



U.K. Historical Capital Market Valuations
1900 – 30 June 2013

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- ◆ Valuation analysis provides insight into the risks and rewards associated with fundamental conditions either disappointing or exceeding investors' expectations. Indeed, while often explained by fundamental economic factors, valuations themselves are partly a reflection of investor sentiment and are subject to long periods of deviation from fair value. Given that the presence of relatively high or low valuations alone does not cause markets to reverse course, investors that use valuation measures to "time" the markets will probably miss both the best and worst years. However, though the timing and catalysts for change vary, the historical record presented in this report is clear: periods of low valuations have been followed by higher long-run subsequent returns, while periods of extremely elevated valuations have been followed by returns that, although not universally disastrous in the short run, have proven poor over the long run.
- ◆ At the end of June 2013, the FTSE® All-Share Index was trading on a real trend-line price-earnings (P/E) ratio in line with the long-term historical average P/E ratio of 14.2. Despite being fairly valued, however, deciphering "true" value in today's environment is especially challenging. Central bank intervention has pushed investors out along the risk curve, and questions remain about the sustainability of elevated profit margins. For the time being, though, U.K. equities remain fairly valued on both a relative and an absolute basis.
- ◆ U.K. equities are priced to offer investors something close to long-run historical average returns. However, such returns are far from guaranteed in the short to intermediate term and could still be negative should P/E ratios again begin to contract. Not until real trend-line P/E ratios fall into the first quartile range of roughly 4 to 9 have returns consistently been positive over the following ten-year period. While we feel confident that the next ten years will be better for equity holders than the past decade, the next few years are highly uncertain, and possibly still fraught with danger. The key to surviving a volatile market is assiduous rebalancing. Disciplined investors buy when the market is down sharply and sell when it soars. Diversify, rebalance, and repeat.
- ◆ While P/E ratios show a tendency to revert toward the mean, this takes place over long cycles. Therefore, comparing P/E ratios to historical averages is helpful in a secular sense, but an imperfect guide in the short term. In fact, under certain conditions, a trend-line P/E of 14.2 may be "cheap" or "expensive," depending on prevailing investor sentiment, prospects for earnings growth, and macroeconomic conditions. Given the trending nature of P/E ratios and the typically inverse relationship between valuations and subsequent returns, lights flash and sirens scream only on those rare occasions when the stock market approaches extreme peaks or troughs.
- ◆ As of second quarter 2013, the dividend yield (DY) of the FTSE® All-Share Index had fallen from its first quarter 2009 peak of 5.1% to 3.5%—0.6 standard deviation below its long-term average of 4.3%. However, the current DY of 3.5% is right in line with its more recent (post-1984) average of 3.6%.
- ◆ Despite being the traditional value factor for stock market analysis, price-to-book (P/B) value ratings have been out of favor with many investors for some time.

The issue surrounding book value is that the U.K. economy is service (especially financial services) based rather than manufacturing based. Since a larger portion of service firms' value lies in intangible assets, such as human capital and brand recognition, and the valuing of intangible assets is a vague science at best, book value may no longer be as pertinent a measure of corporate value as before. This also applies to financial sector book values, which remain dubious. While the applicability of P/B ratios may continue to be debated, data remain clear on one point: high P/B ratios have been associated with weak subsequent period returns.

- ◆ For the period from second quarter 1962 to second quarter 2013, the mean ratio of the FTSE® trend-line earnings yield to the long-term gilt¹ yield was approximately 1.1. However, this parity is misleading. For much of the late 1980s and 1990s, this ratio was well below 1.1, as equity markets remained overvalued for an extended period. Since the bursting of the tech bubble, this ratio has essentially remained above 1.1 as gilts have outperformed equities. After reaching record highs in 2012, this ratio has narrowed recently thanks to rising bond yields. Regardless, the ratio remains elevated, signaling not that equities are “cheap” but rather that gilts are overvalued.
- ◆ While historical valuation analysis provides useful information about the probability of prospective equity returns being higher or lower than their long-term averages, this is less true of the bond market. This is because bond yields do not exhibit mean reversion over long periods of time, as the level of bond yields is heavily influenced by prevailing inflation trends. ■

¹ Referring to the 20-year gilt in this paper.

This report focuses on the historical valuations of U.K. equities and gilts and their relationships to subsequent returns over time. While it is a truism that financial markets reflect investors' expectations for the future, forward visibility is actually quite poor, even for periods as short as six months. Turns in the financial markets still catch most investors by surprise, despite a battery of sophisticated models and methods. Valuations alone, therefore, do not enable one to precisely predict that the market will rise or fall in the next year or so, since other influences—most importantly, investor sentiment and momentum—tend to dictate prices over the short, and even intermediate, term.

Instead, valuations provide insight into the level of expectations priced in to the market environment and the risks and rewards associated with fundamental conditions either disappointing or exceeding investors' expectations. While often explained by fundamental economic factors, valuations themselves are partly a reflection of investor sentiment and are subject to long periods of deviation from so-called fair value. In fact, there have been instances when “abnormal” valuations persisted for over a decade.

Given that the presence of relatively high or low valuations alone does not cause markets to reverse course, investors that use valuation measures in an effort to “time” the markets may miss both the best and worst years. That said, valuation analysis provides a framework for the long-term investor to gauge the potential returns that arise from the boom-bust nature of the business cycle and the inevitable reversion to the mean of profits. Low valuations provide what famed investment analyst Benjamin Graham called “a margin of safety.” High valuations, on the other hand, leave little margin for error, therefore informing

the aggressiveness of one's investment stance. Further, the longer unusually high or low valuations persist, the greater the probability investors will be caught off guard both in the run-up to, and subsequent fall-out from, an investment mania or extended period of economic distress/prosperity.

Overall, though the timing and catalysts for change vary, the historical record presented in this report is clear—periods of low valuations have been followed by higher long-run subsequent returns, while periods of extremely elevated valuations have been followed by returns that, although not universally disastrous in the short run, have proven poor over the long run.

The Outlook for Future Returns

The outlook for equity returns is a function of earnings growth, dividends, and changes in valuations. Changes in price-earnings (P/E) multiples can augment the basic return derived from earnings and dividends by placing a higher (or lower) value on reinvested earnings (the “speculative” return). Therefore, we can estimate future market prices by making assumptions about future earnings growth and ending P/E ratios, as $P = \text{expected earnings per share (EPS)} * \text{future P/E}$ (or the value placed on future earnings). Exhibit 1 walks through some scenarios for five-year FTSE® All-Share price appreciation. If nominal earnings growth matches its average historical five-year average annual compound growth rate of 5.4% annually and the current trend-line P/E multiple of 14.6 remains unchanged, prices would rise by an average 5.4% annually over that period. Augmented by the current 3.5% dividend yield (DY), annual returns of 8.9% could be expected. Such performance would

be in line with the post-1900 annual average of 8.8%,¹ and would likely compare favorably with that offered by other asset classes (e.g., gilts and cash). Conversely, should the current trend-line multiple de-rate to 9.8 (i.e., 1 standard deviation below average), even with historical earnings growth, price returns would be very poor at -2.6% annually, as multiple compression would overwhelm earnings growth. Factoring in DYs implies investors would barely earn 1% a year over the period. Of course, above-average earnings growth coupled with expanding multiples would result in above-average returns. Still, this exercise is based on *nominal* returns, with potential inflation being a headwind to strong *real* returns even if earnings growth picks up.

We have argued for many years that most Western developed equity markets—U.K. equities included—have been in a secular bear market² since the equity bubble burst in early 2000, and believed that equity returns would disappoint given those excesses. This forecast came to fruition, as poor performance of equities relative to gilts (and even cash!) over the subsequent decade stems in part from the fact that P/E ratios were close to 25 at the start of the period in 1999. For instance, the trailing ten-year real average annual compound return (AACR) for equity investors declined to -3.0% in March 2009—among the lowest levels in our dataset.

Historically, subsequent long-term returns from such levels have been positive. However, a noteworthy characteristic of the preceding secular equity bull market was both the level and *persis-*

tence of returns. The trailing ten-year real AACR for equities, for example, was above average for roughly 19 years, beginning in 1983 (Exhibit 2). Such extraordinary returns are perhaps better captured in longer time horizons. The trailing 20-year real AACR for equities peaked at 13.6% in December 1999—the second highest level in our dataset—and finished June 2013 at 5.0%, or just slightly below its historical average of 5.6% and well above previous secular lows (Exhibit 3).

If we are in a secular bear market, it is also worth asking whether the depths reached in March 2009 and the subsequent bounce indicate that the recent bear market has wrung out the lofty valuations of the previous run-up. Since 1965, the average bear market has ended with trend-line P/E ratios of roughly 11, undergoing an average P/E contraction of 33.6% (Exhibit 4). By early 2009, valuations had reached the average bear market low with a P/E of 10.3 and P/E contraction of 47.4%. While it is not necessary for P/E ratios to reach single digits for a bear market to be over, the previous secular bear market (1968–82) saw equities trough at single-digit valuations *and* oscillate around such levels for several years before the beginning of a new secular bull market. In March 2009, markets bottomed well above such levels and returned to average valuations soon thereafter, suggesting that the secular bear market has yet to fully run its course (Exhibits 2 and 3).

Given that the outlook for future returns is based on beginning and ending valuations and earnings growth, the outlook for prospective returns is fair. Today, the normalised valuation measures we track for the U.K. show equities trading right around their historical average. We view U.K. equity valuations as fairly valued and we are neutral on the asset class.

¹ Please see our *U.K. Historical Capital Market Returns: 1900–2012* report.

² We define secular bear contractions as declines in real equity prices that tend to last for a decade or more, during which time excessive equity valuations de-rate from extremely overvalued levels to extremely undervalued levels.

The Historical Record

At its heart, asset valuation involves assigning a present value to future cash flows: What price am I paying today for tomorrow's earnings? In our valuation work, instead of trying to forecast next year's profits, we are more focused on what price investors are paying today for what will likely be a sustainable level of earnings going forward. Given the clearly cyclical and mean-reverting nature of earnings, we generally prefer to base our valuation measures on normalised earnings, or the level of earnings investors should expect over a full business cycle, adjusted for reversion to the mean.

Price-Earnings Ratios and Subsequent Returns

While P/E ratios show a tendency to revert toward the mean, this takes place over long cycles. Therefore, comparing P/E ratios to historical averages is helpful in a secular sense, but an imperfect guide in the short term. For instance, while our data suggest the market has traded on an average trend-line earnings multiple of 14.2 since mid-1962, many investors forget that in the early 1990s the average multiple of U.K. equities was 12.7, as the high valuations of the late 1990s and early 2000s biased the current multiple upward. Long-term averages will also be sensitive to the chosen starting point: the P/E ratio has averaged 15.1 since 1980. Under certain conditions, a P/E of 14.2 may be cheap or expensive, depending on prevailing investor sentiment, prospects for earnings growth, macroeconomic conditions, and especially the direction of inflation and interest rates.

Inflation (and, therefore, interest rates) has been higher in the United Kingdom than in other developed economies over much of the postwar

period.³ Some argue that this accounts for the lower level of long-term P/E ratios in the United Kingdom, which have averaged 13 to 14 versus the 15 to 16 seen in most other developed markets. The lower inflation since the early 1990s also helps explain why P/E ratios have drifted higher over the past two decades. Exhibit 5 shows the relationship between normalised P/E ratios and inflation. Periods of extreme inflationary pressures are associated with low normalised P/E multiples; only during periods of relative price stability are the highest multiples seen. Therefore, the extent to which inflation and interest rates rise over the coming years will influence whether today's "average" ratios are in fact too high, or too low.

Perceptions of market valuation also depend on the type of earnings measure used. As noted previously, given the volatile nature of earnings, we prefer to use "normalised" or cyclically adjusted P/E ratios. As the term "normalised" implies, we seek to compare the current price to some measure of earnings that provides a better estimate of the sustainable level toward which earnings or profitability should drift over time. This became especially important during the recent earnings bubble of 2003–07. As earnings rose more quickly than the market during this period, the trailing 12-month P/E ratio steadily declined, failing to give investors any warning of market excesses. In contrast, normalised P/E ratios moved higher with the markets and became overvalued in 2006 as earnings levels became unsustainable.

We have conducted analysis on the usefulness of many types of earnings measures and found that P/E ratios based on normalised earnings show a stronger relationship to subsequent

³ Since 1960, inflation in the United Kingdom has averaged 5.9% annually on an RPI basis, compared to 4.0% in the United States and 2.8% in Germany.

real returns. As a result, our valuation framework gives normalised metrics the heaviest consideration. More specifically, we use three different methodologies for normalising current EPS for the effects of the earnings cycle—ten-year average of inflation-adjusted earnings (Shiller), trend-line earnings, and return on equity (ROE)—adjusted earnings. Further, to reconcile any differences in these measures, we use a composite P/E ratio that is based on the average of the three normalised earnings levels (Exhibit 6). We believe the average of these values presents a reasonable representation of sustainable earnings investors should expect over the full business cycle, but recognise that there is uncertainty in each of these estimates.

Regardless of the particular earnings measure, valuations have varied dramatically from year to year and rarely hover around their historical averages for very long (Exhibits 7–9). Given this trending nature of P/E ratios and the typically inverse relationship between valuations and subsequent returns, lights flash and sirens scream only on those rare occasions when the stock market approaches extreme peaks or troughs. Investors attempting to time the market based solely on valuations will probably miss both the best and the worst years; they may sleep better, but they will not necessarily earn a higher return.

As a medium- and long-term guide, however, valuations are more informative. Exhibits 10–19 illustrate this, showing valuations and subsequent intermediate- (e.g., five-year) and long-term (e.g., ten- and 15-year) real returns. Normalised measures have historically proved more useful than the unadjusted trailing metric over both time horizons. Exhibit 18, for example, indicates that strong five-year returns have usually followed years in which P/E ratios were relatively low. Looking at

the ten-year data, the average composite normalised real P/E ratio since 1970 is 13.4 and corresponds to a subsequent ten-year real AACR on equities of 6.2%. However, for the lowest quartile of P/E ratios, the subsequent ten-year AACR was 11.5%, over 11 percentage pts (ppts) higher than the AACR following the highest quartile.⁴ There are exceptions to these rules—for example, during the early 1990s, when valuations were elevated yet subsequent medium-term returns were relatively high. However, such periods are exceptions to a *generally* valid observation that single-digit P/E ratios have been bullish indicators, while multiples above 20.0 have preceded relatively weak markets. As these exhibits show, while valuations (and mean reversion) can hold sway on subsequent returns in periods as short as five years, the longer the holding period, the more certain that starting valuations will impact realised real return. Simply stated, the higher the P/E, the lower the subsequent long-term return (Exhibit 20).

Dividend Yields

Since 1962, the average DY for the FTSE® Composite Index has been 4.3%. However, in hindsight, DYs began to consistently trend downward in the early 1980s. From 30 September 1962 through the end of 1984, the DY averaged 5.2%, compared to a 3.6% average since 1985. Exhibit 21 tries to put this secular shift in context, comparing DYs to various long-term averages. DYs spiked from second quarter 2008 through second quarter 2009, bringing relative and absolute levels back to those last seen in early 1990, when the DY

⁴ Similar conclusions can be drawn from the five-year returns in which the average subsequent return (11.0%) for the lowest quartile of P/Es was also over 14 ppts above the average subsequent return (-3.5%) for the highest.

started a secular decline to bottom at its all-time low of 2.1% in first quarter 2000. Over 13 years later, DYs have rapidly adjusted back to their post-1984 average due to the strong market rally.

Changes in dividend taxation in the late 1990s are likely responsible for some of the 1990–2000 secular decline in the DY, as the dividend tax credit intended to eliminate the “double taxation” of dividends was made nonrefundable in 1997, making this tax credit worthless to tax-exempt pension funds. This reform was followed in 1999 by the abolition of the advance corporation tax, which pushed up the timing of tax payments for most U.K. corporations, but did result in a small additional tax liability for those corporations that have small U.K. tax liabilities or small U.K. profits relative to total dividend payments (e.g., firms with large foreign operations). The pattern of dividend growth is consistent with the tax law changes. Since our annual data begin in 1963, nominal dividend growth is negative in only seven years. The biggest of these declines occurred in 1998, when dividends declined by 14.2% toward the end of a period of solid earnings growth—real earnings grew a cumulative 59.3% from 1994 to 1998, or 9.8% on an average annual basis. The next two largest dividend declines occurred amid negative earnings growth, and reflect more of an adjustment in dividends resulting from a difficult earnings environment. Dividends declined by 10.4% in 1993 and 10.9% in 2009, following a cumulative decline in earnings of 39.5% from 1990 to 1993 and 49.4% from 2008 to 2009.⁵

DYs can fail to capture the full payout picture, however. Companies can also return excess cash to investors by buying back stock (and therefore support prices and boost EPS via

reduced share count) and have done so in large quantities in recent years. A host of rationales have been offered for the recent surge in buybacks, ranging from “a lack of profitable growth opportunities,” to market undervaluation (companies are buying their own stock because they think it is too cheap), to the need for corporations to defend themselves from private equity/leveraged buyout takeovers. Furthermore, given that management compensation in recent years has often been tied to EPS and stock price targets, buying back shares is a way for executives to help achieve performance bonuses. However, buybacks were sharply curtailed in the aftermath of the credit crisis, and it is unclear whether a return to the level of buybacks seen during the last cycle is in store.

Importantly, dividends are a more stable component of total return than price appreciation. Over the period third quarter 1962 through second quarter 2013, the standard deviation in dividend growth was 3.4%, compared to 6.6% for real earnings growth. What typically happens during and after recessions is that corporations, reluctant to cut dividends even when earnings decline, allow their *payout ratio* to rise during lean years, then fall back to more normal levels when earnings improve. This approach fosters a more stable stream of actual payouts than if corporations increased dividends by the rate of earnings growth. For example, although the dividend payout ratio spiked to 68.8% as a result of depressed earnings at the end of 2002, it dropped to a new low of 36.2% in mid-2007 as profits soared.⁶

Although many investors had written off DYs as a market indicator, the importance of dividends should not be underestimated, even

⁵ The other declines in dividends occurred in 1967 (-3.7%), 2000 (-3.2%), 2001 (-0.2%), and 2008 (-0.1%).

⁶ The all-time low (based on quarterly data) of 32.1% occurred third quarter 2011.

in the short term—dividends have been influential in periods as short as five years. Exhibit 22 shows that the best subsequent five-year returns (AACR of 12.4%) have tended to follow years in which DYs have been the highest, while the lowest quartile of DYs has preceded the lowest five-year returns (-0.6%). Certainly this is somewhat intuitive as dividends add directly to total returns, but the fact that the lowest DY periods have resulted in negative subsequent returns highlights the dangers of paying too much for expected future earnings at the expense of tangible distributions of realised profits. More recently, given how low bond yields have fallen in response to slow economic growth conditions and quantitative easing, investors have been valuing DYs as an important component of equity returns.

Price-to-Book Ratios

From fourth quarter 1974 through second quarter 2013, MSCI U.K. price-to-book (P/B) ratios (P/B ratios are not available for the FTSE® All-Share Index) averaged 1.9 with a low of 0.5 occurring in fourth quarter 1974 and a high of 4.1 in fourth quarter 1999 (Exhibit 23). After peaking in December 2006 at over 1 standard deviation above the average, P/B values almost reached 1 standard deviation below the average by December 2008 and have since returned to within 17 basis points of their long-term average. This tendency toward mean reversion is expected for P/B ratios; still, values have remained at extremes for long periods of time: P/B ratios hovered around 1 standard deviation below their average for a decade in the late 1970s and early 1980s before spending a similar period of time above the average in the 1990s.

Despite being the traditional value factor for stock market analysis, P/B value ratings have been out of favor with many investors for some time. The issue surrounding book value is that the U.K. economy is service (especially finan-

cial services) based rather than manufacturing based. Since a larger portion of service firms' value lies in intangible assets, such as human capital and brand recognition, and the valuing of intangible assets is a vague science at best, book value may no longer be as pertinent a measure of corporate value as before. This also applies to financial sector book values, which remain dubious. While the applicability of P/B ratios may continue to be debated, data remain clear on one point: high P/B ratios have been associated with weak subsequent period returns (Exhibit 24).

