outcomes to create a fuller picture of what an institution can and should expect from an outsourced manager, a look that is based on actual experience delivered by the OCIO. *Performance alone should not determine an OCIO selection, but failure to comprehensively analyze a GIPS-compliant track record unnecessarily leaves a source of potential insight on the table.*

KEY POINTS ON OCIO PERFORMANCE EVALUATION

- A composite of OCIO performance compiled according to GIPS standards is critical and should be requested by investors when they are evaluating OCIO services. A GIPS composite should be required by third party OCIO evaluators as well. Compared to a GIPS record, “representative account” returns can potentially be cherry-picked, and are likely to be a less than full picture of results the manager can deliver across a range of clients and market environments. An audited track record of actual results is clearly more meaningful for analysis than back-tested or hypothetical returns. Percentage of clients that outperform benchmarks is also a limited metric relative to a GIPS composite.
- A GIPS compliant record will provide data on account dispersion across portfolios with similar mandates. If dispersion is relatively narrow, this suggests the OCIO has an investment process that delivers similar results to similar clients, and its “best ideas” are spread evenly across the firms’ clients. Wide dispersion could suggest an OCIO investment process that is not executed in similar fashion across clients, making assessment of the track record more difficult, and potentially more dependent on idiosyncrasies of the account relationship than the firm’s full intellectual capital and capability.
- Attribution analysis is a useful complement to a GIPS composite to see sources of value added versus benchmarks and whether actual results tie with expected sources of excess return and the “as-advertised” investment process. Attribution analysis requires a representative account, so care should be taken to understand why the representative account was chosen.
- Even with a coherent audited track record to evaluate, it remains important to understand personnel resources and continuity, including whether the team that generated the track record remains involved. Sometimes a track record can yield clues on the impact of any changes in organization structure or team composition.

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- The dictum of “past performance is no guarantee of future results” remains an essential caveat. *Performance chasing in search of an OCIO is likely to be as unsuccessful as it is in other asset categories.* Performance analysis, however, of a GIPS composite and attribution analysis will be illuminating about what to expect, how results have been and will be generated, and when expectations might not be met.

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PERFORMANCE OF AN OUTSOURCED INVESTMENT MANAGER

Every client is different in how it implements the discretion granted to its OCIO provider; this is no different from “insourced” investment offices, where Investment Committees may give total autonomy to in house investment staff, including the Chief Investment Officer (CIO), to very little autonomy, retaining final decision-making authority on managers and allocations to themselves, leaving the in house investment staff to implement Committee decisions. *The variation in the degree of autonomy among OCIO services should not be used as a fig leaf to avoid the work of analyzing performance (for the “buyer” of OCIO services) or the scrutiny it brings (to the OCIO provider).*

BUT WHAT TO ANALYZE?

For most investment “products” (such as global equity or core fixed income), adoption of Global Investment Performance Standards (GIPS) developed by the CFA Institute since 1987 for North America and later extending to a global standard approved by the CFA Institute Board of Governors. Widespread adoption of GIPS has led to performance presentation that is according to clear standards that prevent “cherry picking” of accounts and provides genuine apples to apples comparisons. A GIPS composite allows a potential client to assess what the OCIO has delivered across a range of clients and asset allocations, and over a meaningful period.

Can GIPS apply to outsourced investment management? After all, discretionary management by a firm like Angeles is a multi-asset class service, and not just an “investment product,” combining elements of



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investments, service and customization for clients on portfolio structure and investment policy. Angeles believes the answer to this question is a clear “Yes.”

GIPS standards allow for analysis of a track record that removes a significant amount of guesswork or need to make assumptions in OCIO performance analysis.

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A TRACK RECORD PRESENTED ACCORDING TO GIPS WILL:

- Be composed of *all* fully discretionary³ accounts, weighted by account assets (dollar-weighted). The track record is presented with clear data on number of accounts, assets, and the benchmark for each composite.
- Be prepared according to exact standards and may be audited by a third party. Third party audits are voluntary; Angeles has chosen to have its composites audited regularly, usually every few years.
- Cover all periods the OCIO service has been in effect, not just the life span of a representative account.
- Include accounts that are no longer managed and add new accounts as they are on-boarded. This requirement addresses survivorship bias.
- Show calendar year returns gross and net of the OCIO's fees and relative to a benchmark, with reported dispersion across the accounts in the composite. Dispersion measures the range of differences between accounts.
- Include the impact of all fees, including manager fees, transactions costs, and the fee paid to the Investment manager/OCIO.

Angeles has a GIPS-compliant long-term track record of its discretionary management for clients that dates to the inception of our first such relationship in 2002. Angeles' track record covers multiple market cycles and comprises three GIPS composites which are distinguished from each other by the level of equity-related exposure in the portfolios. Each is audited by a third party on a regular basis for GIPS compliance.

