

# DIVERSIFICANDO COM SMART BETA (FATORES): O QUE É E FUNCIONA?

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# SUMÁRIO

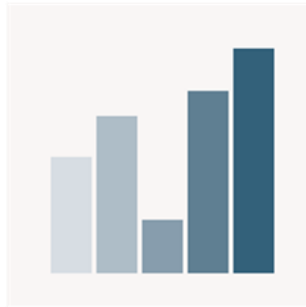
- I. A MSCI
- II. Fatores
- III. Considerações Finais

# I. A MSCI

# MSCI: O ÍNDICE FAZ DIFERENÇA



97 dos 100 maiores gestores de investimento globais são clientes da MSCI<sup>1</sup>



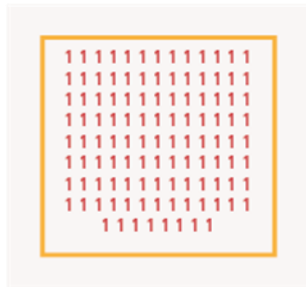
850+ ETFs baseados em índices MSCI, mais do que qualquer concorrente<sup>2</sup>



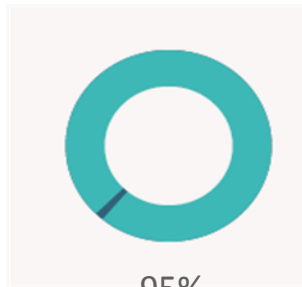
Mais de USD 10 trillion em ativos são estimados para adoção dos índices MSCI como *benchmark*<sup>3</sup>



180,000 índices calculados diariamente 10,000 em tempo real



99.96% taxa de precisão<sup>4</sup>



95% dos ativos dos fundos de pensão norte americanos utilizam os índices MSCI como benchmark<sup>5</sup>

<sup>1</sup> Based on P&I AUM data as of December 2014 and MSCI clients as of December 2015.

<sup>2</sup> As of June 30, 2016; defined as each share class of an exchange traded fund, as identified by a separate Bloomberg ticker. Only primary listings, and not cross-listings, are counted.

<sup>3</sup> As of December 31, 2015, as reported on March 31, 2016 by eVestment, Morningstar and Bloomberg.

<sup>4</sup> Accuracy calculated based on the number of corrections performed over total number of securities or data points covered.

<sup>5</sup> As of June 2015, according to Intersec LLC.