ROE is a fundamental measure of the return to shareholders (at what rate is invested equity generating net income?) and can be a measure of corporate profitability.⁷ After bottoming at 10.9% on 28 February 2011, ROE has grown to 13.7% at the end of June 2013, slightly below its long-term average of 14.4% (Exhibit 25). The significant increase in the use of corporate leverage (and the growing share of the financial sector) is largely credited with the up-shift in ROE in recent years; ROE averaged 13.0% in the late 1970s and 1980s. However, these trends are reversing themselves, with the result that a lower level of ROE should be expected for the immediate future. ROE is a highly cyclical and mean-reverting series, falling well below “average” during the previous three major economic slowdowns (ROE hit 10.9% in 2001, 10.1% in 1993, and 10.5% in 1983). Adjusting P/E ratios for the level of ROE has also been an effective measure of stock market value (Exhibit 26). Based on the June 2013 level of ROE, the MSCI U.K. Index trades at an ROE-adjusted P/E multiple of 12.0, in line with its post-1974 average of 12.3.

⁷ We have calculated ROE by dividing the market P/B ratio by the P/E ratio, which results in net income over net worth (equity).

Spread Between Equity Yields and Bond Yields

The spread between equity yields (the inverse of the P/E ratio) and gilt yields can be thought of as reflecting the market's expectations about the relative risk of equities and bonds. For example, a rise in earnings yields relative to bond yields reflects the market's expectation that equities have become less attractive relative to bonds (i.e., equity prices falling while bond prices are rising or equity prices falling faster than bond prices). Often, the ratio of equity yields to bond yields is used as a relative valuation measure for stocks and bonds, with a high ratio signaling stocks are "cheap" relative to bonds, and a low ratio pointing to relative overvaluation.

Over the 51-year period to second quarter 2013, the mean ratio of the FTSE® trend-line earnings yield to the long-term gilt⁸ yield was approximately 1.1. However, for much of the late 1980s and 1990s, this ratio was well below the long-term average, as equity markets remained overvalued for an extended period. Since the bursting of the tech bubble, this ratio has essentially remained above 1.1 as gilts have outperformed equities. The ratio currently stands at 2.1, coming off its all-time high of 2.9 in third quarter 2012. Arguably, this tells us not that equities are "cheap," but rather that gilts remain overvalued (Exhibit 27).

Given that the earnings yield is a real variable, a better way to look at this relationship is to adjust bond yields for inflation. Exhibit 28 plots the long-term spread of real trend-line earnings yields to real bond yields, which can be thought of as the *ex ante* risk premium priced into the market. Since 1962, the expectation for this premium has averaged 5.7%; however, equities have bested gilts by 3.0 ppts. This long-term average is significantly weighed down by

a near 20-year period of below average spreads spanning the 1980s and 1990s. Currently, the market is pricing in significant equity outperformance, with the spread at 6.5%. These levels are associated with periods that saw double-digit earnings yields.

Exhibit 29 compares the ratio of the earnings yield to the yield of long-term bonds with the relative performance of equities and bonds in subsequent five-year periods, showing the general trend that a high equity-bond yield ratio does presage relative equity outperformance. For the highest quartile of yield ratios, equities subsequently performed better than bonds by an average 5.5 ppts over the following five years. Today's ratio implies handsome relative returns for equities; however, the post-1990 experience of Japan gives warning that gilt yields can continue to drift lower should deflation, not inflation, remain the dominant economic variable.

Although high interest rates are popularly regarded as detrimental to equity prices, Exhibit 30 shows that the highest quartile of short-term interest rates has witnessed subsequent equity returns well above any other quartile. The reason for this may be that, over a multiyear time horizon, the *direction* of rates is more important to equity prices than the *level* of rates. Therefore, falling interest rates, especially from a high initial level, are usually (although not always) good for equities. As of 30 June 2013, Treasury bill yields of 0.33% were near historical lows in our postwar data set. Rising interest rates may pose a headwind for equities over the year, but only to the extent that rising interest rates reflect inflation fears and not the return of healthy economic growth.

⁸ Referring to the 20-year gilt in this paper.

Bond Yields and Subsequent Average Annual Bond Returns

Exhibit 31 shows the long-term yield history of U.K. government bonds. Historical valuation analysis provides useful information about the probability of prospective *equity* returns being higher or lower than their long-term averages. This is less true of the bond market, perhaps because bond yields do not exhibit mean reversion over long periods of time. The level of bond yields is heavily influenced by prevailing inflation trends (Exhibit 32); in recent years, monetary policy (quantitative easing) has also played a significant role. For example, gilt yields have continued to decline alongside inflation from their highs in the 1980s and remained at historically low levels during the 2000s before hitting a post-1950 quarterly low of 2.49% in third quarter 2012. As of second quarter 2013, bond yields were slightly higher at 3.33%.

Still, bond yields are a relatively accurate predictor of future bond returns over specific holding periods, especially those greater than five years into the future, which is shown by Exhibits 33 and 34. The higher the starting yield, the higher the subsequent long-term return. These exhibits also demonstrate the importance of a starting yield high enough to compensate for future inflation. Inflation has consistently absconded with a large portion of an investor's expected return in the bond market, while, in the case of the lowest quartile of starting yields, investors were left with *negative* real returns. Therefore, even though current levels of inflation are low, gilt yields of 3.33% are below the average level of inflation over the past 100 years, implying the odds are high that subsequent real returns will be miniscule.

Exhibit 35 compares year-end bond yields with subsequent average annual returns over varying holding periods. As would be expected,

nominal long-term bond yields tell us very little about subsequent one-year returns, with only a 51% correlation between the two, but for longer holding periods the correlations increase substantially. Nominal five-year average annual bond returns were 83% correlated with bond yields at the start of the period, while ten-year average annual returns were 93% correlated; 15-year returns, 95% correlated; and 20-year returns, 93% correlated. Exhibit 35 also shows that the correlation between nominal yields and real returns increases over time, indicating the extent to which inflation expectations drive yields. In contrast, the correlation between real yields and real returns is generally low and does not show such increases over time. The conclusion to be drawn from these data is that the best predictor of long-term real bond returns for a given period is the current *nominal* yield-to-maturity of bonds that mature at the end of the period. ■

Share Index Data

Valuation and return data from 1900 to June 1962 are based on U.K. shares compiled by Global Financial Data, Inc. Data from September 1962 to September 1964 are calculated for the FT-500 Non-Financials Index provided by data from the FT Actuaries Library. Data from December 1964 to December 1992 are based on the FTSE® Total Non-Financial Index calculated by Thomson Reuters Datastream, while from 1993 to the present, data are based on the FTSE® All-Share Index, as calculated by FTSE®.

In our analysis of the FTSE® Total Non-Financial Index we examined various valuation and performance metrics as compared to the FTSE® All-Share in order ensure a smooth transition from one index to the other. The FT-500 (Non-Financial) Index was the longest-running series identified that contained price-earnings valuation information. It was a market cap-weighted index and covered a broad section of the market with the exclusion of financials. In December 1993, the FT-500 was replaced by the FTSE® Total Non-Financial Index. The constituents of the index subsequently changed from the top 500 stocks by market capitalization (excluding financials) to the full constituents of the FTSE® All-Share Index (excluding financials). Specifically, we compared monthly data for both indices over the period from February 1993 to present. P/E, DY, price level, and total return series of the two indices had correlations just below 1.00.

Neither the FTSE® Total Non-Financial nor the FTSE® All-Share provides price-to-book or return on equity data. The MSCI U.K. Index provides the longest relatively comparable history. This index contains reliable information back to the early 1970s and represents a broad

swath of the equity market (approximately 85% of the FTSE® All-Share). When MSCI U.K. Index valuations and subsequent period returns are evaluated, MSCI U.K. Index returns are used to maintain consistency between valuation and performance metrics.

We primarily use the MSCI U.K. Index in our valuation framework, as it allows us to make consistent valuation comparisons across global equity markets. Further, FTSE® does not publish book value data, which is necessary for calculating ROE-adjusted P/E ratios. Therefore, we focus on trend-line P/E ratios when looking at FTSE data. Shiller P/E ratios are also available; however, given it is based on trailing ten-year earnings levels, the trend-line data enable us to look back further in time.

Fixed Interest Index Data

The long-dated gilt total return series is constructed from changes in 20-year government bond yields from 1933 to 1979 calculated by Cambridge Associates with yield data from Global Financial Data, Inc.; and from 1980 to present the returns and yields are from the Datastream 20-Year U.K. Benchmark Government Index.

To track trends on the short end of the fixed interest market, we have used the three-month Treasury bill returns and yields provided by Global Financial Data, Inc. from 1900 to January 1985 and Thomson Reuters Datastream from February 1985 to present.

Inflation Data and Inflation-Adjusted Series

Our historical inflation series is based on the Retail Price Index (RPI) from 1900 to November 2003, and the harmonized U.K. Consumer Price Index (CPI) from December 2003 to present. In December 2003, the Bank of England switched its official infla-

tion target for U.K. monetary policy from the RPI to the CPI series, a shift our data series mimics. Historical RPI data are supplied by Global Financial Data, Inc., while CPI data are provided by Thomson Reuters Datastream.

Data Sources

Report data are provided by FTSE International Limited, Global Financial Data, Inc., MSCI, Inc., and Thomson Reuters Datastream. To the extent permissible by law, FTSE accepts no liability for errors or omissions in the data. MSCI data provided “as is” without any express or implied warranties. ■



Future Return Exhibits



Exhibit 1**How Much Would the FTSE® All-Share Index Appreciate Under the Following Earnings Growth and P/E Assumptions?**

As of 30 June 2013

		Revert to Trend Line -1.5%	Trailing Five-Year AACG* 0.8%	AACG (1962–2Q13) 5.4%	Forward Estimate 24.0%
<u>Five-Year Average Annual Compound Price Appreciation (%)</u>					
Current P/E Ratio	13.50	-1.53	0.77	5.41	23.96
Average (30/6/1962 – Present)	14.25	-0.45	1.87	6.56	25.31
Average Plus 1 Std Dev	18.98	5.42	7.88	12.85	32.70
Average Minus 1 Std Dev	9.52	-8.16	-6.02	-1.69	15.61
Current Trend-Line P/E	14.58	-1.53	0.77	5.41	23.96
Average (30/6/1962 – Present)	14.23	-1.99	0.29	4.91	23.37
Average Plus 1 Std Dev	18.66	3.46	5.87	10.75	30.24
Average Minus 1 Std Dev	9.81	-9.03	-6.91	-2.62	14.51

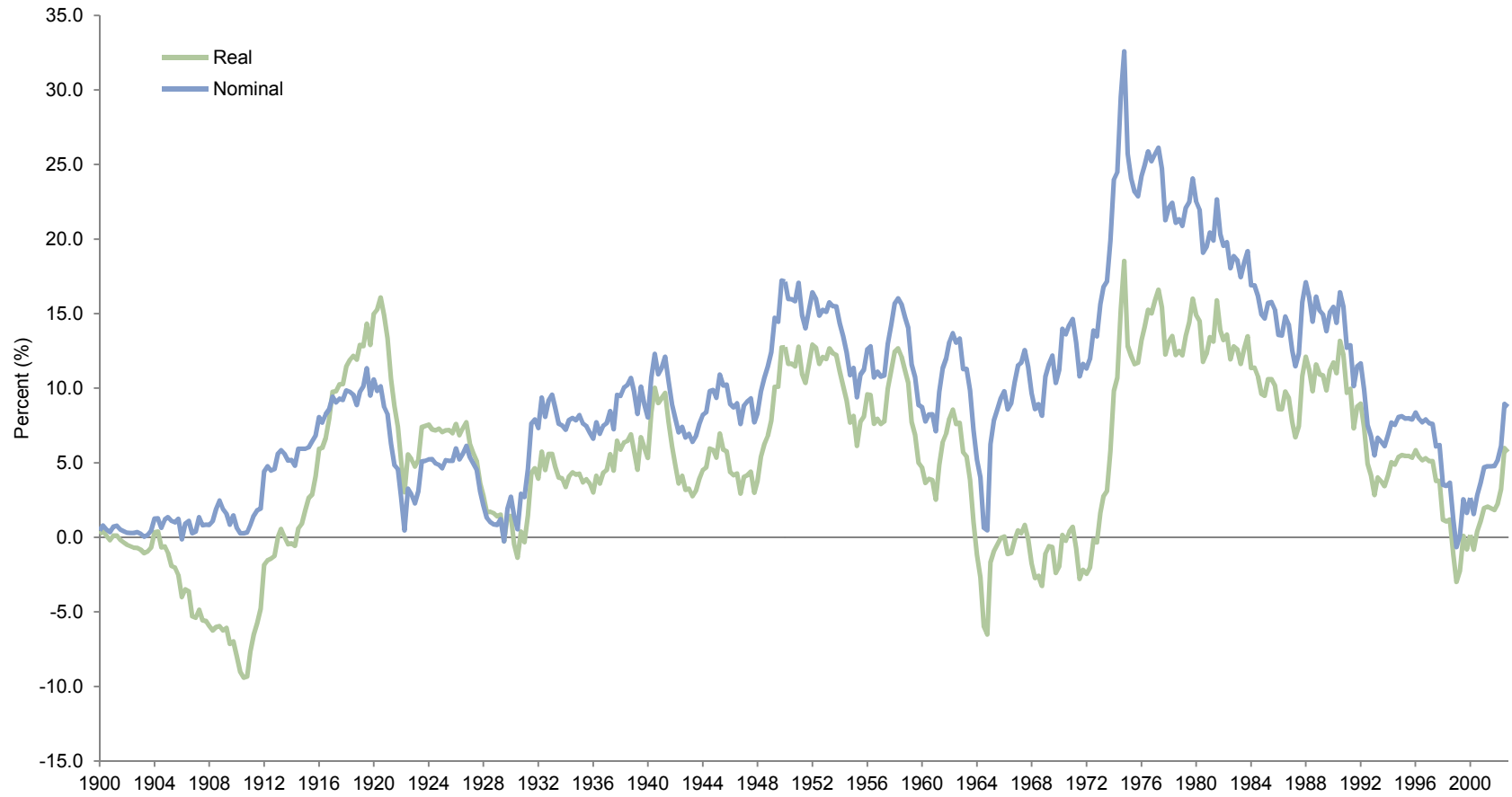
Sample Interpretation:

This exhibit illustrates the expected average annual price change for the FTSE® All-Share Index, given a particular earnings growth assumption and price-earnings (P/E) ratio. For example, if earnings grew by 5.4% over the next five years (the real long-term average), and the P/E ratio of 13.5 remains 13.5 at the end of the period, then the price of the FTSE® All-Share Index would increase by 5.4% annually over the next five years, as it would be influenced only by earnings growth. In this example, if the P/E ratio were to expand to its long-term average of 14.3, the annualised price return would increase to 6.6%.

Notes: Exhibit is based on the 30 June 2013 FTSE® All-Share Index price of £3,290 and earnings per share of £244. Trend-line P/E ratios for the FTSE® All-Share Index are calculated by dividing the current real index value by the real earnings, which have been calculated from the trend line of real earnings from second quarter 1962 through second quarter 2013. Trend-line P/E ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression. The average earnings growth rate is the average of historical five-year compound real earnings growth plus 4% inflation. P/E ratio data are based on earnings provided by FTSE International Limited.

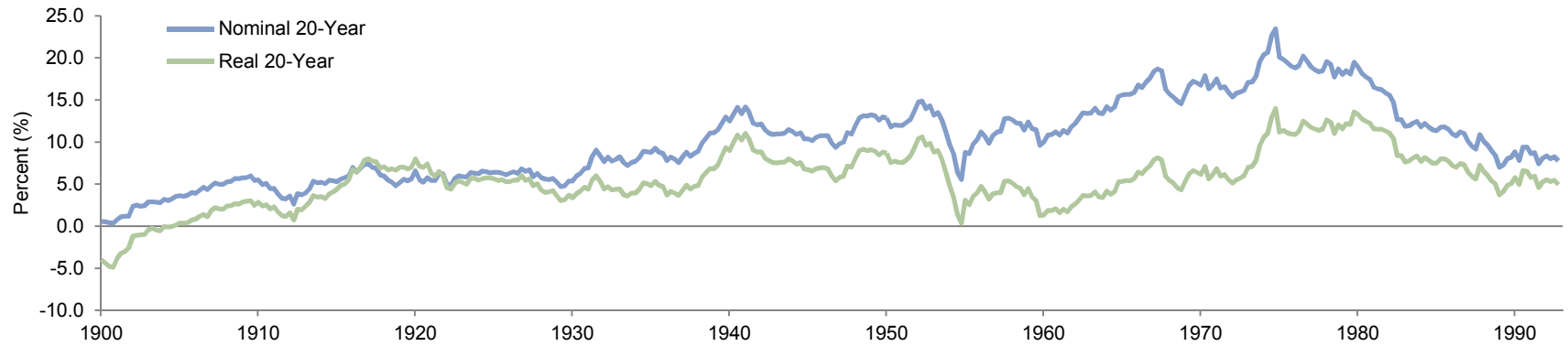
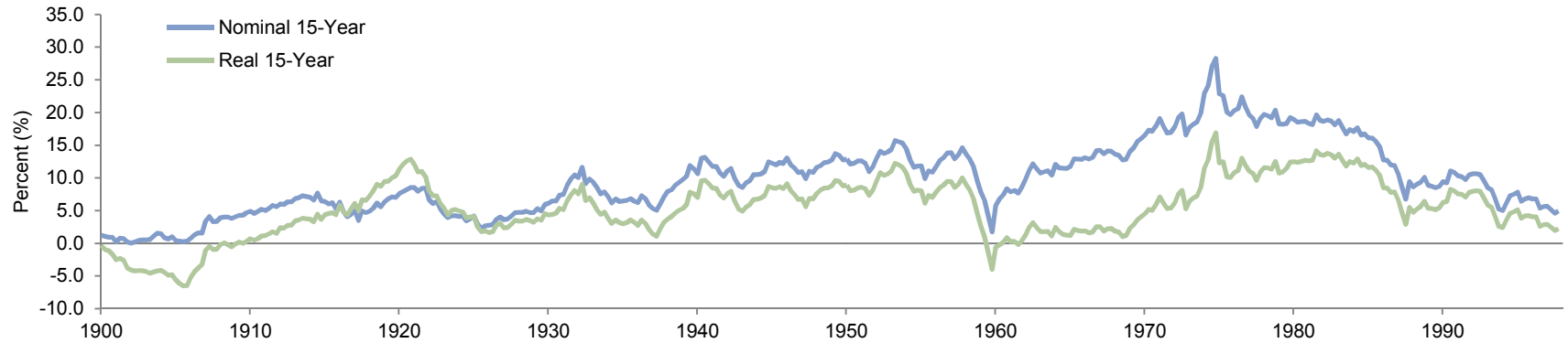
* AACG represents the average annual five-year compound growth rate.

Exhibit 2
U.K. Equity Rolling Quarterly Ten-Year Average Annual Compound Returns
 First Quarter 1900 – Fourth Quarter 2012



Notes: Graph represents total return data. Data are quarterly.

Exhibit 3
U.K. Equity Rolling Quarterly 15-Year and 20-Year Average Annual Compound Returns
 First Quarter 1900 – Fourth Quarter 2012



Notes: Graph represents total return data. Data are quarterly.

