# China/Russia Oil and Gas for Growth

## **Summary and Recommendation**

Buy-recommended **PetroChina** (**PTR**) is the leading oil and gas resource owner in the most populous consuming country, China, and buy-recommended Gazprom (OGZPY) is the leading natural gas resource owner in the largest producing country, Russia. The five stocks in our Brazil/Russia/China group have the most investment growth potential measured by McDep Ratio (see tables pages 4-6). Recent stock price declines might seem alarming in isolation, but less so in a broader market context. In fact, PetroChina is one of only three stocks of 36 in *Meter Reader* coverage trading above its 60-day average. Gazprom has recovered as much as the median stock by the 60-day average measure. Taxable investors with higher cost stock and who wish to take a tax loss while maintaining investment in a stock with similar characteristics might switch PTR for sister Chinese producer, hold-rated CNOOC Ltd. (CEO). Investors in OGZPY could switch partially to hold-rated Lukoil (LUKOY) for similar country exposure and partially to buy-recommended **Statoil** (**STO**), a depressed European producer stock, for natural gas exposure. Though the hold-rated stocks have attractive potential, we are waiting for stock price to move back above the 200-day average or for another event to recommend buy outright. For an unrated stock like **Petrobras** (**PBR**) we are alert to signs of a potential repeat of its past stock price cycle when after bottoming in October 2002 the stock crossed above the 200-day average in March 2003 and continued a long march upward until recently.

### Asia Pacific Leads Global Growth

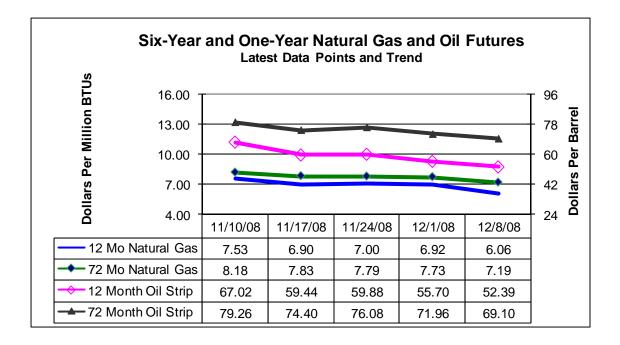
Just released last week, the annual energy outlook by hold-rated **ExxonMobil (XOM)** reaffirms a widely held expectation that the Asia Pacific region, with China as the most important country, will overtake North America and Europe for the largest share of global gross domestic product by 2030. To fuel growth, China needs increasing supplies of energy - domestic and imported. We believe that PetroChina, 86% owned by the government and China's most important oil and gas company, will reward investors as it furnishes clean fuel for China's sustainable economic growth.

# **New Diplomatic Opportunity in Russia**

While China has a generally positive image among investors, in our experience, Russia has a less positive image. We were surprised recently to hear Harvard Expert on Russia, Marshall Goldman, express his view that President Bush and Prime Minister Putin



continue to have a remarkably positive personal relationship. Yet political and economic relations between the U.S. and Russia have deteriorated in the later years of the current presidential term. Though the fault may be on both sides, we think that much U.S. diplomatic behavior seems unnecessarily provocative. We are hopeful that a new U.S. Administration will be successful in improving cooperation with Russia. The humbling experience of the recent global financial situation may help catalyze a fresh start.



### **Stock Prices May Lead Oil Prices**

Oil and gas stock prices have been hitting rolling lows. Large companies made their lows in October. Canadian oil and gas stocks made their lows in November. Small stocks and income stocks made their lows last week. Presuming those lows hold, an oil price bottom may not be far away.

Value, measured by the McDep Ratio, justifies buy recommendations, we believe, but stock prices do not confirm a positive trend yet. XOM is the stock closest to turning positive in trend relative to the 200-day average. Should XOM cross to positive territory it would be an encouraging sign for other oil and gas stocks and for oil price.