## Prêmios

### Pensions Age 2016

Index Provider of the Year

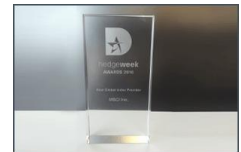


### Structured Retail Products Awards 2016

Best Propriety Index Provider of the Year

### Hedgeweek Awards 2016

Best Global Index Provider of the Year



### ETF Risk Rankings 2015

Index Provider of the Year 2015

### Structured Products Awards 2015

Index Provider of the Year 2015



### ETF.com 2015 (awarded in 2016)

Index Provider of the Year

### European Pensions Awards 2015

Index Provider of the Year 2015



### Mondo ETF Awards 2015

Best Index Vendor of the Year

## II. FATORES

# AS PERGUNTAS QUE CLIENTES NOS FAZEM

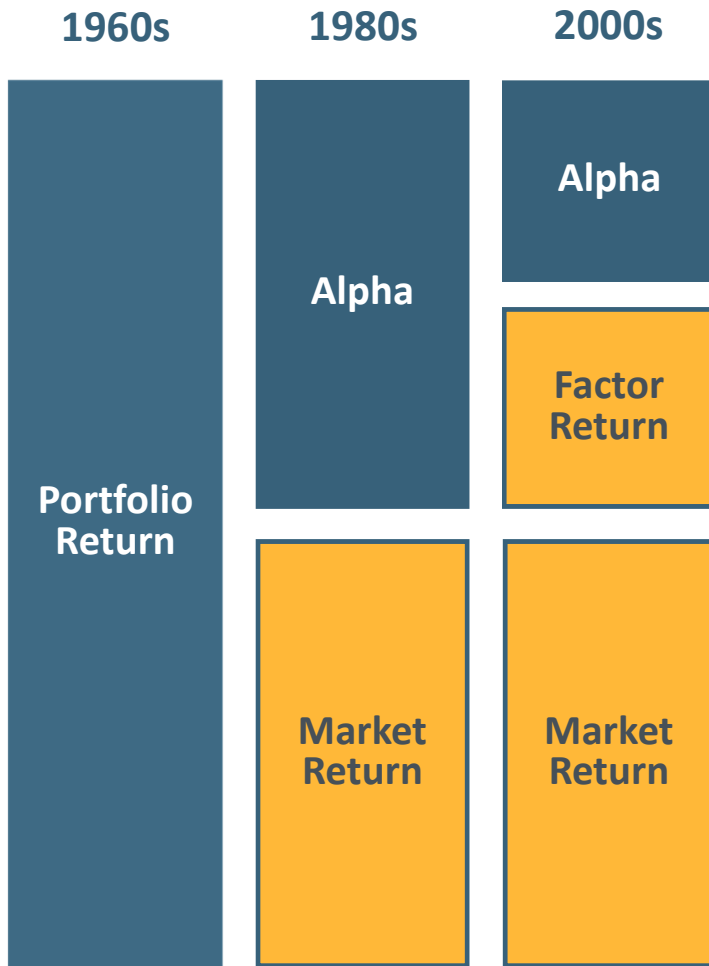
- O que são fatores (smart beta)?
- Por que fatores tiveram um melhor desempenho de retorno ajustado ao risco e este desempenho terá persistência?
- Como investir em fatores através de índices?
- Como combinar fatores com gestão ativa e passiva?

Para responder a essas perguntas são necessários **Índices de Fatores e Ferramentas de Análise de Desempenho baseadas em Fatores**

# 1

Investindo em  
Fatores: O que são  
Fatores e sua  
relevância

# A RELEVÂNCIA DOS FATORES EM EXPLICAR RETORNO



“Aproximadamente 70% do retorno ativo de um fundo é explicado pela exposição à fatores”

-Ang, Goetzmann, Schaefer  
Report on Norway’s Government Pension Fund

“Há uma redução do alfa gerado por um fundo de 0,18% para um valor de até 0,03%, uma redução de 80%”

-MSCI’s award winning research paper  
“Can Alpha Be Captured by Risk Premia?”



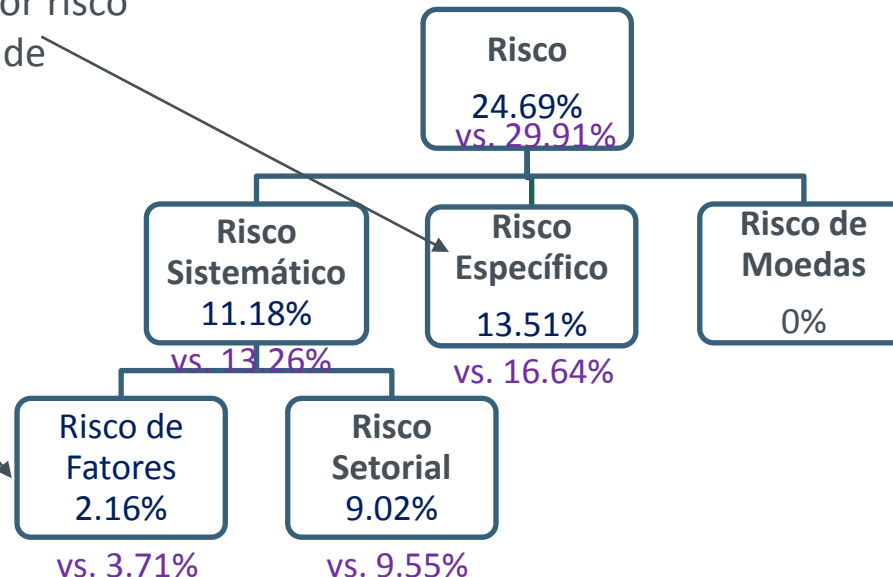
# COMO DEFINIR FATORES?

