Public Employees' Retirement Board

February 9, 2012

Topic: EIAC Appointment

Recommended Board motion:

Appoint Steve Johnson, Director – Human Resources – Missoula County to EIAC.

Mr. Johnson would replace Ron Alles, who resigned from EIAC October 2011. Recommended to the committee by EIAC members Stoll and Schneider, Mr Johnson would become the local government representative and would serve out Mr. Alles's three year term which is scheduled to expire July 31, 2014.

☐ Approve recommended EIAC appointment

☐ Recommend _____

_____

_____

_____
Moved by

_____
Seconded by

_____
Vote

Public Employees' Retirement Board

February 9, 2012

Topic: **Remove Dodge & Cox Balanced Fund from 457(b) investment options.**

Based on a recommendation from Wilshire Investment Consultants, EIAC recommends replacing the Dodge & Cox Balanced Fund (DODBX) with the Vanguard Balanced Index Fund (VBAIX) in the 457(b) plan effective May 21, 2012.

Rationale: The Dodge & Cox Balanced fund has been on probation status for since September 2010 due to poor performance and failure to meet standards outlined in the 457 plan investment policy statement.

Timeline:

1. **2/20/2012 – Written notification to participants currently investing in Dodge & Cox Balanced fund of fund termination.**
2. **4/1/2012 – Add VBAIX to 457(b) fund options.**
3. **5/21/2012 – transfer any remaining investments from DODBX to VBAIX.**
4. **5/21/2012 – at close of market, DODBX is closed to new investment.**

Recommended Board motion:

☐ Move to accept EIAC's recommendation to replace the Dodge & Cox with Vanguard Balanced Index Fund in the 457(b) plan.

☐ Recommend _____.

_____

_____

_____
Moved by

_____
Seconded by

_____
Vote

Q. Do we need a balanced fund w/TDF?

Wilshire

State of Montana 457
Balanced Fund Search

Michael C. Schlachter, CFA – Managing Director

January 2012

Balanced Funds Manager Search Criteria

W Wilshire

1. Investment Philosophy:
   - Style = **Balanced Fund**
   - Management philosophy = **Active**
2. Mutual Fund open to new assets
3. Minimum 3-year track record
4. Morningstar Rating ≥ 3-Stars for three and five year periods

Balanced Funds List

Wilshire

Finalist Manager List	Product	Ticker
American Funds	American Balanced	ABALX
American Funds	Fund of America	AMECX
Dodge & Cox	Balanced*	DODBX
Fidelity	Balanced	FBALX
Fidelity	Puritan	FPURX
T.Rowe Price	Capital Appreciation	PRWCX
Vanguard	Balanced Index**	VBAIX
Vanguard	Wellington	VWENX

* Dodge & Cox Balanced is the current balanced fund option in the 457 Plan

** Vanguard BalancedIndex fund is the option in the 401(a) Plan

Balanced Funds' Comparative Information

Wilshire

Firm / Product	Product Assets Under Mgmt. ($MM)	Product Inception	Fund Structure	Firm Location	Firm Assets under Mgmt ($MM)	Firm Inception
American Funds Balanced	$49,400	1933	Mutual Fund	Los Angeles, CA	$1,104,553	1931
American Funds FoA	$68,000	1970	Mutual Fund	Los Angeles, CA	$1,104,553	1931
Dodge & Cox	$12,200	1931	Mutual Fund	Boston, MA	$171,354	1930
Fidelity Balanced	$19,500	1986	Mutual Fund	Boston, MA	$153,616	1946
Fidelity Puritan	$18,300	1947	Mutual Fund	Boston, MA	$153,616	1946
T Rowe Price Cap App	$11,100	1986	Mutual Fund	Baltimore, MD	$453,000	1937
Vanguard Balanced Index	$11,500	2000	Mutual Fund	Malvern, PA	$1,766,494	1975
Vanguard Wellington	$55,600	2001	Mutual Fund	Malvern, PA	$1,766,494	1975

Firm / Product	3Yr Sharpe Ratio	5Yr Sharpe Ratio	12 Month Standard Deviation	Stated Fees	Actual Fee**	Mandate/ Product Assets
American Funds Balanced	0.97	0.14	10.79	0.63%	$83,160	0.03%
American Funds FoA	1.06	0.10	10.16	0.58%	$76,560	0.02%
Dodge & Cox	0.76	-0.04	14.41	0.53%	$69,960	0.11%
Fidelity Balanced	1.09	0.12	10.39	0.60%	$79,200	0.07%
Fidelity Puritan	1.04	0.10	11.23	0.59%	$77,880	0.07%
T Rowe Price Cap App	1.14	0.22	12.84	0.70%	$92,400	0.12%
Vanguard Balanced Index	1.05	0.22	9.89	0.08%	$10,560	0.11%
Vanguard Wellington	0.98	0.24	10.63	0.22%	$29,040	0.02%
60/40 Balanced - 60 S&P500 / 40 Barc Agg	0.98	0.11	9.28	N/A	N/A	N/A

Statistics are as of 12/31/2011

** Based on a $13.2MM Account Size

Fee is super P&W

Balanced Funds' Facts

Wilshire

Fund	Ticker	Overall Morningstar Rating	Expense Ratio	Max 12b-1 Fee	Manager Tenure	Product Asset Size (Mil)	# of Securities Held	
							Equity	Fixed Income
American Funds Balanced	ABALX	★★★	0.63%	0.24%	7.0 years	$ 49,400	124	517
American Funds FoA	AMECX	★★★	0.58%	0.24%	14.9 years	$ 68,000	146	1,174
Dodge & Cox	DODBX	★★	0.53%	n/a	14.8 years	$ 12,200	77	235
Fidelity Balanced	FBALX	★★★★	0.60%	n/a	3.1 years	$ 19,500	274	1,035
Fidelity Puritan	FPURX	★★★★	0.59%	n/a	6.8 years	$ 18,300	246	1,046
T Rowe Price Cap App	PRWCX	★★★★★	0.70%	n/a	5.6 years	$ 11,100	61	74
Vanguard Balanced Index	VBAIX	★★★★	0.08%	n/a	8.8 years	$ 11,500	3,153	4,959
Vanguard Wellington	VWENX	★★★★★	0.22%	n/a	9.6 years	$ 55,600	100	838

Fund	Asset Allocation					Avg Equity Market Cap	Fixed Income	
	US Equity	Non-US Equity	Fixed Income	Cash	Other		Avg Duration	Avg Quality
American Funds Balanced	61%	6%	28%	4%	1%	$ 54,909	4.65	AA
American Funds FoA	44%	15%	31%	5%	4%	$ 33,240	4.33	BB
Dodge & Cox	61%	13%	23%	5%	-2%	$ 36,161	3.70	BBB
Fidelity Balanced	53%	8%	33%	4%	3%	$ 34,235	--	--
Fidelity Puritan	57%	8%	31%	4%	0%	$ 36,294	--	--
T Rowe Price Cap App	64%	6%	13%	11%	6%	$ 31,346	3.74	B
Vanguard Balanced Index	58%	0%	39%	3%	1%	$ 25,301	5.09	AA
Vanguard Wellington	54%	9%	35%	2%	1%	$ 60,575	5.93	A

Fund	Overall Morningstar Rating	Morningstar 3-Year Rating	Morningstar 5-Year Rating	Morningstar 10-Year Rating
American Funds Balanced	★★★	★★★	★★★	★★★
American Funds FoA	★★★	★★★	★★	★★★★
Dodge & Cox	★★	★★★	★	★★★
Fidelity Balanced	★★★★	★★★★	★★★	★★★★
Fidelity Puritan	★★★★	★★★★	★★★	★★★★
T Rowe Price Cap App	★★★★★	★★★★	★★★★★	★★★★★
Vanguard Balanced Index	★★★★	★★★★	★★★★	★★★★
Vanguard Wellington	★★★★★	★★★★	★★★★	★★★★★

Balanced Funds' Comparative Annual Performance

Wilshire

Absolute Returns	2011 Return	2011 Rank	2010 Return	2010 Rank	2009 Return	2009 Rank	2008 Return	2008 Rank	2007 Return	2007 Rank
American Funds Bal;A (ABALX)	3.83	*5%*	13.04	*26%*	21.08	*69%*	-25.72	*40%*	6.60	*43%*
American Funds Inc;A (AMECX)	5.59	*2%*	11.96	*45%*	24.49	*39%*	-28.85	*70%*	3.77	*84%*
Dodge & Cox Balanced (DODBX)	-1.65	*74%*	12.22	*39%*	28.36	*15%*	-33.56	*95%*	1.73	*95%*
Fidelity Balanced (FBALX)	1.68	*25%*	13.76	*15%*	28.05	*16%*	-31.30	*87%*	8.99	*13%*
Fidelity Puritan (FPURX)	0.68	*40%*	14.04	*12%*	26.71	*24%*	-29.16	*73%*	6.17	*52%*
T Rowe Price Cap App (PRWCX)	3.18	*9%*	14.05	*12%*	33.05	*3%*	-27.19	*58%*	4.56	*78%*
Vanguard Bal Index;Inst (VBAIX)	4.31	*3%*	13.33	*21%*	20.17	*76%*	-22.09	*17%*	6.34	*49%*
Vanguard Wellington;Adm (VWENX)	3.94	*4%*	11.03	*65%*	22.34	*57%*	-22.23	*18%*	8.48	*20%*
60/40 Balanced - 60 S&P500 / 40 Barc Agg	**4.70**	*3%*	**12.10**	*43%*	**17.67**	*88%*	**-22.07**	*17%*	**5.84**	*58%*
# of Products		*129*		*124*		*120*		*117*		*107*

Excess Returns	2011	2010	2009	2008	2007
American Funds Bal;A (ABALX)	(0.83)	0.83	2.90	(4.69)	0.71
American Funds Inc;A (AMECX)	0.85	(0.13)	5.79	(8.70)	(1.96)
Dodge & Cox Balanced (DODBX)	(6.07)	0.10	9.09	(14.75)	(3.88)
Fidelity Balanced (FBALX)	(2.88)	1.48	8.82	(11.84)	2.97
Fidelity Puritan (FPURX)	(3.84)	1.73	7.69	(9.09)	0.32
T Rowe Price Cap App (PRWCX)	(1.45)	1.74	13.07	(6.57)	(1.21)
Vanguard Bal Index;Inst (VBAIX)	(0.37)	1.09	2.13	(0.02)	0.48
Vanguard Wellington;Adm (VWENX)	(0.73)	(0.95)	3.97	(0.20)	2.49

Balanced Funds' Comparative Cumulative Performance

Wilshire

Cumulative Periods
as of December 31, 2011

Absolute Returns	QUARTER Return	QUARTER Rank	1 YEAR Return	1 YEAR Rank	3 YEARS Return	3 YEARS Rank	5 YEARS Return	5 YEARS Rank	10 YEARS Return	10 YEARS Rank
American Funds Bal;A (ABALX)	7.89	*18%*	3.83	*5%*	12.43	*24%*	2.38	*25%*	4.98	*16%*
American Funds Inc;A (AMECX)	8.46	*8%*	5.59	*2%*	13.74	*6%*	1.67	*43%*	6.22	*4%*
Dodge & Cox Balanced (DODBX)	8.45	*8%*	-1.65	*74%*	12.31	*27%*	-0.87	*93%*	4.75	*21%*
Fidelity Balanced (FBALX)	6.30	*55%*	1.68	*25%*	13.99	*5%*	2.09	*33%*	5.96	*5%*
Fidelity Puritan (FPURX)	6.25	*56%*	0.68	*40%*	13.31	*10%*	1.82	*40%*	4.92	*17%*
T Rowe Price Cap App (PRWCX)	9.96	*2%*	3.18	*9%*	16.12	*2%*	3.58	*7%*	7.81	*0%*
Vanguard Bal Index;Inst (VBAIX)	7.70	*23%*	4.31	*3%*	12.41	*24%*	3.31	*9%*	5.01	*15%*
Vanguard Wellington;Adm (VWENX)	8.26	*10%*	3.94	*4%*	12.19	*30%*	3.56	*7%*	6.28	*4%*
60/40 Balanced - 60 S&P500 / 40 Barc Agg	**7.54**	*27%*	**4.70**	*3%*	**11.36**	*51%*	**2.64**	*19%*	**4.26**	*36%*
# of Products		*741*		*732*		*693*		*612*		*269*

Excess Returns	Quarter	1 year	3 years	5 years	10 years
American Funds Bal;A (ABALX)	(1.61)	(0.49)	(0.16)	(0.28)	0.72
American Funds Inc;A (AMECX)	(1.36)	(0.87)	0.46	(0.72)	1.60
Dodge & Cox Balanced (DODBX)	(7.64)	(4.64)	(1.18)	(3.50)	0.57
Fidelity Balanced (FBALX)	(1.54)	(0.69)	1.18	(0.16)	1.80
Fidelity Puritan (FPURX)	(2.82)	(0.98)	0.74	(0.36)	0.72
T Rowe Price Cap App (PRWCX)	(4.55)	(0.93)	0.65	0.74	3.09
Vanguard Bal Index;Inst (VBAIX)	(0.73)	0.05	0.65	0.67	0.76
Vanguard Wellington;Adm (VWENX)	(1.77)	(1.47)	0.97	0.96	1.93

* only one of positive performance

Balanced Funds' Excess Risk and Return

Wilshire

3 Years as of 12/31/2011 Manager versus 60/40 Balanced - 60 S&P500 / 40 Barc Agg	Excess Risk	Excess Return	Info Ratio
American Funds Balanced	1.84	0.95	0.52
American Funds FoA	3.03	2.14	0.71
Fidelity Balanced	2.42	2.36	0.98
Fidelity Puritan	2.56	1.75	0.68
T Rowe Price Cap App	4.13	4.27	1.03
Vanguard Wellington	2.30	0.74	0.32
Dodge & Cox	6.14	0.85	0.14
Vanguard Balanced Index	0.74	0.94	1.27

5 Years as of 12/31/2011 Manager versus 60/40 Balanced - 60 S&P500 / 40 Barc Agg	Excess Risk	Excess Return	Info Ratio
American Funds Balanced	1.95	-0.25	-0.13
American Funds FoA	3.36	-0.94	-0.28
Fidelity Balanced	4.05	-0.53	-0.13
Fidelity Puritan	2.99	-0.80	-0.27
T Rowe Price Cap App	5.24	0.91	0.17
Vanguard Wellington	2.38	0.90	0.38
Dodge & Cox	6.46	-3.42	-0.53
Vanguard Balanced Index	0.77	0.66	0.86

- Excess Risk = Standard deviation of excess returns
- Excess Return = Returns greater than those produced by the benchmark
- Information Ratio = Excess Return divided by Excess Risk

