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COL·LEGI D'ENGINYERS GRADUATS I ENGINYERS TÈCNICS INDUSTRIALS DE BARCELONA

ACCID

Associació Catalana de Comptabilitat i Direcció

Col·legi d'Economistes de Catalunya

Al servei dels professionals de l'economia i de l'empresa

La creació i destrucció de riquesa en l'economia del coneixement. Reflexions sobre el cas d'Espanya

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http://www.jmviedma.com

http://www.fusionesyadquisiciones.net

Index

1.Introduction to the approach and basic definitions.

Approach to the presentation

The presentation tries to answer the following fundamental questions:

1)Who creates wealth in a specific country?

2) How is wealth created?

3) How to determine the wealth creation potential of a specific nation?

4) Does knowledge economy context fundamentally change rules of wealth creation?

5) Are intangible assets the main drivers of wealth creation?

Basic definitions

Wealth Definition

- **A measure of the value of all of the assets of worth owned by a person, community, company or country.**
- Wealth is the found by taking the total market value of all the physical and intangible assets of the entity and then subtracting all liabilities.
- For national wealth as measured in the national accounts the net liabilities are these owed to the rest of the world.
- **Wealth is the present value of the expected stream of future utility that an entity could hope to extract from tangible and intangible resources available, assuming these resources are and will be managed in an effective and efficient way.**

Source: Adapted from various sources

Good and bad wealth

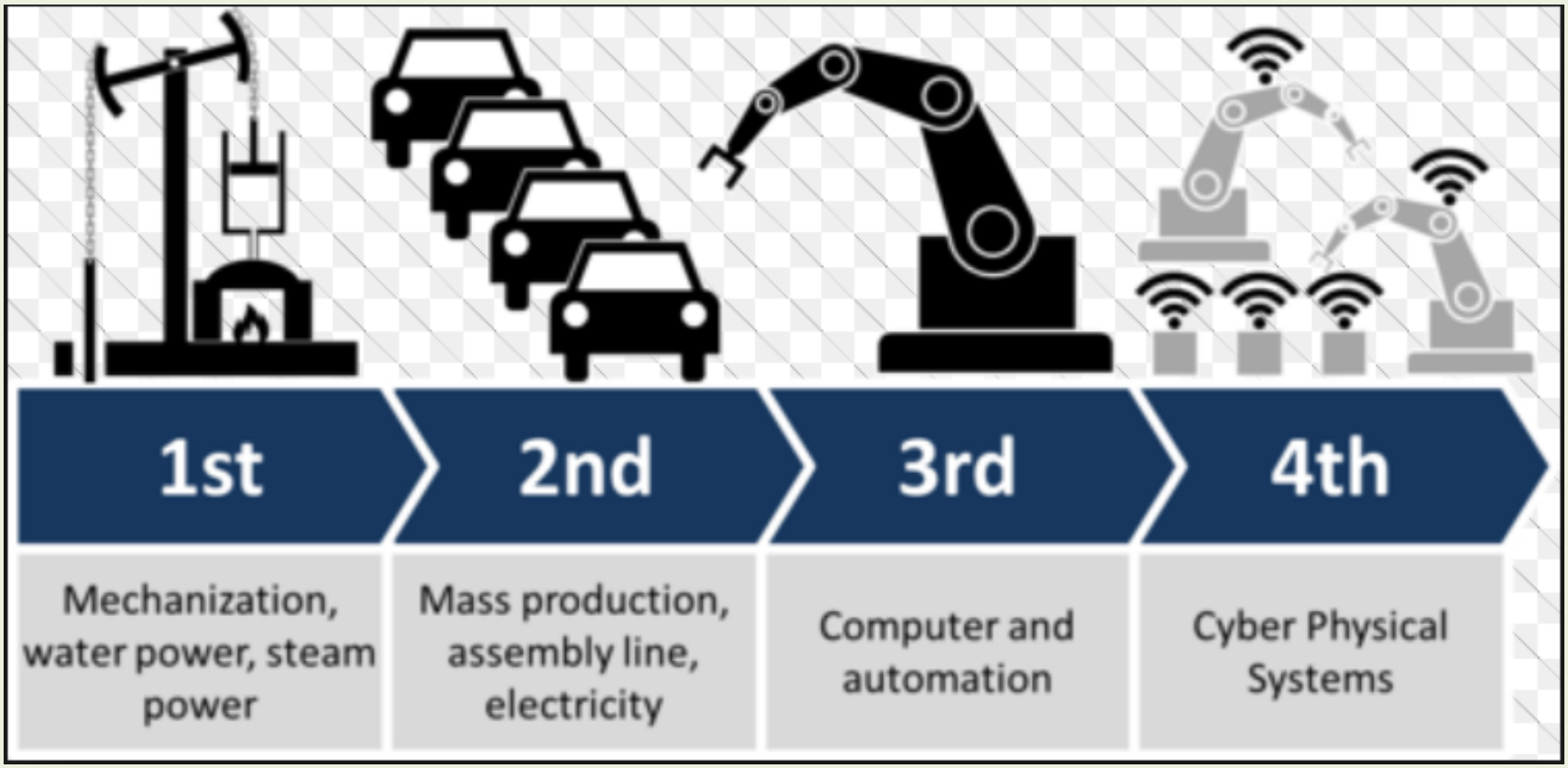
Good wealth consists of assets that are created, distributed and used in a manner that respects human dignity and promotes the common good, thus leads to increases in well-being.

Bad wealth consists in assets that are accumulated in an unjust manner (using force or fraud), is distributed in a manner that benefits only elites and excludes the poor and marginalized, and is used to create invidious distinctions and not for the common good.

Source: Dr. Gregory M. A. Gronbacher

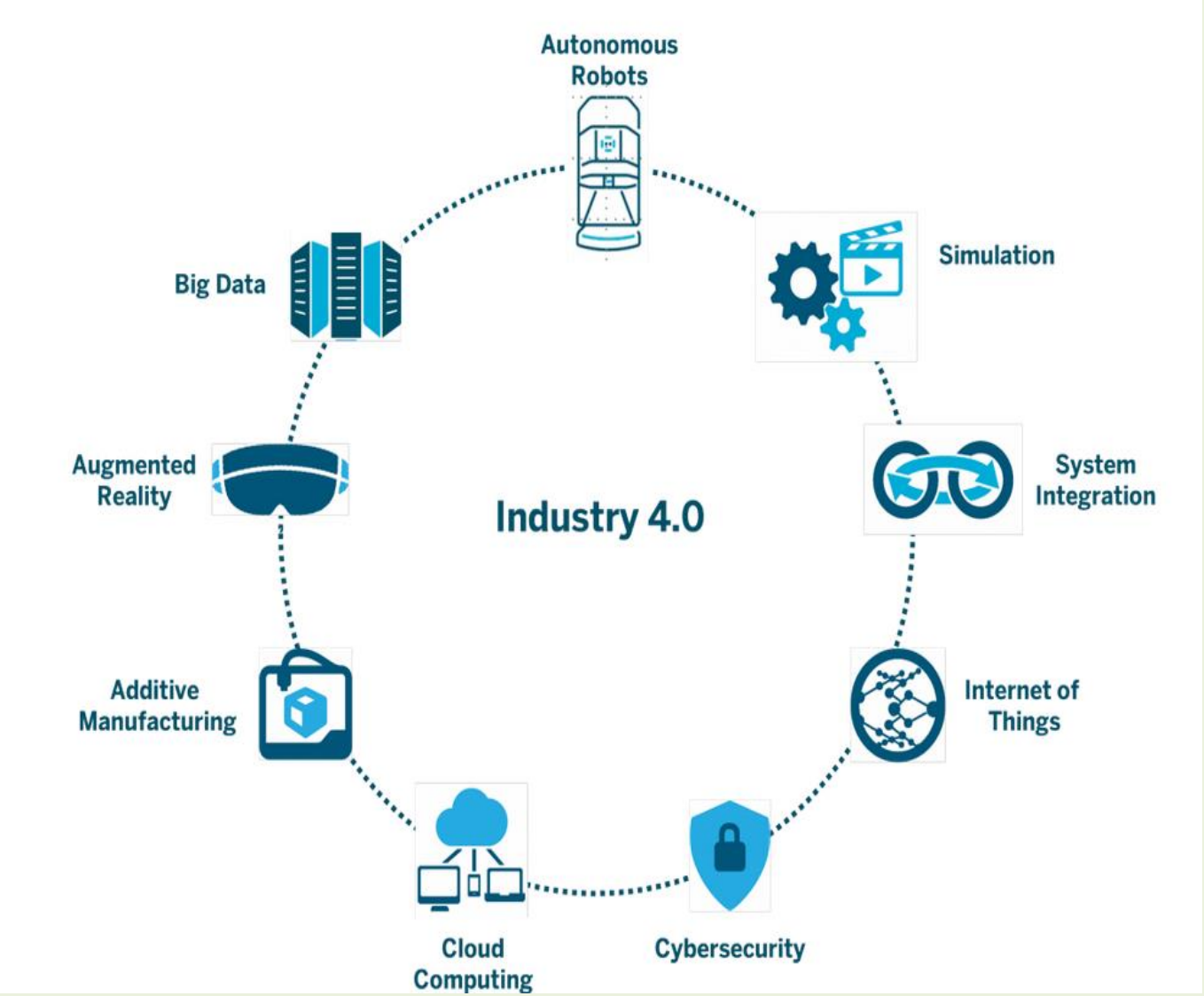
2. Knowledge Economy. Definitions and characteristics.

The Fourth Industrial Revolution



Source: Wikipedia

Industry 4.0



Source: What Industry 4.0 Means for Manufacturers
Anthony Melanson - Jul 10, 2015

