Inflation Linked Assets

Asset Class Review

Karl Polen & Eric Glass

Arizona State Retirement System

November 18, 2013

Outline

1. Background
   - Evolution of the ASRS Inflation-linked program
2. Private Markets
   - Real Estate
   - Agriculture
   - Infrastructure
   - Timber
3. Public Markets
   - Commodities

Inflation Linked Assets

- Inflation linked assets are positively linked to inflation through their value and income streams
- Inflation linked assets are one of three major asset classes (along with equities and fixed income) as defined in the ASRS strategic asset allocation
- Inflation linked assets are implemented in both private and public markets
- Private market inflation linked assets are
  - Real estate
  - Farm land
  - Infrastructure
  - Timber
- Investments in commodities are generally implemented through highly liquid derivatives markets

The 2009 Asset Allocation Study

- The 2009 Strategic Asset Allocation Study established Inflation-linked as an asset class
  - Commodities & TIPS
    - Positive short and medium-term correlation to inflation
    - Diversification benefits from low correlation to traditional asset classes & low correlation among one another
- During 2009-2011 used TIPS opportunistically
  - Blackrock US TIPS passive
- In Q3 2010 ASRS hired two commodities managers
  - Gresham & Cargill

2009 Inflation Linked Allocations

Asset Class	Target	Range	Benchmark
Commodities	3%	0-5%	DJ UBS Total Return
TIPS	0%	0-5%	Barclay's TIPS
Total IL	3%	0-10%	

The 2012 Asset Allocation Study

- The 2012 Strategic Asset Allocation Study further built out the Inflation-linked program
  - Real Estate: Moved into the Inflation-linked asset class
    - Increased target allocation from 6% to 8%
    - Changed the range from 4-8% to 6-10%
    - Changed the benchmark from NCREIF +1% to NCREIF ODCE
  - Commodities: Increased target allocation from 3% to 4%
    - Changed the range from 0-5% to 1-7%
  - Farmland & Timber, Infrastructure, and Opportunistic Inflation-linked each established as asset classes, with 0% target allocation and 0-3% range

2012 Inflation Linked Allocations

Asset Class	Target	Range	Benchmark
Commodities	4%	1-7%	DJ UBS Total Return
Real Estate	8%	6-10%	NCREIF ODCE
Infrastructure	0%	0-3%	Core CPI plus 3.5%
Farmland & Timber	0%	0-3%	Core CPI plus 3.5%
Opportunisitic	0%	0-3%	Investment Specific
Total IL	12%	8-16%	

Real Estate Investment Philosophy

- As part of the inflation linked category, the primary role of real estate is cash flow generation from properties where we believe there is a likelihood of rental increases in the long run
- We work with a consultant with deep experience on the supply/demand side to help us understand market and property dynamics in order to seek out such properties
- The real estate strategic plan establishes a goal for the portfolio of 65% (+/- 10%) in core and value add properties implemented primarily through separate accounts or open end funds in a long term hold strategy. The remainder of the assets are targeted to be held in opportunity fund style investments.
- The program is benchmarked against the NCREIF ODCE index, but is structured to achieve a target return of 8%. The real estate strategic plan provides the following guidance on the benchmark and portfolio construction:

> *"By selecting the NFI-ODCE as benchmark, the ASRS considers this benchmark as an opportunity cost, not a model portfolio. The ASRS expects that its portfolio will vary significantly from the ODCE index. The ASRS will manage its investments actively and dynamically in the real estate asset class in order to target a net return expectation of 8%. The 8% net objective represents a significant premium over the 6.5% net long term expectation for passive, stable, equity real estate positions."*

Real Estate Implementation Philosophy

- Real estate assets are long term assets and frequent trading tends to detract from returns
- Rental increases occur in situations with high demand and constraints on supply
- Trends tend to be durable in real estate and should not be ignored. Some important trends are:
  - The demographics of baby boomers and their children profoundly affect real estate demand
  - E-commerce affects utilization of industrial and retail space
  - The structure of employment away from goods producing to service occupations affects the geographic dispersion of economic activity
  - Urbanization is a continuing trend with a pattern of globally significant cities emerging
  - Office utilization is becoming much more efficient with a strong downward trend of space utilization per employee

Real Estate Implementation Philosophy (2)

- In order to capitalize on these trends, we are creating a customized investment strategy through the implementation of the strategic manager program
- We identify sectors that have favorable demand dynamics with demographic or other economic tail wind and search for markets with supply barriers
  - Apartments, industrial, self-storage, medical office, senior housing, student housing, value-add multi-strategy
- We have implemented a robust search and recruitment process to find the most qualified parties to be our partners in this program
  - Identify first tier operators in each of these sectors to implement through custom separate account arrangement
  - Significant investment by general partner of 5 to 25% of capital
  - Value entry points and incentive compensation for performance in value creation
  - Discretion in a box with oversight through consultant underwriting of every acquisition

Example Investment – Barclays Center Apartment Bldg

- ASRS partnered with Forest City to construct the first apartment building adjacent to the Barclays Center in Brooklyn
- The Brooklyn market is tightly supplied and experiences high demand and rental growth
- Project is above a train station with access to rail and all major subway lines
- Within the arena entertainment district and adjacent to the historic Boerum Hill neighborhood with numerous high quality local shops and restaurants
- As an early investor in the project, ASRS negotiated favorable terms including a low land basis
- Forest City is investing 25% of the equity side by side with ASRS
- At current market rents, the project is expected to earn an unlevered going in yield of 6%
- In a recent transaction for the next phase of the project, Forest City negotiated a land basis at a 4.7% going in yield for the next investor
- ASRS waived its right to invest in the lower yielding next phase of the project

Current Portfolio

- The current portfolio construction is described in the next four slides
- The current portfolio is underweight in total allocation compared to the strategic target of 8%
- The current portfolio is substantially overweight to opportunity fund strategies compared to the strategic plan targets
- This will be transitioned to strategy weights as legacy positions liquidate and through implementation the strategic manager program

