

ANALYSIS OF CLOSED REAL ESTATE FUNDS IN ITALY

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Abstract

In this paper, we examine closed real estate funds, comparing the Italian case with the international closed real estate fund market. We study whether the “public hand” has acted in an efficient market way to achieve return results in line with private competitors. In the last 10 years, international closed real estate funds have had an annual average of 0.5%. This result represents a very poor performance when compared with the returns offered by international bonds (5.6%) or international 1 equity markets (6.9%). This positive trend, however, is not followed by the closed real estate investment fund sponsored by the Italian government. On average, during the recent financial crisis, the returns of the international closed real estate funds in the euro area increased by more than 14 percentage points, while those of the Swiss franc area were about 1.5%.

The management of real estate owned by public administrations is a thorny issue. First, there is the problem of reducing the financial resources available to the public, and the consequent need to rationalize spending. Second, there is the need to transform public real assets, which are often considered a passive voice in a government budget, into a resource.

A lot of policymakers stress that government should orient its decisions through public/private partnerships that employ innovative financing instruments that enable the development of modern actions, effective and efficient in managing and using public assets. The real challenge is to be found in the enhancement of the public as a strategic lever to overcome the balance crisis.

In Italy since 1999 disposals of public assets have been made by using securitization or real estate funds. In Italy, securitization has led to significant divestments by both banks (mainly loans) and government institutions.

In this paper, we deal with the subject of the performance of public real estate funds. This is a financial instrument that allows the investor to participate in the economic results of private enterprises taken in the housing sector, not using the typical pattern of participation in a company, but the scheme of assets managed by a professional intermediary. We tackle the issue of performance, not according to what is typically called the closed-end fund puzzle, but by focusing on public real estate funds.

The difficulties of the Italian government are extensively known, and certainly exacerbated, by the persistent state of international crisis. Indeed, Italy, having

accumulated a huge public debt, has decided to use these financial instruments to address different needs regarding public spending, health, and welfare. These difficulties, mainly to be reconnected to the high level of public debt, in January 2013 have exceeded the remarkable level of 2,000 billion euros. Among the various economic policy tools with which Italy has decided to deal with this crisis, there are closed real estate funds. Through these instruments, Italy is providing the sale of public assets through their implementation in financial instruments in the form of closed end funds.

Innovation in the literature coming from our paper is mainly due to the evidence that the central topic of analysis is real estate funds that are in the public domain. To our knowledge, this situation is specific to Italy and is not typical of any other countries.

This paper is organized as follows. We begin by providing an overview of the literature on closed real estate funds and REITs. We then describe investment vehicles in an Italian context. We also describe the framework of the Italian case, including the impact of the international financial crisis. In addition, we discuss public real estate funds, summarize current challenges, and provide a comparison between these financial instruments and Italian and international vehicles. We close with concluding remarks about this vehicle in the Italian context.

LITERATURE REVIEW

Several studies deal with real estate funds performance (Morri and Erbanni, 2008; Gallo, Lockwood, and Rutherford, 2000; O'Neal and Page, 2000), which is measured with several risk adjusted performance indicators such as the Sharpe ratio and the Treynor ratio (Scholz and Wilkens, 2005; Eling, 2008). Ong, Teh, Soh, and Yan (2012) examine the investment performance of conventional and Islamic real estate investment trusts (REITs) listed in Malaysia over the 2005–2010 period. Analysis reveals that both conventional and Islamic REITs experienced negative monthly return during the recent global financial crisis (GFC), and positive monthly return in the post GFC period. Compared to market indices, most REITs underperformed before the GFC. Based on Treynor and Sharpe measurements, most REITs underperformed the market portfolio during and after the GFC. However, according to Jensen measurement, the REITs outperformed market indices during and after the GFC.

Lin and Yung (2004) analyze the performance of real estate mutual funds for 1993–2001. The results indicate that real estate mutual funds do not provide positive abnormal performance on average. Fund performance to a large extent is determined by the performance of the real estate sector as a whole. Impacts of risk factors such as size, book-to-market ratio, and market momentum become immaterial when the real estate market index is also included in the evaluation model. The results also show that fund performance persists in the short term. In addition, risk-adjusted real estate fund returns are affected by fund size, but unrelated to expense ratio, management tenure, and turnover.

Pavlov and Wachter (2011) utilize the Carlson, Titman, and Tiu (2010) model of REIT returns to estimate the strength of the relationship between REIT and underlying real

estate returns. The authors offer an innovative method for computing the returns of the real estate properties underlying each REIT using the Moody's/REAL commercial property price indices by region and property type. They find a statistically significant relationship between REIT and real estate returns only in the office sector. Other property types offer only very weak and insignificant relationships. This finding suggests that direct real estate investment or investment through the property price index derivatives cannot be replicated using REITs.

The literature on the performance of REIT managers is well summarized in Brounen, Op't Veld, and Raitio (2007). They focus on the impact of trading intensity and acquisitions in understanding the investment performance of publicly-traded real estate firms in the United States, United Kingdom, and Australia. They find that it is difficult for managers in these companies to generate outperformance based on an active trading strategy. However, their conclusions are sensitive to the way in which trading activity is measured.

Looking at the Italian market, the theme of real estate fund performance has been taken into account by Morri and Lee (2009) and Giannotti and Mattarocci (2010).

The discount price of NAV prices of the shares of closed-end real estate or shares of a holding company in real estate companies or companies that invest in real estate activities (REITs) is a widespread phenomenon in the markets and has been extensively studied. Ferguson and Leistikow (2004) provide empirical support for the theory that closed-end fund discounts reflect expected investment performance.

Following the approach of Barkham and Ward (1999), it is possible to identify two main strands of research: the first, in the economic sense (just on the principle of market efficiency), the second in the economy emotional (so-called behavioral finance). The main causes of the discount price of NAV include deferred taxes (Barkham and Ward, 1999), leverage (Capozza and Lee, 1995; Clayton and MacKinnon, 2001; Bond and Shilling, 2003), trading liquidity (Clayton and MacKinnon, 2001), size (Anderson, Conner, and Liang, 2001; Brounen and Laak, 2005; Capozza and Lee, 1995), the composition of the portfolio (Capozza and Seguin, 1999; Brounen and Laak, 2005), operating costs (Capozza and Lee, 1995), errors in evaluation by independent experts (Pattitoni, Petracci, and Spisni, 2012), corporate governance (Friday and Sirmans, 1998; Biasin, Giacomini, and Quaranta, 2010), and agency costs (Capozza and Seguin, 1999). Cherkes, Sagi, and Stanton (2009) develop a rational, liquidity-based model of closed-end funds that provides an economic motivation for the existence of this organizational form, by finding means for investors to buy illiquid securities, without facing the potential costs associated.

With reference to the Italian market, Merola (2004) finds that the NAV discount is determined by its own characteristics of the Italian real estate funds: the lack of floating and low capitalization, the absence of direct instruments of control by the subscribers, the lack of transparency of the underlying real estate market, and the low participation of institutional investors. Cacciamani (2006), again with reference to the Italian market, suggests that the NAV discount is dependent on other variables: the concentration of investments by type and region, the uncertainty about both on

duration of the fund and assessments carried out by independent experts, lack of transparency, and the potential conflict of interest. Morri and Benedetto (2009) conclude that the higher the percentage of the assets invested in real estate from institutional investors, the remaining life of the fund and, unexpectedly, the cost of management, the lower is the NAV discount. Indeed, even the type of fund has an effect on discount: the contribution funds, with other things being equal, reduces the discount to NAV. More recently, Biasin, Giacomini, and Quaranta (2010) show that the discount to NAV increases with the maturity and size of the fund, while it decreases with increasing liquidity and leverage. Pattitoni, Petracchi, and Spisni (2012), with reference to the year 2009, have verified, by comparing the estimated values and the price of comparable real property, that, contrary to expectations, independent experts tend to underestimate the actual values and then the NAV. In fact the assets sold almost always produce a gain since their last assessment. Following this way of thinking, it is reasonable to assume that the portfolio of real estate is underestimated and therefore the NAV.

Ghosh et al. (2010) examine the role of stock option programs and executive holdings of stock options in REIT governance by analyzing how the market reaction to a stock repurchase announcement varies as a function of the individual REIT's governance structure. Using a sample of REIT repurchase announcements, they find that the market reacts more favorably to announcements by firms where executives have larger option holdings and the CEO is not entrenched.

The trend of studies on anomalies in market prices, which postulates the existence of traders operating on an emotional basis, originates from the studies of Shiller (1989), De Long, Shleifer, Summers, and Waldmann (1990), and Shleifer and Vishny (1990). This theory has been applied with success recently on the returns of REITs (Lin, Rahamn, and Yung, 2009). Simpson and Ramchander (2002) verified that the growth optimism of consumers in the U.S. and Australia reduces the discount to NAV, and vice versa.