In an OCIO relationship with Angeles, the client retains final say on asset allocation. As OCIO, Angeles provides the essential service of helping clients think through their investment policy based on detailed modeling and projections using proprietary capital market assumptions and we make policy recommendations. Nevertheless, the final asset allocation policy determination remains with the

institution. This contrasts with the services of some other OCIO firms which manage to a single asset allocation policy across all clients.

Given the importance of asset allocation in determining outcomes, asset allocation differences must be accounted for in performance comparisons. Angeles does this by assessing equity exposure (exposure to public equity, hedge funds, and private assets combined) and grouping client results into three composite "buckets." These buckets range from "Conservative Balanced" (equity \leq 49% of total assets), to "Balanced" (equity 50-75% of total assets), to "Equity-Like" (equity \geq 76% of total assets). Each composite has a benchmark that is reflective of the policies adopted by individual clients whose assets Angeles manages in each composite group.

³ Accounts with less than full discretion are not included. Examples of exclusions are accounts were: a legacy holding that cannot be sold renders the account substantially different than would be the case with discretion; investment exclusions such as no fossil fuels or tobacco; or limits on Angeles authority to rebalance or reposition (hire, reweight, or terminate) managers. As of June 2018, Angeles had 65 OCIO portfolios, of which 46 were fully discretionary and included in our GIPS composites)

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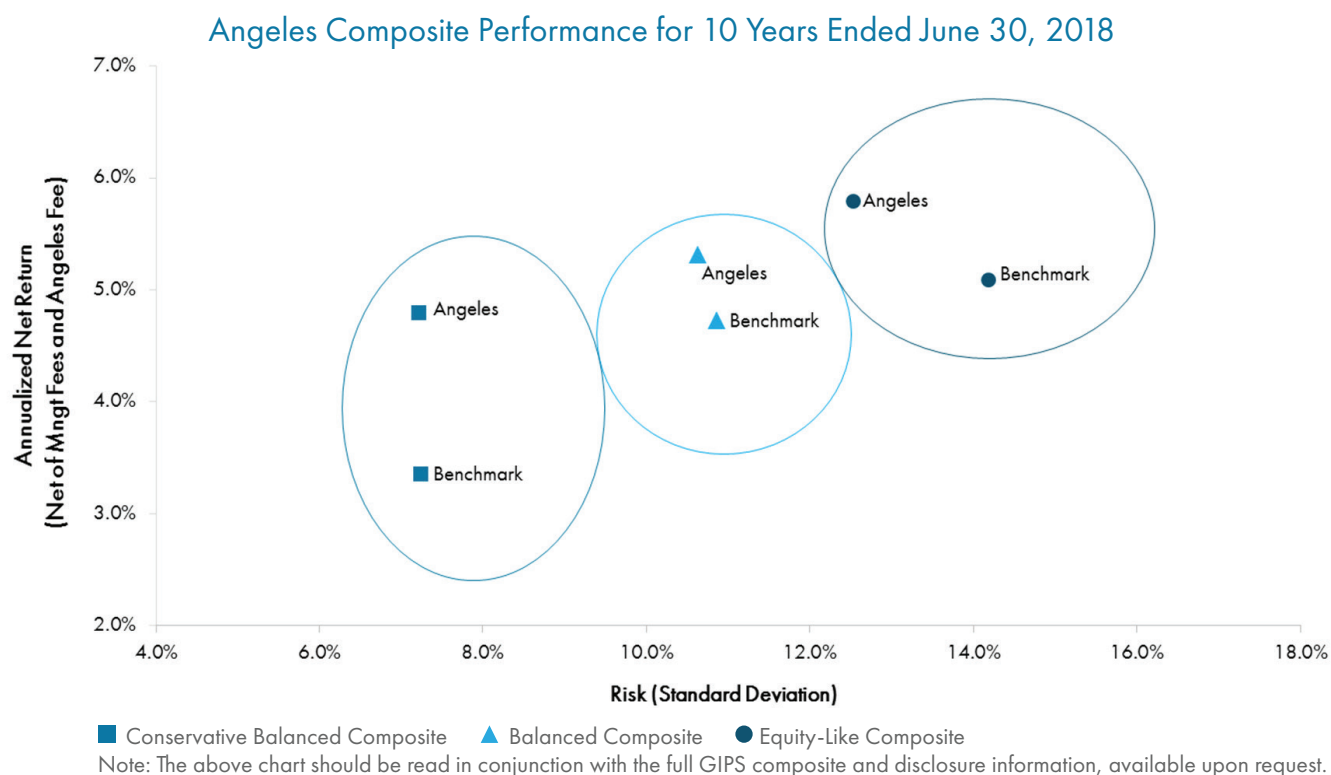


FIGURE 1

Angeles' OCIO portfolios are conceived, vetted, implemented and monitored by the Angeles Investment Committee, comprised of the eight senior members of the firm. In developing our model investment portfolios, the Angeles Investment Committee uses an investment process for manager research and portfolio construction that dates to the inception of Angeles in 2001 (and beyond, to our predecessor firm formed in 1991). Angeles founders and other key personnel have been on the Angeles Investment Committee since the beginning of the firm in most cases, and in most others for an extended period, so the Angeles Investment Committee is fully responsible and accountable for the firm's GIPS track record.

