

Emerging Markets: How Far Can They Go?

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TEXPERS: Looking Beyond the Basics
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Questions to Answer

- **What Are the Emerging Markets?**
- **Why Should We Care About Investing in Emerging Markets?**
- **Do Developed Markets' Portfolio Construction Techniques Work in Emerging Markets?**
- **What Portfolio Construction and Management Techniques Are Appropriate?**
- **How Important Is Liquidity Screening in Emerging Markets?**
- **Are Your Emerging Markets' Returns the Result of Luck or Skill?**

What Are the Emerging Markets?

South Korea

China

Taiwan

Brazil

Russia

South Africa

India

Mexico

Malaysia

Israel

Poland

Chile

Turkey

Indonesia

Thailand

Hungary

Egypt

Czech Republic

Argentina

Peru

Philippines

Morocco

Colombia

Pakistan

Jordan

Why Should We Care About Investing in Emerging Markets?

Ten-Year Annualized Holding Periods

(as of March 5, 2008)

| Index | Percentage |
|---------------------------------|------------|
| MSCI Emerging Markets | 10.76% |
| MSCI EAFE + Canada | 5.08% |
| US Investable Market 2500 Index | 4.80% |
| MSCI EAFE | 4.59% |
| MSCI World Index | 3.64% |

Source: MSCI/BARRA (March 6, 2008)

Do Developed Markets' Portfolio Construction Techniques Work in Emerging Markets?

MSCI Emerging Markets' ICs

December 1995 to March 2007

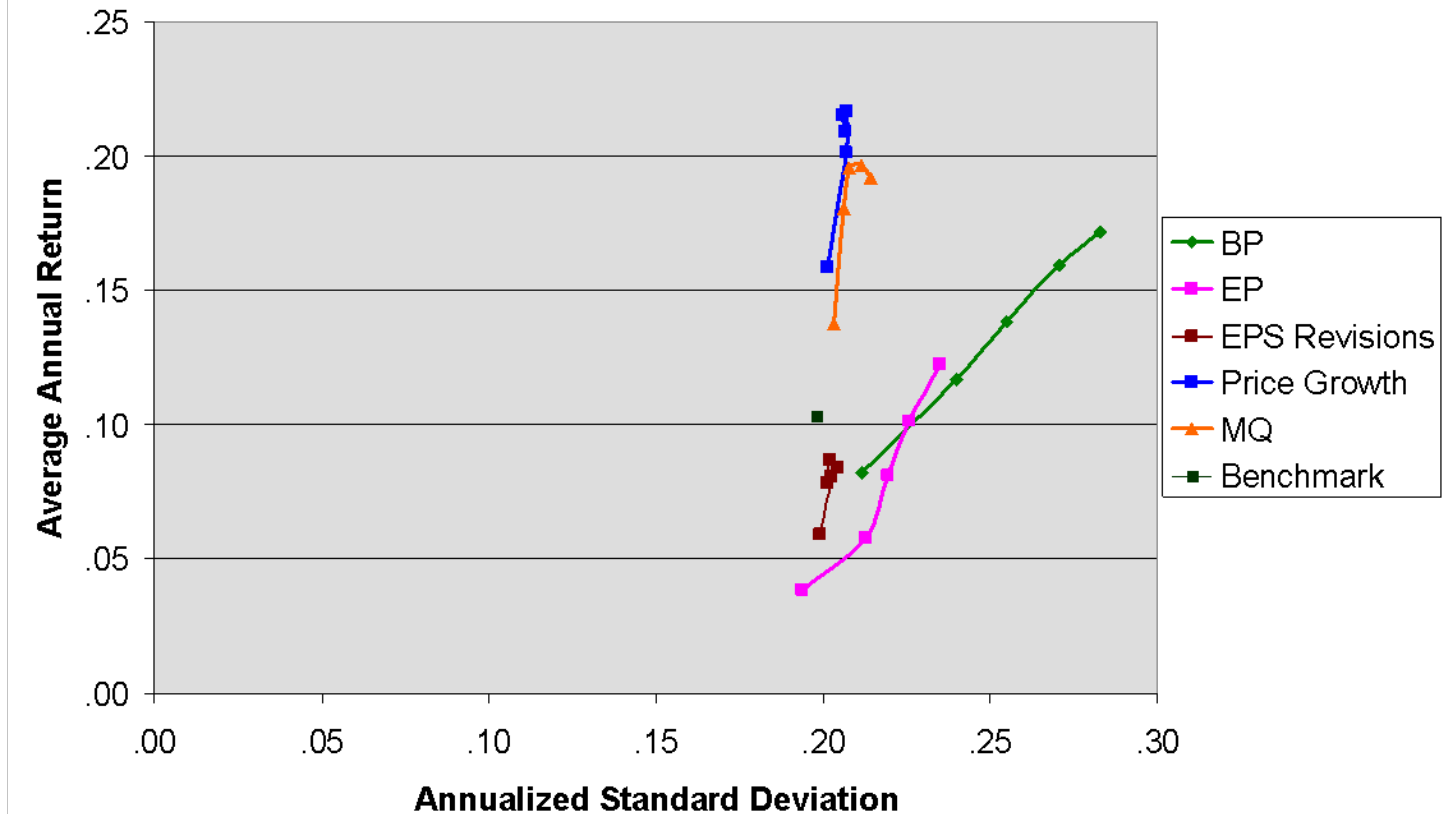
| | ALL | | Liquidity-Screened | |
|---------------|-------|--------------|--------------------|--------------|
| | ICs | T-statistics | ICs | T-statistics |
| Price Growth | .031 | 11.41 | .028 | 5.40 |
| EPS Revisions | .009 | 3.29 | .016 | 3.26 |
| EP | .021 | 7.64 | .025 | 11.27 |
| BP | -.011 | -4.08 | -.017 | -2.91 |
| MQ | .036 | 9.98 | .040 | 5.81 |