Hartzell, Mühlhofer, and Titman (2010) starting from the evidence that REITs have experienced very high growth rates over the past 15 years, while the growth in mutual funds that invest in REITs has been even more dramatic, suggest that investors or researchers evaluating REIT mutual fund performance may benefit from a multiple benchmark approach. REIT mutual fund returns are typically presented relative to the return on a simple value-weighted REIT index. They ask whether including additional factors to a standard benchmark one can get more precise estimates of alpha. The REIT-based factors are a set of characteristic factors, a set of property-type factors, and a set of statistical factors. Using traditional single index benchmarks, they find that about 6% percent of the REIT funds exhibit significant positive performance using traditional significance levels, which is more than twice what random chance would predict. However, by approaching this with a multiple index benchmarks, this falls by about half, to about 3%. In addition, they find that these factors and the homebuilders' index can be used to better explain the month-to-month returns of REIT mutual funds. Fuerst and Marcato (2009) identify four main real estate investment styles and apply a multivariate model to randomly generate portfolios to test the significance of each style in explaining portfolio returns. Results show that alpha performance is

significantly reduced when new investment styles are accounted for, with small properties being more dominant than large ones. Secondly, they find that the probability of obtaining alpha performance is dependent on the actual exposure of funds to style factors. Finally, they find that both alpha and systematic risk levels are linked to the actual characteristics of portfolios. They suggest that it would be beneficial for fund managers to use these (and possibly other) style factors to set benchmarks and to analyze portfolio returns. Booth and Tehranian (2005) perform a set of tests investigating closed-end investing in both international and domestic securities. Tests that control for fund characteristics and fund type indicate that there is no statistically significant difference in long-term performance, both unadjusted and index-adjusted, between funds investing in international versus domestic securities, except for larger funds. Larger international funds earn significantly lower 36-month index-adjusted returns than domestic funds.

Focusing on real estate fund research, Bond (2010) focuses on drivers of alpha formation and on the persistence of risk-adjusted performance measures in the real estate fund sector.

THE ITALIAN CONTEXT

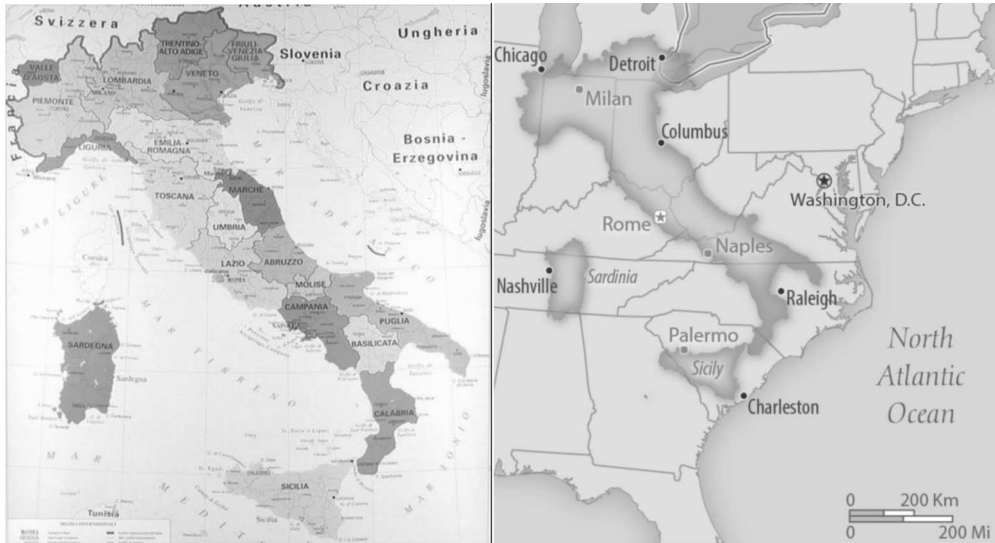
GENERAL BACKGROUND

Italy, slightly larger than Arizona (301,340 sq km including major islands), is a long boot shaped peninsula, surrounded on the west by the Tyrrhenian Sea and on the east by the Adriatic Sea. It is bounded by France, Switzerland, Austria, and Slovenia in the north. The Apennine Mountains form the peninsula's backbone; the Alps form its northern boundary. The Republic of San Marino and Vatican City are sovereign enclaves within the territory of Italy.

Italy (Exhibit 1) is subdivided into 15 regions (Abruzzo, Basilicata, Calabria, Campania, Emilia-Romagna, Latium, Liguria, Lombardia, Marche, Molise, Piedmont, Apulia, Tuscany, Umbria, and Venetia) and five autonomous regions (Friuli-Venezia Giulia, Sardinia, Sicily, Trentino-South Tyrol, and Valle d'Aosta–Aosta Valley). These last ones have a special autonomous status that enables them to enact legislation on some of their local matters. The country is further divided into 110 provinces and 8,100 municipalities. There are also 15 metropolitan cities, established in 2009, but this administrative division is not yet operational. Rome, the capital city, at present has a population of over 2.8 million inhabitants.

Italy is a parliamentary, democratic republic and elections are held based on universal adult suffrage. Hence, multiparty democracy thrives in the country. During the last 150 years, the population of Italy has more than doubled from 26 million to 60 million people despite wars and 8 million emigrants to Europe and the new world. Its population density, at 201/km² (520/sq. mile), is higher than that of most Western European countries. However the distribution of the population is widely uneven. About 67% of the citizens live in and round the big towns in Italy—a majority of them in the economic superior Northern part.

Exhibit 1 Italy's Administrative Boundaries and Area Comparison



The high emigration from the underdeveloped rural regions to the cities and towns in Italy was transformed into a suburbanization in the 1960s and led to a growth of the small towns and suburbs. The results were huge cities such as Rome, Milan, Naples, and Turin with several million inhabitants.

The most densely populated areas are the Po Valley (which accounts for almost half of the national population) and the metropolitan areas of Rome and Naples, while vast regions such as the Alps and Apennines highlands, the plateaus of Basilicata, and the island of Sardinia are very sparsely populated.

Today, Italy has developed from a country of emigration to a destination for refugees from Africa and the former countries of the Eastern bloc. It is estimated that 7.1% of the total population are foreign citizens. The largest population groups come from Romania, Albania, and Morocco.

In the post-war period, Italy was transformed from an agricultural-based economy, which was severely affected by the Second World War, into one of the world's most industrialized nations, and a leading country in world trade and exports. According to the Human Development Index, Italy has a high standard of living (26 rank in 2014), and performs well in many measures of well-being, as shown by the fact that it ranks close to the average in several topics in the Better Life Index developed by OECD.¹

From the last Eurostat data,² Italian per capita GDP (Exhibit 2) at purchasing power parity remains approximately equal to the European Union average, while the unemployment rate (8.5%) stands as one of the EU's lowest.³ According to the World

Exhibit 2
2011 Gross Domestic Product in Italy (2014)

NUTS-1 region	€ mil.	€ per Capita	% of EU Average
North-Western Italy	511.484	31.700	124
North-Eastern Italy	364.560	31.200	122
Central Italy	340.669	28.400	111
Southern Italy	243.895	17.200	67
Insular Italy	117.031	17.400	68

Note: The source is Eurostat.

Bank, in 2013 Italy is the 9th-largest economy in the world, the 4th-largest in Europe and in the EU, the 3rd-largest in the eurozone in terms of nominal GDP,⁴ the 11th-largest economy in the world, and 4th-largest in Europe in terms of purchasing power parity (PPP) GDP.⁵

Despite these important achievements, today the country's economy suffers from many and relevant problems. After a strong GDP growth in 1945–1990, the last two decades' average annual growth rates lagged below the EU average; moreover, Italy was hit particularly hard by the late-2000s recession. The stagnation in economic growth, along with the political efforts to revive it with massive government spending from the 1980s onwards, eventually produced a severe rise in public debt. In addition, Italian living standards have a considerable north–south divide starting with the unification of Italy in 1861. In the early decades of the new kingdom, the lack of an effective land reform, heavy taxes, and other economic measures imposed on the South, together with the removal of protectionist tariffs on agricultural goods, made the situation difficult for many tenant farmers and land owners. Multitudes chose to emigrate rather than try to eke out a living, especially from 1892 to 1921 (Smith, 1997). Even at present, huge regional disparities persist (Exhibit 1): the average GDP per capita in Northern and Central Italy significantly exceeds the EU average, while some regions and provinces in Southern Italy are dramatically below.