Balanced Funds' Up and Down Market Analysis

Wilshire

3-Year Analysis As of 12/31/2011

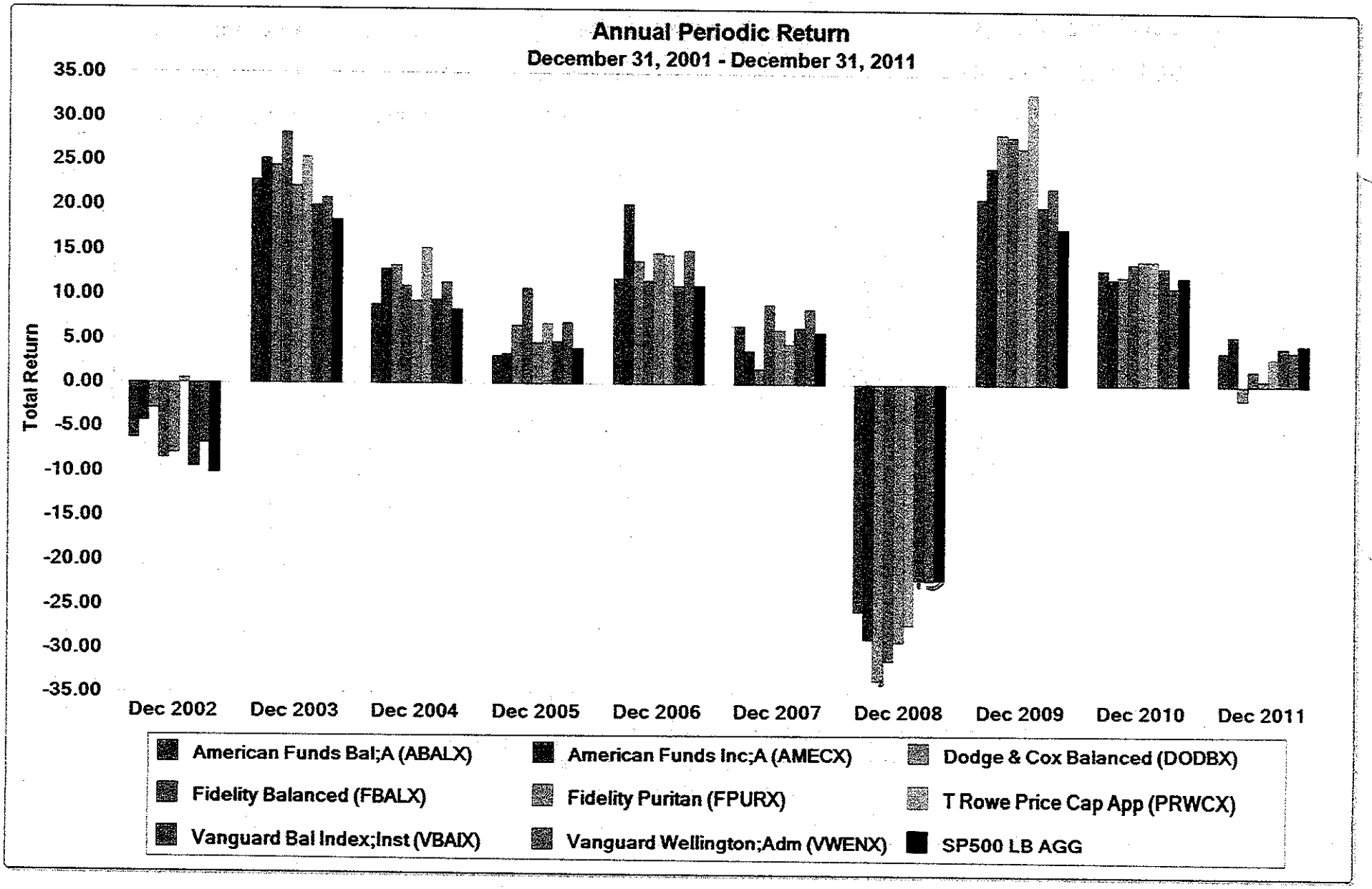
Manager	Up Capture (3yr Monthly Data)	Down Capture (3yr Montly Data)	Avg. Value-Add in Up Markets	Avg. Value-Add in Down Markets	Consistency (% of Months + Excess Return)
American Funds Balanced	1.13	1.08	0.28	-0.23	50%
American Funds FoA	1.21	1.08	0.44	-0.22	58%
Dodge & Cox	1.56	1.48	1.10	-1.52	53%
Fidelity Balanced	1.21	1.07	0.44	-0.19	61%
Fidelity Puritan	1.22	1.12	0.46	-0.35	72%
T Rowe Price Cap App	1.37	1.15	0.75	-0.26	67%
Vanguard Balanced Index	1.07	1.01	0.14	-0.02	61%
Vanguard Wellington	1.12	1.08	0.25	-0.23	44%

5-Year Analysis As of 12/31/2011

Manager	Up Capture (5yr Monthly Data)	Down Capture (5yr Montly Data)	Avg. Value-Add in Up Markets	Avg. Value-Add in Down Markets	Consistency (% of Months + Excess Return)
American Funds Balanced	1.12	1.08	0.21	-0.30	43%
American Funds FoA	1.22	1.15	0.36	-0.61	52%
Dodge & Cox	1.52	1.34	0.79	-1.57	47%
Fidelity Balanced	1.31	1.16	0.49	-0.68	58%
Fidelity Puritan	1.23	1.15	0.37	-0.60	65%
T Rowe Price Cap App	1.43	1.05	0.67	-0.62	63%
Vanguard Balanced Index	1.07	1.01	0.13	-0.03	57%
Vanguard Wellington	1.15	1.04	0.25	-0.14	50%

