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APPENDIX 1: HISTORICAL EVOLUTION OF PORTFOLIO CONSTRUCTION TECHNIQUES (CARHART & GABUDEAN, 2012)



APPENDIX 2: EXAMPLES OF HEURISTICS AND BIAS

TYPOLOGY	BIAS AND DEFINITION	
	HEURISTICS	
<i>SOCIAL</i>	HERDING	Act of buying and selling upon the actions of larger groups of investors. (Banerjee, 1992; Tversky & Kahneman, 1992)
	CASCADES	Information is perceived as more plausible because of the increase availability of the information in public discourse such as media. (Kuran & Sunstein, 1999; Alevy, Haigh & List, 2007). This bias is a misjudgment based on frequency suspected to large and systematic rebounds (Ghashghaie, Breymann, Peinke, Talkner & Dodge, 1996; Kahneman & Tversky, 1996). Furthermore, this bias could explain stock market crashes (Bikhchandani, Hirshleifer & Welch, 1998).
<i>PERSEVERENCE</i>	COGNITIVE DISSONANCE	It consists in maintaining consistency of one's beliefs by several means such as avoiding contradictory information. (Festinger, Riecken & Schachter, 1956)
	CONSERVATISM	Beliefs are adjusted gradually to new signals (Edwards, 1968). This bias has some similarities with cognitive dissonance (Basu, 1997).
	REPRESENTATIVENESS	Tversky and Kahneman (1974) associate the propensity of individuals to look for patterns upon each random events. This leads to hasty conclusions. This bias could leads to both over- and underreaction market anomalies (Prast, 2004).
<i>INFORMATION PROCESSING</i>	MENTAL ACCOUNTING	Thaler (1985) describes this bias as due to framing effects that lead to assets miscategorization of propensity to invest.
	ANCHORING & ADJUSTMENT	As described by Tversky and Kahneman (1974), this heuristic refers to relative thinking. As such, investors are prone to selecting the first option from a set of choice.
	FRAMING	Tversky & Kahneman (1986) describes framing bias as interacting with the decision-making of individuals. As such, it is part of the explanation why the traditional decision-making frameworks do not hold.
	AVAILABILITY	First mentioned by Tversky & Kahneman (1974), the availability heuristic is a misjudgment of frequency. Indeed, investors prone to availability heuristics will evaluate event upon their top of the mind apparition.
	SELF-ATTRIBUTION	Described by Zuckerman (1979) as blaming others for one's failures and attributing success to one's own abilities. The self-attribution bias seems to be linked to the conception of remorse and regrets (Wong & Tsai, 2007).

TPOLOGY BIAS AND DEFINITION

HEURISTICS

<i>EMOTIONAL</i>	LOSS AVERSION	Loss aversion is linked with prospect theory (Kahneman & Tversky, 1979).
	OVERCONFIDENCE	Upon recent psychological research, individual are overconfident on average. Moreover, men are depicted to be more prone to overconfidence than women in all areas related to decision-making. Overconfident investors are willing to invest excessively (Barber & Odean, 2001)
	STATUS QUO	Whenever a reference point is the present and any future change is perceived as a loss (Samuelson & Zeckhauser, 1988). This status quo bias make investors prone to stagnate with sub-optimal investment plans (Kempf & Ruenzi, 2006).
	ENDOWMENT	Kahneman, Knetsch and Thaler (1991) describes this bias as a divestiture aversion. Indeed, investors would give more value to assets they have today and thus would invest more in order to retain them.

APPENDIX 3: GROUP MODEL (FROM OLTEDAL, MOEN, KLEMPE & RUNDMO, 2004; DOUGLAS, 1978)

Grid	
Group	Fatalistic Low High
	Hierarchic High
	Individualistic Low Egalitarian

APPENDIX 4: PARTICIPATING COUNTRIES (AND REGIONS) IN HOFSTEDE MODELE AND GLOBE MODEL (FROM XIUMEI *ET AL.*, 2011)

Hofstede Model (79)		GLOBE Model (62)	
Asia (24)	Arab World (Egypt, Iraq, Kuwait, Lebanon, Libya, Saudi Arabia, United Arab Emirates) Bangladesh China Hong Kong India Indonesia Iran Israel Japan Malaysia Pakistan Philippines Singapore Korea Taiwan Thailand Turkey Vietnam	Asia (18)	China Georgia Hong Kong India Indonesia Iran Israel Japan Kazakhstan Kuwait Malaysia Philippines Qatar Singapore Korea Taiwan Thailand Turkey
Europe (26)	Austria Belgium Bulgaria Czech Republic Denmark Estonia Finland France Germany Greece Hungary Ireland Italy Luxembourg Malta Netherlands Norway Poland Portugal Romania Russia Slovakia Spain Sweden Switzerland United Kingdom	Europe (22)	Albania Austria Czech Republic Denmark England Finland France Greece Germany-East (former GDR) Germany-West (former FRG) Hungary Ireland Italy Netherlands Poland Portugal Russia Slovenia Spain Sweden Switzerland Switzerland-FR
Africa (9)	East Africa (Ethiopia, Kenya, Tanzania, Zambia) Morocco South Africa West Africa (Ghana, Nigeria, Sierra Leone)	Africa (8)	Egypt Morocco Namibia Nigeria South Africa (Black Sample) South Africa (White Sample) Zambia Zimbabwe
North America (3)	Canada Mexico United States	North America (3)	Canada (English speaking) USA Mexico
South America (15)	Argentina Brazil Chile Colombia Costa Rica Ecuador El Salvador Guatemala Jamaica Panama Peru Surinam Trinidad Uruguay Venezuela	South America (9)	Argentina Bolivia Brazil Colombia Costa Rica Ecuador El Salvador Guatemala Venezuela
Australia (2)	Australia New Zealand	Australia (2)	Australia New Zealand

APPENDIX 5: DIMENSIONS OF CULTURE MEASUREMENT IN HOFSTEDE MODEL (FROM XIUMEI *ET AL.*, 2011, HOFSTEDE *ET AL.*, 2010)

Dimensions	Definitions	Specific questionnaire item
Power distance index (PDI)	PDI is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders.	In high power distance culture, manager will never ask advice from subordinate. Conversely, low power distance cultures encourage employees to take part in management decisions.
Uncertainty avoidance index (UAI)	UAI deals with a society's tolerance for uncertainty and ambiguity; it ultimately refers to man's search for Truth. It indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations.	In high uncertainty avoidance cultures, individuals will never believe rules can ever be broken whereas in low uncertainty avoidance community, people believe that the rules can be adapted to a given situation.
Individualism (IDV) Individualism vs. Collectivism	IDV on the one side versus its opposite, collectivism, that is the degree to which individuals are integrated into groups. The word "collectivism" in this sense has no political meaning: it refers to the group, not to the state.	A highly individualist group would expect to consider a challenging work because of its earnings aspects. On the contrary, a more collectivist group would find the prospect of collaborating well with other people more exciting.
Masculinity (MAS) Masculinity vs. Femininity	MAS versus its opposite, femininity, refers to the distribution of roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The assertive pole has been called "masculine" and the modest, caring pole "feminine".	A masculine society would rather choose to "live in order to work" whereas a more feminine culture would refer to "work in order to life".
Long-term orientation (LTO) Long-term orientation vs. Short-term orientation	LTO versus short-term orientation. It can be said to deal with Virtue regardless of Truth. Values associated with Long Term Orientation are thrift and perseverance; values associated with Short Term Orientation are respect for tradition, fulfilling social obligations, and protecting one's "face". Both the positively and the negatively rated values of	Long-term orientation cultures are more concerned with the notion of virtue. On the contrary short-term orientation groups favor truth.

Dimensions	Definitions	Specific questionnaire item
	this dimension are found in the teachings of Confucius, the most influential Chinese philosopher who lived around 500 B.C.; however, the dimension also applies to countries without a Confucian heritage.	
Indulgence vs Restraint	IVR, indulgence versus restraint, refers to a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification and regulates it by the means of strict social norms.	More indulgent cultures are more prone to accept deviation and risk-taking. However, restraint societies abide by strict rules and unavoidable responsibilities.

APPENDIX 6: DIMENSIONS OF CULTURE MEASUREMENT IN GLOBE MODEL (FROM XIUMEI *ET AL.*, 2011. HOUSE *ET AL.*, 2004)

Dimensions	Definitions	Specific questionnaire item
Power distance	The degree to which members of an organization or society expect and agree that power should be shared equally.	Followers are (should be) expected to obey their leaders without questions.
Uncertainty avoidance	The extent to which members of collectives seek orderliness, consistency, structure, formalized procedures, and laws to cover situations in their daily lives.	Most people lead (should lead) highly structured lives with few unexpected events.
Institutional collectivism	Level at which a society values and rewards collective action and resource distribution.	Leaders encourage (should encourage) group loyalty even if individual goals suffer.
In-group collectivism	Level at which a society values cohesiveness, loyalty, and pride, in their families and organizations.	Employees feel (should feel) great loyalty toward this organization.
Humane orientation	Ideas and values and prescriptions for behavior associated with the dimension of culture at which a society values and rewards altruism, caring, fairness, friendliness, generosity, and kindness.	People are generally (should be generally) very tolerant of mistakes.
Performance orientation	Level at which a society values and rewards individual performance and excellence.	Students are encouraged (should be encouraged) to strive for continuously improved performance.
Assertiveness	A set of social skills or a style of responding amenable to training or as a facet of personality.	People are (should be) generally dominant in their relationships with each others.
Gender egalitarianism	Level at which a society values gender equality and lessens role differences based gender.	Boys are encouraged (should be encouraged) more than girls to attain a higher education. (Scored inversely.)
Future orientation	The extent to which members of a society or an organization believe that their current actions will influence their future, focus on investment in their future, believe that they will have a future that matters, believe in planning for developing their future, and look far into the future for assessing the effects of their current actions.	More people live (should live) for the present rather than for the future. (Scored inversely.)