- Barra, uma empresa MSCI, introduziu o conceito de fatores em 1970s
- Duas empresas em um mesmo mercado, inseridas em uma mesma indústria podem ter característica de risco e retorno muito diferentes

Em 29 de abril de 2016, o risco anualizado da ação da Facebook era de 24.69% vs. 29.91% da Yahoo

**facebook** vs **YAHOO!**

Facebook obteve um risco 5.22% menor devido a um menor risco específico e menor risco de fatores



# SEIS PRINCIPAIS FATORES

Tamanho

Valor

Yield

Momentum

Qualidade

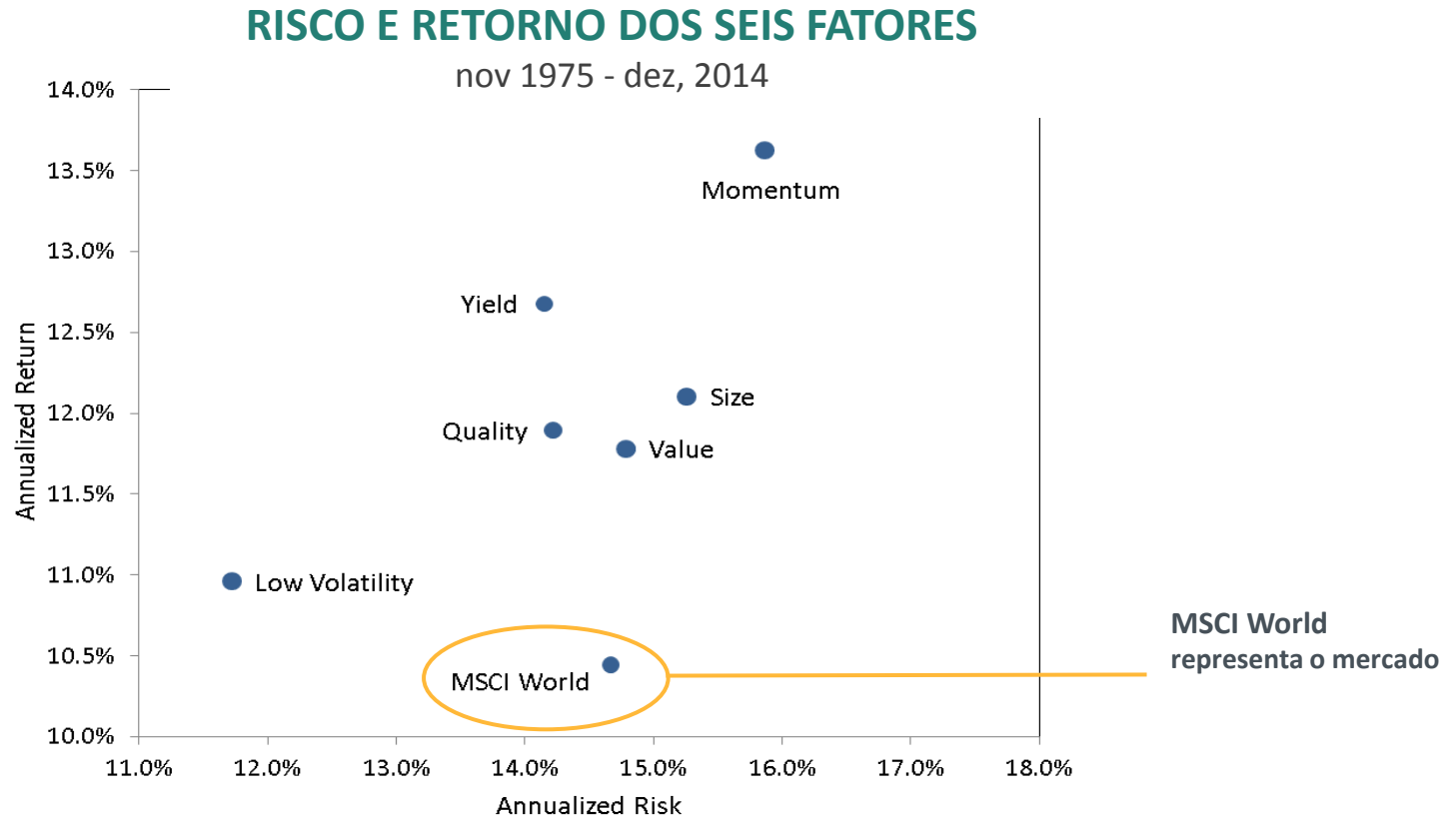
Baixa Volatilidade

- Índices de Fatores – são construídos usando esses fatores sistemáticos (essas variáveis) para ponderar os pesos dos ativos  $x$
- Índices “Tradicionais” - são construídos usando capitalização de mercado para ponderar os pesos dos ativos

# O RACIONAL DOS FATORES

- Estratégias simples e transparentes com uma lógica econômica ou de investimento forte e intuitiva