Do Developed Markets' Portfolio Construction Techniques Work in Emerging Markets?

Portfolio Construction

All IBES-Securities EM Universe

December 1995 to March 2007

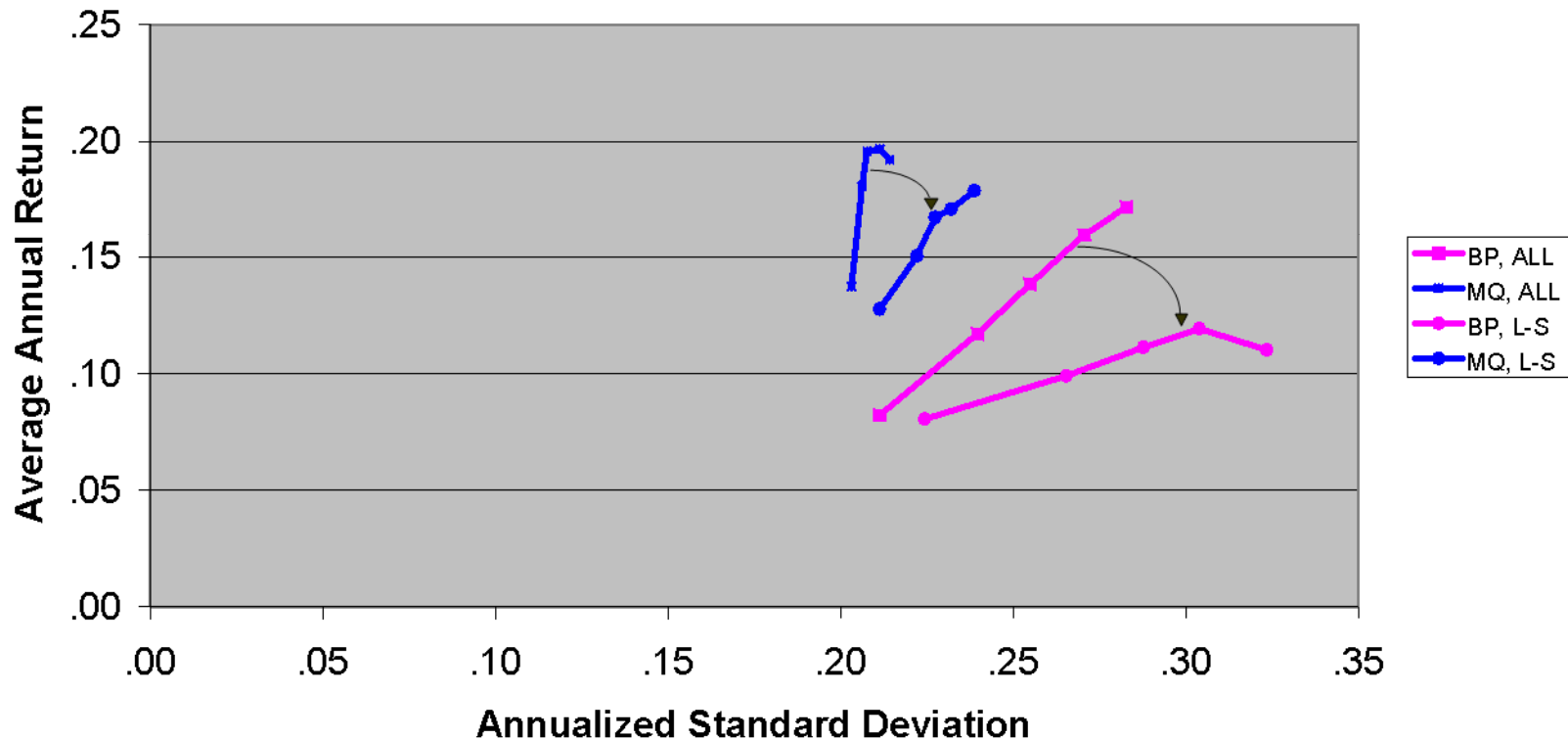


▪ Liquidity screening begins in December 1995 with daily emerging markets' trading volume on most securities. Additionally, APT Associates' simulated data capabilities do not precede this date.

▪ The IBES database of all EM securities was used herein. This is a larger universe than the constituents of the MSCI EM Index.

Do Developed Markets' Portfolio Construction Techniques Work in Emerging Markets?

Portfolio Construction All IBES-Securities EM Liquidity Screened Analysis 1995 to 2006