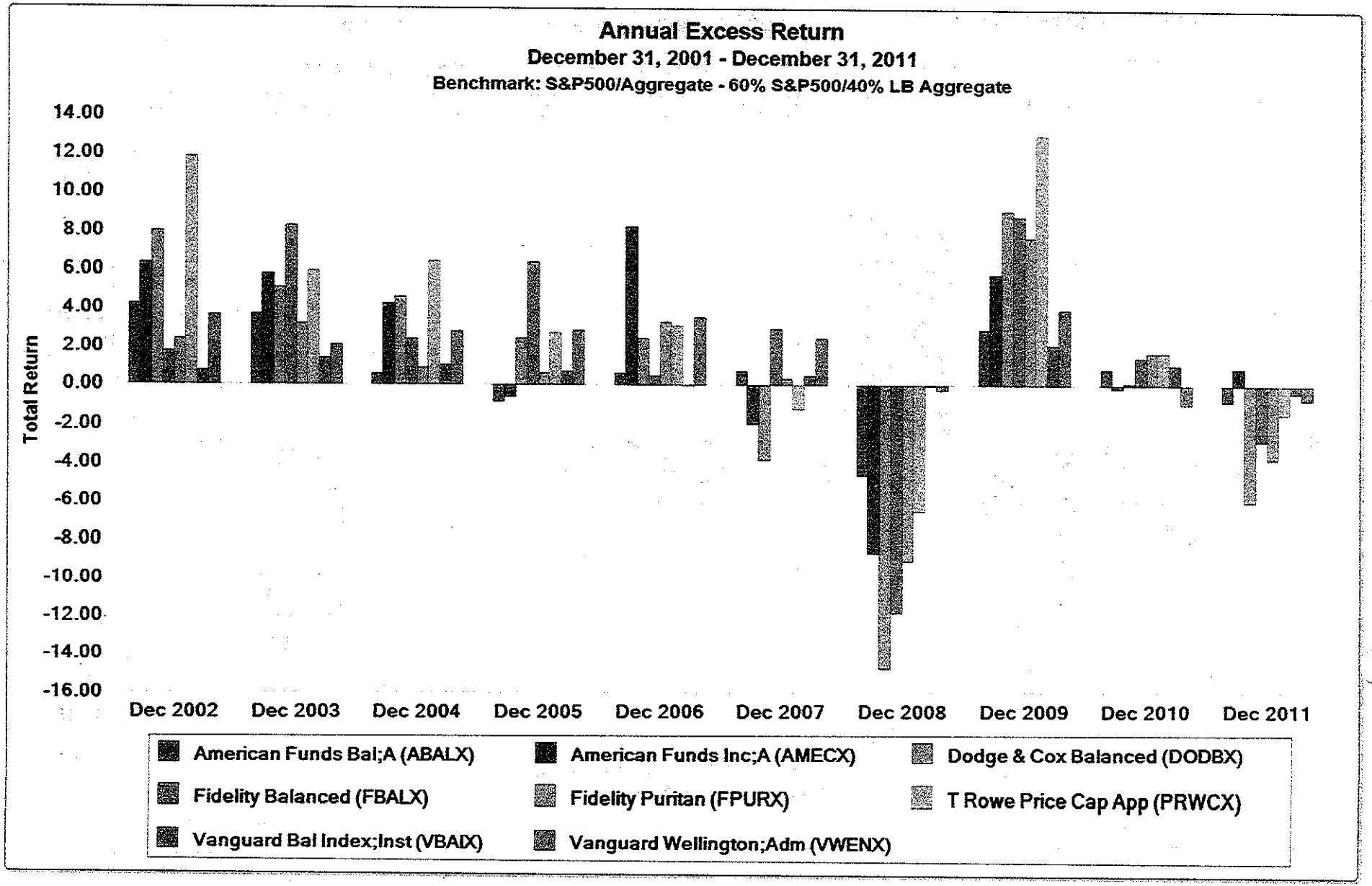
Balanced Funds' Annual Returns

Wilshire



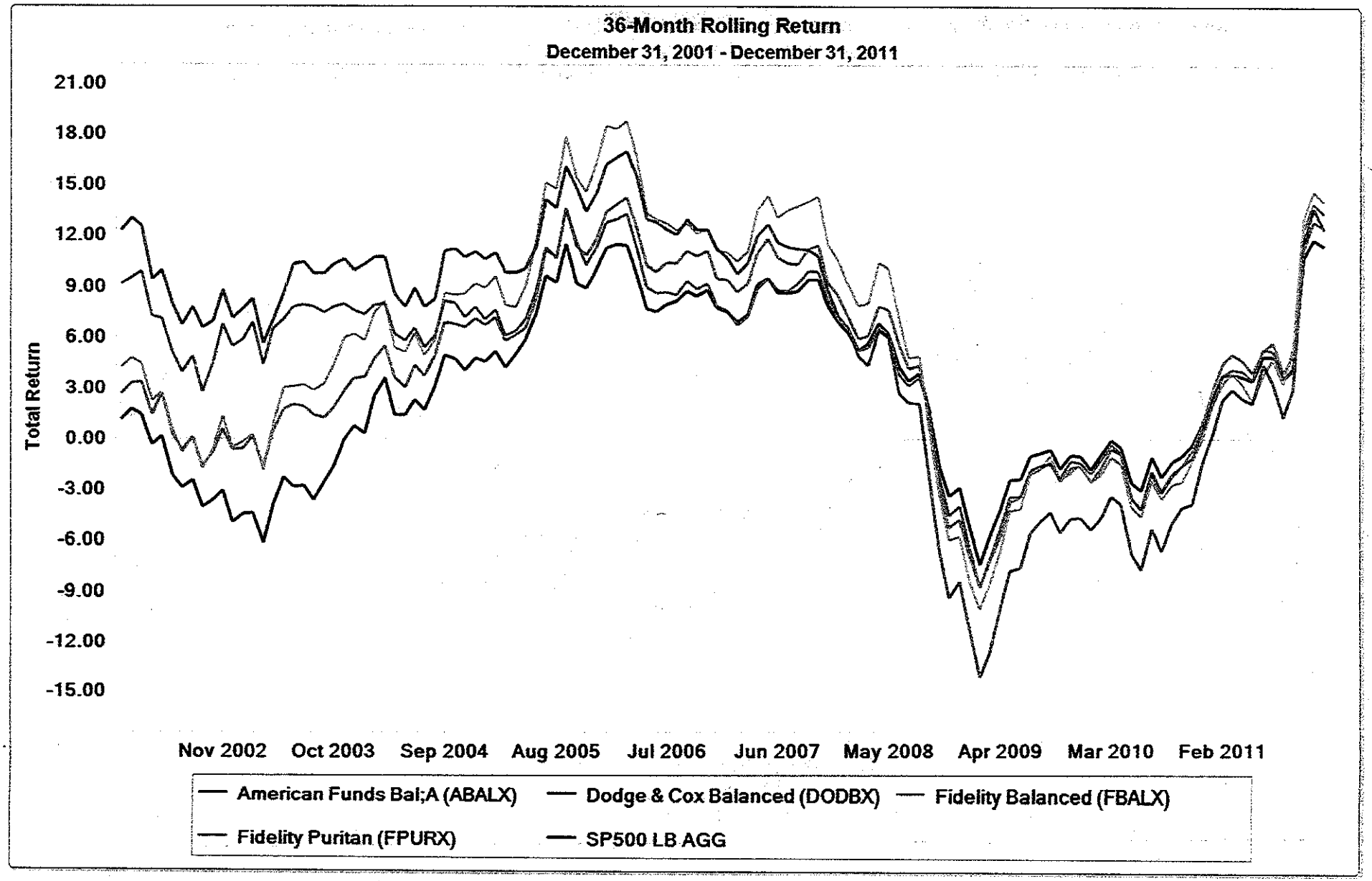
Balanced Funds' Annual Excess Returns

Wilshire



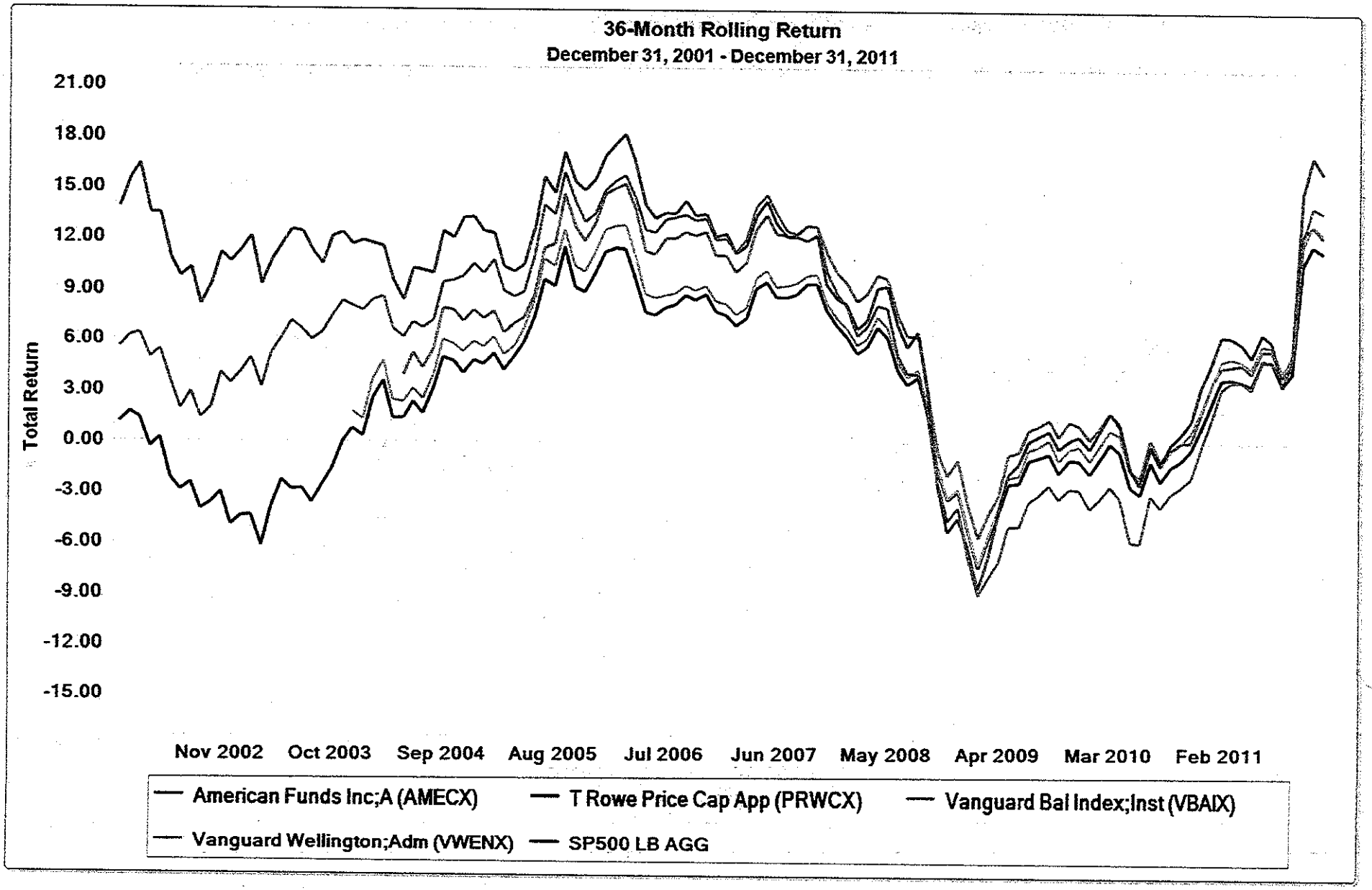
36 Month Rolling Return

Wilshire



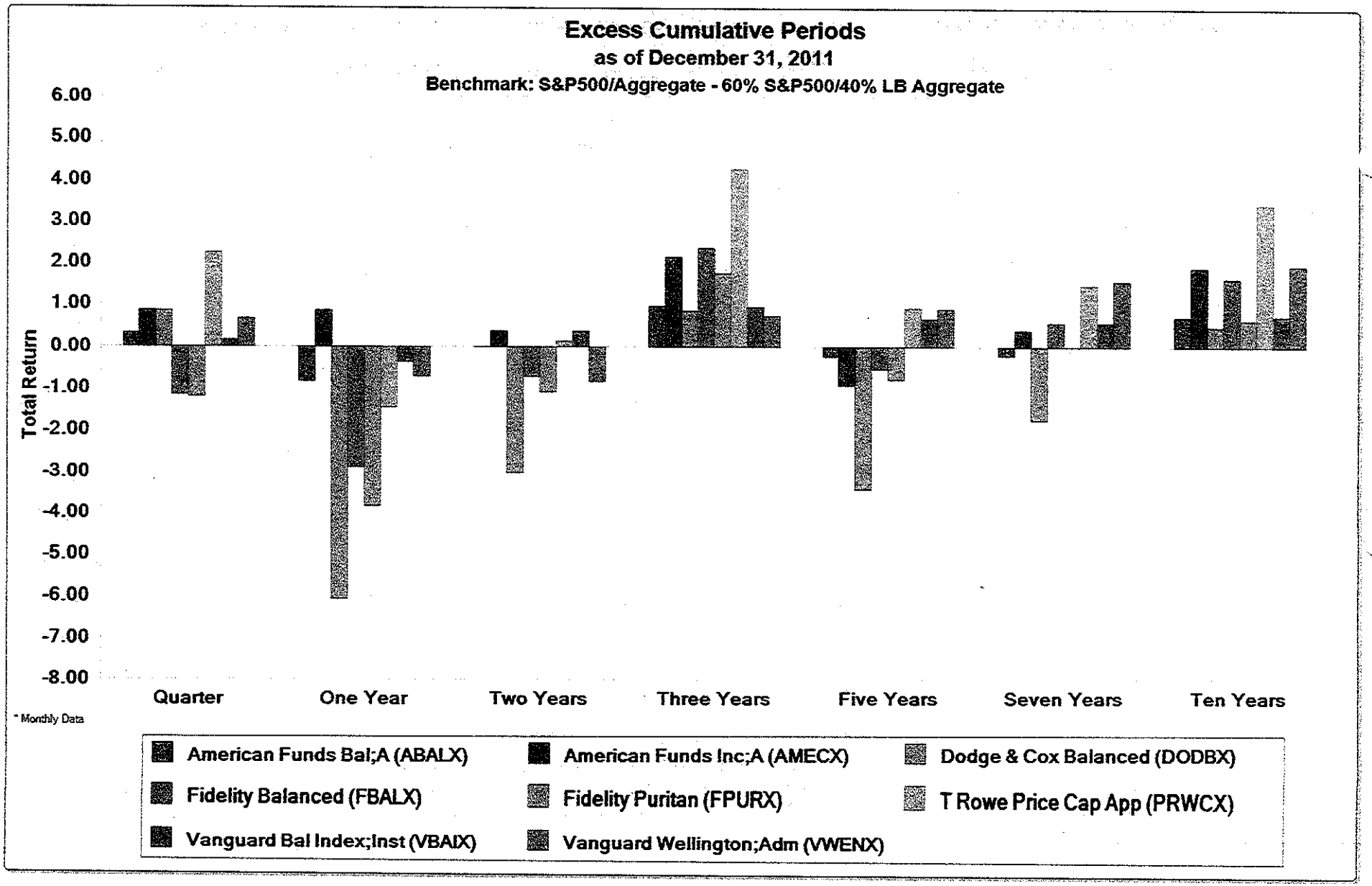
36 Month Rolling Return Continued

Wilshire



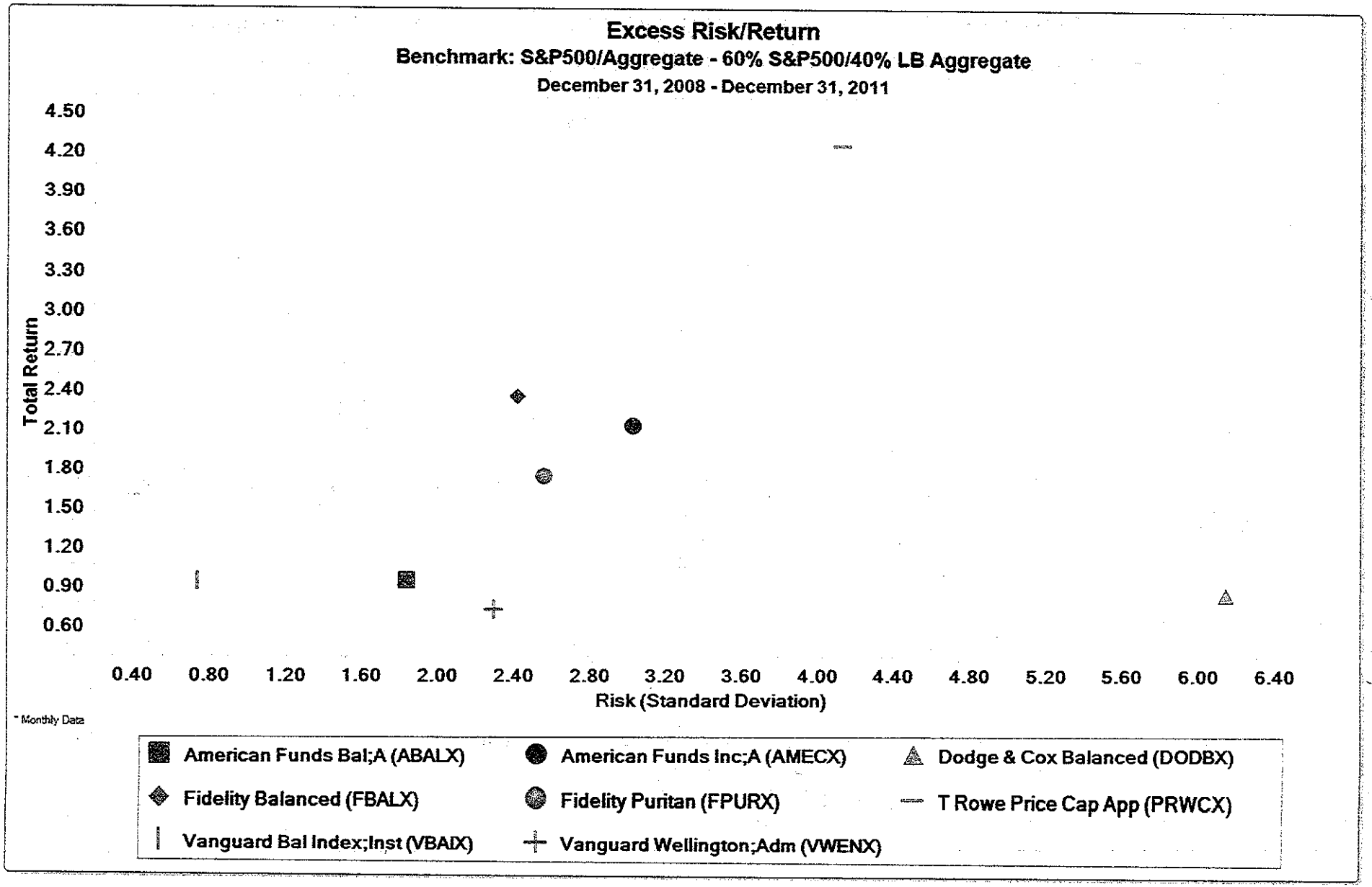
Balanced Funds' Cumulative Period Excess Returns

Wilshire



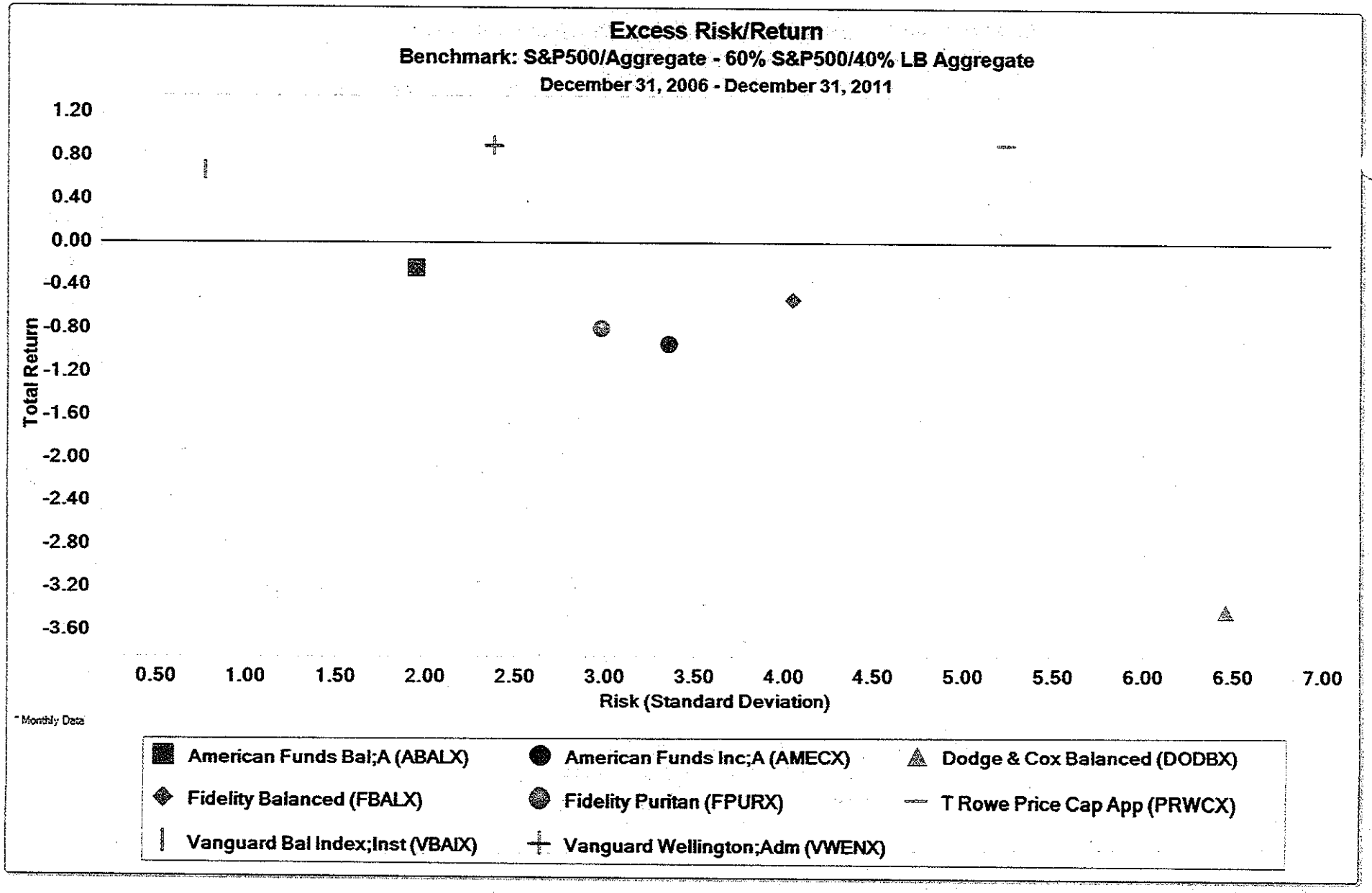
Balanced Funds' 3-Year Excess Risk versus Return

Wilshire



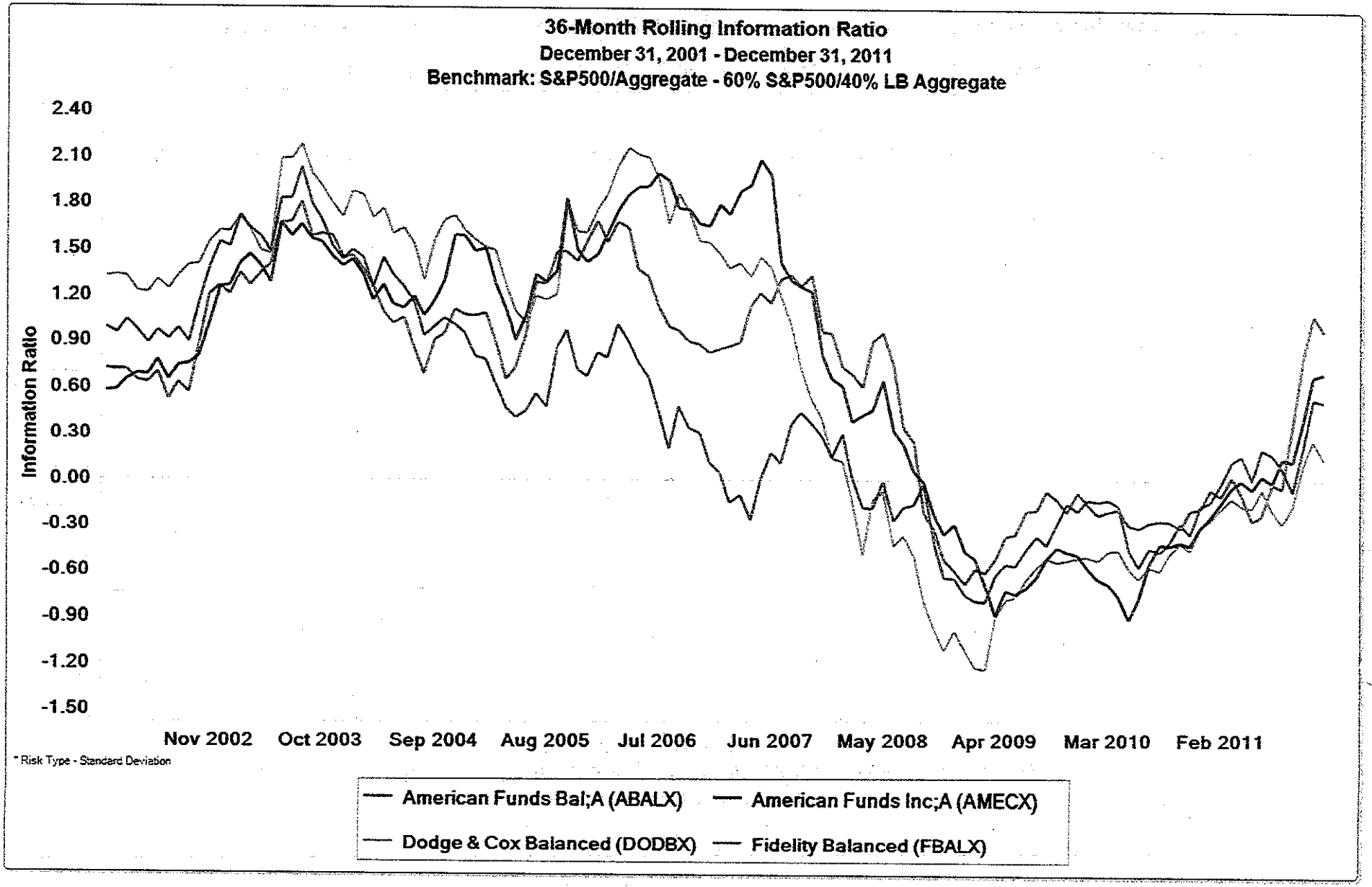
Balanced Funds' 5-Year Excess Risk versus Return