  - **Valor** – captura a má precificação sistemática de ativos (P/VP, P/L, fluxo de caixa)
  - **Baixa volatilidade** – minimiza a exposição ao risco
  - **Tamanho** – captura o prêmio de empresas small cap
  - **Momentum** – tendência de vencedores no passado continuarem a performar no futuro (retorno relativo nos últimos 3, 6 e 12 meses)
  - **Qualidade** – captura empresas com alta rentabilidade (rentabilidade do capital próprio “ROE”), qualidade dos resultados (variabilidade da rentabilidade) e baixa alavancagem (dívida/capital)
  - **Yield** – definido como ações que historicamente pagaram ao longo do tempo de maneira persistente dividendos mais elevados que a média do mercado

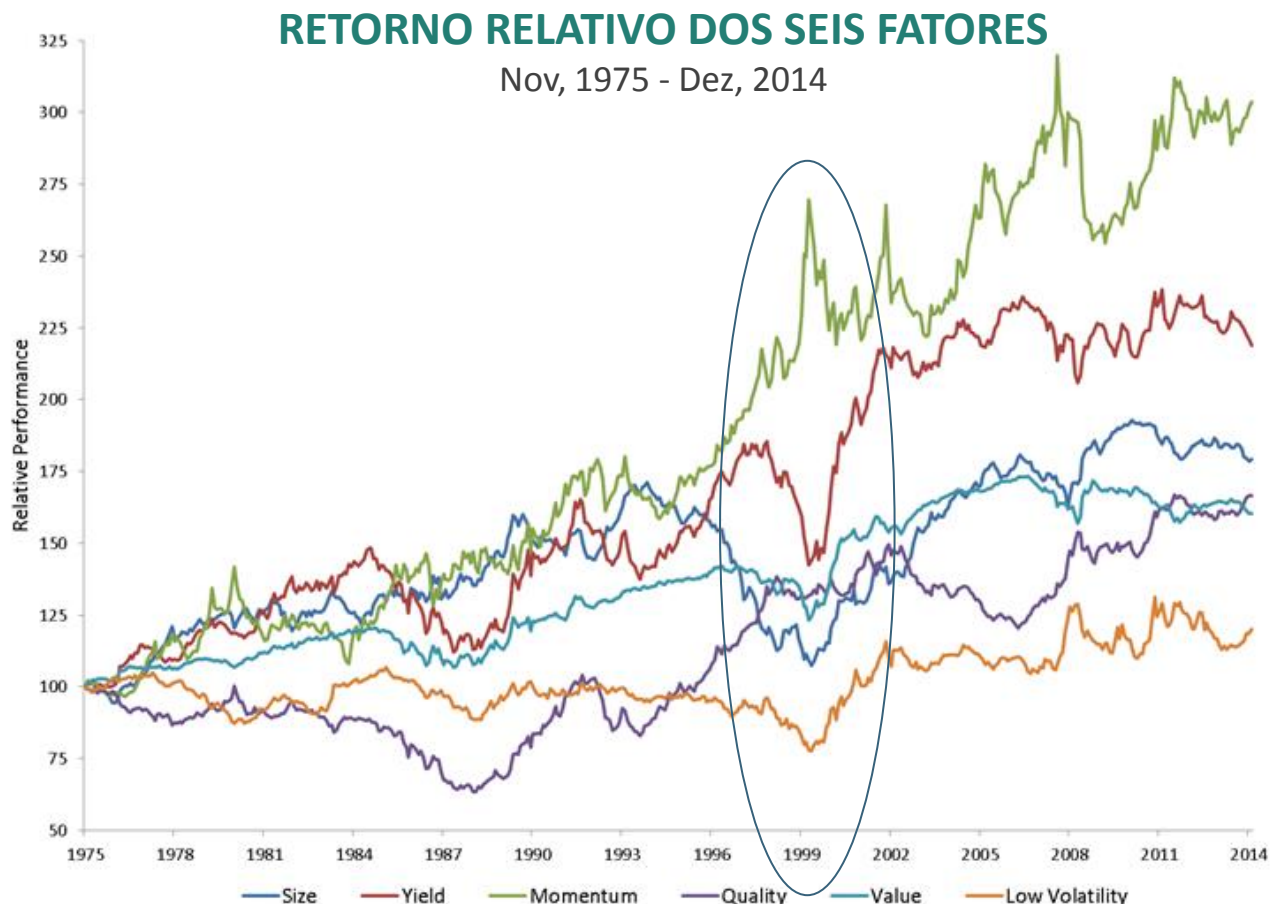
# O QUE ATRAI OS INVESTIDORES PARA O INVESTIMENTO BASEADO EM FATORES?