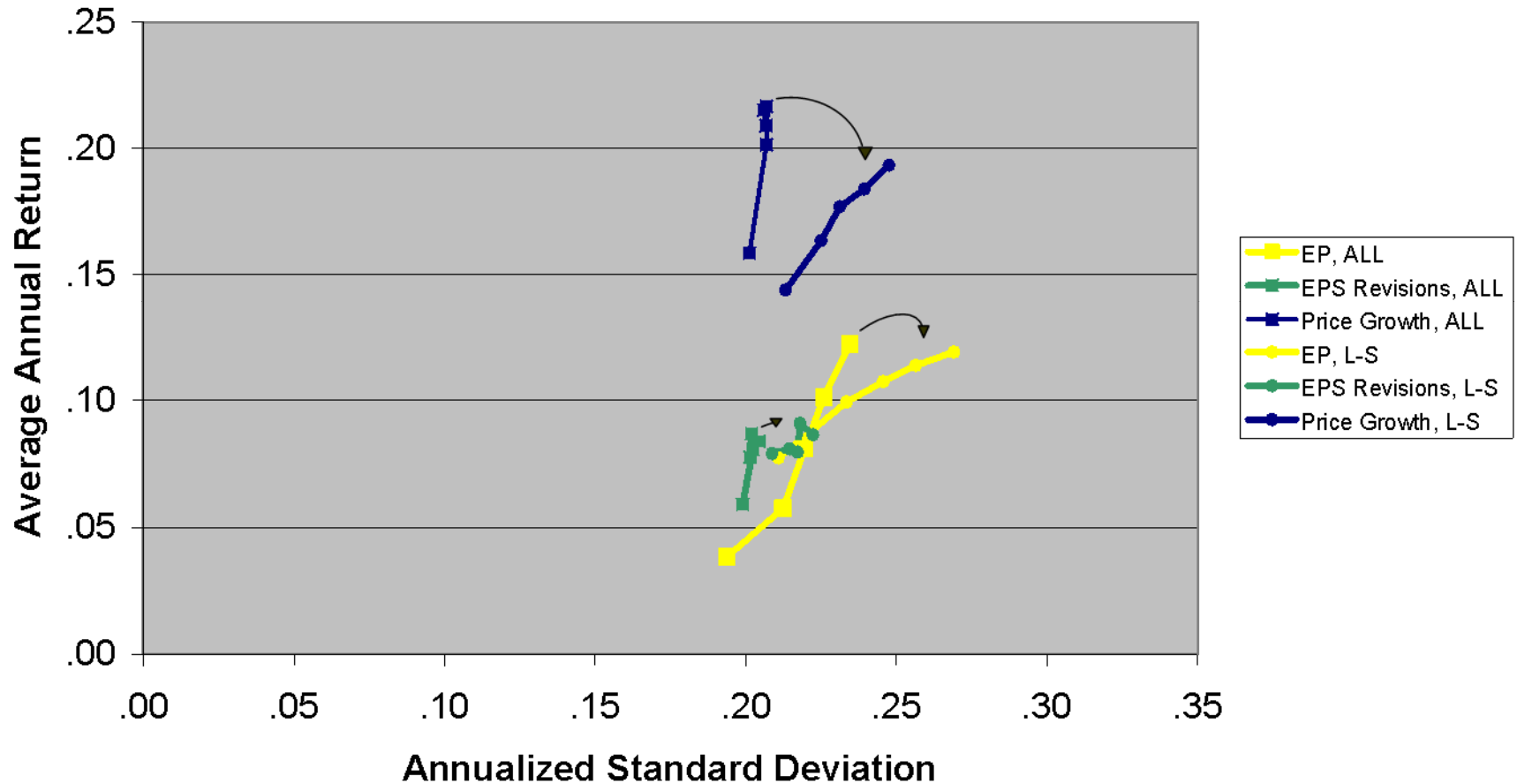
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Do Developed Markets' Portfolio Construction Techniques Work in Emerging Markets?

