

Choosing the 3000 Individual Companies within NUS-RMI's Selected PD Coverage

Introduction

NUS-RMI's Credit Rating Initiative focuses on providing credit assessments for publicly-listed companies within the US, Canada, 7 Latin American, 17 Asian, 4 African and 35 European economies, as well as 6 countries within the Middle East. Individual company assessments are provided in the form of an RMI Probability of Default (RMI PD). Implementation details can be found on our [website](#).

The Asian economies are: Australia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.

The European economies are: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine and the United Kingdom.

African economies include: Egypt, Morocco, Nigeria and South Africa.

Within the Middle East, RMI's coverage includes: Bahrain, Israel, Jordan, Kuwait, Saudi Arabia and the United Arab Emirates.

Latin American economies include: Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.

The selected companies represent a sampled showcase of the credit assessments derived from this initiative.

Objectives

We adhere to 3 main criteria when selecting the companies to be included in the initiative:

1. To have a representative sample of companies that reflects the makeup of companies within the sectors of interest.
2. To display the range of NUS-RMI's credit ratings that characterizes the credit outlook for companies.
3. To capture the attention of the market audience through a sampling of noteworthy companies within different sectors.

Selection Methodology

The selection process begins by determining the number of companies in each economy. The number of companies is determined according to the size of each economy. To prevent under-representation of smaller economies, the number of companies representing an economy cannot fall under a pre-allocated amount. With the number of companies to be selected from each sector determined, the companies are further allocated proportionally according to the size of each industry sector within that economy. Finally the N largest companies in each industry sector are selected based on the market capitalization. This process is described in detail below.

Allocation of companies to individual economies

A total number of 1150 companies from Asia, 500 from the US, 100 from Canada, 100 from Latin America, 50 from Africa, 100 from the Middle East and 1000 from Europe were first determined.

Regarding the allocation of the 1150 companies from Asia, in order to prevent under-representation of companies from smaller economies, a minimum allocation of 30 companies to each of the 17 Asian economies is made first. The remaining 640 companies are then allocated proportionally to the size of each economy. The size of each economy was determined using the average market capitalization of its publicly listed companies.¹

To ensure representation of all covered European economies, a minimum of 1 company was pre-allocated to each of the 35 European economies. The remaining 1,122 companies were then allocated proportionally based on the size of each economy. The size of an economy was determined using the average market capitalization of its publicly listed companies.²

A similar process was used for the other regions. In Latin America, each of the 7 countries was pre-allocated one company, with the remaining 93 choices determined by the size of each economy as before.³ In Africa, each of the 4 countries was pre-allocated 5 companies, with the remaining 30 choices determined by the size of each economy as before.⁴ In the Middle East, each of the 6 countries was pre-allocated 5 companies, with the remaining 70 choices determined by the size of each economy as before.⁵

¹ We firstly computed the daily average market capitalization in the period from 1 November 2011 to 31 October 2012. Only companies that were domiciled in this economy with at least 50 trading days in this period were included in the sample. If a company does not have a market capitalization for a particular day, then we use the previous value unless a company event (e.g. merger) has occurred that gives reason not to use the previous market capitalization.

We then took the overall average across the period to obtain the average market capitalization data for each economy for the comparison purpose.

² The process for calculating the average market capitalization for the 35 European economies was similar to the process for Asian and North American economies. Please see footnote 1. The only difference was that we firstly computed the daily average market capitalization in the period from 1 November 2011 to 31 October 2012.

³ The process for calculating the average market capitalization for the Latin American economies was similar to the process for other regions. Please see footnote 1. We firstly computed the daily average market capitalization in the period from 1 November 2011 to 31 October 2012.

⁴ The process for calculating the average market capitalization for the Latin American economies was similar to the process for other regions. Please see footnote 1. We firstly computed the daily average market capitalization in the period from 1 November 2011 to 31 October 2012.

⁵ The process for calculating the average market capitalization for the Latin American economies was similar to the process for other regions. Please see footnote 1. We firstly computed the daily average market capitalization in the period from 1 November 2011 to 31 October 2012.

Allocation of companies within each economy

We used average market capitalization of each industry sector as the weighting to determine the allocation of companies within each economy⁶. The Bloomberg Industry Classification Standard (BICS) was used to classify the industry sectors. This taxonomy contains 13 sectors, namely, Asset Backed Securities, Basic Materials, Communications, Consumer cyclical, Consumer non-cyclical, Diversified, Energy, Financial, Funds, Government, Industrial, Technology and Utilities. Companies in Asset Backed Securities, Funds, or Government sector were excluded in our sample because of the different nature of these assets compared with corporates. Our rating efforts focused on the companies in the remaining 10 industry sectors.

Selection of companies in each industry sector

Within each industry sector in an economy, if the number of companies to be selected had been determined to be N in the previous step, then the N largest companies by average daily market capitalization were chosen to be included in our selected coverage.

Exclusion of selected companies

Finally, if any of the companies selected in this way had a market capitalization of less than USD 100mn (there was one such violation after the first three steps), they are removed from our list of companies. We also excluded companies suspended for possible delisting or insufficient data to produce a RMI PD.

The selection process described above is demonstrated in Figure 1. The final sample of firms with company forecast available on CRI website includes 1150 companies from 17 Asian economies, 500 companies from US, 100 companies from Canada, 100 companies from Latin America, 50 companies from Africa, 100 companies from the Middle East, and 1000 companies from Western Europe. A detailed distribution of the selected 3000 companies is shown in Figure 2. Figure 3 shows the industry breakdown of the selected companies in each of the economies.

⁶ The calculation of industry average market capitalization for Asian companies follows the same steps as in the calculation of average market capitalization for each Asian economy. Please see footnote 1. The average daily market capitalizations for companies from US and Canada from 1 November 2011 to 31 October 2012 were used. The calculation of industry's average market capitalization for European companies follows the same steps as in the calculation of average market capitalization for each European economy. Please see footnote 2. The average daily market capitalizations were used from 1 November 2011 to 31 October 2012 for companies from Europe.

Figure 1: Selection Process for the 3000 Individual Companies within NUS-RMI's Selected PD Coverage

