

CREATION OF MOROCCAN ISLAMIC INDEXES BY THE METHOD OF FILTERING ACCORDING TO THE STANDARDS OF ICB SECTOR CLASSIFICATION « INDUSTRY CLASSIFICATION BENCHMARK »

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ABSTRACT

Islamic indexes have been launched since a decade on many markets including American and English markets. The goal of this optic is to propose to investors a means of diversification of their portfolios in order to invest in accordance with the Sharia principles. The objective of this paper is to present Islamic indexes on an international scale and to create Moroccan Islamic indexes by both methods of quantitative and qualitative filtering according to the principles of ICB sector classification « Industry Classification Benchmark ». The creation of the two Moroccan Islamic indexes will be realized on collected information in 2016 about listed companies on the Casablanca stock exchange.

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INTRODUCTION

Part 1: Stock market indexes

Chapter 1: Presentation of Casablanca stock exchange and their indexes

The creation of Casablanca stock exchange can be situated around 1929. In this period, the stock exchange was named the clearing office of securities. The importance of securities market and the establishment of exchange controls has motivated authorities of the time to improve and regulate its organization and operation. In 1948, the clearing office of securities became listing office of securities.

Stock market indexes: MASI & MADEX: The follow-up of the stock exchange situation means a pertinent indicators battery able to reflect permanently securities progress.

The stock market indexes are calculated in a scientific way on the basis of a sample representative of publicly listed securities. The stock exchange performance is generally measured by many indexes:

Principal index: measures the global performance of the stock exchange. This index is calculated start from the whole or the majority of companies listed on the stock exchange.

Sector indexes: measure the performance of a subset of companies having common characteristics. These indexes are calculated start from companies included in the targeted subset (for instance companies of services sector as banks, insurance companies.... etc).

In morocco and till 2001, the performance of Casablanca stock exchange was measured by stock exchange global index named ICB of which the bedrock has been differentiated in comparison with the new stock exchange progresses. Also, since January 2002, two new indexes was established, more adapted to the new modernized stock market configuration.

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The MASI

For the country of Morocco, the MASI "Moroccan All Shares Index" takes into consideration all the listed values on the Casablanca stock exchange. It allows to have a global idea on the market performance and the enthusiasm of all investors. All companies listed on the Casablanca stock exchange are evaluated in the MASI.

The MASI is constituted by 74 companies (Source: www.casablanca-bourse.com)

The MADEX

The MADEX or "Moroccan Most Active Shares Index" gathers most active values of the Moroccan stock market. The MADEX operates like the French index CAC 40 that gathers the 40 most bigger companies of the Parisian stock exchange. The MADEX represents 62% of the MASI.

The impact of creating the two Moroccan indexes

The creation of MASI & MADEX have involved massive introduction of many big companies. This is due to the fact that new indexes & their sector recomposition allow the investor to anticipate the progress of the price in terms of economical activity of the sector. The sample of every sector index is composed of values whole belonging to this sector. The composition update of every sector sample is realized every year, in order to take account of the progress of economical conditions & of the growth of some sectors.

In general, both indexes have allowed:

- The rise of the competitiveness of Casablanca stock exchange at international scale;
- The offer of securities introduced in the Stock exchange has become more important;
- Important entries of currency in the stock exchange.

Chapter 2: Presentation of the main Islamic indexes at the international scale

DJIM Index: Launched in February 1999, the Dow Jones Islamic Market index (Dow Jones since 2010) reflects the progress of companies belonging to 66 countries in the world representing Islamic finance criteria. The family DJMI gathers more than 90 indexes spread according to geographic areas, activity sectors and size of companies.

The FTSE Sharia global equity index series: Born from a merger between the FTSE and Yasaar consulting company. This series covers the indexes of DIFX¹ Sharia, the SGX² 100 and the FTSE Bursa Malaysia index (FTSE since 2010).

S&P Index series: The Standard & Poor's agency has launched in 2006 the Islamic version of its reference indexes as well as other new ones.

MSCI index: Launched in march 2007, Islamic indexes family of "Morgan Stanley Capital International" ensures an important geographic coverage.

