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#### **ABSTRACT**

As alternative investments have become more mainstream, even in retail investor portfolios, interest in collectibles has also increased. Numerous studies have been published that examine the role of collectible coins, wines, art, and other similar assets as possible alternative investments. Surprisingly, there have been few reports of the investment characteristics of collectible postage stamps. This is perplexing because by some accounts, there are more than 30 million stamp collectors worldwide who spend billions of dollars on their collections. The purpose of the research described in this paper was to determine whether collectible U.S. postage stamps have a place in an investor's portfolio or whether stamps primarily share characteristics with other noninvestment collectibles. Results indicate that, in general, collectible stamps do a relatively good job hedging inflation and declines in gold prices. However, findings also suggest that those who invest in stamps need a very long time horizon and favorable market conditions in order to generate a profit. Implications for financial services professionals who have clients with stamp holdings are provided.

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#### Introduction

eadlines in leading investment publications increasingly include phrases like, "Wealthy Investors Are Buying Alternatives" (O'Donnell, 2014). Among wealthy investors, alternative investments, such as commodities, precious metals, art, derivatives, and funds that provide a hedge against rising inflation and falling asset prices, have experienced increased demand. As noted by Cardell, Kling, and Petry (1995), alternative investments, such as gold, silver, diamonds, art, and collectible stamps have an intrinsic appeal certain investors find attractive. These assets are thought to provide a hedge against unanticipated inflation and general economic uncertainty. More specifically, precious metals, art, and collectible stamps are assumed to be a robust storehouse of value (Mosiondz, 2014).

Consider the history of the British Guiana one-cent black on magenta stamp that was issued in 1856. This is considered the rarest stamp in world history. Since first being discovered in used condition, the stamp has been bought and sold four times. The last sale occurred in mid-June 2014. The stamp sold for \$9,480,000, or nearly one billion times its original purchase price (Sotheby's, 2014). Stories like this one often create interest among retail investors to consider owning collectible stamps. It does not hurt when investors hear that legendary fund managers, such as Bill Gross, often hold multimillion dollar positions in rare stamps (Snee, 2014a). The key issue, of course, is whether stories such as these are gen-

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eralizable to the retail investment marketplace or if such accounts are examples of anomalies that occasionally occur within specialized collectibles markets. The purpose of this paper is to examine this issue in more detail. Specifically, the research purpose was to test whether collectible stamps provide the appropriate characteristics to be included in investment portfolios.

#### Literature Review

## The Market for Collectible Stamps

Nearly every hobbyist who buys and holds collectible assets makes a purchase with two outcomes in mind. The first is to obtain immediate satisfaction through the ownership and use of the asset. The second is to later sell the asset for a higher price (Snee, 2014a). While there are some dealers—those who provide a marketplace for the purchase and sale of collectible assets—who sometimes encourage this dual thinking, most reputable dealers—especially those operating in the collectible stamp marketplace—recommend pursuing hobbies for pleasure rather than profit. Snee, for example, urged readers of his column to "collect stamps because you enjoy it—not because you want to invest with the idea that you'll eventually sell your collection for more than you paid for it."

Others have argued that even the notion of buying collectible stamps as a form of investment is foolhardy and something that should be done only by the savviest of investors. Mosiondz (2014), for example, noted that besides supply and demand, the value of collectible stamps can vary tremendously based on other qualitative factors. Some of these factors include:

- The overall condition of the stamp. Generally, stamps that are well centered, totally unaltered (i.e., sound), with full perforations, and if used, with an unobtrusive cancelation, bring the highest value in the marketplace.
- The color of the stamp. Not unlike works of art (although in a tiny framework), high-value stamps must exhibit outstanding original color and be attractive.

• The desirability of the stamp to others. Simply because a stamp is rare does not mean that it will ever be of much value. Value, in the final analysis within any collectible's market, is based on demand. This demand is driven in large part by the universal desirability of a given asset or item.

These three guidelines provide a foundation for understanding what drives collectible stamp values. In other words, stamp values can best be described by each stamp's aesthetic characteristics (Mosiondz, 2014), that, in turn, lead to demand among collectors and investors.