Current Portfolio

Real Estate Portfolio at June 30, 2013

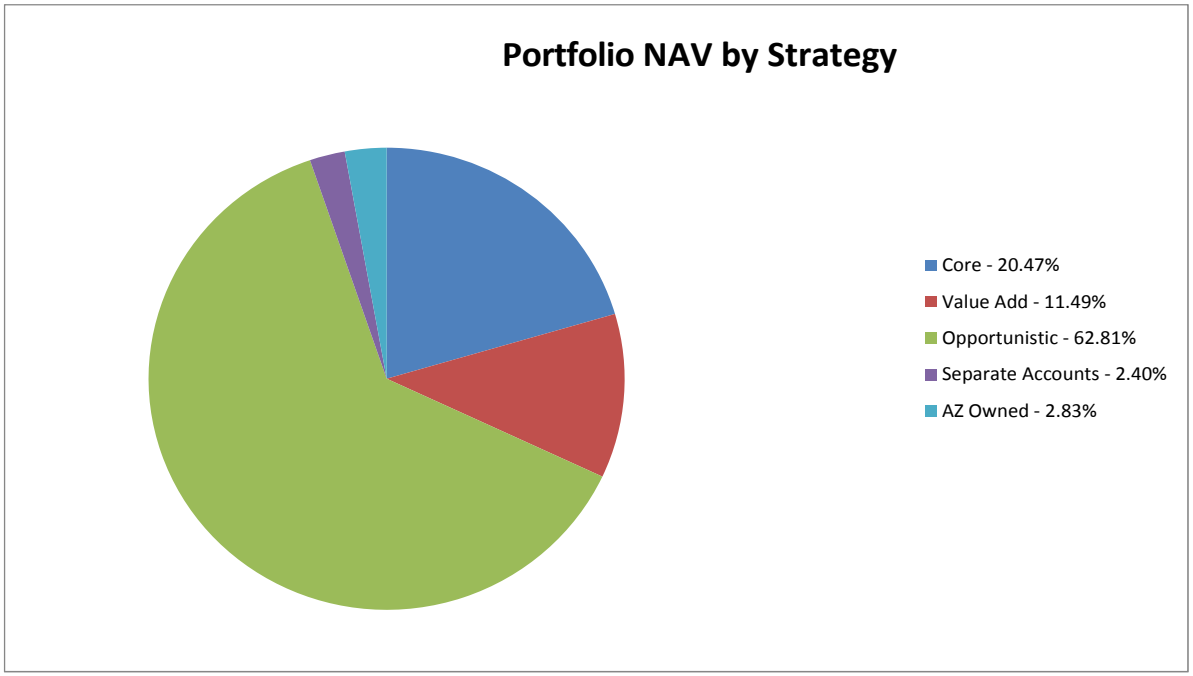
	$ millions	Percent of ASRS Total Fund
Net Asset Value	1,746	5.74%
Total Commitments to RE partnerships	2,753	9.05%

- Current Portfolio is $687 million below the target funding of 8%
- Commitments exceed target funding in order to achieve the target because later stage funds return cash offsetting capital demands from newer investments
- We update a pacing study each year to determine amount of new commitments

Current Portfolio by Strategy

Arizona State Retirement System
Real Estate Portfolio by NAV
October 2013
(U.S. Millions)

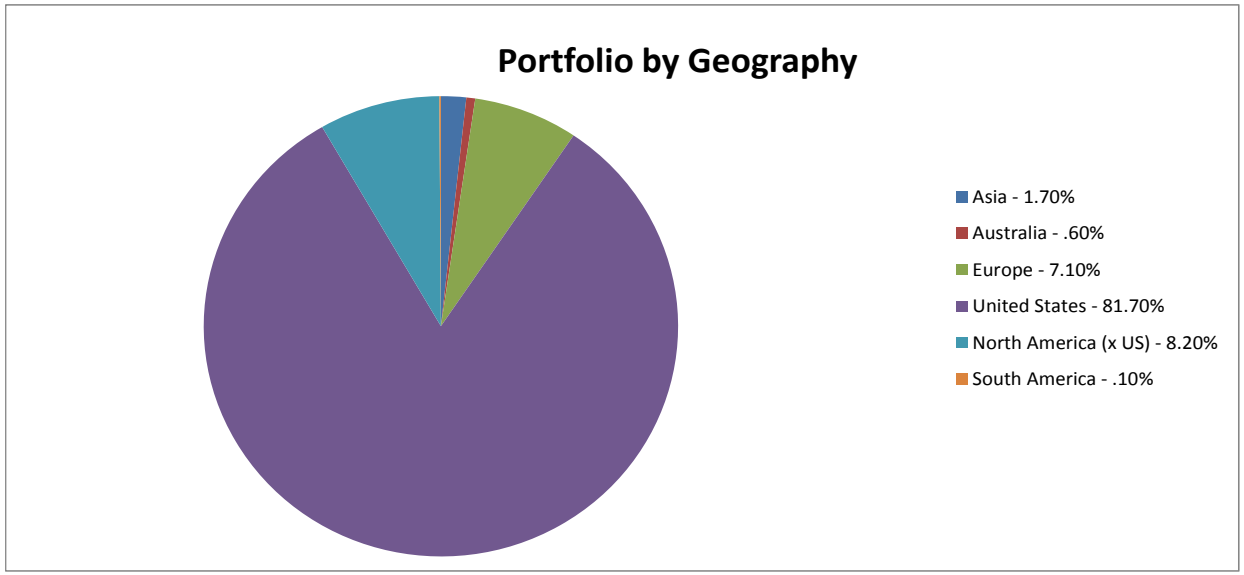
Estimated through September 30, 2013



Current Portfolio by Geography

Arizona State Retirement System
Real Estate Portfolio by Geography
October 2013
(U.S. Millions)

Updated through March 31, 2013***

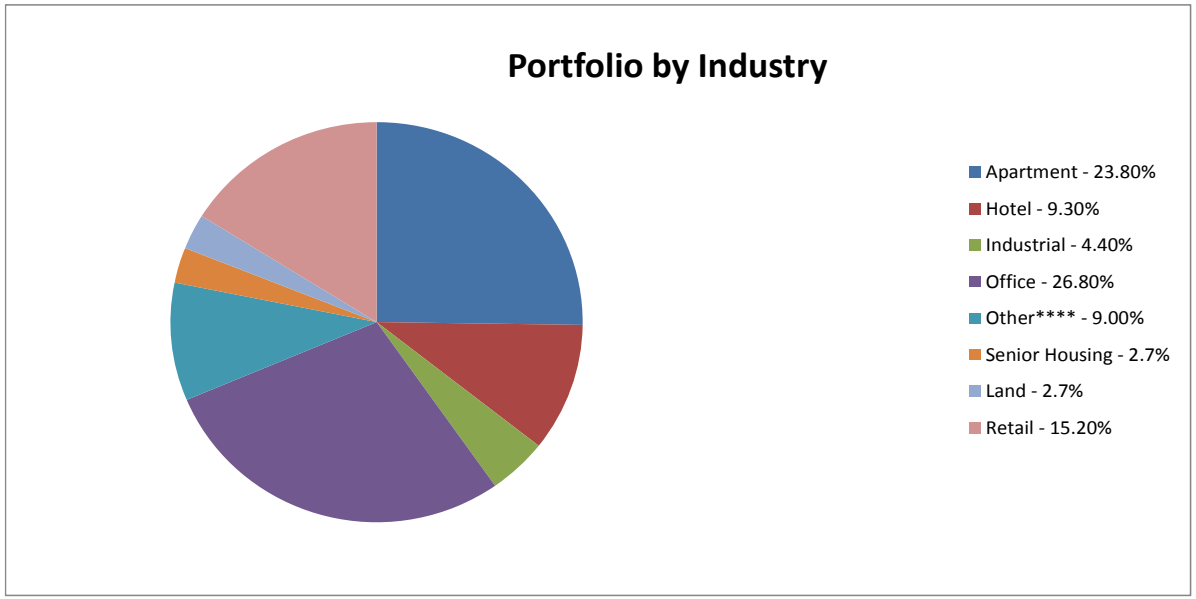


*** Most recent data from Credit Suisse

Current Portfolio by Property Type

Arizona State Retirement System
Real Estate by Industry
October 2013
(U.S. Millions)