The Knowledge Content of Goods and Services

Samsung 6 Edge

YOGA
Lenovo Dual

Apple
IPAD 2 Air

NEW BMW
Series 7 2015

The Knowledge Content of Goods and Services

The Knowledge Content of Processes and Business Models

INDITEX

Bershka oysho

ZARA

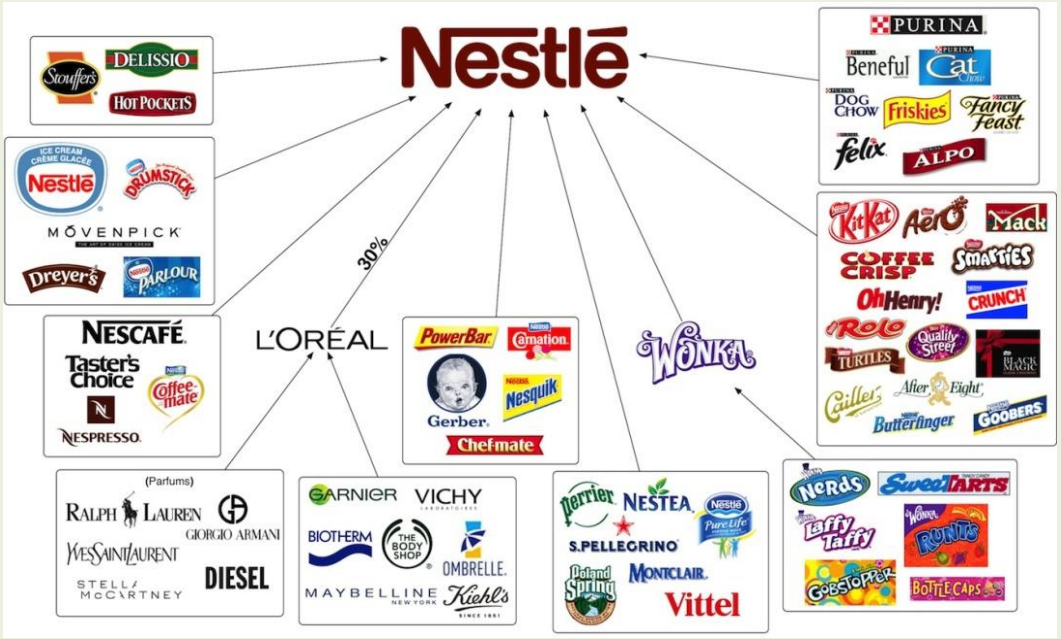
Kiddy's Class

Stradivarius

Massimo Dutti

ZARA HOME

Pull and Bear



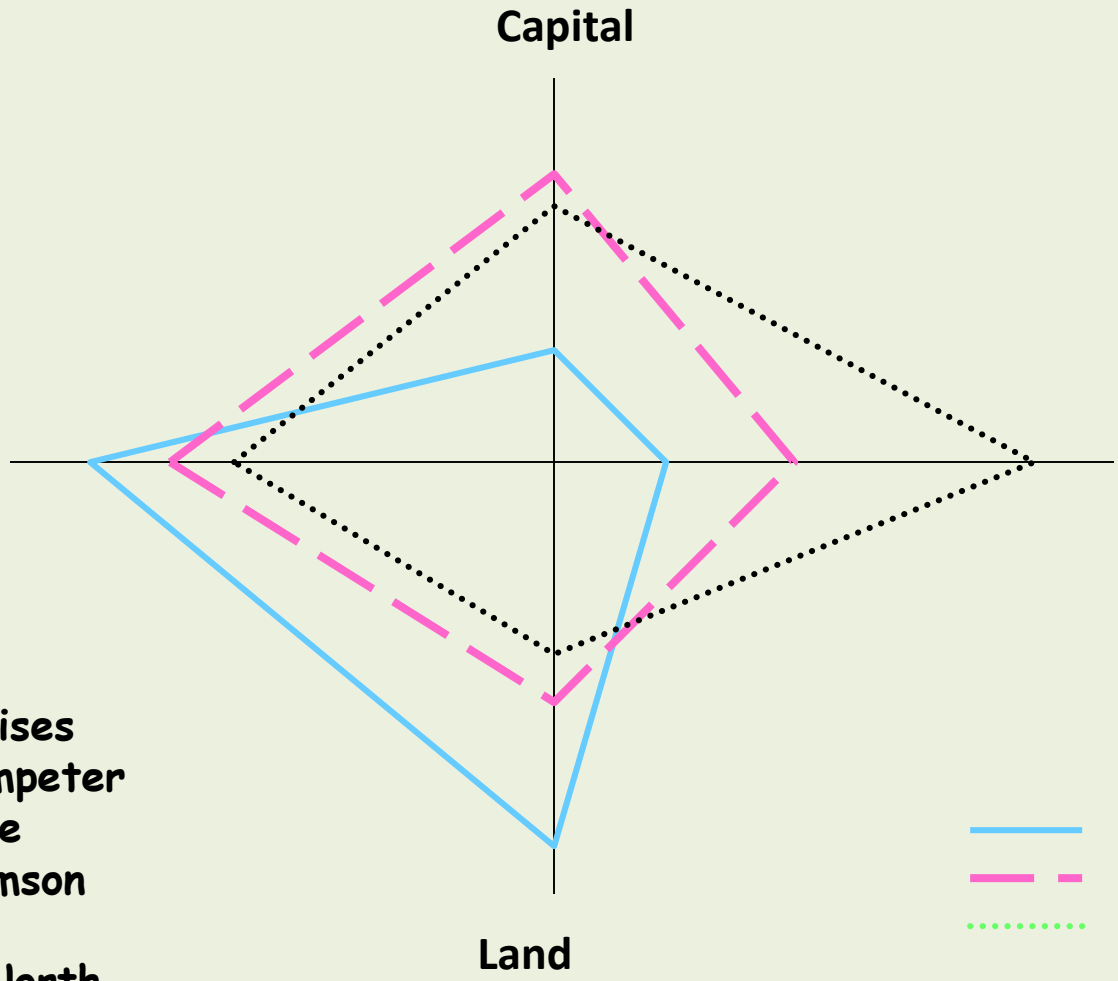
E-commerce

amazon.com

Collaboration platforms

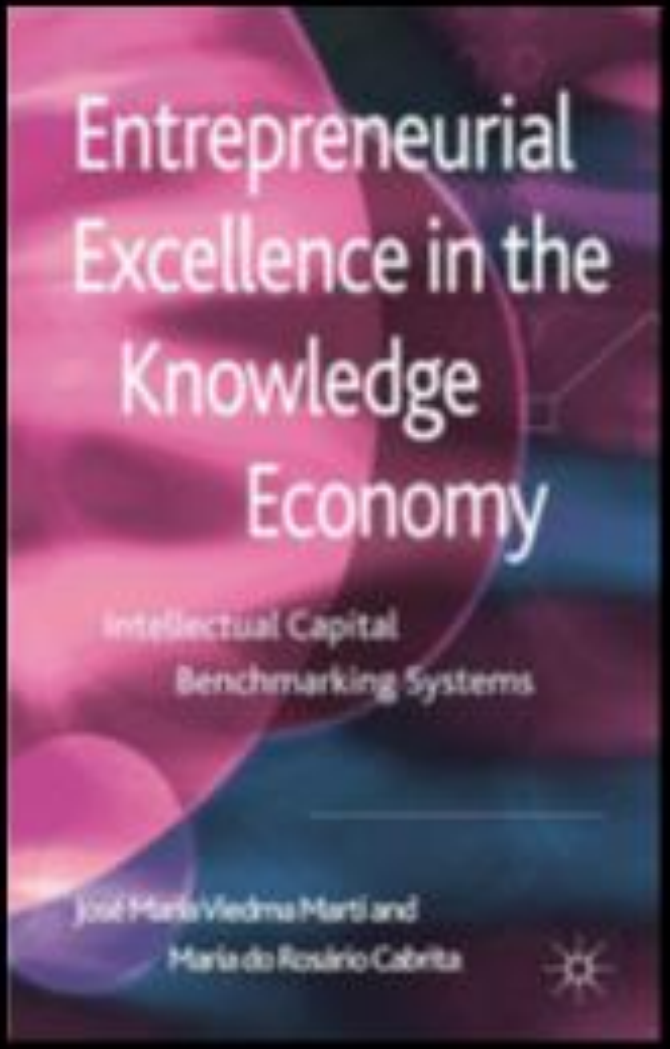
Bla Bla Car

The advent of the Knowledge economy.



- Adam Smith
- Carl Menger
- F. Hayek
- Ludwig von Mises
- Joseph Schumpeter
- Wilhelm Röpke
- Oliver Williamson
- Ronald Coase
- Douglass C. North
- Paul Romer

Source: Savage Ch. 1991.



Entrepreneurial Excellence in the Knowledge Economy

Intellectual Capital Benchmarking Systems

By José Maria Viedma Martí and
Maria do Rosário Cabrita

www.palgrave.com

palgrave
macmillan

Knowledge Economy Definitions

"… one in which the generation and exploitation of knowledge has come to play the predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity"

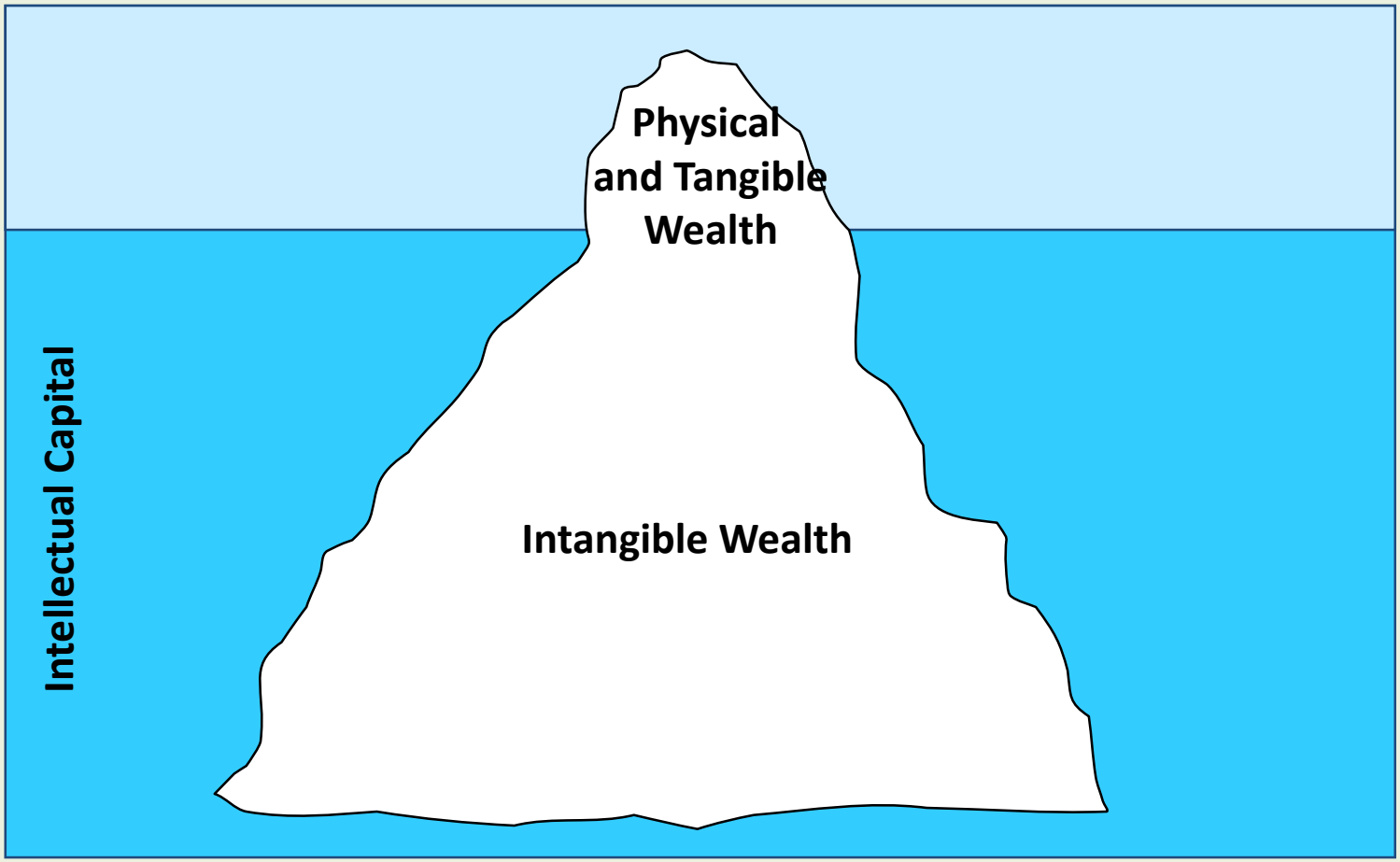
(DTI Competitiveness White Paper 1998).

"economic success is increasingly based on upon the effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage. The term "knowledge economy" is used to describe this emerging economic structure"

Economic & Social Research Council 2005

Source:
http://www.theworkfoundation.com/Assets/Docs/I%20Brinkley%20HE,%20FE%20and%20the%20Knowledge%20Economy.pdf

Nation's Iceberg



Fuente: Kiernan Matthew, 1995

Pillars of KBE

- An educated and entrepreneurial population
- A dynamic information systems infrastructure
- An economic and legislative environment that favours ITT, knowledge transfer and entrepreneurship
- An efficient innovation Systems (Research Networks, Triple Helix….)