Wilshire



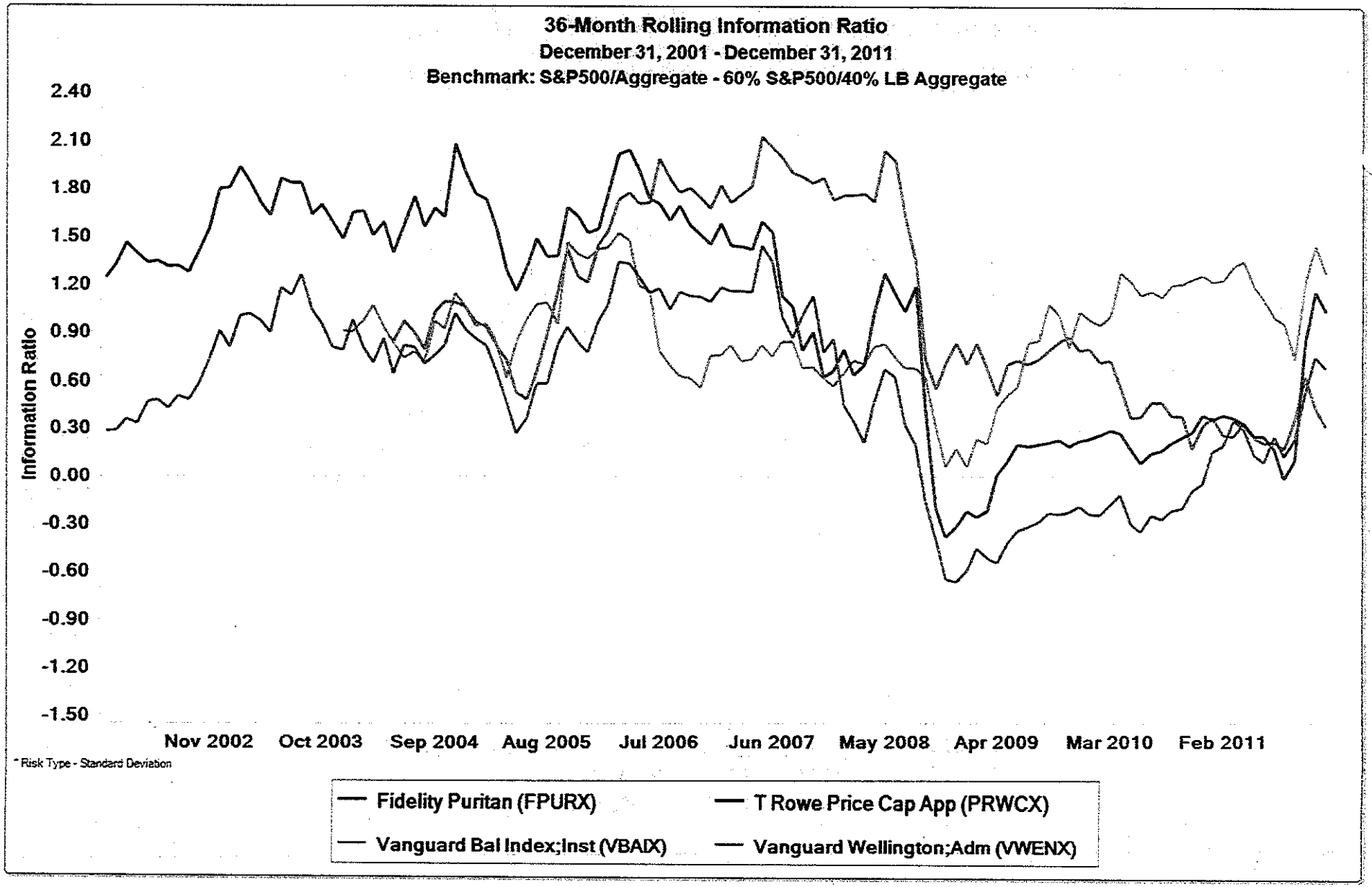
Balanced Funds' Rolling 3-Year Information Ratio

Wilshire



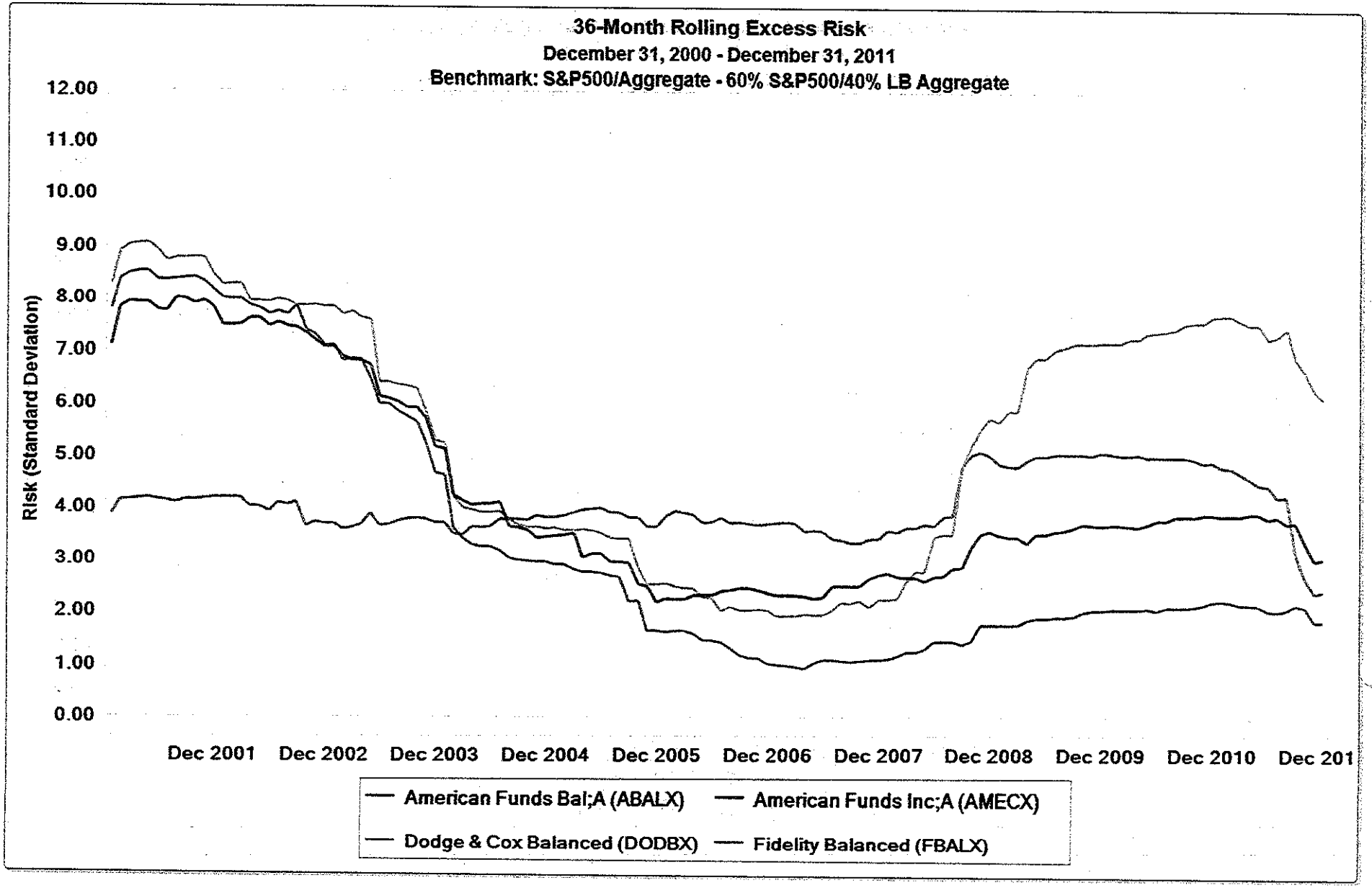
Balanced Funds' Rolling 3-Year Information Ratio Continued

Wilshire



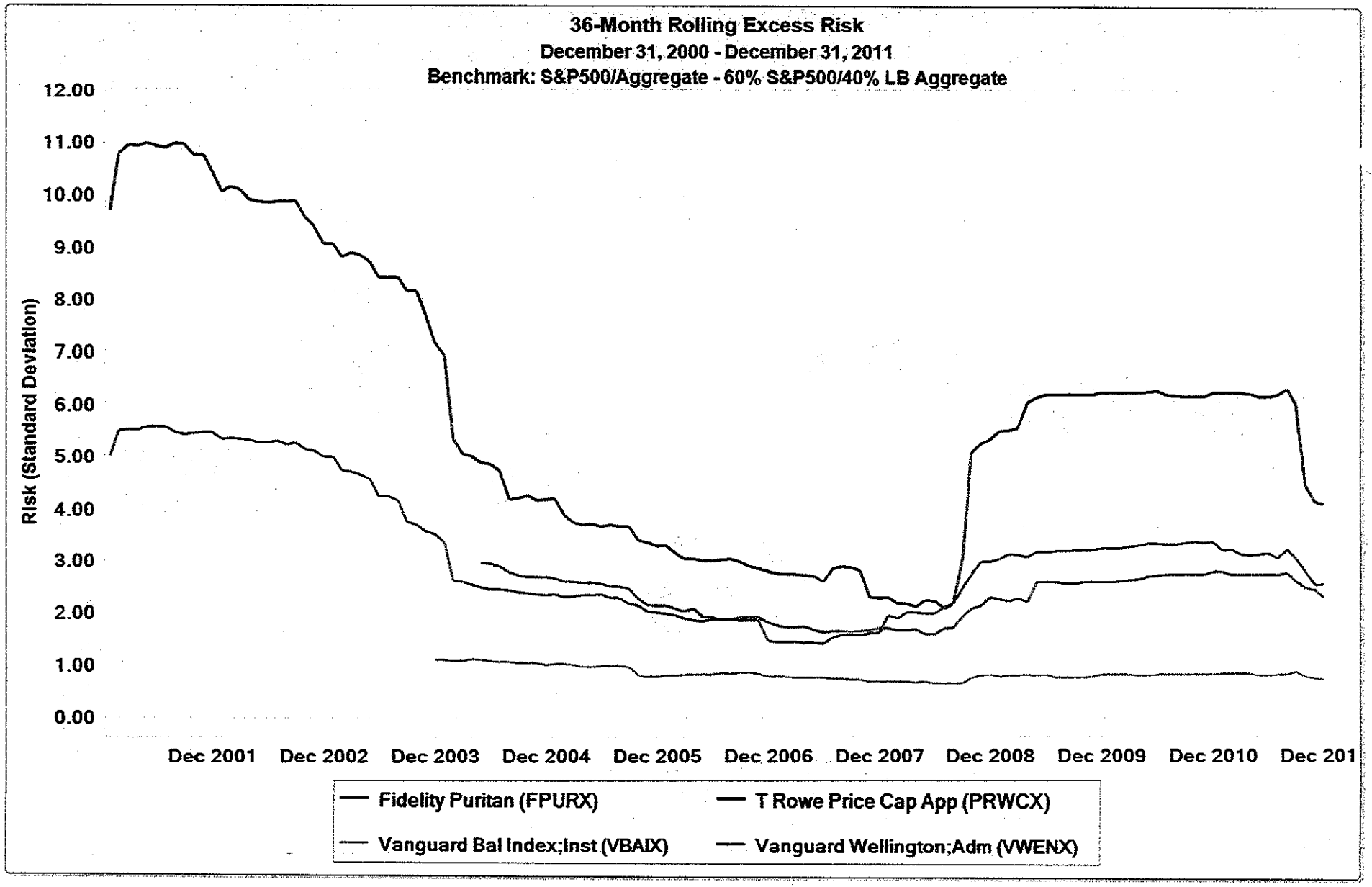
Balanced Funds' 3-Year Excess Rolling Risk

Wilshire



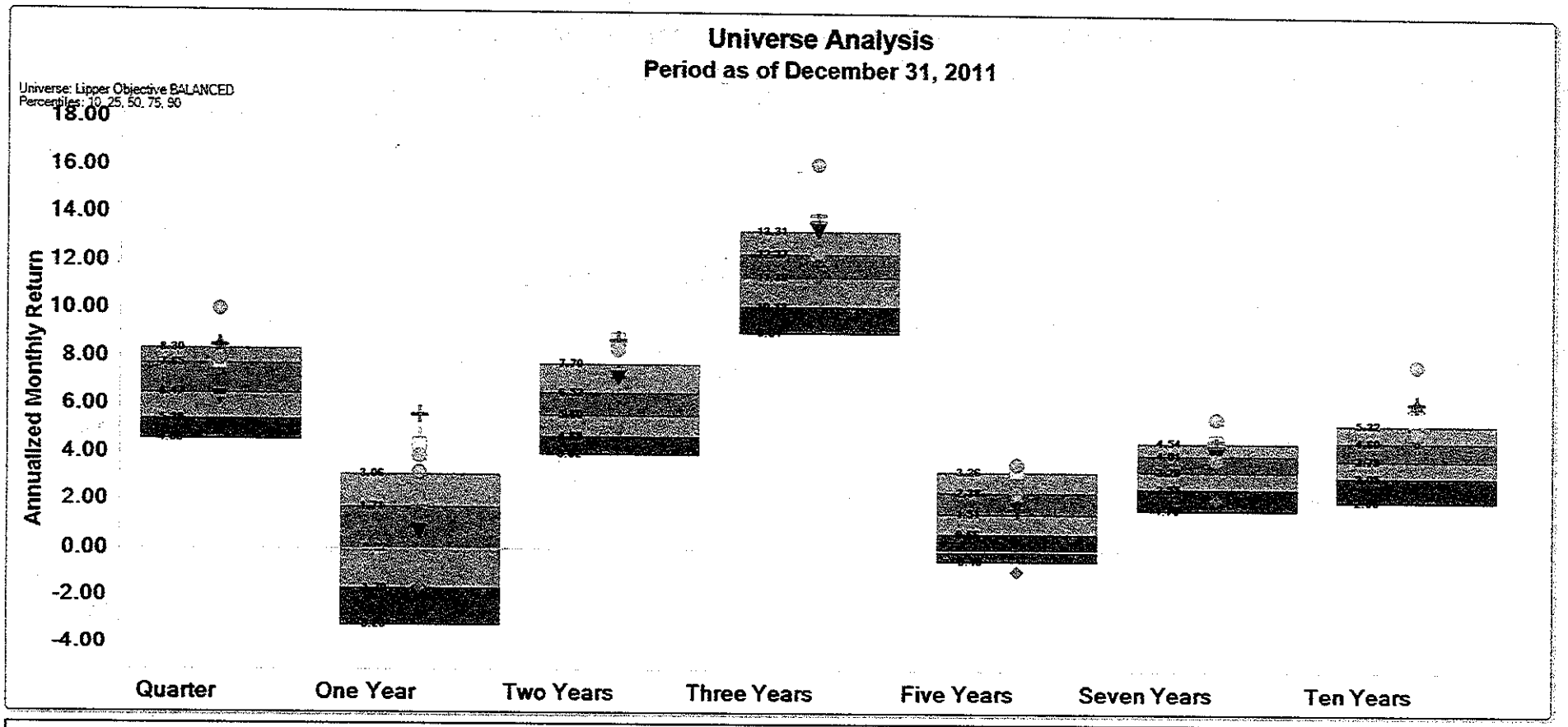
Balanced Funds' 3-Year Excess Rolling Risk Continued