Stoxx: The Stoxx company, belonging to both six groups and German stock exchange, has launched in 23 February 2011 the first stock market indexes in continental Europe "the Stoxx 2011". It gathers "the STOXX Europe Islamic Index" and its two under-indexes "the STOXX Europe Islamic 50" and "EURO STOXX Islamic 50". The three indexes of this family are selected through the filtering process of 600 companies of the index "the STOXX Europe 600 Index".

Other indexes: Previously, we have presented the main indexes at international scale. However, other Islamic stock market indexes exist but with a limited coverage at national scale :

Taiwan stock exchange: The Islamic index has been launched in November 2008 in partnership with the FTSE.

Indian stock exchange: The Islamic index "Parsoli Islamic Equity (PIE)" launched in partnership with Parsoli institution.

Karachi stock exchange of Pakistan: The first Islamic index has been launched in September 2008 in partnership with investment company Al Meezan.

Malaysia stock exchange: The last Islamic index was replaced in 2007 by two indexes "the Bursa Malaysia EMAS³ Sharia Index" and "the FTSE Bursa Malaysia Hijrah Sharia Index". Both of them have been launched in partnership with the FTSE and destines respectively to Malaysian and international investors.

Kuwait stock exchange: among many Islamic stock market indexes, the stock exchange has "the Kuwait Sharia Criteria Index⁴".

Part 2: Creation of Islamic indexes on the Moroccan financial place

Chapter 1: selection criteria and principles of Islamic indexes

A value could be integrated in the Islamic index if it's in accordance with the basic principles of Sharia. For this, we install quantitative & qualitative filters in order to integrate a value into the index. But the finale decision revert to the Sharia committees that valid the conformity of values included in the index.

Qualitative filtering: In terms of Sharia, it is prohibited to invest in sectors such as weapons, alcohol, tobacco, drugs, peek. Are prohibited as well pornography, debauchery, chance games and investment in the conventional insurance and financial institutions with operations of lending or borrowing with interest. To Judge if a company could succeed or not the qualitative filtering, we have to verify if its area of activity is present within a list that gathers sectors and under-sectors of activities judged illicit by the Sharia committee. This classification is named ICB⁵ (Next table)

³Expressway Monitoring Advisory System

⁴Abdelbari El Khamlichi; Ethique et performance : le cas des indices boursiers et des fonds d'investissement en finance islamique. Université d'Auvergne – Clermont-Ferrand I, 2012.

⁵Industry Classification Benchmark

¹Dubai International Financial Exchange

²Singapore Exchange

ICB codes of 23 prohibited sectors by the Sharia committee of Dow Jones

ICB codes	Designation
2717	Defense
3535	Distillers & winemakers
3577	Food products
3745	Leisure products
3785	Tobacco
5337	Retailers & food wholesalers
5553	Audiovisuel and entertainment
5555	Media agency
5752	Chance and money games
5753	Hotels
5755	Leisure services
5757	Restaurants and bars
8355	Banks
8532	Insurance
8534	Insurance broker
8536	Insurance, real estate and damages
8538	Reinsurance
8575	Life insurance
8733	Real estate and development
8773	Consumer finance
8775	Specialized financial activities
8777	Investment services
8779	Hypothecary financings

Quantitative filtering: This second filtering consists to sort retained companies after succeeding the first filtering and keep only those who present a solid financial structure.

These quantitative filtering concern next levels:

- Level of debts;
- Level of receivables;
- Level of liquidities generating interest.

The level of debts: The goal is to measure the level of indebtedness to be sure that the company is moderated indebted (or preferably non indebted). In fact, one of the main keys that distinguish the Islamic finance is the prohibition of borrowing with interest and practice of discount, reason for why the level of company indebtedness is taken into consideration.

We explain this point by the next table:

Debt Thresholds in the case of three Islamic indexes

Index	Filter Of debts
Dow Jones Islamic	Total of debts < to 33%
	Average market capitalization (24 last months)
S&P Sharia	Total of debts < to 33%
	Average market capitalization (36 last months)
FTSE Sharia	Total of debts < to 33%
	Total of assets

The level of receivables

The company should not have a receivables level exceeding these thresholds. If the majority of stocks is in the form of receivables, The company's current asset is heavily dominated by cash flows with risk that these receivables could be unrecoverable.