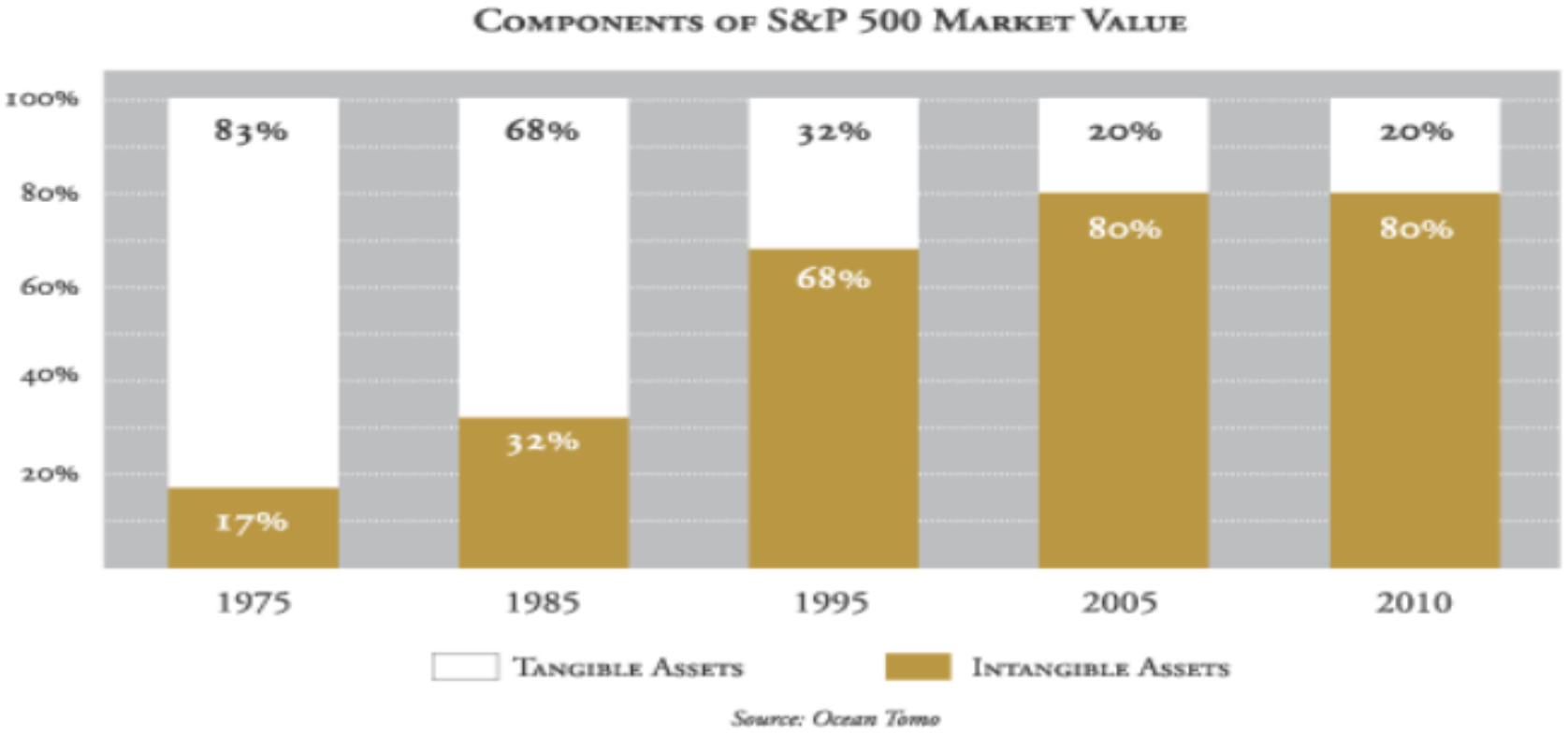
(World Bank)

3. Principles and theories of wealth creation in the Knowledge Economy

3.1 Intangibles and Intellectual Capital as main drivers of wealth creation in the KE context. The micro perspective

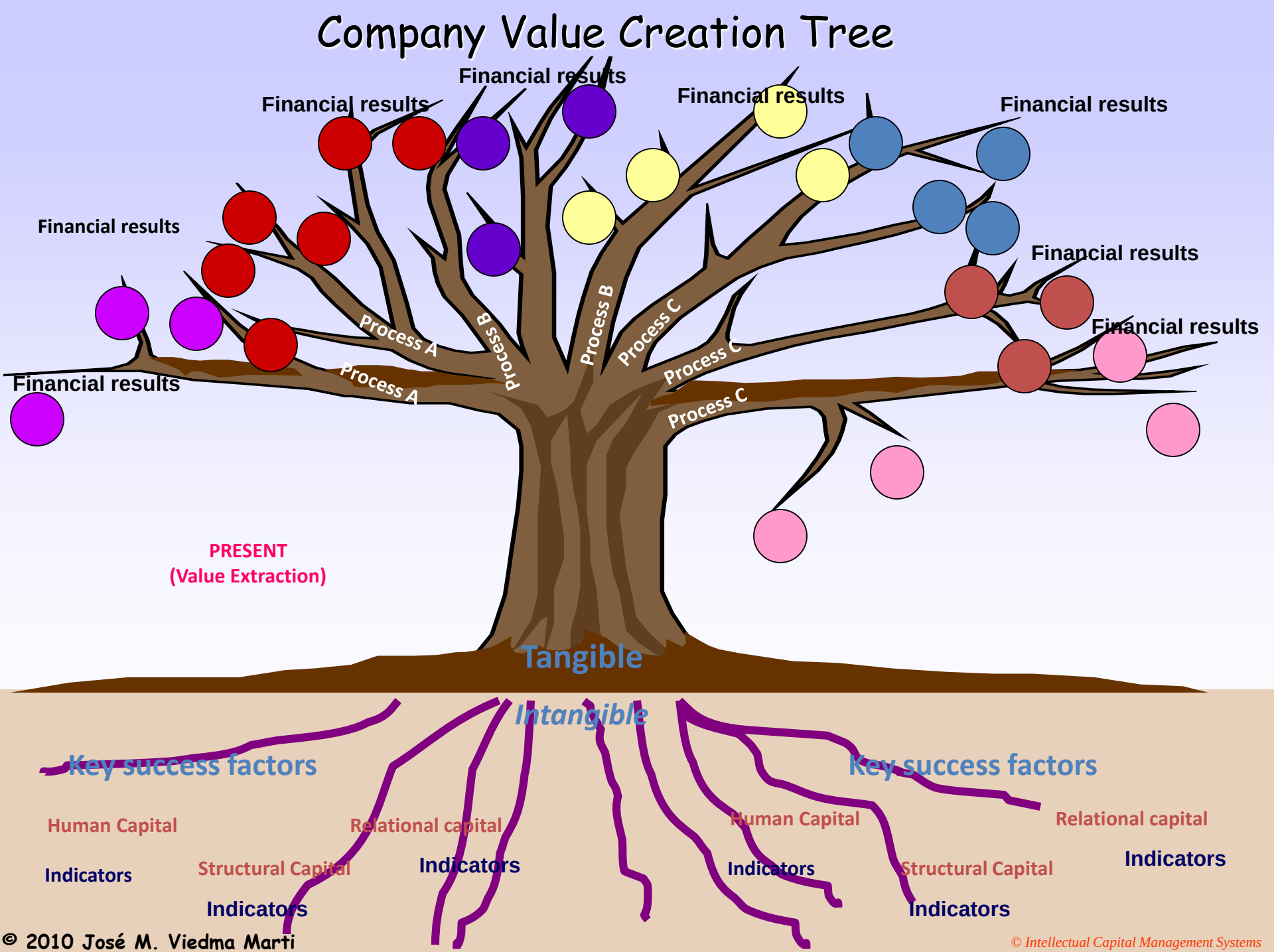
Intangible Asset Market Value

Within the last quarter century, the market value of the S&P 500 companies has deviated greatly from their book value. This "value gap" indicates that physical and financial accountable assets reflected on a company's balance sheet comprises less than 20% of the true value of the average firm. Our further research shows that a significant portion of this intangible value is represented by patented technology.