Exhibit 4
Bear Markets
 1965–2012

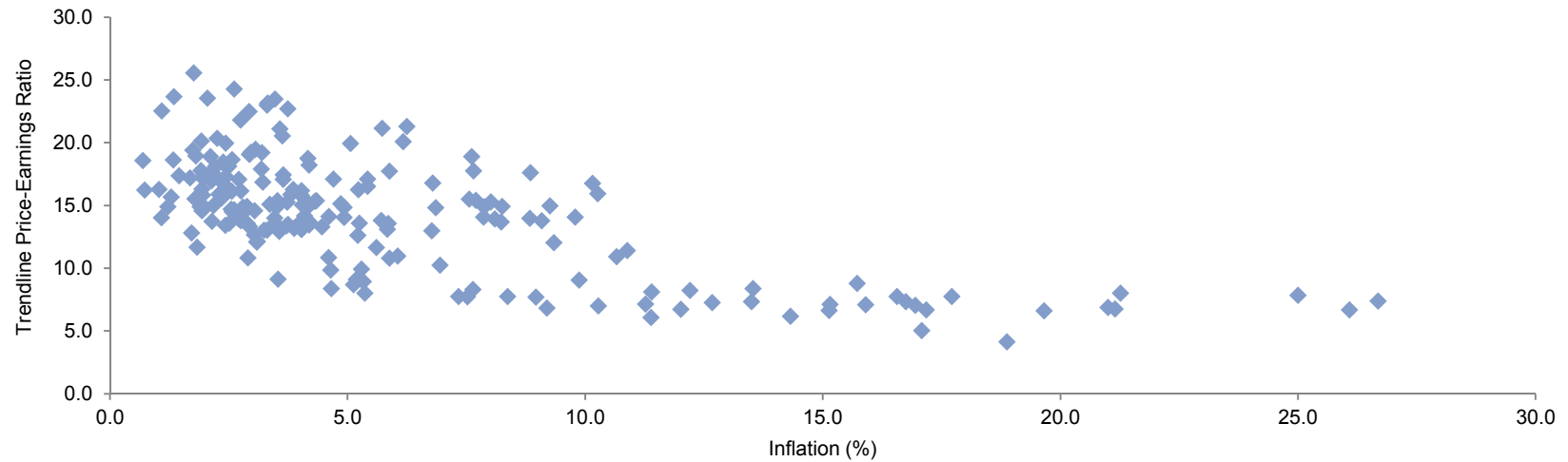
<u>Market Peak</u>	<u>Market Trough</u>	Bear Market	Market Peak	Market Trough	Peak-to-Trough	Trailing P/E			Trend-Line P/E		
		<u>Duration (Mos)</u>	<u>Level</u>	<u>Level</u>	<u>Return (%)</u>	<u>Peak</u>	<u>Trough</u>	<u>% Change</u>	<u>Peak</u>	<u>Trough</u>	<u>% Change</u>
30-Jun-1966	31-Oct-1966	4.0	119.6	96.1	-19.6	14.6	11.9	-18.2	16.4	13.2	-20.0
31-Jan-1969	31-May-1970	15.9	193.7	127.9	-34.0	23.1	13.2	-42.8	23.2	13.9	-39.9
31-Aug-1972	31-Dec-1974	27.9	224.4	68.4	-69.5	18.8	4.0	-78.6	19.8	4.3	-78.2
30-Apr-1976	31-Oct-1976	6.0	180.8	129.9	-28.2	10.7	7.2	-33.4	8.5	5.7	-33.0
30-Apr-1979	31-Dec-1979	8.0	303.2	246.3	-18.8	9.3	6.6	-29.6	9.8	7.0	-28.1
30-Apr-1981	30-Sep-1981	5.0	351.3	289.4	-17.6	8.8	8.2	-6.6	8.0	6.4	-20.5
31-Jul-1987	30-Nov-1987	4.0	1,326.8	876.5	-33.9	20.3	12.1	-40.6	20.1	13.0	-35.3
31-Aug-1989	30-Sep-1990	13.0	1,334.5	1,068.5	-19.9	13.6	9.8	-27.9	17.2	12.1	-29.5
31-May-1992	31-Aug-1992	3.0	1,478.7	1,239.3	-16.2	16.7	14.0	-16.0	15.2	12.7	-16.3
31-Jan-1994	30-Jun-1994	4.9	1,746.0	1,463.4	-16.2	25.6	17.9	-30.4	17.2	14.0	-18.7
31-May-1998	30-Sep-1998	4.0	2,802.2	2,344.8	-16.3	22.2	18.6	-16.1	22.3	18.5	-17.2
31-Dec-1999	31-Jan-2003	37.0	3,242.1	1,722.3	-46.9	28.6	17.7	-38.2	24.6	11.7	-52.5
31-Oct-2007	28-Feb-2009	15.9	3,454.1	1,929.8	-44.1	13.1	8.0	-38.7	19.6	10.3	-47.4
Average		11.4			-29.3	17.3	11.5	-32.1	17.1	11.0	-33.6
Median		6.0			-19.9	16.7	11.9	-30.4	17.2	12.1	-29.5

Notes: Data are monthly. Bear market is defined as an approximate 15% decline from peak to trough without a full reversal. Trend-line price-earnings (P/E) ratios for the FTSE® All-Share Index are calculated by dividing the current real index value by the real earnings, which have been calculated from the trend line of real earnings from 30 June 1962 through 31 December 2012. Trend-line P/E ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression.



Price-Earnings Ratio Exhibits

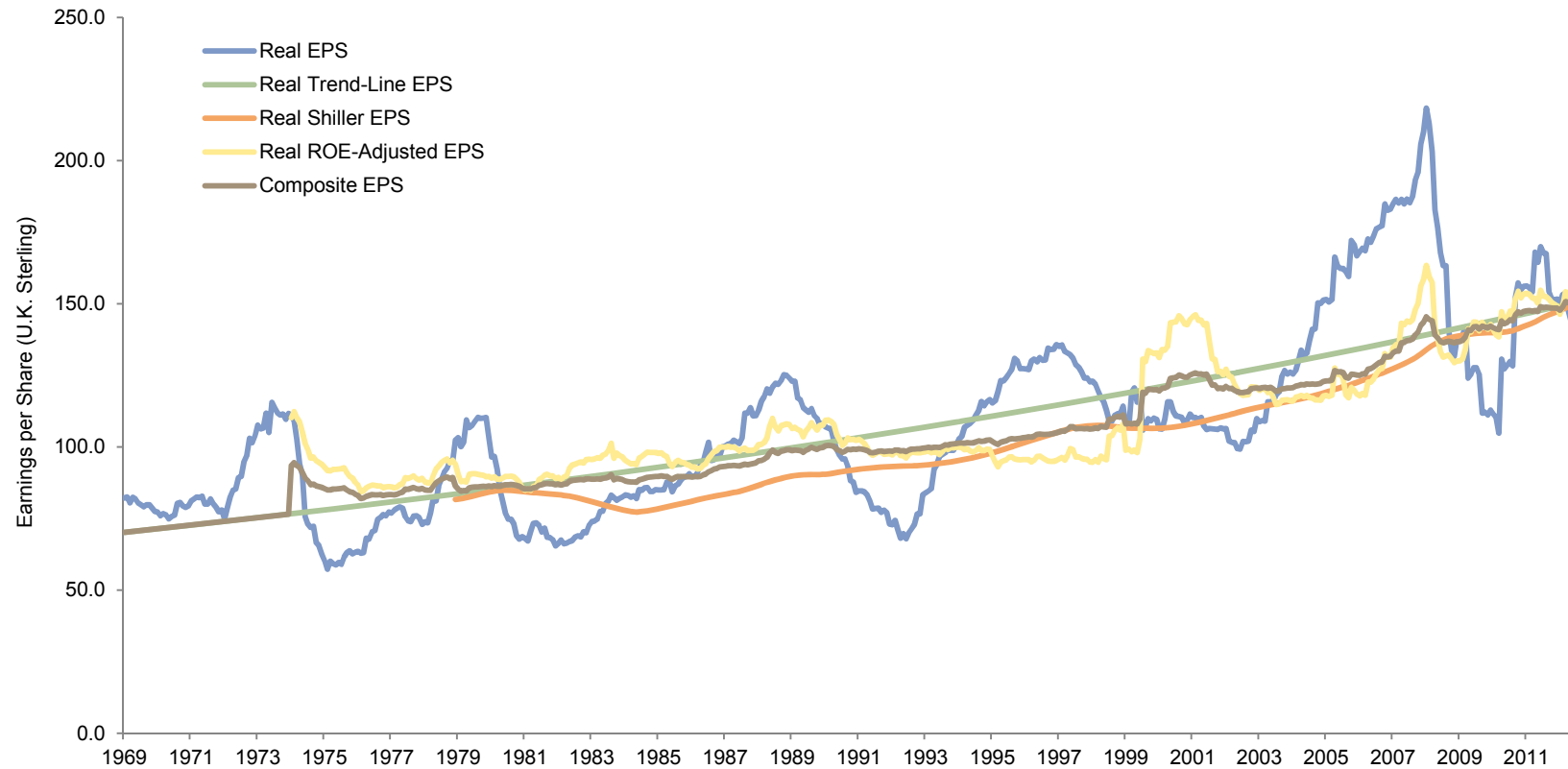
Exhibit 5
Trend-Line Price-Earnings Ratios and Inflation
 Second Quarter 1962 – Fourth Quarter 2012 • By Inflation Percentile



Percentile (200 observations)	Lowest Inflation						Highest Inflation	
	0-5	5-20	20-35	35-50	50-65	65-80	80-95	95-100
Range of Annual Inflation	0.7-1.5	1.7-2.4	2.4-3.1	3.2-4.0	4.0-5.4	5.4-8.8	8.9-17.1	17.2-26.7
Number of Observations	10	30	30	30	30	30	30	10
Range of Trend-Line Price-Earnings Ratios	14.0-23.6	11.7-25.5	10.8-24.3	9.1-23.5	8.0-19.9	7.7-21.3	5.0-17.6	4.1-8.0
Average Trend-Line Price-Earnings Ratios	17.8	17.1	16.0	16.3	13.6	14.2	9.3	6.9

Note: Trend-line price-earnings ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression.

Exhibit 6
MSCI U.K. Earnings Analysis
 31 December 1969 – 30 June 2013



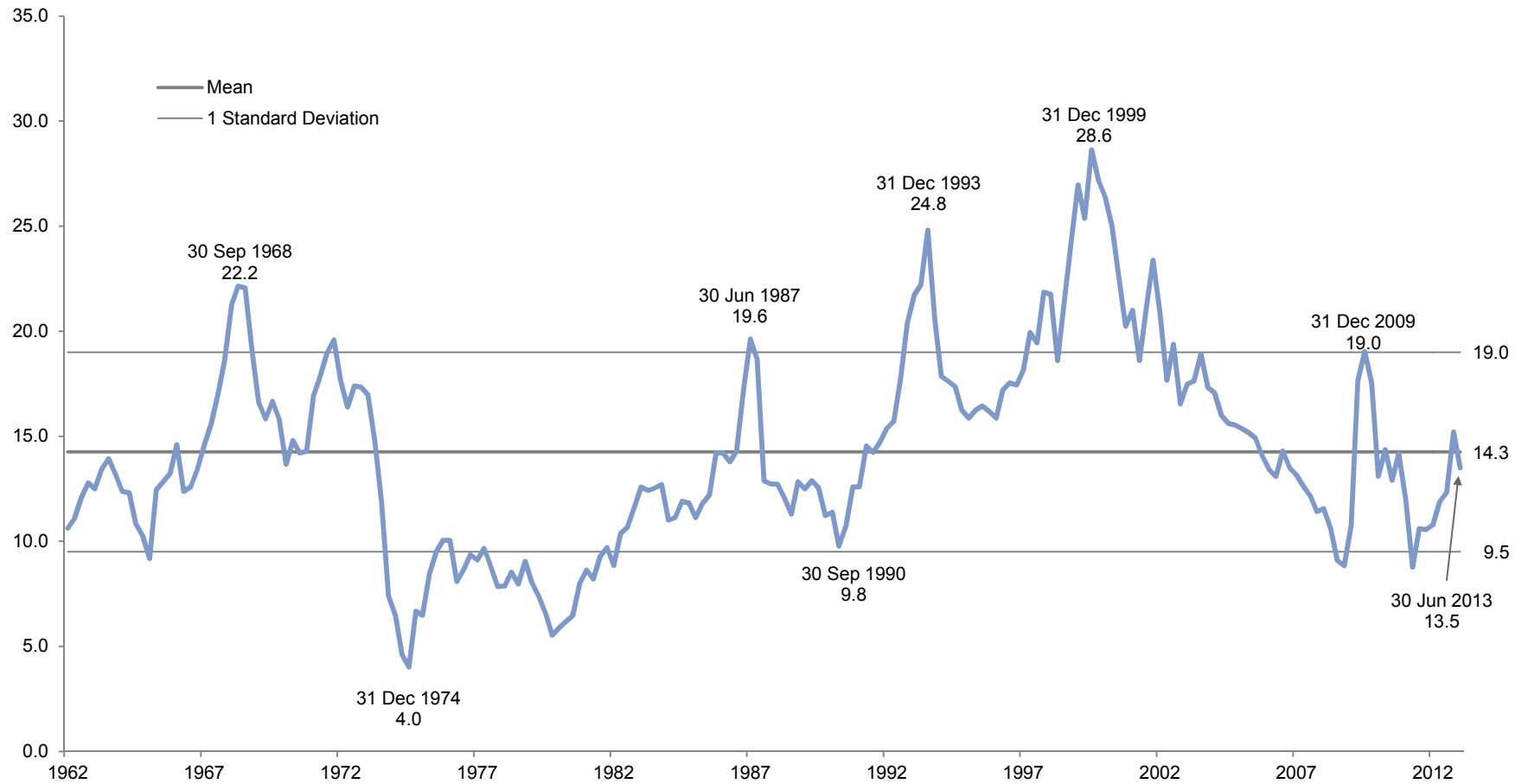
Notes: Data are monthly. Composite earnings per share (EPS) are calculated by taking a simple average of real trend-line EPS, real Shiller EPS, and real return on equity-adjusted EPS. Real trend-line EPS data begin in December 1969, real return on equity-adjusted EPS data begin in December 1974, and real Shiller EPS data begin in November 1979. Inflation data are as of June.

Exhibit 7
FTSE® All-Share Shiller Price-Earnings Ratios
 First Quarter 1972 – Second Quarter 2013



Notes: Data are quarterly. Shiller price-earnings ratios for the FTSE® All-Share Index are calculated by dividing the current index value by the rolling ten-year average of inflation-adjusted earnings.

Exhibit 8
FTSE® All-Share Trailing Price-Earnings Ratios
 Second Quarter 1962 – Second Quarter 2013



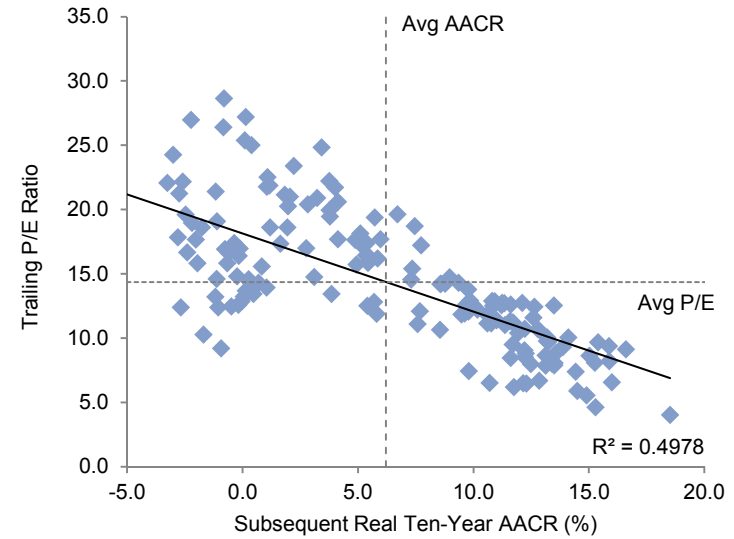
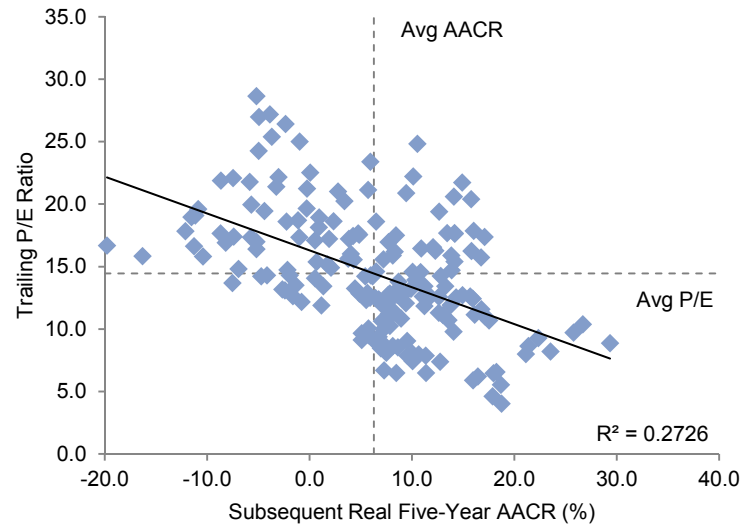
Note: Data are quarterly.

Exhibit 9
FTSE® All-Share Trend-Line Price-Earnings Ratios
 Second Quarter 1962 – Second Quarter 2013



Notes: Data are quarterly. Trend-line price-earnings ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression.

Exhibit 10
Relationship Between FTSE® All-Share Trailing Price-Earnings Ratios and Subsequent Real Five- and Ten-Year AACRs
 Second Quarter 1962 – Fourth Quarter 2012

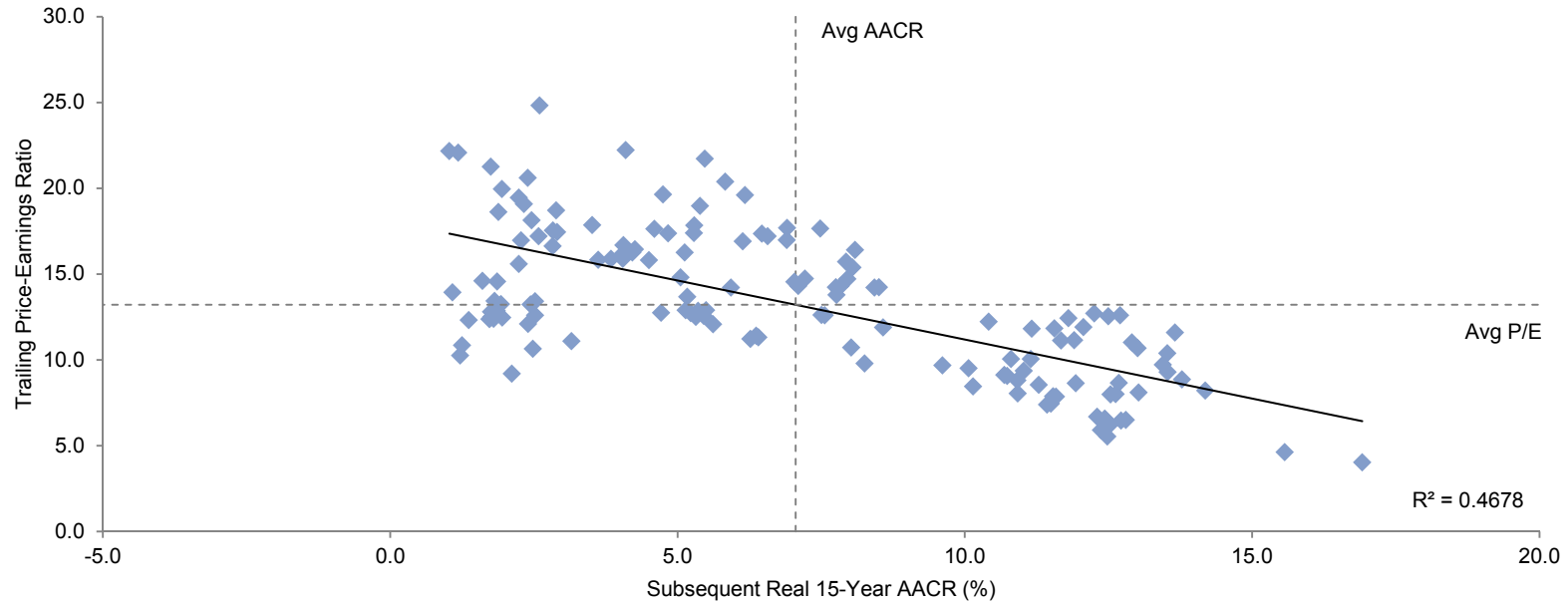


P/E Ratio Quartiles	Begin Period Trailing FTSE® All-Share P/E Ratio			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	8.6	11.1	4.0	13.0	29.3	5.1	6.4
Second	12.6	14.1	11.2	7.6	16.8	-7.5	5.5
Third	15.8	17.4	14.2	3.0	17.1	-19.8	8.9
Fourth	20.9	28.6	17.5	1.5	16.0	-12.1	8.3
Overall	14.5	28.6	4.0	6.3	29.3	-19.8	8.6

P/E Ratio Quartiles	Begin Period Trailing FTSE® All-Share P/E Ratio			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	8.3	10.7	4.0	12.7	18.5	-1.7	3.7
Second	12.3	13.4	10.8	7.2	13.5	-6.5	5.6
Third	15.7	17.6	13.7	3.6	9.8	-2.4	3.7
Fourth	21.2	28.6	17.7	1.4	7.5	-3.3	3.0
Overall	14.4	28.6	4.0	6.2	18.5	-6.5	5.9

Notes: Data are quarterly. The last full five-year period was fourth quarter 2007 to fourth quarter 2012, and the last full ten-year period was fourth quarter 2002 to fourth quarter 2012.