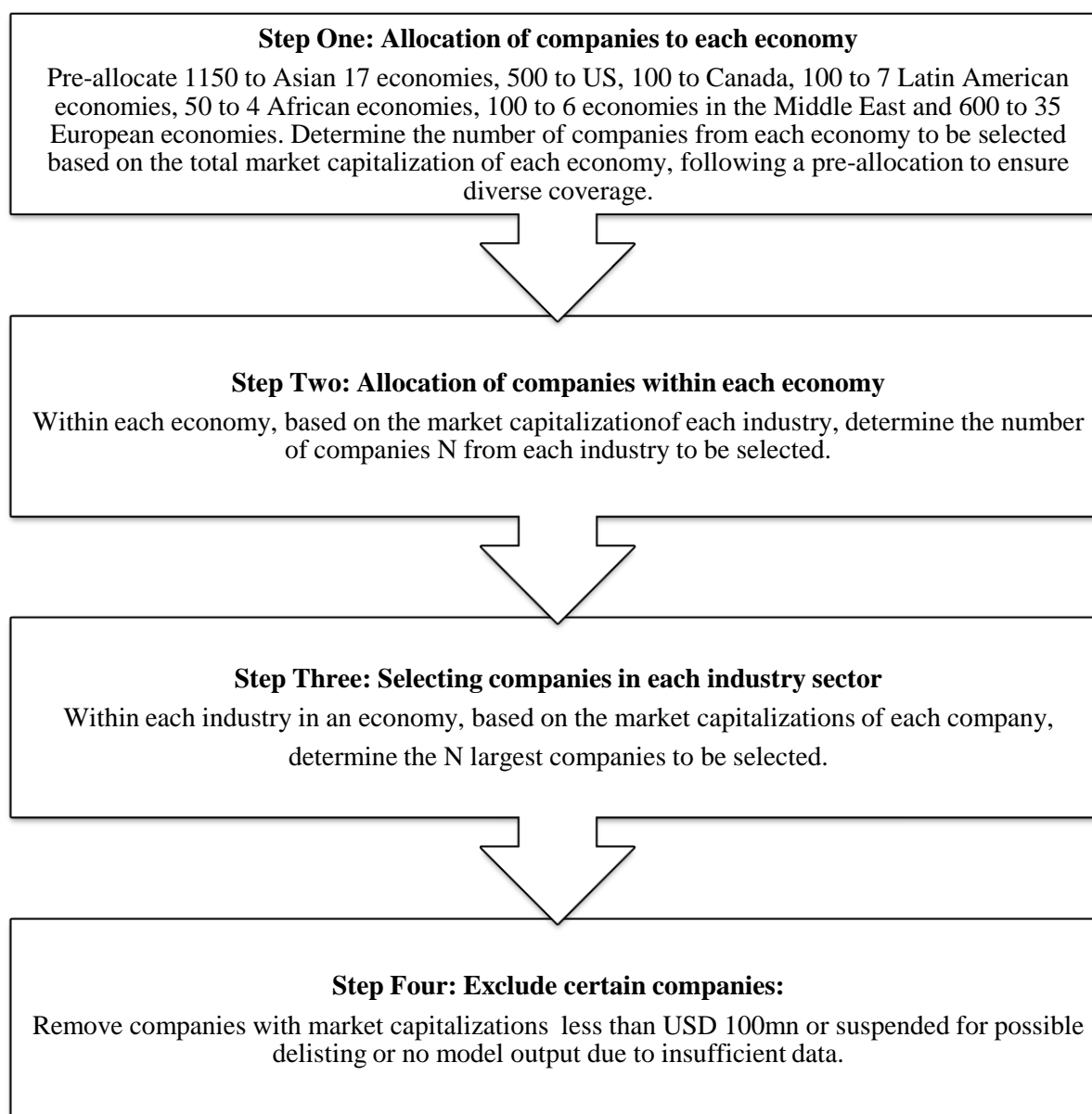


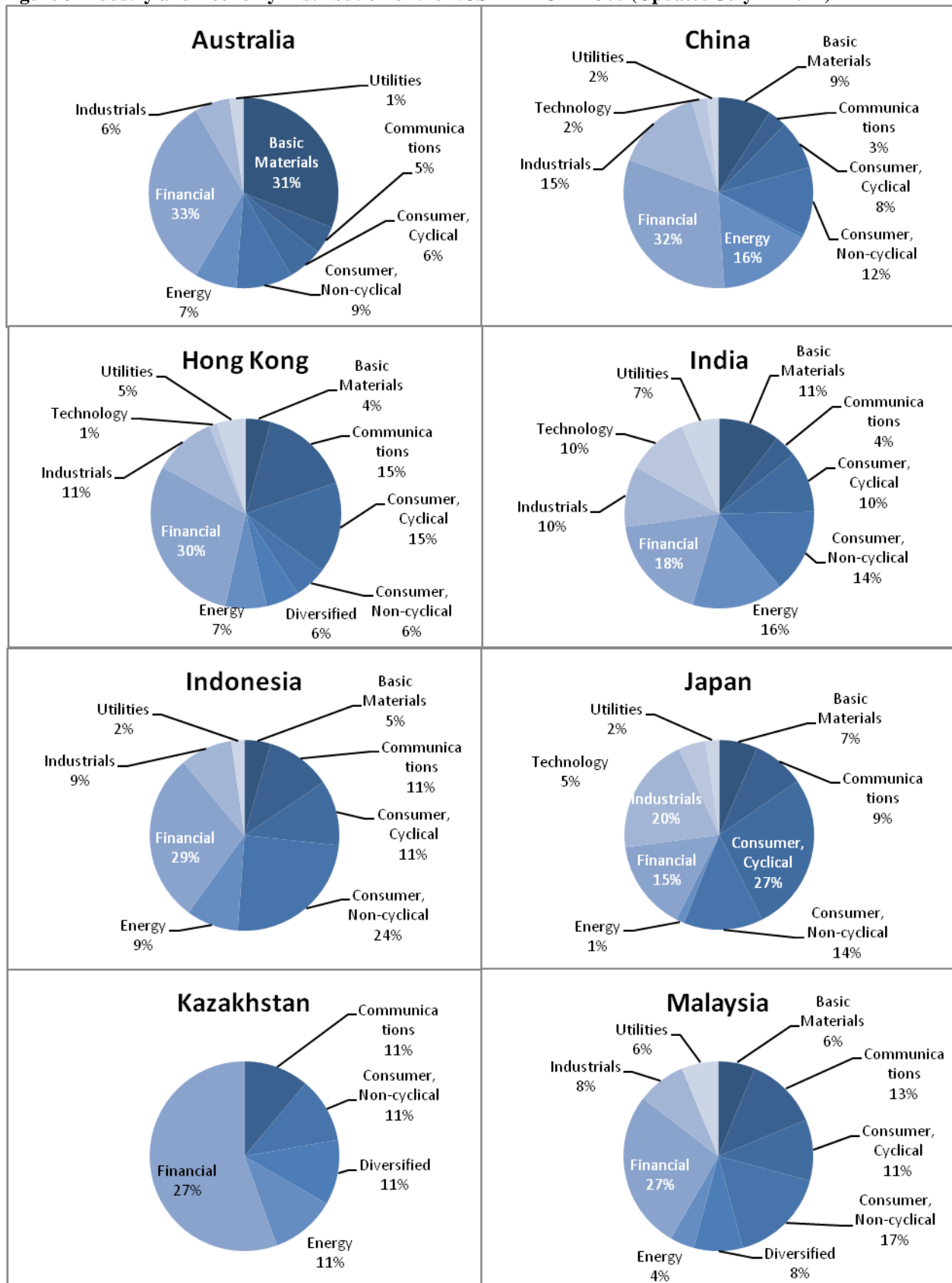
Figure 2a. Distribution of the Selected Companies by economy (Updated December 3rd 2012)