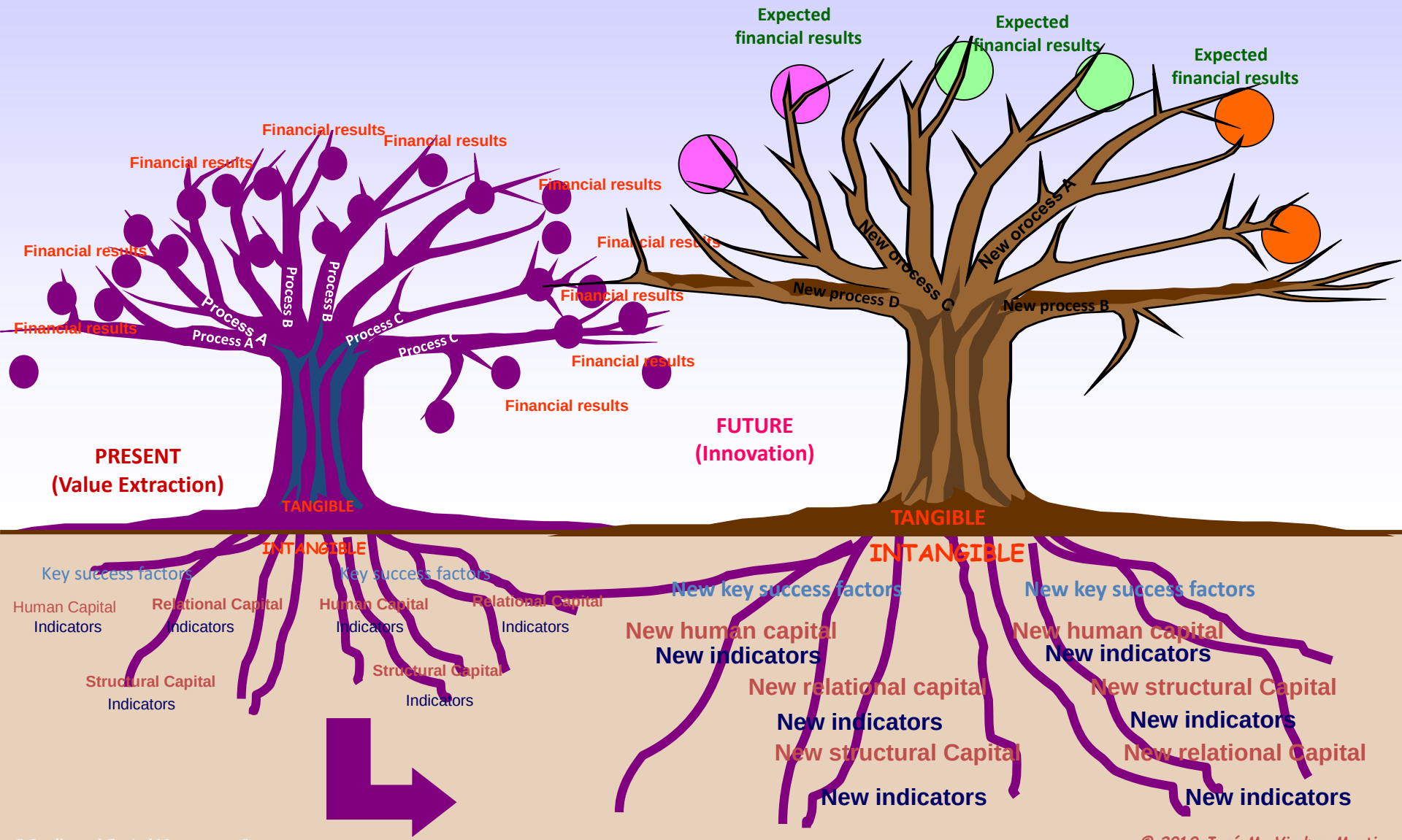


Source: Ocean Tomo

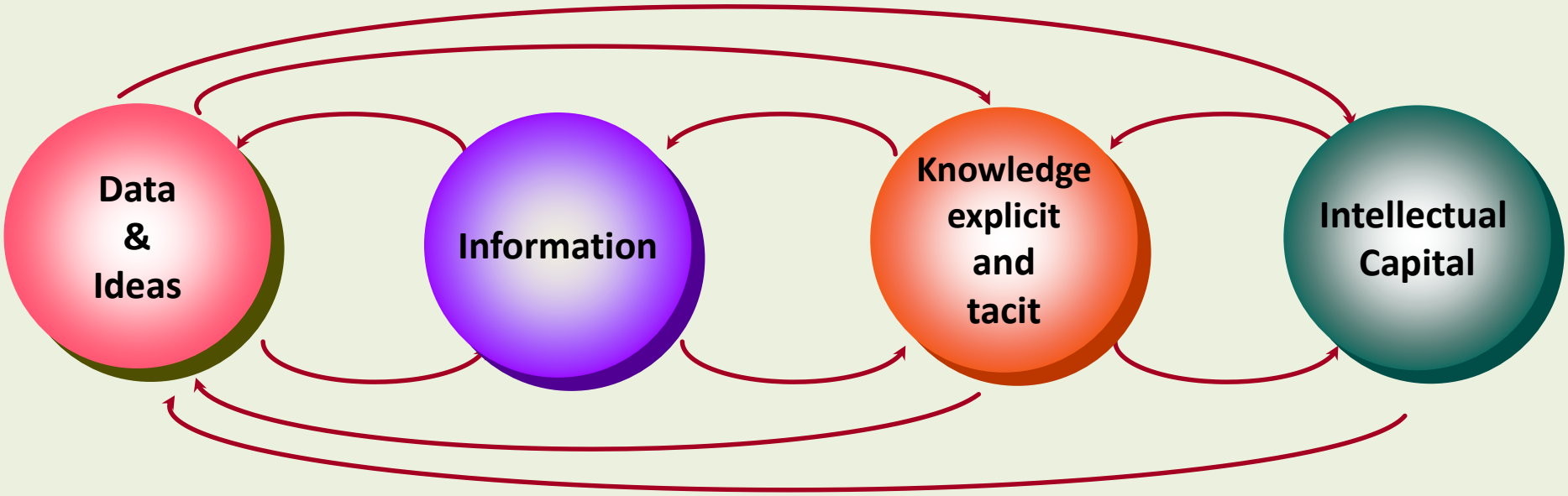
Company Value Creation Tree



Innovation Tree



Interrelationship among Data, Information, Knowledge and I.C.



Data

Organized data

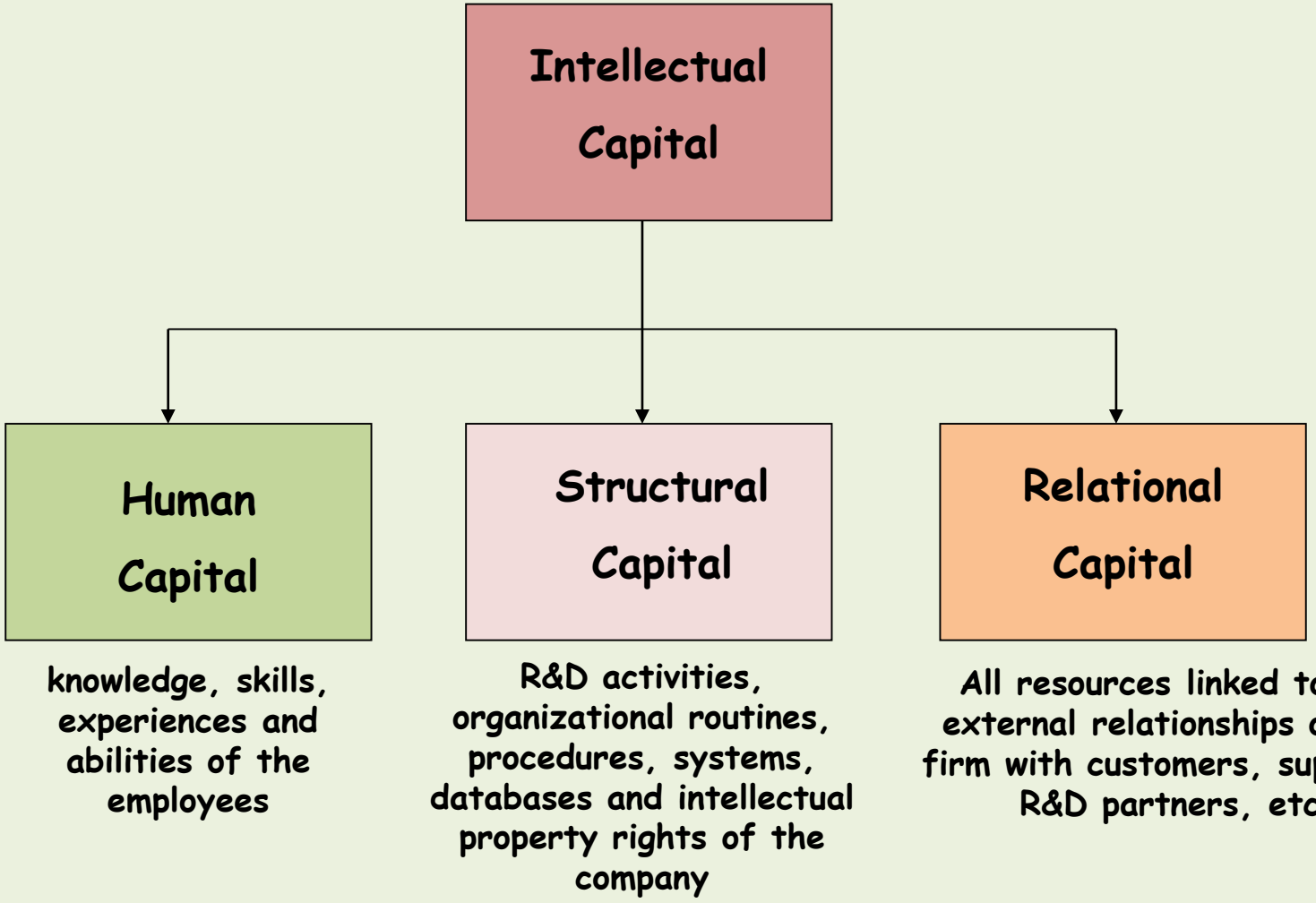
Is a set of beliefs about casual relationships in the world and an organisation
Ron Sanchez

Justified personal belief towards the truth.
Ikujiro Nonaka

Knowledge that produces value

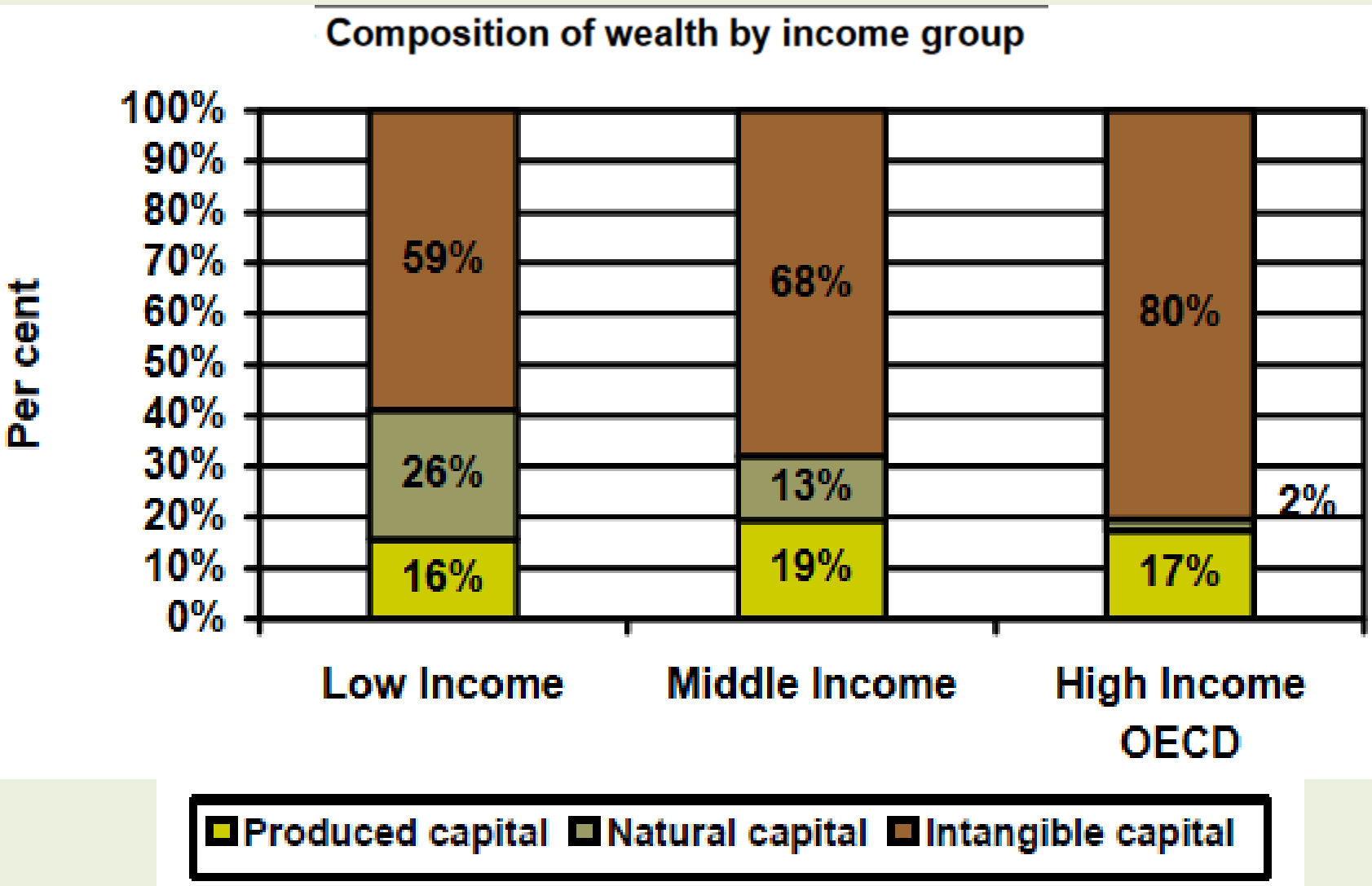
Knowledge and other intangibles that produce value

Intellectual Capital Content



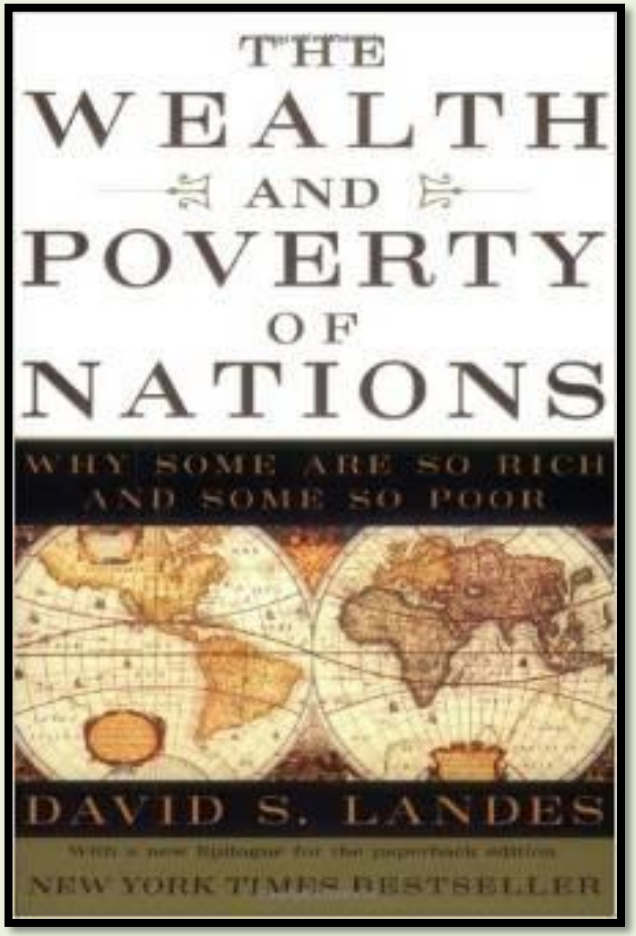
3.2 Intangibles and Intellectual Capital as main drivers of wealth creation in the KE context. The macro perspective

Where Is the Wealth of Nations?