# Investment Characteristics of Collectible Stamps

While there are literally thousands of circulating papers that discuss the characteristics of alternative investments—particularly the use of metals and art in retail portfolios—there have been relatively few accounts of collectible stamps as an investment asset. This lack of documentation is surprising because by some accounts, stamp collecting, as a hobby and economic pastime, is large in both size and scope. For example, according to Trevor Curwin (2010), the overall size of the U.S. stamp market is thought to exceed \$1 billion, with collectors and investors spending over \$200 million per year on collectible stamps. Worldwide, collectors spend over \$10 billion on stamps (Dimson & Spaenjers, 2011).

There have been a few attempts to estimate the performance of stamps as an investment asset. It is possible, for instance, to invest in baskets of British collectible stamps through Stanley Gibbons Investment (SGI). SGI offers three investment funds that pool investor money to purchase rare stamps. Unlike traditional exchange-traded funds or other pooled investments, these stamp programs are more contractual in nature. For example, SGI offers a capital growth plan that requires investors to choose between 5- and 10-year contracts. At the end of the contract investors receive 80 percent of any given profits. Dimson and Spaenjers (2011) used data from SGI to test the relationship between stamp returns and equity market performance. Key findings from their study were as follows. First, the long-run performance of collectible

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stamps has averaged 2.9 percent on a real basis, which is somewhere between stocks and bonds. Second, the volatility of stamp prices is much closer to stocks than bonds. Cardell et al. (1995) also reported that stamp prices have become more volatile over time. Third, even with high relative volatility, the systematic risk (i.e., beta) associated with collectible stamps is low. Finally, stamps appear to provide a reasonable hedge against expected and unanticipated inflation.

Others have also documented similar performance patterns. For example, Veld and Veld-Merkoulova (2007) found that betas for British stamps have historically been close to zero. The usefulness of collectible stamps as an inflation hedge has also been confirmed. Cardell et al. (1995) and Thiel and Petry (1995) noted that returns from U.S. stamps were positively associated with inflation over the extended periods of time in their study.

To summarize, it is reasonable to conclude that while stamp dealers generally dismiss the notion that stamps should be purchased as an investment asset, there is some evidence to suggest that collectible stamps may be a useful alternative investment within portfolios. The remainder of this paper describes the analysis used to determine whether collectible U.S. postage stamps have a place in an investor's portfolio and what the analysis showed.

#### **Methods**

#### Data

Data were obtained from retail prices listed in the Scott's Specialized Catalogue of United States Stamps and Covers (Snee 2014b). Specifically, postage stamp values were obtained for the period 1969 through 2013. Wagenheim (1976) noted that while catalog values are not as timely as auction price data, catalog values do provide a barometer of market conditions. Prices listed tend to reflect dealer "ask" prices. Values were recorded and matched to Linn's U.S. Stamp Market Index, which was first introduced in 1983, following the peak in stamp prices that occurred between 1981 and 1982. The stamp

market index consists of three categories of collectible postage stamps: (a) U.S. 19th century (termed classics in this study), (b) U.S. 20th century (termed modern in this study), and (c) U.S. airmails (termed airmail in this study). Components of each stamp category are shown in Table 1. Stamps are listed by Scott number (i.e., the standard reference identification number associated with stamps bought and sold in the United States), required condition for inclusion in the index, and date of issue.

Four indexes were created. The first included only classic stamps. The second was comprised of modern stamps. The third was made up of airmail stamps. The fourth index was a value-weighted composite of classic, modern, and airmail stamps. All stamps were considered to be in fine to very fine condition without faults or repairs. Fine to very fine "stamps may be somewhat off center on one side, or slightly off center on two sides. Imperforate stamps will have two margins at least normal size and the design will not touch the edge. Early issues may be printed in such a way that the design is naturally very close to the edges. Used stamps will not have a cancellation that detracts from the design" (Snee 2014). Very fine "stamps may be slightly off center on one side, but the design will be well clear of the edge. The stamp will present a nice, balanced appearance. Imperforate stamps will have three normal-sized margins. However, early perforated issues may be printed in such a way that the perforations may touch the design on one or more sides. Used stamps will have light or otherwise neat cancellations." (Snee 2014b).