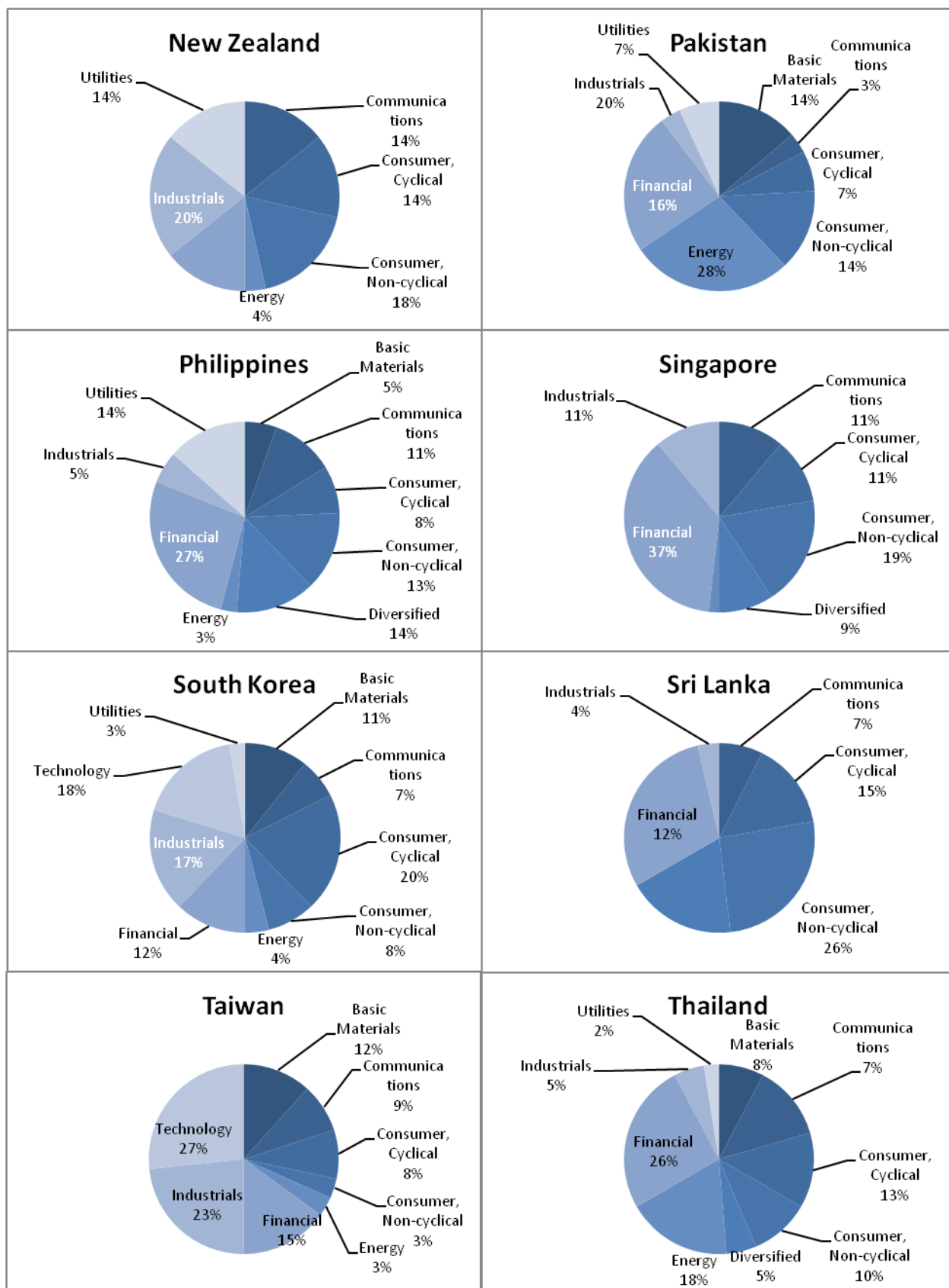
Country	Total number of listed companies	Pre-allocation of companies	Further allocation by average market cap of economy	Total allocation	Percentage of the 3000 companies
Asia	28262			1150	38.33%
Australia	2360	30	54	84	2.80%
China	3680	30	125	155	5.17%
Hong Kong	1262	30	112	142	4.73%
India	7044	30	47	77	2.57%
Indonesia	499	30	15	45	1.50%
Japan	3721	30	184	214	7.13%
Kazakhstan	77	9		9	0.30%
Malaysia	984	30	18	48	1.60%
New Zealand	197	28		28	0.93%
Pakistan	573	29		29	0.97%
Philippines	279	30	7	37	1.23%
Singapore	723	30	24	54	1.80%
South Korea	2187	30	44	74	2.47%
Sri Lanka	285	27		27	0.90%
Taiwan	1742	30	30	60	2.00%
Thailand	1799	30	9	39	1.30%
Vietnam	850	28		28	0.93%
North America	5077			600	20%
Canada	933	100		100	3.33%
United States	4144	500		500	16.67%
Latin America	2190			100	3.33%
Argentina	275	1	2	3	0.10%
Brazil	962	1	50	51	1.70%
Chile	269	1	13	14	0.47%
Colombia	98	1	6	7	0.23%
Mexico	263	1	18	19	0.63%
Peru	264	1	3	4	0.13%
Venezuela	59	1	1	2	0.07%
Africa	903			50	1.67%
Egypt	247	5	4	9	0.30%
Morocco	19	5	1	6	0.20%
Nigeria	204	5	1	6	0.20%
South Africa	433	5	24	29	0.97%
The Middle East	1860			100	3.33%
Bahrain	45	5		5	0.17%
Israel	1063	5	18	23	0.77%
Jordan	247	5	2	7	0.23%
Kuwait	208	5	7	12	0.40%
Saudi Arabia	168	5	36	41	1.37%
UAE	129	5	7	12	0.40%