Note: oil countries excluded

Source: Where is the Wealth of Nations?; Measuring Capital for the 21st Century,©2006 The international Bank for Reconstruction and Development/The World Bank



The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor Paperback – May 17, 1999
by David S. Landes (Author)

"Growth without technological advance is not good; it represents short-run advantage that will be paid for in long-run retardation".

David S. Landes

Source: Neef, Dale (1998) The Knowledge Economy. No. 5 Landes, D. *"Homo Faber, Homo Sapiens: knowledge, technology, Growth, and Development" pp 53-73 Butterworth-Heinemann, USA.*

Ideal society best suited to pursue material progress and general enrichment: standards

1. Knew how to operate, manage and build the instruments of production and to create, adapt, and master new techniques on the technological frontier.
2. Was able to impart this knowledge and know-how to the young, whether by formal education or apprenticeship training.
3. Chose people for jobs by competence and relative merit; promoted and demoted on the basis of performance.
4. Afforded opportunity to individual or collective enterprise; encourage initiative, competition, and emulation.
5. Allowed people to enjoy and employ the fruits of their labor and enterprise.
6. This ideal society would also be honest. Such honesty would be enforced by law,but ideally,the law would not be needed. People would believe that honesty is right (also that it pays) and would live and act accordingly.

Source: David S. Landes (1998). The Wealth and Poverty of Nations. Little, Brown and Company (UK). Pag.217-218.

Ideal society best suited to pursue material progress and general enrichment: corollaries

This standards imply corollaries: gender equality (thereby doubling the pool of talent); no discrimination on the basis of irrelevant criteria (race, sex, religion, etc.); also a preference for scientific (means-end) rationality over magic and superstition (irrationality).

More corollaries : this society would be marked by geographical and social mobility. People would move about as they sought opportunity, and would rise and fall as they made something or nothing of them- selves. This society would value new as against old, youth as against experience, change and risk as against safety. It would not be a society of equal shares, because talents are not equal; but it would tend to a more even distribution of income than is found with privilege and favor. It would have a relatively large middle class. This greater equality would show in more homogeneous dress and easier manners across class lines.

Source: David S. Landes (1998). The Wealth and Poverty of Nations. Little, Brown and Company (UK). Pag.217-218.

Political and social institutions that favor the achievement of this ideal society

1. Secure rights of private property the better to encourage saving and investment.
2. Secure rights of personal liberty- secure them against both the abuses of tyranny and private disorder (crime and corruption).
3. Enforce rights of contract, explicit and implicit.
4. Provide stable government, not necessarily democratic, but itself governed by publicly known rules (a government of laws rather than men). If democratic, that is, based on periodic elections, the majority wins but does not violate the rights of the losers; while the losers accept their loss and look forward to another turn at the polls.
5. Provide responsive government, one that will hear complaint and make redress.
6. Provide honest government, such that economic actors are not moved to seek advantage and privilege inside or outside the marketplace. In economic jargon, there should be no rents to favor and position.
7. Provide moderate, efficient, ungreedy government. The effect should be to hold taxes down, reduce the government´s claim on the social surplus, and avoid privilege.

Source: David S. Landes (1998). The Wealth and Poverty of Nations. Little, Brown and Company (UK). Pag.217-218.

Austrian School of Economics

Main economic factors in the Austrian School of Economics

Individual choice

Individuals and their choices active participants in the economic process.
Markets and value of things are determined by these choices.

Entrepreneurship

Economic process too much uncertain and could not be predicted by one so "out of the loop".
Entrepreneur is the only one with the proper knowledge to predict outcomes and minimize risk.
Entrepreneur, perhaps the most important role in any economy.

Free and competitive markets

Belief in a "free and competitive markets" approach to macroeconomics.
Strong belief in a minimal role for government in our everyday lives.

Private property

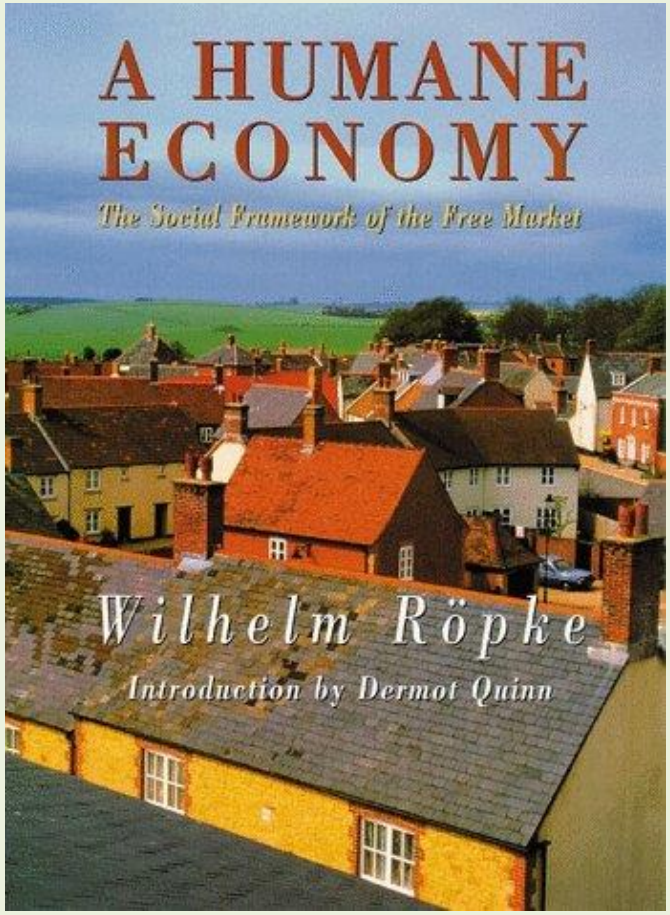
Individual property ownership is the bedrock of a healthy economy,
Without it, there is no basis for capital, for trade, for value… and free market.

A price system

A realistic price system emerges when free markets are allowed to do their work.

Hayek Institue
http://www.austriancenter.com/hi/the-austrian-school/

German Ordoliberalism



A Humane Economy:
The Social Framework of the Free Market

Wilhelm Röpke

Summery of RÖPKE thoughts

" Conforming " social economic and financial policy, the task of which is to protect the weak " beyond the market" to equalize interest, set rules of the game and limit market power.

Röpke strove for and economic order of "economic humanism" that he also referred to as the " Third Way ".

THE NEW INTITUTIONAL ECONOMICS

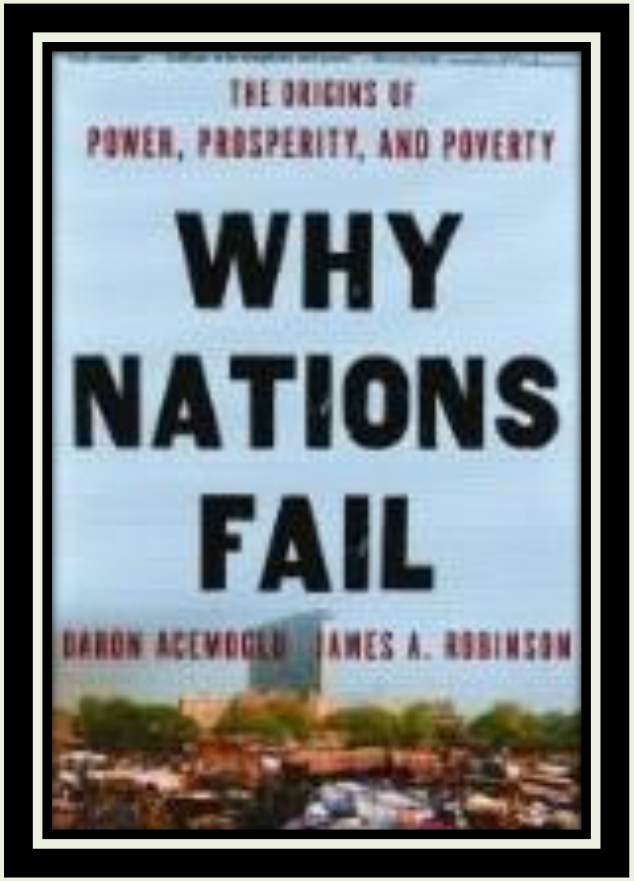
Institutions are the rules of the game of a society or more formally are the humanly-devised constraints that structure human interaction.
They are composed of : formal rules (statute law, common law, regulations), informal constrains (conventions, norms of behavior and self imposed codes of conduct) and the enforcement characteristics of both.

Organizations are the players, groups of individuals bound by a common purpose to achieve objectives . They include political bodies (political parties, the senate , a city council, a regulatory agency), economic bodies (firms, trade unions ,family farms, cooperatives) social bodies (churches, clubs, athletic associations),and educational bodies (schools, colleges, vocational training centers).

Source: Douglass C. North, Washington University, St. Louis

Why Nations Fail

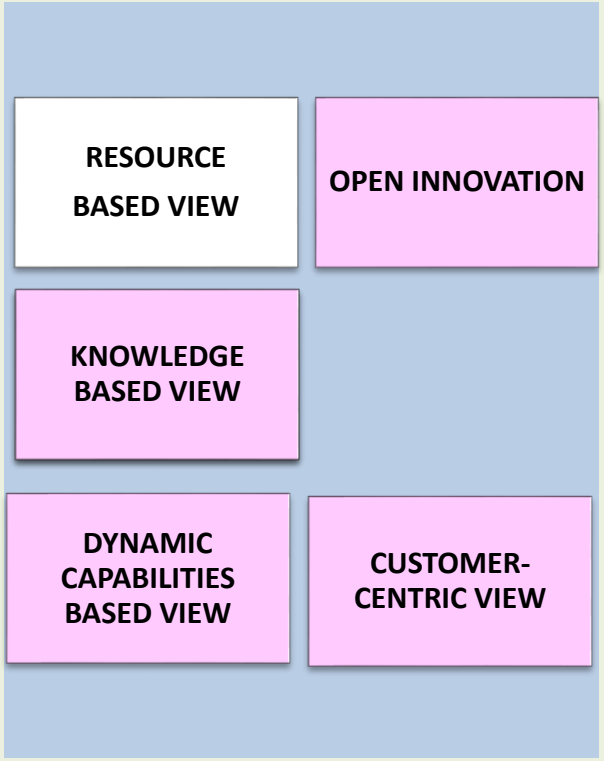
Argues that the key differentiator between countries is " institutions ".
Nations thrive when they develop "inclusive " political and economic institutions, and they fail when those institutions become " extractive" and concentrate power and opportunity in the hands of only a few.