Italy has a smaller number of global multinational corporations than other economies of comparable size, but there is a large number of small- and medium-sized enterprises, as in the Northern “industrial triangle” (Milan-Turin-Genoa), where there is an area of intense industrial and machinery production, notably in their several industrial districts, which are the backbone of Italian industry. This has produced a manufacturing sector often focused on the export of niche market and luxury products, that on the one hand is less competitive on quantity, but on the other one is more capable of facing the competition from emerging economies based on lower labor costs, with higher quality products.

CLOSED REAL ESTATE FUND IN THE ITALIAN MARKET

Real estate funds invest in assets not less than two-thirds in real estate, real estate rights, and shareholdings in estate companies. Real estate funds are closed-end funds,

that is the total amount of the subscribed capital and the number of shares are determined at the time of the constitution and the right to reimbursement is recognized only at maturity. Real estate funds are born with an initial endowment of assets, variable for effect of normal changes in value related to the appreciation/depreciation of assets. This asset property is divided into a predetermined number of shares. The first phase of a real estate fund starts with the subscription of all shares. The purpose of the fund is in fact to collect a certain amount of money from its subscribers (investors), which will be used for portfolio management.

Subscriptions are open until all shares are subscribed from investors. Two decrees requiring the approval of Parliament, No. 351, 2001 and No. 47, 2003, have introduced the possibility of further issues of shares and of prepayments to increase the liquidity of the fund. There is then a second phase, in which, once the money has been collected, the fund selects the real properties to be detected. The properties are selected according to the guidelines of the fund management: some funds prefer to invest in residential real estate offices, others in commercial properties (malls and galleries), and some in areas where buildings need restoration. Shares may be subscribed within the limits of the availability of the fund only during the offer period and repayment is usually only at maturity; it is possible to buy or sell on a regulated market. The listing on a regulated market is intended to facilitate the sale of shares by the underwriter wishing to disinvest. In this way, participants may then regain the capital invested, plus any capital gain or suffer from market discount or the difference that exists in a given time between the market price and the value of the share capital. The public offer of shares is accompanied by the financial prospectus memorandum previously passed and deposited at the national commission for companies and the stock exchange (in Italy CONSOB).

The holding period of these funds must be consistent with the nature of the investments. The law states that the minimum maturity of the fund is 10 years and the maximum is 30 years. When maturity is attained, assets are distributed as provided in the prospectus. This class of funds has been available to the public for about five years, following the regulatory changes (DL 351, 2001 through Law 410/01). This legal evolution has led to important changes, including: (1) the minimum lot size was reduced from 100 million to 3 million; (2) it has been made compulsory to have a stock quote within 24 months from the closing of the placement; (3) the fund assets can be raised through more issues of shares, following the first, of the same denomination; and (4) where the fund regulation provides for new issues after the first; the prepayments occur with equal frequency and in connection with new issues.

Real estate funds are classified according to the subjects to whom they are addressed (retail or qualified investors), formality of acquiring the property (contribution, not contribution), and dividend distribution policy (distribution or storage). At maturity the fund is liquidated and the value of the shares acquired paid to the subscriber. Then it is usually also provided an objective of return that is then distributed through dividend payments. In the case that shares are not quoted, a real estate fund's shares do not provide a daily valuation, like is the case for open funds, which have their value published every day. In particular, every six months or in harmony with the

new issues, the fund's assets are evaluated by independent experts and certified by them. Starting from this assessment, it determines the net asset value of the fund ($\text{NAV} = \text{value of real assets} + \text{other assets' values} - \text{liabilities}$), or total net value of the fund. As regards the tax system, it is applied a tax scheme that provides a tax asset (1%) directly on the fund, more for a private subscriber, fund revenues that do not constitute a component of taxable income, but on gains from participation in REITs, the management company (in Italy called SGR) applies taxation at about 12.50% on the amount of income distributed, as well as the difference between the redemption value (or liquidation) of shares and the subscription cost (or purchase). Instead, with regard to inheritance taxes, the shares of the fund are subject to inheritance tax because the shares are considered as a part of the heritable estate, except for the part that corresponds to government bonds or financial instruments included in fund assets.

The real estate fund has to pay the municipal property tax (IMU). When they are located abroad, they are subject to applicable taxes where the state is situated. A closed real estate fund can take a debt equal to 60% of the market value of properties.

The gain of a real estate fund is derived from the revaluation of properties contained in the fund and the rent that the fund receives. The performance analysis by its nature also leads to a judgment about the manager's ability to achieve return; since these are also public assets, they should focus more on the profitability of these assets. In particular, where it was shown that an operator of public assets, through the management of a closed-end real estate fund, is able to generate a satisfactory performance according to risk-adjusted performance measures, then you could also say that the same public assets have been processed by an efficient management. To achieve this goal, we provide a comparison, starting from the time series of closed-end real estate fund NAV, in the 2005–2012 period, between public and private closed real estate funds.

The board of directors of the SGR is responsible for fund management. With reference to fund statutes, they consist of three parts:

1. **Fund Identification:** Contains the essential elements of fund identification and provides to the subscriber main references to the fund, the company that manages it, and the depositary bank. (The role of the custodian is to preserve both the financial assets and the cash fund.) Another key task is to ascertain the legality of the issues and redemption of fund shares, the calculation of their value, and the purpose of the trust's income. In addition, the depositary bank executes SGR statements if they are not contrary to law or fund regulation or to the requirements of public supervisors.
 2. **Product Characteristics:** The fund's statute describes the fundamental characteristics of the fund, with particular reference to the purpose and objective of the investment policy and the system of income and expenditure.
 3. **Conditions of Operation:** This part contains the rules of the fund. Participation in the fund is made by using the subscription of shares.
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The main advantage associated with these types of investment for the retail customer is to get hold of a newer investment instrument of medium- and long-term longevity, tied to a type of investment (buildings) not covered by other instruments or not linked to other indices or markets. It also allows a small investor to directly invest in real estate with a small amount of money. It also allows the investor to be able to finance by pledging the shares of the fund corresponding to the funding requested (this form of guarantee can replace the mortgage on the property at a cost considerably loss). In addition, the investment in a fund represents an investment more easily settled compared to a real estate property (e.g., flat), thanks to the listing of fund units in a secondary market. Some of these advantages are practical for the institutional investor, for this kind of investor it also possible that they establish an ad hoc property fund (restricted fund), making an agreement before the start of the fund: investment objectives, asset allocation policy, rules, revenues, and maturity. The disadvantage is linked to the fact that the real estate fund is an instrument of medium- and long-term longevity, therefore it should, in theory at least, be acquired in the issue and kept up-to-date. Although many real estate funds are then listed in stock exchange, so an investor can negotiate them even before they expire, these financial instruments are much less liquid than equities and may be more difficult to quickly find a counterparty.

In Italy, real estate funds have a very recent history. The first real estate funds were placed with Deutsche Bank and other institutions. In Italy, the first real estate fund started February 15, 1999.

Assogestioni (2012), Real Estate Fund–Semestral report, states that on June 30, 2012, 179 closed real estate funds (142 of which are reserved) are being operating, managed by 24 asset management companies. The funds raised amount to 42,138 million of euros, increasing 1.6% in six months (+4.2% in one year and +19.2% in three years).

The properties that make up the portfolios of the funds are located as follows: 45.3% in the northwest and central, 33.4% in the center, 10.9% in the northeast, 8.2% in the south and islands, while the remaining 0.5% abroad.

The composition of assets is as follows:

- Property rights and real estate: 90.1% (+1.7% compared to June 2011);
- Controlling shareholder in real estate companies: 2.0% (+0.2% compared to June 2011);
- Securities and cash: 8.3% (−0.9% compared to June 2011); and
- Other: 3.3% (−0.8% compared to June 2011).

Our data analysis of the real estate sector indicates that this market can offer from 2 to 4 percentage points more than inflation. This sector has also a big advantage: it is quite unrelated to financial markets. The cycles of the real estate market are much longer than the cycles of financial markets.

Since their launch in 1999, real estate funds have performed at an annual average of −0.96%. This result is on the whole both below the performance targets stated in the

statute of the various funds and an average return offered by international bonds (5.6%) and equity markets (6.9%) in the last decade. Usually a target return is provided by fund statutes (on average 5%), which some funds have also passed, and distributed, taking advantage of opportunities in the regulation of rewarding participants with dividend payments. Exhibit 3 displays some data about Italian funds, asset management companies, and property types in funds, showing size and market in 2010–2012.

2005–2008 RETURN

The reference unit for calculating the fund average return is the NAV of the fund. The NAV is the market value of all assets, including cash and indirect property interests, net of all liabilities and deliberated dividend. NAV total return per unit is the current month-end NAV per unit, plus distribution (gross of tax, net of expenses), divided by the previous month-end NAV per unit, expressed as a percentage:

$$\left(\frac{(NAV_{unit_t} - NAV_{unit_{t-1}} + Distribution_t - NetCapitalInvested_t)}{NAV_{unit_{t-1}}} \right) \times 100, \quad (1)$$

where the NAV unit is the NAV per unit. Quarterly and longer time period returns are calculated by compounding monthly returns together. The NAV is adjusted for performance measurement purposes, particularly and approved dividends and redemptions are not included in the NAV.