Source: Factor Indexes in Perspective, Insights from 40 Years of Data, MSCI Research Insight

To complete a 40-year simulation, the MSCI factors are represented by the following indexes:  
*Yield* by High Dividend Yield, *Size* by Equal-Weighted, *Low Volatility* by Top 300 Volatility-Tilt prior to 1988 and by Min Volatility afterwards, and *Value* by Value-Weighted. Parent Index is MSCI World

# ALMOÇO GRÁTIS ? A CICLICIDADE É UMA CONSIDERAÇÃO FUNDAMENTAL



Source: Factor Indexes in Perspective, Insights from 40 Years of Data, MSCI Research Insight

To complete a 40-year simulation, the MSCI factors are represented by the following indexes: *Yield* by High Dividend Yield, *Size* by Equal-Weighted, *Low Volatility* by Top 300 Volatility-Tilt prior to 1988 and by Min Volatility afterwards, and *Value* by Value-Weighted. Parent Index is MSCI World

# A IMPORTÂNCIA DOS CICLOS ECONÔMICOS

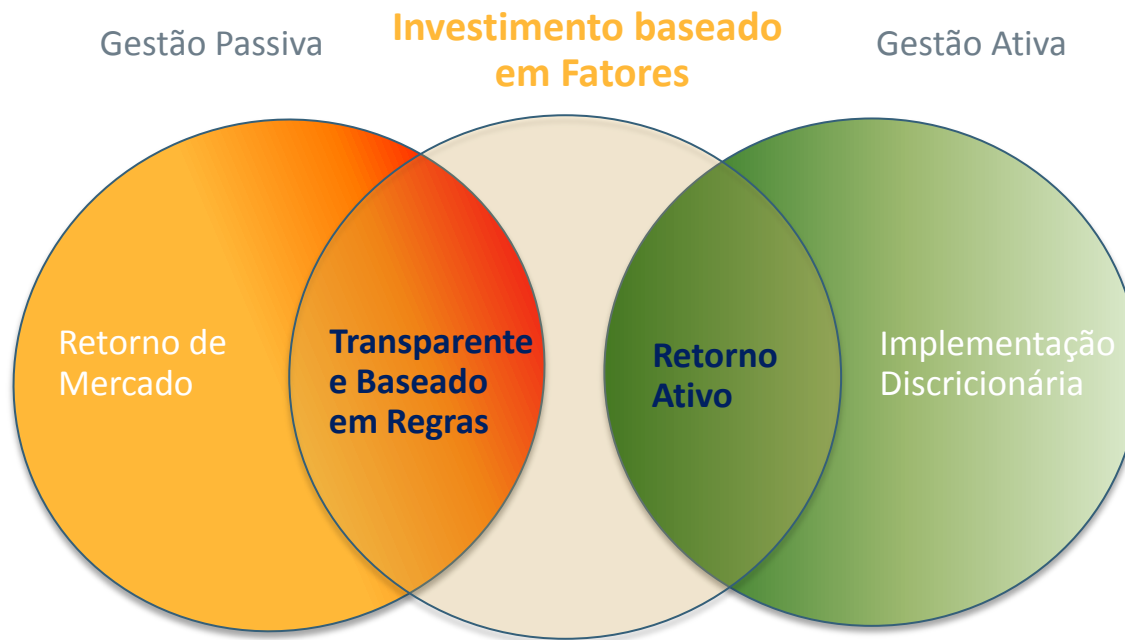
<b>Fator</b>	<b>Risco</b>	<b>Ciclo Econômico</b>
Valor	Comparável ao do mercado	<b>Pró-cíclico</b>
<i>Momentum</i>	Comparável ao do mercado	<b>Pró-cíclico</b>
<i>Low Size</i>	Superior ao do mercado	<b>Pró-cíclico</b>
Qualidade	Inferior ao do mercado	<b>Defensivo</b>
Baixa Volatilidade	Inferior ao do mercado	<b>Defensivo</b>