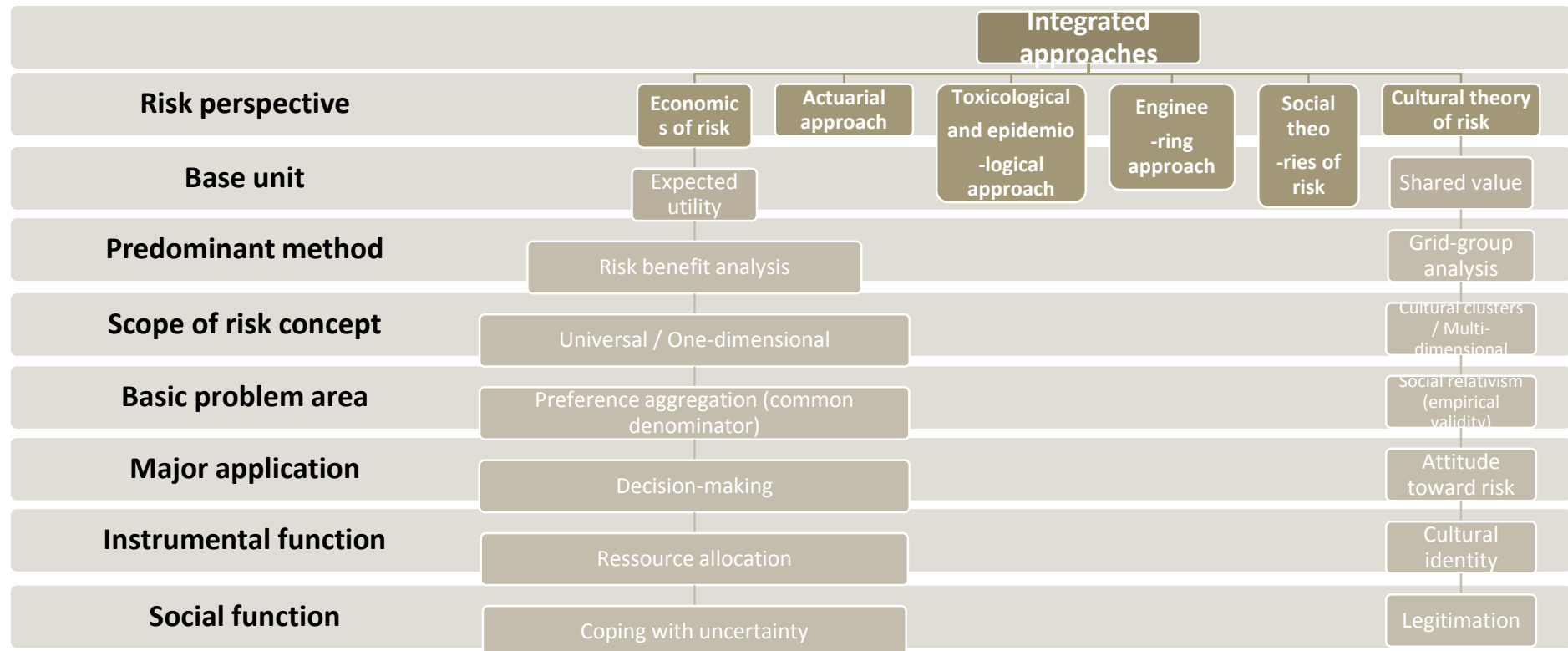
APPENDIX 7: DIFFERENCE BETWEEN GLOBE MODEL AND HOFSTEDE MODEL (FROM XIUMEI *ET AL.*, 2011)

Differences	GLOBE Model (2004)	Hofstede Model (2005)
Time period	1994-1997	1967-1973
Primary researchers involved	170	1
Respondents	Managers	Non-managers and managers
Organizations surveyed	951	1
Type of organizations	Non-multinational	IBM and its subsidiaries
Industries	Food processing, financial and telecommunication services	Information technology
Number of societies surveyed	62	79
Analysis	Team effort	Single effort
Project design	US-based	Dutch-based
Number of cultural dimensions	9 (doubled with specifications “as is” and “should be”)	6

APPENDIX 8: RISK PERCEPTION DIMENSIONS (FROM RENN, 1990, P.4)

-
1. Intuitive heuristics, such as availability, anchoring, overconfidence and others.
 -
 2. Perceived average losses over time.
 -
 3. Situational characteristics of the risk or the consequences of the risk event
 -
 4. Associations with the risk sources
 -
 5. Credibility and trust in risk-handling institutions and agencies
 -
 6. Media coverage (social amplification of risk-related information)
 -
 7. Judgement of others (reference groups)
 -
 - 8 . Personal experiences with risk (family)

APPENDIX 9: ORIENTED TAXONOMY ON RISK PERSPECTIVE (FROM RENN, 1992, P.56-57)



APPENDIX 10: LITERATURE OVERVIEW OF CULTURAL ANALYSIS IN MARKET FINANCE TOPICS¹

Authors	Cultural variable	Regressing variable (Y)	Panels	Sample	Mean of analysis	Trend studied	Period of analysis	Number of countries
Chui <i>et al.</i> (2010)	Hofstede cultural dimension except Indulgence	Momentum portfolio	Behavioral momentum, rational momentum, financial market development, institutional quality, macroeconomic risk factors, trading volume and volatility.	Equities (national stock markets)	Econometric model	Volatility, Volume and momentum profits	1987-2003	40

¹ Legend:

In bold and gold trends that will be used in the empirical part of this thesis

In bold and brown studies that examined country differences without taking cultural dimensions into account

Authors	Cultural variable	Regressing variable (Y)	Panels	Sample	Mean of analysis	Trend studied	Period of analysis	Number of countries
Stulz & Williamson (2002)	Religion	Investor protection	Shareholder rights, creditor rights, enforcement of rights and accounting standards	Non-market data	Econometric model	Investor protection		49
Chang & Lin (2015)	Hofstede cultural dimensions	Return volatility	/	Equities (national stock markets)	Econometric model	Herding behavior	NA	50
Apartsin, Maymon, Cohen & Singer (2013)	Non cultural approach / Country approach	/	/	Equities (national stock markets)	Machine learning techniques (Support Vector Machine)	Similarities in market trends	NA	5

Authors	Cultural variable	Regressing variable (Y)	Panels	Sample	Mean of analysis	Trend studied	Period of analysis	Number of countries
Beckmann, Menkhoff & Suto (2008)	Hofstede cultural dimensions	Written survey	Gender difference, position and experience, herding behavior variables.	Asset managers views and behavior	Econometric model	Asset managers' view and behavior	2003-2004	4
Keswani, Miguel & Ramos (2014)	Hofstede cultural dimensions	CAPM, Carhart model	National culture, country's development, risk taking, performance, expenses and financial crisis variables	Mutual fund	Econometric model	Mutual fund risk-taking and trading strategies, mutual fund performance, mutual fund fees, effect of the financial crisis on mutual fund performance.	1998-2010	31
Cakici, Fabozzi & Tan (2013)	Non cultural approach /	CAPM, Fama-French model,	/	Equity (national	Econometric model	Returns	1990-2011	18 (emerging)

Authors	Cultural variable	Regressing variable (Y)	Panels	Sample	Mean of analysis	Trend studied	Period of analysis	Number of countries
	Country approach	Carhart model, Momentum		stock markets)				
Lui, Lui & Ma (2011)	Hofstede cultural dimensions except Indulgence	Momentum	/	Equity (national stock markets)	Econometric model	Momentum profits	NA	10

APPENDIX 11: HYPOTHESES

GLOBAL CULTURAL IMPACT: each construct's impact on the 4 portfolios**H1: Individualism impacts returns significantly**

- H1a: Individualism impacts naïve portfolio returns significantly
- H1b: Individualism impacts global minimum variance portfolio returns significantly
- H1c: Individualism impacts equal risk contribution portfolio returns significantly
- H1d: Individualism impacts maximum diversification portfolio returns significantly

H2: Masculinity impacts returns significantly

- H2a: Masculinity impacts naïve portfolio returns significantly
- H2b: Masculinity impacts global minimum variance portfolio returns significantly
- H2c: Masculinity impacts equal risk contribution portfolio returns significantly
- H2d: Masculinity impacts maximum diversification portfolio returns significantly

H3: Power distance impacts returns significantly

- H3a: Power distance decreases naïve portfolio returns significantly
- H3b: Power distance decreases global minimum variance portfolio returns significantly
- H3c: Power distance decreases equal risk contribution portfolio returns significantly
- H3d: Power distance decreases maximum diversification portfolio returns significantly

H4: Uncertainty avoidance impacts returns significantly

- H4a: Uncertainty avoidance impacts naïve portfolio returns significantly
- H4b: Uncertainty avoidance impacts global minimum variance portfolio returns significantly
- H4c: Uncertainty avoidance impacts equal risk contribution portfolio returns significantly
- H4d: Uncertainty avoidance impacts maximum diversification portfolio returns significantly

H5: Long-term orientation impacts returns significantly

- H5a: Long-term orientation impacts naïve portfolio returns significantly
- H5b: Long-term orientation impacts global minimum variance portfolio returns significantly
- H5c: Long-term orientation impacts equal risk contribution portfolio returns significantly
- H5d: Long-term orientation impacts maximum diversification portfolio returns significantly

H6: Indulgence orientation impacts returns significantly

- H6a: Indulgence orientation impacts naïve portfolio returns significantly
- H6b: Indulgence orientation impacts global minimum variance portfolio returns significantly
- H6c: Indulgence orientation impacts equal risk contribution portfolio returns significantly
- H6d: Indulgence orientation impacts maximum diversification portfolio returns significantly

CULTURAL IMPACT PER STRATEGY: individualism comparative impact on the 4 portfolios

H7: The naïve portfolio is significantly more concerned with all the risky cultural constructs than other risk-based portfolios

H8: The global minimum variance portfolio is significantly less concerned with individualism than other portfolios

H9: The equal risk contribution portfolio is significantly neutral toward individualism

H10: The maximum diversification portfolio is less concerned by individualism than other portfolios

ALTERNATIVE CULTURAL CONSTRUCT: Using alternative dimensions does not change results

H11: Using House's cultural constructs does not changes the significance of the results in comparison with Hofstede's dimensions

APPENDIX 12: EXPLANATORY VARIABLES

Data related to cultural values	Type	Description
Individualism (<i>INDV</i>)	Cross-section	Ranging from 0 (full collectivism) to 100 (full individualism). Source: Hofstede (2010)
Masculinity (<i>MAS</i>)	Cross-section	Ranging from 0 (full femininity) to 100 (full masculinity). Source: Hofstede (2010)
Power distance (<i>PDI</i>)	Cross-section	Ranging from 0 (fully hierarchic) to 100 (full egalitarianism). Source: Hofstede (2010)
Uncertainty avoidance (<i>UAI</i>)	Cross-section	Ranging from 0 (fully risk-averse) to 100 (fully risk-seeking). Source: Hofstede (2010)
Long-term orientation (<i>LTO</i>)	Cross-section	Ranging from 0 (full long-term orientation) to 100 (full short-term orientation). Source: Hofstede (2010)
Indulgence (<i>ING</i>)	Cross-section	Ranging from 0 (fully indulgent) to 100 (fully restrained). Source: Hofstede (2010)
GLOBE's dimensions	Cross-section	Collectivism is reverse individualism (<i>CO1</i> represents collectivism towards the state whereas <i>CO2</i> represents collectivism towards the workgroup). Values for the whole society are taken into consideration. Higher scores indicate a higher tendency toward the described value (except for the values which are measured inversely). Source: House <i>et al.</i> (2004)

Data related to financial market development	Type	Description
Total private credit (<i>Credit</i>)	Cross-section & annual time-series	Total private credit of country <i>i</i> in year <i>y</i> divided by this country's GDP in year <i>y</i> . Source: World Bank (2015)
Familiarity to foreign investors (<i>Lang</i>)	Cross-section	Average dummy variable upon 52 countries: 1 if countries <i>i</i> and <i>j</i> share a major language and 0 otherwise.