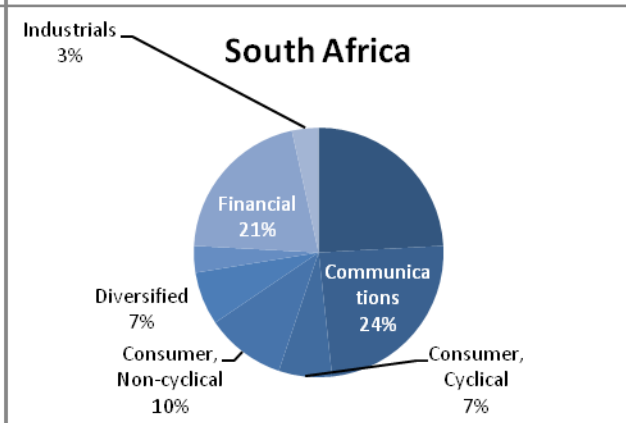
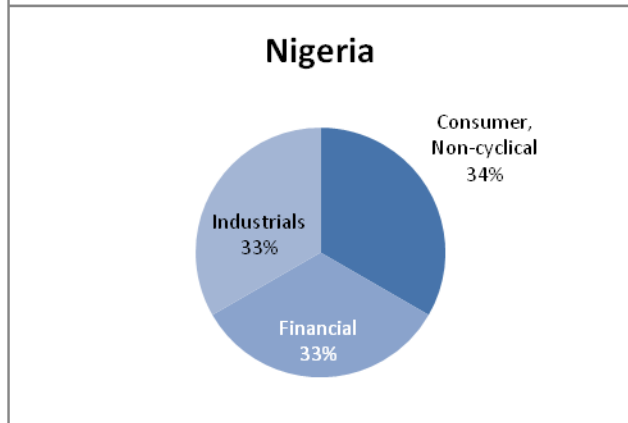
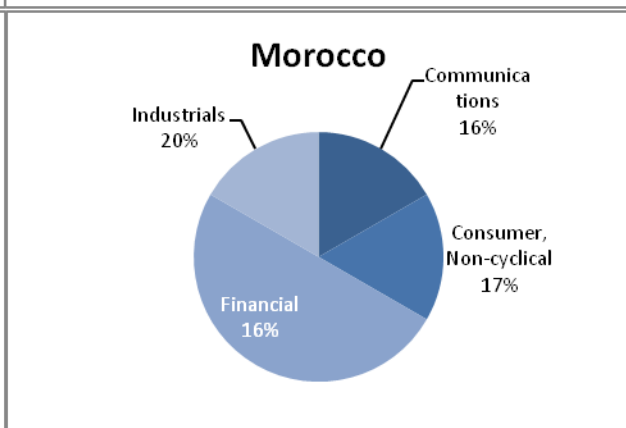
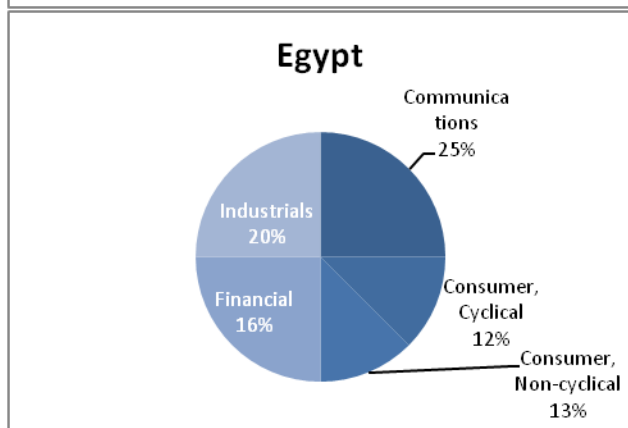
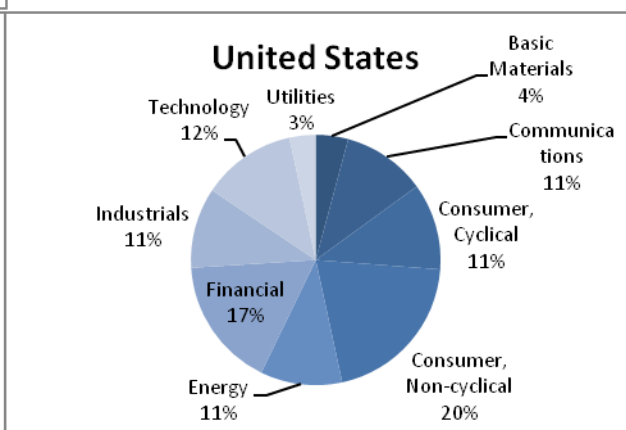
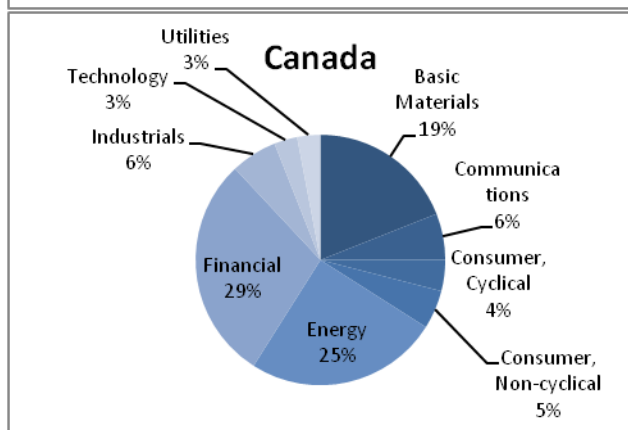
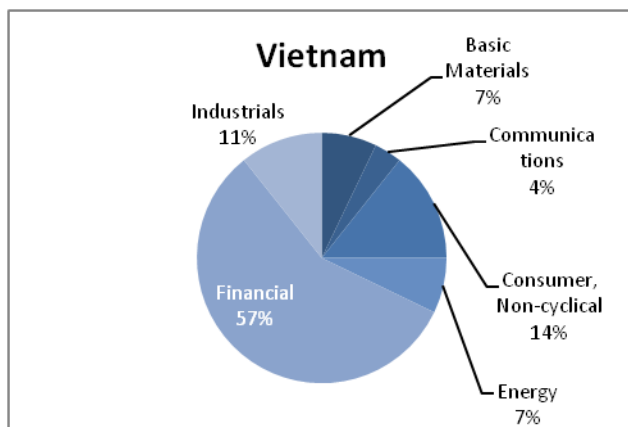
Figure 2b. Distribution of the Selected Companies by economy (Updated December 3rd 2012)

Country	Total number of listed companies	Pre-allocation of companies	Further allocation by average market cap of economy	Total allocation	Percentage of the 3000 companies
Europe	40785			1000	33.33%
Austria	713	1	7	8	0.27%
Belgium	933	1	20	21	0.70%
Bulgaria	415	1	5	6	0.20%
Croatia	272	1	5	6	0.20%
Cyprus	232	1		1	0.03%
Czech Republic	72	1	4	5	0.17%
Denmark	1071	1	18	19	0.63%
Estonia	39	1	4	5	0.17%
Finland	893	1	12	13	0.43%
France	4965	1	125	126	4.20%
Germany	4863	1	118	119	3.97%
Greece	641	1	5	6	0.20%
Hungary	90	1	4	5	0.17%
Iceland	12	1	2	3	0.10%
Ireland	2794	1	7	8	0.27%
Italy	1721	1	41	42	1.40%
Latvia	33	1	2	3	0.10%
Lithuania	39	1	4	5	0.17%
Luxembourg	68	1	1	2	0.07%
Macedonia	952	1	2	3	0.10%
Malta	46	1	4	5	0.17%
Netherlands	1134	1	36	37	1.23%
Norway	992	1	22	23	0.77%
Poland	886	1	14	15	0.50%
Portugal	335	1	5	6	0.20%
Romania	1453	1	4	5	0.17%
Russia	1362	1	50	51	1.70%
Slovakia	133	1	4	5	0.17%
Slovenia	160	1	4	5	0.17%
Spain	811	1	42	43	1.43%
Sweden	2124	1	47	48	1.60%
Switzerland	1957	1	76	77	2.57%
Turkey	464	1	19	20	0.67%
Ukraine	669	1	2	3	0.10%
United Kingdom	7441	1	250	251	8.37%
Total	79077			3000	100%

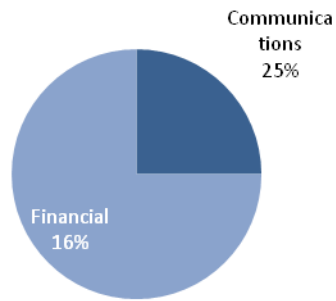
Figure 3 Industry and Economy Distribution of the NUS-RMI CRI 2300 (Updated July 11 2012)