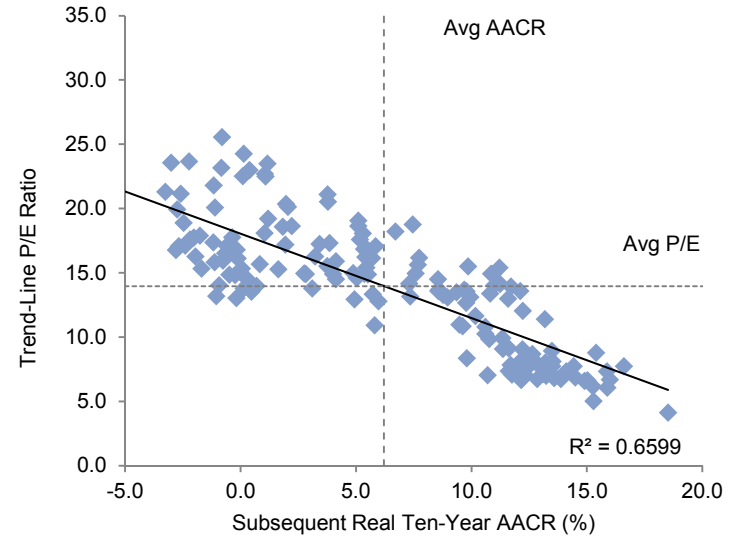
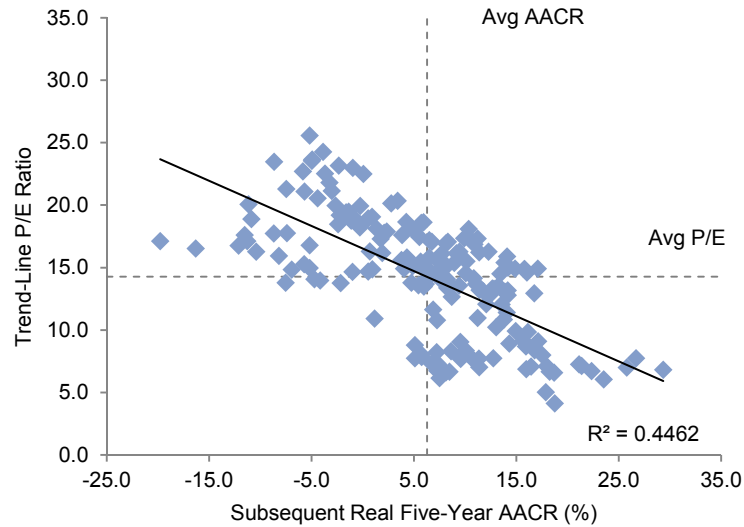
Exhibit 11
Relationship Between FTSE® All-Share Trailing Price-Earnings Ratios and Subsequent Real 15-Year AACRs
 Second Quarter 1962 – Fourth Quarter 2012



P/E Ratio Quartiles	Begin Period Trailing FTSE® All-Share P/E Ratio			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	8.0	10.0	4.0	11.8	16.9	2.1	2.3
Second	11.8	12.7	10.3	7.4	13.7	1.2	4.4
Third	14.4	16.3	12.7	4.9	8.5	1.1	2.4
Fourth	18.7	24.8	16.4	4.1	8.1	1.0	2.0
Overall	13.2	24.8	4.0	7.1	16.9	1.0	4.2

Notes: Data are quarterly. The last full 15-year period was fourth quarter 1997 to fourth quarter 2012.

Exhibit 12
Relationship Between FTSE® All-Share Trend-Line Price-Earnings Ratios and Subsequent Real Five- and Ten-Year AACRs
 Second Quarter 1962 – Fourth Quarter 2012

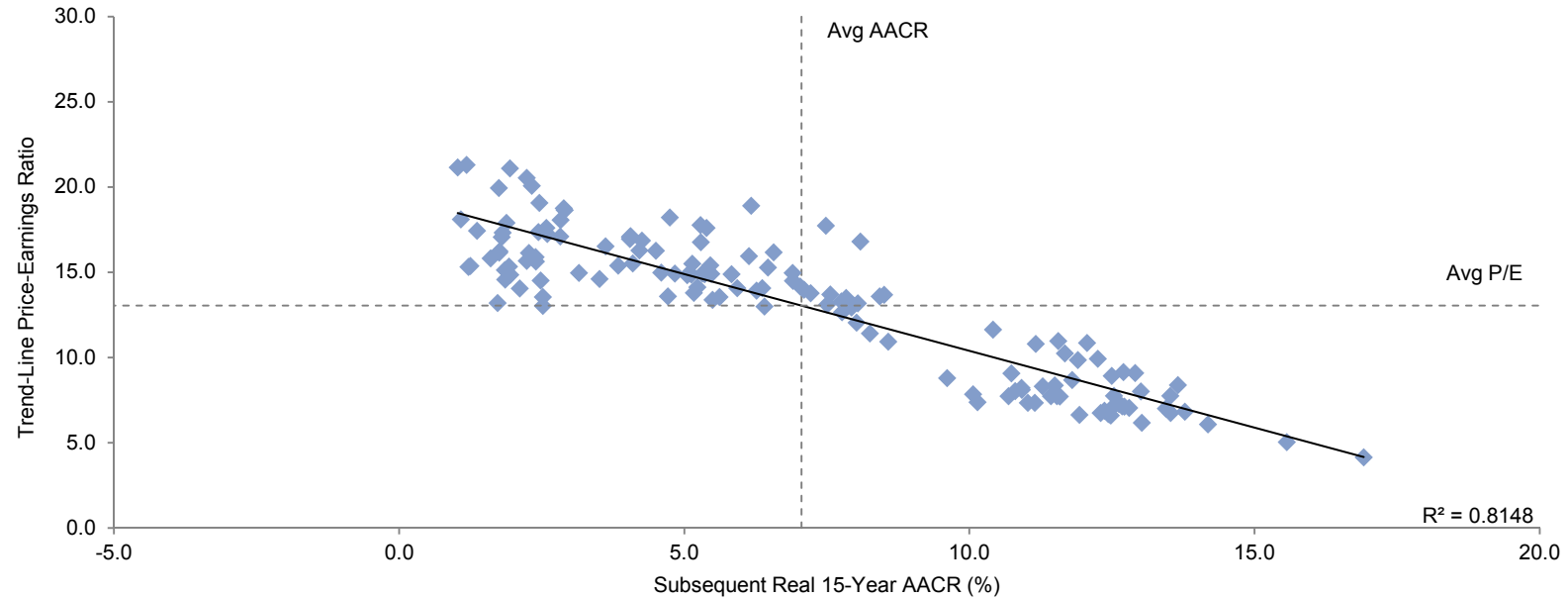


P/E Ratio	Begin Period Trend-Line FTSE® All-Share P/E Ratio			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
Quartiles							
First	7.7	10.8	4.1	13.7	29.3	5.1	6.2
Second	13.5	14.9	10.9	8.0	16.8	-7.5	6.2
Third	15.9	17.3	14.9	4.5	17.1	-19.8	8.7
Fourth	19.9	25.5	17.3	-1.2	11.2	-11.5	5.5
Overall	14.3	25.5	4.1	6.3	29.3	-19.8	8.6

P/E Ratio	Begin Period Trend-Line FTSE® All-Share P/E Ratio			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
Quartiles							
First	7.4	9.1	4.1	13.4	18.5	9.8	1.8
Second	12.9	14.6	9.8	7.4	13.2	-1.0	4.3
Third	15.7	17.1	14.6	3.2	11.2	-6.5	4.2
Fourth	19.9	25.5	17.1	0.7	7.5	-6.0	3.1
Overall	14.0	25.5	4.1	6.2	18.5	-6.5	5.9

Notes: Data are quarterly. Trend-line price-earnings ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression. The last full five-year period was fourth quarter 2007 to fourth quarter 2012, and the last full ten-year period was fourth quarter 2002 to fourth quarter 2012.

Exhibit 13
Relationship Between FTSE® All-Share Trend-Line Price-Earnings Ratios and Subsequent Real 15-Year AACRs
 Second Quarter 1962 – Fourth Quarter 2012



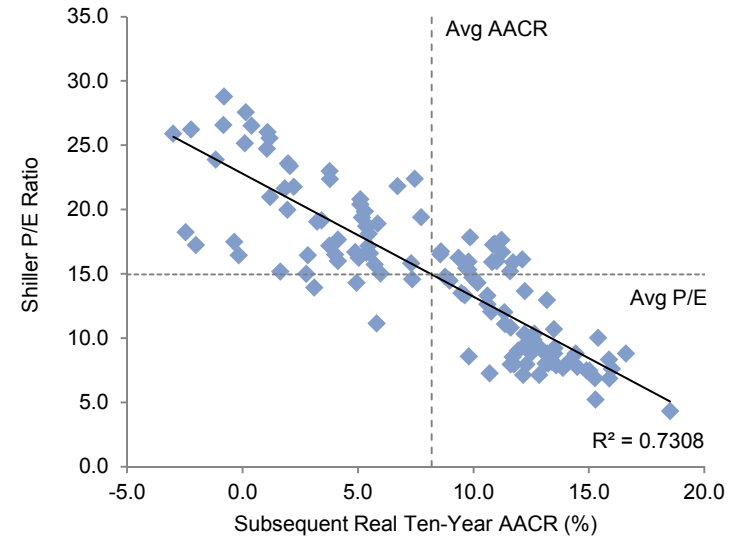
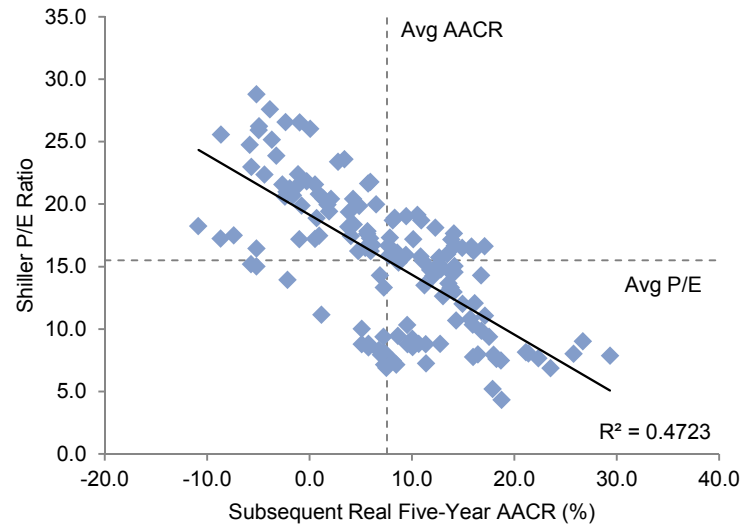
P/E Ratio Quartiles	Begin Period Trend-Line FTSE® All-Share P/E Ratio			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	7.2	8.7	4.1	12.4	16.9	10.1	1.4
Second	12.1	14.0	8.8	8.3	12.9	1.7	2.9
Third	15.0	16.1	14.0	4.1	7.0	1.2	1.9
Fourth	17.9	21.3	16.1	3.4	8.1	1.0	1.8
Overall	13.0	21.3	4.1	7.1	16.9	1.0	4.2

Notes: Data are quarterly. Trend-line price-earnings ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression. The last full 15-year period was fourth quarter 1997 to fourth quarter 2012.

Exhibit 14

Relationship Between FTSE® All-Share Shiller Price-Earnings Ratios and Subsequent Real Five- and Ten-Year AACRs

First Quarter 1972 – Fourth Quarter 2012

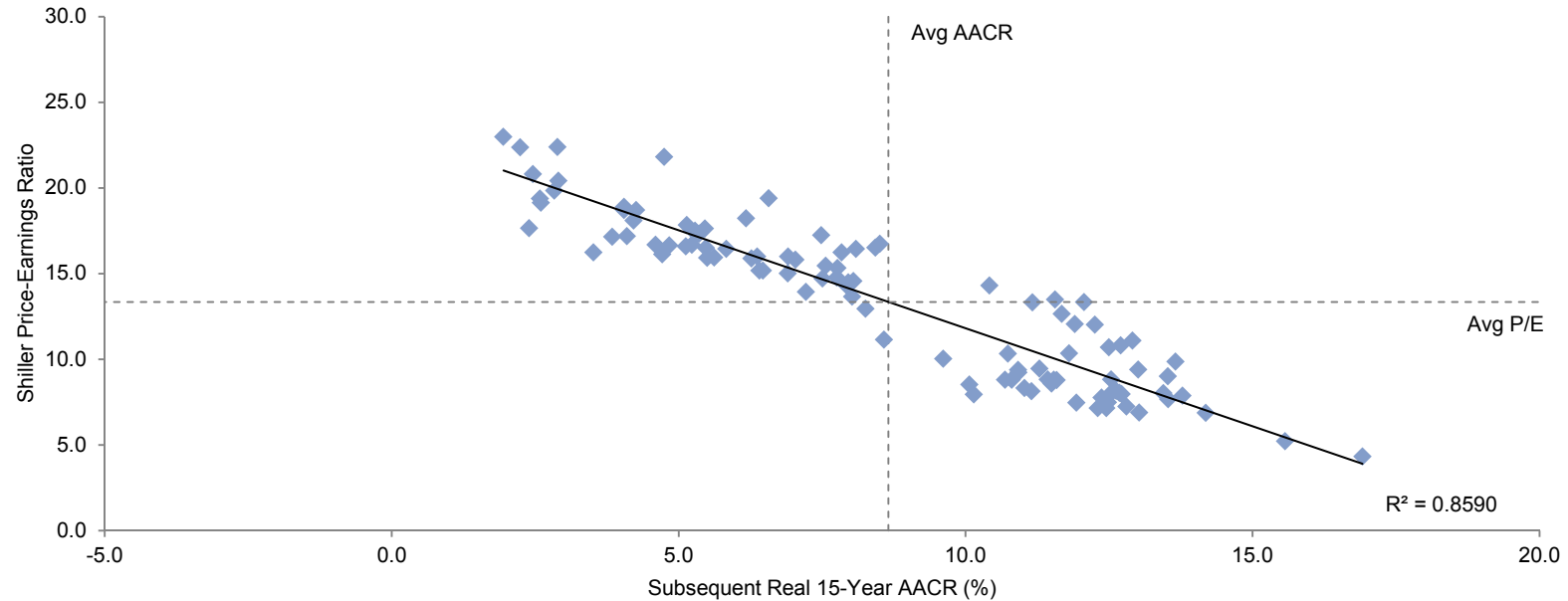


P/E Ratio Quartiles	Begin Period Shiller FTSE® All-Share P/E Ratio			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	8.1	10.0	4.3	13.7	29.3	5.1	6.9
Second	13.9	16.0	10.3	10.5	17.1	-5.7	5.7
Third	17.4	19.1	16.1	6.6	17.1	-10.9	7.1
Fourth	22.6	28.8	19.4	-0.6	6.5	-8.7	3.8
Overall	15.5	28.8	4.3	7.6	29.3	-10.9	8.0

P/E Ratio Quartiles	Begin Period Shiller FTSE® All-Share P/E Ratio			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	7.8	9.2	4.3	13.7	18.5	9.8	1.9
Second	12.7	15.3	9.4	9.9	15.4	1.6	3.4
Third	16.7	18.2	15.4	6.6	12.1	-2.5	4.2
Fourth	22.6	28.8	18.7	2.6	7.7	-3.0	2.8
Overall	15.0	28.8	4.3	8.2	18.5	-3.0	5.2

Notes: Data are quarterly. Normalised real price-earnings ratios for the FTSE® All-Share Index are calculated by dividing the current index value by the rolling ten-year average of inflation-adjusted earnings. The last full five-year period was fourth quarter 2007 to fourth quarter 2012, and the last full ten-year period was fourth quarter 2002 to fourth quarter 2012.

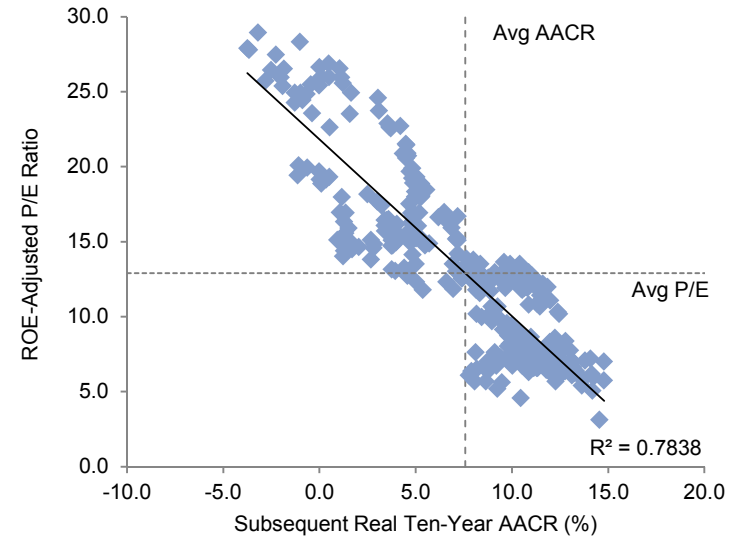
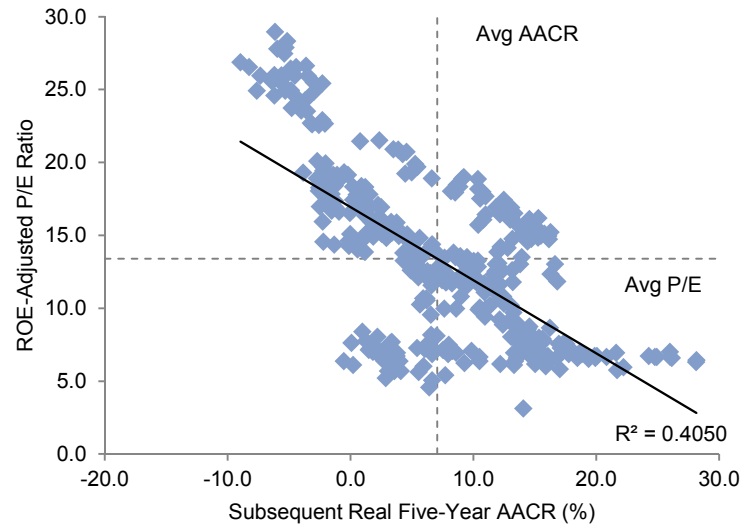
Exhibit 15
Relationship Between FTSE® All-Share Shiller Price-Earnings Ratios and Subsequent Real 15-Year AACRs
 First Quarter 1972 – Fourth Quarter 2012



P/E Ratio Quartiles	Begin Period Shiller FTSE® All-Share P/E Ratio			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	7.6	8.8	4.3	12.5	16.9	10.1	1.5
Second	11.1	14.3	8.8	11.1	13.7	7.2	1.8
Third	15.7	16.7	14.3	6.7	10.4	3.5	1.5
Fourth	18.9	23.0	16.7	4.3	8.5	1.9	1.7
Overall	13.3	23.0	4.3	8.7	16.9	1.9	3.7

Notes: Data are quarterly. The last full 15-year period was fourth quarter 1997 to fourth quarter 2012. Normalised real price-earnings ratios for the FTSE® All-Share Index are calculated by dividing the current index value by the rolling ten-year average of inflation-adjusted earnings.