Updated through March 31, 2013***



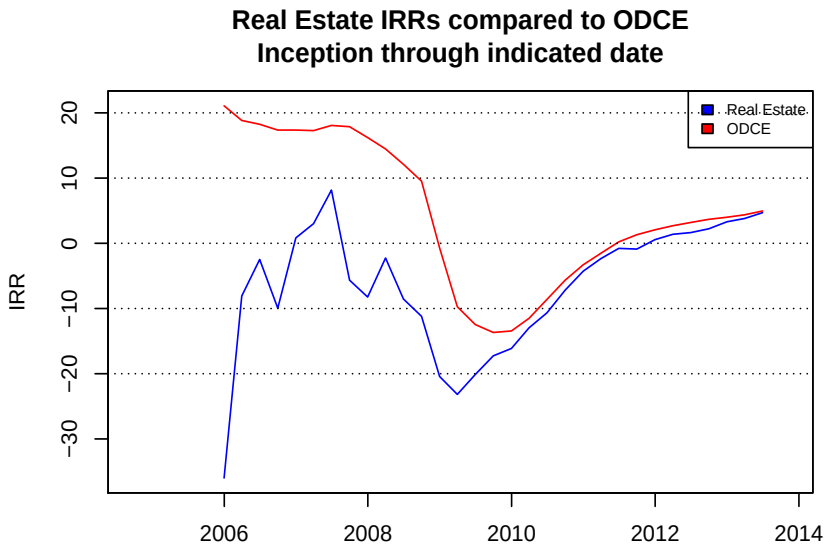
*** Most recent data from Credit Suisse

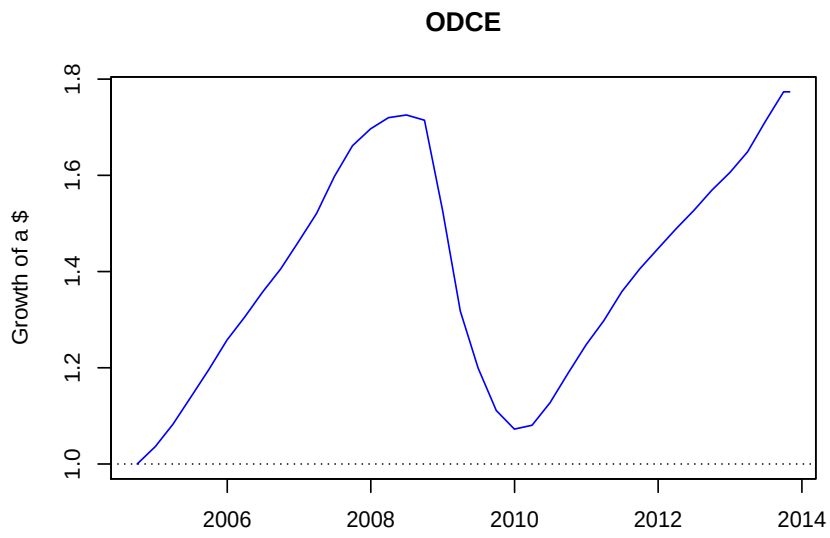
**** Other includes the following categories: Multi-type, Heathcare, Land, Self Storage, Senior Housing and other miscellaneous.

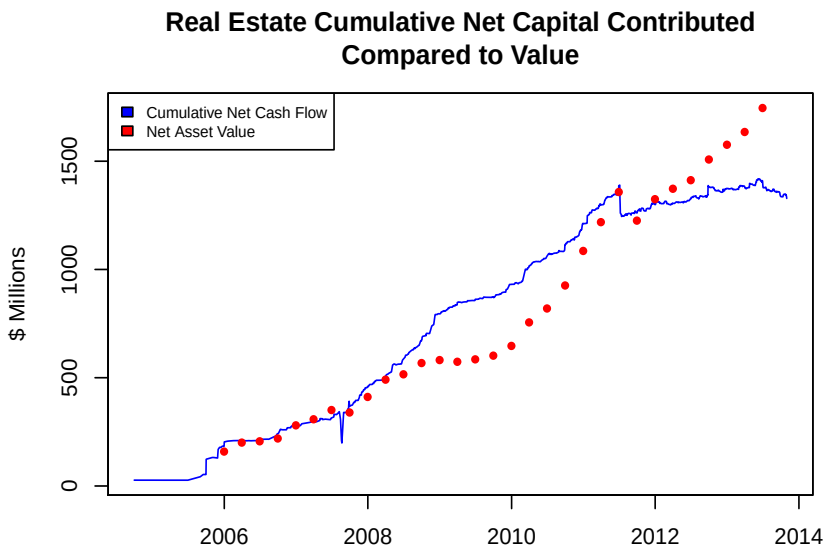
No category is over 5% individually.

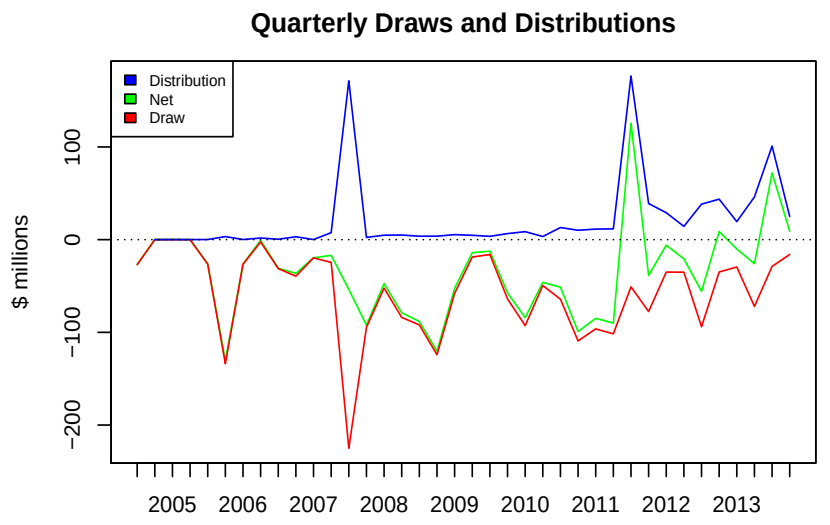
Performance

- The charts on the following page illustrate the performance of the real estate portfolio
- The real estate portfolio underperformed its benchmark in its early years, but recent out-performance has brought the inception to date performance near to benchmark levels
- As noted above a majority of assets are invested in opportunity funds which have, as would be expected, underperformed during down markets but outperformed in up markets
- While it will be a number of years before these investments are fully realized, there does not appear to be strong evidence that the additional risk from opportunity fund concentration has been rewarded
- This performance history led to a reconsideration of strategies and amendments to the strategic plan that are now being implemented


Real Estate IRRs compared to ODCE
Inception through indicated date
Real Estate
ODCE
IRR
20
10
0
−10
−20
−30
2006
2008
2010
2012
2014


ODCE
Growth of a $
1.8
1.6
1.4
1.2
1.0
2006
2008
2010
2012
2014


Real Estate Cumulative Net Capital Contributed
Compared to Value
Cumulative Net Cash Flow
Net Asset Value
$ Millions
1500
1000
500
0
2006
2008
2010
2012
2014


Real Estate
Quarterly Draws and Distributions
Distribution
Net
Draw
$ millions
100
0
−100
−200
2005
2006
2007
2008
2009
2010
2011
2012
2013

Time Weighted Returns and IRRs

Time Weighted Returns as of 6/30/2013 (calculated by Credit Suisse)

	One Quarter	One Year	Three Years	Inception
Real Estate TWR	2.84%	14.51%	15.37%	2.80%
ODCE TWR	3.86%	12.17%	14.96%	5.23%

IRRs as of 6/30/2013 (calculated by ASRS)