The average return of Italian closed real estate funds was 169.4% in 2005–2008. This remarkable return is higher in 2005–2008; it would be perceived by an investment in an international closed fund, in shares or in bonds. For more detail, see Exhibit 4.

2008–2012 RETURN

Italian closed real estate fund return (return computed as an average of all closed real estate fund returns quoted at September 28, 2012) was negative in the last 12 months and also in the last two years. The four-year holding period mean return was poor; in fact, it is less than 1% per year on average. An investment in real estate funds in the 2008–2012 was very profitable, regardless of all the holding period considered, particularly in 2012r. The pooled average return (computed as the average of all international closed real estate funds) is equal to about 30%. The last two rows of Exhibit 5 show that in 2008–2012, according to the selected benchmark index (MSCI Global Equity Index and Citigroup World All Markets Bond Index), an investment in both equities and bonds produced negative results.

CLOSED REAL ESTATE FUND IN THE INTERNATIONAL MARKET

DATA DESCRIPTION

The universe of closed real estate funds in Italy includes the existence of two funds that incorporate as assets under management only property owned by the state. This

Exhibit 3
Italian funds: Size of market, Growth in Market and Property Types in Funds: Nominal Value (€ millions) and Percentage

	December 31, 2010		June 30, 2011		December 31, 2011		June 30, 2012	
Panel A: Main Characteristics								
Property Value	23,280.1	100.0%	24,539.8	100.0%	25,481.5	100.0%	25,834.2	100.0%
Retail Funds	5,663.2	24.3%	5,506.6	22.6%	5,267.6	20.7%	5,046.2	19.5%
Reserved Funds	17,616.9	75.7%	18,532.2	77.4%	20,213.9	79.3%	20,787.9	80.5%
Asset Under Management	40,078.3	100.0%	40,427.4	100.0%	41,460.1	100.0%	42,138.0	100.0%
Retail Funds	8,480.5	21.2%	8,249.1	20.4%	7,821.2	18.9%	7,473.4	17.7%
Reserved Funds	31,597.8	78.8%	32,178.3	79.6%	33,638.9	81.1%	34,664.6	82.3%
Number	171.0	100.0%	164.0	100.0%	179.0	100.0%	185.0	100.0%
Retail Funds	23	13.5%	23	14.0%	23	12.8%	22	11.9%
Reserved Funds	148	86.5%	141	86.0%	156	87.2%	163	88.1%
Management Company	26		25		23		24	
Panel B: Property Types								
Office	19,257.3	53.2%	19,901.5	53.6%	20,707.3	54.0%	21,481.6	54.2%
Commercial	6,427.9	17.7%	6,606.5	17.8%	6,513.9	17.0%	6,474.6	16.4%
Logistic	780.4	2.2%	813.1	2.2%	873.3	2.3%	970.9	2.4%
Residential	2,268.5	6.3%	2,259.9	6.1%	2,725.7	7.1%	3,523.4	8.9%
RSA	399.8	1.1%	410.5	1.1%	376.0	1.0%	385.4	1.0%
Industrial	1,661.0	4.6%	1,768.7	4.8%	1,596.9	4.2%	1,442.8	3.6%
Community Center & Tourism	1,791.3	4.9%	1,835.2	4.9%	1,738.3	4.5%	1,973.2	5.0%
Other	3,641.9	10.1%	3,529.7	9.5%	3,737.2	9.8%	3,345.5	8.4%

Exhibit 4
Investment Sector Return: 2005–2008

	Total Returns		Average Annual Returns	Total Returns	Average Annual Returns
	12 Months	2 Years		4 Years	
Closed Real Estate Fund–Italy	–2.5%	–4.4%	–2.2%	3.3%	0.8%
Closed Real Estate Fund–International	29.1%	40.1%	20.1%	36.4%	9.1%
MSCI Global Equity	–42.6%	–38.3%	–19.2%	–21.7%	–5.4%
Bonds-Citigroup World All Markets Index	10.9%	23.0%	11.5%	21.6%	5.4%

Exhibit 5
Investment Sector Return: 2008–2012

	Total Returns		Average Annual Returns	Total Returns	Average Annual Returns
	12 Months	2 Years		4 Years	
Closed Real Estate Fund–Italy	5.6%	40.7%	20.4%	169.4%	42.4%
Closed Real Estate Fund–International	–31.4%	–10.4%	–5.2%	–29.4%	–7.4%
MSCI Global Equity	12.2%	3.9%	2.0%	44.9%	11.2%
Bonds-Citigroup World All Markets Index	1.6%	8.1%	4.1%	16.6%	4.2%

Note: The 2012 data sample covers January 1, 2012 to September 30, 2012.

Exhibit 6
Data Panel: Sample Description

	USD	GBP	EUR	CHF
Number of Funds in Group	1	11	11	27
Total Asset Under Management (millions)	3,464	NA	3,780	8,974
First Day Time Series	4/10/2008	1/4/2007	1/4/2003	1/4/2001

evidence for our knowledge is unique in the world; therefore, to make a comparison with other international market, you should refer to the financial sector of the closed real estate funds without taking into account the origin of real estate property as an asset under management in a closed real estate fund. In this section, we make an international comparison between the closed real estate funds. The data were downloaded from the Bloomberg financial information data provider. In particular, the object of the analysis is the prices of asset classes, that is closed real estate funds, traded in financial markets, for the sample period ranging from January 2001 to December 2012. Bloomberg allows you to choose the currency in which the fund asset share is traded. The main currency is the euro (EUR), U.S. dollar (USD), pound (GBP), and Swiss franc (CHF). From December 22, 2012, when we downloaded the series, Bloomberg had 28 funds in the euro area, 73 of the CHF, 206 for GBP, and 70 for GBP. The time series that have been extracted are then processed by a consistency operation aimed at eliminating duplication in the series (many closed real estate fund are identical but traded with the same currency in different financial stock markets or are destined to different market segments, affluent/retail or institutional). In addition, shown below, not all the funds, or rather the series of prices that represent them, start from January 4, 2001; those of the pound and the dollar have a shorter life because they were listed in the market in more recent times. Following the completion of these operations, the final dataset is composed as shown in the Exhibit 6.

METHODOLOGY AND EMPIRICAL RESULTS

We mainly deal with descriptive statistics to compare our REIT peer groups. We use four moments of return distributions: arithmetic average, standard deviation, asymmetry, and kurtosis. A fifth statistic that we use is the coefficient of variation (i.e., the ratio between the standard deviation and the mean):

$$\text{Coefficient of Variation} = \frac{\sigma}{x}. \quad (2)$$

This relation allows us to perform comparisons between the variability of phenomena that have different units of measure; they are also useful to compare the variability of two characters which, while having the same unit of measurement, the average values are very distant from each other. It allows us to determine which of the two distributions is more variable in absolute terms. Moreover, the coefficient of variation can also be analyzed from the point of view of the risk premium, being the reciprocal

of the coefficient of variation, a measure similar to the index of Sharpe,⁶ which gives the average return per unit of risk of a financial investment.

Within each currency group, we calculate the five statistics for each closed fund and then calculate the average of each group. We also considered the effect of the financial crisis 2007–2012 (Ait-Sahalia et al., 2012) on the performance of closed real estate funds. The financial turmoil that occurred in the U.S. due to the subprime mortgage crisis has profoundly marked the history of the financial world, making even the banking system shake. Many European countries have raised the level of debt over the years, a factor that has led to growing investor mistrust, and whether central governors can repay the debt issued in the markets, especially in cases where the national economic policy fails to provide stability to their account balance. For this reason, the sovereign debt crisis (Dombret, 2011), for the eurozone countries, is a phenomenon that has greatly influenced the economic crisis of the last few years and that is profoundly affecting the economic future of these countries.

Following, Dombret (2011) and Ait-Sahalia et al. (2012), among others, we considered the pre-crisis period, the sample period ranges from 2000 to 2006. The crisis sample period ranges from 2007 to 2012, because it is from June 2007, according to Ait-Sahalia et al. (2012), the beginning of the financial crisis. Therefore, working with annual descriptive statistics, more than half of 2007 is contaminated by the effects of the crisis, so we consider 2007 as a period of crisis.

EMPIRICAL RESULTS

We have analyzed data (Exhibit 5) in two different ways, one “By Country,” has allowed us to comment on the values of the statistics for each country, within the entire sample period of 12 years, and on two different sub-samples, in relation to the period before and after the financial crisis, allowing us also to see the effect of the crisis on the performance statistics, from January 2000 to May 2007 and from June 2007 to May 2012. The second type of analysis, namely “All Countries,” is a comparison of the values of each statistic for the four countries, showing the results for both the entire sample period and the two sub-samples.