An overview of Angeles' results shows a track record that outperforms benchmarks, net of all fees and transactions costs, as well as net of Angeles' fee to clients. We aim for annualized net of all fees (including

Angeles' fees) excess return of at least 0.5-1.0% over long periods of time and have delivered on this. The Angeles Balanced composite is our largest (in terms of assets and number of clients) and has delivered 0.6% annualized excess return (net of all fees) since inception in August 2002, while the oldest and next largest composite, Equity-Like, has delivered approximately 0.9% annualized, net of all fees, since March 2002. The long-term power of compounding excess return at this level is significant.

GIPS requires that dispersion of results be reported. Dispersion measures the degree of variability in the returns of the constituents of the composite. In Angeles' case, dispersion is less than 2% in most years, a tight band. If dispersion is relatively narrow, this suggests the OCIO has a disciplined investment process that delivers similar results to clients with similar asset allocation policies, and that the OCIO's

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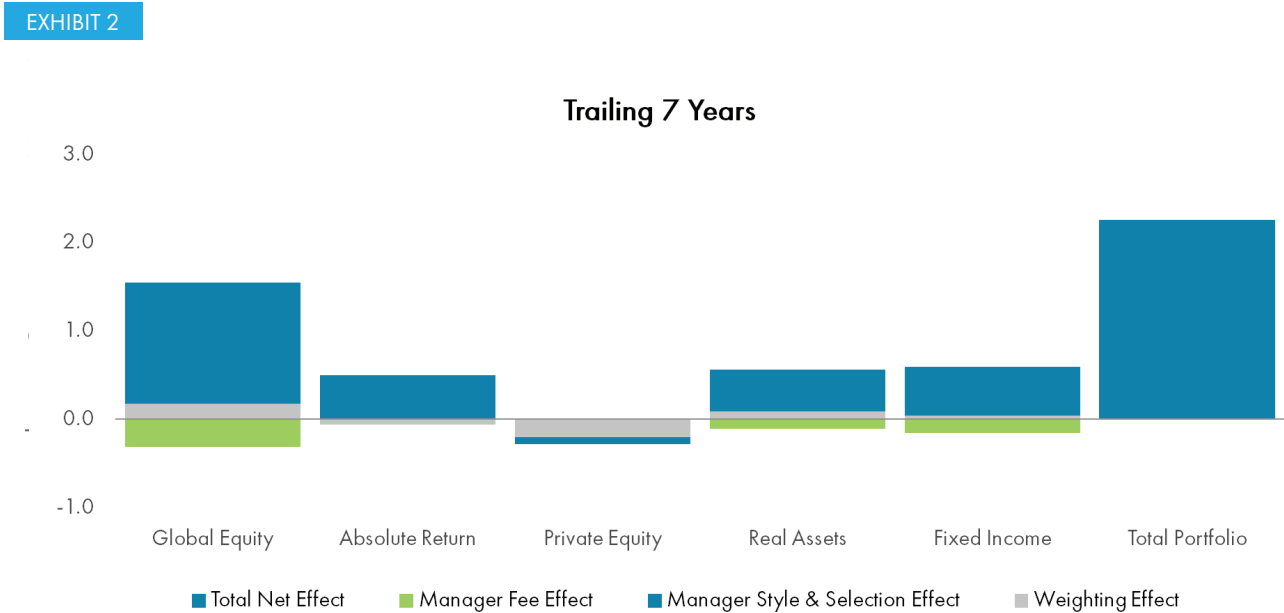
“best ideas” are spread evenly across the firms’ clients. Wide dispersion could suggest an OCIO investment process that is not executed in similar fashion across clients, making assessment of the track record more ambiguous and potentially raising important questions regarding the OCIO’s approach and investment process.

GIPS also requires that results be shown on an annual basis (Exhibit 1). From this, one can see that while Angeles has beaten its benchmarks over time, we have not outperformed every year. In the 15 full calendar years our Balanced Composite has been calculated (2003-2017), we have outperformed 10 out of the 15 years. It’s important to realize in advance that performance is not linear and variability is to be expected. Generally, Angeles has out performed when markets are moving sideways to up, while slightly underperforming when markets are negative. In the Angeles Equity-Like composite, we have outperformed in 11 of the 15 years the composite has existed, and in 9 of 12 years the Conservative Balanced Composite has existed.