	One Quarter	One Year	Three Years	Inception
Real Estate IRR	5.15%	17.23%	15.92%	4.70%
ODCE IRR	3.86%	12.19%	14.70%	4.95%

- Time weighted returns are the geometric mean of returns over a time frame, not weighted by the amount of dollars invested
  - They are most appropriate for scalable, liquid strategies where the investor determines the timing of capital flows
- An IRR is the discount rate that causes the net present of a cash flow to be equal to zero
  - IRRs are an appropriate performance measure in illiquid strategies where the investment manager determines the timing of capital flows
  - IRRs for benchmarks are calculated from daily cash flows as though the money were invested in the benchmark instead of the portfolio

Opportunistic Investments and Co-Investments

- We have made three real estate related opportunistic or co-investments

Opportunistic and Co-investments ($millions) as of 6/30/2013

	Commitment	Net Amount Inveted	NAV	Inception IRR
Five Mile Capital II LOPO Co-Investment LP	13	15.08	25.62	41.41%
OCM STR Co-Invest 1, L.P.	150	88.35	109.56	21.69%
CIM Park 432 Co-Invest	50	0.00		

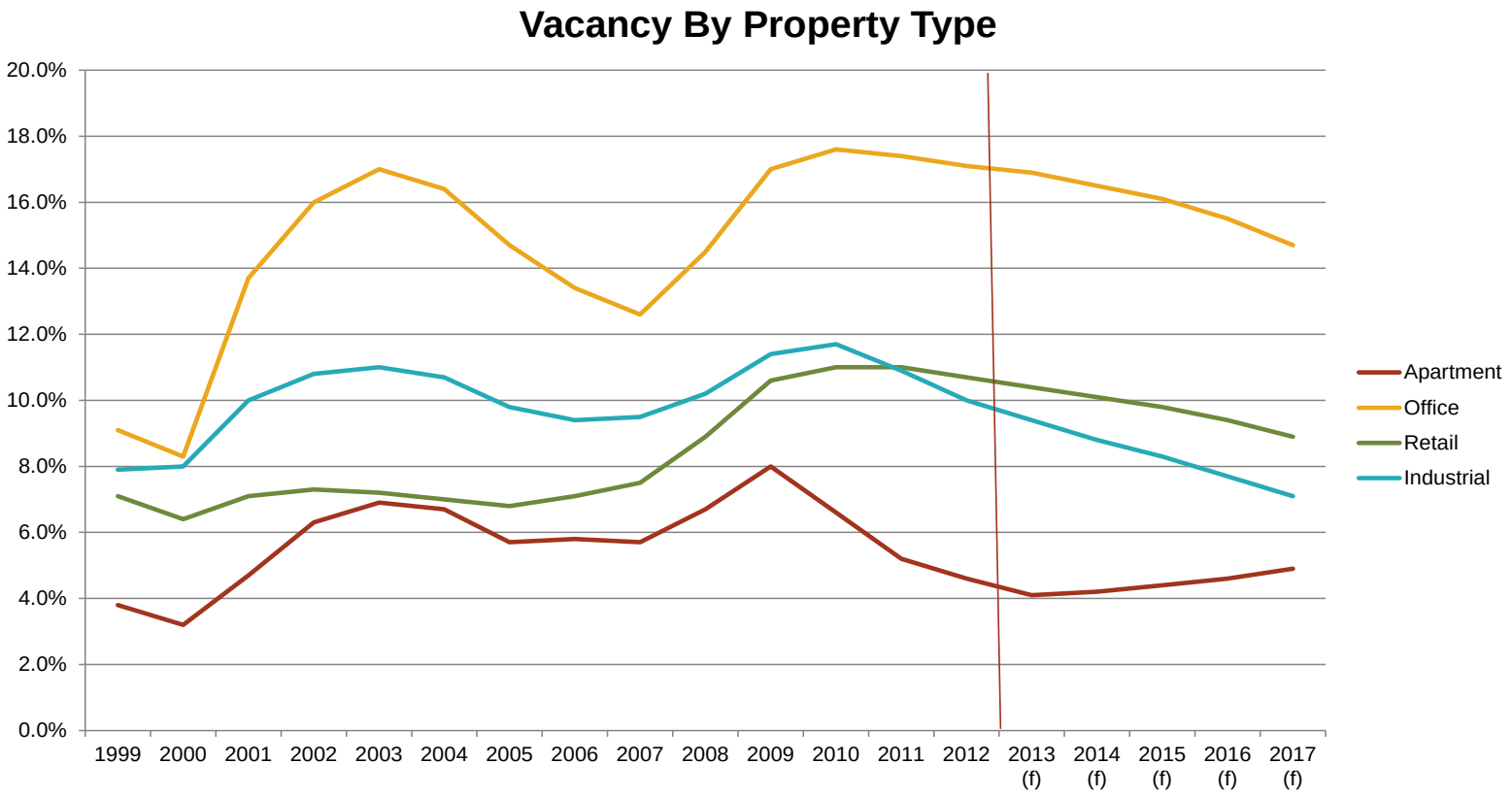
State of the Real Estate Market

- The following slides from our consultant RCLCO provide some perspective on recent trends in the real estate market