Matching stock, bond, inflation, and gold prices were used to create traditional indexes for comparison purposes. Stock, T-bill, and Treasury bond data were obtained from historical data files available from the Stern School of Business at New York University. Stocks were proxied by the S&P 500. T-bills represented the 3-month rate, while Treasury bonds were constant maturity 10-year returns. Inflation estimates were obtained from the Federal Reserve database in St. Louis (FRED), whereas historical gold prices were obtained from Bloomberg.<sup>2</sup>

Once data were compiled, mean and standard

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deviation estimates for each index were calculated over four time periods: (a) 1969 through 2013, (b) 1990 through 2013, (c) 2000 through 2013, and (d) 2008 through 2013. The first period not only was the longest, but it also encompassed the greatest variations in asset prices and inflation. The second period was indicative of generally rising equity and fixed income values. The third period was representative of a low-inflation period with significant fluctuations in asset values. The fourth period, although short, represented a unique time in history; namely, the Great Recession and subsequent recovery.

## **Data Analysis Methods**

The purpose of the analysis was to determine whether collectible U.S. postage stamps have a place in an investor's portfolio or whether stamps are essentially a unidimensional noninvestment collectible. As such,

returns generated by stamps were subjected to traditional modern portfolio analyses and then compared to more traditional asset classes. The following discussion highlights findings from this analytical procedure.

#### **Results**

Mean and standard deviation estimates for each asset included in the analysis are shown in Panel A of Table 2. Return data correspond to the four periods of interest in this study. Mean estimates were made using geometric returns over the periods. Estimates of each asset's Sharpe ratio, beta, capital asset pricing model (CAPM), and alpha are also shown in the first table.

## The Sharpe Ratio

The Sharpe ratio represents each asset's standardized performance in excess of the risk-free rate (T-bills) divided by the asset's standard deviation, or,

TABLE 1		
Collectible Stamp	Index	Components

	Classics			Modern		Airmail					
Scott#	Condition	Series Issue	Scott#	Condition	Series Issue	Scott#	Condition	Series Issue			
1	U*	1847	299	UN	1901	C1	UN	1918			
11	U	1851	306	UN	1902	C3	UN	1918			
68	U	1861	325	M	M 1904		UN	1923			
73	U	1861	328	M	1907	C7	M	1926			
77	U	1861	339	UN 1908		C8	M	1926			
113	U	1869	372	M	1909	C9	M	1926			
119	U	1869	374	M	1910	C13	UN	1930			
179	U	1875	400A	M	1913	C14	UN	1930			
207	UN**	1881	523	UN	1918	C15	UN	1930			
224	UN	1890	573	UN	1922	C18	M	1933			
230	M***	1893	548-550	M	1920	C20	VF*	1935			
233	UN	1893	617-619	M	1924	C21	VF	1937			
239	UN	1893	630	M	1926	C22	VF	1937			
280	UN	1897	704-715	M	1932	C24	VF	1939			
285	M	1897	730	M	1933	C25-C31	VF	1941			
288	UN	1897	731	M	1933	C46	VF	1952			
292	UN	1897	859-893	VF	1940	C61	VF	1959			

<sup>\*</sup>U = Used; \*\*UN = Unused; \*\*\*M = Mint (never hinged); \*\*\*\*VF = Very Fine Mint

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 $(R_A - R_f)/\sigma_A$ , where:

 $R_A$  = Return of the asset,

 $R_{f}$  = Risk-free rate of return, and

 $\sigma_{A}$  = Standard deviation of the asset.

The Sharpe ratio standardizes returns based on risk (i.e., standard deviation). The ratio is a useful tool when ranking assets based on each asset's unique risk and return profile. As shown in Table 2, U.S. postage stamps performed relatively well compared to stocks, bonds, T-bills, inflation, and gold over the period 1969 through 2013. However, the relative performance of stamps di-

minished over time. Of the four stamp indexes, only classic stamps held up as a relevant investment asset using the Sharpe ratio over the four periods examined.