		Source: CIA (2015)
Index on capital flow restrictions (<i>Control</i>)	Cross-section	A higher figure reveals restrictions on capital flow. Source: Chan, Covrig, and Ng (2005)
Market openness (<i>Open</i>)	Cross-section & monthly time-series	Import-Export of country <i>i</i> in % of its GDP in the constant 2008 USD for all countries except for Taiwan which uses 2023 USD index. Source: World Bank (2015)

Data related to institutional quality	Type	Description
Corruption index (<i>Crp</i>)	Cross-section & annual time-series	A higher figure signifies a lower corruption level. Varies from -2.5 to 2.5. Source: World Bank (2015)
Investor protection index (<i>Protection</i>)	Cross-section	A higher figure indicates better investor protection. This index aggregates disclosure, liability standards and anti-director rights scores. Source: La Porta, Lopez-de-Silanes and Shleifer (2006)
Insider (<i>Insider</i>)	Cross-section	A higher value means less insider trading. Source: La Porta, Lopez-de-Silanes and Shleifer (2006)
Political stability (<i>Political</i>)	Cross-section & annual time-series	A higher score means lower perceived likelihood that the government will be destabilized by unconstitutional or violent means including terrorism. Varies from -2.5 to 2.5. Source: World Bank (2015)
Transaction costs of trading stocks (<i>Tran</i>)	Cross-section	A higher score implies higher transaction costs. Source: Chan, Covrig, and Ng (2005)
Concentration of ownership (<i>Own</i>)	Cross-section	A higher score indicates more concentration. Source: La Porta, Lopez-de-Silanes and Shleifer (2006)
Rule of law (<i>law</i>)	Cross-section & annual time-series	A higher score signifies higher confidence in law and quality of contract enforcement, property rights, police, courts and less likelihood of crime

		and violence. Varies from -2.5 to 2.5. Source: World Bank (2015)
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Data related to macroeconomic risk factors	Type	Description
Real gross domestic product (GDP) per growth rate (<i>Gdppcgw</i>)	Cross-section & annual time-series	GDP per capita in the constant 2000 USD for all countries except for Taiwan which uses 2001 USD index. Source: World Bank (2015), National Statistics, Republic of China (Taiwan) (2015).
Change of exchange rate (<i>Cfx</i>)	Cross-section & daily time-series	Change of exchange rate in day <i>d</i> in country <i>i</i> against USD. Source: Datastream

Data related to portfolio benchmark	Type	Description
MSCI (<i>MSCI</i>)	Cross-section & daily time-series	Stock market index of country <i>i</i> . Source: Datastream

APPENDIX 13: REGRESSANDS

Portfolios	Type	Description
Naïve	Cross-section & daily time-series	Sample of representative stocks from national stock markets. Source: Datastream
Global Minimum Variance	Cross-section & daily time-series	Sample of representative stocks from national stock markets. Source: Datastream
Equal Risk Contribution	Cross-section & daily time-series	Sample of representative stocks from national stock markets. Source: Datastream
Maximum Diversification	Cross-section & daily time-series	Sample of representative stocks from national stock markets. Source: Datastream

APPENDIX 14: COUNTRY'S INDEX AND STOCK SUMMARY

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
Argentina (MERVAL)	15	AF Equity: PBE, GGAL, ACIN, BMA, TECO2, COME, TGSU2, TS, FRAN, INDU, ERAR, MOL, RENO, ATAN, FIPL.	MSCI Argentina
Austria (ATX)	24	AV Equity: BAUS, EBS, OMV, VER, WIE, ATBK, TKA, VOE, GES, FLU, BWT, MMK, EVN, VAT, AUA, RHI, BRA, BUD, HEAD, SEM, LIBR, WOL, CYB, BWIN.	MSCI Austria
Belgium (BEL20)	20	BB Equity: AMVVP, GIBB, KBC, IBAB, UMI, SOLB, TEL, REAT, AGS, BEKB, TESB, COLR, DIE, DEXB, 1015Q, DELB, AGFB, BAR, ELEB, UCB.	MSCI Belgium
Brazil (BOVESPA)	42	BS Equity: TELB4, PETR4, TLSP4, ELET6, ELET3, TELB3, BESP4, BBDC4, BBA54, ERIC4, INEP4, BRHA4, USIM4, LIGH3, TLSP3, CSNA3, PALF3, ITSA4, BRDT4, CSTB4, ACES4, WHMT3, BMTO4, SCON4, CMIG3, SHAP4, PTIP4, ARCZ6, CRUZ3, BBAS3, UNIP6, EBEN4, DURA4, CEVA4, BELG4, CPSL3, PMAM4, EPTE4, EMAE4, CMIG4, ELPL4, LIPR3.	MSCI Brazil
Chile (IPSA)	40	CC Equity: CENCOSUD, ENERSIS, ENDESA, SQM/B, COLBUN, NUEVAPOL, COPEC, LAN ? CAP, WMTCL, CCU, ENTEL, ALMEN, CTCA, VAPORES, FALAB, IANSA, BSAN, INVEXANS, CORPBANC, CMPC, ANDINAB, CHILE, ANTAR, BCI, CRISTAL, CGE, CONCHA, INVERC, MASISA, PROVIDA, CEMENT, QUINENC, AGUAS, SMCHILEB, SECUR, OROB, TATTER, SANPED, ECL	MSCI Chile
China (SHANGAI)	300	CH Equity: 600050, 600900, 600036, 600019, 600009, 600016, 600028, 000002, 000001, 000039, 827063, 000063, 600005, 600000, 000858, 000866, 600519, 600642, 000088, 600309, 000983, 600015, 600029, 600601, 600026, 600688, 600320, 000027, 600717, 000898, 000503, 600104, 000069, 600795, 600832, 600839, 600887, 600583, 000100, 600011, 000792, 600500, 600098, 600660, 000629, 600269, 600653, 600690, 600085, 000402, 600808, 600177, 600100, 000895, 600004, 600428, 600350, 600008, 000825, 000581, 600868, 600002, 600649, 000423, 600001, 600012, 000839, 600602, 000709, 000488, 600171, 600020, 600030, 600033, 000527, 000729, 000717, 600569, 600196, 600895, 000089, 000630, 600598, 600600, 000932, 600188, 600694, 000022, 000541, 600348, 000900, 000800, 600308, 600096, 000778, 000956, 000429,	MSCI China

Country (Stock # Market)	Equity universe	Index Benchmark
	600652, 600282, 600058, 000009, 000970, 600643, 000539, 600236, 600210, 600879, 600780, 600205, 600851, 000625, 000937, 000651, 000682, 600654, 600123, 600811, 000959, 000916, 600812, 600597, 000024, 600997, 600631, 600021, 600037, 600663, 600886, 000066, 000828, 600585, 000520, 600270, 600835, 000912, 000021, 600797, 600198, 600006, 600183, 000068, 600153, 000036, 000960, 600362, 000406, 000817, 600108, 000933, 000659, 600022, 600635, 600010, 600881, 600035, 600220, 000822, 600508, 000518, 600548, 600741, 600662, 600296, 600675, 000060, 601607, 600718, 000930, 600102, 000758, 600744, 000875, 000726, 600863, 600231, 000878, 600207, 000917, 600637, 600271, 000767, 600170, 000559, 000157, 600591, 000601, 600705, 600724, 600089, 000920, 000568, 600103, 600307, 600068, 600779, 600031, 000400, 600060, 000623, 600126, 000401, 600190, 000968, 600221, 000680, 600073, 600091, 000031, 600747, 600333, 000806, 600621, 000507, 600256, 000016, 600121, 600866, 600884, 600057, 600770, 600581, 000061, 600820, 600110, 000528, 600087, 600638, 600078, 600088, 600805, 600215, 000012, 600608, 000735, 600266, 600790, 600115, 600639, 600894, 000636, 600377, 000725, 000939, 000562, 600707, 000962, 000573, 600739, 000571, 600874, 600117, 000727, 000807, 000425, 600357, 000886, 000029, 600854, 600761, 000786, 000698, 600138, 000410, 600074, 000780, 000420, 000927, 000949, 600007, 600726, 000763, 600166, 000666, 000921, 000708, 000511, 600674, 000733, 600489, 600641, 000737, 000096, 000612, 600135, 600871, 600748, 600838, 000543, 000533, 000550, 000498, 000532, 000823, 600630, 600072, 000831, 600408, 600710, 600757, 600228.	
Colombia (IGBC)	20 CB Equity: PFBCOLO, GRUPOSUR, ISA, GRUPOARG, NUTRESA, CEMARGOS, ISAGEN, CORFICOL, CELSIA, AVAL, BOGOTA, EXITO, BVC, FABRI, INTBOL, TABLEMA, ETB, PAZRIO, ENKA, COLTEJ.	MSCI Columbia
Denmark (OMXC20)	20 DC Equity: NDA, CARLB, COLOB, NKT, TOP, GN, TDC, CHR, WDH, DSV, NZYMB, NOVOB, LUN, FLS, SYDB, TRYG, MAERSKA, DANSKE, VWS, MAERSKB.	MSCI Denmark
Egypt (EGX30)	30 EY Equity: GTHE, OCIC, EMOB, ABUK, COMI, EICD, SUCE, MPRC, EAST, ORWE, MINB, OLGR, PHAR, PACH, SCEM, POUL, BISM, MICH, MCQE, NBKE, MNHD, EGAB, EXPA, MBSC, EFIC, APSW, ESRS, ELEC, ELKA, GSSC.	MSCI Egypt

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
Finland (OMX Helsinki 25)	25	FH Equity: TLT1V, ALD1V, NDA1V, CTL1V, AMEAS, WRT1V, ELI1V, EBC1V, KCR1V, OUT1V, SAMAS, SRA1V, ELQAV, METSB, MEO1V, SFT1V, FUM1V, NOK1V, STERV, TIE1V, UPM1V, POH1V, POS1V, INS1V, KONBS.	MSCI Finland
France (CAC40)	40	FP Equity: OR, AVE, TCHNR, ALU, FP, AI, DSY, CS, BNB, BN, CAP, CA, SGO, AC, VIV, CO, MC, ML, MMB, KER, UG, LG, SZE, RNO, AGF, SW, CL, FR, OGE, HO, TFI, ORA, DX, EN, SAN, GLE, SU, AIR, STM, ALS.	MSCI France
Germany (DAX)	30	GR Equity: DGX, GY Equity: HVM, DRB, EPC, SCH, ALV, RWE, BAYN, BMW, CBK, DBK, BAS, HEN3, LIN, LHA, MAN, SIE, EOAN, MUV2, SAP, ADS, DTE, DPW, MEO, FME, DAI, TKA, IFX, VOW, TUI1.	MSCI Germany
Greece (ATHEX 20)		ETE, HTO, EUROB, ALPHA, TEMP, EEEK, PANF, COSMO, ELPE, INTRK, TPEIR, BIOX, TITK, INZOI, DOL, EYDAP, ALEK, GEARK, ATTICA, HRAK, MAIK ELLAKTOR, GERM, FFGRP, EALFA, INSOC, HYATT, ELBA, ALATK, AKTOR, ALTEC, DELTA, IATR, HSI, XAKO, PAPAK, OLYMP, LYK, SIDE, AEGEK, EPERA, MINOA, DESIN, MYTIL, METTK, GOODY, TROP, ASTIR, UTEX, ASASK, TELET, THEME, KLONK, TEGO, SAR, ASTAK, ESXA, LAVI, ELME, DOUG.	MSCI Greece
Hong Kong (HSI)	33	HK Equity: 5, 941, 13, 12497772D, 11, 16, 8, 2, 12, 6, 267, 3, 19, 293, 4, 179, 494, 992, 82769Q, 1038, 23, 101, 17, 291, 511, 97, 83, 20, 363, 14, 10, 142, 315.	MSCI Hong Kong
India (S&P CNX Nifty)	29	IN Equity: ITC, ACC, BJHI, Z, BHEL, RELI, CSTR, TATA, RIL, HCBA, NEST, GRASIM, RILP, DRRD, HUV, GLXO, INFO, HPCL, MM, SCS, MTNL, ICICI, RBXY, LT, ACEM, SBIN, NIIT, HNDL, TTMT.	MSCI India
Ireland (ISEQ Index)	63	ID Equity: ELN, ALBK, BKIR, CRH, RYA, IL0A, SMFA, KYG, WCRX, ANGL, INM, VRD, IAW, DCC, WTFU, GPC, RVDP, ITP, GN5, KSP, GNC, JDH, FFY, FTA, UDG, GLB, ICON, UTV, FBD, IFP, PWL, IR5B, IWP, DGO, HIT, RYX, ARNUM, IGG, DLOUM, TRIB, RYNH, QLC, DI8, BUS, BGA, MCI, KMR, ARG, HOR, AEX, DLE, UDRU, DCP, SFZ, MBI, CPL, AIN, RTG, PACC, OGB, LMNT, NSH, SRE.	MSCI Ireland
Israel	25	IT Equity : TEVA, ICL, LUMI, POLI, ILCO, MAIN, NICE, BEZQ, PTNR, PRGO, PAY, ESLT, CEL, DSCT, MZTF, AFIL, DLEKG, ORL, ORMT, DISI, KRVN, 0987446D, GZT, CLIS, STRS.	MSCI Israel