Vacancies

RCLCO

VACANCY RATES CONTINUE TO DECLINE

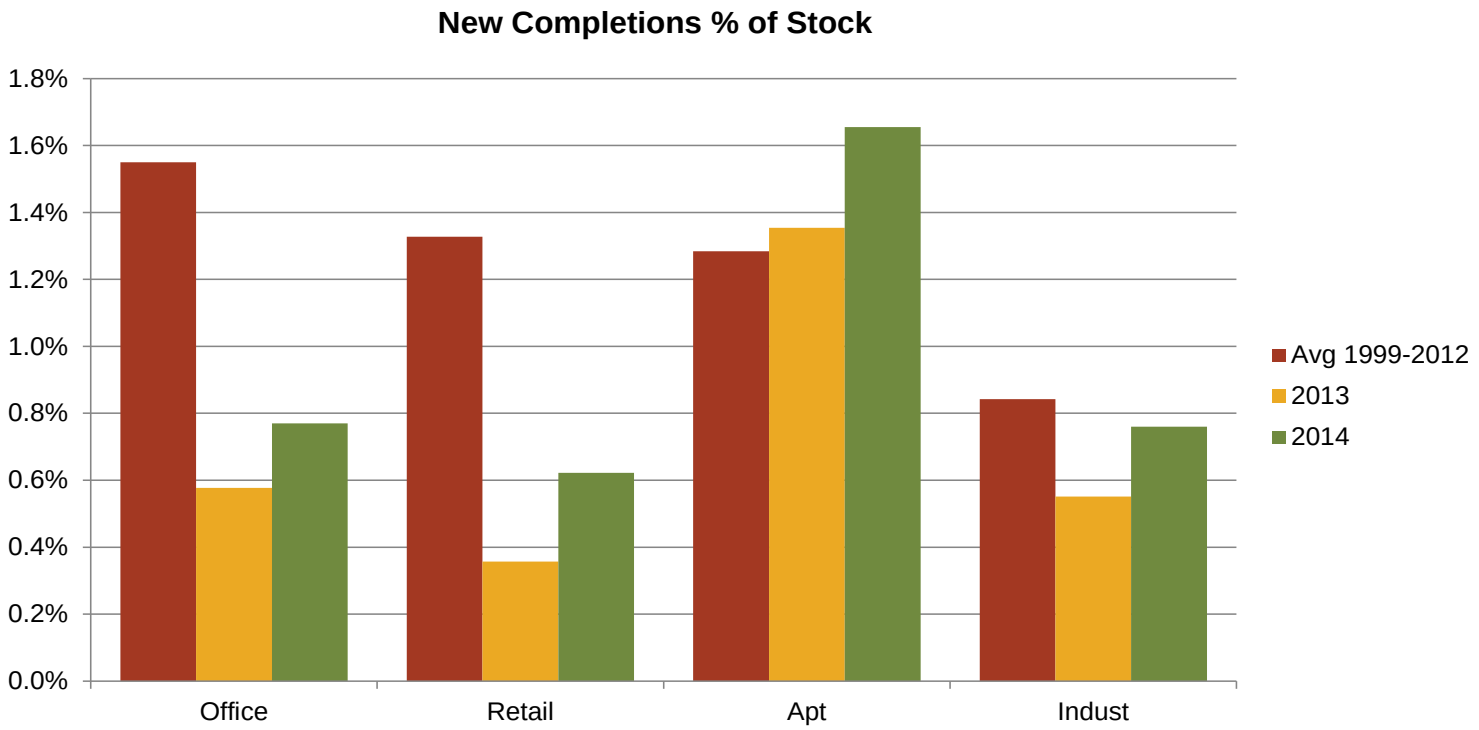


Source: Reis

New Construction

RCLCO

CONSTRUCTION SUBDUED EXCEPT APARTMENTS

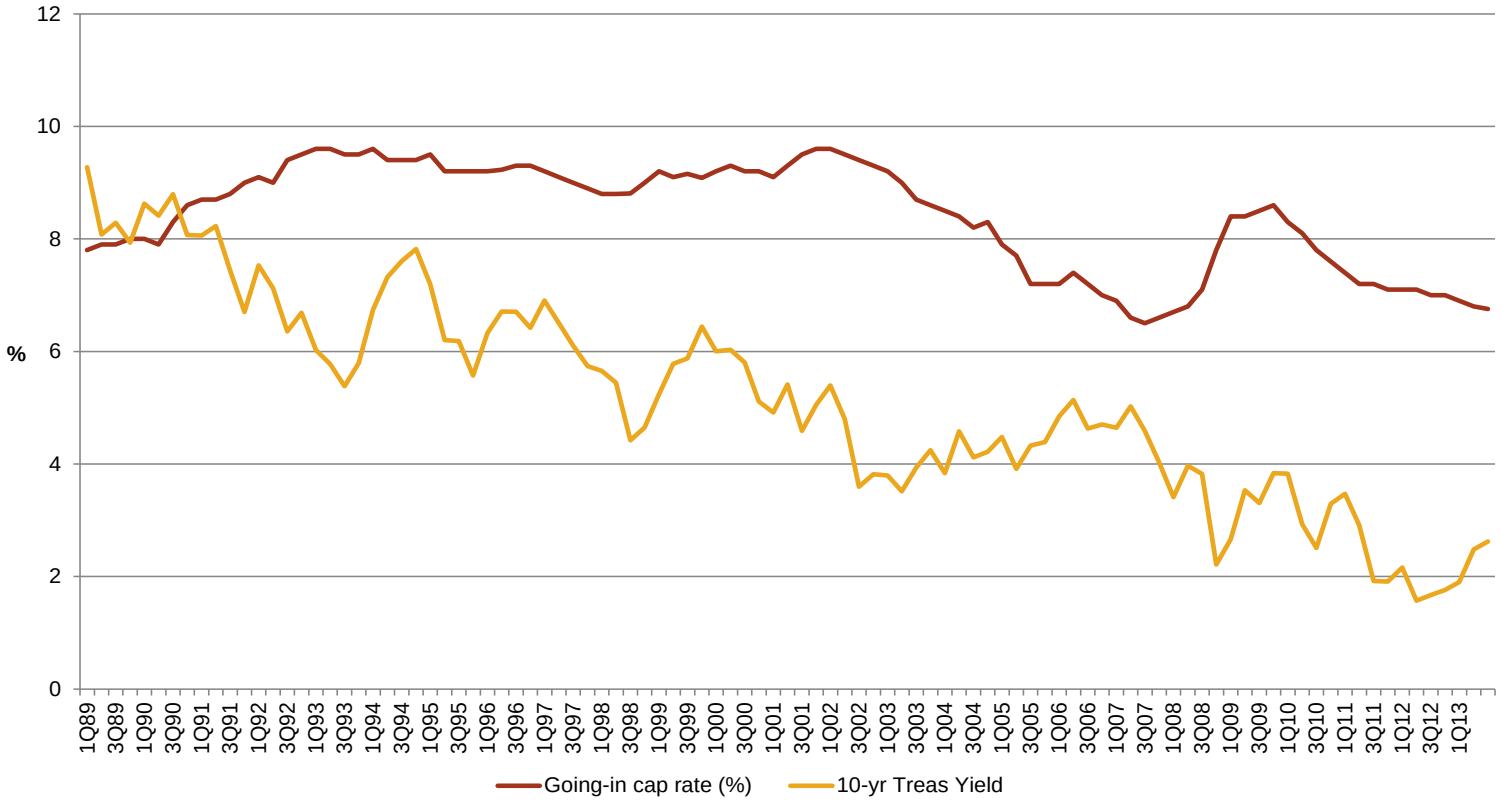


SOURCE: Reis, Inc.