Wilshire



Balanced Funds' Universe Comparison

Wilshire



	Quarter	One Year	Two Years	Three Years	Five Years	Seven Years	Ten Years
American Funds Bal;A (ABALX)	7.89 (18%)	3.83 (5%)	8.33 (7%)	12.43 (24%)	2.38 (25%)	3.79 (31%)	4.98 (16%)
American Funds Inc;A (AMECX)	8.46 (8%)	5.59 (2%)	8.73 (4%)	13.74 (6%)	1.67 (43%)	4.40 (14%)	6.22 (4%)
Dodge & Cox Balanced (DODBX)	8.45 (8%)	-1.65 (74%)	5.05 (64%)	12.31 (27%)	-0.87 (93%)	2.17 (82%)	4.75 (21%)
Fidelity Balanced (FBALX)	6.30 (56%)	1.68 (25%)	7.55 (11%)	13.99 (5%)	2.09 (33%)	4.61 (9%)	5.96 (5%)
Fidelity Puritan (FPURX)	6.25 (56%)	0.68 (40%)	7.15 (15%)	13.31 (10%)	1.82 (40%)	3.99 (26%)	4.92 (17%)
T.Rowe Price Cap App (PRWCX)	9.96 (2%)	3.18 (9%)	8.48 (6%)	16.12 (2%)	3.58 (7%)	5.55 (3%)	7.81 (1%)
Vanguard Bal Index;Inst (VBAIX)	7.70 (23%)	4.31 (3%)	8.73 (4%)	12.41 (24%)	3.31 (9%)	4.60 (9%)	5.01 (15%)
Vanguard Wellington;Adm (VWENX)	8.26 (10%)	3.94 (4%)	7.43 (12%)	12.19 (30%)	3.56 (7%)	5.62 (3%)	6.28 (4%)
SP500 LB AGG	7.54 (27%)	4.70 (3%)	8.34 (7%)	11.36 (51%)	2.64 (19%)	4.00 (25%)	4.26 (36%)
# of Products	741	732	716	693	612	458	269

Form ADV Regulatory Disclosure Review

Wilshire

Wilshire reviewed the SEC Form ADV Part I and IIA (as posted on the SEC investment advisor search website at http://www.adviserinfo.sec.gov) of each investment manager in the table below only to determine whether the manager had made any disclosures in the listed categories. If the manager disclosed information in a category, it is the client's responsibility to review and assess the provided information. The information was collected as of the date(s) indicated and may change. Wilshire assumes no responsibility for the accuracy of the information provided by a manager.

		ADV Part I		ADV Part IIA		
		Item 11: Disclosure Information		Item 9: Disciplinary Information	Item 19 (D): Requirements for State-Registered Advisors	
Investment Manager	Date of Review	Form ADV Part I Date	Disclosure (Yes or No)	Disclosure (Yes or No)	Form ADV Part IIA Date	Disclosure (Yes or No)
Capital Research Group	01/12/2012	03/31/2011	No	No	N/A	N/A
Dodge & Cox	01/12/2012	03/31/2011	No	No	N/A	N/A
Fidelity	01/12/2012	05/31/2011	Yes	Yes	N/A	N/A
T. Rowe Price	01/12/2012	03/30/2011	No	No	N/A	N/A
Vanguard	01/12/2012	03/31/2011	Yes	No	N/A	N/A

This material is intended for informational purposes only and should not be construed as legal, investment, or other professional advice. The information is as of the date(s) indicated, and are subject to change without notice. If disclosures were noted, you should consult with your legal counsel to make an assessment on the materiality.

Conclusion

Wilshire

- Wilshire believes that the Vanguard Balanced Index Fund represents the best overall choice for the State of Montana based on the Fund's:
  - Strong and consistent performance,
  - Low risk profile,
  - High Sharpe ratios over three and five year periods, and
  - Very competitive fees

Public Employees' Retirement Board

February 9, 2012

Topic: **Remove American Funds Growth Fund of American from 401(a) investment options.**

Based on a recommendation from Wilshire Investment Consultants, EIAC recommends replacing the American Funds Growth Fund (AGTHX) with the Alger Capital Appreciation Z (ACAZX) 401(a) plan effective May 21, 2012.

Rationale: The American Funds Growth Fund has been on probation status since June 2011 due to poor performance and failure to meet standards outlined in the 401(a) plan investment policy statement.

Timeline:

1. **2/20/2012 – Written notification to participants currently investing in American Funds Growth fund of fund termination.**
2. **4/1/2012 – Add ACAZX to fund options.**
3. **5/21/2012 – transfer any remaining investments from AGTHX to ACAZX.**
4. **5/21/2012 – at close of market, AGTHX is closed to new investment.**

Recommended Board motion:

☐ Move to accept EIAC's recommendation to replace the American Funds Growth Fund with Alger Capital Appreciation Z in the 401(a) plan investment options.

☐ Recommend _____.

_____

_____

_____
Moved by

_____
Seconded by

_____
Vote

Wilshire

State of Montana 401(a)

Large Growth Fund Replacement Recommendation

Michael C. Schlachter, CFA
Managing Director

January 2012

Screening Considerations

Wilshire

- To filter through the **large cap growth** mutual fund universe, the follow criteria were applied:
  - Open to new assets
  - Minimum 5-year track record
  - Expense ratio below group average
  - Performance in or near top quartile for both 3- and 5-year periods
  - Sharpe ratio above group average for both 3- and 5-year periods
  - Portfolio manager tenure > 3 years
  - Total strategy assets > $500 MM
  - Portfolio constructed without high concentration (# of holdings to be > 50)

Candidate List

Wilshire

- Based on the implemented criteria, Wilshire identified the following names that represent the top strategies with solid risk-adjusted performance, stable investment management team, well diversified portfolio and competitive expense ratios within the large cap growth mutual fund universe:
  - Alger Capital Appreciation Z (ACAZX) *
  - American Century Ultra Investor (TWCUX)
  - *American Funds Growth Fund of America A (AGTHX) ***
  - *Fidelity Contrafund (FCNTX) ***
  - JP Morgan Large Cap Growth Select (SEEGX)
  - MFS Growth R4 (MFEJX)
  - T. Rowe Price Growth Stock (PRGFX)

** Due to the short track record of the Z-share class, Alger Capital Appreciation I (ALARX) will be used as a proxy in the analysis.*

*** American Funds Growth Fund of America is the current large growth manager for the 401(a) plan; the Fidelity Contrafund is the current large growth manager for the 457 plan – both managers will be shown for comparison purposes.*

- The following slides provide information on each fund's basic profile, track record, and fees.

(Fred) Alger – Capital Appreciation

- Fred Alger excels in its information gathering and bottom-up stock selection efforts, though its portfolio construction process is not particularly noteworthy. The team seeks to invest in companies undergoing "Positive Dynamic Change" that demonstrate high unit volume growth and positive life cycle changes. The final portfolio contains 85-120 securities with a high annual turnover rate. Overall Wilshire considers Fred Alger's Growth strategy suitable for our institutional investors who are seeking a large cap fundamentally-based growth manager. It should be noted, however, that the firm concentrates on controlling risk through stock selection, not portfolio construction.

American Century – Ultra

- American Century's Large Growth portfolio scores relatively well due to its clear and repeatable forecasting process, solid portfolio construction methods and its excellent trading abilities. While the team has historically exhibited turnover, all current members have been with the group since at least 2005. Going forward, Wilshire plans to continue monitoring the firm for any signs of additional flux, which may allude to increased organizational risk and a fundamental problem at the organization level. Overall, the success of the product is directly tied to the quality of the individuals involved, the stability of the team, and the ability to gather and process fundamental information. This strategy is considered suitable for our institutional clients for stand-alone or multi-manager mandates.

JP Morgan – Large Cap Growth

- The JPMorgan Large Cap Growth strategy in its current form dates back to July 31, 2004. The team is led by Portfolio Manager Giri Devulapally who is assisted by three dedicated and experienced large cap growth analysts as well as the greater resources of the JPMorgan organization. The strategy is a traditional growth product with a momentum bias and a slight opportunistic tilt that seeks to identify companies that are delivering significantly higher growth than expectations. Given the momentum bias, the strategy tends to do well in extended market trends and will often struggle a bit during major market inflections. The final portfolio consists of 60-90 conviction weighted names and tends to have a top heavy bias during favorable market environments and a more flat positioning during unfavorable periods. Tracking error is expected to fall around the 4-7% range over a full market cycle with annual turnover typically falling around the 60% range. Overall, the JPMorgan Large Cap Growth strategy is an attractive option worthy of consideration for active large cap growth mandates.

MFS – Growth Equity

- MFS offers an attractive fundamental bottom-up primarily Large Cap Growth strategy that greatly benefits from the firm's extensive analyst pool. While the investment process is not particularly distinctive in nature, the team has been able to successfully execute the product in a number of market environments. The product tends to perform best on the upside while maintaining its alpha in down markets. The portfolio contains about 125 conviction weighted securities with an expected tracking error of 3-7% and annual turnover that typically falls around the 100% range. Overall, the strategy is a recommended option for either stand-alone or multi-manager mandates.

T. Rowe Price - Growth Stock

- The T. Rowe Price Growth Stock Fund invests in large cap growth companies and was the first mutual fund offering of T. Rowe Price; it was incepted in 1950. The strategy is currently managed by Robert Bartolo and benefits from the firm's grassroots fundamental research to construct a diversified portfolio of 100-125 stocks. In October 2007, Robert Smith internally transferred his Growth Stock Portfolio Management responsibilities to Robert Bartolo in order to become the lead Portfolio Manager for some of the firm's international equity strategies. The team believes that long-term growth in earnings and cash flow drive equity returns and large companies that can deliver sustainable double digit earnings and cash flow growth are rare and often under-appreciated by the market.

Qualitative Scores by Wilshire's Manager Research Group

Wilshire

Manager / Product	OVERALL	Organization (20%)	Information (20%)	Forecasting (20%)	Portfolio Construction (20%)	Implementation (10%)	Attribution (10%)
Alger Capital Appreciation	**3.20**	3.00	3.75	3.50	2.75	3.00	3.00
American Century Ultra	**3.43**	2.50	3.25	3.75	3.75	4.25	3.50
JP Morgan Large Cap Growth Fund	**3.33**	3.00	3.50	3.75	3.00	3.50	3.25
MFS Growth R4	**3.23**	2.50	3.75	3.75	3.25	2.50	3.25
T. Rowe Price Growth Stock	**3.38**	3.75	4.00	3.25	2.75	3.25	3.00

Score Legend: 5 Excellent, 4 Good, 3 Above Average, 2 Below Average, 1 Unacceptable.

Comparative Information

Wilshire

Manager/Product	Morningstar Rating	Product Inception	Product AUM ($MM)	Firm AUM ($MM)	Firm Inception	Firm Location	Manager Tenure
Alger Capital Appreciation	★★★★ 1st choice	1993	$1,288	$17,075	1964	New York, NY	7.3 Years
American Century Ultra	★★★★	1981	$5,924	$113,000	1958	Kansas City, MO	3.1 Years
American Funds Growth FoA	★★★	1973	$122,115	$1,300,000	1931	San Francisco, CA	11.8 Years
Fidelity Contrafund	★★★★	1967	$73,007	$1,522,700	1946	Boston, MA	21.3 Years
JP Morgan Large Cap Growth Fund	★★★★★ 2nd choice	1992	$3,338	$1,300,000	1871	New York, NY	6.5 Years
MFS Growth R4	★★★★★	1986	$3,928	$206,491	1924	Boston, MA	9.8 Years
T. Rowe Price Growth Stock	★★★★ 3rd choice	1950	$25,265	$453,500	1937	Baltimore, MD	4.3 Years

Manager/Product	# of Holdings	Avg Market Cap ($MM)	P/E Ratio	12 Mo. Std Deviation	Stated Expense Ratio*	Minimum Initial Investment	Actual Fee**	Mandate/ Product Assets**
Alger Capital Appreciation	131	$29,417	12.53	18.72	0.97%	$0	$ 42,876	0.34%
American Century Ultra	78	$35,735	13.79	18.25	0.99%	$2,500	$ 43,760	0.07%
American Funds Growth FoA	473	$32,246	12.43	16.94	0.68%	$250	$ 30,058	0.00%
Fidelity Contrafund	411	$35,687	16.84	15.30	0.91%	$2,500	$ 40,224	0.01%
JP Morgan Large Cap Growth Fund	69	$36,376	18.16	15.66	0.91%	$1,000,000	$ 40,224	0.13%
MFS Growth R4	102	$31,765	17.70	15.47	0.90%	$0	$ 39,782	0.11%
T. Rowe Price Growth Stock	119	$32,358	15.41	17.97	0.70%	$2,500	$ 30,942	0.02%

* Category average = 1.36% / Average of the five candidates = 0.89%

** Mandate size based on $4.42MM

fees accross growth 730 BPS

Comparative Performance – Calendar Year

Wilshire

NOT COMPARE

Manager/Product	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
	Annual Calendar Year Returns As of 12/31/11											
Alger Capital Appreciation	-1.03	13.49	49.12	-43.89	31.63	18.23	14.74	8.03	34.24	-34.42	-16.86	-25.87
American Century Ultra	1.20	16.57	35.37	-41.74	21.83	-3.28	2.12	10.69	25.83	-23.15	-14.61	-19.91
Fidelity Contrafund	-0.13	16.94	29.20	-37.17	19.78	11.54	16.23	15.07	27.95	-9.63	-12.59	-6.80
JP Morgan Large Cap Growth Fund	2.91	22.63	34.82	-39.56	23.70	6.21	4.90	7.02	27.28	-28.38	-20.32	-24.01
MFS Growth R4	-0.37	15.96	38.50	-37.42	21.01	7.71	-.-	-.-	-.-	-.-	-.-	-.-
T. Rowe Price Growth Stock	-0.98	16.91	43.22	-42.26	10.37	14.05	6.56	10.24	31.23	-23.00	-9.79	27
American Funds Growth Fund of America *	-4.88	12.30	34.49	-39.08	10.95	10.94	14.23	11.95	32.90	-22.02	-12.28	7.49
Wilshire Large Growth Index	*-0.66*	*15.02*	*36.88*	*-37.49*	*10.97*	*9.14*	*7.13*	*9.53*	*27.46*	*-26.73*	*-20.57*	*-23.80*

Manager/Product	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
	Excess Annual Calendar Year Returns (versus Wilshire Large Growth Index) As of 12/31/11											
Alger Capital Appreciation	(3.56)	(2.77)	8.68	(8.87)	17.72	8.39	8.99	1.63	3.46	(9.06)	4.47	(4.45)
American Century Ultra	1.87	1.35	(1.10)	(6.79)	9.78	(11.39)	(4.68)	1.06	(1.28)	4.89	7.51	5.11
Fidelity Contrafund	(2.69)	0.18	(5.83)	2.05	7.12	2.25	10.41	8.25	(1.39)	25.32	9.84	20.14
JP Morgan Large Cap Growth Fund	3.59	6.61	(1.50)	(3.30)	11.47	(2.68)	(2.08)	(2.30)	(0.14)	(2.25)	0.32	(0.26)
MFS Growth R4	(2.93)	(0.65)	0.94	1.65	8.22	(1.26)	-.-	-.-	-.-	-.-	-.-	
T. Rowe Price Growth Stock	(3.52)	0.16	4.38	(6.21)	(1.30)	4.55	1.22	3.70	1.13	6.78	13.35	26
American Funds Growth Fund of America *	(7.32)	(3.79)	(1.98)	(1.04)	(0.77)	1.71	8.51	5.31	2.42	8.14	10.23	38.56

* Target to be replaced

Comparative Performance – Cumulative

Wilshire

Correct.