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
(TA-25)			
Japan (NIKKEI 225)	225	1806, 6857, 8267, 2802, 6770, 9202, 1886, 1837, 5201, 2502, 3407, 4503, 8315, 8332, 5108, 7751, 6952, 6366, 9502, 7762, 6796, 7912, 4505, 1925, 8601, 4061, 6902, 5714, 9020, 6361, 4523, 6954, 6504, 7270, 4901, 5803, 6702, 5715, 5801, 8803, 7205, 6501, 7004, 3865, 7267, 7013, 6310, 7202, 8264, 8001, 5014, 5631, 2914, 5403, 6473, 5001, 1812, 3102, 9503, 4452, 7012, 9107, 9433, 9006, 9008, 9009, 2801, 2503, 5406, 6301, 4902, 6326, 1861, 3405, 6971, 1301, 4151, 8002, 8252, 7261, 6508, 2261, 2202, 2536, 6479, 4010, 8058, 6503, 8802, 7011, 9301, 5711, 7211, 3864, 3404, 8583, 8402, 8031, 7003, 8801, 5706, 9104, 8752, 8231, 6767, 8305, 8606, 8404, 2201, 6474, 6701, 5333, 2871, 6011, 8603, 7731, 9062, 2001, 4272, 5701, 0742344D, 7102, 5202, 4041, 5401, 1332, 9432, 9101, 4021, 7201, 2602, 2002, 3105, 8063, 3110, 5404, 8604, 6471, 6472, 9613, 9437, 1802, 9007, 3861, 6703, 6103, 9532, 6752, 6991, 6781, 6773, 8319, 7752, 8322, 8314, 4501, 6764, 2501, 1804, 9735, 8183, 6753, 1803, 4063, 4507, 4911, 8355, 4004, 5002, 8755, 6758, 4005, 8053, 4506, 5802, 6302, 8753, 5405, 5713, 8318, 8403, 5232, 7269, 5233, 1801, 6976, 2531, 4502, 6762, 3401, 1601, 4543, 1885, 4045, 1805, 9001, 9605, 5707, 8321, 5301, 8751, 9681, 9501, 8035, 9531, 9005, 8232, 8003, 7911, 7231, 3402, 6502, 4042, 5332, 5901, 3101, 7203, 4208, 8320, 8407, 3103, 7951, 6841, 5101, 6933.	MSCI Japan
Kenya (NSE All Share)	55	KN Equity: SAFCOM, EABL, BCBL, BMBC, EQBNK, KNCB, SCBL, KEGC, NMG, CFCB, BATK, KNAL, NICB, KPLL, KNOC, MSUG, DTKL, CMCH, ARML, CENTUM, NBKL, KNRE, EAPC, TPSEA, JBIC, TKNL, EACL, SCAN, STNG, ACCESS, PAIL, HFCL, SAME, STCL, CRGN, RVPL, UNGL, CTRL, EVRD, CRBG, GWKL, KKZI, EXPL, MEAL, DNKN, LMTC, KPTC, EGD, ABCL, HTBL, UCSP, BOCK, CBIL, KNOL, UTK.	MSCI Kenya
Kuwait (Kuwait WE Price Index)	201	KK Equity: KFIN, CABLE, FOOD, OOREDOO, NBK, ZAIN, MENAHOLD, CBK, CGC, GBK, NIND, KCEM, KFOUC, BPCC, MABANEE, KPROJ, ABK, AGLTY, GLOBAL, GFH, PCEM, EKHOLDIN, BURG, ABAR, FIRSTDUB, MAZAYA, IFAHR, TID, KPAK, KCIN, KOUTFOOD, ALMADINA, KAMCO, GINS, NINV, ROCKS, ALSAFAT, HCC, ABYAAR, ABRAJ, AINS, CITYGROU, ALMUTAHE, MASHAER, SECH, UFIG, ARGAN, BOUBYAN, ALDEERA, SHIP, UGB, KIB, ASC, SHUA, GGMC, SGC, NETWORK, MTCC, ARZAN, FACIL, TAM, MARIN, KMEFIC, ACICO, TAMINV, JAZEERA, NICBM, KINS, SRE, IFA, AAYAN, ILIC, BBK, INOVEST, ATC, KGL, MRC, NOOR, SHOP, OULAFUEL, INJAZZAT, AIG, GYPSUM, KTINVEST, NRE, MUNSHAAT, PIPE, FCEM, SCEM, REFRI, TAHSSILA, IPG, AREEC, ALSALAM, FTI, KINV, GPI, SAFATGLB, CLEANING, SULTAN, WINS, ALQURAIN, FUTURE, ALOLA, HITSTELE, HAYATCOM, IKARUS, SANAM, SAFWAN, KCPC,	MSCI Kuwait

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
		NAPESCO, UPAC, JEERANH, AUB, NCCI, IIG, AGHC, EYAS, CATTI, KUWAITRE, GRAND, KSH, AAYANRE, PEARL, KBMMC, EXCH, KFIC, ALMAL, EQUIPMT, ENERGYH, ALAMAN, MUBARRAD, COAST, MARKAZ, ISKAN, SALBOOKH, ALAFCO, ERESO, GIH, NIH, HUMANSFT, PAPER, MADAR, IRC, KHOT, TII, ALTIJARI, DANAH, UIC, EKTITAB, ARIG, JEEZAN, ALSAFWA, BAYANINV, EDU, WETHAQ, NSH, YIACO, KPPC, GULFINV, MUNTAZAH, QCEN, GFC, AINV, MASSALEH, UREC, IIPC, MAYADEEN, KRE, OSOUL, VILLAMOD, MHC, ALAQARIA, IIC, CABLETV, ARKAN, TAMEERK, ITHMR, THEMAR, QURAINHL, SAFTEC, PAPCO, AQAR, TIJARA, RKWC, URC, POULT, REAM, ADNC, INVESTOR, ARABREC, SOKOUK, ALKOUT, SENERGY, SAFRE, NAFAS, BAREEQ, AFAQ, ALSHAMEL, CIB, BKIKWT.	
Malaysia (KLCI)	30	MK Equity: HLBK, MAS, PLUS, ASTR, PETD, PTG, YTL, DIGI, TNB, MMC, AXIATA, SIME, YTL, UMWH, TJN, PKS, BST, AMM, CIMB, RHBC, GENT, T MK, IOI, KLK, MAY, MISC, PEP, PBK, GENM, ROTH.	MSCI Malaysia
Mexico (IPC)	36	MM Equity: TELMEXL, WALMEX, AMXL, GFBBO, TELECOA1, CEMEXCPO, TLEVICPO, GFINBURO, GCARSOA1, BIMBOA, FEMSAUBD, AC, KIMBERA, 0698214D, SORIANAB, GMODELOC, WALMEXC, APASCO, CONTAL, GFNORTEO, AZTECACP, CIEB, ALFAA, ARGOSB, GMEXICOB, TAMSA, ARA, GRUMAB, PE&OLES, CEL, KUOB, ICA, COMERUBC, ELEKTRA, GEOB, SAVIAA.	MSCI Mexico
Morocco (MADEX)	54	MC Equity: IAM, ATW, BCP, BCE, LAC, HOL, ADH, WAA, CMA, CGI, CSR, CIH, BCI, RDS, ATH, MNG, TQM, SAH, LES, LBV, CMT, SID, SAM, ADI, LYD, DHO, SLF, ATL, RIS, COL, DWAY, ALM, MAB, HPS, SNP, NAKL, CTM, JET, DARI, NEX, MIC, FBR, S2M, DLM, SNA, AFI, MOX, STR, M2M, CRS, INV, IBMC, SRM, MDP.	MSCI Morocco
Namibia (FTN098 Index)	27	NW Equity: NHL, MCI, BWH, VKN, PDN, ANM, AOX, IVD, B2G, BWL, FST, MIM, NBK, OCS, SLA, SNB, SNM, SRH, TRW, NBS, TUC, FNB, NAM, KFS, BVN, ORY, OLM.	NA
Netherlands (AEX)	24	NA Equity: KPN, VNUA, AGN, ASML, PHIA, KQIP, REN, WKL, NUM, AH, 3577044Z, UNA, DSM, INGA, TLNL, UPC, PNL, AKZA, HEIA, GUC, CXP, RDA, HGM, GTN.	MSCI Netherlands
New Zealand	52	NZ Equity: SPK, CAH, CEN, SKC, WHS, AIA, FBU, FPH, WPT, INL, COA, FPA, KPG, ANZ, TWR, LNN, AMP, POT, IFT, SKY, SAN, WAM, TENPA, NGC, TRH, TLS, NPX, PWC, PFI, TEN, AIR, CNZ, MHI, AXA, STU, POA, BGR, RBD, HLG, WRI, RBC, GLL, VHP, HBY, SKL, GMF, THL, VEA, KIPGA, NPT, MFT, NZR.	MSCI New Zealand