Yield Spreads

RCLCO

YIELDS ARE AT A WIDE SPREAD TO TREASURIES

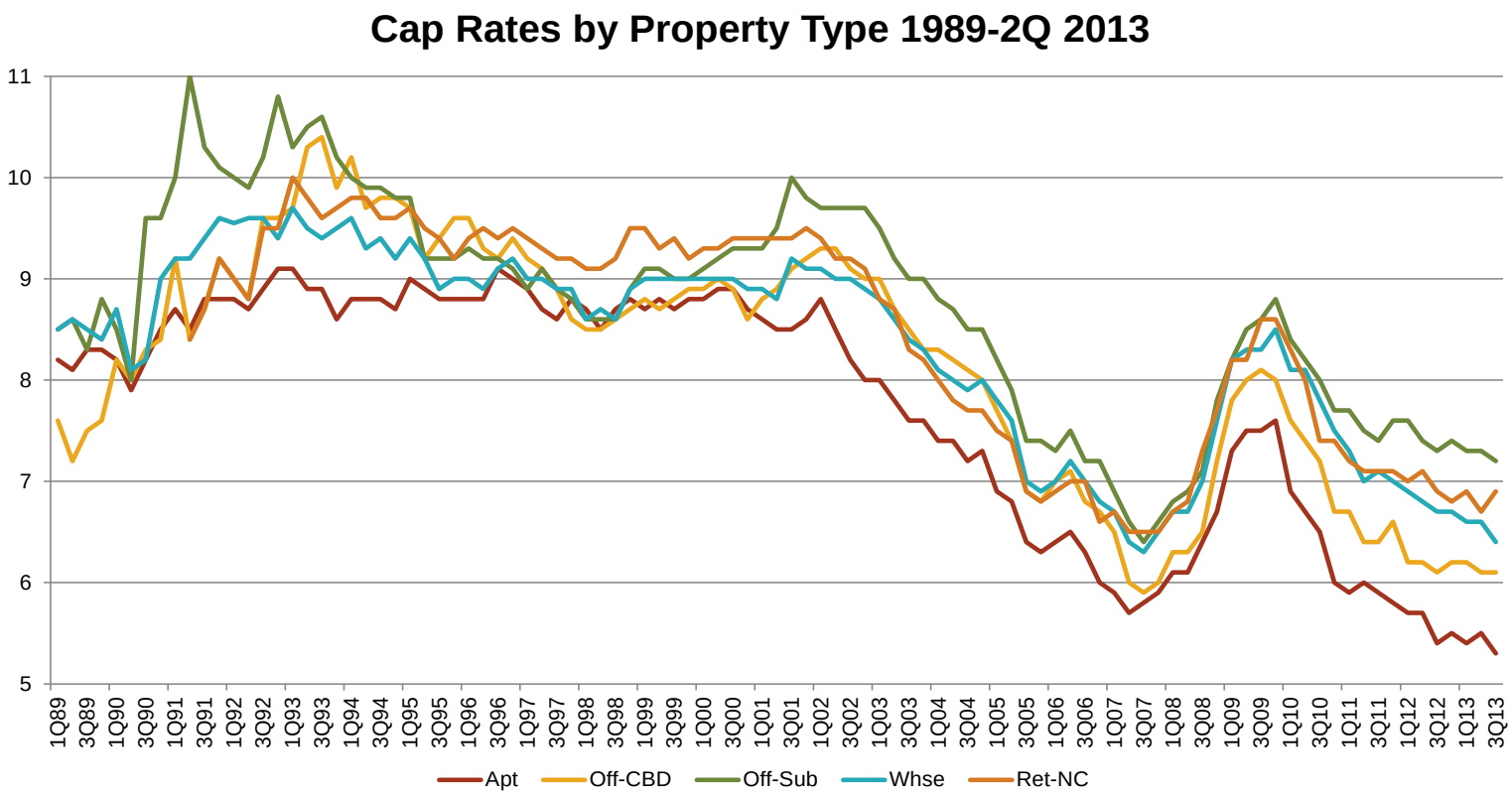


SOURCE: RERC

Cap Rates

RCLCO

ALTHOUGH APARTMENT AND CBD OFFICE ARE AT LOW SPREADS



SOURCE: RERC

Looking Forward

- The challenge in real estate investing in coming years will be to adapt to a rising interest rate environment
- ASRS strategy in this context is
  - Avoid new investments in stabilized core in coastal markets
  - Pursue special property types with favorable demographic demand drivers (medical office, senior housing, student housing, self-storage)
  - Pursue "build-to-core" style development opportunity when risk is mitigated by
    - High demand/high barrier apartment/senior housing location
    - Substantial pre-leasing
    - Partnership with a highly experienced operator with large co-invest
- We review strategies annually and will present an implementation plan to the private markets committee in December

Farm Land Investing

- ASRS invests in farm land for its long-term inflation protection linked to the value of land and its income generation
  - Emerging countries changing to more protein-rich diets which drives the needs for meat and grains
- ASRS invested $175 million International Farming Corp (IFC)
  - IFC a multi-generational U.S. farming corporation with deep operational expertise
  - As of 9/30/13 Fund has called $65M of ASRS's commitment, representing 10 properties across 7 states.
  - Portfolio marked at cost and generating sufficient current to cover overhead and avoid J curve
  - Diverse crop mix
  - Avoids the expensive Midwest 'I' states (Iowa, Illinois, and Indiana)
  - Rent land to professionalized farmers that leverage large-scale operations and innovative technologies
  - Flex rent programs incentivize operators to maximize yield
  - ASRS negotiated right-of-first-offer (ROFO) rights to buy assets upon sale from the fund, which provides better alignment with the long-term holding period nature of these assets
  - Several properties include water and mineral which may provide additional upside but are not priced in the deal underwriting

Example Investment – McMullen Valley Farms

- IFC bought McMullen Valley, formerly owned by an Arizona city for its water rights
- Through implementation of better farm practices they expect to earn unlevered cash yields of 12% or higher
- ASRS was tracking McMullen Valley because of its water rights and was introduced to IFC through the water community
- Arizona law generally prohibits inter-basin water transfers but this basin is one of only three basins approved under Arizona statute (45-552) from which water may be transported to Arizona metropolitan areas
- A study by the Morrison Institute rated it as "virtually certain" that water from such "water farms outside AMAs" would eventually become part of Arizona municipal water supply (see inset to the right from http://morrisoninstitute.asu.edu/publications-reports/SuperstitionVistas_WaterMatters/view)
- The water development scenario provides additional upside optionality

Table 1

Current and Assumed Regional Water Supply

Degree of Availability	Current and Absolute	Virtually Certain	Highly Likely	Likely	Possible
	Today	2006 - 2030	2031 - 2045	2046 - 2060	2061 - 2090
CAP Water					
CAP M&I Subcontracts	621,000	621,000	668,000	668,000	668,000
Hohokam Water	47,000	47,000	0	0	0
Indian Leases	154,000	193,000	193,000	193,000	193,000
NIA Priority CAP Water	0	96,000	96,000	96,000	96,000
Surface Water					
SRP Water	520,000	520,000	520,000	520,000	520,000
Other Surface Water Supplies	50,000	50,000	50,000	65,000	65,000
Colorado River Water					
Indian Leases	0	0	117,000	140,000	140,000
Non-Indian Rights	0	0	158,000	335,000	335,000
Future Supply[6]	0	0	0	0	880,000
Groundwater[7]					
Grandfathered	208,000	229,000	239,000	245,000	263,000
Imported from Water Farms Outside AMAs	0	95,500	95,500	95,500	95,500
AMA Water Farms	0	22,500	22,500	22,500	22,500
Effluent	109,000	173,000	219,000	610,000	872,000
SUPPLY Total	1,709,000	2,047,000	2,378,000	2,990,000	4,150,000
DEMAND Total	1,207,000	2,055,000	2,429,000	2,903,000	4,150,000

Infrastructure

- ASRS invests in infrastructure for long-term inflation protected income streams from assets and systems that support transportation, energy, shipping, and communications
  - Global needs exist to support rising populations and antiquated operations
- ASRS invested $300 million with Industry Funds Management (IFM), an Australian-based infrastructure manager that invests globally using a core strategy in an open end fund structure
  - No capital has been called as yet, but ASRS is next in the queue
  - Fund structure provides diversity of exposure across strategies and geography
  - Long term vehicle structure is aligned with long term character of assets
  - Focused on OECD countries; current portfolio invests across US, UK, and Europe
  - Investments include airports, a petroleum pipeline, power generation & transmission facilities, regulated water & wastewater treatment company, and broadcast and wireless communication infrastructure

Timber

- Timber is a permitted asset in the inflation linked group because it can provide long-term inflation protection income derived from the rising utilization of timber and shrinking forest sizes
- Timber has a low correlation with other asset classes combined with low volatility
- ASRS has has made no investments in timber but monitors the space
- Should ASRS pursue this strategy, it will seek alignment of asset and vehicle life similar to other private markets inflation-linked assets

Background of ASRS Commodities Program

- ASRS approved a 3% (0%-5%) strategic allocation to commodities in October 2009. After an in-depth search, ASRS invested just over half of the allocation with two long-only commodities investment managers
  - Gresham - $200M on 8/30/2010
    - Systematic rules-based approach is used to construct and rebalance the portfolio. A discretionary, market-driven approach is used to implement and roll commodity futures.
  - Cargill - $200M on 9/30/2010
    - Fundamental, bottom up approach using trading desks to construct a regional and global supply/demand balance sheet for each commodity market in which Cargill participates
  - ASRS legged into its allocation to avoid chasing returns and because of valuation concerns.
  - ASRS GTAA managers' benchmark also included a 3% allocation to commodities.