Manager/Product	Annualized Cumulative Returns As of 12/31/11					
	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Alger Capital Appreciation	-1.03	5.98	18.76	4.34	7.68	4.79
American Century Ultra	1.20	8.62	16.89	2.54	1.63	1.83
Fidelity Contrafund	-0.13	8.07	14.70	2.58	5.68	6.95
JP Morgan Large Cap Growth Fund	2.91	12.34	19.38	4.93	5.11	3.29
MFS Growth R4	-0.37	7.48	16.96	3.91	-.-	-.-
T. Rowe Price Growth Stock	-0.98	7.60	18.36	1.11	3.64	3.65
American Funds Growth Fund of America *	-4.88	3.35	12.84	-0.58	3.01	3.63
Wilshire - U.S. Large Growth Index	*-0.66*	*6.90*	*16.08*	*1.64*	*3.46*	*2.64*

Manager/Product	Excess Returns (versus Wilshire Large Growth Index) As of 12/31/11					
	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Alger Capital Appreciation	(0.37)	(0.85)	2.31	2.66	4.08	2.09
American Century Ultra	1.87	1.61	0.70	0.88	(1.77)	(0.79)
Fidelity Contrafund	0.53	1.10	(1.19)	0.92	2.15	4.20
JP Morgan Large Cap Growth Fund	3.59	5.09	2.85	3.24	1.60	0.64
MFS Growth R4	0.28	0.55	0.76	2.24	-.-	-.-
T. Rowe Price Growth Stock	(0.32)	0.66	1.97	(0.53)	0.18	0.98
American Funds Growth Fund of America *	(4.25)	(3.31)	(2.79)	(2.19)	(0.43)	0.96

* Target to be replaced

Excess Risk and Return

Wilshire

3 - Year as of 12/31/11 (versus Wilshire Large Growth Index)				
Manager/Product	Excess Risk	Excess Return	Sharpe Ratio*	Info Ratio
Alger Capital Appreciation	4.01	2.31	0.96	0.58
American Century Ultra	2.80	0.70	0.88	0.25
Fidelity Contrafund	5.08	-1.19	0.90	-0.23
JP Morgan Large Cap Growth Fund	4.66	2.85	1.06	0.61
MFS Growth R4	3.27	0.76	0.93	0.23
T. Rowe Price Growth Stock	3.59	1.97	0.96	0.55
American Funds Growth Fund of America	3.19	-2.79	0.70	-0.88

** Category average = 0.8*

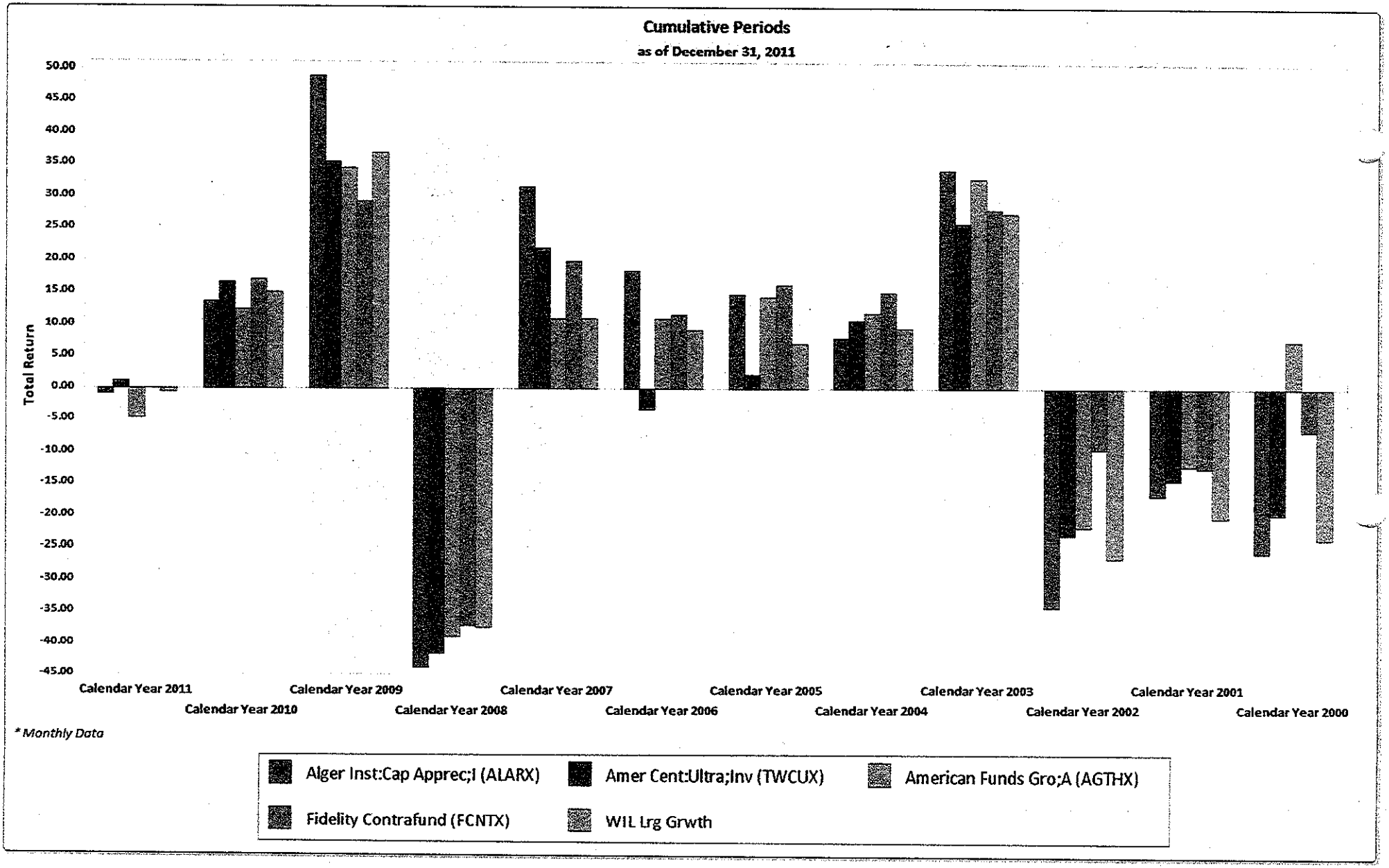
5 - Year as of 12/31/11 (versus Wilshire Large Growth Index)				
Manager/Product	Excess Risk	Excess Return	Sharpe Ratio*	Info Ratio
Alger Capital Appreciation	5.27	2.66	0.13	0.50
American Century Ultra	3.83	0.88	0.05	0.23
Fidelity Contrafund	4.88	0.92	0.06	0.19
JP Morgan Large Cap Growth Fund	5.23	3.24	0.17	0.62
MFS Growth R4	3.53	2.24	0.12	0.63
T. Rowe Price Growth Stock	3.53	-0.53	-0.02	-0.15
American Funds Growth Fund of America	3.08	-2.19	-0.11	-0.71

** Category average = -0.04*

- Excess Risk = Standard deviation of excess returns
- Excess Return = Returns greater than those produced by the benchmark
- Sharpe Ratio = Excess return over the risk-free rate per unit of deviation (divided by excess risk)
- Information Ratio = Excess Return divided by Excess Risk

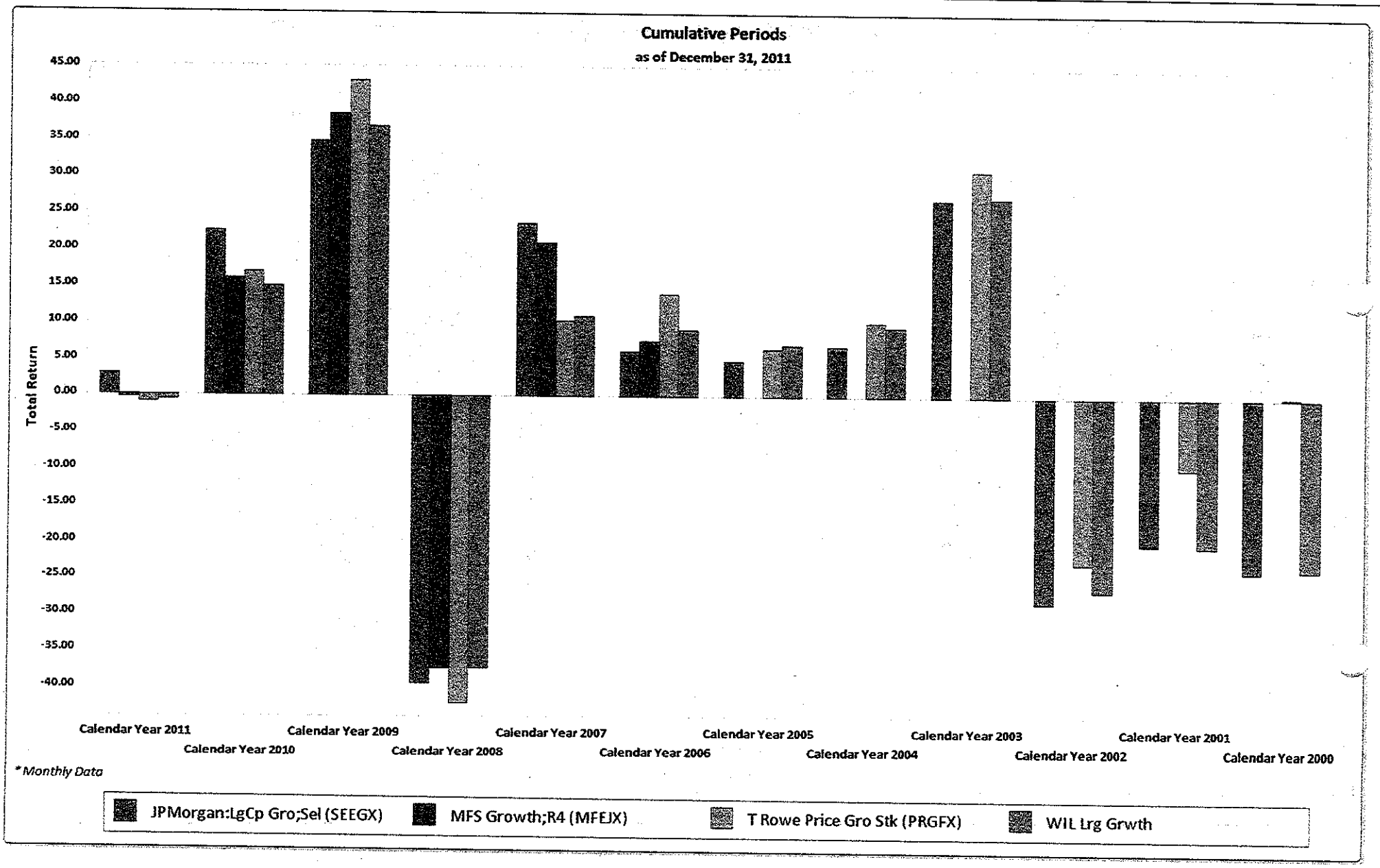
Calendar Year Returns (1 of 2)

Wilshire



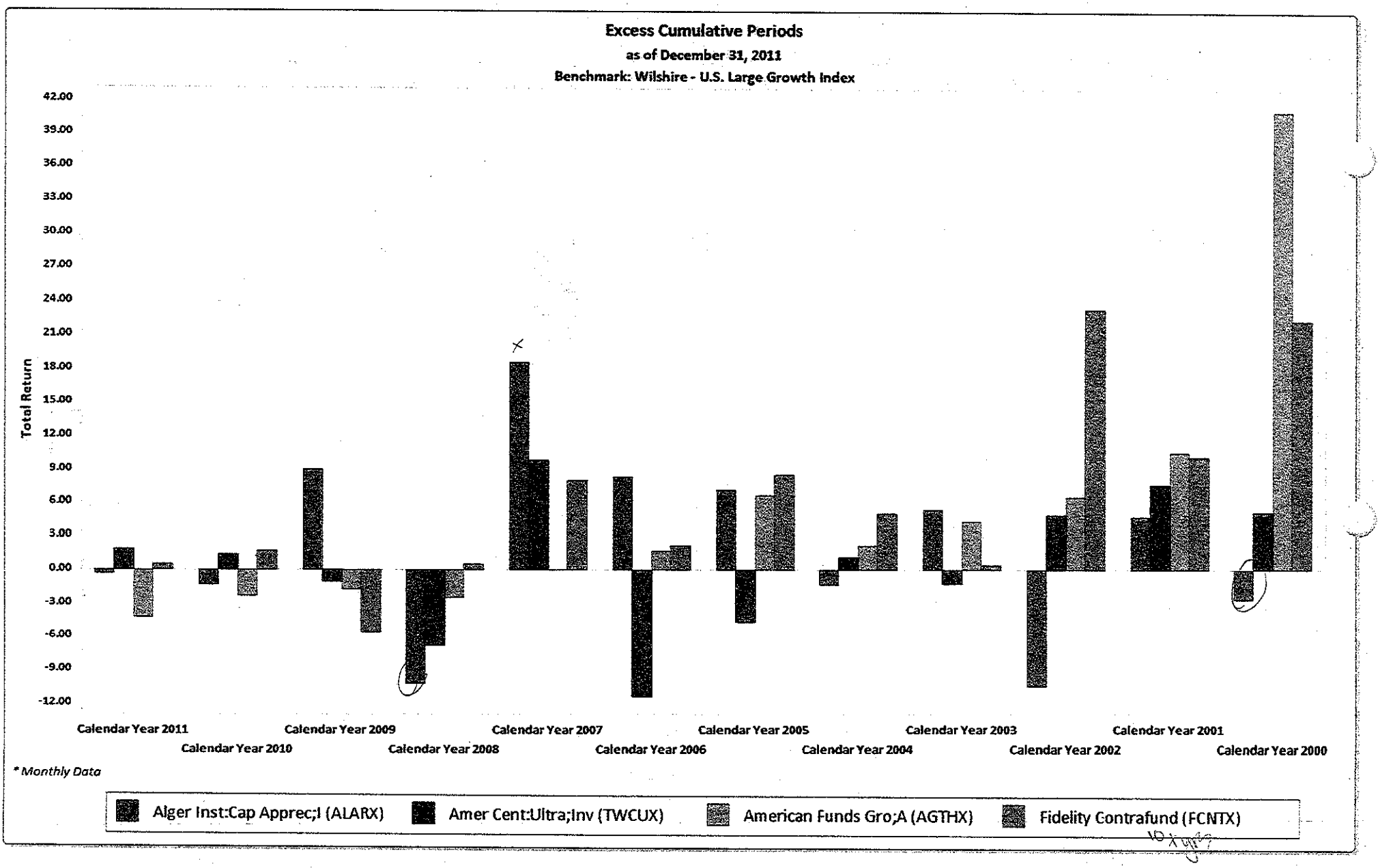
Calendar Year Returns (2 of 2)