# **Bottom by Historical Comparison**

In earlier times that felt like today in oil, 1986 and 1998, \$10 a barrel was the bottom for the price cycle. Compared to the preceding high price of almost \$40, the bottom was one-fourth the high. Back then it took more than five years from the high in 1980 to the low in 1986. Today prices move faster. The high of \$147 was only a few months ago. If the same magnitude of drop were to repeat, one-fourth of the high of \$147 would be \$37. By that measure the bottom is practically here with the current near-month price of \$43.

# High Cost of New Capacity and Sunk Cost of Developed Capacity

The wide range from high crude oil price to low crude oil price partly reflects the cost structure of the industry. Oil and gas production is generally a high cash flow margin, low cash cost business. A high margin is necessary to induce investment in finding and developing new sources. Today's price is below the\$70-\$90 that is representative of the full-cycle exploration and development cost of large new sources of oil production outside the Middle East. Thus, that part of the business is uneconomic at near-term quotes, but it takes time for people to react. New large scale investment may not take place until the price recovers.

Once an investment is made, the costs are "sunk" and the minimum financial requirement is to cover out-of-pocket daily costs. Most current production can continue to cover cash costs. Conventional production may have cash costs near \$10 a barrel. About \$30 a barrel may be a practical cash break even for oil sands.

As a result of the cost structure, production management is required to tame price swings. That will be the topic for the mid-December meeting of producing countries. Without management, the imbalance between supply and demand ultimately self-corrects because of the steady decline in existing capacity as it is not replenished and/or a revival of demand.

Kurt H. Wulff, CFA



<u>-</u> 1			ì		Domicile					
						Prese	nt Value by	Segment	(%)	
			Price			North	Rest		( , " /	
	Symbol	/Rating	(US\$/sh)	EV/	Enterprise	Amer.	of World			
		B = Buy	8-Dec	Market	Value	Natural	Natural	Oil	Down-	McDe
		I = Hold	2008	Сар	(\$mm)	Gas	Gas	Prod'n	stream	Rati
U.S. Integrated	-	11010	2000	Cup	(411111)	Otto	Ous	170477	Stream	21000
Exxon Mobil Corporation	XOM	Н	79.60	1.07	441,000	6	23	46	25	0.8
Chevron Corporation	CVX	Н	78.09	1.16	200,000	5	12	67	16	0.8
Marathon Oil Corporation	MRO	Н	23.82	1.69	28,700	7	7	60	26	0.6