For a deeper look into performance, total fund attribution can be evaluated. Attribution analysis disaggregates how excess returns versus a total fund policy benchmark have been generated. It’s not possible to do attribution on a composite, so a representative account will have to be requested. The analysis should include an explanation of why the account was chosen. At Angeles, our attribution analysis shows the impact of the two major sources of excess return: asset allocation (over or underweighting asset classes) and manager selection and style (which is how managers perform relative to their individual benchmarks and how a sub-asset class differs from its benchmark composite).

Attribution analysis of the largest and oldest (since 2005) account in the Angeles Balanced GIPS composite can be seen in Exhibit 2, which covers 7 years.

Total Fund Attribution for Representative Account in Angeles Balanced Composite Through June 30, 2018 – Annualized Excess returns versus Total Fund Benchmark⁴



⁴ Seven years was the longest period for which data was available to conduct meaningful attribution analysis. The quality of the attribution analysis also degrades over longer periods of time.

ATTRIBUTION ANALYSIS SHOWS:

- Excess returns relative to the total fund benchmark have been generated across asset classes. The largest positive effect is in public equities, which in the case of this portfolio, are the largest asset class.
- The only asset class with negative excess returns was Private Equity. This is not surprising, as near term returns for privates are less meaningful than for other asset classes, given the long-term nature of private equity and the inexact nature of benchmarking private assets. In this case the benchmark for private equity is the Russell 3000, so a material degree of tracking error versus that benchmark is expected.
- Excess returns were generated by manager selection (measuring how managers perform relative to their individual benchmarks) and portfolio construction (how sub-asset class allocations perform relative to their asset class composite benchmarks). This illustrates Angeles' investment style, which focuses on manager selection and portfolio construction, which takes up the bulk of our time in the Investment Committee.
- Asset allocation effects are modest. This is illustrative of Angeles' style. We will make active asset allocation weighting decisions (within allowable ranges), but in recent years have not positioned portfolios to over or underweight broad asset classes due to the absence of compelling opportunities. Instead, our recent tilts have been within asset classes, such as to overweight credit in fixed income and to underweight interest rate (duration) risk.
- The fact that returns were generated across asset classes is useful to know. It suggests no single investment idea or allocation was responsible for results.

CONCLUSION

This paper argues that it is reasonable and even essential for OCIO “buyers” to request and evaluate a GIPS-compliant performance track record(s) to inform the choice of an OCIO provider choice. Returns are important, both relative and absolute, but will not be the only or even primary input for decision-making in hiring an OCIO. Performance should be considered along with the myriad of other factors (organization, personnel, resources, commitment to the business, back office resources, experience) that go into selecting an OCIO partner. The GIPS record can be complemented by attribution analysis of total fund returns to “look under the hood” of an OCIO’s actual services as delivered. With performance considered in a holistic fashion, along with other qualitative factors, a fuller picture will emerge to inform a well-grounded OCIO hiring decision.

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EXHIBIT 1

Performance Results – Balanced Composite

Year	Gross Total Return (%)	Net Total Return (%)	Benchmark Return (%)	Composite - 3 Year Standard Deviation	Benchmark - 3 Year Standard Deviation	# of Portfolios	Composite Dispersion	Total Composite Assets at End of Period (USD Millions)	Percentage of Firm Assets	Total Firm Assets (USD Millions)
2017	17.2	16.9	14.1	7.2	5.6	29	1.4	\$1,399	43.0%	\$3,251
2016	7.8	7.6	5.4	7.7	6.0	27	0.9	\$1,209	42.5%	\$2,842
2015	(2.1)	(2.3)	(0.5)	7.4	6.1	24	0.8	\$1,109	44.1%	\$2,512
2014	5.8	5.5	4.2	6.8	6.3	21	0.8	\$1,035	49.9%	\$2,076
2013	18.0	17.8	13.7	9.1	8.6	16	2.0	\$728	42.4%	\$1,718
2012	13.2	13.0	11.4	10.8	10.5	16	0.8	\$840	60.2%	\$1,394
2011	(2.6)	(2.8)	(2.0)	12.4	13.8	18	1.2	\$819	62.8%	\$1,304
2010	11.9	11.7	11.6	16.0	17.6	11	1.0	\$720	55.3%	\$1,302
2009	21.5	21.1	22.6	14.8	16.5	8	3.2	\$448	49.2%	\$910
2008	(31.9)	(32.1)	(30.4)	13.0	13.2	15	2.6	\$540	56.9%	\$948
2007	5.1	4.9	5.4	6.4	5.8	18	0.9	\$859	63.3%	\$1,356
2006	14.8	14.5	14.4	6.3	5.5	10	0.9	\$601	58.9%	\$1,020
2005	8.0	7.7	6.7	7.8	7.0	9	1.0	\$413	68.2%	\$605
2004	14.4	14.0	11.5	NA	NA	8	0.4	\$122	49.1%	\$248
2003	28.2	27.5	24.8	NA	NA	5	NA	\$84	63.2%	\$132