Receivables Thresholds in the case of three Islamic indexes

Index	Filter of receivables
Dow Jones Islamic	Total of receivables < to 33%
	Average market capitalization (24 last months)
S&P Sharia	Total of receivables < to 49%
	Average market capitalization (24 last months)
FTSE Sharia	Total of receivables < to 70%
	Total of assets

Level of cash

Based on the principle that interests are prohibited in Islamic finance, the next filter defines maximum level of cash the company should have. So, it is forbidden to invest in companies of which one of the main activities is about bank deposits, or in companies of which majority of assets are cash.

Cash Thresholds in the case of three Islamic indexes

Index	Filter of cash
Dow Jones Islamic	Total of cash & stocks based on interests < to 33%
	Average market capitalization (24 last months)
S&P Sharia	Total of cash & stocks based on interests < to 33%
	Average market capitalization (36 last months)
FTSE Sharia	Total of cash generating interests < to 50%
	Total of assets

Chapter 2: creation of two Islamic stock market indexes

Section 1: qualitative filtering: MASI & MADEX

Qualitative filtering of MASI: According to the codes of ICB standards, qualitative filtering allowed to eliminate the next companies:

Eliminated companies	Prohibition codes according ICB
BCP	Code 8355 : Banks
Alliances	Code 8733 : Real estate and development
Wafa Assurance	Code 8532 : Insurance
Attijariwafa BANK	Code 8355 : Banks
BMCE BANK	Code 8355 : Banks
Lesieur cristal	Code 3577 : Food products
Centrale Danone	Code 3577 : Food products
UNIMER	Code 3577 : Food products
Dari couspate	Code 3577 : Food products
Cartier SAADA	Code 3577 : Food products
Saham Assurance	Code 8532 : Insurance
AFMA	Code 8532 : Insurance
AGMA Lahlou-Tazi	Code 8532 : Insurance
CIH	Code 8355 : Banks
CDM	Code 8355 : Banks
BMCI	Code 8355 : Banks
Brasseries du Maroc	Code 3535 : Distillers & winemakers
Oulmes	Code 3577 : Food products
LABEL VIE	Code 5337 : Retailers & food wholesalers
Balima	Code 8733 : Real estate and development
Salafin	Code 8773 : Consumer financing
Maghrebail	Code 8773 : Consumer financing
Eqdom	Code 8773 : Consumer financing
Maroc Leasing	Code 8773 : Consumer financing
Taslif	Code 8773 : Consumer financing
AXA crédit	Code 8773 : Consumer financing
DIAC Salaf	Code 8773 : Consumer financing
Zellidja S.A	Code 5753 : Hotels (holdings)
Risma	Code 5753 : Hotels
Cosumar	Code 3577 : Food products
Atlanta	Code 8532 : Insurance
Res Dar Saada	Code 8733 : Real estate and development
DoujaPromAddoha	Code 8733 : Real estate and development

⇒ The first selection has eliminated 33 companies (45% of values)

Qualitative filtering of MADEX: According to the codes of ICB standards, qualitative filtering allowed to eliminate the next companies:

Eliminated companies	Prohibition codes according ICB
BCP	Code 8355 : Banks
Alliances	Code 8733 : Real estate and development
Wafa Assurance	Code 8532 : Insurance
Attijariwafa BANK	Code 8355 : Banks
BMCE BANK	Code 8355 : Banks
Lesieur Cristal	Code 3577 : Food products
Cartier SAADA	Code 3577 : Food products
Saham Assurance	Code 8532 : Insurance
AFMA	Code 8532 : Insurance
CIH	Code 8355 : Banks
LABEL VIE	Code 5337 : Retailers & food wholesalers
Risma	Code 5753 : Hotels
Cosumar	Code 3577 : Food products
Atlanta	Code 8532 : Insurance
Res Dar Saada	Code 8733 : Real estate and development
Douja Prom Addoha	Code 8733 : Real estate and development

⇒ The first selection has eliminated 16 companies (34,7% of values)

Section 2: quantitative filtering: MASI & MADEX

The second filter consists in sorting retained companies after succeeding the first filter and keeps only those with a solid financial structure.