ConocoPhillips	COP	В	50.85	1.60	124,000	14	9	57	20	0.5
Total or Median *	39%	11%	9%		794,000	7	11	58	23	0.7
Europe		/-			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
BP plc	BP	Н	45.97	1.48	212,000	8	14	62	15	0.7
BG Group	BRGXF		12.77	1.09	47,100		29	46	25	0.6
Royal Dutch Shell plc	RDS-A	Н	50.46	1.28	198,000	3	23	44	31	0.6
Total S.A.	TOT	В	51.34	1.14	132,000	3	25	52	23	0.6
StatoilHydro ASA (29%)	STO	В	15.41	1.40	19,900		44	56	23	0.5
Total or Median *	30%	14%	18%		609,000		25	52		0.6
Brazil/China/Russia	20,0	/ 0	10,0		222,000					0.0
CNOOC Limited (34%)	CEO	Н	84.68	1.00	12,900		12	88		0.6
PetroChina Company Ltd (14%	PTR	В	89.45	1.11	25,500		14	69	17	0.6
Petrobras	PBR		19.34	1.43	121,000		13	77	10	0.4
Gazprom (50%)	OGZPY	В	16.60	1.40	72,000		80	20		0.3
Lukoil Oil Company	LUKOY	Н	32.50	1.15	31,300			61	39	0.2
Total or Median *	13%	14%	18%		263,000			69		0.4
U.S. Independent		- 1, 0								
San Juan Basin Royalty Trust	SJT	Н	25.55	1.00	1,190	100				0.7
Anadarko Petroleum Corp.	APC	Н	34.01	2.03	32,300	54		42	4	0.7
EOG Resources	EOG	Н	69.07	1.12	19,500	71	7	22		0.6
XTO Energy Inc.	XTO	В	34.21	1.62	30,700	77	<u> </u>	23		0.6
Energy Partners Ltd.	EPL		2.58	8.32	670	38		62		0.6
Encore Acquisition Company	EAC	Н	21.02	2.28	2,550	18		83		0.6
Devon Energy Corporation	DVN	В	65.32	1.21	35,100	64		36		0.6
Occidental Petroleum Corp.	OXY	Н	51.18	1.12	46,800	12	1	79	8	0.6
Chesapeake Energy Corp.	CHK		14.08	2.80	23,200	91		9		0.5
Hugoton Royalty Trust	HGT	В	16.41	1.00	660	100				0.5
Berry Petroleum Company	BRY	Н	7.15	5.18	1,710	42		58		0.5
Cimarex Energy Company	XEC	В	26.30	1.26	2,810	65		35		0.4
Total or Median *	10%	33%	36%		197,000	64				0.6
Canada										
Imperial Oil Limited (30%)	IMO	Н	32.22	1.07	9,200	5		80	16	0.6
Encana Corporation	ECA	В	44.35	1.41	47,100	68		29	4	0.6
Pengrowth Energy Trust	PGH		7.47	1.97	3,660	34		66		0.6
Penn West Energy Trust	PWE	Н	10.98	1.88	8,000	28		72		0.5
Canadian Natural Resources	CNQ	Н	33.57	1.59	28,900	26		74		0.5
Enerplus Resources Fund	ERF		19.18	1.24	3,920	56		44		0.4
Birchcliff Energy Ltd. (US\$)	BIR.TO		3.85	1.41	640	75		25		0.4
Canadian Oil Sands Trust	COSWF	В	17.38	1.11	9,300			100		0.4
Suncor Energy	SU	Н	18.57	1.33	23,600	3		92	5	0.4
Petro-Canada	PCZ	Н	21.54	1.41	14,700	11	3	70	16	0.4
Total or Median *	7%	28%	18%		149,000			71		0.5
Composite					, , , , ,					
Enterprise Value Weighting	100%				2,012,000	12	18	53	17	0.6
Equal Weighting		100%			,. =,0	32	10	60	9	0.5
Equal Weighted Buys			100%			35	16	43	6	0.5
Equal Weighted Davs										