Performance Results – Conservative Balanced Composite

Year	Gross Total Return (%)	Net Total Return (%)	Benchmark Return (%)	Composite - 3 Year Standard Deviation	Benchmark - 3 Year Standard Deviation	# of Portfolios	Composite Dispersion	Total Composite Assets at End of Period (USD Millions)	Percentage of Firm Assets	Total Firm Assets (USD Millions)
2017	11.4	11.1	9.3	4.7	3.5	3	NA	\$37	1.2%	\$3,250
2016	6.5	6.2	4.3	5.1	3.8	3	NA	\$36	1.3%	\$2,842
2015	(1.1)	(1.4)	(0.0)	5.2	3.9	3	NA	\$37	1.5%	\$2,512
2014	4.5	4.1	5.0	4.9	3.8	4	NA	\$42	2.0%	\$2,076
2013	10.9	10.5	6.1	6.0	5.3	3	NA	\$39	2.3%	\$1,718
2012	10.7	10.3	7.9	7.0	6.5	4	NA	\$40	2.9%	\$1,394
2011	0.7	0.4	0.2	8.8	9.8	4	NA	\$36	2.8%	\$1,304
2010	10.2	9.9	9.1	11.2	11.9	7	0.5	\$113	8.7%	\$1,302
2009	16.3	15.9	8.5	10.7	11.3	6	NA	\$176	19.3%	\$910
2008	(20.0)	(20.2)	(18.0)	9.2	8.6	3	NA	\$34	3.6%	\$948
2007	3.3	2.9	6.2	5.3	3.9	1	NA	\$34	2.5%	\$1,356
2006	12.8	12.5	9.9	NA	NA	1	NA	\$33	3.2%	\$1,020
2005	5.4	5.1	3.7	NA	NA	2	NA	\$29	4.8%	\$605

Performance Results – Equity-Like Composite

Year	Gross Total Return (%)	Net Total Return (%)	Benchmark Return (%)	Composite - 3 Year Standard Deviation	Benchmark - 3 Year Standard Deviation	# of Portfolios	Composite Dispersion	Total Composite Assets at End of Period (USD Millions)	Percentage of Firm Assets	Total Firm Assets (USD Millions)
2017	19.4	19.2	16.9	8.1	7.1	11	2.0	\$408	12.5%	\$3,251
2016	7.7	7.5	6.0	8.8	7.8	9	0.5	\$267	9.4%	\$2,842
2015	(1.6)	(1.8)	(0.8)	8.8	8.0	7	1.0	\$185	7.4%	\$2,512
2014	5.1	4.8	4.1	8.7	8.4	6	NA	\$175	8.4%	\$2,076
2013	23.2	22.7	18.8	12.3	12.1	5	0.4	\$52	3.0%	\$1,718
2012	15.2	14.7	13.6	13.9	15.2	5	NA	\$38	2.7%	\$1,394
2011	(6.3)	(6.8)	(6.9)	15.2	18.9	3	NA	\$16	1.2%	\$1,304
2010	12.3	11.9	12.1	18.3	22.5	3	NA	\$47	3.6%	\$1,302
2009	28.9	28.4	32.1	16.9	20.6	3	NA	\$43	4.7%	\$910
2008	(36.6)	(36.8)	(37.8)	14.9	16.2	3	NA	\$33	3.5%	\$948
2007	7.3	6.9	5.9	7.9	7.7	3	NA	\$53	3.9%	\$1,356
2006	16.8	16.4	17.6	8.0	7.1	3	NA	\$50	4.9%	\$1,020
2005	10.1	9.8	7.3	9.6	9.0	2	NA	\$44	7.2%	\$605
2004	17.0	16.6	13.6	NA	NA	2	NA	\$32	12.9%	\$248
2003	35.3	34.9	32.4	NA	NA	1	NA	\$27	20.3%	\$132

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GENERAL GIPS DISCLOSURES:

Angeles Investment Advisors, LLC is an independent registered investment advisor that invests assets on behalf of institutional investors such as endowments, foundations, non-profits and pension funds. All returns above are stated in US dollars.

Angeles Investment Advisors, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Angeles Investment Advisors, LLC has been independently verified for the periods 3/1/02 through 6/30/17.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards.