<i>Yield</i>	Inferior ao do mercado	<b>Defensivo</b>

# 2

## IMPLEMENTANDO ALOCAÇÃO EM FATORES NAS CARTEIRAS DE FUNDOS DE PENSÃO

# INVESTINDO EM FATORES

- Investimento em fatores está entre a gestão passiva tradicional e a gestão ativa





# A FAMÍLIA DE ÍNDICES DE FATORES MSCI

- Os índices de fatores da MSCI oferecem uma maneira **transparente, baseada em regras, flexível e eficiente em custo** para capturar a exposição em fatores
- Índices de Fatores são **complementares** aos índices ponderados por Capitalização de Mercado

## Índices de Fatores MSCI

	Factor	High Exposure	High Capacity
DEFENSIVO	Volatilidade	MSCI Minimum Volatility Index	MSCI Volatility Tilt Index
	Qualidade	MSCI Quality Index	MSCI Quality Tilt Index
	Yield	MSCI Enhanced Dividend Index	MSCI Dividend Tilt Index
DINÂMICO	Valor	MSCI Enhanced Value Index	MSCI Value Weighted Index
	Size	MSCI Equal Weighted Index	MSCI Size Tilt Index
	Momentum	MSCI Momentum Index	MSCI Momentum Tilt Index

# FATORES NO BRASIL – CASO 1 – MSCI BRAZIL MIN VOL

## Index Comparison Report

Portfolio: MSCI BRAZIL MINIMUM VOLATILITY (USD) - Daily  
 Benchmark: MSCI BRAZIL - Daily  
 Risk Model: GEM2L

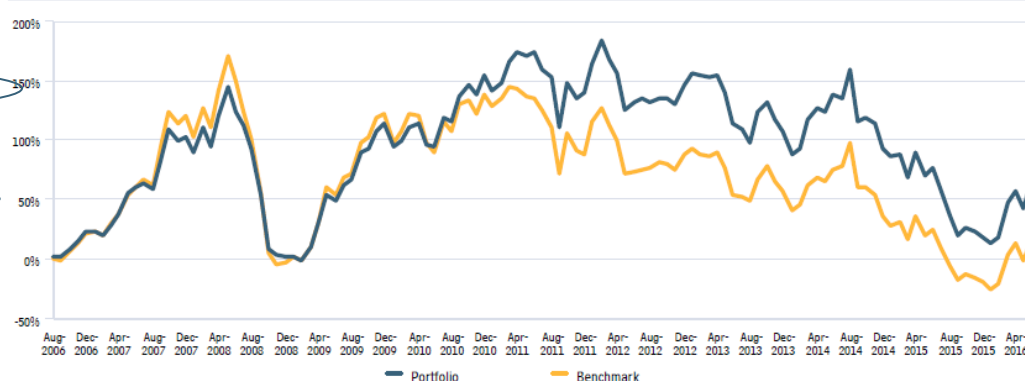
Base Currency: USD  
 Start Date: 2006/07/31  
 End Date: 2016/07/31