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
(NZSE50FG Index)			
Norway (OBX)	25	NO Equity: NHY, ORK, STL, TOM, STB, DNB, TEL, RCL, NSG, 265143Q, AHM, TAA, FRO, KVI, BEA, MHG, SCH, TAT, EVRY, 1045871D, NER, TGS, ATEA, IFC, ELT.	MSCI Norway
Pakistan (KSE100 Index)	99	PA Equity: OGDC, PTC, PPL, NBP, PSO, FFC, MCB, POL, KAPCO, FFBL, SNGP, HUBC, SHEL, FABL, NRL, NESTLE, ENGRO, PICIC, BOP, ULEVER, LUCK, GLAXO, DGKC, KEL, ICI, AKBL, BAFL, PAKT, SSGC, UNBL, DAWH, NML, BWCL, HMB, PIAA, PMPK, BAHF, INDU, PICB, IBFL, ABOT, MLCF, PKGS, AICL, PNSC, AICL, PNSC, LOTCHEM, PSMC, ATRL, PGF, AHCL, SNBL, FCCL, PRL, NIB, CHCC, ATLL, AGTL, NCL, ACPL, LPCL, RMPL, DSFL, PSEL, SIEM, JGICL, PIF, MARI, HCAR, RBS, INIL, MTL, BYCO, KOHE, LINDE, KTML, IGIL, GATI, DREL, ANL, SILK, JSCL, ARPL, COLG, SEPL, JOVC, CEPB, DLL, GATM, GTYR, OLPL, GHGL, THALL, GADT, JDWS, FYZMM, KML, BATA, BNWM, WAZIR.	MSCI Pakistan
Panama (BVPSBVPS Index)	13	PP Equity: FASA, ASSA, BGFG, EGIN, GMUN, MHCH, REYH, MELO, BVP, UNEM, LATIN, GBGR, GBHC.	NA
Philippines (PCOMP Index)	38	PM Equity: TEL, AC, BPI, SMC, MBT, ALI, SMPH, GLO, EPCI, SMCB, ABS, MER, MERB, PNB, JGS, LPZ, PCOR, MPC, JFC, GSMI, FPH, AEV, ION, MEG, FLI, FDC, HLCM, DGTL, LC, BEL, ICT, LCB, FNI, GREEN, CMP, GERI, DMC, PCEV.	MSCI Philippines
Poland (WIG20 Index)	20	PW Equity: PEO, PKN, OPL, PKM, MBK, KGH, AGO, BPH, GRO, ING, BZW, SGN, ELE, ORB, ACP, MSC, KTY, CMR, MIL, ELK, NET.	MSCI Poland
Portugal (PSI20 Index)	20	PL Equity: MCON, IPR, NBA, SEM, TLE, JMT, SNC, TDU, SON, BES, CPR, NOS, EDP, BCP, GLINT, BPI, PTC, BRI, SVA, PTI.	MSCI Portugal

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
Russia (RTSI\$ Index)	63	RU Equity: TATNP, TMNG, IRGZ, MSNG, AVAZ, GAZA, KMAZ, RTKM, LSNG, NNSI, ELRO, SBER, SKGZ, CHMF, TMNGP, TATN, SKGZP, KZBE, MFGS, KRNGP, LNTCP, EESR, PFGS, EESRP, URSI, BEGY, SIBN, GMKN, CHEP, AFLT, KUBN, TUTE, SAGO, HTCM, NKNC, KUBNP, SNGS, LKOH, RTSE, SARE, MFGSP, MGTSP, PFGSP, SPTLP, PMNG, URTC, ESMO, ESMOP, TLEN, GUMM, TZUM, SPTL, AVAZP, YUKO, SAGOP, OMZZ, BISV, ORNB, SVER, SBERP, MGTS, ENCO, ENCO.	MSCI Russia
Saudi Arabia (SASEIDX Index)	79	AB Equity: SABIC, STC, RJHI, SAMBA, SABB, SECO, RIBL, BSFR, ARNB, EEC, ALBI, SAVOLA, SIBC, SAFCO, YANSAB, AAAL, BIAZ, YACCO, MCDCO, SOCCO, SIIG, SACCO, ATTMCO, ALMARAI, YNCCO, NSCSA, NIC, QACCO, EACCO, SPC, TAWUNIYA, ARCCO, TIRECO, JARIR, TACCO, SRECO, SPIMACO, NGCO, ZIIC, SAAC, NGIC, ALDREES, SARCO, ADCO, SAPTCO, APCO, NADEC, NAMA, ZOUJAJ, SCERCO, ANAAM, SCCO, AADC, SHARCO, GIZADO, SISCO, QAACO, FIPCO, SADAFCO, HAACO, SIDC, AHFCO, TAACO, BISACO, FPCO, SIECO, SFICO, JADCO, SLTGO, NMMCC, TAPRCO, ASACO, THIMAR, ABDICO, TECO.	NA
Singapore (Straits Times Index)	30	SP Equity: ST, DBS, UOB, OCBC, KEP, SGX, HKL, SIA, CIT, CAPL, WIL, SPH, STE, COS, JS, SCI, CT, FNN, SMM, JCNC, THBEV, KPLD, YZJSGD, NOL, GENS, STH, OLAM, NOBL, YLLG, SIE.	MSCI Singapore
South Africa (FTSE/JSE Afrique Top 40)	42	SJ Equity: VNF, INL, INP, ABI, BVT, EXX, MTN, SAB, HAR, IMP, JNC, BGA, AMS, SLM, REM, SAP, SOL, ACL, FSR, TBS, PIK, RMH, OML, NED, BAW, DRD, CFR, AGL, BIL, GFI, SHF, CRH, CRN, NIB, 0861674D, ITU, IPL, DDT, SBK, LGL, NPK, ANG.	MSCI Africa
South Korea (Kospi 200)	200	005930, 017670, 060000, 030200, 015760, 005490, 005380, 055550, 0261, 009150, 000010, 000270, 000810, 033780, 016360, 000660, 010950, 006400, 004170, 0736, 009540, 005940, 016830, 006800, 003600, 012330, 000830, 002380, 001040, 003450, 036460, 004940, 000140, 002790, 003540, 010140, 008670, 001830, 003550, 003490, 001510, 0589, 001740, 030000, 004020, 012750, 006360, 012630, 009720, 015940, 001300, 004370, 008060, 011170, 029530, 000210, 014900, 000150, 004800, 018880, 012450, 006260, 011790, 009830, 000100, 004000, 010520, 010130, 000240, 005810, 000700, 001230, 010120, 025560, 011200, 000880, 004150, 002000, 006200, 009270, 001800, 000070, 016880, 010060, 000640, 003300, 001440, 033240, 003090, 003480, 005500, 025930, 025860, 001680, 002950, 017810, 011930, 023590, 004980, 006120, 007810,	MSCI Korea

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
		005250, 003940, 020000, 025000, 003000, 009200, 003160, 005180, 002990, 002030, 010620, 002020, 005950, 029460, 008730, 014820, 008930, 002300, 011810, 003070, 001520, 025850, 001210, 001940, 035150, 011780, 012600, 007690, 016380, 009760, 025530, 017960, 002350, 009290, 000990, 006390, 031820, 007310, 000390, 012200, 003030, 019490, 003050, 006250, 007700, 007860, 009280, 017800, 001060, 010770, 000480, 000020, 010510, 000320, 002250, 006650, 019930, 002200, 004830, 026890, 013520, 024900, 007210, 006660, 012610, 007570, 009680, 016580, 001790, 014440, 001630, 014680, 001980, 001570, 010150, 007610, 023960, 004910, 005190, 011280, 016570, 001620, 025830, 011050, 000760, 012800, 011090, 004710, 003680, 011690, 002900, 015260, 019300, 016160, 0848, 005600, 1404, 018590, 024890.	
Spain (IBEX)	35	SM Equity: TEF, SAN, TEM, BBVA, REP, ELE, IBE, POP, ITX, GAS, LOR, BTO, ALT, ABE, ACS, UNF, FCC, SGC, 3465593Q, ANA, BKT, ACX, 359328Q, SCYR, GAM, IBLA, MAP, ENG, REE, TPI, MVC, PRS, IDR, ZEL, NHH.	MSCI Spain
Sweden (OMX Index)	31	SS Equity: WMB, NOKI, ATCOA, VOLVB, TEL2B, 378273Q, STER, ELUXB, PHA, TLSN, HMB, SKAB, ERICB, SKFB, SAND, TRELB, AZN, SECUB, INVEB, ABB, SEBA, SHBA, SCAB, ALIV, SWEDA, ATCOB, HOLMB, SDIA, LBI, NDA, ICON.	MSCI Sweden
Switzerland (SMI Index)	28	VX Equity: ABBN, ZURN, GIVN, SYNN, OERL, UHR, NOVN, CFR, SCMN, SGSN, KUD, RUKN, CSGN, HOLN, GAM, UHRN, EMSN, SLHN, BALN, CIBN, SEO, LONN, CLN, NESN, UBSN, SUN, ROG.	MSCI Switzerland
Taiwan (TAMSC Index)	75	TT Equity: 2802, 2002, 2801, 2806, 1303, 2303, 1301, 2371, 2603, 1326, 1102, 1101, 1216, 1402, 1605, 1407, 2501, 2306, 1462, 1802, 2609, 2813, 1602, 1409, 1434, 1907, 2204, 1507, 2810, 2006, 2008, 9801, 1905, 2201, 2506, 1604, 2504, 2311, 1229, 1902, 1710, 2308, 1207, 1503, 2903, 2913, 1201, 1408, 2608, 2905, 2105, 2515, 1608, 1903, 2107, 2304, 1305, 2705, 2104, 2314, 1712, 2102, 1419, 2312, 2704, 1416, 2305, 1711, 1437, 1701, 1203, 9903, 2883, 2880, 2882.	MSCI Taiwan
Thailand (SET50 Index)	50	TB Equity: KTB, ADVANC, PTTEP, SCC,BBL, KBANK, INTUCH, BEC, SCCC, DELTA, THAI, RATCH, TRUE, CPF, EGCO, COCO, BIGC, LH, TCAP, TUF, UOBT, HANA, SCB, NPC, BAY, MAKRO, THCOM, UCOM, BECL, TBANK, IFCT, DTDB, TPIPL, KGI, KKP, UBC, PPPC, BANPU, TMB, GRAMMY, ITD, ASP, SUC, TTNT, SCBL, VNT, CGS, CNS, BLAND, JAS.	MSCI Thailand

Country (Stock Market)	# stocks	Equity universe	Index Benchmark
Turkey (XU030 Index)	30	TI Equity: ISCTR, AKBNK, TUPRS, GARAN, KCHOL, TCELL, SAHOL, YKBNK, EREGL, VESTL, ARCLK, MGROS, FROTO, DOHOL, ENKAI, SISE, HURGZ, TOASO, DYHOL, AKGRT, TRKCM, PTOFS, IHLAS, TNSAS, ALARK, FINBN, AKSA, AKENR, GRUND, NETAS.	MSCI Turkey
United Arab Emirates (DFMGI Index)	25	DB Equity: EMAAR, DIB, NDB, DIC, EBI, DU, MASQ, AMLAK, CBD, UPP, TAMWEEL, SHUAA, ARTC, ARMX, OIC, TABREED, GGICO, SALAMA, NCC, AMAN, DNIR, NGI, ASCANA, ERC, DIN.	MSCI United Arab Emirates
United Kingdom (UKX Index)	101	LN Equity: VOD, BP, GSK, HSBA, AZN, SHEL, RBS, LLOY, BT, BARC, DGE, CWC, AV, PRU, SKY, 203055Q, TSCO, ANL, ULVR, GAA, TRIL, AAL, HFX, PSON, RIO, BATS, BA, STAN, IVZ, CNA, SPW, COLT, CBRY, BG, LGEN, WPP, NG, BSCT, REL, RSA, SBRY, LOG, III, 576376Q, KGF, BAA, SXC, HAS, BLT, OML, AB, RB, ISYS, MKS, SSE, 0876218D, SPT, 535158Q, GKN, 280172Q, BOC, DDT, ARM, ALLD, RTO, DXNS, RTK, SMIN, LAND, EMI, UBM, IAG, PWG, ABF, 628218Q, ICI, SGE, SAB, IMT, MSY, AHM, UU, AL, CWG, HNS, DMGT, LAD, RR, SFW, CPI, SDR, 715382Q, 567941Q, EXL, BCI, ECM, IPR, SHP, AU, 652308Q, SDRC.	MSCI United Kingdom
United States of America (INDU Index)	30	UN Equity: AXP, GE, 3277Q, MSFT, HQP, PG, IBM, MMM, JNJ, AA, INTC, XOM, MTLQQ, WMT, HD, MRK, EKDKQ, DD, UTX, KO, HON, IP, C, 653707Q, T, CAT, BA, MCD, DIS, MO.	MSCI United States