Oil and Gas Pi	oducer	s - N	et Prese	nt Valı	ue and Mc	Dep Ra	tio	
			ъ.					
			Price			Net		
	Symbol/R		(US\$/sh)	GI.	Market	Present	Debt/	
		= Buy	8-Dec	Shares	Cap	Value	Present	McDep
**************************************	H =	Hold	2008	(mm)	(US\$mm)	(US\$/sh)	Value	Ratio
U.S. Integrated	*****		=0.10	<b>.</b>	111 000		0.01	
Exxon Mobil Corporation	XOM	Н	79.60	5,160	411,000	90.00	0.06	0.89
Chevron Corporation	CVX	Н	78.09	2,206	172,000	98.00	0.11	0.82
Marathon Oil Corporation	MRO	Н	23.82	711	16,940	48.00	0.26	0.63
ConocoPhillips	COP	В	50.85	1,528	78,000	109.00	0.22	0.58
Total or Median					678,000		0.17	0.72
Europe								
BP plc	BP	Н	45.97	3,124	144,000	74.00	0.23	0.71
BG Group plc	BRGXF		12.77	3,382	43,190	19.00	0.06	0.69
Royal Dutch Shell plc	RDS-A	Н	50.46	3,080	155,000	92.00	0.13	0.61
Total S.A.	TOT	В	51.34	2,244	115,000	90.00	0.08	0.60
StatoilHydro ASA (29%)	STO	В	15.41	924	14,240	35.00	0.15	0.52
Total or Median					471,000		0.13	0.61
Brazil/China/Russia								
CNOOC Limited (34%)	CEO	Н	84.68	152	12,890	135.00	-	0.63
PetroChina Company Ltd (14%)	PTR	В	89.45	256	22,920	150.00	0.06	0.62
Petrobras	PBR		19.34	4,387	84,840	50.00	0.14	0.47
Gazprom (50%)	OGZPY	В	16.60	3,080	51,100	64.00	0.09	0.33
Lukoil Oil Company	LUKOY	Н	32.50	839	27,000	135.00	0.03	0.27
Total or Median					199,000		0.06	0.47
U.S. Independent								
San Juan Basin Royalty Trust	SJT	Н	25.55	47	1,190	34.00	1	0.75
Anadarko Petroleum Corp.	APC	Н	34.01	468	15,900	64.00	0.35	0.70
EOG Resources	EOG	Н	69.07	251	17,300	104.00	0.08	0.69
XTO Energy Inc.	XTO	В	34.21	552	18,880	60.00	0.26	0.68
Energy Partners Ltd.	EPL		2.58	32	80	14.00	0.57	0.64
Encore Acquisition Company	EAC	Н	21.02	54	1,120	48.00	0.36	0.64
Devon Energy Corporation	DVN	В	65.32	446	29,100	116.00	0.10	0.61
Occidental Petroleum Corp.	OXY	Н	51.18	818	41,900	89.00	0.06	0.60
Chesapeake Energy Corp.	CHK		14.08	588	8,280	46.00	0.36	0.55
Hugoton Royalty Trust	HGT	В	16.41	40	660	30.00	-	0.55
Berry Petroleum Company	BRY	Н	7.15	46	330	40.00	0.43	0.53
Cimarex Energy Company	XEC	В	26.30	85	2,220	70.00	0.09	0.43
Total or Median					137,000		0.18	0.62
Canada								
Imperial Oil Limited (30%)	IMO	Н	32.22	265	8,540	48.00	0.05	0.69
Encana Corporation	ECA	В	44.35	751	33,300	75.00	0.20	0.67
Pengrowth Energy Trust	PGH		7.47	249	1,860	16.00	0.31	0.63
Penn West Energy Trust	PWE	Н	10.98	390	4,280	27.00	0.26	0.56
Canadian Natural Resources	CNQ	Н	33.57	541	18,200	85.00	0.19	0.51
Enerplus Resources Fund	ERF		19.18	165	3,160	44.00	0.10	0.49
Birchcliff Energy Ltd. (US\$)	BIR.TO		3.85	117	450	10.00	0.14	0.47
Canadian Oil Sands Trust	COSWF	В	17.38	482	8,380	42.00	0.04	0.44
Suncor Energy	SU	Н	18.57	953	17,700	55.00	0.10	0.40
Petro-Canada	PCZ	Н	21.54	484	10,430	67.00	0.12	0.40
Total or Median				-	106,000		0.13	0.50
McDep Ratio = Market cap and Deb	t to <b>p</b> resent	value	of oil and g	as and oth				
Estimated present value presumes a long-term price for oil of US\$75 a barrel and natural gas, \$10 a million btu.								