#### **Beta Estimates**

Table 2 also shows a beta estimate for each asset. Beta is a measure of systematic risk. In this analysis, stocks were selected as the benchmark. That is, the risk comparison was the S&P 500 stock index ( $\beta = 1.00$ ). Over the extended period (1969 through 2013), the beta of stamps was low and slightly neg-

**TABLE 2**Stamp and Investment Asset Return, Risk, and Correlation Data

Asset Statistics											Correla	tions			
	Return (%)	SD (%)	Sharpe Ratio	Beta	CAPM (%)	Alpha (%)	Classics	Modern	Air	Index	Stocks	T-Bills	Bonds	Inflation	Gold
<u> 1969 – 2013 Period</u>															
Classics	5.50	11.93	.03	09	4.76	0.74	100%								
Modern	3.29	15.00	13	.00	5.20	-1.91	88%	100%							
Airmail	1.60	18.08	0.20	11	4.65	-3.04	80%	87%	100%						
Index	3.48	15.26	11	.05	4.93	-1.46	89%	97%	96%	100%					
Stocks	10.32	17.20	.30	1.00	10.32	0.00	-12%	0%	-10%	-6%	100%				
T-Bills	5.20	3.24	n.a.	.01	5.26	n.a.	44%	37%	22%	31%	6%	100%			
Bonds	7.10	9.92	.19	.02	5.29	1.81	-35%	-38%	-35%	-38%	3%	20%	100%		
Inflation	4.32	2.89	31	02	5.08	77	73%	69%	62%	68%	-13%	71%	-7%	100%	
Gold	7.78	27.53	.09	36	3.34	4.44	31%	50%	60%	56%	-23%	1%	-17%	32%	100%
<u> 1990 – 2013 Period</u>															
Classics	2.26	7.35	13	.06	3.65	-1.40	100%								
Modern	-0.44	8.50	43	.20	4.60	-5.05	63%	100%							
Airmail	-2.04	5.32	99	.01	3.35	-5.39	49%	45%	100%						
Index	0.01	6.19	52	.10	3.95	-3.94	81%	93%	69%	100%					
Stocks	10.19	17.96	.39	1.00	10.19	0.00	14%	41%	5%	29%	100%				
T-Bills	3.25	2.40	n.a.	.02	3.39	n.a	38%	29%	27%	36%	15%	100%			
Bonds	6.37	9.50	.33	13	2.31	4.06	-23%	-32%	9%	-25%	-25%	27%	100%		
Inflation	2.67	1.11	53	02	3.11	-0.44	13%	4%	29%	14%	-32%	61%	42%	100%	
Gold	4.90	15.29	.11	21	1.80	3.10	-27%	-14%	-2%	-16%	-24%	-36%	1%	-25%	100%

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ative. This indicates that compared to stocks, collectible stamps provided a relatively low risk hedge against falling equity prices. However, the risk nature of stamps changed considerably over time. While betas remained low, the nature of the risk reversed after 1990. Although stamps appear to be relatively less risky than stocks, the value of stamps now corresponds more closely with changes in stock prices.

## **CAPM Estimates**

Expected risk-adjusted rates of return for each

of the assets were estimated with the CAPM. The following formula was used to calculate CAPM:  $R_f + \beta (R_M - R_f)$ , where:

 $R_c = Risk-free rate,$ 

 $\beta$  = Asset beta, and

 $R_{M}$  = Return of the market benchmark.

Results suggest that among the stamp indexes, airmail stamps had the lowest expected return over the four periods. Modern stamps had the highest expected returns. This was due, however, to modern stamps having the highest price volatility.