APPENDIX 15: EXPECTED CORRELATIONS

Regressand: Risk-based and Naïve portfolios

Panel A: Culture's dimensions	Expected correlation
Individualism (<i>IDV</i>)	Positive
Masculinity (<i>MAS</i>)	Positive
Power distance (<i>PDI</i>)	Negative
Uncertainty avoidance (<i>UAI</i>)	Negative
Long-term orientation (<i>LTO</i>)	Negative
Indulgence (<i>ING</i>)	Positive
GLOBE's dimensions	Same as above

Panel B: Financial Market Development	Expected correlation
Total private credit (<i>Credit</i>)	Negative
Familiarity to foreign investors (<i>Lang</i>)	Positive
Index on capital flow restrictions (<i>Control</i>)	Negative
Stock market openness (<i>Open</i>)	Negative

Panel C: Institutional Quality	Expected correlation
Corruption index (<i>Crp</i>)	Negative
Investor protection index (<i>Protection</i>)	Positive
Insider (<i>Insider</i>)	Negative
Political risk index (<i>Political</i>)	Positive
Transaction costs of trading stocks (<i>Tran</i>)	Positive
Concentration of ownership (<i>Own</i>)	Positive
Law and order index (<i>Law</i>)	Negative

Panel D: Macroeconomic Risk Factors	Expected correlation
Real gross domestic product (GDP) per growth rate (<i>Gdppcgw</i>)	Positive
Change of exchange rate (<i>Cfx</i>)	Negative

Panel E: Performance Factor	Expected correlation
MSCI (<i>MSCI</i>)	Positive

APPENDIX 16: R CODE

```

library(openxlsx)
library(FRAPO)
library(PerformanceAnalytics)
library(plm)

chargepays <- function(nomfichier, nompays) {
  pays = list()
  message("Chargement de la feuille ", nompays, " en cours...")
  ws <- read.xlsx(nomfichier, sheet=nompays, detectDates=TRUE)
  ncol <- ncol(ws)
  message(ncol, " colonnes à fusionner...")
  colnames(ws)[seq(1,ncol,2)] <- "Date"
  ts <- na.omit(ws[1:2])
  ts <- xts(ts[2], ts[,1])
  pricedata <- apply.monthly(ts, colMeans)
  for(i in seq(3, ncol-1, 2)) {
    ts <- na.omit(ws[i:(i+1)])
    ts <- xts(ts[2], ts[,1])
    pricedata <- merge(pricedata, apply.monthly(ts, colMeans))
  }
  neq <- ncol(pricedata)
  message(neq, " stocks et ", nrow(pricedata),
          " observations sur ", nyears(pricedata),
          " ans.")
  message("Elimination des stocks à faible historique...")
  ## order by number of NA
  pricedata <- pricedata[,order(colSums(is.na(pricedata)))]
  minAns <- 10 # 10 ans minimum
  pricedataSNA <- na.omit(pricedata)
  nObs <- nrow(pricedataSNA)
  while( (nyears(pricedataSNA) < minAns && ncol(pricedata) > 2)
        || nrow(pricedataSNA) < ncol(pricedata) + 2 ) {
    pricedata <- pricedata[,-ncol(pricedata)]
    pricedataSNA <- na.omit(pricedata)
    nObs <- nrow(pricedataSNA)
  }
  neq <- ncol(pricedata)
  if( neq == 0 ) {
    message("Echec")
    return(NULL)
  }
  message(neq, " stocks et ", nObs, " observations sur ",
          nyears(pricedataSNA), " ans (du ",
          first(index(pricedataSNA)), " au ",
          last(index(pricedataSNA)), " )")
  pays$prices <- pricedataSNA
  pays$r <- Return.calculate(pricedataSNA, "log")[-1,]
  pays$R <- Return.calculate(pricedataSNA)[-1,]
  message("Génération des portefeuilles...")
  portefeuilles = list()
  portefeuilles$naif <- rep(1/neq, neq)
  names(portefeilles$naif) <- colnames(pays$r)
  message("GMV")
  portefeuilles$GMV <- Weights(PGMV(pays$r, percentage=FALSE))
  message("ERC")
}

```

```

    portefeuilles$ERC <- Weights(PERC(cov(pays$r),
                                     percentage=FALSE))

    message("MD")
    portefeuilles$MD <- Weights(PMD(pays$r, percentage=FALSE))
    pays$portefeuilles <- portefeuilles
    return(pays)
}

chargetout <- function(nomfichier) {
  UseMethod("chargetout", nomfichier)
}

chargetout.default <- function(nomfichier) {
  message("Chargement du fichier Excel en cours...")
  wb <- loadWorkbook(nomfichier)
  return(chargetout.Workbook(wb))
}

### Cette fonction n'est appelée que si nomfichier est du
### type Workbook
chargetout.Workbook <- function(nomfichier) {
  data = list()
  for(wsn in names(nomfichier)) {
    tryCatch(
      data[[wsn]] <- chargepays(nomfichier, wsn),
      warning = function(w) message(w),
      error = function(e) message(e))
  }
  return(data)
}

paneldebase <- function(stocks) {
  df <- data.frame()
  for(pays in names(stocks)) {
    ret <- Return.portfolio(stocks[[pays]]$R,
                           stocks[[pays]]$portefeuilles$naif)
    ret <- merge(ret,
                 Return.portfolio(stocks[[pays]]$R,
                                   stocks[[pays]]$portefeuilles$GMV))
    ret <- merge(ret,
                 Return.portfolio(stocks[[pays]]$R,
                                   stocks[[pays]]$portefeuilles$ERC))
    ret <- merge(ret,
                 Return.portfolio(stocks[[pays]]$R,
                                   stocks[[pays]]$portefeuilles$MD))
    ret <- as.data.frame(ret)
    colnames(ret) = c("naif", "GMV", "ERC", "MD")
    ret$Pays <- pays
    ret$Date <- rownames(ret)
    df <- rbind(df, ret)
  }
  return(df[c(5,6,1,2,3,4)])
}

chargepanel <- function(stocks, nomfichier, crossSection=c(),
                        yearly=c(), monthly=c(), monthlyLR=c(),

```



```

tryCatch(
  resultat[[port]]$random <- plm(model[[port]], panel,
                                model="random"),
  warning = function(w) message(
    paste("Impossible de calculer le random pour",
          port, ":", w)),
  error = function(e) message(
    paste("Impossible de calculer le random pour",
          port, ":", e)))
}
return(resultat)
}

### fabrique une formule R à partir d'une chaîne de caractères
### représentant la variable expliquée, et d'un vecteur de chaînes
### représentant les bétas
makeFormula <- function(expliquee, explicatives) {
  return(as.formula(paste(expliquee, " ~ ",
                          paste(explicatives, collapse="+"))))
}

### betas : liste de chaînes de caractères représentant les betas
### stocks : l'objet généré par chargeTout
### nomfichier : le fichier avec les données de panel (hors stocks)
analysePanel <- function(betas, stocks, nomfichier, crossSection=c(),
                        yearly=c(), monthly=c(), monthlyLR=c(),
                        daily=c()) {
  panel <- chargepanel(stocks, nomfichier, crossSection=crossSection,
                      yearly=yearly, monthly=monthly,
                      monthlyLR=monthlyLR, daily=daily)

  model <- list()
  model$naif <- makeFormula("log(naif+1)", betas)
  model$GMV <- makeFormula("log(GMV+1)", betas)
  model$ERC <- makeFormula("log(ERC+1)", betas)
  model$MD <- makeFormula("log(MD+1)", betas)
  resu <- list()
  resu$model <- regress(model, panel)
  resu$panel <- panel
  return(resu)
}

panel1 <- function(stocks) {
  return(analysePanel(
    betas=c("PDI", "IDV", "MAS", "UAI", "LTO", "ING", "MSCI"),
    stocks=stocks, nomfichier="panels.xlsx",
    crossSection="Culture", monthlyLR="MSCI"))
}

panel2 <- function(stocks, nomfichier) {
  return(analysePanel(
    betas=c("PDI", "IDV", "MAS", "UAI", "LTO", "ING", "MSCI",
            "Credit", "Control", "Lang", "Open"),
    stocks=stocks, nomfichier="panels.xlsx",
    crossSection=c("Culture", "B cross-section"),
    monthlyLR="MSCI", yearly=c("Credit", "Open")))
}

```

```

panel3 <- function(stocks, nomfichier) {
  return(analysePanel(
    betas=c("PDI", "IDV", "MAS", "UAI", "LTO", "ING", "MSCI",
            "Crp", "Protection", "Insider", "Own", "Political",
            "Tran", "Law"),
    stocks=stocks, nomfichier="panels.xlsx",
    crossSection=c("Culture", "C cross-section"),
    monthlyLR="MSCI", yearly=c("Crp", "Political", "Law")))
}

panel4 <- function(stocks) {
  return(analysePanel(
    betas=c("PDI", "IDV", "MAS", "UAI", "LTO", "ING", "MSCI",
            "Gdppcgw", "Cfx"),
    stocks=stocks, nomfichier="panels.xlsx",
    crossSection="Culture", monthly="Cfx", monthlyLR="MSCI",
    yearly="Gdppcgw"))
}

panel5 <- function(stocks) {
  return(analysePanel(
    betas=c("G_FUO", "G_CO1", "G_CO2", "G_PDG", "G_UAG", "MSCI"),
    stocks=stocks, nomfichier="panels.xlsx",
    crossSection="Culture", monthlyLR="MSCI"))
}

message("Fonction chargetout(nomfichier) prête à être appelée.")
message()
message("Cette fonction peut être appelée avec un nom de fichier ou
avec un")
message("objet de type Workbook. Elle renvoie une liste par noms de
pays.")
message("Chaque élément de la liste contient un objet prices qui est la
matrice")
message("des prix, un objet R qui contient les simple returns, un objet
r")
message("qui contient les log returns, et un objet portefeuilles qui
contient")
message("lui-même quatre objets, naif les poids naifs, GMV la global
minimum")
message("variance, ERC l'equal risk contribution, et MD la maximum")
message("diversification.")
message()
message("Exemple d'utilisation:")
message("mesdata <- chargetout(\"unfichier.xlsx\")")
message("mesdata$France$portefeuilles$MD")
message("p1 <- panell(mesdata)")
message("summary(p1$panel)")
message("summary(p1$model$ERC$random)")