Wilshire



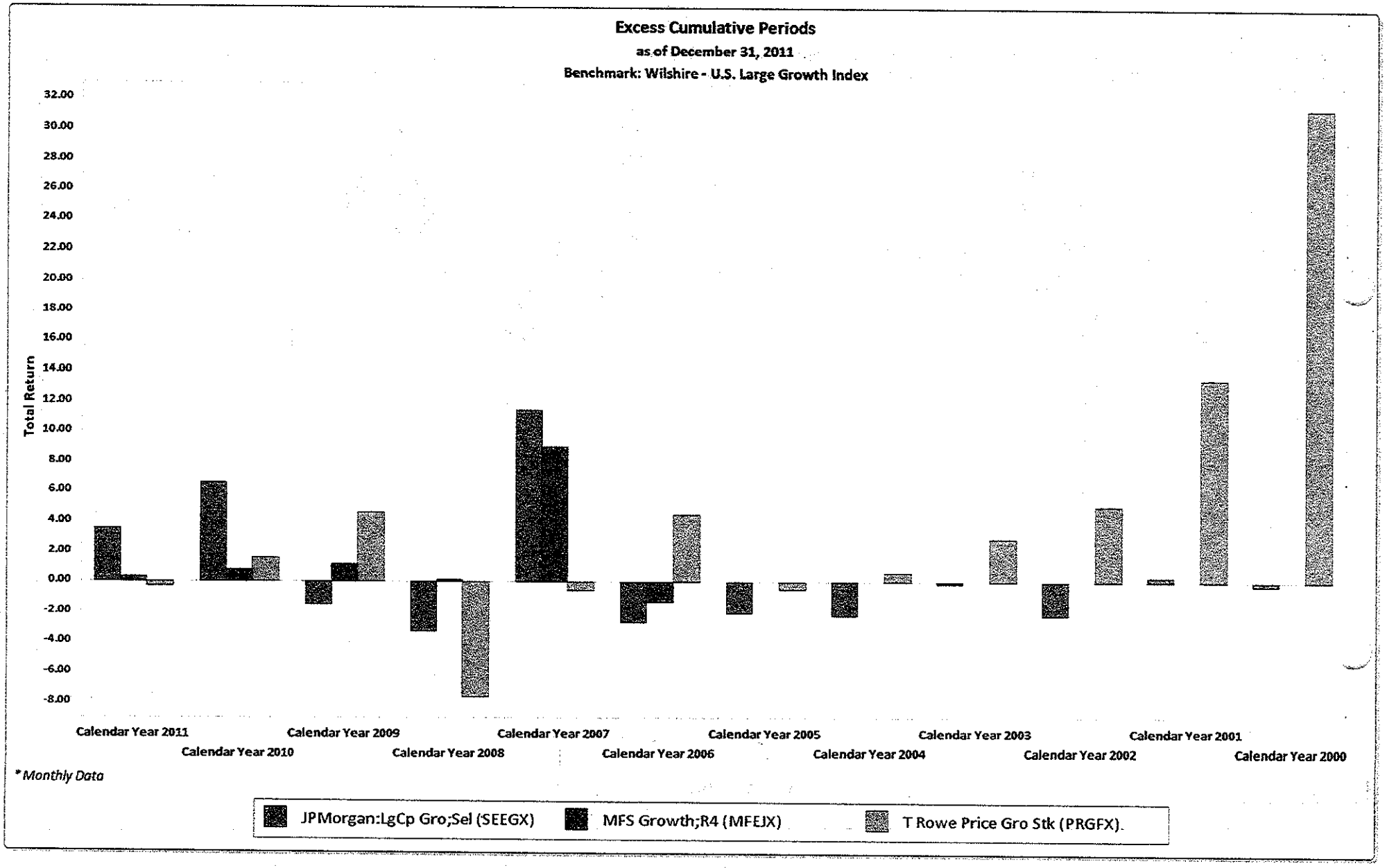
Calendar Year Excess Returns (1 of 2)

Wilshire



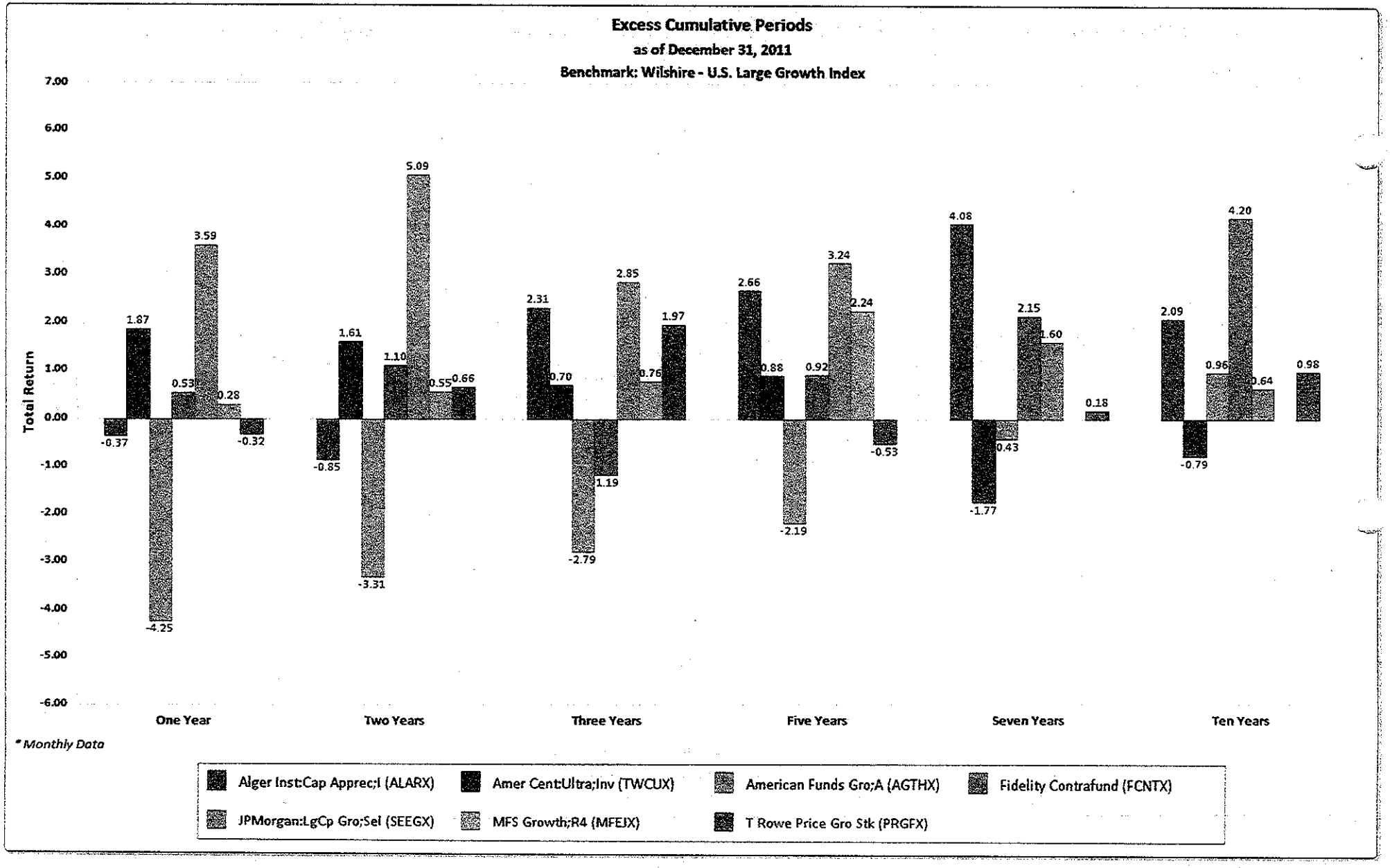
Calendar Year Excess Returns (2 of 2)

Wilshire



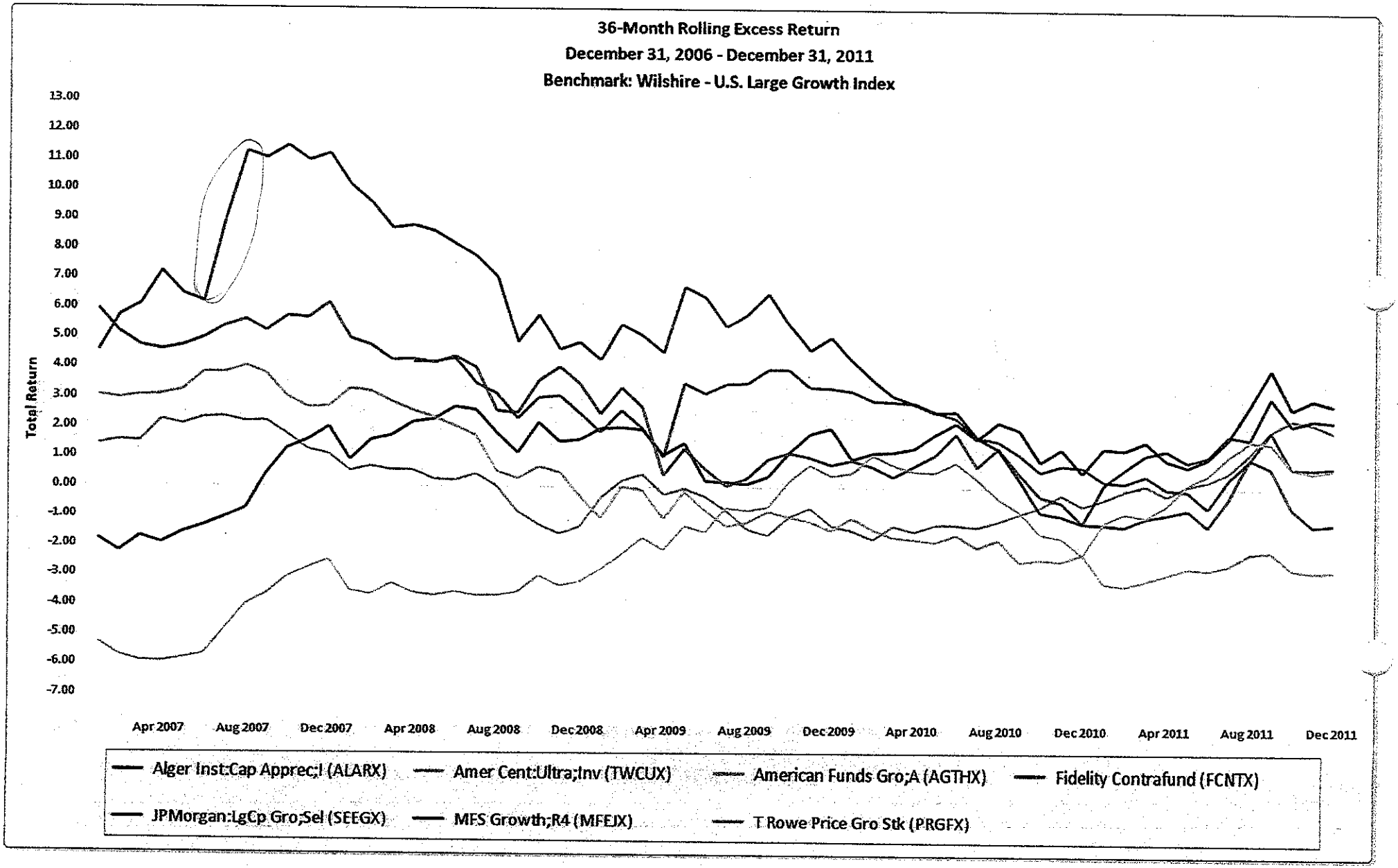
Cumulative Year Excess Returns

Wilshire



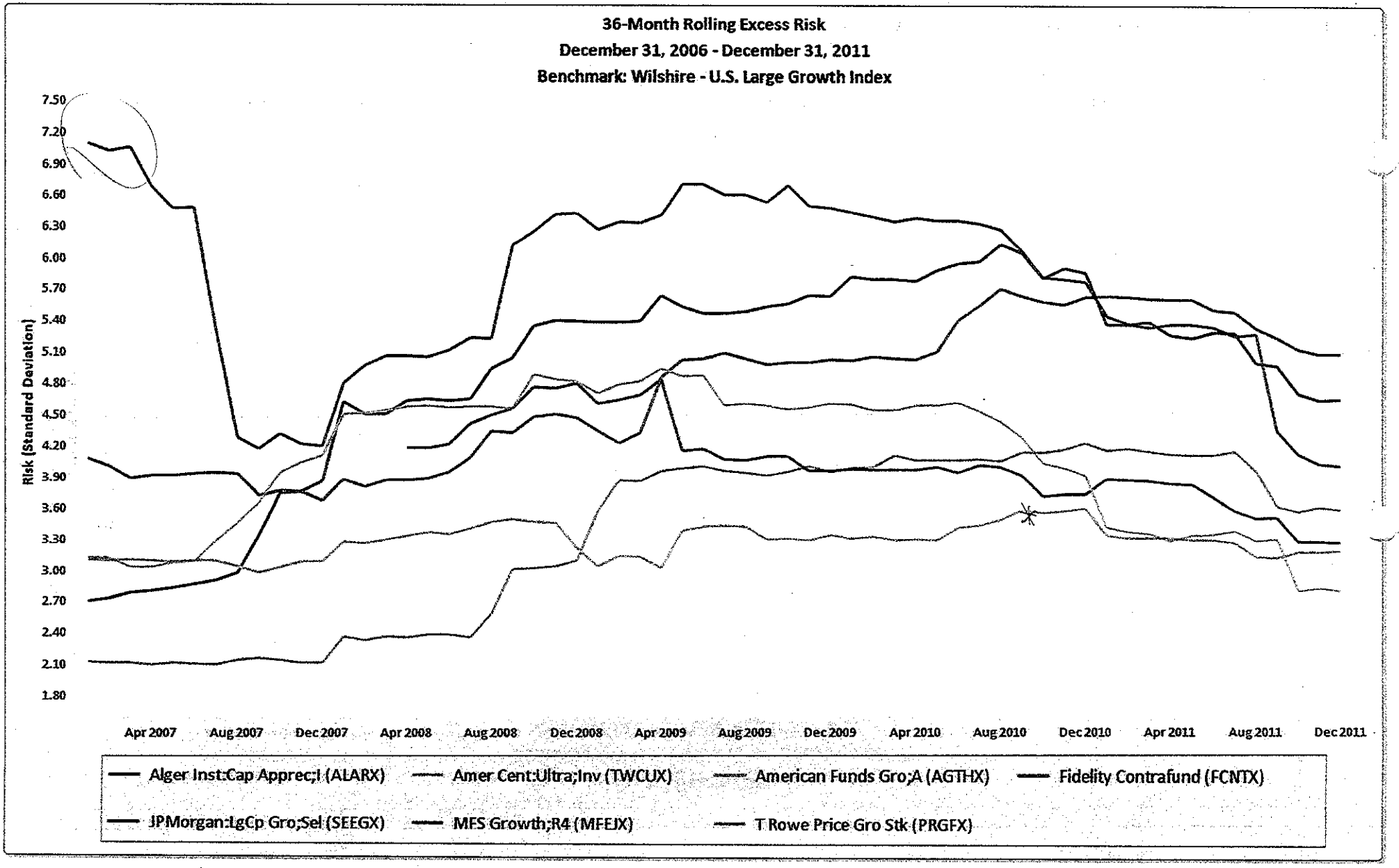
36-Month Excess Rolling Return vs. Wilshire Large Growth Index