Oil and Gas Prod	iuceis -	v ai	ue mun	apies an	u Disu	IDUUIOII I	iciu	
			Price	Adjustd				Divd or
	Symbol/Rai	ting	(US\$/sh)	Resrvs/	PV/	EV/		Distrib
	B =		8-Dec	Prod	Ebitda	Ebitda	P/E	NTM
	H = I		2008	NTM	NTM	NTM	NTM	(%)
U.S. Integrated								()
Exxon Mobil Corporation	XOM	Н	79.60	12.9	9.0	8.0	16	2.0
Chevron Corporation	CVX	Н	78.09	9.6	8.9	7.3	15	3.3
ConocoPhillips	COP	В	50.85	11.0	9.6	5.6	11	3.7
Marathon Oil Corporation	MRO	Н	23.82	8.5	8.0	5.0	9	4.0
Total or Median				10.3	9.0	6.4	13	3.5
Europe								
BG Group plc	BRGXF		12.77	7.6	10.0	6.9	14	1.2
BP plc	BP	Н	45.97	9.9	8.8	6.2	10	7.3
Total S.A.	TOT	В	51.34	9.4	8.6	5.2	10	5.6
Royal Dutch Shell plc	RDS-A	Н	50.46	7.9	7.9	4.8	10	6.3
StatoilHydro ASA (29%)	STO	В	15.41	8.0	8.6	4.5	13	7.8
Total or Median				8.0	8.6	5.2	10	6.3
Brazil/China/Russia								
CNOOC Limited (34%)	CEO	Н	84.68	8.8	9.8	6.1	13	5.6
PetroChina Company Ltd (14%)	PTR	В	89.45	14.3	9.5	5.9	18	4.7
Petrobras	PBR		19.34	10.2	12.4	5.9	12	4.5
Gazprom (50%)	OGZPY	В	16.60	24.6	8.2	2.7	3	2.3
Lukoil Oil Company	LUKOY	Н	32.50	18.6	7.8	2.1	3	4.2
Total or Median			0 - 10 0	14.3	9.5	5.9	12	4.5
U.S. Independent								
San Juan Basin Royalty Trust	SJT	Н	25.55	10.7	14.7	11.1	14	7.3
Hugoton Royalty Trust	HGT	В	16.41	13.1	14.1	7.8	11	9.0
Encore Acquisition Company	EAC	Н	21.02	13.4	12.1	7.7	63	-
Energy Partners Ltd.	EPL		2.58	9.8	12.0	7.7		-
XTO Energy Inc.	XTO	В	34.21	11.4	11.1	7.6	17	1.4
Anadarko Petroleum Corp.	APC	Н	34.01	10.1	9.5	6.6	1,478	2.1
Chesapeake Energy Corp.	CHK		14.08	11.1	11.8	6.5	10	2.1
Occidental Petroleum Corp.	OXY	Н	51.18	11.8	10.7	6.4	16	2.5
EOG Resources	EOG	Н	69.07	9.1	9.3	6.4	21	0.8
Devon Energy Corporation	DVN	В	65.32	9.4	10.0	6.1	22	1.0
Berry Petroleum Company	BRY	Н	7.15	9.6	10.6	5.7	5	4.2
Cimarex Energy Company	XEC	В	26.30	7.4	9.2	4.0	33	0.9
Total or Median				10.4	10.9	6.5	17	1.8
Canada								
Imperial Oil Limited (30%)	IMO	Н	32.22	14.3	12.7	8.7	15	1.0
Canadian Oil Sands Trust	COSWF	В	17.38	21.0	19.4	8.5	14	9.0
Birchcliff Energy Ltd. (US\$)	BIR.TO		3.85	6.9	18.1	8.5		_
Pengrowth Energy Trust	PGH		7.47	9.1	10.3	6.5		28.8
Canadian Natural Resources	CNQ	Н	33.57	8.8	12.7	6.5	12	1.0
Suncor Energy	SU	Н	18.57	22.5	15.1	6.1	10	0.9
Encana Corporation	ECA	В	44.35	8.4	8.4	5.7	15	3.6
Penn West Energy Trust	PWE	Н	10.98	7.7	9.3	5.3	54	29.6
Enerplus Resources Fund	ERF		19.18	10.0	10.4	5.1	12	19.0
Petro-Canada	PCZ	Н	21.54	6.9	8.6	3.4	8	3.0
Total or Median				8.9	11.5	6.3	13	3.3
EV = Enterprise Value = Market Cap an	d Debt; Eb	itda	= Earnings	before inte				
and amortization; NTM = Next Twelve								
			usinesses					