Returns for the entire sample period indicate that the funds of the USD currency area generated higher returns than those of the other currency areas examined. The funds in the euro area, however, are the only ones that recorded negative returns during the same period. Analyzing the average differential between the returns before and after the crisis, it is clear that, on average, the crisis has a positive effect on the returns of the funds. In the euro area, they increased by more than 14 percentage points, while those of Swiss franc area, increased about 1.5%.

Turning to volatility, as measured by the standard deviation, the USD funds showed the highest levels, followed by those in pound area. Note that the standard deviation is calculated from prices, not on returns; therefore, it is sensitive to the average value of the price of financial assets. The euro funds show the lowest standard deviation value, equal to 2.52. The effect of the financial crisis on the standard deviation is an

increase in the volatility of the prices of closed funds, which is partly related to an increase in their average performance.

Looking at the asymmetry aspects, all funds except those of the CHF have negative skewness. The CHF area has asymmetry above and close to zero, indicating that an asset price distribution tends to be “moved” to the right of the average, or where prices higher than the average are greater in magnitude than what is expected in the case of a normal distribution. Analyzing the effect of the crisis, the general trend for all four groups is to generate negative values during the crisis.

Kurtosis values for all four currency areas exhibit negative values; therefore, there is a “flatter” downward distribution with respect to the normal distribution, which is defined as platykurtic. The crisis makes the statistic decrease, indicating that the extreme values of the distribution are lower in magnitude.

The last analysis concerns the evolution of the coefficient of variation. Exhibit 5 shows that the highest value is for the USD group. The crisis, overall, had a positive effect on the descriptive statistics.

From a comparison of the mean value returns in the two periods of pre- and crisis, comes the clear countercyclical role of real estate investment; for two of the four fund groups, those for which data are available, returns during the crisis period are higher than those of the previous period. This also means that the countercyclical nature is independent of the geographical focus. The lack of data for the other two groups, unfortunately, does not allow further confirmation.

Exhibit 7 shows that the U.S. and U.K. are more attractive for this type of investment; for Europe, the overall mean is even negative and heavily influenced by first two years. Returns on Swiss assets are more or less about one point higher with respect to inflation rate, confirming the role as a safe-haven asset for real estate investment. The CV statistics provide an idea of the risk premium; GBP REITs are preferable to other funds for asset allocation activity.

We conclude this section with some commentary about impact of the recent financial crisis on closed real estate fund asset prices. Aït-Sahalia et al. (2012) run a broader study and assess the effect on the credit market of a wide set of policy interventions in various countries. They propose the following financial crisis stages: subprime crisis, June 1, 2007 to September 14, 2008; global financial crisis, September 15, 2008 to May 1, 2010; sovereign debt crisis, May 2, 2010 to June 30, 2012. According to this sample period classification, we compute descriptive statistics as shown in Exhibit 7.

SUCCESSFULLY COMPLETED OPERATIONS FOR ITALIAN PUBLIC CLOSED REITs

Assets under management of Italian public closed REIT funds originated from a series of public finance operations having the goal to incorporate within the same funds

Exhibit 7
Closed Real Estate Fund Asset Prices: Descriptive Statistics All Sample Period

Time	Returns				Standard Deviation of Asset Prices				Asymmetry of Asset Prices				Kurtosis of Asset Prices				Coefficient of Variation of Asset Prices			
	USD	GBP	EUR	CHF	USD	GBP	EUR	CHF	USD	GBP	EUR	CHF	USD	GBP	EUR	CHF	USD	GBP	EUR	CHF
2001				-2.55%				3.82				0.51				-0.12				-1.50
2002				5.20%				3.82				-0.12				-1.10				0.73
2003			-12.63%	7.98%			2.80	2.87			-0.05	0.03			-1.22	-0.44			-0.22	0.36
2004			-93.42%	4.62%			0.83	2.59			0.34	0.37			-1.07	0.09			-0.01	0.56
2005			36.65%	0.16%			3.48	3.24			0.34	-0.16			-1.64	-0.58			0.09	20.78
2006			17.31%	-2.91%			1.62	3.39			-1.52	0.60			1.47	-0.83			0.09	-1.17
2007		9.01%	3.18%	-3.51%		4.51	1.31	4.29		-0.36	0.02	-0.71		-0.90	-0.82	-0.41		0.50	0.41	-1.22
2008		-33.46%	-60.84%	0.22%		17.52	7.52	4.15		-1.10	-1.01	-0.40		0.03	-0.35	-0.60		-0.52	-0.12	18.45
2009	-14.16%	-79.27%	-53.93%	17.04%	508.25	51.19	2.50	6.51	-0.59	-0.45	0.54	0.02	-0.38	-0.94	0.68	-0.77	-35.91	-0.65	-0.05	0.38
2010	10.64%	170.74%	26.50%	1.55%	625.96	13.29	0.69	2.61	-0.96	0.01	0.37	0.29	-0.14	-1.16	-1.17	-0.32	58.84	0.08	0.03	1.69
2011	3.85%	7.08%	9.41%	2.06%	255.11	8.51	0.72	2.76	0.62	-0.09	0.08	0.11	-0.87	-0.36	-0.36	-0.73	66.33	1.20	0.08	1.34
2012	44.52%	-16.48%	84.63%	3.87%	1477.32	7.67	3.78	2.86	0.31	0.10	-0.02	0.05	-1.51	-1.25	1.08	0.49	33.18	-0.47	0.04	0.74
2011–2012	0.24%	-0.05%	0.47%	0.03%	866.22	8.09	2.25	2.81	0.47	0.01	0.03	0.08	-1.19	-0.81	0.36	-0.12	49.76	0.37	0.06	1.04
2009–2012	0.11%	0.21%	0.17%	0.06%	716.66	20.17	1.92	3.69	-0.16	-0.11	0.24	0.12	-0.73	-0.93	0.06	-0.33	30.61	0.04	0.03	1.04
All Period Mean (2001–2006)	11.21%	9.60%	-0.04%	0.03%	716.66	17.12	2.52	3.58	-0.16	-0.31	-0.09	0.05	-0.73	-0.76	-0.34	-0.44	30.61	0.02	0.03	3.43
Pre-Crisis Mean (2007–2012)	NA	NA	-13.02%	2.08%	NA	NA	2.18	3.29	NA	NA	-0.22	0.21	NA	NA	-0.62	-0.50	NA	NA	-0.01	3.30
Crisis Mean	11.21%	9.60%	1.49%	3.54%	716.66	17.12	2.75	3.86	-0.16	-0.31	0	-0.11	-0.73	-0.76	-0.16	-0.39	30.61	0.02	0.06	3.56

those assets of public domain. We discuss two public REIT funds, FIP and Patrimonio Uno.

The operations were organized into separate programs depending on the nature of the underlying asset transfer and disposal technique.

- **SCIP:** Assignment of properties owned by social security institutions and by the state (Art. 3 Decree No. 351/2001 and amended by Law No. 410 of 2001). From late 2001 through the operations SCIP1 and SCIP2, more than 90,000 housing units, including 85% for residential use and about 15% commercial, were sold by social security institutions and the government. The operation SCIP1 ended in 2003, following the repayment to the expected maturity of debt, equal to 2, 3 billion.

SCIP 2 was developed in two tranches: the first began in 2002 with issuance of securities for a nominal amount to 6.7 billion, all repaid in April 2005. In that year, the operation underwent a restructuring as a result of regulatory changes that occurred in relation to the pricing of real assets, for which the right of option was exercised before 2001. The restructuring program was to be both in the development of new business plan, and in a new issue of more securities for a nominal value equal to 4.37 billion of euros. SCIP 2 ended on April 27, 2009, following the entry into force of Article 43 bis of Legislative Decree 207/2008, converted with amendments into Law No. 14/2009, which ordered the closure and liquidation of the company's securitization.

- **SCIC–INPDAP–Personal Loans:** Assignment of monetary credits supplied to employees of the public sector, private enterprises, and institutions (Article 15 of Law No. 448 of 1998). In 2003, an operation was carried out concerning the transfer of personal loans supplied by INPDAP to its members with the issuance of AAA-rated securities for a total of 4.23 billion euros. The transaction was completed on December 21 following the repayment of total debt to the expected maturity.
- **SCCI–INPS:** Assignment credits due to national insurance contributions (Art. 13 Law n. 448/1998). Between 1999 and 2005, the INPS made six securitizations, yielding a total of €76.45 billion of loans outstanding due to national insurance contributions. SCCI acquired those loans by issuing AAA-rated securities, for a total of €20.91 billion. Securities issued in transactions denominated INPS 1, 2, 3, 4, and 5 were repaid in full to their expected maturities, of which the last was in July 2009.
- **Real Estate Closed-end Fund:** FIP and PATRIMONIO UNO (art. 4 DL n. 351/2001 amended by Law n. 410/2001). Contribution and transfer of real estate property owned by the social security institutions and the state.