These quantitative filters concern the three next ratios:

- ✓ R1 : level of debts
- ✓ R2 : level of receivables
- ✓ R3 : cash generating interests

Level of debts

Total of debts

< than 33%

Total of assets

pour mesurer le niveau d'endettement pour s'assurer que l'entreprise est modérément endettée. Il consiste à ne retenir que celles dont ces ratios sont inférieurs à 33%.

MASI

The application of ratio number 1 "R1" on 41 remained values allows us to eliminate 23 values (56% of values):

Example of calculation (Company : Maghreb Oxygène)

Total of debts

Financing debts	: 129.207.041,70 dh (Table 12)
Current liabilities debts	: 94.350.266,15 dh (Table 12)
Total	: 223.557.307,85 dh

Table 11. Eliminated values of MASI (R1)

Values	R1
Med paper	65.47%
IB Maroc.com	54.09%
Sonasis	35.90%
Managem	48.80%
IAM	64.28%
HPS	66.21%
Jet contractors	58.24%
Colorado	33.83%
Maghreb Oxygène	53.06%
Stokvis Nord Afrique	34%
ENNAKL	36.27%
Fennie Brossette	48.82%
TaqMorocco	73.48%
Nexans Maroc	35.88%
Promopharm S.A.	34.90%
Delattre levivier Maroc	63.13%
Stroc industrie	90.46%
Microdata	46.54%
S.M Monétique	36.52%
Afriquia Gaz	60.54%
Timar	35.51%
CTM	56.81%
Total Maroc	55.24%

Table 12. Liabilities balance sheet 2016 (Company:Maghreb Oxygène) Source: https://www.cdgcapitalbourse.ma/static/attached/cdgkb/MOX_ETATS_FINANCIERS_2016.pdf

	PASSIF	Exercice	Exercice précédent
	CAPITAUX PROPRES		
Financement permanent	Capital social du personnel	81250000,00	81250000,00
	moins : actionnaires, capital souscrit non appelé dont versé		
	Prime d'émission de fusion d'apport	40990021,11	40990021,11
	Ecarts de réévaluation		
	Réserve légale	8125000,00	8125000,00
	Autres réserves	53105500,00	53105500,00
	Report à nouveau (2)	3561817,24	870476,14
	Résultat net en instance d'affectation (2)		
	Résultat net de l'exercice (2)	9349819,09	5941341,10
	Total des capitaux propres (a)	196382157,44	190282338,35
	Capitaux propres assimilés (b)		
	Subventions d'investissement		
	Provisions réglementées		
	Dettes de financement (c)	129207041,70	127137104,30
	Emprunts obligataires	100000000,00	100000000,00
Autres dettes de financement			
Autres dettes de financement : (consignations)	29207041,70	27137104,30	
PROVISIONS DURABLE POUR RISQUES ET CHARGES (d)			
Provisions pour charges			
Provisions pour risques			
ECARTS DE CONVERSION - PASSIF (e)			
Augmentation des créances immobilisées			
Diminution des dettes de financement			
TOTAL I (a+b+c+d+e)	325589199,14	317419442,65	

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PASSIF CIRCULANT	DETTES DU PASSIF CIRCULANT (I)	94350266,15	71358609,86
	Fournisseurs et comptes rattachés	52911598,39	33780159,14
	Clients créditeurs, avances et acomptes		
	Personnel	1861614,48	1841427,66
	Organismes sociaux	2645837,62	2439229,02
	Etat	34766142,52	31066815,21
	Comptes d'associés		
	Autres créances	201911,36	
	Comptes de régularisation-passif	1963163,78	1942020,57
	AUTRES PROVISIONS POUR RISQUES ET CHARGES (g)	416560,41	621613,26
	ECART DE CONVERSION - PASSIF (h) (Element circulants)	103089,57	56613,94
	TOTAL II (I+g+h)	94869916,13	72036837,06
Trésorerie	TRESORERIE PASSIF	845462,97	14441345,80
	Crédit d'escompte		
	Crédit de trésorerie		
	Banques (soldes créditeurs)	845462,97	14441345,80
	TOTAL III	845462,97	14441345,80
	TOTAL I+II+III	421304578,24	403897625,5

