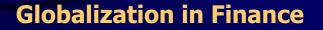
Risk & Return of Islamic Stock Market Indexes

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Trends in investment selection during the past decade:

- Individual and institutional investors are placing more assets in 'socially responsible' portfolios particularly in the U.S.
 - Between 1997 and 2000, the size of these funds almost doubled from \$1.185 trillion to \$2.16 trillion.
- Second, investors are increasingly interested in tying their assets to indexes rather than relying entirely on 'active' money management.
 - The size of pension funds tied to stock indexes in the US grew 30% between 1998 and 1999.
- This change was dwarfed by the spectacular increase in the assets of Islamic financial institutions which grew 40 fold since 1982 to reach over \$230 b today.



During the 1990s

Assets managed by institutional investors doubled and by 1998 amount to 100% of World GDP or 30 trillion

Net Private Capital flows to emerging markets doubled

Same Trends in Islamic Financial Intermediaries

- Integration in Global Markets
 - multinational banks offering Islamic products
 - Major stock exchanges provide Islamic indices
- Consolidation
 - Mergers in Bahrain, Malaysia, Brunei, Pakistan
- Diversity of Products and Complex Risks



 The globalization of financial markets increases the strength of market linkages

- markets are subject to common shocks
- Global slowdown creates global credit quality issues as corporate earnings decline

Market contagion effects from global portfolio rebalancing and open financial markets lead to narrower margins and more competitive environment



These concerns are amplified for Islamic Intermediaries

- Unique risks in Islamic intermediaries.
 - Specific characteristics of Islamic instruments and the associated mix of risks.
 - Limitations on asset diversification—based on Sharia'a restrictions on investments.
 - Increased operational risks, including legal risks.
 - Absence of uniform prudential rules.
 - Weakness in market infrastructure liquidity infrastructure.



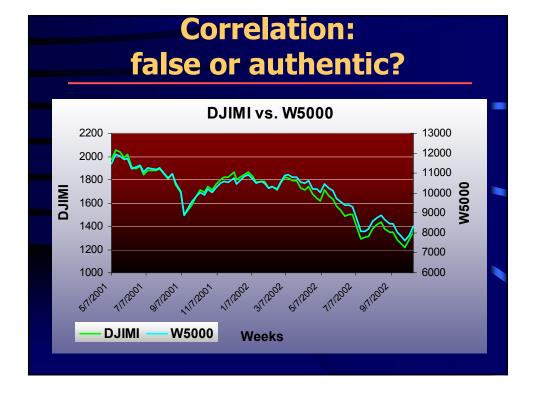
Why Demand for Islamic Investments is increasing?

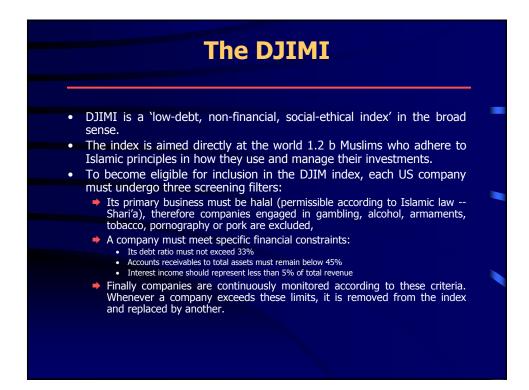
- Search for alternatives to Western style markets given added impetus in Muslim countries by:
 - the turmoil in Asian financial markets in 1997,
 - the ensuing meltdown in emerging equity markets worldwide,
 - ♦ and more recently the 'bear' market in US and European equities since March 2000
 - Several financial scandals.
 - In the Western model, several fiascoes:
 - Savings & Loans crisis (\$240 b in '89)
 - Metallgesallschaft (\$1b loss in '93)
 - Barings Bank
 - Procter & Gamble (\$160m in `94)
 - Orange County, CA (\$1.7b in '95)
 - Long Term Capital Management (\$4b in `98)
 - Global Crossing (\$billions in `01)
 - Enron (\$billions in `01)
 - Worldcom (\$3b in '02)
- In response, many large Western financial institutions have established their own Islamic subsidiaries and offered Islamic financial instruments targeted directly at their Islamic clientele.

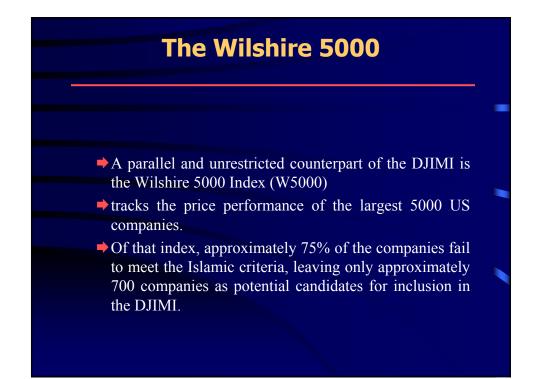
Targeting investors with a broad Family of index funds