In 2004 and 2005, two real estate funds promoted by the MEF were instituted, which were transferred to two real estate closed-end funds composed of a total 428 properties

for government use (tax agencies, offices of the Ministry of Economy and Finance, headquarters of the Ministry of Infrastructures and Transport, Ministry of Labor offices, barracks of the Guardia di Finanza) and the police and instrumental properties of the social security institutions (INPS, INAIL, and INPDAP).

Simultaneously with the transfer of property, the State Property Office signed with funds two lease agreements relating to abandoned properties, which have been reassigned to the original users. Both funds are reserved exclusively to qualified investors.

FIP is the first investment fund sponsored by the Italian Republic. It is part of a broader process of privatization made by the Ministry of Economy and Finance (MEF) through sale, securitization, and transfer of property to REITs. Under Italian legislation, investment funds are the assets represented by the shares held by underwriters on a collective basis and managed by licensed asset management companies. Real estate funds have no legal personality and are not subject to Italian law on bankruptcy.

Investire immobiliare SGR was selected as the fund manager of FIP. In October 2004, the board of directors of Investire Immobiliare approved the statute that rules the fund; it was subsequently approved by the Bank of Italy on December 16, 2004. The Bank of Italy also has the task of monitoring the activities of FIP.

The duration of the FIP fund was established at 15 years. The Bank of Italy, at the request of the fund manager, may grant a three-year extension of the fund in order to complete the sale of assets.

FIP issued two classes of shares: 13,292 Class A shares (par value €100,000.00) and 1 share of Class B (Par value €1). The assets of the fund consist of 394 non-residential properties, with a transfer value/total contribution of approximately €3.3 billion (“asset by asset” market value on the date of transfer/contribution of approximately €3.7 billion). On December 30, 2004, the underwriters had signed 100% of their Class A shares sold by the MEF, which provided placement with institutional investors during 2005.

The share of Class B was assigned to a non-profit chosen by the two presidents of the Italian Parliament. On December 28, 2004 (the transfer date), the FIP became the owner of the portfolio, which includes 394 non-residential buildings primarily occupied by the MEF, social security institutions, and other government agencies. The properties were transferred through a sale order by the MEF. FIP entered into a lease (9 +9 automatically renewable) with the State Property Office, which in turn made the property available to individual government users.

For the establishment of the fund, FIP used an initial loan of €2 billion, which is expected to securitize to reduce the financial burden of the fund. The basic strategy of FIP is the maximization of value and long-term income produced by the compendium, through effective management of buildings in relation to the Lease Agreement in order to proceed with the disposal of the entire compendium within the maturity of the fund. The lease is a source of stable income for FIP and is of vital importance for the debt and dividends to subscribers. The business plan provides for

the gradual liquidation of the entire portfolio, excluding the possibility of reinvestment of profits from sales.

The portfolio was initially divided into four homogeneous groups according to the characteristics of the assets and related management and disposal strategy.

- **Group 1: Long Term:** Approximately 19% of the value of portfolio. Includes real properties with long-term strategy. The optimal sale strategy included in the FIP business plan was divesting around the deadline for the first nine-year renewal of the lease.
- **Group 2A: High Liquidity:** Approximately 47% of the value of portfolio. Includes cash and property of great value for size, location, and quality. Located in central areas of major Italian cities, these properties are of interest to local and institutional buyers. May be sold throughout the whole holding period of the fund, taking advantage of more favorable market trends.
- **Group 2B: Medium Liquidity:** Approximately 31% of the whole transfer value/contribution. Includes properties that are beneficial for location, size, and quality, but with a lower degree of liquidity than in Group 2A. The lease is valued higher than in Group 2A. It provides a greater concentration of sales at the beginning of the two rental periods of nine years to provide investors a safe and sustainable rental income.
- **Group 3: Added Value:** Approximately 3% of portfolio. Includes a limited number of real assets that have a clear potential for development, due to several factors such as different end-uses, urban area, and location. The value is determined by the flow of rents and by the potential revaluation at the end of the lease. In this case, management and the disposal strategy are related to the market trend.

The holding period of the fund is 18 years, with a 9-year contract automatically renewable for the other 9 years, subject to the termination of the conductor with a notice of at least 12 months before it expires. According to Article 4, paragraph 2 of Law 410/2001, the State Property Office has waived the right to terminate the lease at any time for compelling reasons. In the case where FIP intends to start procedures for the sale of property, it must notify the State Property Agency which, within 30 days after the notice of sale must communicate to the FIP if and when it intends to exercise its right of rescission about such property. Failing to exercise the right to withdraw at this stage, this right is definitely lost.

The lessee incurs an annual fee, initially amounting to over €270 million, due in six monthly installments (for subsequent purchasers of property, the payment is by six monthly installments). The rent is increased annually by 75% because of the percentage change in the consumer price index (CPI) established by ISTAT in accordance with Italian legislation. The State Property Agency has the right to use a specific annual fund established by the Budget Act, to make payments under the lease.

The ordinary and extraordinary maintenance must be charged to lessee (and/or by public administration agency users), with the exception of unique structural

maintenance, routine maintenance due to equipment replacement, and bringing real assets up to code for safety measures.

The State Property Agency has to release properties (at end of maturity or in the case of “early termination”) to fully comply with the regulations in force at the date of transfer and in good maintenance condition.

Additional fees related to the portfolio such as consortiums charges, condominium charges, utilities, etc. must be paid by the lead agency of state property and/or public administration end users. FIP is naturally charged with all costs relating to insurance charges, management services (for the fund manager), and building management in addition to other fees.

Specific exemptions are provided for the payment of local council property tax (in Italy: ICI) on real property (or portions thereof) included in the compendium, and until the buildings are owned by FIP and occupied by public administration (PA) end users in accordance with the lease agreement and if, prior to the transfer/contribution, PA owners are previously exempted from payment of IMU.

The State Property Agency has a right of pre-emption with respect to: (1) rental property at the expiry of the lease under the same conditions and with the possible adjustment of rent at market value; and (2) acquisition of real assets at the price announced by the fund manager before being put up for sale. Both rights are structured in a way that facilitates FIP in the marketing of properties for sale and lease.

Patrimonio Uno is a real estate closed-end fund set up by BNP Paribas REIM SGR SpA, whose creation was sponsored by Patrimonio dello Stato SpA and subsequently by the Economy and Finance Department, under existing legislation by Decree of October 20, 2004. The fund has two classes of shares: Class A and Class B, which give different rights to the holders, in accordance with the terms and conditions established by the Fund Statute. Class A and Class B shares were subsequently sold by the MEF to BNL, Banca Intesa and Morgan Stanley, and then resold following a competitive process. The shares of Class B were assigned by decree by the MEF to ANFFAS NPO (National Association of Families of intellectual disability and Relational).

The fund maturity is set at 12 years and will expire on December 31, 2017, unless prior clearance or extended period of time, to the Statute Rules on request by the Bank of Italy, for a period not exceeding three years or to a different time period provided by law for the current time for the completion of the disinvestment policy.

The total net value of the fund is determined on the basis of the criteria for evaluating the activities of real estate funds established by the Bank of Italy. The unit value of Class A shares is communicated to owners by publishing a notice in at least one national daily newspaper within 15 working days from the deadline for evaluation and on the website of SGR and, if established, on the website of the fund. The unit value of Class B shares is notified by letter sent by recorded delivery with acknowledgement of receipt from the SGR to the holder of Class B shares within 15 working days from the deadline of the evaluation.

Exhibit 8
FIP: Share Value (NAV) and Dividend Return

Date	NAV*	Dividends per Share*	Dividend Calendar	NAV Semestral Return	Dividend Return
6/30/2012	126,149.38	5,296	9/10/2012	-7.81%	4.20%
12/31/2011	136,842.71	6,591	3/12/2012	-4.28%	4.82%
6/30/2011	142,957.07	4,825	9/12/2011	-2.18%	3.38%
12/31/2010	146,136.77	6,083	3/14/2011	0.72%	4.16%
6/30/2010	145,090.98	8,065	9/13/2010	4.37%	5.56%
12/31/2009	139,016.8	9,277	3/15/2010	1.15%	6.67%
6/30/2009	137,441.51	5,019	9/14/2009	-0.80%	3.65%
12/31/2008	138,552.56	4,672	3/16/2009	-4.46%	3.37%
6/30/2008	145,017.99	4,814	9/15/2008	-2.38%	3.32%
12/31/2007	148,547.04	7,905	3/13/2008	-3.15%	5.32%
30/06/2007	153,375.06	11,043	9/13/2020	8.38%	7.20%
12/31/2006	141,517.33	6,260	3/13/2007	2.26%	4.42%
6/30/2006	138,384.06	6,350	9/13/2006	2.99%	4.59%
12/31/2005	134,362.45	5,850	3/13/2006		

PUBLIC REAL ESTATE CLOSED-END FUND RETURN

For institutional investors who have been paid subscription to the FIP, the public real estate fund is proving a pretty good business. On June 30, 2012, the value of fund units in which the state has given its “jewel” real properties had reached over €3 billion (€3.068 billion, €126,149.382 per share). The nominal value of the fund at the time of placement was €1.329 billion (€100,000 for each of 13,292 shares), even if the proceeds of the auction was €1.688 billion, with a premium of approximately 27%.