### Key Metrics

Portfolio	Value
Total Return * (%)	6.28
Total Risk * (%)	30.31
Return / Risk	0.21
Active Return * (%)	3.68
Tracking Error * (%)	7.18
Information Ratio	0.51
Sharpe Ratio	0.18
Historical Beta	0.87
Turnover ** (%)	1.62
Active Share (%)	39.09
Avg No of Stocks	-

\* Annualized in USD for the period.  
 \*\* Monthly one-way index turnover for the period.

### Index Performance Chart



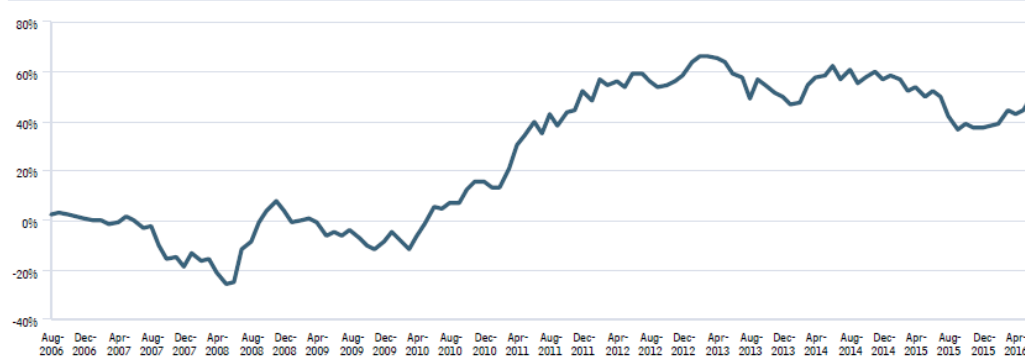
10 anos de análises

### Performance Summary

Period	Portfolio	Benchmark
YTD	56.82	61.38
1 Yr	15.73	18.35
3 Yr	-4.20	-5.17
5 Yr	-6.69	-10.49
Full Period	6.28	2.60

Returns are Annualized for periods longer than one year.

### Relative Performance



Os ciclos econômicos

# FATORES NO BRASIL – CASO 2 – MSCI BRAZIL QUALIDADE

## Index Comparison Report

Portfolio: MSCI BRAZIL QUALITY - Daily  
 Benchmark: MSCI BRAZIL - Daily  
 Risk Model: GEM2L

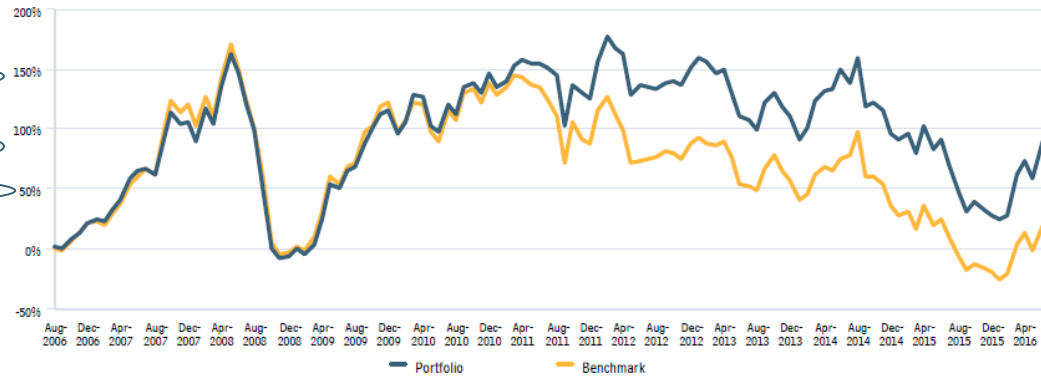
Base Currency: USD  
 Start Date: 2006/07/31  
 End Date: 2016/07/31