Past performance is no indication of future results. Performance results reflect reinvestment of dividends and other earnings. Gross returns exclude Angeles' fee, but are net of all mutual fund and ETF expense ratios, transaction costs and generally custody fees. Approximately 3% of the composite is based on manager estimates and will be updated in the following quarter. Net performance is shown net of all actual management fees paid. Performance shown represents the time-weighted rate of return for all client portfolios that qualify under the composite description. The 3 Year Standard Deviation presented is the dispersion of monthly returns, equal weighted for accounts, over the trailing 3 year period as of the end of each calendar year. The benchmark return through December 2010 was calculated by asset-weighting each client's benchmark return. Each client's benchmark return is calculated by multiplying the individual benchmark component returns by the policy target percentages.

Benchmark returns since inception have been calculated monthly. Number of portfolios is as of December 31st of each year. Composite dispersion is calculated for accounts in the composite for a full year. If less than five accounts in a composite for a full year, dispersion will not be calculated.

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. To receive a complete list and description of Angeles' composites that adhere to GIPS®, contact Stephen Smetana at 310.393.6300 or ssmetana@angelesadvisors.com.

BALANCED COMPOSITE

The Angeles Investment Advisors' Balanced Composite was created on 8/1/02. The Angeles Balanced composite has been examined for the periods 8/1/02 through 6/30/17. The verification and performance examination reports are available upon request.

The composite is defined to include all fee paying, discretionary accounts that are managed according to a balanced investment strategy with 51%-75% target total Capital Appreciation exposure, consisting of equity, absolute return, and private equity. Actual exposure may temporarily fall outside this range based on market conditions, but will generally meet these parameters. Angeles Investment Advisors' standard fees for discretionary accounts are 0.50% on the first \$20 million, 0.40% on the next \$20 million, 0.20% on the next \$60 million, and 0.15% on the balance. Fee schedules will vary among clients.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards.

For the year ended 12/31/10, the benchmarks used, in approximate weighted average order, were MSCI ACWI IMI, Barclays Aggregate, CPI+3%, CPI+2%, HFRI FOF, Russell 3000, FTSE EPRA/NAREIT Global REITs. Benchmarks below .50% weighting are not shown. From 1/1/11 forward, the benchmark allocations are static and are based on the asset allocation policies of the underlying clients represented in the composite; these static weightings may be adjusted annually or more frequently if material changes occur. Benchmark components must have a minimum weight of 5% to be included in the Composite Policy; if below, will be allocated among other components. For 2011, the weighting was 61% MSCI ACWI IMI, 28% Barclays Aggregate, 9% CPI+3%, and 2% HFRI FOF Index. For 2012, the weighting was 58% MSCI ACWI IMI, 5% HFRI FOF, 9% CPI +3%, 29% Barclays Aggregate. For 2013 the weighting was 57% MSCI ACWI IMI, 9% HFRI FOF, 11% CPI +2%, 23% Barclays Aggregate. For 2014 the weighting was 50% MSCI ACWI IMI, 17% HFRI FOF, 11% CPI +2%, 22% Barclays Aggregate. For 2015 the weighting was 49% MSCI ACWI IMI, 16% HFRI FOF, 11% CPI +2%, 23% Barclays Aggregate. For 2016 the weighting was 49% MSCI ACWI IMI, 16% HFRI FOF, 11%

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CPI +2%, 24% Barclays Aggregate. For 2017 the weighting was 50% MSCI ACWI IMI, 15% HFRI FOF, 11% CPI +2%, 24% BBgBarc US Aggregate Index. From January-April 2018 the weighting was 50% MSCI ACWI IMI, 15% HFRI FOF, 11% CPI +2%, 24% BBgBarc US Aggregate Index. From May 2018-present the weighting is 53% MSCI ACWI IMI, 15% HFRI FOF, 8% CPI +2%, 24% BBgBarc US Aggregate Index.

BALANCED COMPOSITE

The Angeles Investment Advisors' Conservative Balanced Composite was created on 6/1/04. The Angeles Conservative Balanced composite has been examined for the periods 6/1/04 through 6/30/17. The verification and performance examination reports are available upon request.