The results for average returns, shown in Exhibit 8, show that the FIP Fund experienced some variability of results. The results indicate the gradual decline in performance measured in terms of appreciation/depreciation of the share NAV.

It should also be noted that the fund has produced in some years, with time periods corresponding to a semester, significant payments in terms of extraordinary dividends, related to the disinvestment policy and revaluation of property. In all cases, the returns are higher than the rate of inflation and in the majority are also higher those obtainable from money markets and bonds.

In 2005, Patrimonio dello Stato SpA launched the Patrimonio Uno Fund. The fund is comprised of 70 properties owned by the National Research Council and the CONI Servizi SpA with an estimated value of €648 million. The revenue for the transfer of assets is entirely due to the institution that is already the owner of the properties and therefore results in no loss of value on the balance sheet, but only a transformation

Exhibit 9
Patrimonio Uno: Share Value (NAV), and Dividend Return

Date	NAV	Dividends per Share	Dividend Calendar	Net Worth	Total Asset Value	NAV Semestral Return	Dividend Return
12/31/2011	124,122.72	3,263	3/15/2012	323,59	638,25	-10.11%	2.63%
6/30/2011	138,076.56	2,748	9/22/2011	359,97	699,40	-7.88%	1.99%
12/31/2010	149,884.395	14,780	3/15/2011	390,74	748,56	2.54%	9.86%
6/30/2010	146,176.292	5,129	9/26/2010	381,08	750,56	1.68%	3.51%
12/31/2009	143,764.282	2,676	3/15/2010	374,79	775,97	-3.05%	1.86%
6/30/2009	148,281.505	8,875	9/22/2009	386,56	771,42	0.10%	5.99%
12/31/2008	148,130.222	3,164	3/23/2009	386,17	778,53	-2.70%	2.14%
6/30/2008	152,234.512	7,593	9/22/2008	396,87	796,06	6.05%	4.99%
12/31/2007	143,545.183	3,505	3/25/2008	374,22	787,49	1.92%	2.44%
6/30/2007	140,834.919	3,202	9/20/2007	367,15	775,37	3.31%	2.27%
12/31/2006	136,328.323	3,307	3/23/2007	355,40	763,50	3.34%	2.43%
6/30/2006	131,920.154	2,977	9/26/2006	343,91	754,07	3.40%	2.26%
12/31/2005	127,586.337	0		332,61	745,01		

of the book value of fixed assets in cash, which in many cases exceeds the book value.

The results in term of average returns, displayed in Exhibit 9, show that the Patrimonio Uno Fund, despite some variability of results, has produced largely positive results, with the exception of the last periods. With regard to dividend payments, the fund has paid an average return, in line with the rate of inflation, and for the 2010–2011 period, higher than the return achievable from the equity or bond markets during the same period.

LOCAL AND INTERNATIONAL COMPARISON

Comparing the mean returns of two funds (Exhibit 10) and the entire sector, both for the local and international markets, the asset management decisions of fund managers who managed the real estate closed-end public funds, were not in line with industry averages (column c-d1 and c-d2 respectively). The average performances of the two funds showed a mean delay of more than 10% in one case and about 5% in the other, against the average pooled fund data return. The choices of the public operator, although conveyed by private asset management company, are not toward maximizing returns in 2005–2012 (i.e., almost the entire lifetime of these funds) or seeking the best risk-return profile.

An enhancement process of public real heritage is a complex action that comprises several phases and includes the provision of more skills. It requires the intervention of professionals dedicated to economic planning, along with financial, administrative, and technical skills. On the one hand, we must stress the awareness of the role of the

Exhibit 10
Performance Comparison: Public Closed-end Fund and All Pooled Fund (Local and International)

Year	Patrimonio Uno	FIP	Mean	Closed Real Estate Fund–Italy	Closed Real Estate Fund–International	Patrimonio Uno vs. Peer Groups		FIP vs. Peer Groups		Mean of Italian Public Closed-end Fund vs. Peer Groups	
	a	b	c	d1	d2	a-d1	a-d2	b-d1	b-d2	c-d1	c-d2
2012*		-7.81%	-7.81%	-2.49%	29.14%			-5.33%	-36.95%	-5.33%	-36.95%
2011	-17.19%	-6.36%	-11.77%	-1.96%	5.60%	-15.22%	-22.79%	-4.40%	-11.96%	-9.81%	-17.37%
2010	4.26%	5.12%	4.69%	2.21%	52.36%	2.04%	-48.10%	2.91%	-47.23%	2.47%	-47.67%
2009	-2.95%	0.34%	-1.31%	5.71%	-32.58%	-8.65%	29.63%	-5.37%	32.91%	-7.01%	31.27%
2008	3.19%	-6.73%	-1.77%	5.56%	-31.36%	-2.36%	34.56%	-12.29%	24.63%	-7.33%	29.59%
2007	5.29%	4.97%	5.13%	33.26%	2.89%	-27.97%	2.40%	-28.29%	2.07%	-28.13%	2.24%
2006	6.85%	5.33%	6.09%	33.31%	7.20%	-26.46%	-0.35%	-27.99%	-1.87%	-27.22%	-1.11%
Mean Return	-0.09%	-0.74%	-0.96%	10.80%	4.75%	-13.10%	-0.77%	-11.54%	-5.49%	-11.76%	-5.71%

Note:

* Patrimonio Uno 2012 value is missing. FIP return is pertinent to first semester.

PA, as owner of real property, and so of assets that belong to all citizens. On the other hand, we should highlight that the use of these assets must be as efficient as possible for the benefit of citizens, and that the cost-benefit profile, also in monetary terms, is adequate to the logic of the market.

On this playing field, there are several goals. First, to redesign the governance of urban real estate holdings and to consider these assets as budget items. Second, these economic resources should be actively managed. These public real assets need to be managed with wealth management criteria and according to the principles of programming, transparency, efficiency, and economy. In this way, real estate funds are worthy of being pursued, although at least in part by reviewing fund management decisions and allocation schemes. Finally it seems worthwhile to note how any policy of asset management of public real estate holdings must be aimed not only to achieve economic results but also social benefits. In this sense, important in Italy is the theme of social housing, which can be a very effective answer to what people need, which is living in a home. In this view, the fundamental task is to evaluate whether it is better to sell the public assets and with these revenues provide for the housing need or to allocate part of this public real estate to service this need.

CONCLUSION

Since 1999, disposals of public assets in Italy have been made by using securitization or real estate funds. In 2004 and 2005, two real estate closed-end funds were established by the MEF. Since their launch in 1999, real estate funds have had an annual average return of -0.96% . This return is both below the performance targets stated in the statutes of the various funds, and the average return offered by international bonds (5.6%) and equity markets (6.9%) in last decade. Comparing the average returns of real estate closed-end public funds with the entire sector of reference, both in local (Italian) and international markets, the asset management decisions of the funds' managers were not in line with industry averages. Thus, the choices of the public operator in 2005–2012, although conveyed by a private asset management company, are not addressed in maximizing the risk-adjusted return profile. Both funds have paid dividends, in line with the rate of inflation, and many times achieved returns higher than achievable in the same period from bonds, money markets, and equities. An analysis of international closed fund returns before and after the financial crisis shows that, on average, the crisis has a positive effect on the returns of the funds. The funds in the euro area increased by more than 14 percentage points, while those of Swiss Franc area increased about 1.5% .

In Europe and especially in Italy, the economic situation has not been very healthy in the last few years. In this climate of uncertainty, we should wonder if we are appropriately using public resources. In Italy, the level of taxation is much higher than in the other benchmark countries, and the level of wages has been severely compromised both by the global financial crisis and by taxes levied by the state. Italy has important public properties in terms of real estate. A few years ago, the state decided to transform a part of these assets in financial instruments and in particular

in two huge investment funds. In this paper, we study investing in these REITs, as well as their management.