Source: Why Nations Fail. The origins of power prosperity and Poverty. Darom Acemoglu & James A. Robisonn . Profile Books Ltd. (2013)

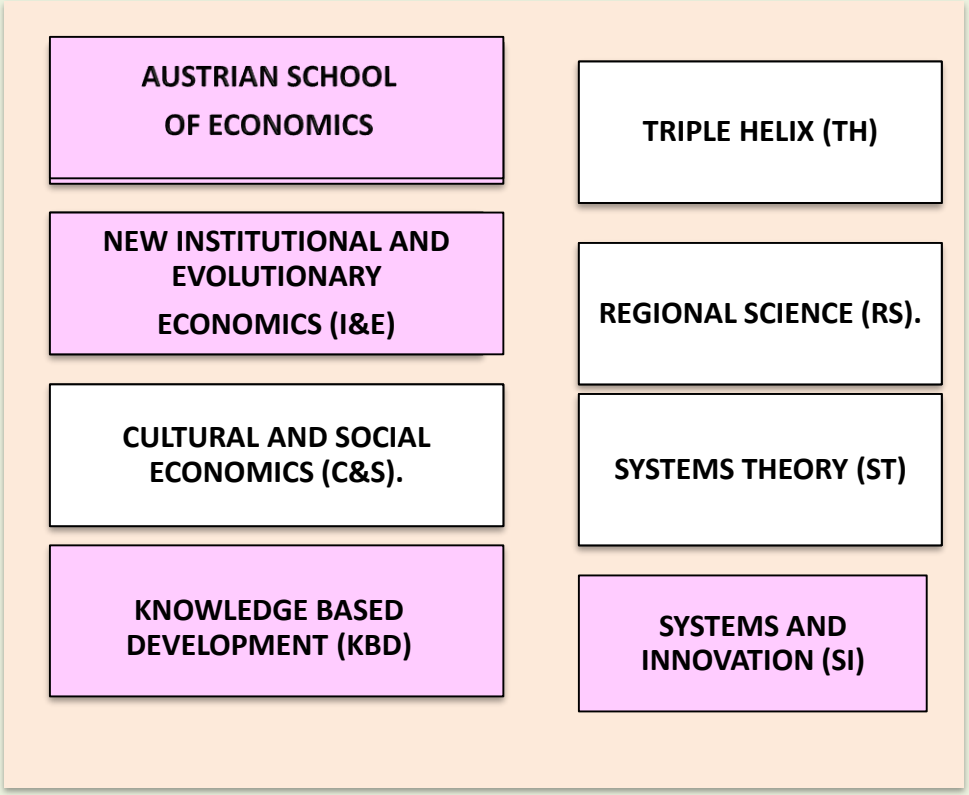
Theoretical Foundations
Strategic Focus

Micro Level (Enterprises)



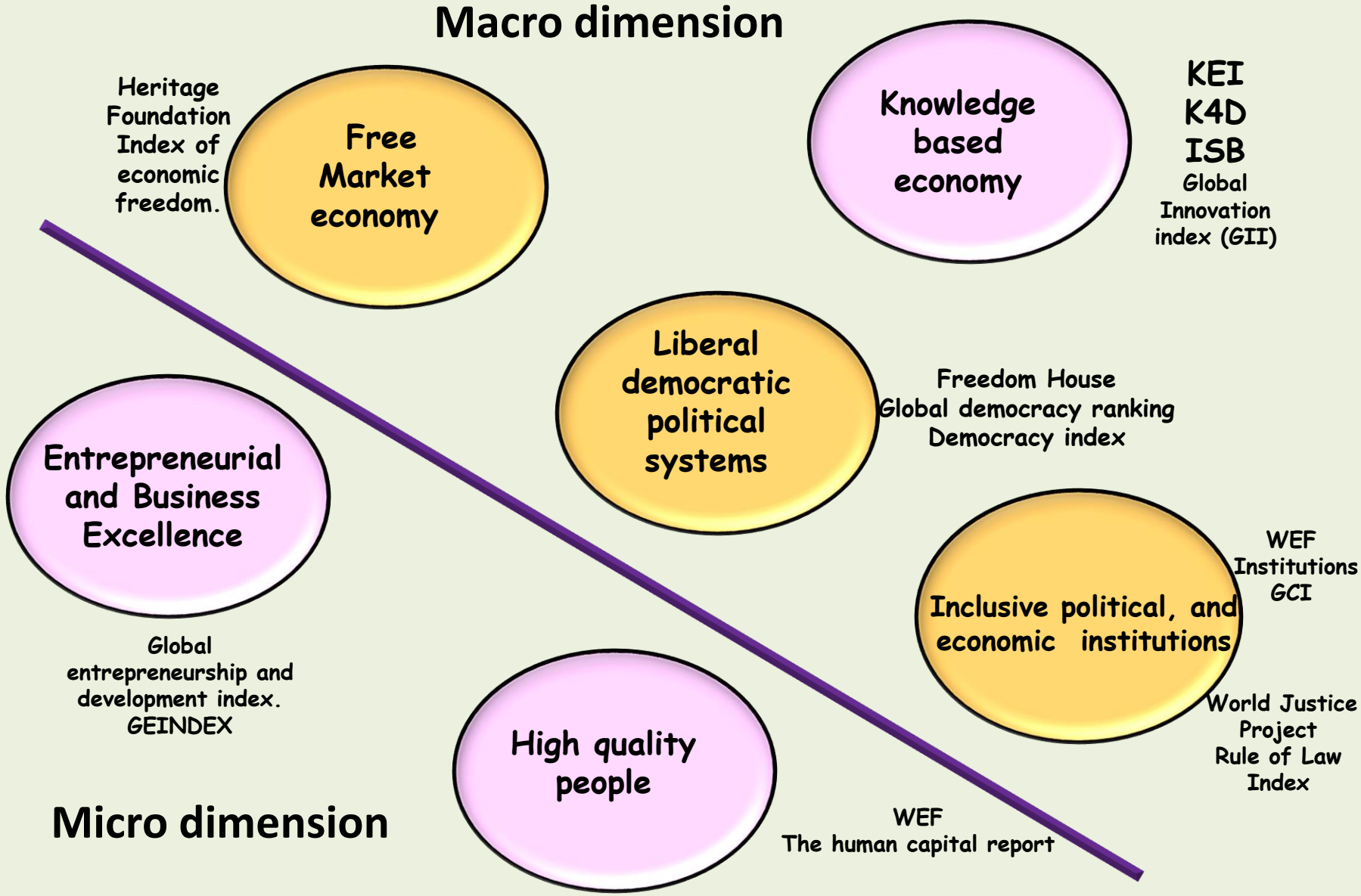
INCAS, ICBS (OICBS, IICBS), SCBS.

Macro Level (Cities, Regions, Nations)



CADIC, CICBS, RICBS, NICBS

Wealth Creation in the Knowledge Economy



Theoretical principles

Who?

1. **The main source of wealth of a nation is people.** Knowledge and other types of intangibles are in the head of people. Without an educated, healthy and hardworking population there is no progress.

2. **A free market economy with inclusive political and economic institutions is the sine qua non condition for sustainable economic and social development.**

3. **Wealth or poverty of a specific nation is strongly dependant on the number of competitive or excellent companies that the specific nation has.**

4. **Government does not create wealth directly but contributes to wealth creation** when succeeds putting into practice a free market economy and inclusive democratic political, economical and social institutions (liberty, order and the rule of law).

5. **An excellent or competitive company is the one that achieves long term extraordinary profits** due to the fact that has a business model with sustainable competitive advantages.

6. **In the knowledge economy sustainable competitive advantages are mainly based on intangibles.** Consequently strategic management of intangibles or intellectual capital becomes a fundamental task.

Theoretical principles

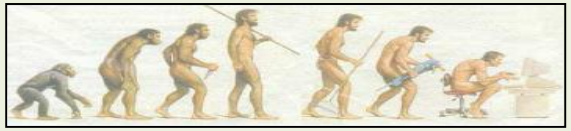
How?

7. **Business excellence is always due to good strategy formulation and superior strategy implementation.**
8. **Good strategy formulation and superior strategy implementation** is always a human task and **strongly depends on the quality of entrepreneurs, top management teams, key professional people and knowledge workers.**
9. **In a continuous changing environment** business models quickly get out-of-date and as a consequence of that, **innovation in business models[1] becomes an urgent need.**
10. **In any company the essential activity to perform is always innovation in the business model** so it can be converted in an excellent or competitive business model.
11. **Companies alone do not create wealth.** They need the collaboration of other companies, universities and research institutes, financial institutions, government and other organisations and institutions and specially the existing ones in the cluster, region or nation where the company is located. In other words **they need to be active part of a territorial open innovation system.**
12. **Strategic management of intangibles needs also to be applied to the government of** clusters, regions in **nations in order to build territorial open innovations systems.**

1 We consider, in this particular context, that innovation in business models, encompass all types of innovations, including products, services, processes, technical, management, etc.

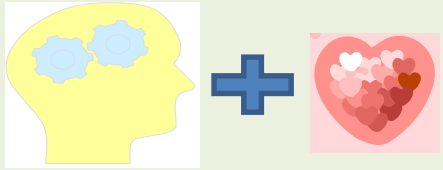
Wealth Creation in the KE

People



Knowledge

Intangibles



Competitive Enterprises

MANGO BBVA INDITEX

Innovative Enterprises

Google SAMSUNG

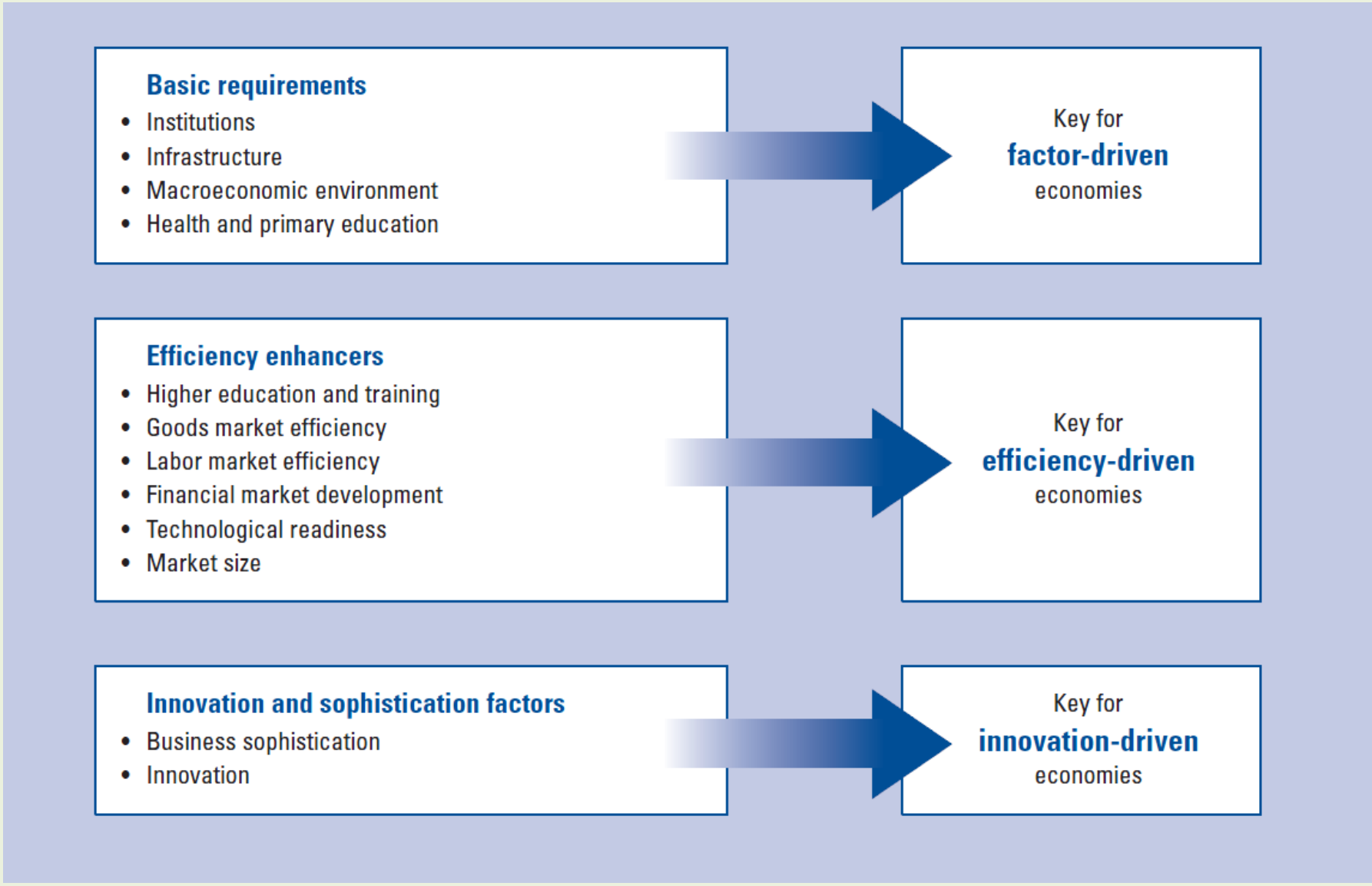
Suitable Environment

4. Methodologies and frameworks for diagnosing wealth creation potential of nations in the knowledge economy.

Two sets of frameworks

- Competitiveness frameworks:
  - W.E.F. Global Competitiveness Index
  - I.M.D. World Competitiveness Year Book
- IC Community frameworks
  - Mainly based on Skandia Navigator (Leif Edvinsson, Carol Yeh-Yun Lin)
  - Some concentrate on knowledge-creation and innovation. (Ahmed Bounfour, F.Javier Carrillo, Aino Kianto and Pirjo Stahle)
  - NICBS that tries to integrate the two sets of frameworks and considers the micro and macroeconomic dimension.