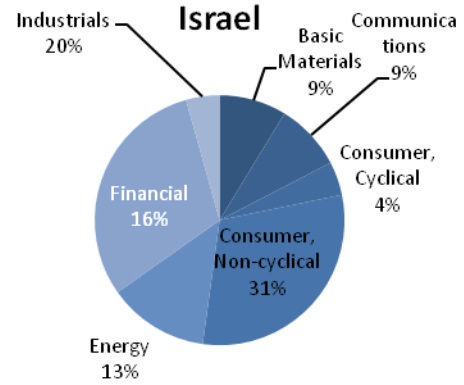




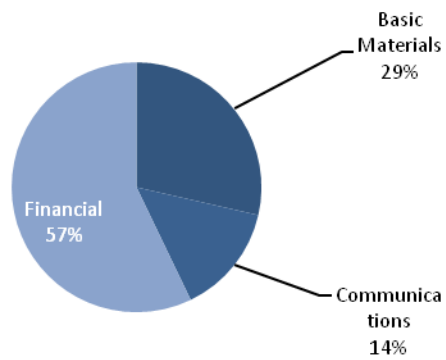
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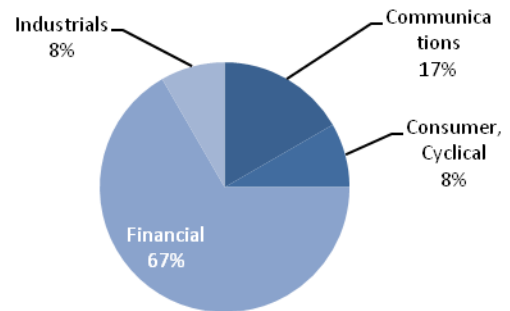
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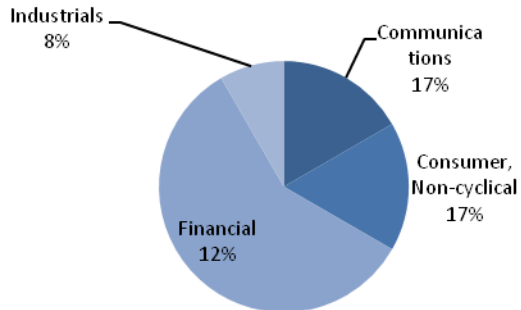
Jordan



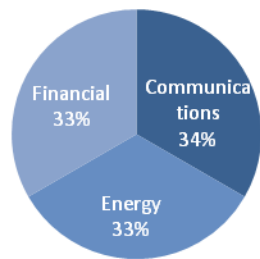
Kuwait



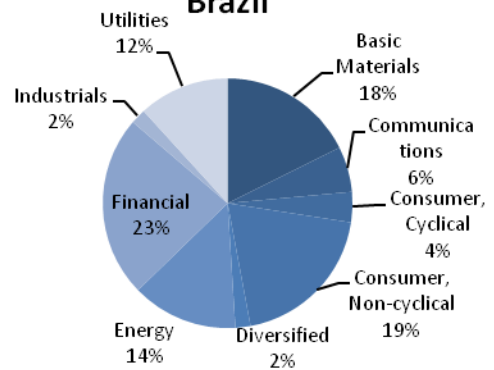
United Arab Emirates



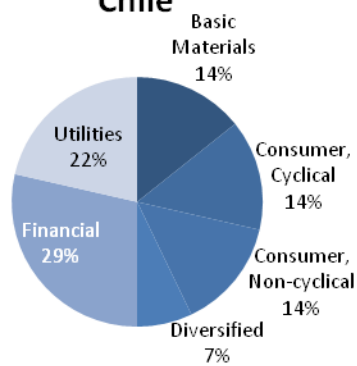
Argentina



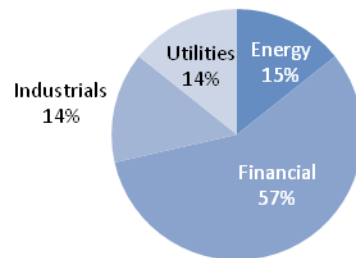
Brazil



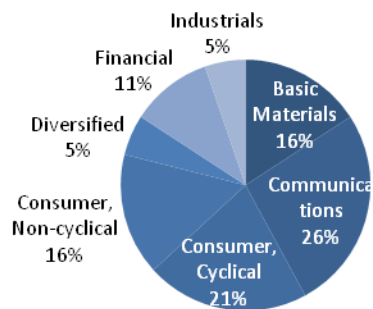
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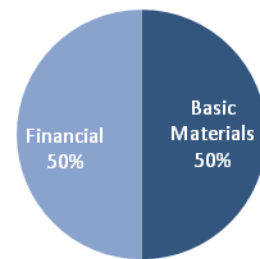
Colombia



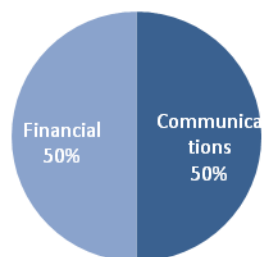
Mexico



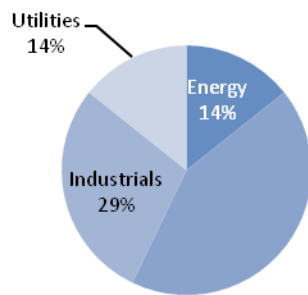
Peru



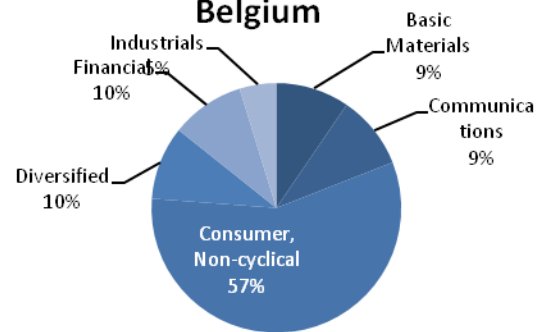
Venezuela



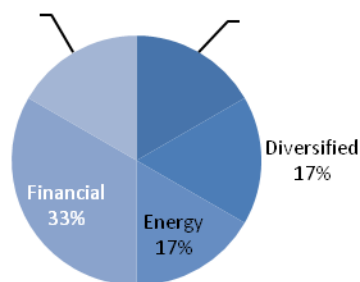
Austria



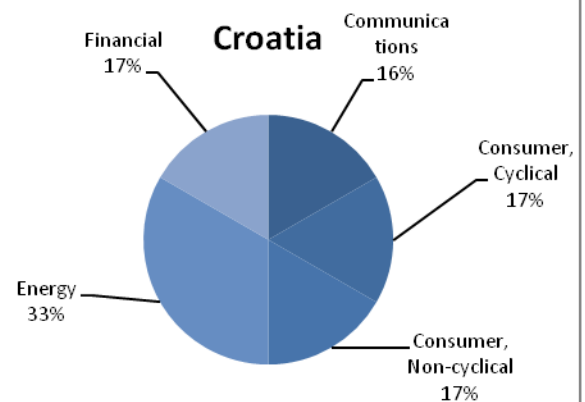
Belgium



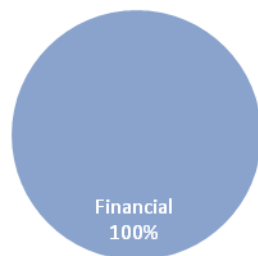
Bulgaria



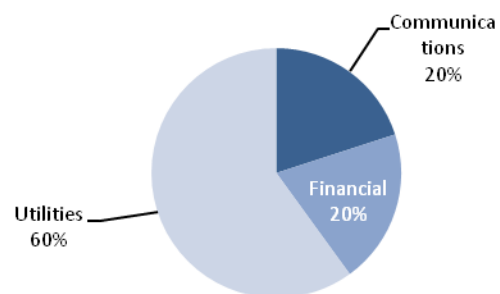
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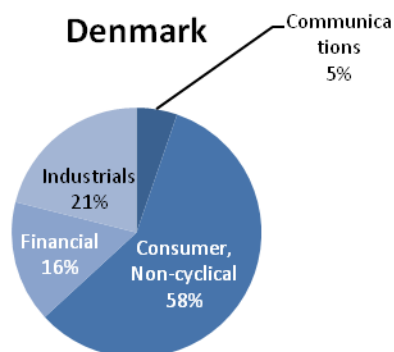
Cyprus