Exhibit 16
Relationship Between MSCI U.K. ROE-Adjusted Price-Earnings Ratios and Subsequent Real Five- and Ten-Year AACRs
 31 December 1974 – 31 December 2012

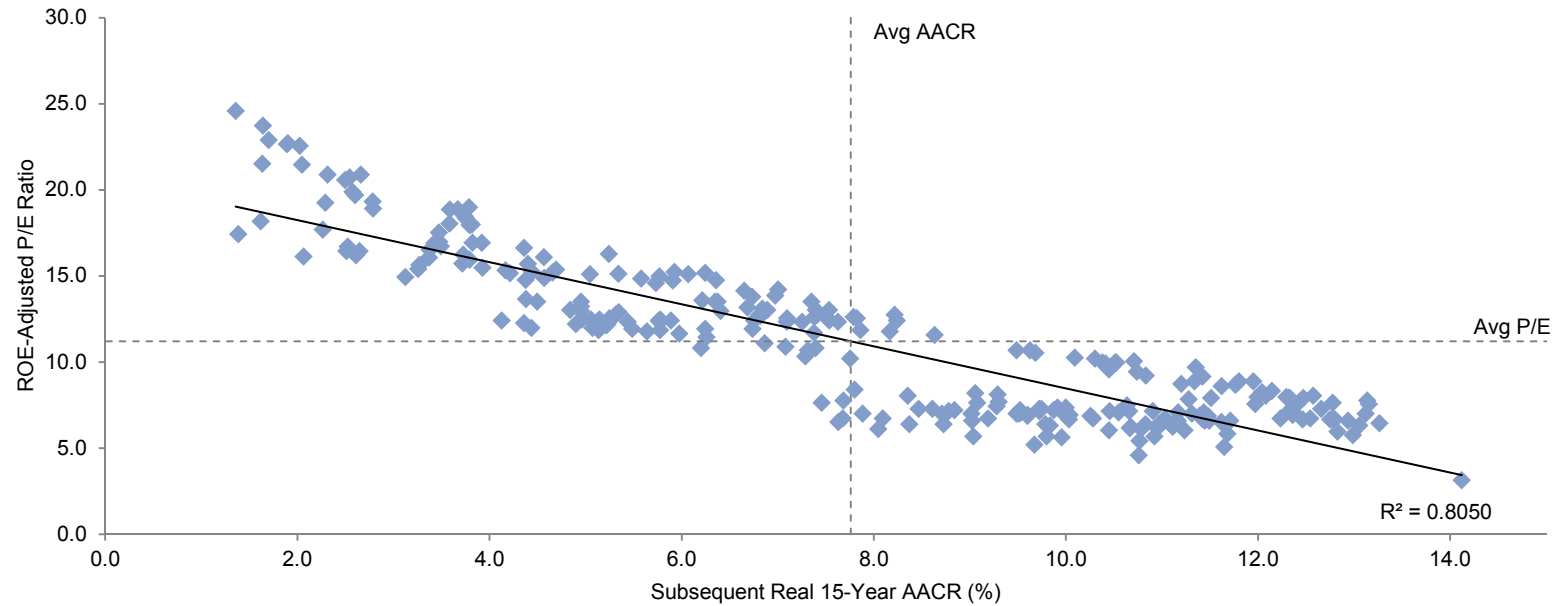


P/E Ratio	Begin Period ROE-Adjusted MSCI U.K. P/E Ratio			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
Quartiles							
First	6.7	7.8	3.1	11.1	28.2	-0.5	7.7
Second	11.0	13.0	7.9	9.7	16.8	1.0	3.4
Third	14.9	16.9	13.0	7.6	16.7	-2.3	5.7
Fourth	21.0	28.9	16.9	-0.2	12.5	-9.0	5.1
Overall	13.4	28.9	3.1	7.1	28.2	-9.0	7.2

P/E Ratio	Begin Period ROE-Adjusted MSCI U.K. P/E Ratio			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
Quartiles							
First	6.5	7.3	3.1	11.7	14.8	7.8	1.7
Second	9.9	12.4	7.3	10.3	13.0	5.0	1.6
Third	14.0	16.1	12.4	6.2	11.3	0.9	3.1
Fourth	21.2	28.9	16.1	2.1	7.2	-3.7	2.8
Overall	12.9	28.9	3.1	7.6	14.8	-3.7	4.4

Notes: Data are monthly. Return on equity (ROE)-adjusted price-earnings (P/E) ratio multiplies the current trailing P/E multiple by the ratio of current ROE to historical ROE. The last full five-year period was 31 December 2007 to 31 December 2012 and the last full ten-year period was 31 December 2002 to 31 December 2012.

Exhibit 17
Relationship Between MSCI U.K. ROE-Adjusted Price-Earnings Ratios and Subsequent Real 15-Year AACRs
 31 December 1974 – 31 December 2012



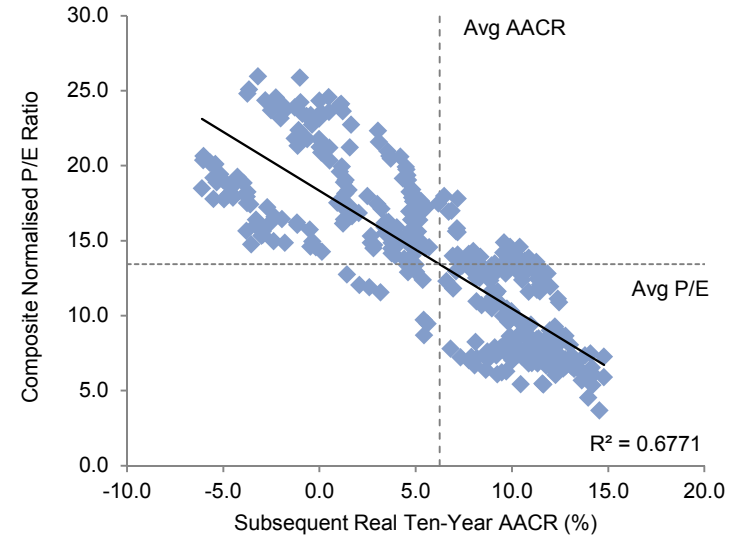
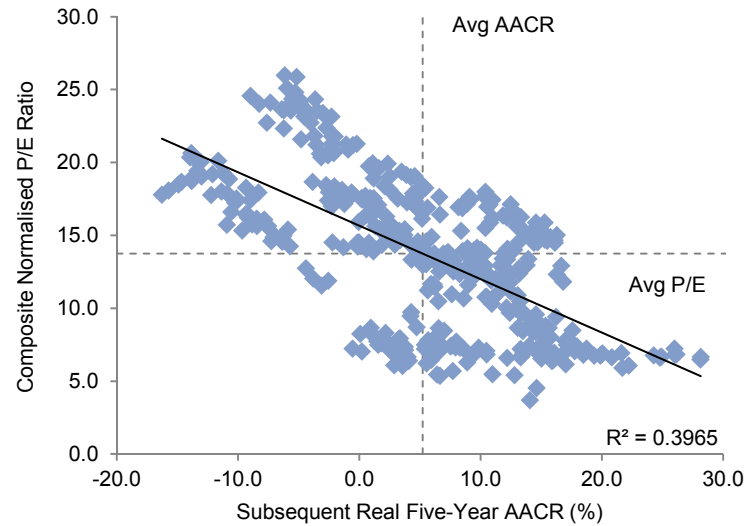
P/E Ratio Quartiles	Begin Period MSCI U.K. ROE-Adjusted P/E Ratio			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	6.4	7.1	3.1	10.7	14.1	7.6	1.5
Second	8.4	10.8	7.1	10.4	13.2	6.2	1.7
Third	12.6	14.2	10.9	6.3	8.6	4.1	1.1
Fourth	17.5	24.6	14.6	3.6	6.4	1.4	1.3
Overall	11.2	24.6	3.1	7.8	14.1	1.4	3.3

Notes: Data are monthly. Return on equity (ROE)-adjusted price-earnings (P/E) ratio multiplies the current trailing P/E multiple by the ratio of current ROE to historical ROE. The last full 15-year period was 31 December 1997 to 31 December 2012.

Exhibit 18

Relationship Between MSCI U.K. Composite Normalised Price-Earnings Ratios and Subsequent Real Five- and Ten-Year AACRs

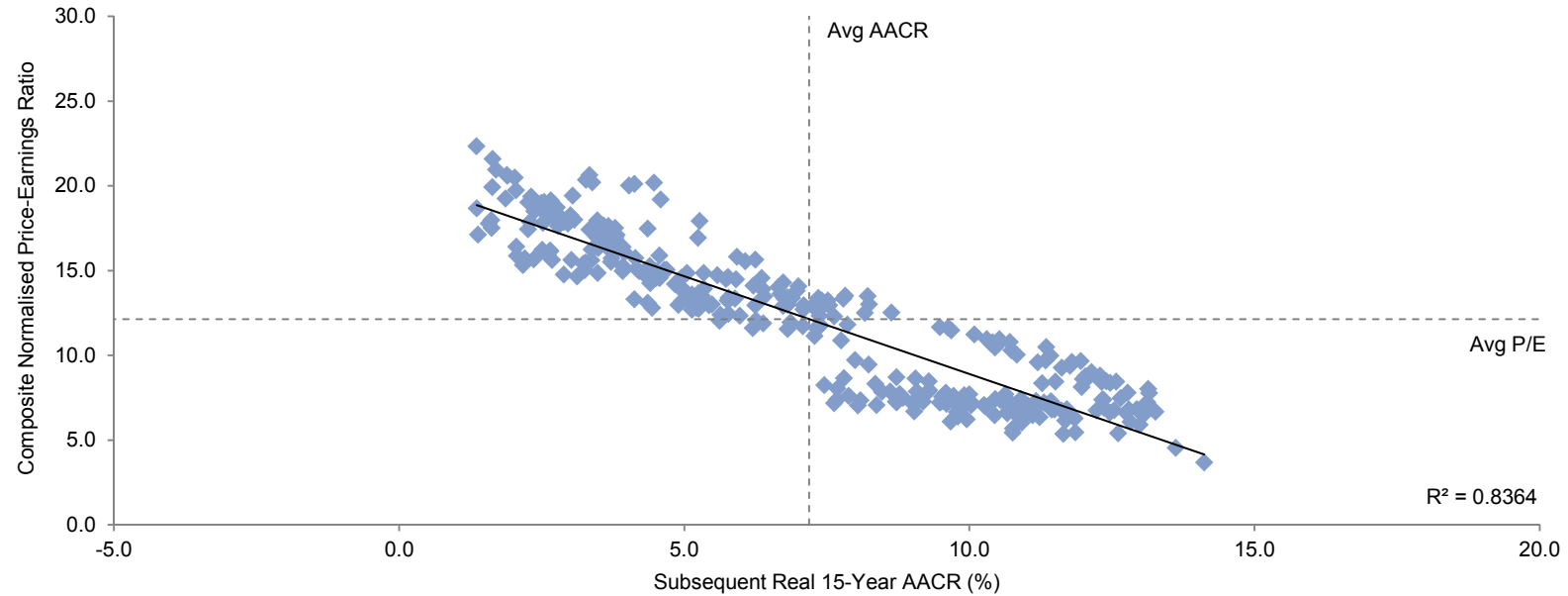
31 January 1970 – 31 December 2012



P/E Ratio Quartiles	Begin Period Composite MSCI U.K. P/E Ratio			Subsequent Real Five-Year AACR (%)				Begin Period Composite MSCI U.K. P/E Ratio			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev	Mean	High	Low	Mean	High	Low	Std Dev
First	7.1	8.6	3.7	11.0	28.2	-0.5	7.3	6.9	7.9	3.7	11.5	14.8	6.8	1.8
Second	12.2	14.0	8.6	9.0	16.8	-4.4	4.0	11.2	13.4	8.0	9.5	13.0	1.4	2.4
Third	15.6	17.3	14.0	4.4	16.3	-10.9	8.0	15.2	17.1	13.4	4.1	11.3	-3.8	4.0
Fourth	20.1	26.0	17.3	-3.5	11.0	-16.3	6.1	20.4	26.0	17.1	-0.1	7.2	-6.1	3.6
Overall	13.7	26.0	3.7	5.2	28.2	-16.3	8.6	13.4	26.0	3.7	6.2	14.8	-6.1	5.5

Notes: Data are monthly. The composite normalised price-earnings (P/E) is calculated by dividing the inflation-adjusted index price by the simple average of three normalised earnings metrics; ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and return on equity (ROE)-adjusted earnings. The last full five-year period was 31 December 2007 to 31 December 2012, and the last full ten-year period was 31 December 2002 to 31 December 2012.

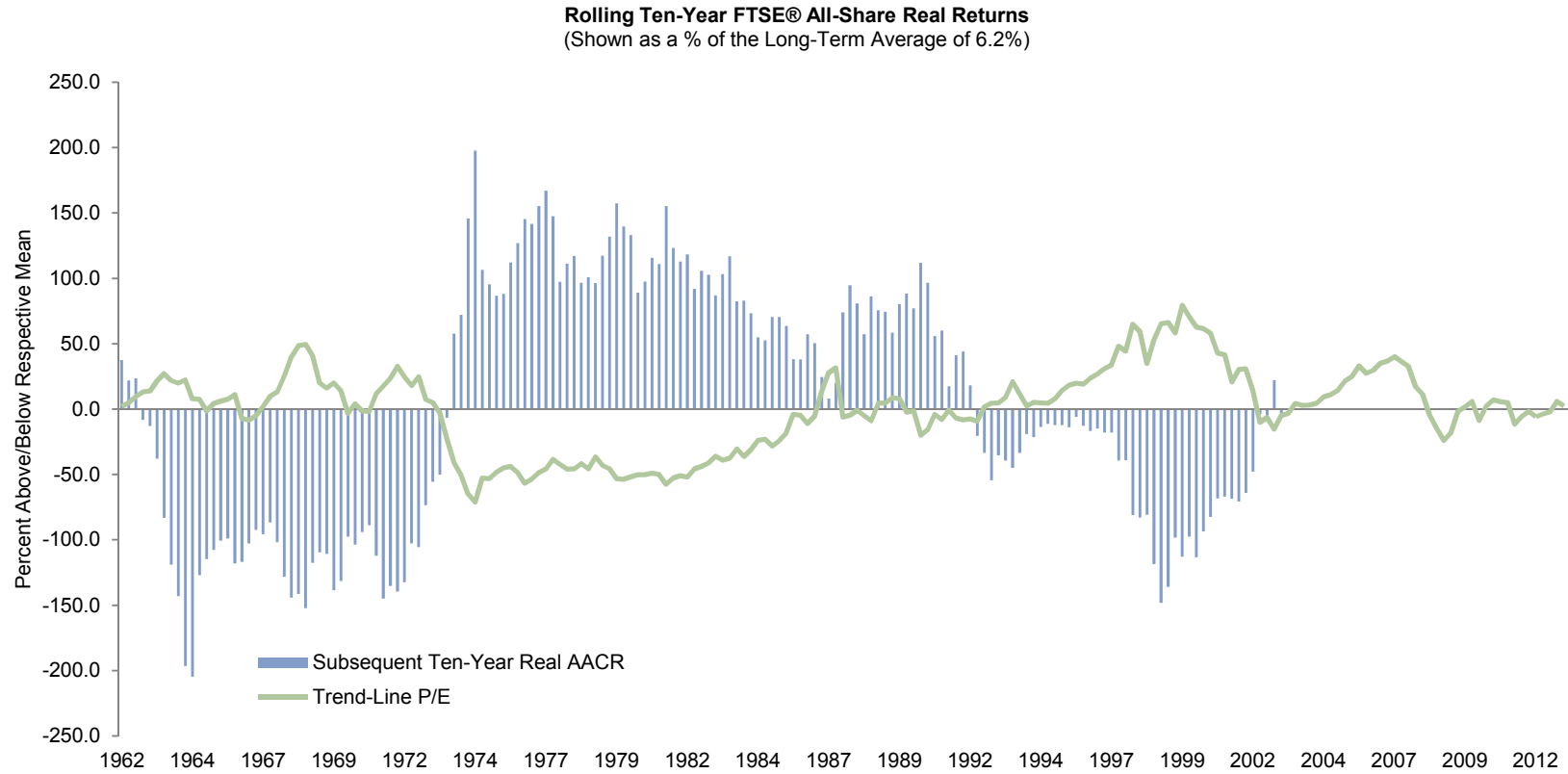
Exhibit 19
Relationship Between MSCI U.K. Composite Normalised Price-Earnings Ratios and Subsequent Real 15-Year AACRs
 31 January 1970 – 31 December 2012



P/E Ratio Quartiles	Begin Period MSCI U.K. Composite P/E Ratio			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	6.8	7.5	3.7	10.9	14.1	7.6	1.5
Second	10.0	12.8	7.5	9.3	13.2	4.4	2.3
Third	14.0	15.6	12.8	5.5	8.2	2.2	1.4
Fourth	17.8	22.3	15.6	3.1	6.2	1.4	1.0
Overall	12.1	22.3	3.7	7.2	14.1	1.4	3.5

Notes: Data are monthly. The composite normalised price-earnings (P/E) is calculated by dividing the inflation-adjusted index price by the simple average of three normalised earnings metrics; ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and return on equity (ROE)-adjusted earnings. The last full 15-year period was 31 December 1997 to 31 December 2012.

Exhibit 20
Below-Average Returns Follow Above-Average Valuations
 Second Quarter 1962 – Second Quarter 2013



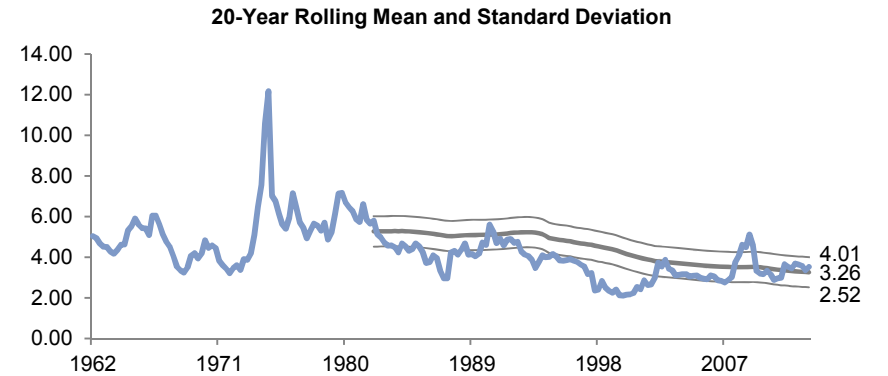
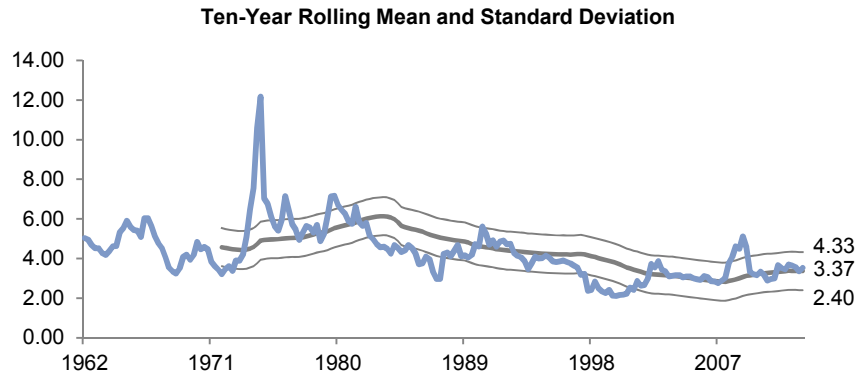
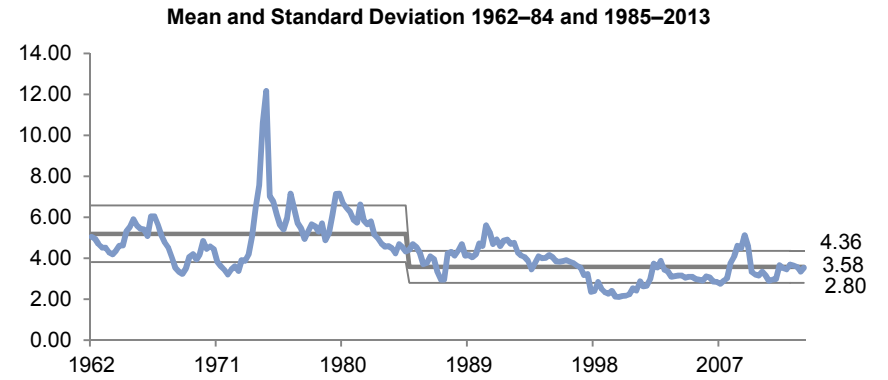
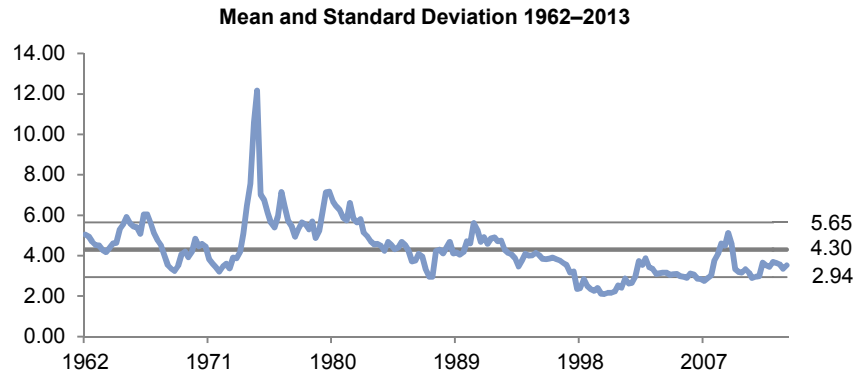
Notes: Data are quarterly. Graph shows percent above/below mean for returns and valuations. Line shows point-in-time trend-line price-earnings (P/E) ratios. Bars show subsequent rolling ten-year real average annual compound returns (AACRs) as a percentage above/below the long-term average ten-year real return of 6.2% since 1962. For example, the first data point shows the real AACR for the period 1962–72. Trend-line P/E ratios compare real stock prices to the level of earnings predicted by long-term real earnings growth based on a simple linear regression.