The composite is defined to include all fee paying, discretionary accounts that are managed according to a conservative balanced investment strategy with less than 50% target total Capital Appreciation exposure, consisting of equity, absolute return, and private equity. Actual exposure may temporarily fall outside this range based on market conditions, but will generally meet these parameters. Angeles Investment Advisors' standard fees for discretionary accounts are 0.50% on the first \$20 million, 0.40% on the next \$20 million, 0.20% on the next \$60 million, and 0.15% on the balance. Fee schedules will vary among clients. For the year ended 12/31/10, the benchmarks used, in approximate weighted average order, were Barclays Aggregate, MSCI ACWI, MSCI ACWI IMI, HFRI FOF, CPI+2%, T-Bills+3%, FTSE EPRA Global REITs, Barclays TIPS, and CPI. From 1/1/11 forward, the benchmark allocations are static and are based on the asset allocation policies of the underlying clients represented in the composite; these static weightings may be adjusted annually or more frequently if material changes occur. Benchmark components must have a minimum weight of 5% to be included in the Composite Policy; if below, will be allocated among other components. For 2011, the weighting was 38% MSCI ACWI IMI, 45% Barclays Aggregate, 12% CPI+2, and 5% HFRI Fund of Funds Index. Beginning January 2012-December 2013 the weighting was: 29% MSCI ACWI IMI, 6% HFRI FOF, 7% CPI +2%, 57% Barclays Aggregate. For 2014, the weighting was: 29% MSCI ACWI IMI, 6% HFRI FOF, 7% CPI +2%, 58% Barclays Aggregate. For 2015, the weighting was: 30% MSCI ACWI IMI, 6% HFRI FOF, 6% CPI +2%, 58% Barclays Aggregate. For 2016, the weighting was: 28% MSCI ACWI IMI, 6% HFRI FOF, 6% CPI +2%, 59% Barclays Aggregate. For 2017, the weighting

was: 28% MSCI ACWI IMI, 7% HFRI FOF, 6% CPI +2%, 59% BBgBarc US Aggregate Index. Benchmark returns since inception have been calculated monthly. For 2018, the weighting is: 28% MSCI ACWI IMI, 7% HFRI FOF, 5% CPI +2%, 60% BBgBarc US Aggregate Index.

CONSERVATIVE BALANCED COMPOSITE

The Angeles Investment Advisors' Conservative Balanced Composite was created on 6/1/04. The Angeles Conservative Balanced composite has been examined for the periods 6/1/04 through 6/30/17. The verification and performance examination reports are available upon request.

The composite is defined to include all fee paying, discretionary accounts that are managed according to a conservative balanced investment strategy with less than 50% target total Capital Appreciation exposure, consisting of equity, absolute return, and private equity. Actual exposure may temporarily fall outside this range based on market conditions, but will generally meet these parameters. Angeles Investment Advisors' standard fees for discretionary accounts are 0.50% on the first \$20 million, 0.40% on the next \$20 million, 0.20% on the next \$60 million, and 0.15% on the balance. Fee schedules will vary among clients.

For the year ended 12/31/10, the benchmarks used, in approximate weighted average order, were Barclays Aggregate, MSCI ACWI, MSCI ACWI IMI, HFRI FOF, CPI+2%, T-Bills+3%, FTSE EPRA Global REITs, Barclays TIPS, and CPI. From 1/1/11 forward, the benchmark allocations are static and are based on the asset allocation policies of the underlying clients represented in the composite; these static weightings may be adjusted annually or more frequently if material changes occur. Benchmark components must have a minimum weight of 5% to be included in the Composite Policy; if below, will be allocated among other components. For 2011, the weighting was 38% MSCI ACWI IMI, 45% Barclays Aggregate, 12% CPI+2, and 5% HFRI Fund of Funds Index. Beginning January 2012-December 2013 the weighting was: 29% MSCI ACWI IMI, 6% HFRI FOF, 7% CPI +2%, 57% Barclays Aggregate. For 2014, the weighting was: 29% MSCI ACWI IMI, 6% HFRI FOF, 7% CPI +2%, 58% Barclays Aggregate. For 2015, the weighting was: 30% MSCI ACWI IMI, 6% HFRI FOF, 6% CPI +2%, 58% Barclays Aggregate. For 2016, the weighting was: 28% MSCI ACWI IMI, 6% HFRI FOF, 6% CPI +2%, 59% Barclays Aggregate. For 2017, the weighting was: 28% MSCI ACWI IMI, 7% HFRI FOF, 6% CPI +2%, 59% BBgBarc US Aggregate Index. Benchmark

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returns since inception have been calculated monthly. For 2018, the weighting is: 28% MSCI ACWI IMI, 7% HFRI FOF, 5% CPI +2%, 60% BBgBarc US Aggregate Index.

EQUITY-LIKE COMPOSITE

The Angeles Investment Advisors' Discretionary Equity-like Composite was created on 3/1/02. The Angeles Equity-Like composite has been examined for the periods 3/1/02 through 6/30/17. The verification and performance examination reports are available upon request.