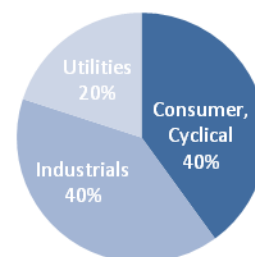
Czech Republic

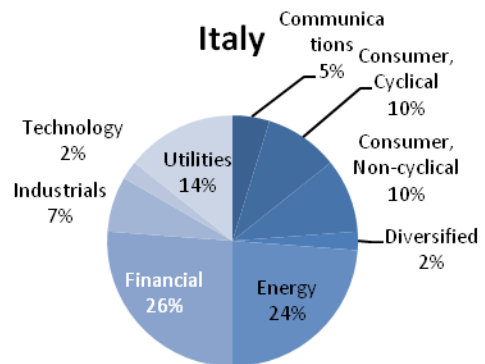
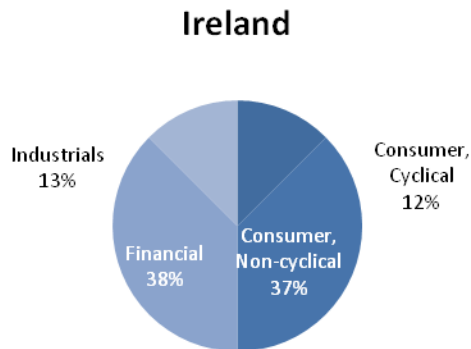
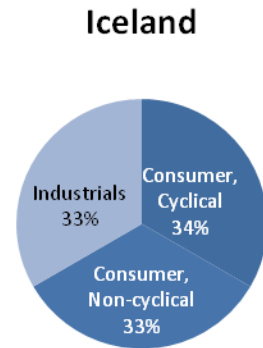
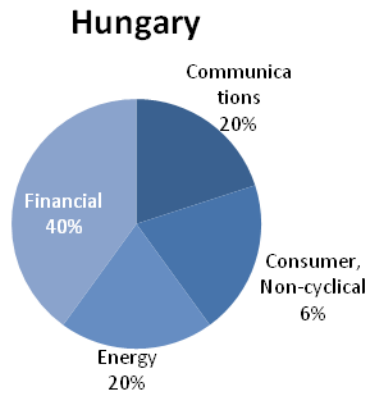
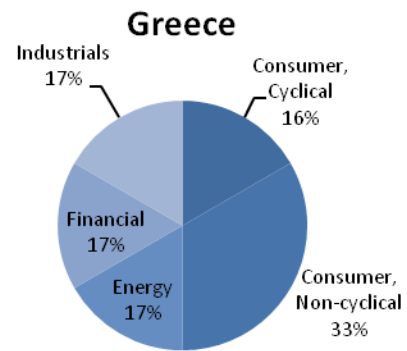
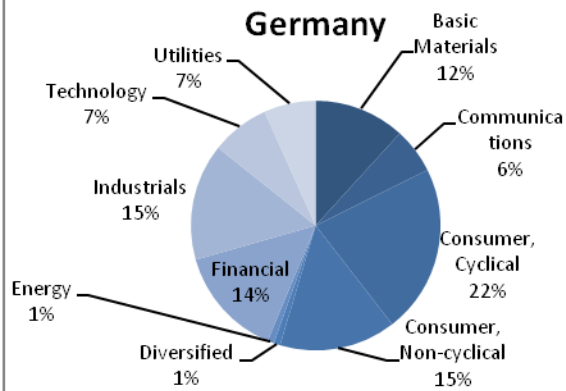
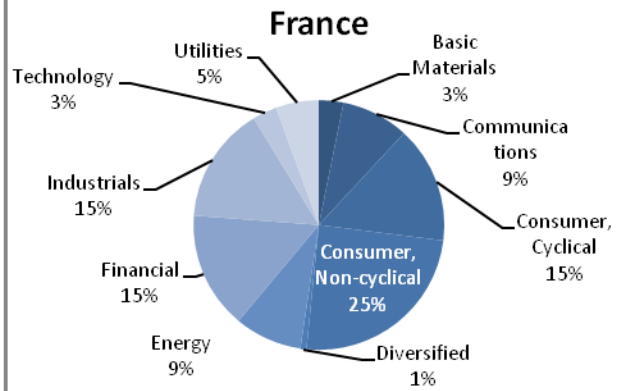
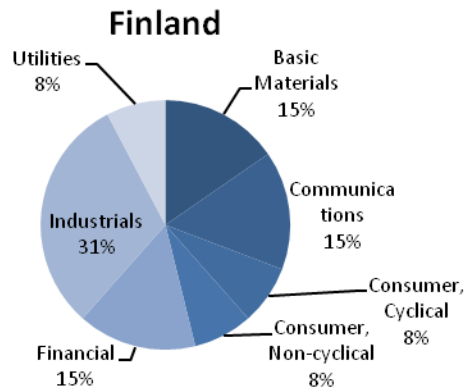