Background of ASRS Commodities Program (2)

- At the Board meeting on June 15, 2012, ASRS approved new strategic asset allocation policy targets which included a 4% (1%-7%) strategic allocation to commodities.
  - Over the past year, ASRS tactically changed its allocation to commodities.
    - Sep'12 – Oct'12: increased to new policy weight (4%) from modest policy underweight due to the efforts to stimulate global economies taken by major central banks (US Fed, ECB, and BOJ).
    - Jul'13: reduced exposure from policy weight to modest underweight due to fading stimulus, lack of demand driven inflationary pressures, and well supplied commodities markets
  - ASRS GTAA managers' benchmark also included a 3% allocation to commodities.

Background ASRS Commodities Program (3)

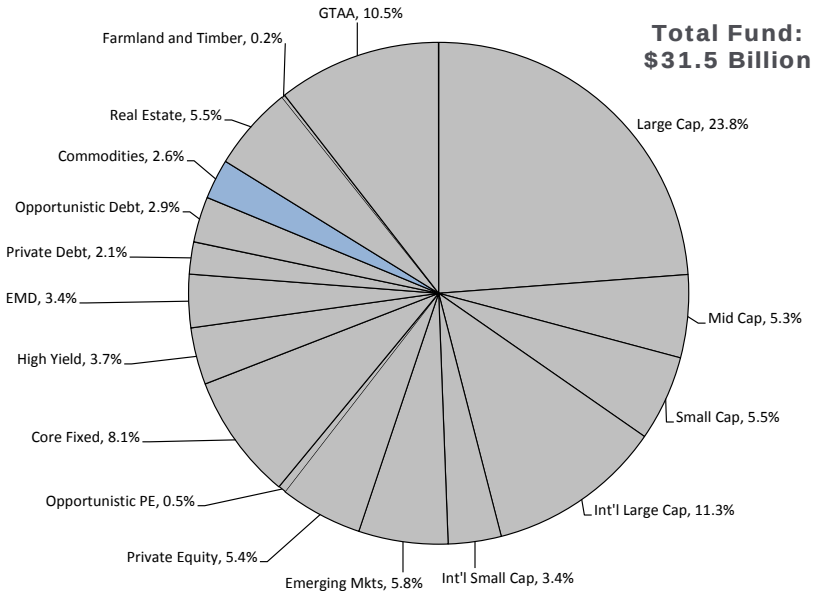
- PIMCO Double Alpha Return strategy was selected as a complement to Gresham but has not yet been funded due to market considerations
  - Two potential sources of alpha: commodities and collateral management
    - Active commodities management is done through a combination of modified roll, calendar spreads, relative value substitution trades, and volatility trading strategies
    - Collateral management utilizes PIMCO Global Advantage IL Bonds product: actively managed Global inflation-linked bonds in developed and emerging markets (EM) on a GDP weighted basis with the goal to earn a return greater than US Treasuries (collateral)
    - Developed currency can be hedged, EM is not hedged
    - Including EM: shortens the duration, reduces weighting of excessive developed borrowers, adds diversification while adding marginal incremental volatility, and offers higher expected returns
    - Low correlation of combined alpha sources to Gresham
  - Longstanding relationship with ASRS and confidence in ability to manage institutional separate accounts in a customized way
  - Competitive fees
  - While not a traditional 'commodities' manager, alpha generation has been consistent and positive
    - Predominantly from collateral management via global IL bonds, which adds diversification and is consistent with the Inflation-linked asset class mission

ASRS Commodities Asset Class Overview as of 6/30/2013

Arizona State Retirement System

ASRS Commodities Asset Class Review

- **Market Value: $810.7 M**
  - Policy Target: 4% +/- 3%
- **Investment Managers**
  - Gresham Investment Management
    - Inception: 9/30/2010
    - Portfolio: $810.7 M



Note: Domestic Equity, International Equity, Fixed Income, Real Estate and Commodities allocations exclude GTAA portfolios.

Commodities Performance

Arizona State Retirement System

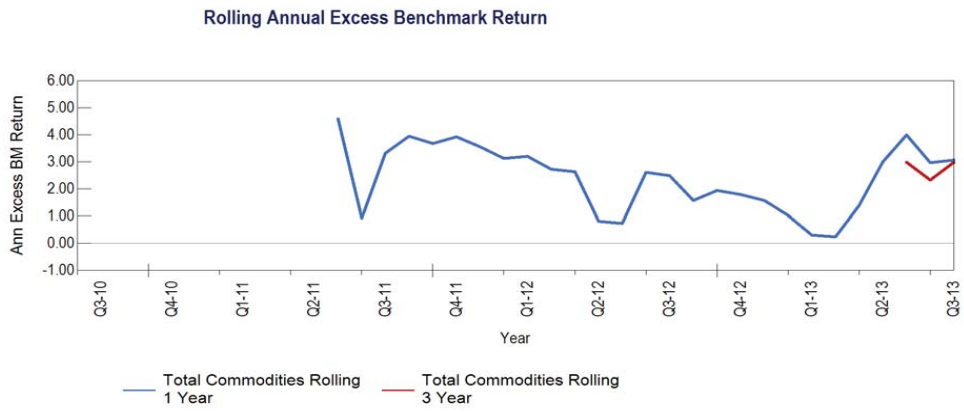
Total Inflation-Linked Assets

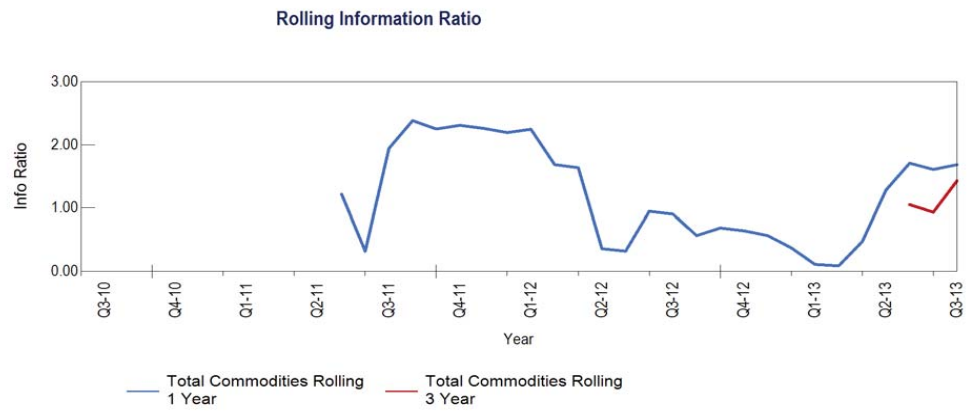
	Market Value ($)	% of Portfolio	Ending September 30, 2013 3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception Return (%)	Since
Total Inflation-Linked Assets	**810,699,135**	**2.6**	**3.8**	**-6.4**	**-11.3**	**-1.6**	**--**	**--**	**0.7**	**Feb-10**
ASRS Custom Inflation-Linked Benchmark			*2.1*	*-8.6*	*-14.3*	*-4.4*	*0.6*	*2.9*	*-1.6*	*Feb-10*
Over/Under			1.7	2.2	3.0	2.8			2.3	
Total Commodities	**810,699,135**	**2.6**	**3.8**	**-6.4**	**-11.3**	**-0.2**	**--**	**--**	**1.5**	**Sep-10**
Dow Jones-UBS Commodity Index TR			*2.1*	*-8.6*	*-14.3*	*-3.2*	*-5.3*	*2.1*	*-0.9*	*Sep-10*
Over/Under			1.7	2.2	3.0	3.0			2.4	
Gresham	810,699,135	2.6	3.8	-6.3	-10.8	0.2	--	--	2.7	Sep-10
Dow Jones-UBS Commodity Index TR			*2.1*	*-8.6*	*-14.3*	*-3.2*	*-5.3*	*2.1*	*-0.9*	*Sep-10*
Over/Under			1.7	2.3	3.5	3.4			3.6	