TABLE 2 (cont'd)
Stamp and Investment Asset Return, Risk, and Correlation Data

Asset Statistics											Correla	itions			
	Return (%)	SD (%)	Sharpe Ratio	Beta	CAPM (%)	Alpha (%)	Classics	Modern	Air	Index	Stocks	T-Bills	Bonds	Inflation	Gold
<u> 2000 – 2013 Period</u>															
Classics	0.60	4.93	28	.00	1.96	-1.36	100%								
Modern	-1.77	9.59	39	.21	2.58	-4.35	59%	100%							
Airmail	-2.29	4.42	96	01	1.94	-4.23	67%	39%	100%						
Index	-0.99	5.99	49	.09	2.22	-3.20	80%	94%	63%	100%					
Stocks	4.91	19.22	.15	1.00	4.91	0.00	1%	42%	-3%	28%	100%				
T-Bills	1.96	2.01	n.a.	02	1.89	n.a.	83%	29%	64%	53%	-22%	100%			
Bonds	5.66	9.24	.40	37	0.87	4.79	-6%	-41%	11%	-28%	-77%	32%	100%		
Inflation	2.42	1.10	.42	03	1.88	0.54	47%	7%	63%	30%	-47%	55%	66%	100%	
Gold	11.09	15.68	.58	02	1.89	9.20	-10%	-3%	-10%	-6%	-3%	6%	6%	-20%	100%
<u> 2008 – 2013 Period</u>															
Classics	-3.46	3.21	-1.18	.02	0.45	-3.91	100%								
Modern	-5.57	8.37	70	.31	2.14	-7.71	40%	100%							
Airmail	-4.28	3.30	-1.40	04	0.12	-4.40	-9%	-9%	100%						
Index	-4.58	4.27	-1.15	.14	1.14	-5.72	61%	95%	9%	100%					
Stocks	6.20	24.60	.24	1.00	6.20	0.00	15%	91%	-27%	77%	100%				
T-Bills	0.33	0.61	n.a.	02	0.20	n.a	5%	-87%	21%	-69%	-89%	100%			
Bonds	3.89	12.83	.28	45	-2.30	6.19	-40%	-75%	41%	-68%	-86%	56%	100%		
Inflation	1.96	1.47	1.10	05	0.05	1.91	1%	-55%	53%	-37%	-80%	56%	89%	100%	
Gold	7.13	19.18	.35	04	0.08	7.05	-83%	-36%	-47%	-63%	-6%	-8%	16%	-29%	100%

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#### **Alpha Estimates**

Of particular importance to investors is the alpha estimate shown in Table 2. Alpha measures the overperformance or underperformance of an asset relative to the asset's systematic risk profile. In this analysis, alpha was estimated by subtracting the expected return (CAPM) from each asset's actual average return over the period, or  $R_A$  – CAPM, where:

R<sub>A</sub> = Return of the asset and CAPM = Expected return of the asset.

In general, collectible stamps performed poorly as an investment. On a risk-adjusted relative basis, using the S&P 500 as the market index and T-bills as the risk-free rate of return, stamps did worse than expected in each of the periods. Only classic stamps, over the extended period 1969 through 2013, exhibited a positive alpha.

#### **Correlation Estimates**

Panel B of Table 2 provides correlation estimates between and among the assets by period. The correlations are Pearson coefficients. These provide a measure of association between two variables. Interestingly, the association between stamps and stocks was negative only during the 1969 through 2013 period. In more recent periods, the correlation between stocks and collectible stamps was positive. This implies that stamps may be viewed by hobbyists in today's market more as a luxury good than an investment hedge. On the other hand, the association between stamps and bonds remained robust over the periods. Other than airmail stamps, the relationship between stamps and bonds was negative, which suggests that stamps may be an effective hedge against falling fixed-income values. This possibility is strengthened when the association between stamps and inflation is evaluated. Essentially, stamps (other than airmail stamps) were, over the periods of analysis, positively associated with inflation.

The association between stamps and gold is an interesting one. Traditionally, stamp collectors have been grouped with other tangible alternative asset investors, including those who buy and hold gold. Gold has con-

ventionally been publicized as a hedge against unanticipated inflation and a safe haven asset in times of economic and social unrest. Similarly, collectible stamps have also been advertised as a potential hedge and safe haven asset. There is evidence that over the period 1969 through 2013, both stamps and gold could have been used to hedge against inflation. Collectible stamps were positively correlated with inflation during this time period, as was gold. Interestingly, the better hedge against inflation was stamps, not gold. Beginning in 1990, the relationship between stamps and gold and gold and inflation became inverted. Stamps now appear to be a useful hedge against inflation and declines in gold prices. That is, rather than move together, stamp and gold prices decoupled beginning in 1990. Similarly, gold's presumed inflationary protection status was weakened during the same time period. Since 1990, gold prices have exhibited a negative association with inflation.