Dividend Yield Exhibits

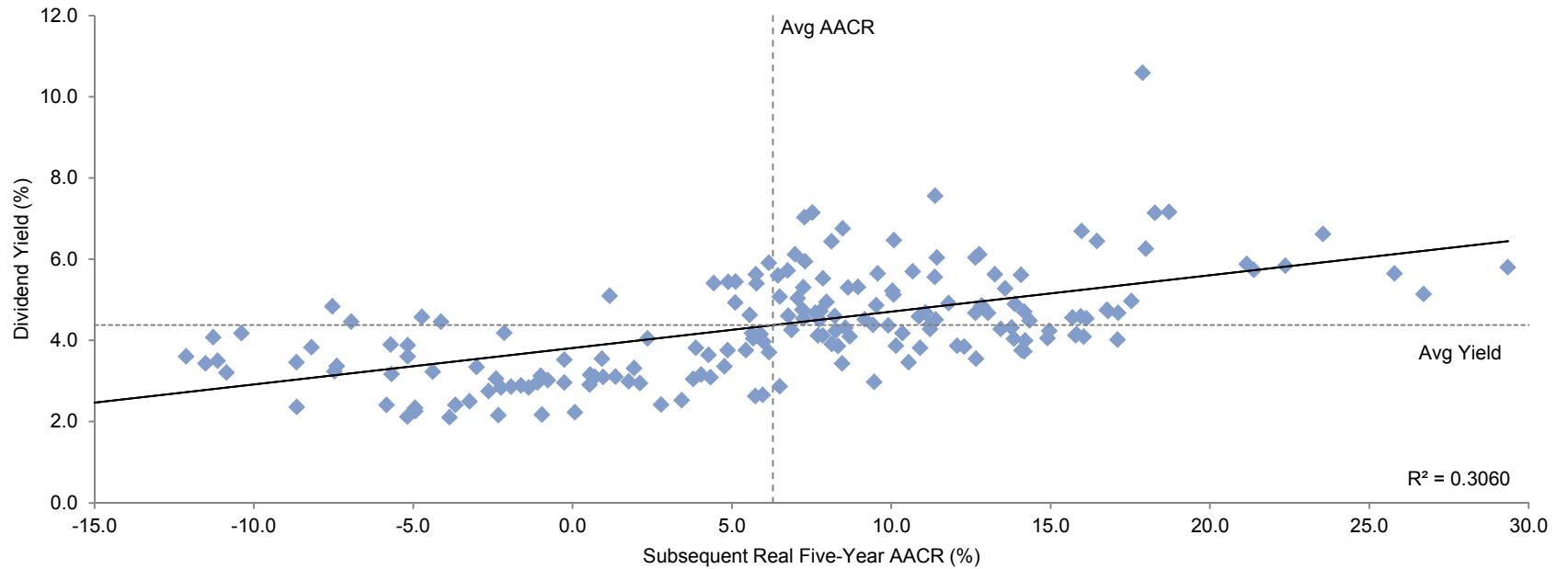


Exhibit 21
Interpreting FTSE® All-Share Dividend Yield Trends
 Trailing 12-Month Dividend Yields • Second Quarter 1962 – Second Quarter 2013



Notes: The calculated mean from 1962 through 1984 is 5.19 with 1 standard deviation above and below at 6.58 and 3.81, respectively. As of 30 June 2013, the FTSE® All-Share Index dividend yield is 3.53.

Exhibit 22
Relationship Between U.K. Equity Dividend Yields and Subsequent Real Five-Year AACR
 Second Quarter 1962 – Fourth Quarter 2012



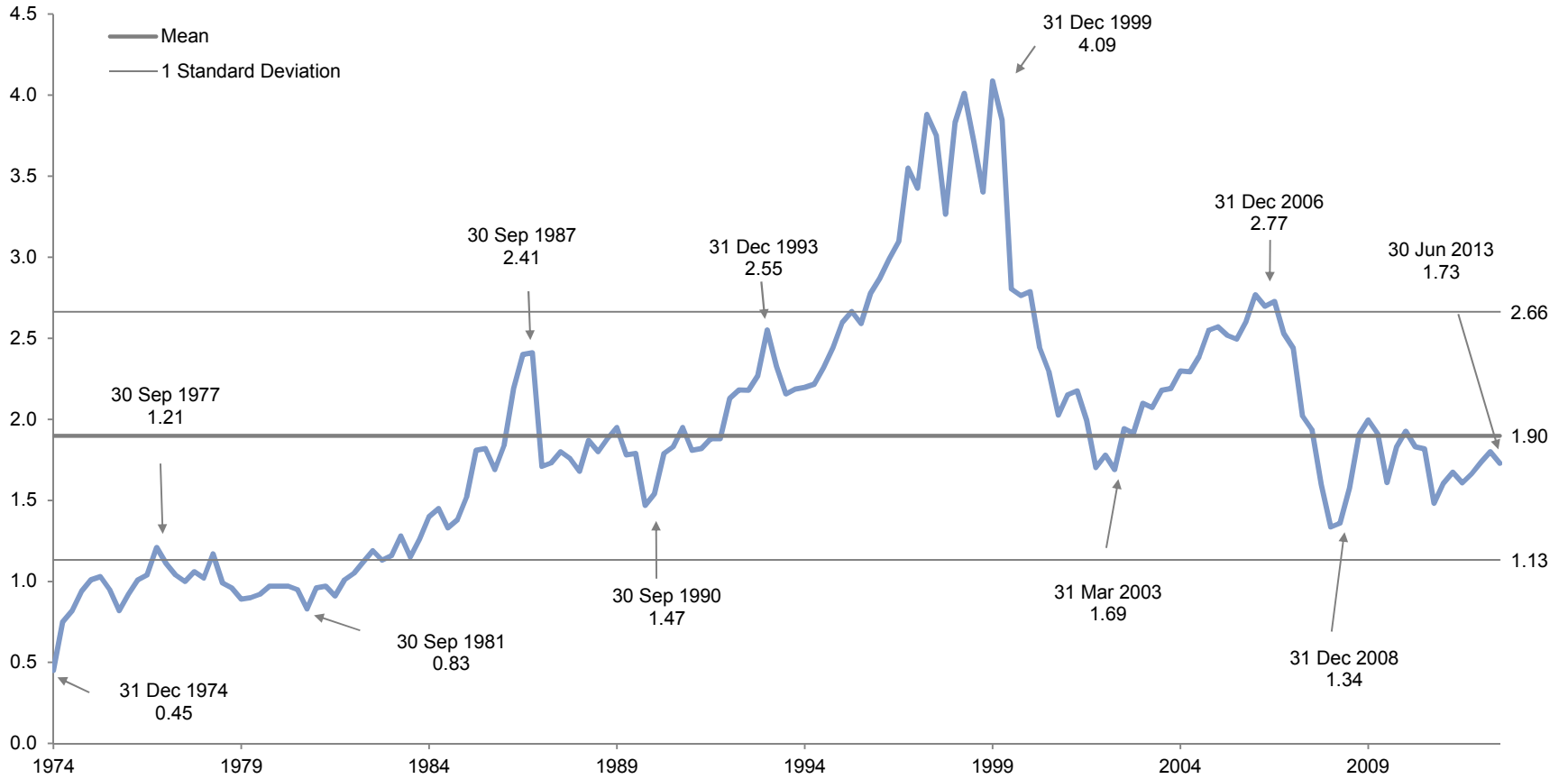
Dividend Yield Quartiles	Beginning Period FTSE® All-Share Dividend Yield (%)			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	2.8	3.4	2.1	-0.6	9.5	-10.9	4.5
Second	3.9	4.2	3.4	3.9	17.1	-19.8	9.9
Third	4.6	5.1	4.2	9.6	17.5	-7.5	6.0
Fourth	6.2	12.2	5.1	12.4	29.3	1.2	6.7
Overall	4.4	12.2	2.1	6.3	29.3	-19.8	8.6

Notes: Data are quarterly. The last full five-year average annual compound return (AACR) period was fourth quarter 2007 through fourth quarter 2012.



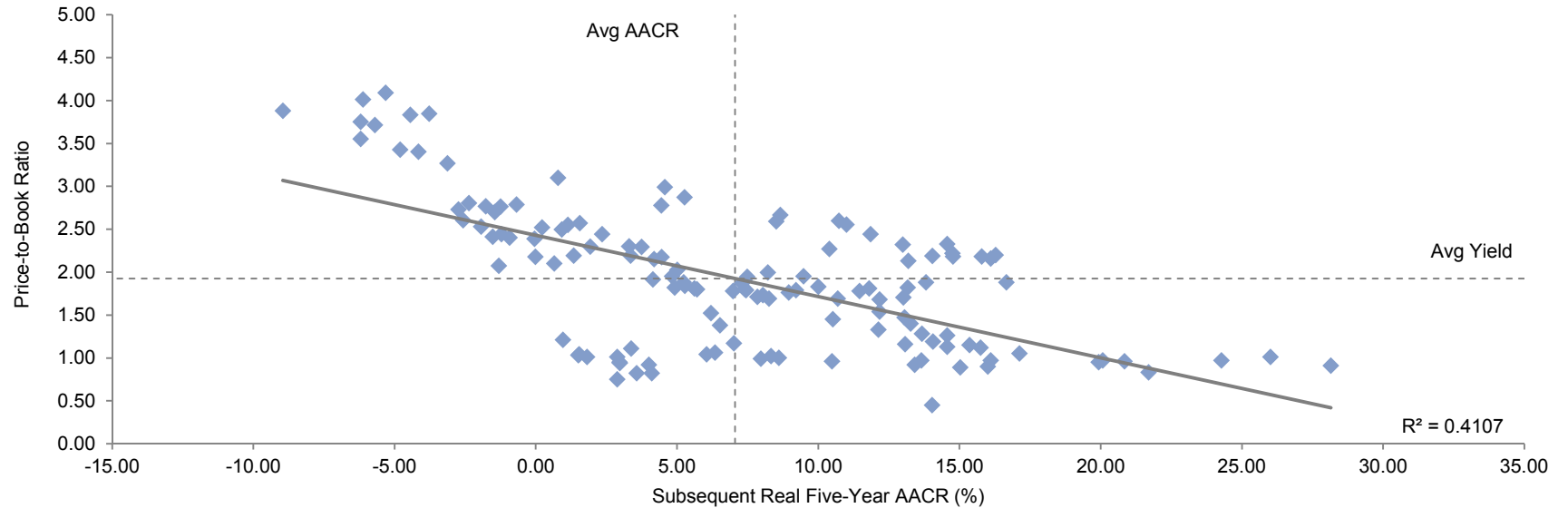
Price-to-Book Ratio and Return on Equity Exhibits

Exhibit 23
MSCI U.K. Price-to-Book Value Ratios
 Fourth Quarter 1974 – Second Quarter 2013



Note: Data are quarterly.

Exhibit 24
Relationship Between MSCI U.K. Price-to-Book Value Ratios and Subsequent Real Five-Year AACRs
 Fourth Quarter 1974 – Fourth Quarter 2012



Ratio Quartiles	Beginning Period MSCI U.K. P/B Ratio			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	0.95	1.13	0.45	11.40	28.2	1.51	7.96
Second	1.59	1.87	1.15	9.65	15.4	0.96	3.44
Third	2.16	2.44	1.88	7.15	16.7	-1.52	6.24
Fourth	3.02	4.09	2.44	-0.04	11.9	-8.95	5.52
Overall	1.93	4.09	0.45	7.06	28.2	-8.95	7.36

Notes: Data are quarterly. The last five-year period was fourth quarter 2007 to fourth quarter 2012.

Exhibit 25
MSCI U.K. Index Return on Equity
 31 December 1969 – 30 June 2013



Notes: Return on equity is calculated by dividing the index's price-to-book ratio by its price-earnings ratio. All data are monthly.

Exhibit 26
MSCI U.K. Index ROE-Adjusted Price-Earnings Ratio
 31 December 1974 – 30 June 2013



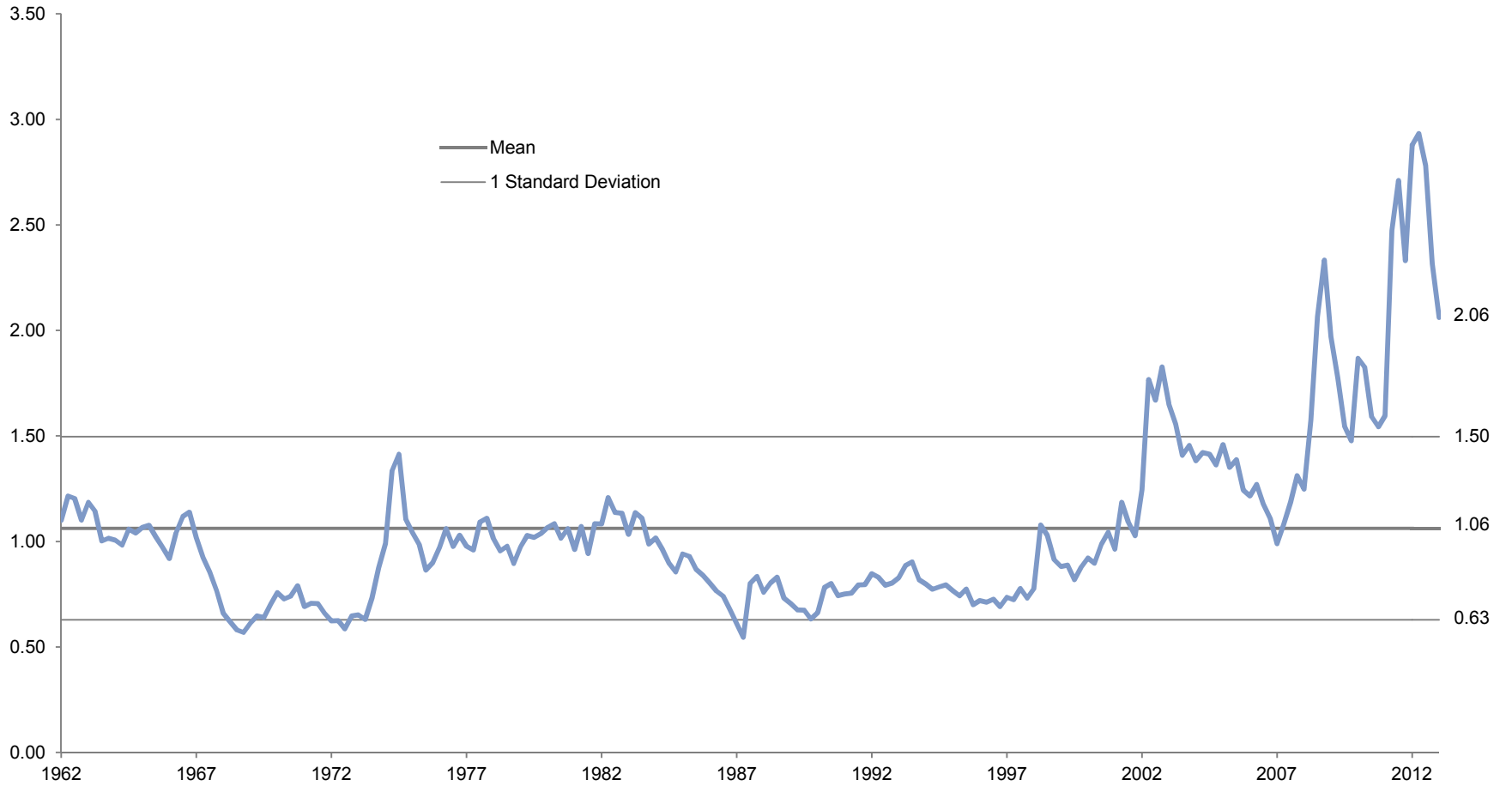
Notes: The return on equity (ROE)-adjusted price-earnings (P/E) ratio multiplies the current trailing P/E multiple by the ratio of current ROE to historical ROE. All data are monthly. We have removed the bubble years 1998–2000 from our mean calculation.



Earnings and Bond Yield Exhibits

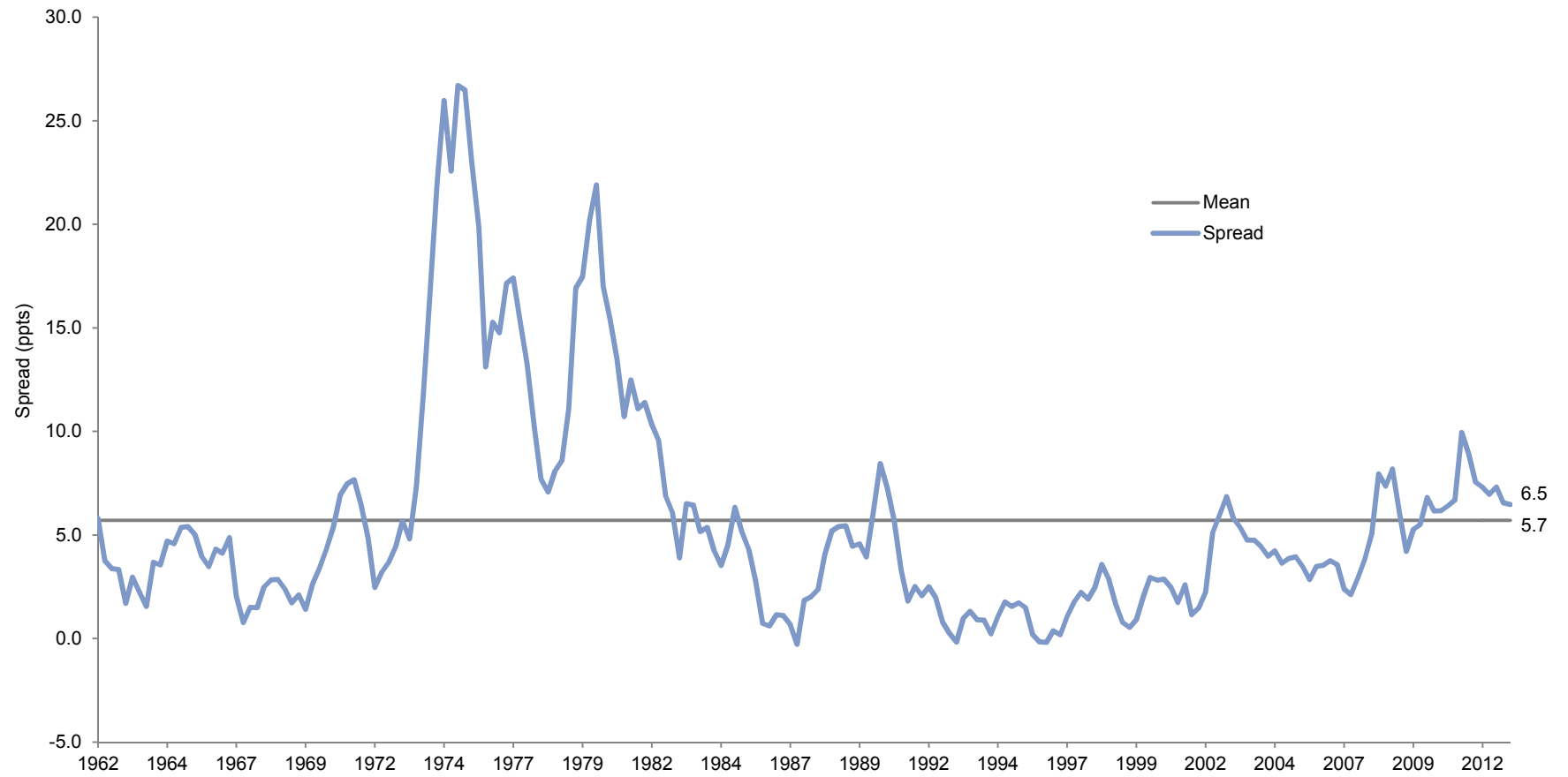


Exhibit 27
Ratio of FTSE® All-Share Trend-Line Earnings Yields to Long-Term Gilt Yields
 Second Quarter 1962 – Second Quarter 2013



Note: Data are quarterly.