Portfolio Construction

All IBES-Securities EM Liquidity Screened Analysis

1995 to 2006



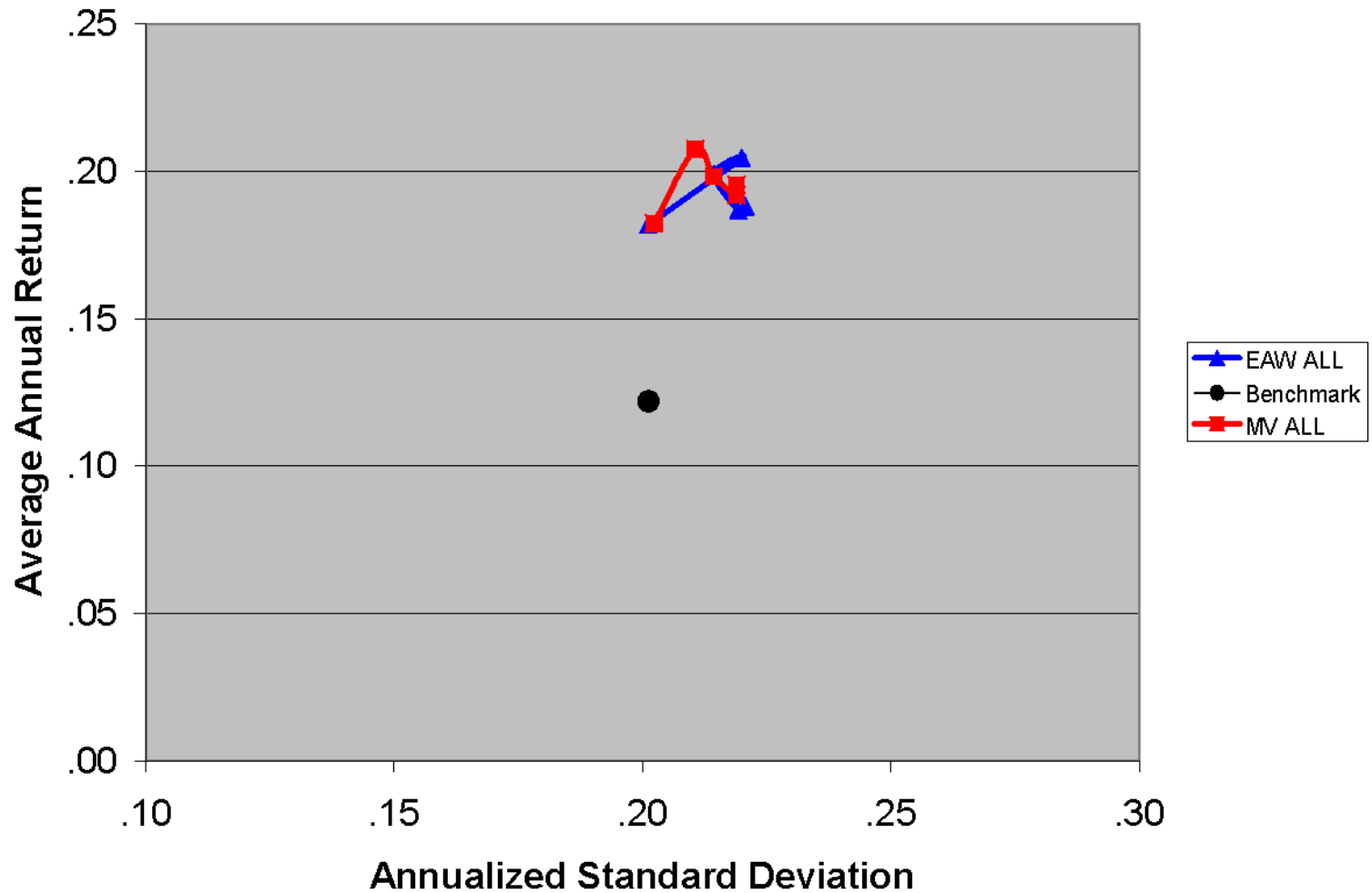
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What Portfolio Construction and Management Techniques Are Appropriate?