Two conclusions can be derived from data in Table 2. First, determining whether stamps may be an appropriate asset for inclusion in investment portfolios is not easily answered. This will be discussed in more detail later in the paper. Second, data clearly show that of the four stamp indexes, only the classic stamp index has provided consistent patterns of mean and standard deviation returns. In other words, classic stamps appear to offer the best match to what might best be described as an investment asset. Modern and airmail stamps match the characteristics of collectibles—that is, assets purchased and enjoyed as a pastime. As such, the remainder of this paper will focus on the relationship of classic stamps to other investment assets.

## **Optimized Portfolios**

Information provided in Table 2 is useful in showing associations between and among different stamp indexes and investment assets. In order to answer the question of whether collectible U.S. postage stamps have a place in an investor's portfolio it is necessary to document the effect of adding stamps to portfolios. A portfolio optimization procedure was used that required the estimation of a variance-cova-

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riance matrix for stocks, bonds, T-bills, and classic stamps. Portfolio optimization results in the discovery of an asset mix that minimizes risk (i.e., volatility) while maximizing returns. The following inputs were used in the estimates: asset returns, asset return standard deviations, and the risk-free rate, which was defined as the period's T-bill rate.

A baseline optimization estimate was made for the period 1969 through 2013 using stock, bond, and T-bill returns, standard deviations, and correlations. The constrained optimization (i.e., no short selling allowed) procedure indicated that over this time period, investors would have been best served allocating their investable assets 75 percent in stocks and 25 percent in bonds.

Once the baseline allocation was determined, optimized portfolios that included classic stamps were estimated for the four time periods. Results from the analysis indicated that in three out of the four periods, the inclusion of classic stamps into a traditional stock, bond, and T-bill portfolio would have increased risk-adjusted returns. The only time adding classic stamps to a portfolio would have resulted in lower risk-adjusted performance was the period between 2000 and 2013. While the historical 1969 through 2013 period indicated that some weighting in stamps was appropriate, estimates using recent period data suggest more modest allocations. Results confirmed the advice often provided by financial service professionals when discussing the use of alternative investments within a retail investor's portfolio; namely, investors should limit the allocation of assets to alternative investments to no more than 10 percent of their portfolios. It is worth noting that if the current low inflation and high stock return scenario extends into the future, results lead to the following conclusion: investors should allocate even less—no more than 3 percent of their portfolios—to collectible stamps.

## Discussion

The purpose of this analysis was to determine whether collectible U.S. postage stamps have a place in an investor's portfolio. It turns out that the answer to this question is somewhat nuanced. To begin with, the answer depends of an investor's objective and the economic environment in which the decision is made. Collectible classic stamps, as defined in this study, may make sense in a portfolio when:

- An investor wants to add an inflation hedge. Over the period 1969 through 2013, the returns on collectible stamps were highly correlated with the rate of inflation. The level of association was much higher for stamps compared to stocks, bonds, T-bills, or gold. This finding matches what has generally been reported in the literature (e.g., Cardell et al., 1995). Stamps appear to do well as an investment asset during periods of inflation.
- An investor is looking to hold an alternative investment to hedge gold price fluctuations. Since 1990, the correlation between stamps and gold prices has been consistently negative. Collectible classic stamps may provide a hedge against falling gold prices. This finding differs from that reported by Dimson and Spaenjers (2011); however, their results were based on British stamp data. It is possible that the U.S. market differs from international stamp markets.

Adding collectible classic stamps to an investment portfolio would not make sense if:

- An investor believed that fixed-income securities, such as bonds, were going to experience excess risk-adjusted returns over a long time horizon. The period 2000 through 2013 provides a text-book example of such a timeframe. During this period, bonds returned a 5.66 percent annualized return, whereas stocks and stamps returned 4.91 percent and 0.60 percent, respectively.
- An investor felt that gold would outperform stocks on an ongoing basis. From 2000 to 2013 gold generated an 11.09 percent return. This level of return was significantly higher than other investment asset or stamp index returns.

### **Investing Caveats**

It is important to note that while there were periods during the past 40 years when holding collectible

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stamps added value to an investment portfolio, the performance edge provided by stamps has been, at best, marginal. This is especially true over shorter periods of time. This may not be, however, a significant problem for collectors and hobbyists who hope to make a profit from their stamp holdings. According to Guerzoni (1995), stamp collectors typically hold their collections for 40 years or more. This willingness and ability to hold stamps for long periods allows collectors/investors an opportunity to at least break even on their purchases, while allowing for the enjoyment of a hobby.