### Key Metrics

Portfolio	Value
Total Return * (%)	7.37
Total Risk * (%)	32.06
Return / Risk	0.23
Active Return * (%)	4.77
Tracking Error * (%)	7.22
Information Ratio	0.66
Sharpe Ratio	0.20
Historical Beta	0.91
Turnover ** (%)	1.90
Active Share (%)	56.04
Avg No of Stocks	-

\* Annualized in USD for the period.  
 \*\* Monthly one-way index turnover for the period.

### Index Performance Chart



### Performance Summary

Period	Portfolio	Benchmark
YTD	59.70	61.38
1 Yr	20.14	18.35
3 Yr	-0.50	-5.17
5 Yr	-4.07	-10.49
Full Period	7.37	2.60

Returns are Annualized for periods longer than one year.

### Relative Performance



# FATORES NO BRASIL – CASO 3 – MSCI BRAZIL VALOR

## Index Comparison Report

Portfolio: MSCI BRAZIL VALUE WEIGHTED - Daily  
 Benchmark: MSCI BRAZIL - Daily  
 Risk Model: GEM2L

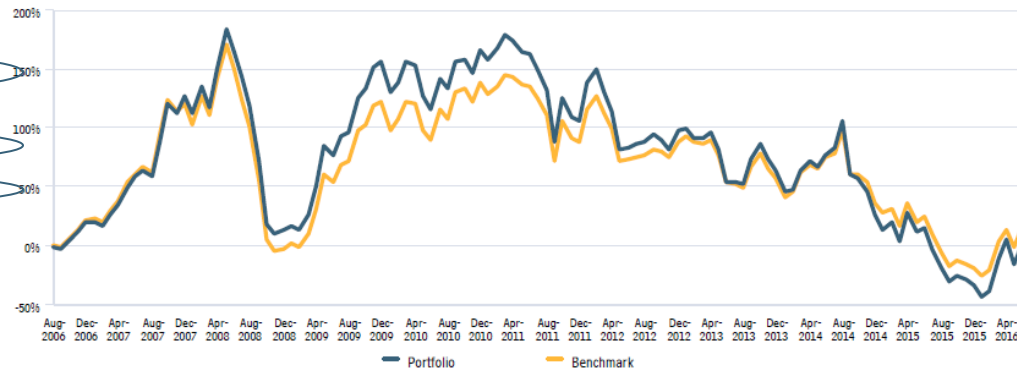
Base Currency: USD  
 Start Date: 2006/07/31  
 End Date: 2016/07/31

### Key Metrics

Portfolio	Value
Total Return * (%)	1.63
Total Risk * (%)	30.49
Return / Risk	0.04
Active Return * (%)	-0.97
Tracking Error * (%)	7.05
Information Ratio	-0.12
Sharpe Ratio	0.02
Historical Beta	1.10
Turnover ** (%)	1.00
Active Share (%)	21.47
Avg No of Stocks	-

\* Annualized in USD for the period.  
 \*\* Monthly one-way index turnover for the period.

### Index Performance Chart



### Performance Summary

Period	Portfolio	Benchmark
YTD	79.32	61.30
1 Yr	22.45	18.35
3 Yr	-8.36	-5.17
5 Yr	-14.01	-10.49
Full Period	1.63	2.60

Returns are Annualized for periods longer than one year.

### Relative Performance



### III. CONSIDERAÇÕES FINAIS

- Fatores são uma nova alternativa de investimento
- Globalmente, fatores tem mostrado um bom retorno ajustado ao risco
- Não existe almoço grátis – a importância dos ciclos econômicos
- O investimento em fatores pode ser em um ou mais fatores combinando diferentes exposições aos ciclos econômicos
- Investimento através de fatores complementa os demais tipos de investimento (*passivo tradicional* e ativo)

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