	No. of	Market	Capitalizat (US\$)*	ion Data	Comp	onent Weig	ght (%)
Index	Stocks	Total	Average	Median	Тор 10	Top 25	Top 50
Dow Jones Islamic Market	1,273	7,931.60	5.5	0.9	23.06	41.25	56.75
DJ Islamic Market US	596	4,609.20	7.3	1.2	34.7	55.13	71.45
DJ Islamic Market Technology	340	1,652.70	4.3	0.6	57.51	74.22	84.18
DJ Islamic Market Extra Liquid	100	5,291.20	47.7	30.7	32.77	59.29	82.04
DJ Islamic Market Canadian	58	97.7	1.3	0.6	66.57	88.62	99.17
DJ Islamic Market UK	91	752.4	5	0.9	68.74	88.69	96.79
DJ Islamic Market Japan	151	604.3	2.9	1.2	42.27	65.15	81.05
DJ Islamic Market Europe	257	2,147.60	6.9	0.9	54.27	75.71	87.07
DJ Islamic Market Asia/Pacific	337	1,028.10	2	0.6	29.61	50.12	68.39

DOW JONES ISLAMIC MARKET INDEX MARKET CAPITALIZATION



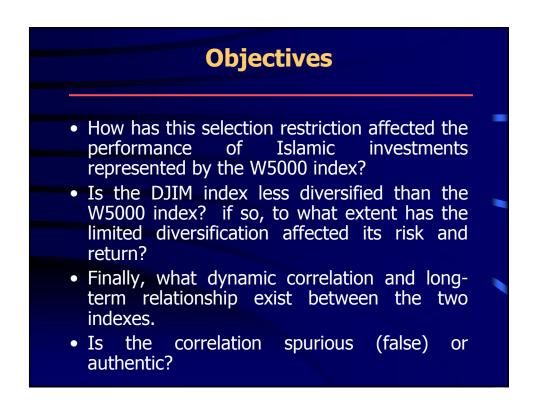




Main Questions

• Are Muslim investors being penalized for Shari'a restriction?

• Is the Shari'a restriction causing Muslim investors to bear additional risk and/or lower return?

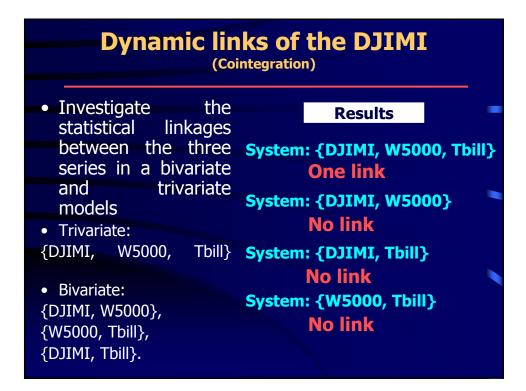


How does the DJ Islamic Index rank up?

Table 1 - Descriptive Statistics							
	DJ Islamic Mkt Wilshire Index 5000		3m Tbill				
Annualized Mean	-19%	-12%	-0.01%				
Annualized Median	-7%	-4%	0.00%				
Daily Maximum	10.30%	5.20%	0.01%				
Daily Minimum	-9.50%	-6.70%	-0.01%				
Annualized Std. Dev.	22%	24%	0.02%				
Sharp Ratio	-118%	-194%	-194%				
Number of Obs.	702	702	702				

Historical Performance of DJIMI

- On a return basis, the 3m Tbill dominates both DJIMI and W5000
 - the period of the study was marked by a significant decline in equity prices worldwide.
- DJIMI less risky than W5000 (22% vs. 24%).
 - This is a somewhat surprising result because W5000 represents a more diversified market basket of stocks than the more restrictive DJIMI.
- Sharp Ratio basis, (risk per unit of return).
 - DJIMII outperforms not only the W5000, but, surprisingly, ranks at par with the Tbill rate, in spite of significant volatility on a historical basis (September 11).
- Overall, the risk performance of DJIMI is more attractive than the W5000
 - ♦ Sharp Ratio that is 64% lower (118% vs. 194%).
- Statistical (unit roots) tests confirm that DJIMI follows a random walk.



Analysis of Dynamic Links Suggests

- Only W5000 exhibits a long-term stable link with the interest rate
- Absence of any link between DJIMI and the interest rate

natural consequence of the selection criteria of the stocks which comprise the index.

- Absence of any link between DJIMI and W5000, a broad market index which incorporates all of the stocks included in the DJIMI.
- Why? Exogenous variables may impact one index but not the other.

Causality + short- & long-term links

- Statistical analysis (cointegration) among the three series implies that causality must exist among these series in at least one direction.
- Results:
 - neither the Wilshire 5000 nor the 3m Tbill are significant in explaining the variability in the Islamic index in either the short- or long-terms.
 - In contrast, the Wilshire 5000 is strongly influenced by movements in interest rates.
- Previous results: Dow Jones Inc., the publisher of the Islamic index boasts a 92% to 94% statistical correlation between the index and the rest of the market.
 - Correlation is spurious and not stable
 - DJIMI is influenced by entirely independent factors.