Exhibit 28
Spread of FTSE® All-Share Trend-Line Earnings Yields to Real 20-Year Gilt Yield
 Second Quarter 1962 – Second Quarter 2013

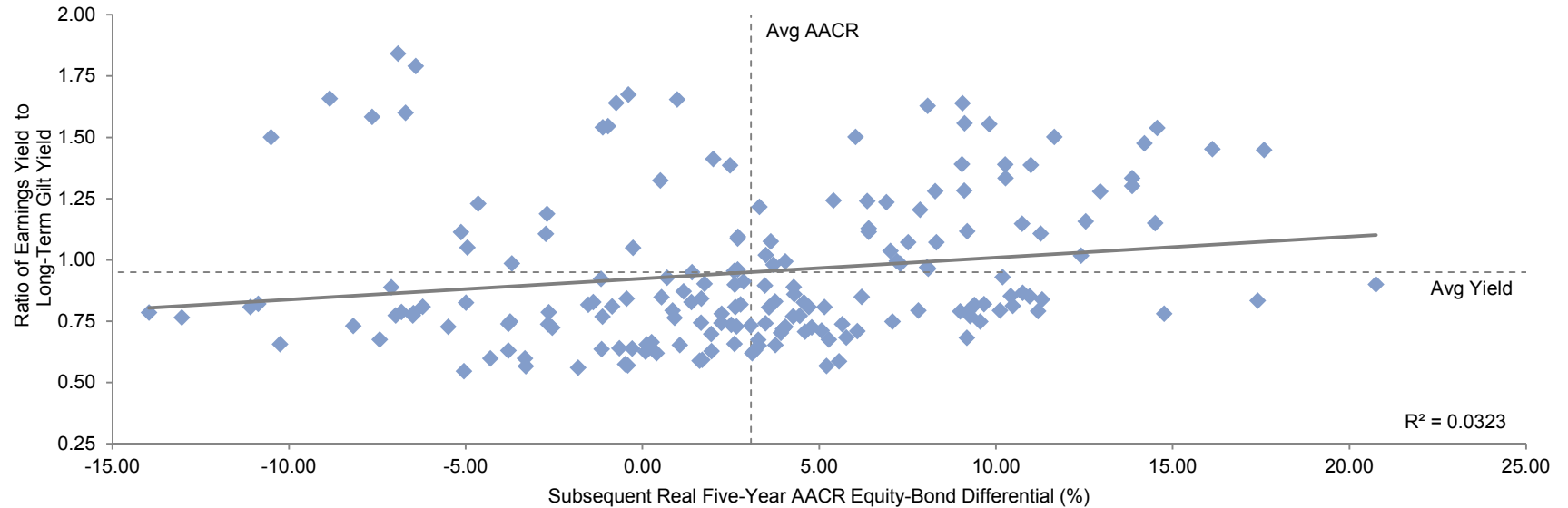


Notes: Data are quarterly. Real yields are calculated by subtracting the trailing 12-month inflation from the nominal yield.

Exhibit 29

Relationship Between Ratio of FTSE® All-Share Index Earnings Yields to Long-Term Gilt Yields and Subsequent Real Five-Year AACR Equity-Bond Differential

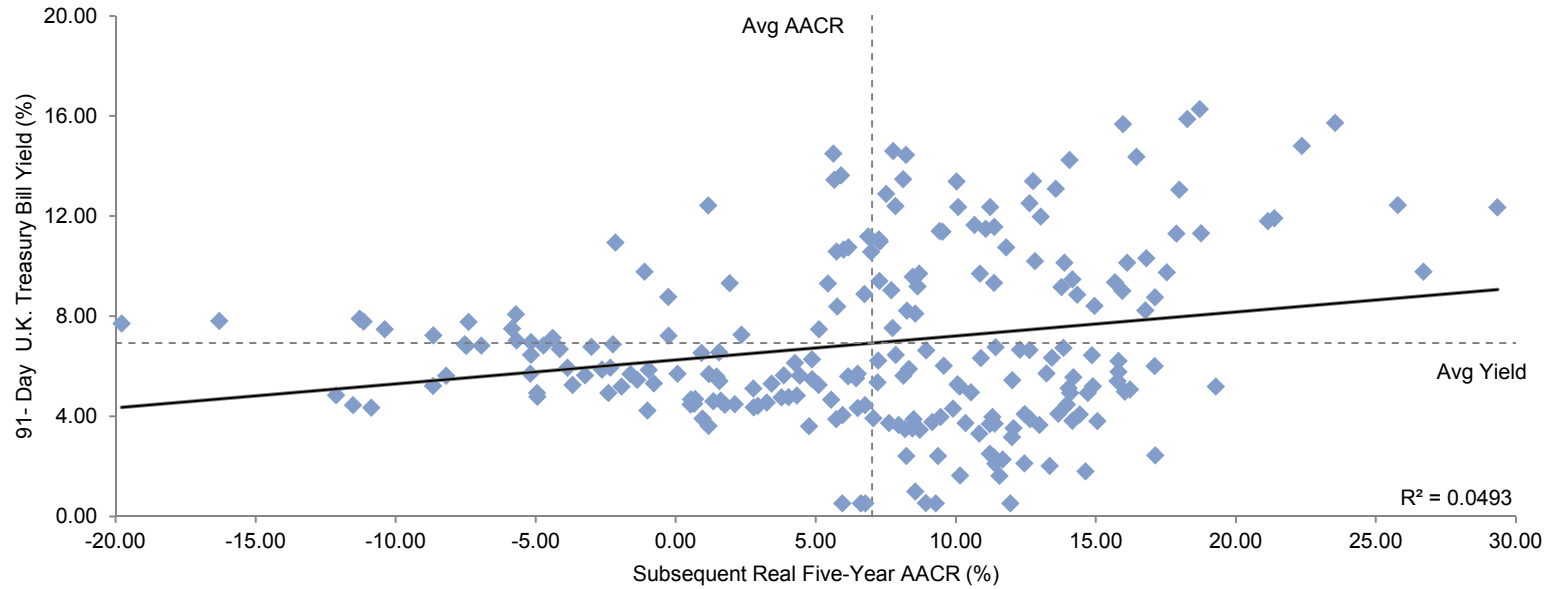
Second Quarter 1962 – Fourth Quarter 2012



Ratio Quartiles	Beginning Period Ratio of Earnings Yield to Long-Term Gilt Yield			Subsequent Real Five-Year AACR Equity-Bond Differential (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	0.65	0.73	0.55	0.91	9.18	-10.25	4.14
Second	0.79	0.83	0.74	1.38	14.76	-13.96	6.99
Third	0.95	1.11	0.83	4.53	20.75	-7.10	5.67
Fourth	1.41	1.84	1.11	5.50	17.59	-10.50	7.41
Overall	0.95	1.84	0.55	3.07	20.75	-13.96	6.45

Notes: Data are quarterly. The last five-year period was fourth quarter 2007 to fourth quarter 2012.

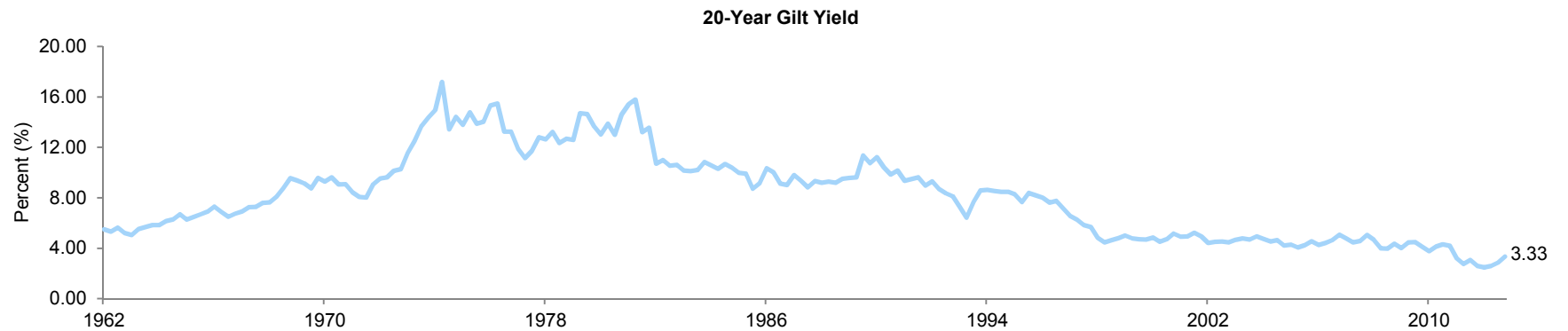
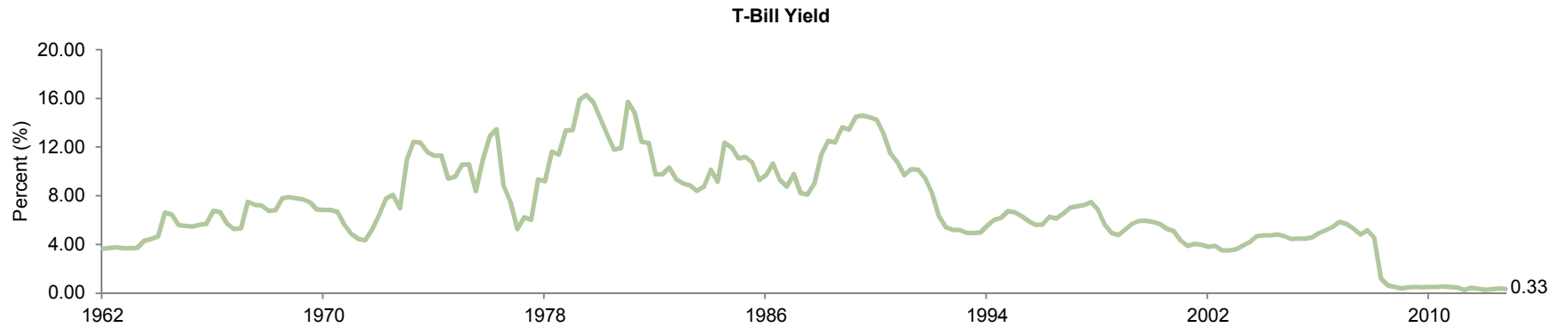
Exhibit 30
Relationship Between 91-Day U.K. Treasury Bill Yields and Subsequent FTSE® All-Share Real Five-Year AACRs
 Second Quarter 1950 – Fourth Quarter 2012



T-Bill Yield Quartiles	Begin Period 91-Day U.K. Treasury Bill Yields (%)			Subsequent Real Five-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	3.15	4.46	0.51	8.46	17.12	-11.52	5.45
Second	5.24	5.93	4.48	4.21	19.29	-12.13	7.23
Third	7.37	9.32	5.93	3.04	17.12	-19.78	9.42
Fourth	11.95	16.27	9.33	12.25	29.35	-2.14	6.52
Total	6.93	16.27	0.51	7.01	29.35	-19.78	8.11

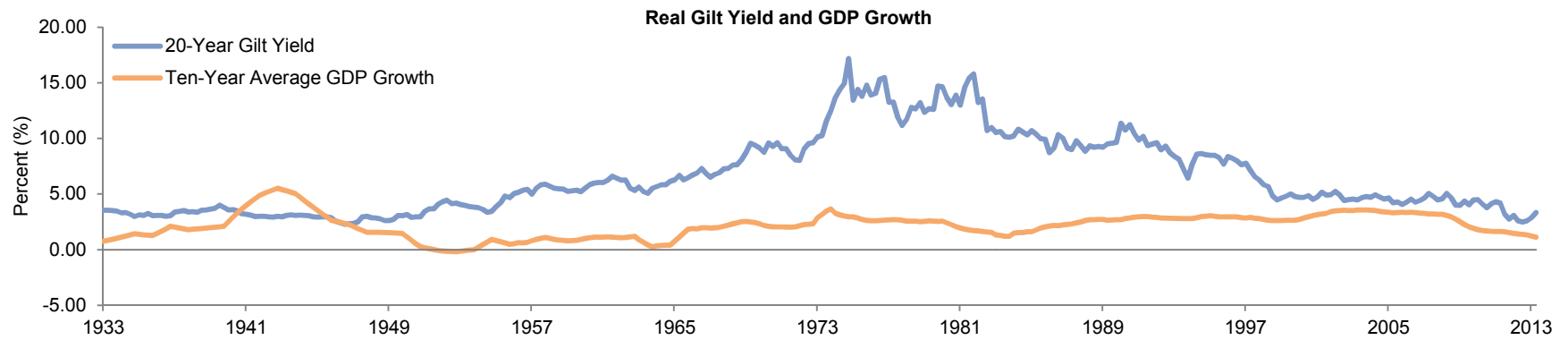
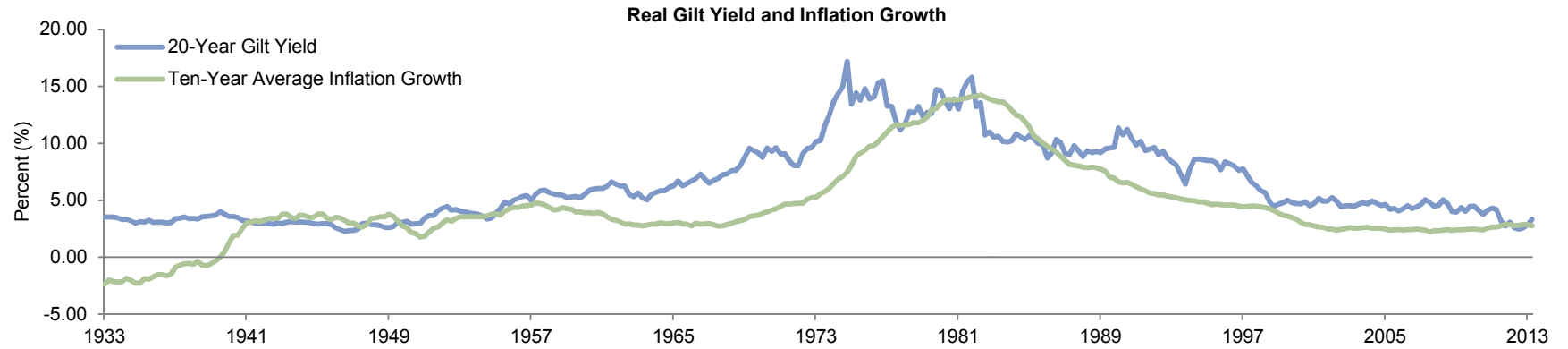
Notes: Data are quarterly. The last full five-year period was fourth quarter 2007 to fourth quarter 2012.

Exhibit 31
U.K. Gilt Yields
 Third Quarter 1962 – Second Quarter 2013



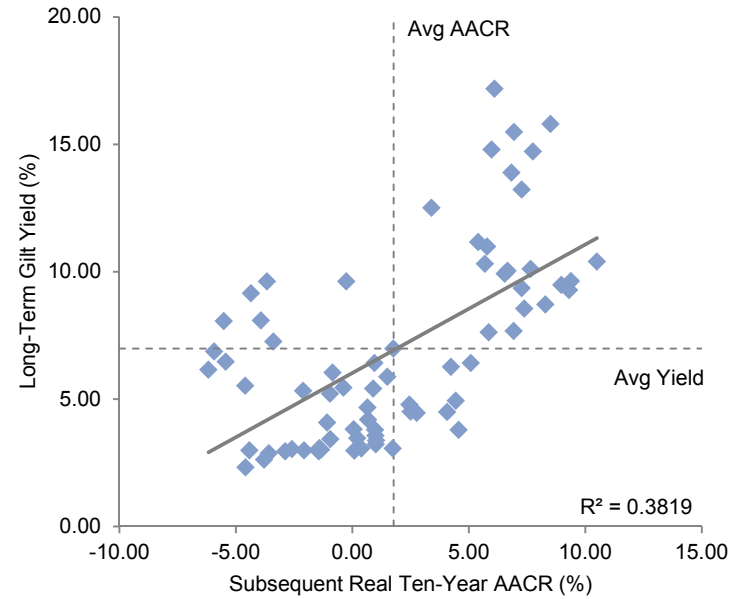
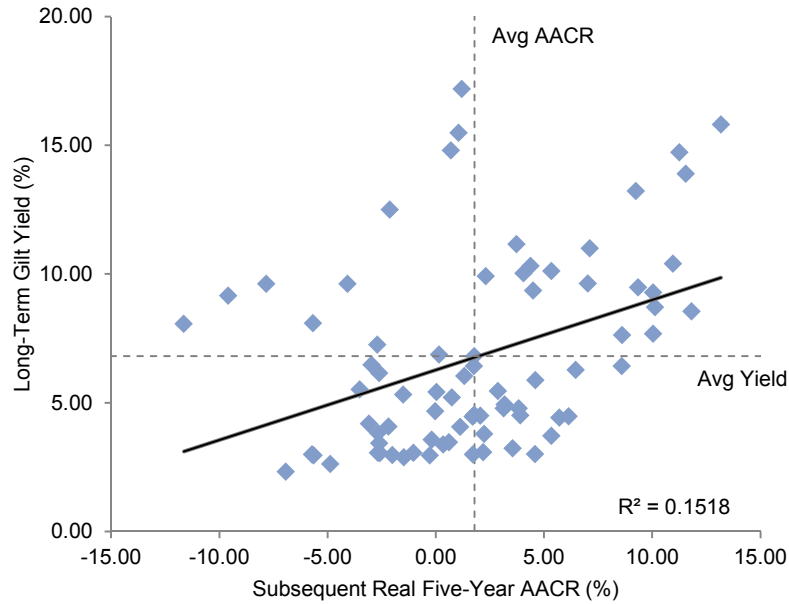
Notes: All data are are quarterly. Data for T-bill yield are represented by the three-month T-bill.

Exhibit 32
U.K. 20-Year Gilt Yields Versus Inflation and GDP
 First Quarter 1933 – Second Quarter 2013



Notes: Data are quarterly. GDP data are real and through first quarter 2013. GDP and inflation data are shown as ten-year average annual compound return figures. Prior to 1955, annual GDP data have been interpolated to show quarterly GDP growth.