The overall results are useful to reflect on the effectiveness about how public managers administer public resources. First of all, we must pay close attention to whether the risk-return profile is derived from these financial investments that must be competitive, compared to alternative investments of the same type. Otherwise it would be a waste of public resources. In fact, the unattractiveness of the real estate fund shares for institutional investors could virtually transform resources that belong to all citizens into fixed assets. These holdings may be better used, for example, for social welfare functions. Any policy of asset management of public assets must be aimed not only to achieve economic results but also social benefits.

ENDNOTES

1. <http://www.oecdbetterlifeindex.org/countries/italy/>.
2. <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00114>.
3. http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics.
4. <http://databank.worldbank.org/data/download/GDP.pdf>.
5. http://databank.worldbank.org/data/download/GDP_PPP.pdf.
6. The Sharpe ratio originates from the capital asset pricing model. It is a measure of the excess return, with respect to the risk-free rate, realized by a single asset or a portfolio of assets. The algebra is as follows:

$$I_s = \frac{R_p - R_f}{\sigma_p},$$

where R_p and R_f are, respectively, mean portfolio (or single asset) return and risk-free rate; σ_p is the standard deviation of the portfolio (or single asset).

REFERENCES

- Ait-Sahalia, Y., J. Andritzky, A. Jobst, S. Nowak, and N. Tamirisa. Market Response to Policy Initiatives during the Global Financial Crisis. *Journal of International Economics*, 2012, 87, 162–77.
- Anderson, R., P. Conner, and Y. Liang. Dimensions of REIT Pricing: Size, Growth, and Leverage. *Prudential Real Estate Investors*, March, 2001.
- Assogestioni. *Factbook* (2005 to 2010).
- . *Real Estate Fund—Semestral Report* (2005 to 2010).
- Barkham, R. and C. Ward. Investor Sentiment and Noise Traders: Discount to Net Asset Value in Listed Property Companies in the U.K. *Journal of Real Estate Research*, 1999:18:2, 291–312.
- Biasin, M., E. Giacomini, and A.G. Quaranta. Quotazione a Sconto, Governance e Regolamentazione Dei Fondi Immobiliari Italiani. *Bancaria Editrice*, 2010, 1, 31–45.

- Bond, S. and J.D. Shilling. An Evaluation of Property Company Discounts in Europe. Working paper, University of Cambridge, 2003.
- Bond, S.A. Alpha and Persistence in Real Estate Fund Performance. *Journal of Real Estate Finance and Economics*, 2010, 41:1, 53–79.
- Booth, L.C. and H. Tehranian. Aftermarket Performance of Closed-End Funds Invested in International versus Domestic Securities. *Journal of Applied Finance*, 2005, 15:1, 24–34.
- Brounen, D. and M. Laak. Understanding the Discount: Evidence from European Property Shares. *Journal of Real Estate Portfolio Management*, 2005:11:3, 241–51.
- Brounen, D., H. Op't Veld, and V. Raitio. Transparency in European Non-listed Real Estate Funds Markets. *Journal of Real Estate Portfolio Management*, 2007, 13:2, 107–17.
- Cacciamani, C. I Fondi Immobiliari Retail Quotati: Andamenti e Prospettive. In: *La Gestione del Fondo Immobiliare*, C. Giannotti (ed.), Egea Milano, 2006.
- Capozza, D.R. and S.L. Lee. Property Type, Size and REIT Value. *Journal of Real Estate Research*, 1995, 10, 363–80.
- Capozza, D.R. and P.J. Seguin. Focus, Transparency and Value: The REIT Evidence. *Real Estate Economics*, 1999, 27, 587–619.
- Carlson, M., S. Titman, and C. Tiu. The Returns Linkages for Private and Public Real Estate. Working Paper, 2010.
- Cherkes, M., J.S. Sagi, and R. Stanton. A Liquidity-Based Theory of Closed-End Funds. *Review of Financial Studies*, 2009, 22:1, 257–97.
- Clayton, J. and G. MacKinnon. The Time-varying Nature of the Link between REIT, Real Estate, and Financial Asset Returns. *Journal of Real Estate Portfolio Management*, 2001:7, 43–54.
- De Long, J.B., A. Shleifer, L.H. Summers, and R.J. Waldmann. Noise Trader Risk in Financial Markets. *Journal of Political Economy*, 1990, 98:4, 703–38.
- Dombret, A. What Does Good Macroprudential Regulation Look Like? Speech given at the International Centre for Financial Regulation Annual International Regulatory Summit, Berlin, October, 2011.
- Eling, M. Does the Measure Matter in the Mutual Fund Industry? *Financial Analysts Journal*, 2008, 64:3, 1–13.
- Ferguson, R. and D. Leistikow. Closed-End Fund Discounts and Expected Investment Performance. *Financial Review*, 2004, 39:2, 179–202.
- Friday, H.S. and G.S. Sirmans. Board of Director Monitoring and Firm Value in REITs. *Journal of Real Estate Research*, 1998, 16, 411–27.
- Fuerst, F. and G. Marcato. Style Analysis in Real Estate Markets: Beyond the Sectors and Regions Dichotomy. *Journal of Portfolio Management*, 2009, 104–17.
- Gallo, J.G., L.J. Lockwood, and R.C. Rutherford. Asset Allocation and the Performance of Real Estate Mutual Funds. *Real Estate Economics*, 2000, 28:1, 165–84.
- Ghosh, C., E. Giambona, J.P. Harding, Ö. Sezer, and C.F. Sirmans. The Role of Managerial Stock Option Programs in Governance: Evidence from REIT Stock Repurchases. *Real Estate Economics*, 2010, 38:1, 31–55.
- Giannotti, C. and G. Mattarocci. The Role of Risk Measures Choices in Ranking Real Estate Funds: Evidence from the Italian Market. ERES Conference, Milan, 2010.
- Hartzell, J.C., T. Mühlhofer, and S. Titman. Alternative Benchmarks for Evaluating Mutual Fund Performance. *Real Estate Economics*, 2010, 38:1, 121–54.
- Lin, C.Y. and K. Yung. Real Estate Mutual Funds: Performance and Persistence. *Journal of Real Estate Research*, 2004, 26:1, 69–93.
- Lin, C.Y., H. Rahamn, and K. Yung. Investor Sentiment and REIT Returns. *Journal of Real Estate Finance and Economics*, 2009, 39:4, 450–71.

- Merola, F. *I Fondi Immobiliari. Uno Strumento Tra Finanza e Mattone: Caratteristiche dell'investimento e Tipologie di Prodotto*. Il Sole 24 Ore libri Milano, 2004.
- Morri, G. and P. Benedetto. Leverage and NAV Discount: Evidence from Italian Real Estate Investment Funds. *Journal of European Real Estate Research*, 2009, 2:1, 33–55.
- Morri, G. and A. Erbanni., Diversificazione del Rischio Nella Gestione di Portafogli Immobiliari: Analisi Della Performance dei REITs Americani. *Finanza Marketing e Produzione*, 2008, 3, 27–46.
- Morri, G. and S.L. Lee. The Performance of Italian Real Estate Mutual Funds. *Journal of European Real Estate Research*, 2009, 2:2, 170–85.
- O'Neal, E.S. and D.E. Page. Real Estate Mutual Fund: Abnormal Performance and Fund Characteristics. *Journal of Real Estate Portfolio Management*, 2000, 6, 239–47.
- Ong, T.S., B.H. Teh, C.H. Soh, and Y.L. Yan. Malaysian Real Estate Investment Trusts: A Performance and Comparative Analysis. *International Journal of Economics and Finance*, 2012, 4:5, 73–84.
- Pattitoni, P., B. Petracci, and M. Spisni. NAV Discount in REITs: The Role of Expert Assessors. *Applied Economics Letters*, 2012, 20:2, 194–98.
- Pavlov, A. and S. Wachter. REITs and Underlying Real Estate Markets: Is There a Link? Institute for Lay and Economics Research Paper, University of Pennsylvania. Available at: <http://ssrn.com/abstract=1879968> or <http://dx.doi.org/10.2139/ssrn.1879968>, 2011.
- Scholz, H. and M. Wilkens. A Jigsaw Puzzle of Basic Risk-adjusted Performance Measures. *Journal of Performance Measurement*, 2005, 9, 57–64.
- Shiller, R.J. *Market Volatility*., Cambridge MA: MIT Press, 1989.
- Shleifer, A. and R.W. Vishny. Equilibrium Short Horizons of Investors and Firms. *American Economic Review*, 1990, 80:2, 148–53.
- Simpson, M.W and S. Ramchander. Is Differential Sentiment a Cause of Closed-end Country Fund Premia? An Empirical Examination of the Australian Case. *Applied Economics Letters*, 2002, 9, 615–19.
- Smith, D.M. *Modern Italy: A Political History*. Ann Arbor: University of Michigan Press, 1997.

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