The composite is defined to include all fee paying, discretionary accounts that are managed according to an equity-oriented (but including bonds) investment strategy with generally greater than 75% Capital Appreciation, consisting of equity, absolute return, and private equity. Actual exposure may temporarily fall outside this range based on market conditions, but will generally meet these parameters. Angeles Investment Advisors' standard fees for discretionary accounts are 0.50% on the first \$20 million, 0.40% on the next \$20 million, 0.20% on the next \$60 million, and 0.15% on the balance. Fee schedules will vary among clients.

The composite is defined to include all fee paying, discretionary accounts that are managed according to an equity-oriented (but including bonds) investment strategy with generally greater than 75% Capital Appreciation, consisting of equity, absolute return, and private equity. Actual exposure may temporarily fall outside this range based on market conditions, but will generally meet these parameters. Angeles Investment Advisors' standard fees for discretionary accounts are 0.50% on the first \$20 million, 0.40% on the next \$20 million, 0.20% on the next \$60 million, and 0.15% on the balance. Fee schedules will vary among clients.

For the year ended 12/31/10, the benchmarks used, in approximate weighted average order, were, MSCI ACWI, HFRI FOF, Barclays Aggregate, CPI +2%, FTSE NAREIT Global REITs, and CPI. From 1/1/11 forward, the benchmark allocations are static and are based on

the asset allocation policies of the underlying clients represented in the composite; these static weightings may be adjusted annually or more frequently if material changes occur. Benchmark components must have a minimum weight of 5% to be included in the Composite Policy; if below, will be allocated among other components. From January-April 2011 the weighting was 53% MSCI ACWI, 25% HFRI Fund of Funds, 17% Barclays Aggregate, and 5% CPI+2% Index. From April 2011-December 2011 the weighting was 82% MSCI ACWI, 9% Barclays Aggregate, and 9% FTSE EPRA/NAREIT Global REITs. For 2012, the weighting was 77% MSCI ACWI IMI, 8% HFRI FOF, 8% CPI +2%, and 7% Barclays Aggregate. For 2013 the weighting was 76% MSCI ACWI IMI, 10% HFRI FOF, 8% CPI +2%, and 6% Barclays Aggregate. From January-August 2014 the weighting was 76% MSCI ACWI IMI, 16% HFRI FOF, 8% CPI +2%. From September 2014 – December 2014, the weighting was 66% MSCI ACWI IMI, 14% HFRI FOF, 11% CPI +3%, and 8% Barclays Aggregate. For 2015 the weighting was 64% MSCI ACWI IMI, 15% HFRI FOF, 12% CPI +3%, and 9% Barclays Aggregate. For January 2016 the weighting was 57% MSCI ACWI IMI, 14% HFRI FOF, 11% CPI +3%, 8% Barclays Aggregate and 9% Russell 3000 + 2.5%. For February 2016 the weighting was 60% MSCI ACWI IMI, 20% HFRI FOF, 11% CPI +3%, 8% Barclays Aggregate. For March 2016 the weighting was 62% MSCI ACWI IMI, 19% HFRI FOF, 10% CPI +3%, 10% Barclays Aggregate. From April-December 2016 the weighting was 64% MSCI ACWI IMI, 14% HFRI FOF, 10% CPI +3%, 11% Barclays Aggregate. For January 2017 the weighting was 61% MSCI ACWI IMI, 6% Russell 3000 +2.5%, 13% HFRI FOF, 8% CPI +3%, 12% BBgBarc US Aggregate Index. From February 2017-December 2017 the weighting was 64% MSCI ACWI IMI, 14% HFRI FOF, 8% CPI +3%, 14% BBgBarc US Aggregate Index. From January-April 2018, the weighting was 63% MSCI ACWI IMI, 6% Russell 3000 +2.5%, 13% HFRI FOF, 2% FTSE EPRA/NAREIT Global REITs, 3% Alerian MLP Index, and 12% BBgBarc US Aggregate Index. From May 2018-present the weighting is: 64% MSCI ACWI IMI, 6% Russell 3000 +2.5%, 13% HFRI FOF, 5% FTSE EPRA/NAREIT Global REITs, and 12% BBgBarc US Aggregate Index.

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Angeles' investment experience and commitment to high-touch client service is a robust and adaptable solution for institutions to consider in managing their investments. Our firm is GIPS-compliant and we have a track record of performance that dates to 2002 and provides 15+ years of evidence of ability to exceed benchmarks and provide strong risk-adjusted returns. In addition to performance, Angeles has delivered consistent and high-quality client service, working closely with our clients on all aspects of their investment programs, from fiduciary education on emerging investment topics, to providing back office functions and supporting audit and other reporting needs.

We would be delighted to assist your institution in further evaluating OCIO and its benefits generally, and Angeles' management in particular. For further dialogue, please contact Tatijana Janko, Director, Angeles Investment Advisors, tjanko@angelesadvisors.com or (310) 857-5846.