Commodities Excess Return

Arizona State Retirement System

Total Commodities





Commodities Profile

DJUBS Total Return Commodities Index

Weights as of 9/30/13

ENERGY	
Crude Oil	10.95%
Brent Crude	6.08%
Heating Oil	3.78%
Natural Gas	12.31%
Unleaded Gas (RBOB)	3.56%
Group SubTotal	36.7%
PRECIOUS METALS	
Gold	9.49%
Silver	3.06%
Group SubTotal	12.5%
INDUSTRIAL METALS	
Aluminum	4.74%
Copper (NY)	7.15%
Nickel	1.98%
Zinc	2.59%
Group SubTotal	16.5%
AGRICULTURE	
Corn	4.94%
Soybean	5.52%
Wheat (CBOT)	3.37%
Wheat (KC)	1.32%
Soybean Meal	2.81%
Soybean Oil	2.45%
Cotton	2.21%
Sugar	4.06%
Coffee (ICE)	2.01%
Group SubTotal	28.7%
LIVESTOCK	
Live Cattle	3.54%
Lean Hogs	2.07%
Group SubTotal	5.6%
TOTAL	100.0%

Aug-10 – Apr'11	+35%	'risk on': positive global recovery
May'11	-9%	Concerns re: Europe & global growth
Jun'11 – Aug'11	Range bound	Mixed economic results resulted in a lack of clear direction
Sep'11	-16%	'risk off': Greece, Fed Twist, double dip fears
Oct'11- Jan'12	Range bound	Mixed economic results
Feb'12 – May'12	-14%:	Concerns re: Europe & global growth
May'12 – Sep'12	+16%:	Drought driven grains rally & central bank efforts to stimulate
Oct'12 – Oct'13	-14%	China slowdown, modest economic growth, anticipation of tapering

Commodities Index: Energy

- Performance [1]
  - YTD WTI (+6%) and Brent (+3%) have been among the stronger individual commodity performers
    - Geopolitical fears have been broadly supportive although tensions in the Middle East have subsided for the time being
    - Refining margins have driven a surge in utilization and draws from Cushing supplies
    - Record supplies and moderate growth have held back more extreme upward price pressure
  - Natural gas (-6%) remains well supplied and seasonal cold-weather demand has not yet materialized
- Market Commentary and Outlook
  - The US continues to set records for production and the petroleum complex is well supplied
    - Utilization rates will likely normalize and create some upside
  - Domestic growth continues to be moderate and not likely to surge
    - Geopolitical factors are unpredictable but drive market sensitivities

[1] as of 10/30/31

Commodities Index: Precious and Industrial Metals

- Performance YTD [2]
  - Gold (-24%) and silver (-31%) have experienced significant losses as the Fed has indicated its intentions to taper quantitative easing
  - Copper (-12%) and aluminum (-15%) have performed poorly as China has experienced a slowdown while stocks have been building
- Market Commentary and Outlook
  - As a proxy for hedging against inflationary money printing and USD devaluation, gold and silver have a tepid outlook
    - Should growth weaken in the US, speculation of easing would support precious metals pricing
  - China appears to be managing a 'soft landing' economically although the robust growth experienced for several years is unlikely to return anytime soon
    - Strong stock levels will likely be met with reduced supply to keep prices from falling further
    - Supply factors have become the more dominant driver of returns
    - Should global growth pick back up to >3%, industrial metals would benefit

[2] as of 10/30/31

Commodities Index: Ags, Livestock, and Softs

- Performance YTD [3]
  - Corn (-30%) and wheat (-20%) have suffered large losses driven by improved weather relative to last year's drought while soybeans (+2%) have fared better as a result of the increased planting acreage for corn
  - Cattle (-5%) have been pressured by herd stock levels
  - Coffee (-37%) has experienced the largest losses as the market has been oversupplied
    - Currency weakness in Brazil has induced exports
- Market Commentary and Outlook
  - The weather has largely cooperated for a strong growing season in row crops. Final harvest numbers may create further downside price pressure
  - Increased grain storage capacities over the past several years dampen these effects

[3] as of 10/30/31

Commodities House Views

Primary Market Metrics & Indicators:

1. *Fundamentals:* ***NEGATIVE***
   - *The Fed held off from beginning to taper in September as it studies the impact of rising rates on the housing market, which has been leading the economic recovery. The Fed's indication to taper on a data-dependent basis diminishes the expectations of inflationary pressures.*
   - *Recent data indicates the economy has begun to find momentum although still not robust. Excluding exogenous factors, most commodity sectors appear well supplied, particularly for the current global slow growth environment.*
   - *The Midwest weather has provided good growing conditions and a strong rebound from last year's drought challenged yields. Energy prices have trended higher (particularly WTI as pipeline capacity has reduced a glut in Cushing, OK) as refinery demand has been strong and geopolitical risk factors have increased in the Middle East. Metals (particularly precious) have struggled as neither inflationary fears nor demand pick-up have materialized.*

2. *Valuations:* *NEUTRAL*
   - *Since mid-April the index has been range bound from 250 – 270 after a sell-off in the first two weeks of April on the back of weaker than expected Chinese growth data and a tepid U.S. inflation picture*
   - *Year-to-date, cotton, crude oil, and soybean meal have been the leaders with corn, gold and silver being the biggest laggards.*
   - *The index on a year-to-date basis is down 8%, as inflation dynamics are not particularly robust.*

3. *Sentiment:* *NEGATIVE*
   - *The improvement in macroeconomic sentiment in the U.S. year-to-date has been counterbalanced by a transitioning Chinese economy and therefore not resulted in flows into commodities.*
   - *Supply shocks have been largely absent, keeping supply concerns largely abated while central banks continue to manage their influence, leading to balanced prospects.*
   - *Looking across the individual commodities, most remain well supplied, which has been reflected in prices as inflationary fears have abated.*

Commentary:
IMD tactically reduced its exposure to commodities to an underweight relative to the SAAP after recognizing the potential effects of Fed tapering and Chinese transition. IMD recognizes that Fed tapering will be data dependent but the Fed has been clear about its intention to reduce stimulus. China's transition to a more consumer oriented economy will be gradual but the era of infrastructure build-out which fueled a portion of the demand for commodities is abating.

IMD will closely monitor the growth and inflation dynamics globally with improving economic conditions and inflationary pressures serving as a catalyst which may initiate a neutral position.