Table 13. Assets balance sheet 2016 (Company: Maghreb Oxygène) Source: https://www.cdgcapitalbourse.ma/static/attached/cdgkb/MOX_ETATS_FINANCIERS_2016.pdf

	Exercice			Exercice précédent	
	ACTIF	Brut	Amortissement et provisions	Net	
ACTIF IMMOBILISE	IMMOBILISTAION EN NON VALEUR(a)				
	Frais préliminaires				
	Charges à repartir sur plusieurs exercices				
	Primes de remboursement des obligations				
	IMMOBILISATION INCORPORELLES (b)	2515172,08	151372,08	2363800,00	2363800,00
	Immobilisation en recherche et développement				
	Brevet marques, droit et valeurs similaires	151372,08	151372,08		
	Fonds commercial				
	Autres immobilisations incorporelles	2363800,00		2363800,00	
	IMMOBILISATION CORPORELLES (c)	625674473,25	449536398,16	176138075,09	172998596,06
	Terrains	9752785,86		9752765,86	9752765,86
	Constructions	40097916,73	26999022,04	1309894,69	13070781,59
	Installations techniques, matériel et outillage	538613074,30	388192337,26	150420737,04	145629316,96
	Matériel de transport	18331916,31	18063606,78	268309,53	464411,61
Mobiliers, matériel de bureau et aménagement divers	17343904,78	16069352,08	1274552,7	1464902,48	
Autres immobilisations corporelles	212080,00	212080,00			
Immobilisation corporelles en cours	1322815,27		1322815,27	2616417,54	
IMMOBILISATION FINANCIERS (d)	51197054,11	111000,00	51086054,11	46831054,11	
Prêts immobilisés	25495402,82		25495402,82	21240402,82	
Autres créances financières	1388051,29		1388051,29	1388051,29	
Titres de participation	24313600	111000	24202600	24202600	
Autres titres immobilisés					
ECART DE CONVERSION -ACTIF €					
Diminution des créances immobilisées					
Augmentation des dettes de finance					
TOTAL I (a+b+c+d+e)	679386699,44	449798770,24	229587929,20	222193450,17	
ACTIF CIRCULANT	STOCKS (f)	35726131,42	538190,72	35187940,70	36495387,31
	Marchandises	25724662,85	538190,72	25186471,93	26232896,02
	Matières et fournitures consommables	7624049,61		7624049,61	7504328,58
	Produit en cours	58704,00		58704,00	128841,00
	Produit interm et produits résid.				
	Produit finis	2318715,16		2318715,16	2629321,71
	CREANCE DE L'ACTIF CIRCULANT (g)	178742456,46	30805636,36	147936820,10	143240034,07
	Fournis, débiteurs, avances et acomptes	1079893,29		1079893,29	4180661,96
	Clients et comptes rattachés	170344400,47	30805636,36	139538764,11	132929370,92
	Personnel	1596684,43		1596684,43	20611972,96
	Etat	5487561,93		5487561,93	3664914,39
Compte d'associés					
Autres débiteurs				138294,67	
Compte de régularisation actif	233916,34		233916,34	264819,18	
TITRES ET VALEUR DE PLACEMENT (h)					
ECART DE CONVERSION -ACTIF (i) (Elément circulants)	29560,41		29560,41	79613,26	
TOTAL II (f+g+h+i)	214498148,29	31343827,08	183154321,21	179815034,64	
Trésorerie	TRESORERIE-ACTIF	8562327,83		8562327,83	1889140,70
	Chèque et valeurs à encaisser	3878767,13		3878767,13	1595081,12
	Banques, T.G &CP	4558580,70		4558580,70	169059,58
	Caisses réglés d'avances et	125000,00		125000,00	125000,00
	TOTAL II	8562327,83		8562327,83	1889140,70
Total général I+II+III	902447175,56	481142597,32	421304578,24	403897625,51	

MADEX index: The application of ratio number 1 "R1" on 30 remained values allows us to eliminate 18 values (60% of values):

Table 14. Eliminated values of MADEX (R1)