The 12 factors of competitiveness of W.E.F.



IC community frameworks.

IC community contributions.

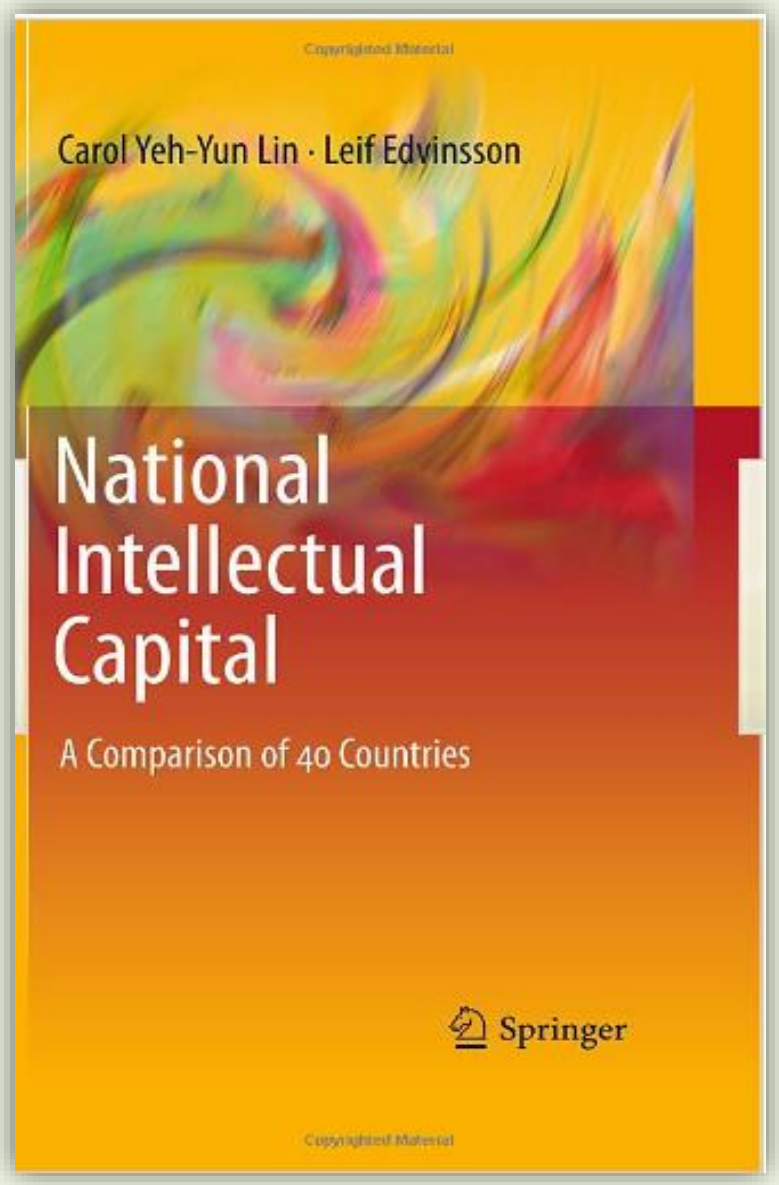
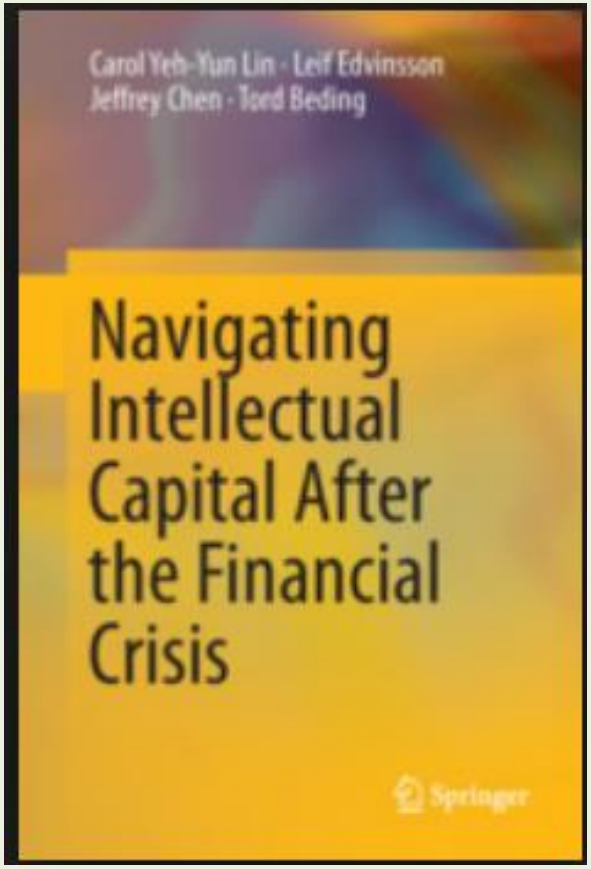


Table 3.1 Variables in each type of capital proposed by this study

Human capital index	*Market capital index*
Skilled labor#	Corporate tax#
Employee training#	Cross-border venture#
Literacy rate	Openness of culture#
Higher education enrollment	Globalization#
Pupil–teacher ratio	Transparency#
Internet subscribers	Image of country#
Public expenditure on education	Exports of goods
Process capital index	*Renewal capital index*
Business competition environment#	Business R&D spending
Government efficiency#	Basic research#
Intellectual property rights protection#	R&D spending/GDP
Capital availability#	R&D researchers
Computers in use per capita	Cooperation between universities and enterprises#
Convenience of establishing new firms#	Scientific articles
Mobile phone subscribers	Patents per capita (USPTO+EPO)

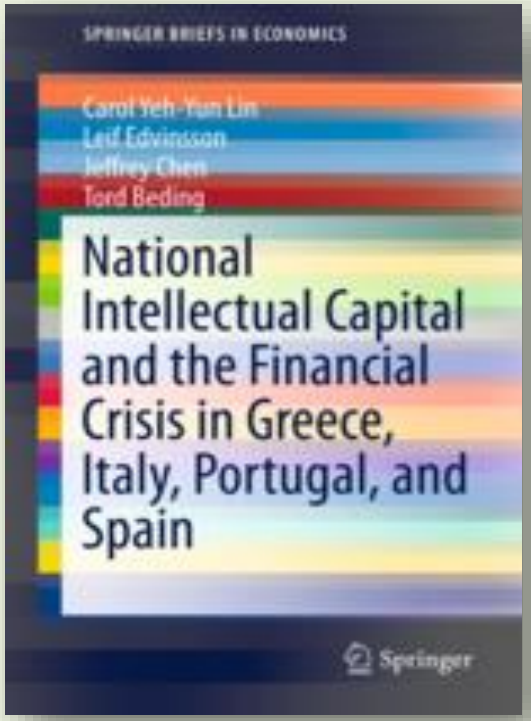
Remarks: (1) Financial capital is the logarithm of GDP per capita adjusted by purchasing power parity. (2) Variables marked with # are rated qualitatively using a scale of 1–10

Source: Yeh-Yun Lin; Edvinson (2011) National Intellectual Capital.



Navigating Intellectual Capital After the Financial Crisis

Authors: Lin, C.Y.-Y., Edvinsson, L., Chen, J., Beding, T.

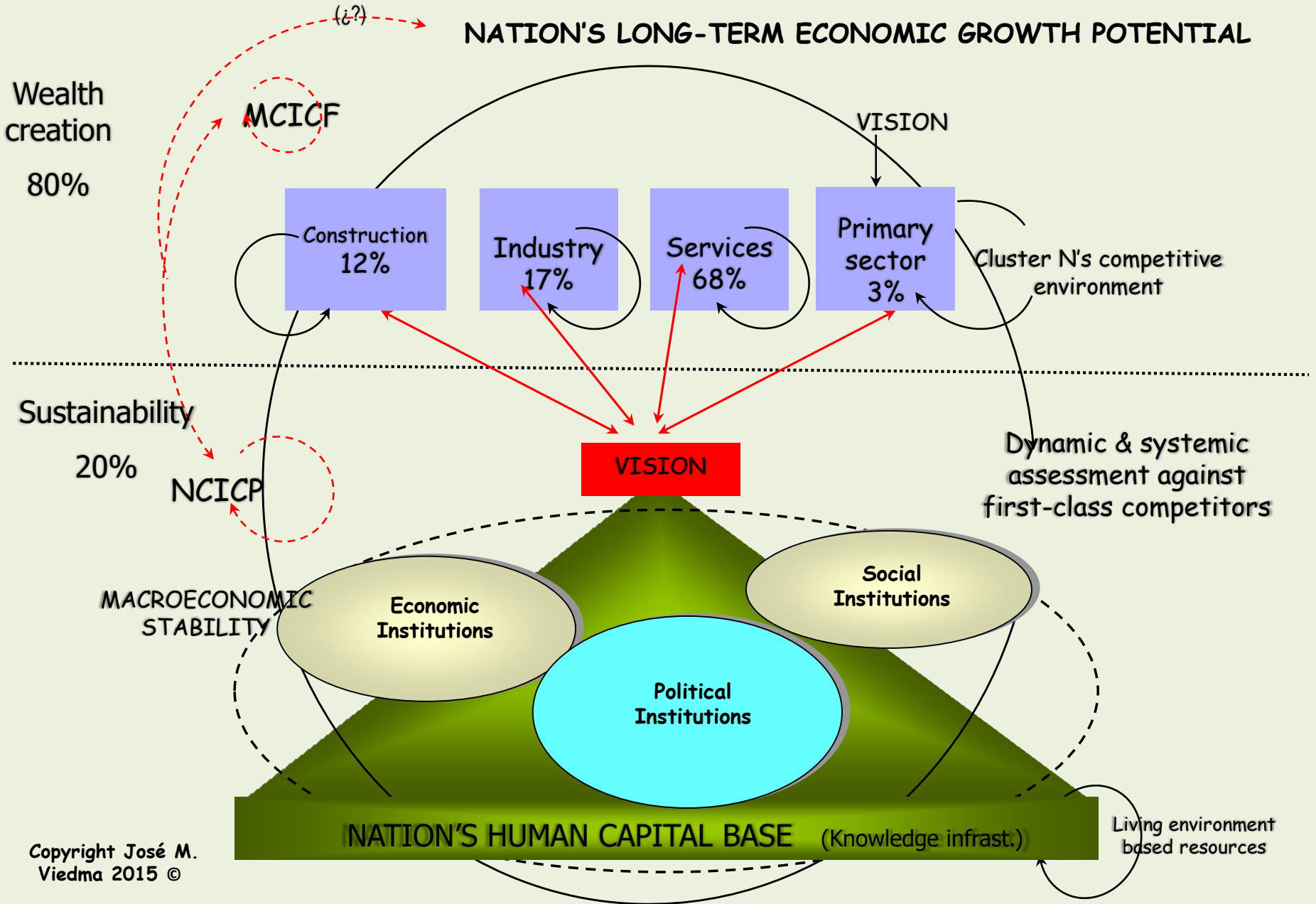


National Intellectual Capital and the Financial Crisis in Greece, Italy, Portugal, and Spain

Carol Yeh-Yun Lin, Leif Edvinsson, Jeffrey Chen, Tord Beding (häftad, 2012)

NICBS framework

NICBS: Main Structure & Key Elements



Wealth Creation in the Knowledge Economy

MAIN AGENTS

Entrepreneurial and Business excellence

Entrepreneurs.Top Management Team and Key Professional People. Knowledge and skilled workers

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Free Market economy

Liberal democratic political systems

Political Leaders and Leaders of Economic and Social Institutions Knowledge and skilled workers.