Denmark

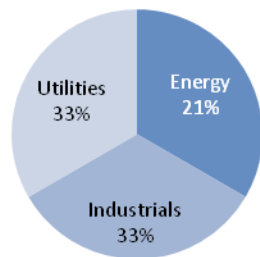


Estonia

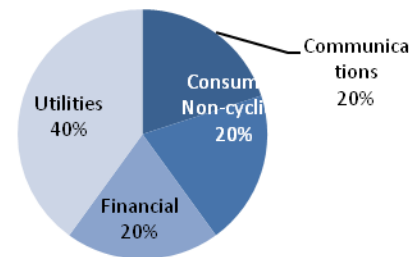




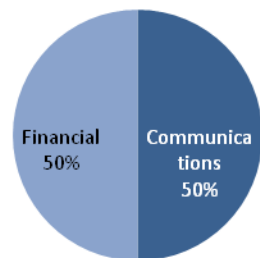
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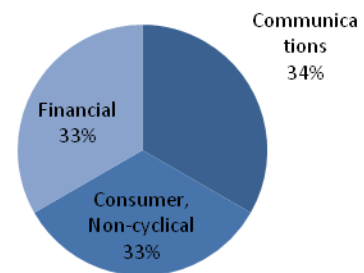
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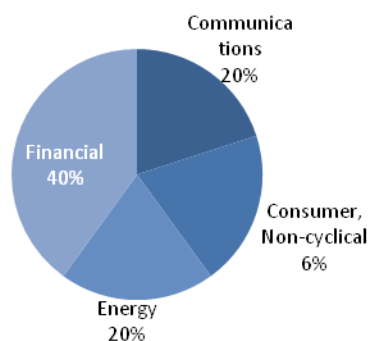
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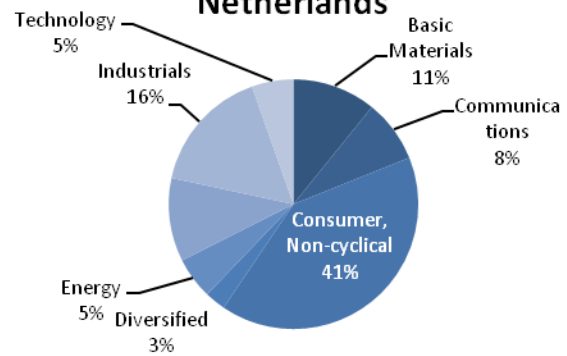
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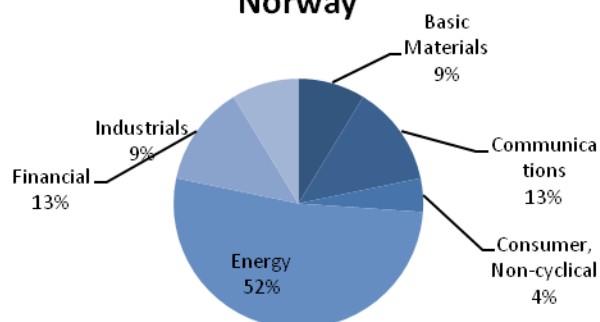
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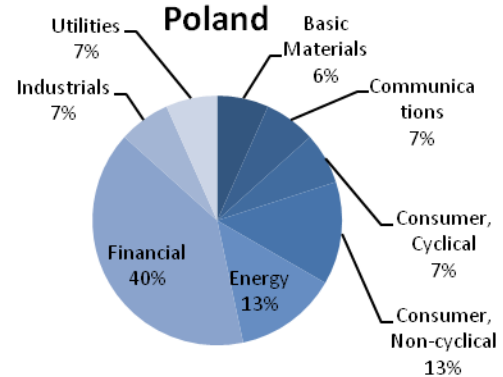
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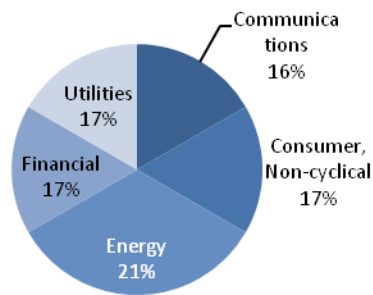
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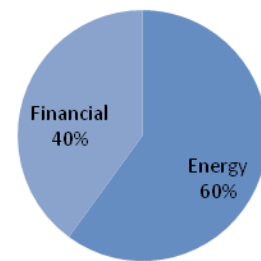
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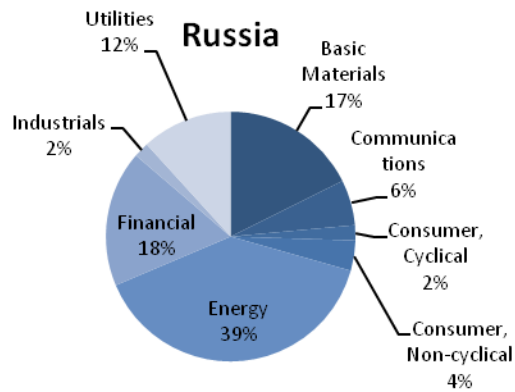
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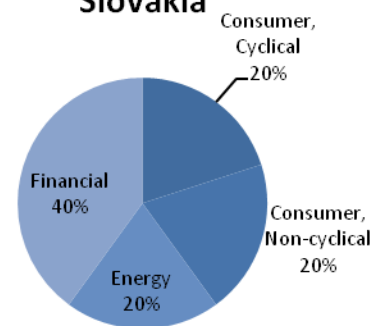
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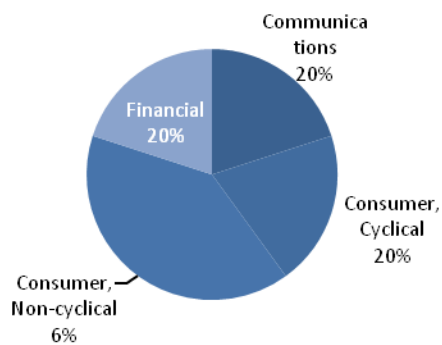
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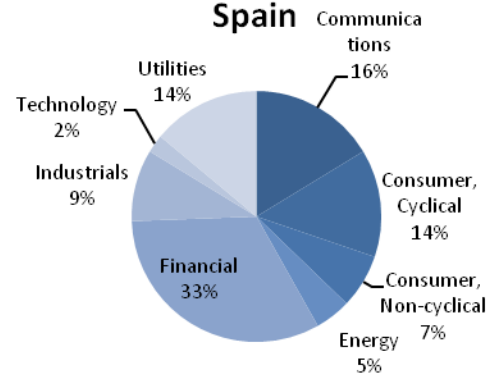
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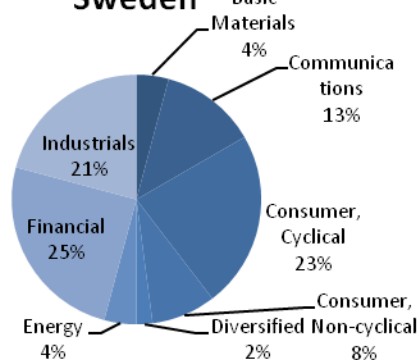
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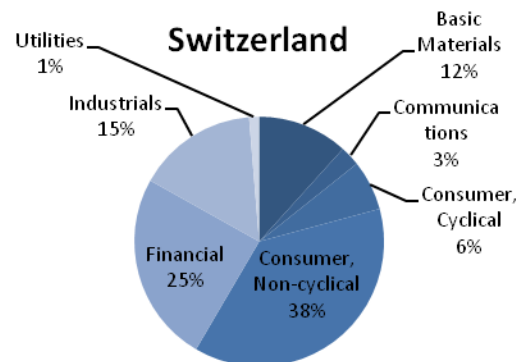
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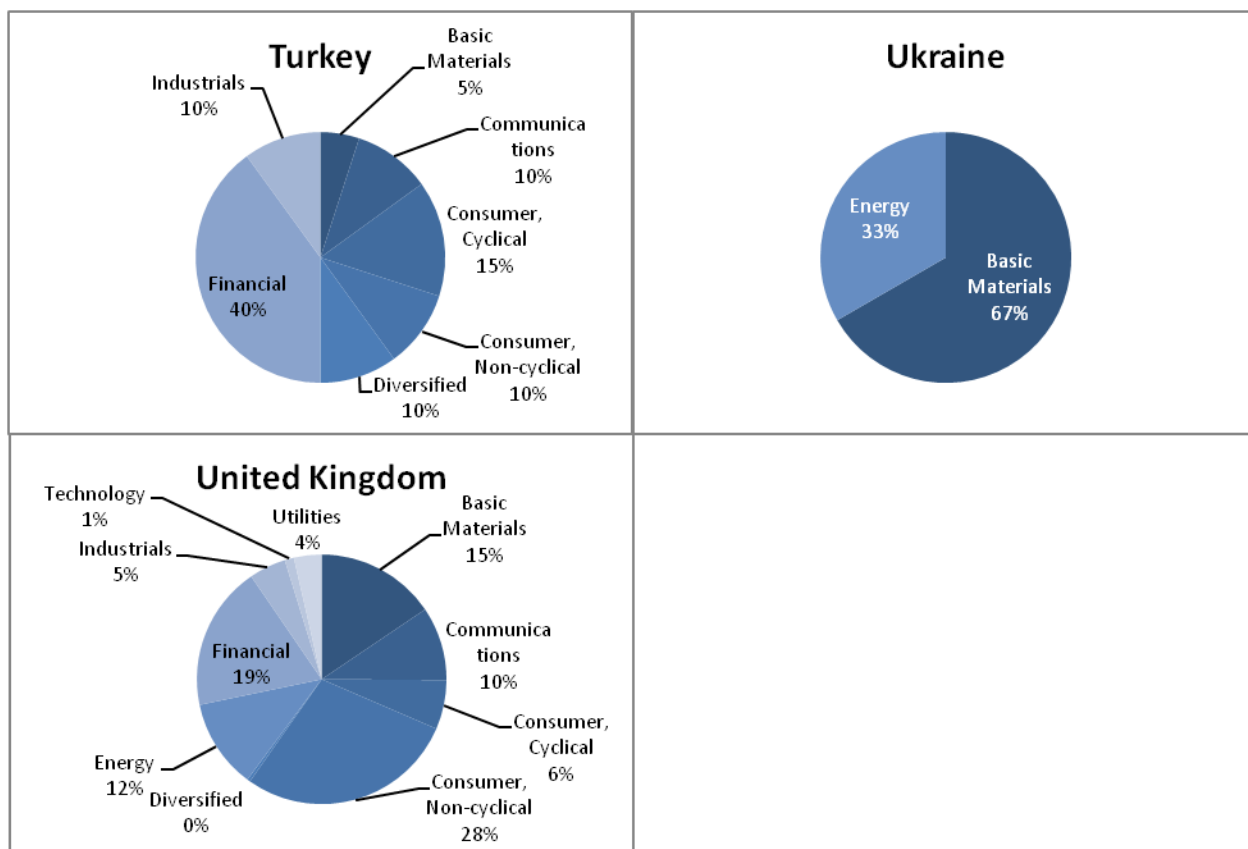