Values	R1
Med paper	65.47%
IB Maroc.com	54.09%
Sonasisd	35.90%
Managem	48.80%
IAM	64.28%
HPS	66.21%
Jet contractors	58.24%
Colorado	33.83%
Stokvis Nord Afrique	34%
ENNAKL	36.27%
Fennie Brossette	48.82%
TaqaMorocco	73.48%
Delattre levivier Maroc	63.13%
Stroc industrie	90.46%
Microdata	46.54%
S.M Monétique	36.52%
CTM	56.81%
Total Maroc	55.24%

2- Level of receivables

Total of reveivables



than 70%

Total of assets

For this ratio, receivables taken into consideration are both current and log-term. The company should not have a receivables level exceeding 70% of assets. If the majority of company's assets are receivables, the current asset of company is mostly dominated by cash flow with the risk that these receivables are unrecoverable. Pour ce ratio, les créances prises en compte sont à la fois celles courantes et à long terme. La société ne doit pas avoir un niveau de créance dépassant 70% de ses actifs. Si la majorité des actifs de la société est sous forme de créances, l'actif circulant de l'entreprise se trouve majoritairement dominé par des flux de trésorerie avec le risque que ces créances soient irrécouvrables.

MASI index: The application of ratio number 2 "R2" on 18 remained values allows us to eliminate 2 values (11,11% of values):

Table 15. Eliminated values of MASI (R2)

Values	R2
Réalisations mécaniques	76.44%
INVOLYS	77.25%

Example of calculation (Company : Maghreb Oxygène)

Total of receivables : 3.064.636,09 dh + 278.927.402,90dh = 281.992.038,99dh (Table 16)

Total of assets : 360.904.542,07 dh (Table 16)

The ratio R2 : 281.992.038,99 / 360.904.542,07 = 78,13 % 78,13 % is more than 70%. So, the company must be eliminated

Table 16. Assets balance sheet 2016 (Company : Réalisations Mécaniques) Source : https://www.cdgcapitalbourse.ma/static/attached/cdgb/SRM_ETATS_FINANCIERS_2016.pdf

BILAN ACTIF					
	ELEMENTS	Brut	Amortissement et provisions	Net	Exercice N-1
ACTIF IMMOBILISE	IMMOBILISTAION EN NON VALEUR				
	Frais préliminaires				
	Charges à répartir sur plusieurs exercices				
	Primes de remboursement des obligations				
	IMMOBILISATIONS INCORPORELLES	51 951,32	48 575,32	3 376,00	7 484,30
	Immobilisations en recherche et développement				
	Brevet marques, droit et valeurs similaires	51 951,32	48 575,32	3 376,00	7 484,30
	Fonds commercial				
	Autres immobilisations incorporelles				
	IMMOBILISATIONS CORPORELLES	8 198 626,74	7 274 248,01	924 378,73	989 878,01
	Terrains				
	Constructions	1 199 181,39	1 140 711,90	58 469,49	118 219,04
	Installations techniques, matériel et outillage	4 601 552,82	3 972 480,80	629 092,02	693 400,65
	Matériel de transport	254 663,03	121 954,70	132 708,33	
	Mobilier, matériel de bureau et aménagement divers	2 143 229,50	2 039 120,61	104 108,89	178 258,32
	Autres immobilisations corporelles				
	Immobilisations corporelles en cours				
IMMOBILISATION FINANCIERS	3 064 636,09		3 064 636,09	3 061 626,04	
Prêts immobilisées					
Autres créances financières	3 064 636,09		3 064 638,09	3 061 626,04	
Titres de participation					
Autres titres immobilisés					
ECART DE CONVERSION -ACTIF					
Diminution des créances immobilisées					
Augmentation des dettes de finance					
TOTAL I (a+b+c+d+e)	11 315 214,15	7 322 823,33	3 992 390,82	4 058 988,35	