Wilshire



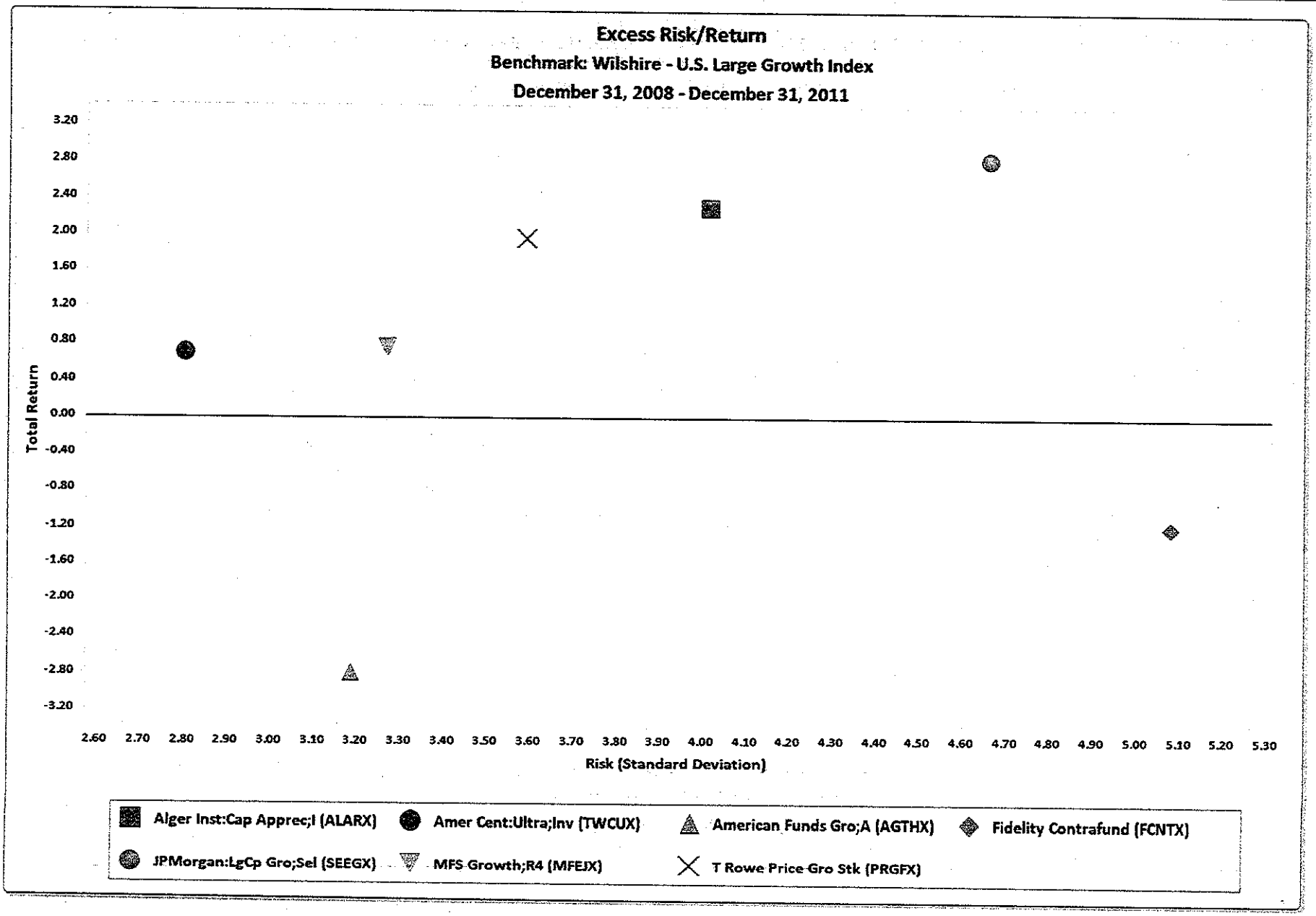
36-Month Tracking Error vs. Wilshire Large Growth Index

Wilshire



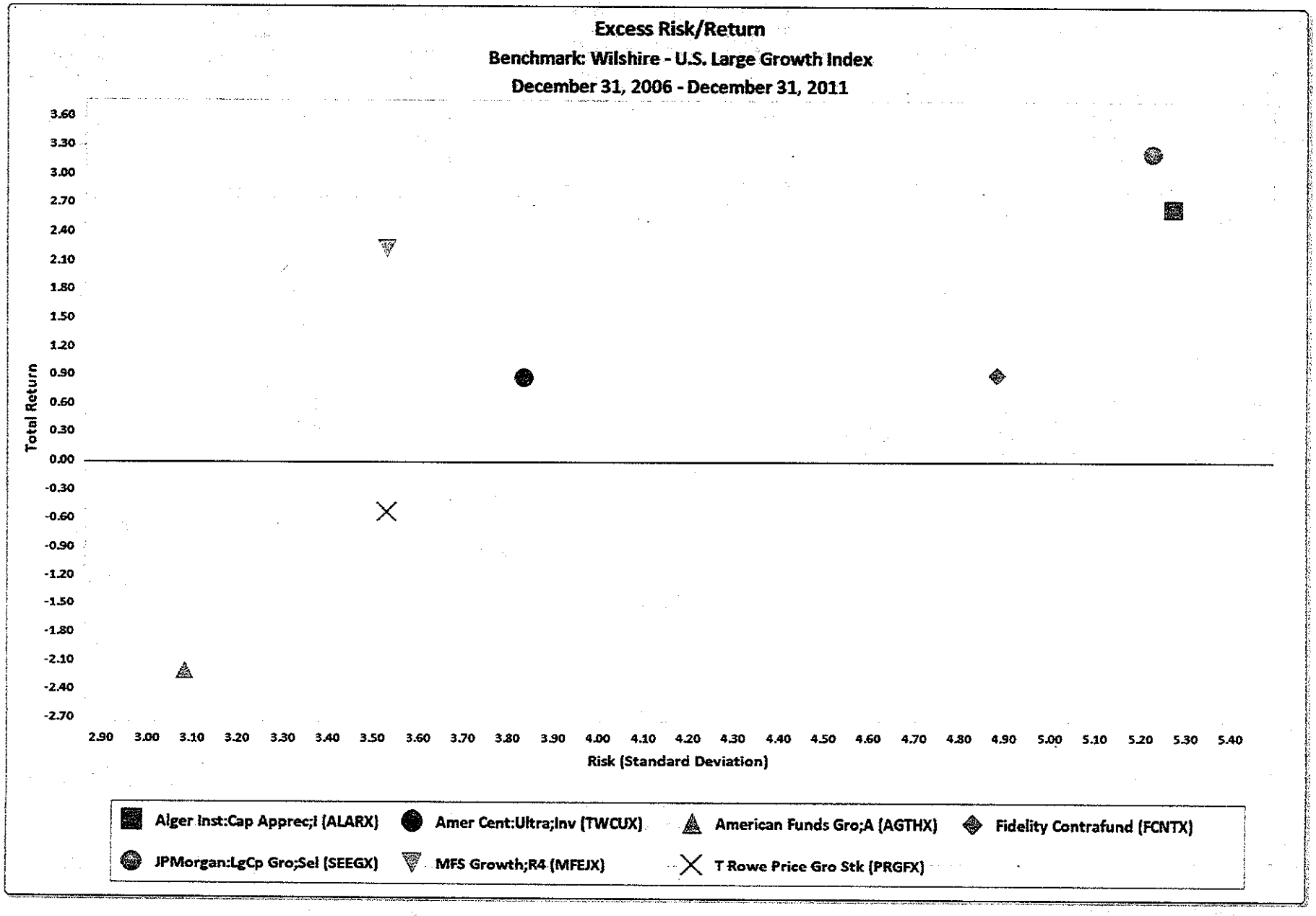
3-Year Excess Risk vs. Return

Wilshire



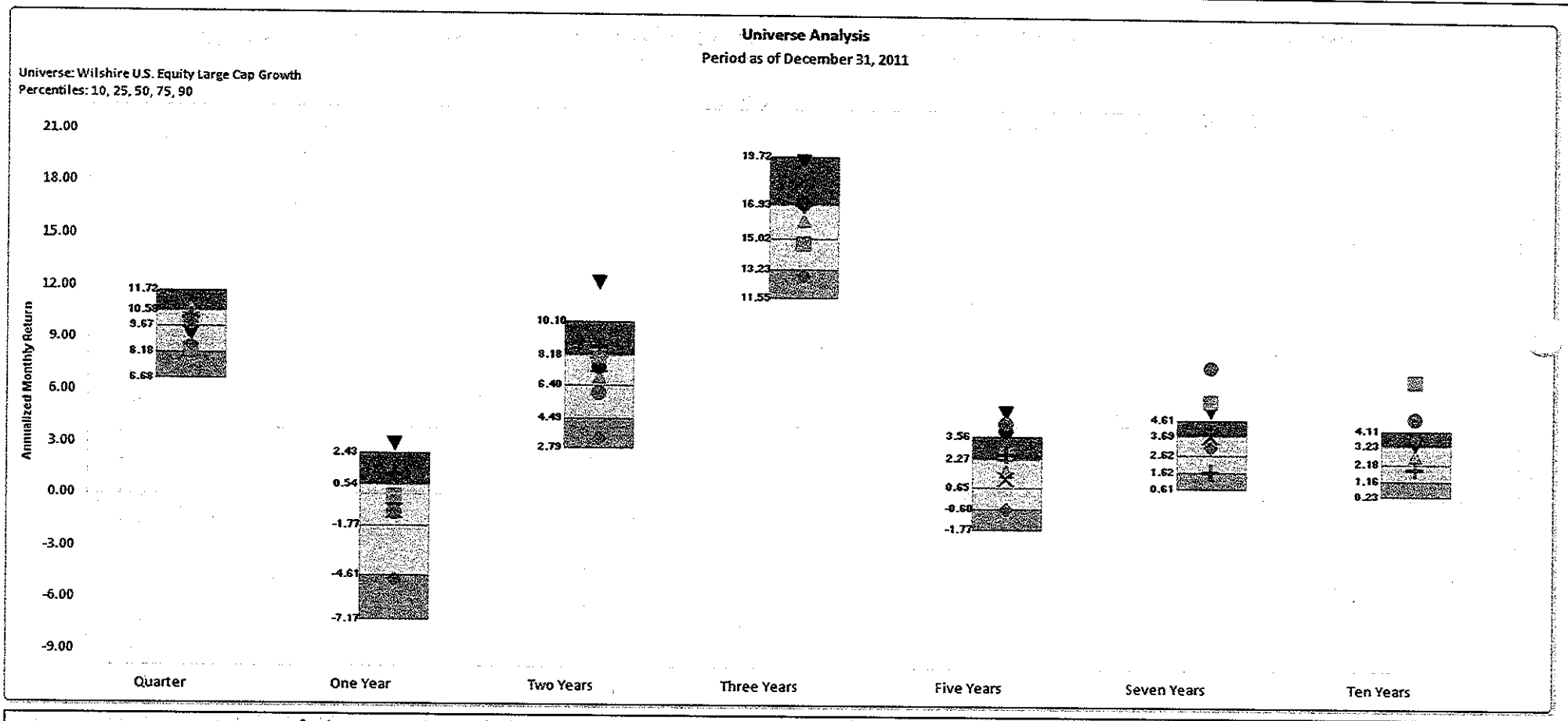
5-Year Excess Risk vs. Return

Wilshire



Peer Group Ranking

Wilshire



	Quarter	One Year	Two Years	Three Years	Five Years	Seven Years	Ten Years
Alger Inst:Cap Apprec;I (ALARX)	9.90 (43%)	-1.83 (41%)	5.98 (56%)	18.76 (14%)	4.34 (5%)	7.68 (1%)	4.79 (4%)
Amer Cent:Ultra;Inv (TWCUX)	10.20 (34%)	1.20 (20%)	8.62 (20%)	16.89 (25%)	2.54 (21%)	1.63 (75%)	1.83 (60%)
American Funds Gro;A (AGTHX)	8.56 (68%)	-4.88 (78%)	3.35 (85%)	12.84 (79%)	-0.58 (75%)	3.01 (40%)	3.63 (18%)
Fidelity Contrafund (FCNTX)	8.29 (73%)	-0.13 (30%)	8.97 (26%)	14.70 (54%)	2.58 (21%)	5.68 (3%)	6.95 (1%)
JPMorgan:LgCp Gro;Sel (SEEGX)	9.18 (59%)	2.91 (8%)	12.34 (2%)	19.38 (11%)	4.93 (3%)	5.11 (6%)	3.29 (23%)
MFS Growth;R4 (MFEJX)	8.41 (70%)	-0.37 (33%)	7.48 (34%)	16.96 (25%)	3.91 (8%)		
T Rowe Price Gro Stk (PRGFX)	10.01 (39%)	-0.98 (40%)	7.60 (32%)	18.36 (15%)	1.11 (43%)	3.64 (26%)	3.65 (18%)
Wil. Lrg Grwth	10.75 (22%)	-0.66 (36%)	6.98 (43%)	16.08 (37%)	1.64 (34%)	3.46 (29%)	2.64 (39%)
# of Products	1033	1033	1033	1029	886	736	551

Conclusion

Wilshire

- Wilshire believes an ideal 401k plan large cap growth mutual fund candidate should exhibit the following desired characteristics:
  - Stable tenure with its investment management team
  - Consistent tracking error relative to stated benchmark
  - The ability to add value over time while following a consistent strategy
  - Favorable risk-adjusted performance
  - Strong ranking relative to universe peers
  - Competitive fee rate relative to universe peers

- Based on the above mentioned evaluation criteria, Wilshire recommends the Alger Capital Appreciation Z (ACAZX) to be the new large cap growth fund for the State of Montana's 401(a) Defined Contribution Plan.

Form ADV Regulatory Disclosure Review

Wilshire

Wilshire reviewed the SEC Form ADV Part I and IIA (as posted on the SEC investment advisor search website at http://www.adviserinfo.sec.gov) of each investment manager in the table below only to determine whether the manager had made any disclosures in the listed categories. If the manager disclosed information in a category, it is the client's responsibility to review and assess the provided information. The information was collected as of the date(s) indicated and may change. Wilshire assumes no responsibility for the accuracy of the information provided by a manager.

		ADV Part I			ADV Part IIA	
		Item 11: Disclosure Information		Item 9: Disciplinary Information	Item 19 (D): Requirements for State-Registered Advisors	
Investment Manager	Date of Review	Form ADV Part I Date	Disclosure (Yes or No)	Disclosure (Yes or No)	Form ADV Part IIA Date	Disclosure (Yes or No)
American Century	10/03/11	09/26/11	No	No	N/A	N/A
Capital Research Group	01/12/12	03/31/11	No	No	N/A	N/A
Fidelity	01/12/12	05/31/11	No	No	N/A	N/A
Fred Alger	10/21/11	06/21/11	Yes	Yes	N/A	N/A
J.P. Morgan	10/26/11	08/31/11	Yes	No	N/A	N/A
MFS	10/27/11	10/10/11	Yes	Yes	N/A	N/A
T. Rowe Price	10/31/11	03/30/11	No	No	N/A	N/A

This material is intended for informational purposes only and should not be construed as legal, investment, or other professional advice. The Information is as of the date(s) indicated, and are subject to change without notice. If disclosures were noted, you should consult with your legal counsel to make an assessment on the materiality.