Sweden



Switzerland





Annual Update of the Selected Companies

The current list of companies will be reviewed once a year, taking average market cap for the previous year to monitor any major changes in the list. Examples of major changes include material changes in the market capitalization of an industry relative to peers due to new IPOs of major companies, and material changes in the market capitalization of a country relative to peers due to macro-economic changes.

Removal and Replacement of the Selected Companies

Aside from the yearly review, a company can be removed if it is affected by a major event, such as bankruptcy, mergers, acquisitions, delisting from the stock exchange, or an extended period of trading suspension. In the event any of the above occur, the given company will be replaced by the company with the next largest market capitalization in the economy.

Notes:

Date: July 11, 2012

Initially, OTC-BB companies in the US and the TSX Venture Exchange companies in Canada were being considered in the calibration and aggregation of results. While these firms have similar reporting requirements as those listed on the larger exchanges, OTC-BB companies are formally considered as unlisted companies and we have decided to exclude them in model calibration and economy/sector aggregates. As well, the inclusion of this large number of small firms was affecting the model calibration and aggregation in a minor way. Since common perceptions of different economies are in terms of the large-cap and mid-cap companies, we have made the decision to include only the major exchanges in each economy, and exclude exchanges that have substantially lesser listing requirements.

Appendix 1: Industry and Economy Distribution of the NUS-RMI CRI 2300 (Updated on December 3rd, 2012)

	RMI coverage	Basic Materials	Communi-cations	Consumer, Cyclical	Consumer, Non-cyclical	Diversified	Energy	Financial	Industrial	Technology	Utilities
Asia	1150										
Australia	84	26	4	5	8		6	28	5		2
China	155	14	5	13	18	1	25	49	23	4	3
Hong Kong	142	6	22	22	8	8	10	42	15	2	7
India	77	8	3	8	11		12	14	8	8	5
Indonesia	45	2	5	5	11		4	13	4		1
Japan	214	14	19	58	29		3	33	43	10	5
Kazakhstan	9		1		1	1	1	5			
Malaysia	48	3	6	5	8	4	2	13	4		3
New Zealand	28		4	4	5		1	4	6		4
Pakistan	29	4	1	2	4		8	7	1		2
Philippines	37	2	4	3	5	5	1	10	2		5
Singapore	54		6	6	10	5	1	20	6		
South Korea	74	8	5	15	6		3	9	13	13	2
Sri Lanka	27		2	4	7	5		8	1		
Taiwan	60	7	5	5	2		2	9	14	16	
Thailand	39	3	5	5	4	2	7	10	2		1
Vietnam	28	2	1		4		2	16	3		
North America	600										
Canada	100	19	6	4	5		25	29	6	3	3
United States	500	21	54	56	102		53	84	52	61	17
Latin America	100										
Argentina	3		1				1	1			
Brazil	51	9	3	2	10	1	7	12	1		6
Chile	14	2		2	2	1		4			3
Colombia	7						1	4	1		1
Mexico	19	3	5	4	3	1		2	1		
Peru	4	2						2			
Venezuela	2		1					1			

	RMI coverage	Basic Materials	Communi- -cations	Consumer, Cyclical	Consumer, Non- cyclical	Diversified	Energy	Financial	Industrial	Technology	Utilities
Europe	1000										
Austria	7						1	3	2		1
Belgium	21	2	2		12	2		2	1		
Bulgaria	6				1	1	1	2	1		
Croatia	6		1	1	1		2	1			
Cyprus	1							1			
Czech Republic	5		1					1			3
Denmark	19		1		11			3	4		
Estonia	5			2					2		1
Finland	13	2	2	1	1			2	4		1
France	126	4	11	19	31	1	11	19	19	4	7
Germany	119	14	7	26	18	1	1	17	18	9	8
Greece	6			1	2		1	1	1		
Hungary	5		1		1		1	2			
Iceland	3			1	1				1		
Ireland	8			1	3			3	1		
Italy	42		2	4	4	1	10	11	3	1	6
Latvia	3						1		1		1
Lithuania	5		1		1			1			2
Luxembourg	2		1					1			
Macedonia	3		1		1			1			
Malta	5			1				3	1		
Netherlands	37	4	3		15	1	2	4	6	2	
Norway	23	2	3		1		12	3	2		
Poland	15	1	1	1	2		2	6	1		1
Portugal	6		1		1		2	1			1
Romania	5						3	2			
Russia	51	9	3	1	2		20	9	1		6
Slovakia	5			1	1		1	2			
Slovenia	5		1	1	2			1			
Spain	43		7	6	3		2	14	4	1	6

	RMI coverage	Basic Materials	Communi -cations	Consumer, Cyclical	Consumer, Non- cyclical	Diversified	Energy	Financial	Industrial	Technology	Utilities
Sweden	48	2	6	11	4	1	2	12	10		
Switzerland	77	9	2	5	29			19	12		1
Turkey	20	1	2	3	2	2		8	2		
Ukraine	3	2					1				
United Kingdom	251	39	24	16	71	1	29	47	12	3	9
Africa	50										
Egypt	8		2	1	1			2	2		
Morocco	6		1		1			3	1		
Nigeria	6				2			2	2		
South Africa	29	7	7	2	3	2	1	6	1		
Middle East	100										
Bahrain	4		1					3			
Israel	23	2	2	1	7		3	7	1		
Jordan	7	2	1					4			
Kuwait	12		2	1				8	1		
Saudi Arabia	41	14	5	1	2	1		13	3		2
United Arab Emirates	12		2		2			7	1		

Appendix 2: Change of the Selected Companies (Updated on December 3rd, 2012)

Changes to the group of selected companies will be listed here after each monthly calibration.

Effective Date	Replaced Companies	Domicile	Reason	Action