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ACTIF CIRCULANT	STOCKS	93 390 242,39	16 838 100,02	76 552 142,37	70 890 163,21
	Marchandises	47 511 481,50	1 405 890,66	48 105 500,84	67 649 942,04
	Matières et fournitures consommables	42 544 237,52	15 223 204,58	27 321 032,94	
	Produits en cours	3 334 543,37	208 934,78	3 125 608,59	3 240 221,17
	Produit intermédiaires et produits résiduels				
	Produits finis				
	CREANCES DE L'ACTIF CIRCULANT	278 927 402,90	6 104 799,89	272 822 603,01	509 772 461,94
	Fournis. débiteurs, avances et acomptes	6 292 325,26	818 274,44	5 676 050,82	3 452 355,52
	Clients et comptes rattachés	228 079 914,96	5 488 525,45	222 591 389,51	420 374 953,48
	Personnel	284 805,89		284 805,89	383 281,15
	Etat	15 310 244,93		15 310 244,93	11 996 848,56
	Compte d'associés				
	Autres débiteurs	28 833 208,00			
	Comptes de régularisation actif	146 905,80		28 833 206,00	73 434 096,00
TITRES ET VALEUR DE PLACEMENT					
ECARTS DE CONVERSION -ACTIF	347 144,05		347 144,05	598 491,92	
TOTAL II (f+g+h+i)	372 664 789,34	22 942 899,91	349 721 889,43	581 261 117,07	
Trésorerie	TRESORERIE-ACTIF	7 190 261,82		7 190 261,82	65 191 887,43
	Chèques et valeurs à encaisser	289 289,00		289 289,00	948 070,00
	Banques, T.G & C.CP	8 815 628,97		8 815 628,97	64 152 214,25
	Caisses. Régie d'avances et accreditifs	85 385,85		85 385,85	91 603,23
	TOTAL III	7 190 261,82		7 190 261,82	65 191 887,43
	TOTAL GENERAL I+II+III	391 170 265,31	30 265 723,24	360 904 542,07	650 511 992,85

MADEX index: The application of ratio number 2 "R2" on 12 remained values allows us to eliminate 2 values (16,66% of values):

Table 17. Eliminated values of MADEX (R2)

Values	R2
Réalisations mécaniques	76.44%
INVOLYS	77.25%

3- Level of cash

$$\frac{\text{Cash \& securities delivering interests}}{\text{Total of assets}} < \text{than } 50\%$$

Cash means cash on hand or deposited with a bank. While securities paying interests are a short-term investing values. The reason for introducing this sort criterion is double. First, in order to eliminate companies of which one of the main activities consist to invest in bank deposits or in financial instruments (with the limit of 50%), allowing generation of interests. The second reason avoids investing in companies of which securities would be mostly represented by cash, so the investor would not buy a share but directly cash. For both indexes MASI & MADEX, no value exceeds 50%.

Finally, we end up at a list containing 16 values (MASI) and 10 values (MADEX) compatible according the rules of filtering used by the Sharia Committee

MASI index

Table 18. MASI values after filtering

Values	R1	R2	R3
Minière Touissit	7.04%	37.14%	4.22%
SNEP	26.41%	51.37%	1.87%
Lafargelholcim	10.67%	9.34%	2.05%
Afric industries S.A	13.94%	46.32%	0.34%
Aluminium du Maroc	31.41%	50.96%	8.45%
Auto Nejma	29.47%	18.33%	10.15%
Sothema	31.34%	38.45%	0.13%
M2M Group	14.86%	45.77%	15.44%
SMI	12.98%	53.35%	0.27%
Rebab company	0.60%	15.68%	1.31%
Lydec	25.46%	12.34%	2.67%
Ciments du Maroc	12.36%	17.71%	18.67%
SODEP-Marsa Maroc	30.47%	15.68%	24.12%
Auto Hall	29.67%	48.41%	0.033%
Disway	26.06%	56.49%	6.19%
Delta-holding	14.75%	56.46%	0.10%