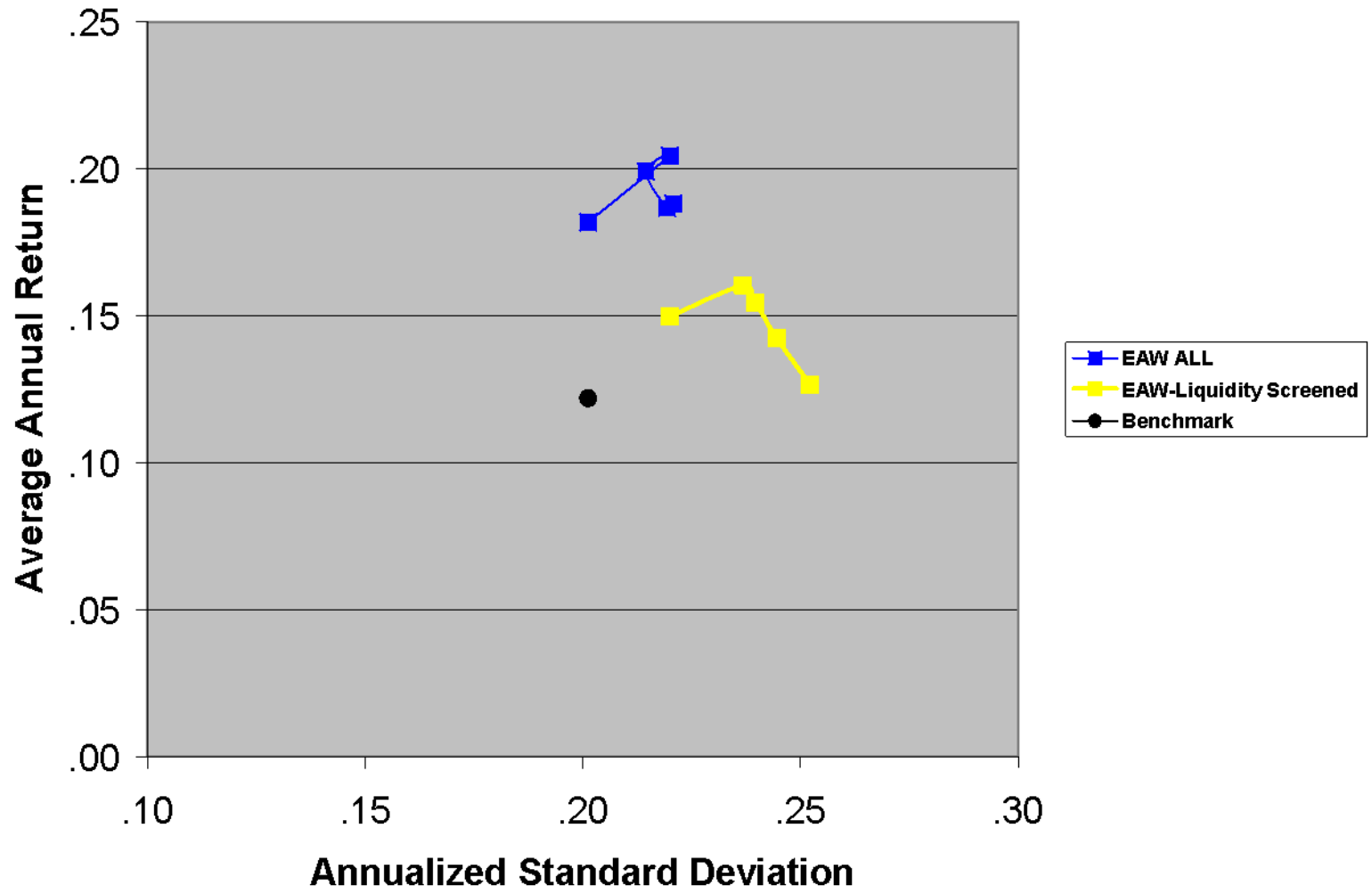
Alternative Portfolio Construction Applications

December 1995 to December 2007



How Important Is Liquidity Screening in Emerging Markets?

Emerging Markets' Strategy
December 1995 to December 2007



Are Your Emerging Markets' Returns the Result of Luck or Skill?

Model Returns for Data Mining

Corrections Test

December 1995 to March 2007

| Model / Variable | Historic Returns | |
|----------------------|------------------|---|
| BP | .120 | |
| EP | .114 | |
| FEP1 | .104 | |
| FEP2 | .104 | |
| Price Growth1 | .156 | ✓ |
| Price Growth2 | .182 | ✓ |
| EPS Revisions1 | .083 | |
| EPS Revisions2 | .094 | |
| MQ | .172 | ✓ |
| Average Model | .120 | |

Conclusions

- **Emerging Markets have offered higher returns than developed markets during the past ten years.**
- **Price Momentum and analysts' revisions, factors associated with returns in developed markets, are useful in stock selection models in Emerging Markets.**
- **Mean-Variance optimization and Equal Active Weighting can be effectively used for portfolio construction in Emerging Markets.**
- **Equal Active Weighting portfolios are more easily traded.**
- **Liquidity screening is important in Emerging Markets. Excess returns may be effectively reduced by one-half because of illiquid stocks.**
- **Several strategies pass the data mining test.**

An investor who seeks to maximize return, relative to risk, should consider Emerging Markets.

McKINLEY CAPITAL MANAGEMENT, INC.

Global Growth Specialist



Disclosure

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