# **Index of Recent Research**

### Stock Ideas

Data	Symbol	Subject	Theme
<u>Date</u> 20-Nov		Canadian Oil Sands Trust	Alberta Reduces Royalties
12-Nov	PWE	Penn West Energy Trust	Distribution Yield 20%
6-Nov	CNO	Canadian Natural Resources	Hidden Value in Heavy Oil
5-Nov	* DVN		•
		Devon Energy Corporation	Outperforming in Tough Times
5-Nov	* XTO	XTO Energy Inc. Total S.A.	Personal Debt-Free Pledge
5-Nov	* TOT		Geographic Appeal
4-Nov	* XEC	Cimarex Energy Company	Capital Discipline
4-Nov	* APC	Anadarko Petroleum Corporation	Acquisition Value
4-Nov	* EOG	EOG Resources Inc.	The Hat Trick
3-Nov	* STO	StatoilHydro ASA	Financially Strong Dividend Payer
31-Oct	* CVX	Chevron Corporation	Oil in the Stock Market at \$59 a Barrel
30-Oct	* IMO	Imperial Oil Limited	Favorable Pricing for Heavy Oil
30-Oct	* MRO	Marathon Oil Corporation	Gasoline and Diesel Demand Rebounding
30-Oct	* XOM	Exxon Mobil Corporation	Building Value with Stock Repurchase
30-Oct	* RDSA	Royal Dutch Shell plc	Secure Dividend 5.7%
29-Oct	* BRY	Berry Petroleum	Adjusting Spending to Cash Flow
29-Oct	* EAC	Encore Acquisition Company	Success with ExxonMobil in West Texas
29-Oct	* SU	Suncor Energy	Coping with Volatile Oil Price
29-Oct	* PTR	PetroChina Company Limited	Chinese Major Oil Company
28-Oct	* OXY	Occidental Petroleum Corporation	Low Debt, High Margin
28-Oct	* BP	BP p.l.c.	Dividend Yield 7.2%
28-Oct	* CEO	CNOOC Ltd	Oil & Gas Growth Offshore China
24-Oct	* ECA	EnCana Corporation	High-Performance Clean Energy Producer
24-Oct	* PCZ	Petro-Canada	Pacing Fort Hills
23-Oct	* OGZPY	Gazprom	Cheap Stock, Political Risk
23-Oct	* COP	ConocoPhillips	Australian Natural Gas Deal
22-Oct	* XEC	Cimarex Energy Company	Woodford Shale Leader
17-Oct	* SJT	San Juan Basin Royalty Trust	Hold Rating (Income Weekly)
7-Oct	* HGT	Hugoton Royalty Trust	Buy amid Financial Panic (Meter Reader)
16-Sep	* BRGXF	BG Group	Deep Water Brazil (Meter Reader)
16-Sep	* PBR	Petrobras	Deep Water Brazil (Meter Reader)
5-Sep		Lukoil Oil Company	Suspend Buy Recommendation (Flash)
г гер	Zono i	zanon on company	buspens bus recommendation (1 msn)

### Meter Reader

2-Dec	Weekly	European Oils for Dividends
25-Nov	Weekly	Canada On Sale
18-Nov *	Weekly	Natural Gas Buys - DVN, ECA, and XTO
11-Nov *	Weekly	U.S. Integrated Oil Leaders - COP, CVX, XOM

# Oil and Gas Income Stocks

5-Dec	Weekly	High Income, Low Stock Price
28-Nov	Weekly	Insider Buying in Encore Energy Partners
21-Nov	Weekly	Alberta Acts to Reduce Royalties (Taxes)
14-Nov *	Weekly	Ten Percent in Three Hours

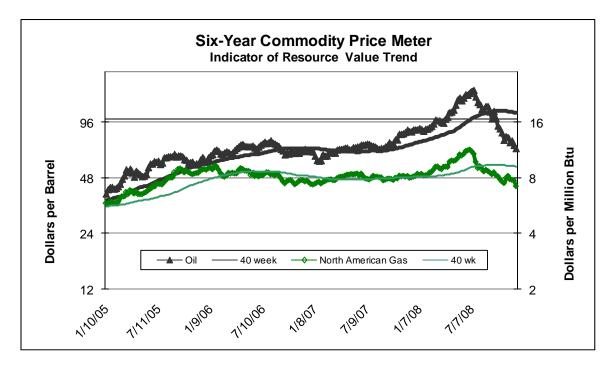
### **Industry Ideas**

	•		
9-Oct	*	Presentation	Oil and Gas Strategy in Treacherous Times
24-Sep	*	Presentation	Energy Investment amid Financial Turmoil
16-Sep	*	Flash	Reinstate Five Buy Recommendations
5-Sep	*	Flash	Suspend Buy Recommendations

<sup>\*</sup> Archived on www.mcdep.com

# EP Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio
December 9, 2008



**Disclaimer:** This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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**Certification:** I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.