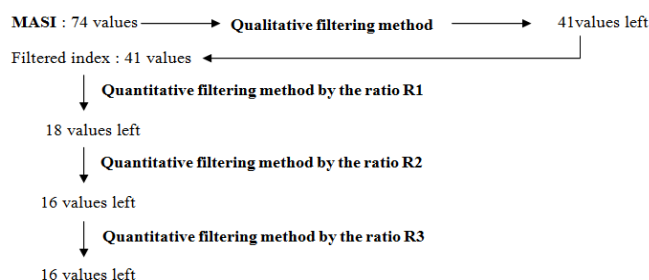
MADEX index

Table 19. MADEX values after filtering

Values	R1	R2	R3
Minière Touissit	7.04%	37.14%	4.22%
SNEP	26.41%	51.37%	1.87%
Lafargelholcim	10.67%	9.34%	2.05%
M2M Group	14.86%	45.77%	15.44%
Lydec	25.46%	12.34%	2.67%
Ciments du Maroc	12.36%	17.71%	18.67%
SODEP-Marsa Maroc	30.47%	15.68%	24.12%
Auto Hall	29.67%	48.41%	0.033%
Disway	26.06%	56.49%	6.19%
Delta-holding	14.75%	56.46%	0.10%

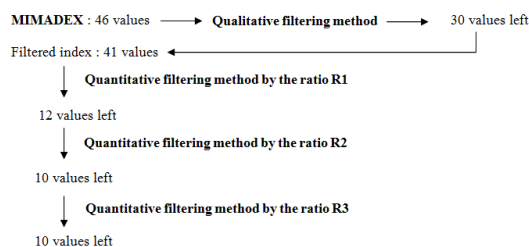
Section 3: Results "creation of MASI & MAMISI": In summary, the following schemes synthesize all stages that allowed us to select compatible values in order to create new Islamic indexes on the Moroccan financial place.

1- Creation of the first new Islamic index "IMASI" start from "MASI"



Creation of a new Islamic index composed by 16 values "IMASI"
 IMASI : Islamic Moroccan All Shares Index The IMASI represents 22% of the MASI

2- Creation of the second new Islamic index "MIMADEX" start from "MADEX"



Creation of a new Islamic index composed by 10 values " MIMADEX "
 MIMASI : Moroccan Islamic Most Active Shares Index The MIMADEX represents 22% of the MASI

Conclusion

The study of filtering criteria used in Islamic finance allowed us to notice how the investor according to the Sharia responds to a logic at the same time financial and extra-financial. In this way, besides the interest granted to the company activity sector, the choice is made resorting to the financial ratios to retain only that respect, or at least the closest, of Islamic finance principles. The application of these standards of filtering allows to conclude that compatible values with the Sharia are in acceptable limit (21,62% for the MASI and 21,37% for the MADEX). At the end, we note that this application has been made with companies data at one time and remains only indicative. The results may in no circumstances be considered as definitive in view of the fact that company data could be regularly modified. In practice, this kind of filtering is regularly made. For example, the committee of Sharia of Islamic Dow Jones updates every quarter the composition of its Islamic index with the establishment of a values list to include and those to exclude if non conformed.

REFERENCES

- CHERIF Karim, *La Finance Islamique : Analyse des produits financiers Islamique*, Genève, Octobre 2008, 109 p
 BENHAYOUN N. ET AL, *Islamic Banking Challenges Lie in the Growth of Islamic Economy of the Free Interest Loans Policy: Evidences from Support Vector Machine Approach*, Journal of Finance and Risk Perspectives, Vol.3, Issue 1, pp.19-31, 2014

- Abdel Wahab Mahmoud, (2005), « *Les banques islamiques* », Revue Dialogues N°49.
 Annual reports of Zawya 2013 2014
 Al Khawarizmi Group, sukuku reports of 2013
 IIFM sukuk issuance database
 Abdel Wahab Mahmoud, (2005), « *Les banques islamiques* », Revue Dialogues N°49.
 La Finance Islamique et le Maroc : une histoire qui se finit par commencer / Abdelilah NGHAIZI/Cahiers de la finance islamique n°3
 Annual reports of Islamic banks 2008, 2009, 2010, 2011 and 2012
 GALLOUX M., *Finance islamique et pouvoir politique. Le cas de l'Égypte moderne*, Paris, PUF, 1997
 Les Afriques international weekly N°311-19 au 25 février 2015
 The Banker, Top 500 Islamic Financial Institutions, FT Business, London, November 2010

Web sources

- www.jeuneafrique.com
www.gouvernement.lu
 Source: www.dummies.com
www.saphirnews.com
www.mfw4a.org
www.letemps.com
www.lesechos.fr
www.financialafrik.com
http://togotribune.com
www.leconomistemaghreb.com
www.agenceecofin.com