```

APPENDIX 17: SUMMARY OF OLS REGRESSIONS RESULTS

TABLE I DETERMINANTS' EFFECT ON NAIVE PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM THE OLS REGRESSION

	Regression 1	Regression 2	Regression 3	Regression 4
	Panel A & E: Cultural indexes & MSCI	Panel A, E & B: Cultural indexes, MSCI & Financial development	Panel A, E & C: Cultural indexes, MSCI & Institutional quality	Panel A, E & D: Cultural indexes, MSCI & Macroeconomic factors
(t-values are in parentheses)				
Intercept	4.8496e-04 (0.0450)	1.2506e-02 (1.2847)	1.8090e-02 (0.8678)	-1.1502e-02 (-1.0042)
PDI	1.7139e-04 (1.7735)	6.5731e-05 (0.8066)	5.8401e-05 (0.6137)	1.6257e-04 (1.5868)
IDV	8.4365e-08 (0.0009)	-1.2890e-04 (-1.5374)	-1.0145e-04 (-1.1678)	6.9714e-05 (0.6963)
MAS	-2.2842e-05 (-0.3100)	8.7562e-06 (0.1382)	2.2544e-05 (0.3796)	-3.0481e-05 (-0.3872)
UAI	-4.5038e-05 (-0.7784)	-1.1260e-04 (-1.4772)	-7.2664e-05 (-1.0420)	-7.5094e-06 (-0.1200)
LTO	2.8957e-05 (0.4484)	2.1148e-05 (0.3783)	-1.9376e-05 (-0.2177)	2.6090e-053 (0.3656)
ING	-3.5406e-05 (-0.3897)	5.9019e-05 (0.8901)	6.0799e-05 (0.6700)	1.8449e-06 (0.0192)
Credit		-1.6677e-05 (-0.6530)		
Control		4.3547e-05 (0.0825)		
Lang		2.2515e-03 (0.1559)		
Open		-3.1220e-05 (-1.2675)		
Crp			2.8365e-03	

				(0.6012)
Protection				-6.5887e-04 (-0.8298)
Insider				-2.1197e-03 (-0.4689)
Own				-1.1667e-02 (-0.8594)
Political				-2.6802e-03 (-1.0078)
Tran				-1.0145e-05 (-0.1873)
Law				-3.3803e-03 (-0.6282)
Gdppcgw				1.8015e-03 (3.3111)***
Cfx				-2.5580e-01 (4.127e-07)***
MSCI	5.5373e-01*** (33.3647)	5.4066e-01*** (46.4061)	5.2846e-01*** (47.3743)	5.4553e-01*** (30.6398)
Consistency	R ² 21% R ² (adj) 20.96% F-statistic: 160.798*** Residual sum of squares: 45.278	R ² 38.6% R ² (adj) 38.47% F-statistic: 198.723*** Residual sum of square: 12.637	R ² 43.19% R ² (adj) 42.97% F-statistic: 162.891*** Residual sum of squares: 8.0705	R ² 21.46% R ² (adj) 21.40% F-statistic: 116.99*** Residual sum of squares: 34.407
Min # of countries	37	31	29	36
Max # of countries	42	42	42	42
T	27-197	39-180	44-156	27-180
Starting date	28/11/1997	28/11/1997	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE II DETERMINANTS' EFFECT ON GMV PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM THE OLS REGRESSION

	Regression 1	Regression 2	Regression 3	Regression 4
	Panel A & E: Cultural indexes & MSCI	Panel A, E & B: Cultural indexes, MSCI & Financial development	Panel A, E & C: Cultural indexes, MSCI & Institutional quality	Panel A, E & D: Cultural indexes, MSCI & Macroeconomic factors
(t-values are in parentheses)				
Intercept	1.3363e-02* (2.1953)	2.2262e-02** (3.1698)	2.5468e-02 (1.5737)	4.1760e-03 (0.6686)
PDI	-1.8976e-06 (-0.0348)	-5.4216e-05 (-0.9222)	-5.2091e-05 (-0.7051)	-1.6452e-05 (-0.2945)
IDV	-2.0351e-05 (-0.3958)	-6.6709e-05 (-1.1028)	4.8067e-05 (0.7127)	4.2433e-05 (0.7773)
MAS	-3.4373e-06 (-0.0827)	-2.6024e-05 (-0.5693)	-4.1390e-05 (-0.8977)	-5.4619e-06 (-0.1273)
UAI	-4.5954e-05 (-1.4075)	-6.4484e-05 (-1.1726)	-4.0186e-05 (-0.7423)	-1.3228e-05 (-0.3875)
LTO	-1.8356e-06 (-0.0504)	2.1406e-05 (0.5308)	-2.2368e-06 (-0.0324)	-1.6843e-05 (-0.4329)
ING	-5.9191e-05 (-1.1545)	-3.3807e-05 (-0.7068)	-1.0490e-04 (-1.4890)	-3.3752e-05 (-0.6444)
Credit		-3.4313e-05 . (-1.8625)		
Control		-1.8799e-05 (-0.0494)		
Lang		7.6375e-03 (0.7332)		
Open		-2.6639e-05 (-1.4990)		
Crp			4.4739e-03 (1.2214)	
Protection			-4.1666e-04 (-0.6759)	

Insider	-2.4896e-03 (-0.7095)			
Own	-9.3419e-03 (-0.8864)			
Political	5.8718e-04 (0.2844)			
Tran	3.9007e-05 (0.9277)			
Law	-9.5204e-03* (-2.2791)			
Gdppcgw	1.5356e-03*** (5.1759)			
Cfx	-1.8429e-01*** (-6.7009)			
MSCI	3.2803e-01*** (35.0281)	3.1712e-01*** (37.7288)	3.2863e-01*** (37.9472)	3.1560e-01*** (32.5072)
Goodness of Fit	R ² 22.6% R ² (adj) 22.55% F-statistic: 176.559*** Residual sum of squares: 11.389	R ² 29.53% R ² (adj) 29.43% F-statistic: 132.473*** Residual sum of squares: 6.5773	R ² 32.83% R ² (adj) 32.67% F-statistic: 104.753*** Residual sum of squares: 4.8641	R ² 24.15% R ² (adj) 24.01% F-statistic: 136.403*** Residual sum of squares: 10.23
Min # of countries	37	31	29	36
Max # of countries	42	42	42	42
T	27-197	39-180	44-156	27-180
Starting date	28/11/1997	28/11/1997	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE III DETERMINANTS' EFFECT ON ERC PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM THE OLS REGRESSION

	Regression 1	Regression 2	Regression 3	Regression 4
	Panel A & E: Cultural indexes & MSCI	Panel A, E & B: Cultural indexes, MSCI & Financial development	Panel A, E & C: Cultural indexes, MSCI & Institutional quality	Panel A, E & D: Cultural indexes, MSCI & Macroeconomic factors
(t-values are in parentheses)				
Intercept	2.2262e-03 (0.2323)	1.3799e-02 (1.5832)	1.9901e-02 (1.0433)	-9.0685e-03 (-0.8944)
PDI	1.4197e-04 (1.6534)	4.2688e-05 (0.5851)	4.3135e-05 (0.4954)	1.3352e-04 (1.4723)
IDV	-8.5038e-06 (-0.1050)	-1.1582e-04 (-1.5428)	-8.0304e-05 (-1.0101)	5.8806e-05 (0.6636)
MAS	-2.6266e-05 (-0.4012)	2.2156e-06 (0.0391)	7.8256e-06 (0.1440)	-3.2633e-05 (-0.4684)
UAI	-4.1797e-05 (-0.8130)	-1.0020e-04 (-1.4681)	-7.0047e-05 (-1.0976)	-4.4655e-06 (-0.0806)
LTO	3.3081e-05 (0.5766)	2.5733e-05 (0.5142)	-1.6195e-05 (-0.1988)	2.6890e-05 (0.4257)
ING	-2.6768e-05 (-0.3315)	5.1689e-05 (0.8707)	3.8827e-05 (0.4676)	7.2158e-06 (31.3108)
Credit		-2.1291e-05 (-0.9312)		
Control		2.2251e-05 (0.0471)		
Lang		2.9828e-03 (0.2307)		
Open		-2.8749e-05 (-1.3035)		
Crp			2.9091e-03 (0.6738)	
Protection			-6.6183e-04 (-0.9109)	

Insider	-2.0828e-03 (-0.5035)			
Own	-1.1037e-02 (-0.8884)			
Political	-2.0958e-03 (-0.8611)			
Tran	-6.2681e-06 (-0.1265)			
Law	-4.0819e-03 (-0.8290)			
Gdppcgw	1.6891e-03*** (3.5072)			
Cfx	-2.4990e-01*** (-5.5975)			
MSCI	5.0280e-01*** (34.0965)	4.9057e-01*** (47.0276)	4.8694e-01*** (47.7025)	4.9346e-01*** (31.3108)
Goodness of Fit	R ² 21.72% R ² (adj) 21.77% F-statistic: 167.791*** Residual sum of squares: 28.24	R ² 39.24% R ² (adj) 39.11% F-statistic: 204.134*** Residual sum of squares: 10.131	R ² 43.51% R ² (adj) 43.30% F-statistic: 165.077*** Residual sum of squares: 6.7581	R ² 22.32% R ² (adj) 22.7% F-statistic: 123.074*** Residual sum of squares: 26.957
Min # of countries	37	31	29	36
Max # of countries	42	42	42	42
T	27-197	39-180	44-156	27-180
Starting date	28/11/1997	28/11/1997	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE IV DETERMINANTS' EFFECT ON MD PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM OLS REGRESSION

	Regression 1	Regression 2	Regression 3	Regression 4
	Panel A & E: Cultural indexes & MSCI	Panel A, E & B: Cultural indexes, MSCI & Financial development	Panel A, E & C: Cultural indexes, MSCI & Institutional quality	Panel A, E & D: Cultural indexes, MSCI & Macroeconomic factors
(t-values are in parentheses)				
Intercept	1.2421e-03 (0.1334)	1.8701e-02* (2.0854)	2.1875e-02 (1.1116)	-8.7133e-03 (-0.8863)
PDI	1.6340e-04 . (1.9590)	2.0167e-05 (0.2687)	9.6201e-05 (1.0709)	1.5955e-04 . (1.8144)
IDV	-4.5650e-05 (-0.5804)	-1.6706e-04* (-2.1629)	-5.2254e-05 (-0.6371)	1.5955e-04 (0.0908)
MAS	-2.8521e-05 (-0.4485)	2.8735e-05 (0.4923)	4.3320e-05 (0.7727)	-3.0109e-05 (-0.4457)
UAI	-2.3457e-05 (-0.4697)	-1.0222e-04 (-1.4556)	-8.9754e-05 (-1.3633)	9.0397e-06 (0.1652)
LTO	4.4907e-05 (0.8058)	1.3080e-05 (0.2540)	-5.0631e-05 (-0.6025)	4.0294e-05 (0.6579)
ING	-2.1804e-05 (-0.2780)	5.6637e-05 (0.9273)	2.4031e-05 (0.2805)	8.3535e-06 (0.1013)
Credit		-3.8878e-05 . (-1.6526)		
Control		1.2047e-04 (0.2479)		
Lang		7.0756e-03 (0.5320)		
Open		-3.4549e-05 (-1.5226)		
Crp			1.9965e-03 (0.4482)	
Protection			-1.3380e-03 . (-1.7851)	
Insider			-1.7733e-03	