As an example, consider a collector/investor who invests \$100,000 into the classic stamp index. If the index increases in value by 2.26 percent annually (i.e., the annualized rate of return during the 1990 through 2013 period), it will take approximately 16 years for the collector/investor to break even. This break-even estimate is based on a bid/ask spread of 30 percent. That is, this calculation is premised on the assumption that stamp dealers will buy a stamp for \$70 but sell the same stamp at \$100. Because the liquidity of the stamp market is limited, bid/ask spreads tend to be high. Thomas (2009) reported a 20 percent spread, but in actuality, the spread can be higher, based on the number of buyers at any given time and the overall market at the time of sale. The collector/investor must recoup \$142,857 in order to break even, assuming a purchase price of \$100,000 and a 2.26 percent rate of return. This equates to a 16-year holding period. If the bid/ask spread increases to, say, 50 percent, then the holding period extends to 31 years to break even.

## **Implications for Financial Service Professionals**

The results from this study are of particular relevance to advisors who have clients who currently have a stamp collection. If the stamp collection has been in existence for a long period of time, the client may have benefited from the diversification aspects of stamps. On the other hand, if the stamps were purchased recently with the intention of capturing capital gains, the client may be experiencing remorse. Regardless of any

single client's situation, it is worth mentioning again that clients should be dissuaded from investing more than 10 percent of their investment portfolio in collectible stamps or any other similar alternative investment. For those advisors who have clients considering adding collectible stamps to their portfolios—beyond an allocation of cash flow for their hobby—data from this analysis can be used to temper the client's enthusiasm. If the current low inflation and high stock return environment persists into the future, only a very small proportion of a portfolio should be allocated to collectible stamps (i.e., less than 3 percent). As the results from this study indicate, while stamps can be both fun and potentially profitable, collectible stamps are anything but a risk-free alternative.

It also is important to consider that while diversification is an important aspect associated with the decisions to include an asset in an investor's portfolio, other factors also need to be considered. For example, financial service professionals, who are in a position to provide advice and counsel to clients on alternative investments (i.e., those who are not constrained by their broker/dealer or firm), need to factor in liquidity, marketability, transfer and control, and estate planning issues into the allocation decision. In the final analysis, the implementation and monitoring costs associated with using collectible stamps as an alternative investment may outweigh the marginal diversification benefits. The best value a financial service professional can add is to explain that while stamp collecting is an enjoyable pastime, the inclusion of stamps in a portfolio can be problematic. For those clients who push their advisors to account for the value of a collection in portfolio analyses, it is critically important for the financial service professional to understand the role of dealers and auction companies in establishing secondary markets for collectible stamps, and to keep a vigilant eye on the catalog prices of the client's holdings.

## **Summary**

Over the past two decades, stamps—both as a collectible and alternative investment asset—have

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come to represent a form of what Dimson and Spaenjers (2011) called luxury consumption. Rather than hedging changes in equity prices, stamp values tend to move in tandem with wealth and stock prices (Hiraki, Ito, Spieth, & Takezawa, 2009). The primary advantage of adding classic U.S. collectible stamps to an investor's portfolio is as an inflationary hedge. A secondary reason to hold collectible stamps is to hedge possible declines in gold prices. Findings from this study should, of course, be evaluated within the constraints of the study. For instance, data represent a unique historical period in the United States. It is possible that the strength of classic stamps as an investment asset might change if a data set with a longer history were analyzed. It is conceivable, for example, that other variables might explain price patterns exhibited by stamps over these time periods. Additionally, the usefulness of stamps as a diversification tool within a portfolio might also change if other investment assets, such as real estate, were included in an optimization model. Further research is needed to test this possibility. Finally, opportunities exist for additional study to determine whether holding more specialized portfolios of collectible stamps (and other similar collectible assets—baseball cards, wine, etc.) might provide higher risk-adjusted returns.

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- (1) Stern School of Business at New York University; data accessed at http:people.stern.nyu.edu.adamodar/.
- (2) Data accessed at: http://www.bloomberg.com/markets/commodities/futures/metal.

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