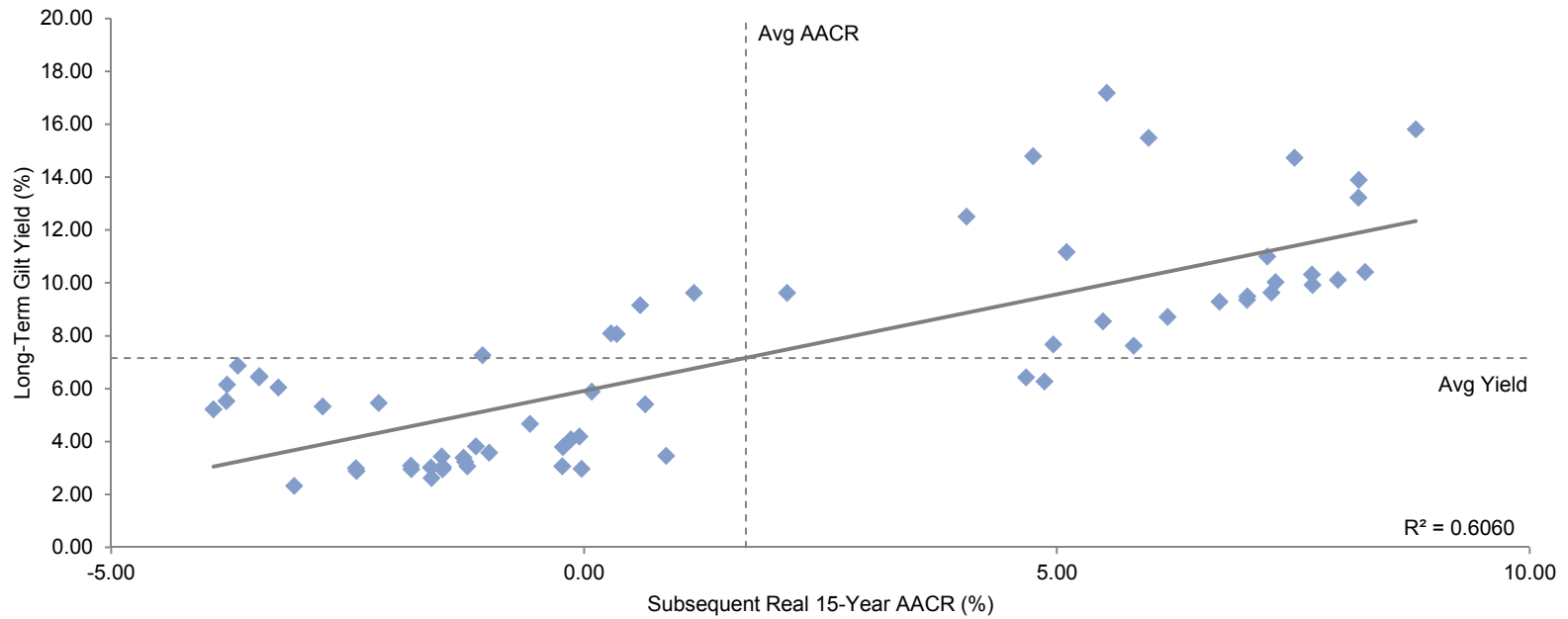
Exhibit 33
Relationship Between Long-Term Gilt Yields and Subsequent Real Five- and Ten-Year AACRs
 1933–2012



Yield	Beginning Period Long-Term Gilt Yields			Subsequent Real Five-Year AACR (%)				Beginning Period Long-Term Gilt Yields			Subsequent Real Ten-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev	Mean	High	Low	Mean	High	Low	Std Dev
First	3.09	3.79	2.32	-1.09	4.59	-6.93	3.24	3.06	3.57	2.32	-1.31	1.74	-4.58	2.02
Second	4.75	5.88	3.82	1.40	6.14	-3.51	2.89	4.93	6.15	3.79	0.27	4.44	-6.17	2.73
Third	7.76	9.62	6.04	2.09	11.83	-11.64	7.48	8.05	9.62	6.27	1.77	9.31	-5.93	5.78
Fourth	12.34	17.18	9.62	5.11	13.17	-4.07	5.02	12.51	17.18	9.63	6.91	10.50	3.41	1.67
Overall	6.81	17.18	2.32	1.78	13.17	-11.64	5.34	6.98	17.18	2.32	1.77	10.50	-6.17	4.57

Notes: Data are annual. The last full five-year period was 2008 to 2012, and the last full ten-year period was 2003 to 2012.

Exhibit 34
Relationship Between Long-Term Gilt Yields and Subsequent Real 15-Year AACRs
 1933–2012



Bond Yield Quartiles	Begin Period Long-Term Gilt Yield (%)			Subsequent Real 15-Year AACR (%)			
	Mean	High	Low	Mean	High	Low	Std Dev
First	3.00	3.43	2.32	-1.55	-0.03	-3.06	0.74
Second	5.01	6.42	3.46	-1.16	4.87	-3.92	2.28
Third	8.26	9.62	6.42	2.76	7.01	-3.66	3.67
Fourth	12.51	17.18	9.63	6.97	8.80	4.05	1.43
Overall	7.16	17.18	2.32	1.71	8.80	-3.92	4.14

Notes: Data are annual. The last full 15-year period was 1998 to 2012.

Exhibit 35
Long-Term Gilt Yields and Subsequent AACRs
 1933–2012

Year	Subsequent Long-Term Gilt AACRs (%)											
			One-Year		Five-Year		Ten-Year		15-Year		20-Year	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1933	3.46	3.46	5.94	5.22	2.39	0.62	3.62	0.21	3.84	0.87	2.86	-0.60
1934	2.97	2.26	3.91	1.13	1.92	-2.00	3.60	0.10	3.12	-0.03	2.94	-0.67
1935	3.06	0.30	-1.50	-4.18	3.11	-2.66	3.71	0.40	2.91	-0.23	2.09	-1.61
1936	3.06	0.26	3.18	-2.03	4.70	-1.02	4.81	1.74	2.40	-1.23	2.27	-1.47
1937	3.38	-1.84	0.59	3.25	4.88	0.35	3.94	1.03	2.45	-1.27	1.96	-1.73
1938	3.57	6.31	3.52	-7.80	4.87	-0.19	4.57	0.99	3.01	-1.00	2.51	-1.42
1939	3.79	-7.56	10.11	-2.23	5.31	2.24	3.73	0.98	3.29	-0.22	2.54	-0.82
1940	3.23	-8.34	6.36	4.18	4.31	3.55	2.81	1.01	1.75	-1.26	1.89	-0.95
1941	3.01	0.90	4.07	4.93	4.92	4.59	1.27	-1.34	1.47	-1.62	1.74	-1.21
1942	2.99	3.84	0.51	0.51	3.01	1.72	1.25	-2.07	1.01	-2.41	2.43	-0.70
1943	3.08	3.08	5.72	4.00	4.27	2.19	2.10	-1.41	1.73	-1.83	2.56	-0.67
1944	2.95	1.28	4.99	4.19	2.17	-0.27	2.29	-1.43	1.63	-1.82	2.18	-1.19
1945	2.88	2.10	9.50	9.50	1.33	-1.47	0.50	-3.58	1.10	-2.41	2.06	-1.49
1946	2.32	2.32	-5.04	-8.69	-2.25	-6.93	-0.21	-4.58	0.70	-3.06	1.83	-1.88
1947	2.99	-0.97	6.81	2.86	-0.48	-5.72	0.02	-4.41	2.24	-1.50	2.16	-1.50
1948	2.62	-1.18	-4.52	-7.93	-0.03	-4.88	0.49	-3.78	1.99	-1.61	1.64	-2.09
1949	3.04	-0.64	0.72	-1.90	2.41	-2.58	1.36	-2.59	2.19	-1.49	2.02	-1.77
1950	2.95	0.26	-8.51	-17.67	-0.32	-5.64	0.98	-2.87	2.30	-1.49	2.18	-1.86
1951	4.08	-6.34	3.88	-2.61	1.86	-2.18	2.21	-1.07	3.23	-0.14	3.95	-0.07
1952	4.19	-2.32	9.23	7.55	0.52	-3.09	3.63	0.68	3.05	-0.05	3.32	-0.72
1953	3.82	2.22	7.72	3.73	1.01	-2.67	3.02	0.06	2.21	-1.14	2.11	-2.29
1954	3.43	-0.40	-11.99	-16.39	0.32	-2.60	2.07	-0.94	1.89	-1.50	1.45	-3.59
1955	4.67	-0.56	1.95	-1.38	2.31	-0.02	3.64	0.65	3.02	-0.57	3.55	-2.44
1956	5.41	2.30	-2.76	-7.08	2.56	0.04	3.92	0.90	4.65	0.65	3.96	-2.58
1957	5.88	1.43	11.90	9.91	6.82	4.60	4.34	1.51	4.27	0.08	6.03	-0.97
1958	5.45	3.74	4.06	4.06	5.07	2.87	2.81	-0.37	2.48	-2.17	5.09	-2.16
1959	5.21	5.21	-2.91	-4.68	3.86	0.75	2.68	-0.95	1.83	-3.92	5.38	-2.66
1960	6.04	3.80	3.23	-1.08	5.00	1.32	3.38	-0.84	3.96	-3.23	6.47	-2.26
1961	6.42	2.10	19.19	16.10	5.30	1.76	5.72	0.95	4.42	-3.44	6.77	-2.33
1962	5.32	2.96	3.01	1.14	1.91	-1.49	3.01	-2.10	5.77	-2.76	8.18	-1.18
1963	5.52	3.23	-1.77	-6.26	0.60	-3.51	1.21	-4.60	5.10	-3.78	8.91	-0.68
1964	6.15	1.73	2.49	-1.93	1.51	-2.62	0.83	-6.17	5.90	-3.77	9.40	-0.22
1965	6.47	1.53	4.76	1.07	1.80	-2.96	3.45	-5.43	6.96	-3.43	9.83	0.12
1966	6.87	3.44	1.15	-1.31	6.13	0.15	3.99	-5.93	7.26	-3.66	10.03	0.30
1967	7.26	4.58	-3.41	-8.81	4.13	-2.70	7.76	-3.39	10.35	-1.07	10.77	0.91
1968	8.09	1.73	2.75	-1.82	1.82	-5.67	7.42	-3.91	11.82	0.29	11.49	1.53
1969	9.15	4.24	3.93	-3.66	0.15	-9.59	8.16	-4.35	12.16	0.59	11.65	1.53
1970	9.62	1.63	29.05	18.36	5.14	-7.83	9.64	-3.66	12.64	1.16	11.64	1.45
1971	8.06	-0.73	-8.04	-14.59	1.89	-11.64	7.84	-5.51	11.36	0.35	11.19	1.26
1972	9.62	1.82	-13.62	-21.89	11.52	-4.07	13.60	-0.25	13.08	2.15	12.53	2.73
1973	12.50	1.66	-5.41	-20.61	13.32	-2.13	17.19	3.41	14.91	4.05	15.11	5.51
1974	17.18	-1.43	32.49	6.07	16.80	1.20	18.69	6.11	15.77	5.53	14.69	5.90
1975	14.79	-8.17	10.30	-4.15	14.34	0.69	16.59	5.99	13.90	4.75	14.00	6.27
1976	15.48	0.30	44.50	28.86	14.13	1.05	16.43	6.94	14.48	5.97	13.91	6.81
1977	11.16	-0.93	-6.42	-13.65	15.71	3.73	13.86	5.41	12.87	5.10	12.97	6.34
1978	13.22	4.48	10.03	-6.15	21.18	9.25	15.71	7.28	15.71	8.19	14.73	8.29
1979	14.72	-2.10	19.08	3.43	20.61	11.25	15.25	7.76	14.00	7.52	14.23	8.58
1980	13.89	-1.10	9.32	-2.44	18.89	11.56	13.67	6.84	13.88	8.19	13.67	8.65
1981	15.80	3.38	54.77	46.84	18.76	13.17	14.66	8.52	13.84	8.80	13.16	8.75
1982	10.99	5.34	17.87	11.93	12.04	7.11	11.48	5.80	12.07	7.23	11.25	7.04
1983	10.11	4.53	7.48	2.78	10.49	5.34	13.08	7.66	12.66	7.97	10.42	6.37
1984	10.31	5.45	10.82	4.85	10.13	4.38	10.83	5.69	12.17	7.70	10.44	6.54
1985	9.92	4.08	8.73	4.84	8.69	2.32	11.46	6.55	11.98	7.70	10.45	6.74
1986	10.03	6.05	15.64	11.52	10.69	4.05	11.45	6.67	11.35	7.31	9.92	6.27
1987	9.35	5.44	9.93	2.95	10.92	4.50	12.08	7.28	10.99	7.01	9.30	5.75
1988	9.28	2.34	5.74	-1.82	15.72	10.04	13.76	9.31	10.40	6.72	9.36	5.99
1989	9.63	1.79	3.76	-5.10	11.53	7.02	13.21	9.40	10.55	7.27	8.98	5.87
1990	10.40	0.97	19.12	14.03	14.30	10.96	13.66	10.50	11.04	8.26	9.27	6.43
1991	9.48	4.80	16.88	13.94	12.21	9.35	11.69	8.98	9.66	7.01	9.52	6.69
1992	8.71	5.97	35.87	33.28	13.25	10.14	11.02	8.29	8.76	6.17	8.98	6.16

Exhibit 35 (continued)
Long-Term Gilt Yields and Subsequent AACRs
 1933–2012

Year	Subsequent Long-Term GILT AACRs (%)											
			One-Year		Five-Year		Ten-Year		15-Year		20-Year	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1993	6.42	4.40	-12.08	-14.55	11.84	8.59	7.83	5.10	7.31	4.68	--	--
1994	8.54	5.50	17.33	13.67	14.91	11.83	10.06	7.39	8.14	5.49	--	--
1995	7.67	4.31	8.62	6.01	13.02	10.05	9.45	6.94	7.64	4.96	--	--
1996	7.62	5.04	22.36	18.07	11.16	8.61	8.41	5.86	8.63	5.81	--	--
1997	6.27	2.55	27.62	24.20	8.83	6.47	6.59	4.24	7.60	4.87	--	--
1998	4.46	1.66	0.69	-1.05	3.98	1.71	5.12	2.77	--	--	--	--
1999	4.78	2.96	7.98	4.91	5.40	3.14	4.91	2.45	--	--	--	--
2000	4.51	1.54	-0.03	-0.72	5.99	3.91	5.04	2.51	--	--	--	--
2001	4.93	4.20	10.05	6.90	5.72	3.19	7.39	4.44	--	--	--	--
2002	4.50	1.51	1.58	-1.18	4.39	2.06	6.99	4.08	--	--	--	--
2003	4.78	1.93	7.81	6.07	6.28	3.84	--	--	--	--	--	--
2004	4.54	2.13	11.00	8.91	4.41	1.78	--	--	--	--	--	--
2005	4.06	2.10	-1.29	-4.14	4.11	1.12	--	--	--	--	--	--
2006	4.42	1.40	3.32	1.18	9.09	5.72	--	--	--	--	--	--
2007	4.47	2.30	11.10	7.76	9.66	6.14	--	--	--	--	--	--
2008	4.00	0.86	-1.34	-4.06	--	--	--	--	--	--	--	--
2009	4.47	1.59	9.40	5.47	--	--	--	--	--	--	--	--
2010	4.12	0.38	24.72	19.70	--	--	--	--	--	--	--	--
2011	2.75	-1.39	6.01	3.21	--	--	--	--	--	--	--	--
2012	2.58	-0.13	--	--	--	--	--	--	--	--	--	--

Correlations

Nominal Yield to Nom Return	0.51		0.83		0.93		0.95		0.93	
Nominal Yield to Real Return		0.23		0.40		0.62		0.78		0.89
Real Yield to Nom Return	0.09		0.11		0.10		0.15		0.17	
Real Yield to Real Return		0.19		0.23		0.15		0.19		0.15



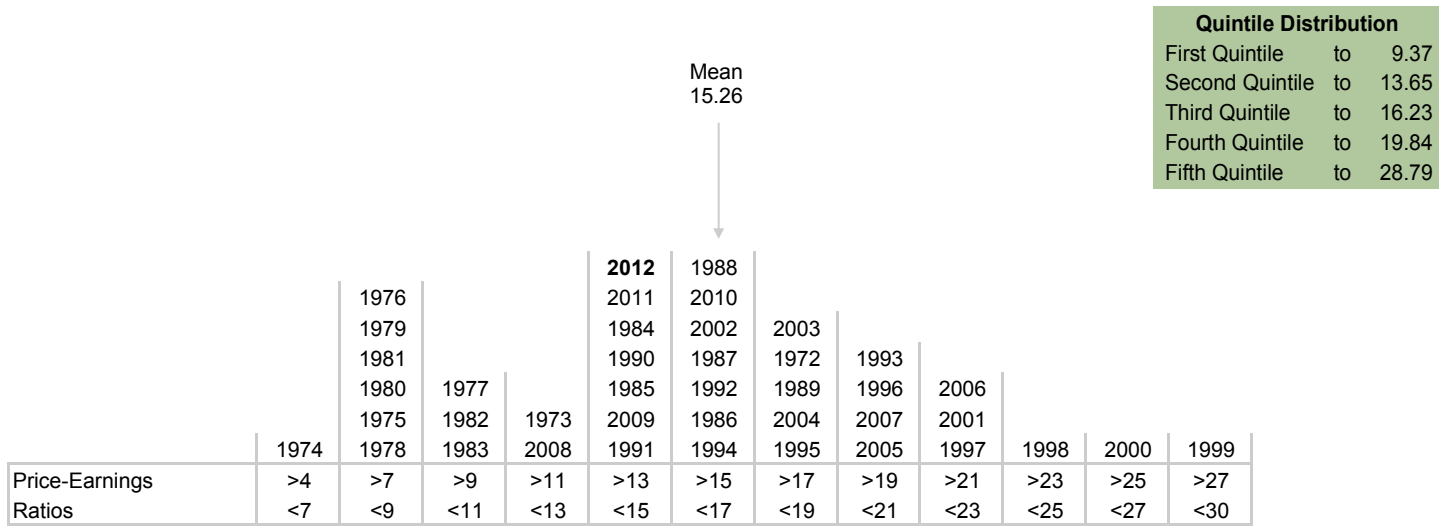
Appendix Exhibits



Appendix Exhibit 1
FTSE® All-Share Historical Market Valuations
 1963–2012

Year	Price-Earnings	Earnings	Dividend	Subsequent	Subsequent
<u>End</u>	<u>Ratio</u>	<u>Yield (%)</u>	<u>Yield (%)</u>	Five-Year Nominal	Five-Year Real
				<u>AACR (%)</u>	<u>AACR (%)</u>
1963	13.9	7.2	4.2	15.1	10.4
1964	10.8	9.2	5.3	10.1	5.5
1965	12.8	7.8	5.4	10.0	4.9
1966	12.6	7.9	6.0	19.4	12.6
1967	17.0	5.9	4.5	15.3	7.7
1968	22.1	4.5	3.2	-0.1	-7.5
1969	16.7	6.0	3.9	-11.2	-19.8
1970	14.2	7.0	4.6	8.6	-4.7
1971	19.0	5.3	3.4	2.0	-11.5
1972	17.4	5.8	3.4	7.7	-7.4
1973	11.9	8.4	5.1	17.1	1.2
1974	4.0	24.9	12.2	37.1	18.8
1975	9.5	10.5	5.6	20.1	5.7
1976	8.6	11.6	6.4	22.1	8.1
1977	8.8	11.4	5.3	19.6	7.2
1978	8.0	12.5	5.7	22.7	10.7
1979	6.6	15.2	7.1	28.2	18.3
1980	6.5	15.5	6.3	25.7	18.0
1981	9.3	10.8	5.8	28.4	22.4
1982	10.7	9.4	5.0	22.9	17.5
1983	12.5	8.0	4.5	19.9	14.3
1984	11.9	8.4	4.3	20.0	13.8
1985	12.2	8.2	4.3	13.5	6.9
1986	14.3	7.0	4.0	12.8	6.0
1987	12.9	7.8	4.2	14.9	8.3
1988	11.3	8.8	4.7	18.5	12.6
1989	12.6	8.0	4.2	10.1	5.6
1990	10.7	9.3	5.3	17.0	13.6
1991	14.2	7.0	4.9	15.8	12.8
1992	17.7	5.7	4.3	16.6	13.4
1993	24.8	4.0	3.5	13.9	10.5
1994	17.4	5.8	4.0	20.3	17.1
1995	16.4	6.1	3.8	13.9	10.9
1996	17.5	5.7	3.8	7.3	4.9
1997	19.4	5.1	3.2	-2.3	-4.4
1998	21.4	4.7	2.5	-1.1	-3.2
1999	28.6	3.5	2.1	-3.0	-5.2
2000	22.5	4.4	2.2	2.2	0.1
2001	21.1	4.7	2.6	8.5	5.7
2002	19.4	5.2	3.6	15.4	12.7
2003	18.9	5.3	3.1	3.5	1.0
2004	15.6	6.4	3.1	6.5	3.8
2005	14.9	6.7	3.0	5.1	2.1
2006	14.3	7.0	2.9	1.2	-1.9
2007	12.2	8.2	3.0	2.5	-0.8
2008	9.1	11.0	4.5	--	--
2009	19.0	5.3	3.2	--	--
2010	12.9	7.8	2.9	--	--
2011	10.6	9.4	3.5	--	--
2012	12.3	8.1	3.6	--	--
Mean	14.4	8.0	4.3	12.8	6.2
High	28.6	24.9	12.2	37.1	22.4
Low	4.0	3.5	2.1	-11.2	-19.8

Appendix Exhibit 2
FTSE® All-Share Historical Distribution of Normalised Real Annual Price-Earnings Ratios
 1972–2012



Note: Years sorted in ascending order by price-earnings ratio.