				(-0.4156)
Own				-9.1409e-03 (-0.7132)
Political				-2.1082e-03 (-0.8397)
Tran				-1.3980e-05 (-0.2734)
Law				-3.7354e-03 (-0.7354)
Gdppcgw				1.4246e-03** (3.0507)
Cfx				-2.2720e-01*** (-5.2484)
MSCI	4.3032e-01*** (30.0415)	4.1752e-01*** (38.9016)	4.1035e-01*** (38.9669)	4.1956e-01*** (27.4554)
Goodness of Fit	R ² 17.86% R ² (adj) 17.82% F-statistic: 131.472*** Residual sum of squares: 26.646	R ² 30.90% R ² (adj) 30.80% F-statistic: 141.366*** Residual sum of squares: 10.724	R ² 34.30% R ² (adj) 34.13% F-statistic: 111.889*** Residual sum of squares: 7.1925	R ² 18.32% R ² (adj) 18.27% F-statistic: 96.0536*** Residual sum of squares: 25.346
Min # of countries	37	31	29	36
Max # of countries	42	42	42	42
T	27-197	39-180	44-156	27-180
Starting date	28/11/1997	28/11/1997	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE V DETERMINANTS' EFFECT ON NAIVE PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM OLS REGRESSION USING GLOBE CONSTRUCTS

	Regression 1	Regression 5
	Panel 1 (A & E):	Panel 2 (A' & E)
	Hofstede (2010) Cultural indexes	GLOBE (House et al, 2004) cultural
(p-values are in parentheses)	& MSCI	indexes, MSCI & Financial development
Intercept	4.8496e-04 (0.0450)	0.0015821 (0.0562)
LTO / G_FUO	2.8957e-05 (0.4484)	-0.0030327 (-1.2748)
IDV / G_CO1	8.4365e-08 (0.0009)	0.0099421** (2.6548)
IDV / G_CO2	8.4365e-08 (0.0009)	-0.0053641 (-1.1335)
PDI / G_PDГ	1.7139e-04 . (1.7735)	0.0011322 (0.4372)
UAI / G_UAG	-4.5038e-05 (-0.7784)	0.0061946 (2.0269)*
MSCI	5.5373e-01*** (33.3647)	0.5565583*** (31.1127)
Goodness of Fit	R ² 21% R ² (adj) 20.96% F-statistic: 160.798*** Residual sum of squares: 35.769	R ² 20.62% R ² (adj) 20.56% F-statistic: 163.984*** Residual sum of squares: 33.17
Goodness of Fit (excluding Panel E MSCI)	R ² 0.2% R ² (adj) 0.2% F-statistic: 1.40585 Residual sum of squares: 46.426	R ² 0.37% R ² (adj) 0.37% F-statistic: 2.89568* Residual sum of squares: 45.529
Min # of countries	37	33
Max # of countries	42	42
T	27-197	27-197
Starting date	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE VI DETERMINANTS' EFFECT ON GMV PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM OLS REGRESSION USING GLOBE CONSTRUCTS

	Regression 1	Regression 5
	Panel 1 (A & E): Hofstede (2010) Cultural indexes & MSCI	Panel 2 (A' & E) GLOBE (House et al, 2004) cultural indexes, MSCI & Financial development
(p-values are in parentheses)		
Intercept	1.3363e-02* (2.1953)	0.01022128 (0.6471)
LTO / G_FUO	-1.8356e-06 (-0.0504)	-0.00144286 (-1.0817)
IDV / G_CO1	-2.0351e-05 (-0.3958)	0.00291328 (1.3874)
IDV / G_CO2	-2.0351e-05 (-0.3958)	-0.00149938 (-0.5651)
PDI / G_PDГ	-1.8976e-06 (-0.0348)	-0.00097468 (-0.6712)
UAI / G_UAG	-4.5954e-05 (-1.4075)	0.00268444 (1.5666)
MSCI	3.2803e-01*** (35.0281)	0.32794192*** (32.6970)
Goodness of Fit	R ² 22.60% R ² (adj) 22.55% F-statistic: 176.559*** Residual sum of squares: 11.389	R ² 22.15% R ² (adj) 22.11% F-statistic: 179.614*** Residual sum of squares: 10.428
Goodness of Fit (excluding Panel E MSCI)	R ² 0.16% R ² (adj) 0.16% F-statistic: 1.15742 Residual sum of squares: 15.101	R ² 0.23% R ² (adj) 0.23% F-statistic: 1.77236* Residual sum of squares: 13.652
Min # of countries	37	33
Max # of countries	42	42
T	27-197	27-197
Starting date	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE VII DETERMINANTS' EFFECT ON ERC PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM OLS REGRESSION USING GLOBE CONSTRUCTS

	Regression 1	Regression 5
	Panel 1 (A & E): Hofstede (2010) Cultural indexes & MSCI	Panel 2 (A' & E) GLOBE (House et al, 2004) cultural indexes, MSCI & Financial development
(p-values are in parentheses)		
Intercept	2.2262e-03 (0.2323)	0.0059823 (0.2385)
LTO / G_FUO	3.3081e-05 (0.5766)	-0.0028352 (0.18083)
IDV / G_CO1	-8.5038e-06 (-0.1050)	0.0083158* (2.4938)
IDV / G_CO2	-8.5038e-06 (-0.1050)	-0.0042392 (-1.0061)
PDI / G_PDГ	1.4197e-04 . (1.6534)	0.0006546 (0.2839)
UAI / G_UAG	-4.1797e-05 (-0.8130)	0.0053249 . (1.9568)
MSCI	5.0280e-01*** (34.0965)	0.5079635*** (31.8908)
Goodness of Fit	R ² 21.71% R ² (adj) 21.68% F-statistic: 167.791*** Residual sum of squares: 28.24	R ² 21.41% R ² (adj) 21.37% F-statistic: 171.975*** Residual sum of squares: 26.299
Goodness of Fit (excluding Panel E MSCI)	R ² 0.19% R ² (adj) 0.19% F-statistic: 1.34593 Residual sum of squares: 36.901	R ² 0.34% R ² (adj) 0.34% F-statistic: 2.61472* Residual sum of squares: 35.143
Min # of countries	37	33
Max # of countries	42	42
T	27-197	27-197
Starting date	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

TABLE VIII DETERMINANTS' EFFECT ON MD PORTFOLIO RETURNS ACROSS COUNTRIES: RESULTS FROM OLS REGRESSION USING GLOBE CONSTRUCTS

	Regression 1	Regression 5
	Panel 1 (A & E):	Panel 2 (A' & E)
	Hofstede (2010) Cultural indexes	GLOBE (House et al, 2004) cultural
(p-values are in parentheses)	& MSCI	indexes, MSCI & Financial
		development
Intercept	1.2421e-03 (0.1334)	0.00716549 (0.2947)
LTO / G_FUO	4.4907e-05 (0.8058)	-0.00317549 (-1.5466)
IDV / G_CO1	-4.5650e-05 (-0.5804)	0.00570044 (1.7637) .
IDV / G_CO2	-4.5650e-05 (-0.5804)	-0.00173148 (-0.4240)
PDI / G_PDG	1.6340e-04 . (1.9590)	-0.00021712 (-0.0971)
UAI / G_UAG	-2.3457e-05 (-0.4697)	0.00680987** (2.5819)
MSCI	4.3032e-01*** (30.0415)	0.43453232*** (28.1460)
Goodness of Fit	R ² 17.85% R ² (adj) 17.82% F-statistic: 131.472*** Residual sum of squares: 26.646	R ² 17.58% R ² (adj) 17.58% F-statistic: 134.967*** Residual sum of squares: 24.707
Goodness of Fit (excluding Panel E MSCI)	R ² 0.31% R ² (adj) 0.31% F-statistic: 2.25248* Residual sum of squares: 32.916	R ² 0.42% R ² (adj) 0.42% F-statistic: 3.25605** Residual sum of squares: 35.224
Min # of countries	37	33
Max # of countries	42	42
T	27-197	27-197
Starting date	28/11/1997	28/11/1997

P-value: 0 "****" 0.001 "***" 0.01 "**" 0.05 "." 0.1 " " 1

APPENDIX 18: EXPECTED CORRELATIONS AND RESULTS

Regressand: Risk-based portfolios

Panel A: Culture's dimensions	Expected correlation	Actual correlation
Individualism (<i>IDV</i>)	Positive	Not significant
Masculinity (<i>MAS</i>)	Positive	Not significant
Power distance (<i>PDI</i>)	Negative	Positive and significant at 90% in all portfolios but GMV (H3b).
Uncertainty avoidance (<i>UAI</i>)	Negative	Not significant
Long-term orientation (<i>LTO</i>)	Negative	Not significant
Indulgence (<i>ING</i>)	Positive	Not significant
GLOBE's dimensions (9)	Same as above	Institutional individualism (G_CO1) is positive and significant at 95% min in all portfolios but GMV. MD and naïve portfolio are more impacted than ERD in this order. Uncertainty avoidance (G_UAG) is positive and significant at 95% min in all portfolios but GMV. MD and naïve portfolio are more impacted than ERD in this order.

Panel B: Financial Market Development	Expected correlation	Actual correlation
Total private credit (<i>Credit</i>)	Negative	Not significant
Familiarity to foreign investors (<i>Lang</i>)	Positive	Not significant
Index on capital flow restrictions (<i>Control</i>)	Negative	Not significant
Stock market openness (<i>Open</i>)	Negative	Not significant

Panel C: Institutional Quality	Expected correlation	Actual correlation
Corruption index (<i>Crp</i>)	Negative	Not significant
Investor protection index (<i>Protection</i>)	Positive	Not significant
Insider (<i>Insider</i>)	Negative	Not significant
Political risk index (<i>Political</i>)	Positive	Not significant
Transaction costs of trading stocks (<i>Tran</i>)	Positive	Not significant
Concentration of ownership (<i>Own</i>)	Positive	Not significant
Law and order index (<i>Law</i>)	Negative	Not significant

Panel D: Macroeconomic Risk Factors	Expected correlation	Actual correlation
Real gross domestic product (GDP) per growth rate (<i>Gdppcgw</i>)	Positive	Positive and significant at 99%-99.9% in all portfolios
Change of exchange rate (<i>Cfx</i>)	Negative	Negative and significant at 99.9% in all portfolios

Panel E: Performance Factor	Expected correlation	Actual correlation
MSCI (<i>MSCI</i>)	Positive	Positive and significant at 99.9% in all portfolios

APPENDIX 19: HYPOTHESES RESULTS

GLOBAL CULTURAL IMPACT: each construct's impact on the 4 portfolios		Results
H1: Individualism impact returns significantly		H1 is rejected for all portfolios
H2: Masculinity impact returns significantly		H2 is rejected for all portfolios
H3: Power distance impact returns significantly		H3 is not rejected for all portfolio except GMV at 90% significance level at least. Moreover all portfolios, except GMV, show a consistently similar positive correlation.
H4: Uncertainty-avoidance impact returns significantly		H4 is rejected for all portfolio
H5: Long-term orientation impact returns significantly		H5 is rejected for all portfolio
H6: Indulgence orientation increases returns significantly		H6 is rejected for all portfolio

CULTURAL IMPACT PER STRATEGY: individualism comparative impact on the 4 portfolios		Results
H7: Naïve portfolio is more concerned with all the risky cultural constructs than other risk-based portfolios significantly		H7 is rejected
H8: Global minimum variance portfolio is less concerned with individualism than other portfolios significantly		H8 is rejected
H9: Equal risk diversification portfolio is significantly neutral toward individualism		H9 is rejected
H10: Maximum diversification portfolio is less concerned by individualism than other portfolios		H10 is rejected

ALTERNATIVE CULTURAL CONSTRUCT: Using alternative dimensions does not change results		Results
H11: Using House's cultural constructs does change the significance of the results in comparison with Hofstede's dimensions		H11 is rejected