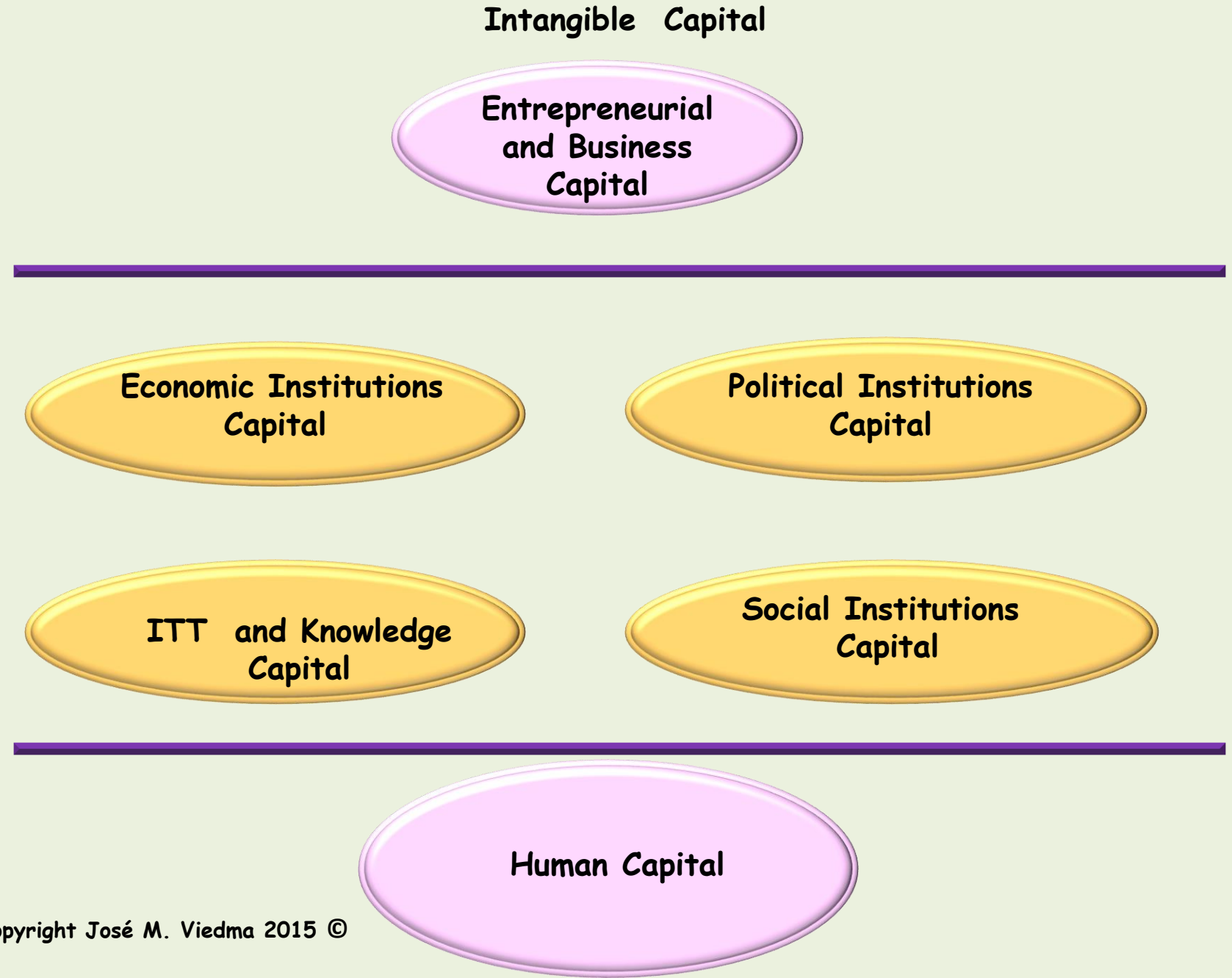
Knowledge based economy

Inclusive political, economic and social institutions

High quality people

Knowledge and skilled workers. Conscientious parents (specially mothers) Teachers in elementary and high school. Professors in University(Not its chief creators)

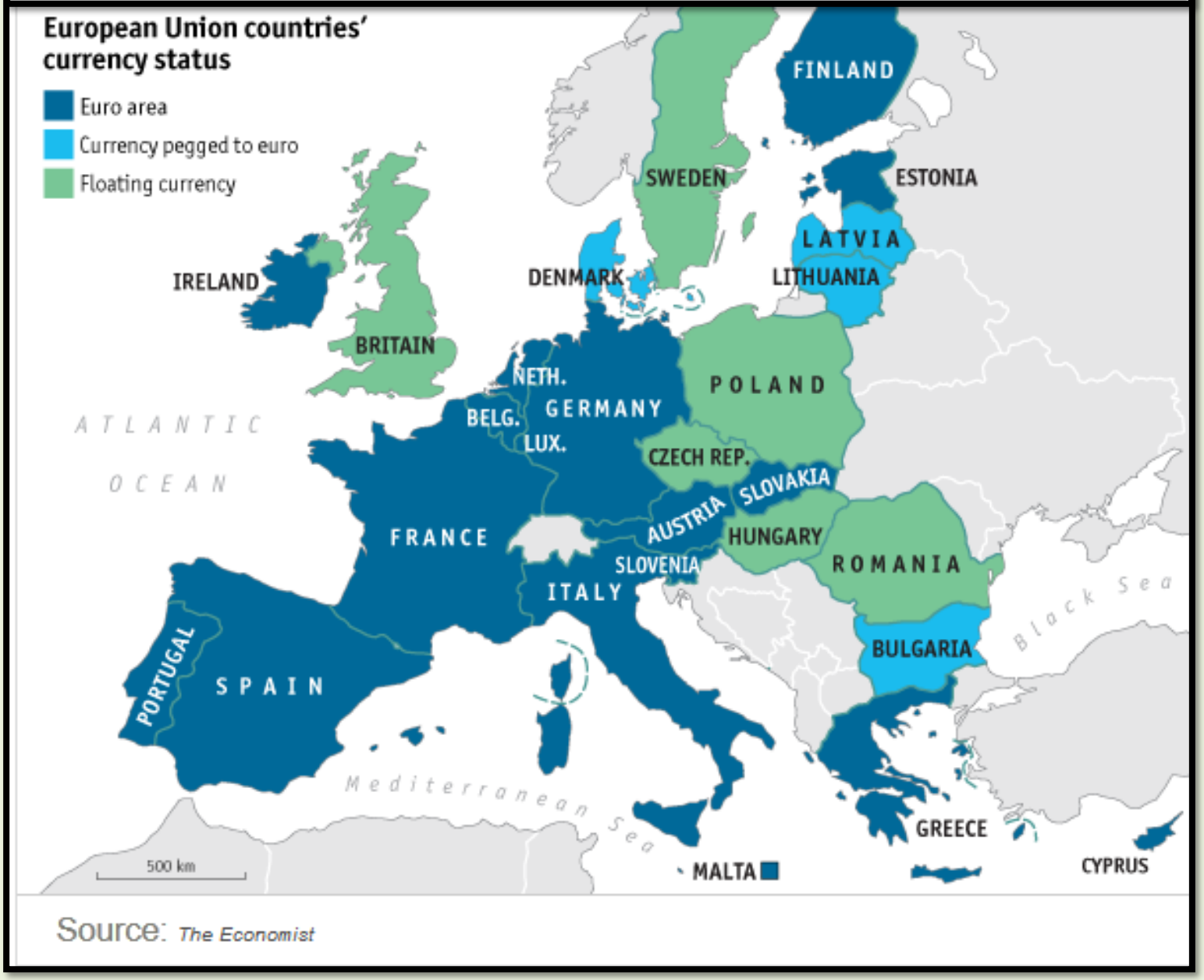
Wealth Creation in the Knowledge Economy



5. Reflections on the case of Spain.

Spain

Europe's economies



Source: The Economist 15th Nov 2012. http://www.economist.com/blogs/graphicdetail/2012/11/european-economy-guide


ILEGAL
GREENPEACE

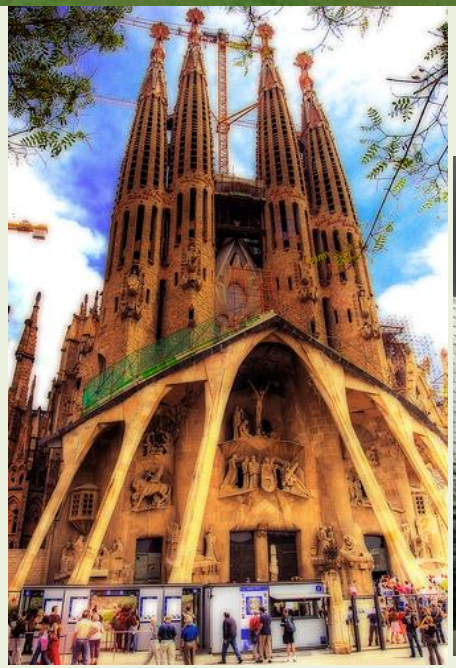

www.diariosur.es


ESPAÑA

Turismo rural

Playa isla de la Toja, Galicia

Turismo cultural




TENEMOS PASION TORERA
PACIFICARD
¡A QUITO EL AZUL LE VA MUY BIEN!
¿QUIÉN SERÁ EL ROSTRO VANBAL DE LA PLAZA?
VANBAL
TEVCOL
40 años
transportando los Valores del Ecuador
XEROX
MULTIPLICA
PASION
Pasión por el COLOR
LA FIESTA SABE MEJOR CON
PORTA
Diners Club International


unicef
AP


500
© BCE ECB EZB EKT EKP 2001
500
500
500
500
500 EURO
ΕΥΡΩ
500

Corruption

- **The urban corruption drags Spain to 40th place in the ranking of Transparency International**

- **Global Index of Corruption Perception ranks Spain next to Poland in 40th place out of 177 countries, with a score of 59 points, according to the Global Corruption Report by Transparency International (TI).**

http://www.transparency.org/whatwedo/pub/cpi_2013

Economic Freedom

- **Index of Economic Freedom ranks Spain 49 out of 178 countries. Lose 21 posts in this index. Government spending, the labor market and the protection of property rights, main drags on growth.**

http://www.heritage.org/index/

Spain’s corruption

IBEX 35

Telecomunications

Telecinco

Telefónica

Amadeus

Construction infrastructure

- Abertis
- Acciona
- ACS
- Ferrovial
- Sacyr
- OHL

Financial services

- BBVA
- Banco de Sabadell
- Banco Popular
- Banco Santander
- Bankinter
- BME
- MAPFRE
- CaixaBank

Engineering

Abengoa
Acerinox
Técnicas Reunidas
Gamesa
Indra
Arcelor Mittal

Energy/renewal energy

Gas Natural

Iberdrola

Red Eléctrica

Repsol

Enagás

Endesa

Others

Ebro Foods
Grifols
Inditex
Día

Changing the economic model.

FROM A MODEL BASED ON THE CONSTRUCTION, TOURISM AND SERVICES TO A MORE KNOWLEDGE- INTENSIVE MODEL.

FEATURES OF THIS NEW MODEL: very selective agriculture, very important industry with low environmental costs focused on exports because their advanced technology, not too much construction, and especially many more services of high value added.

CURRENT MODEL FEATURES: weak primary production (3% of GDP), construction hypertrophy (12% of GDP), industry & energy production (17% of GDP) that basically focuses its exports on the car and its parts, but based on models of second technological level. Finally services concentrated around tourism and the public sector (68% of GDP).

Spain

- Construction
- Primary Sector
- Services
- Industry

Population

40.000.000
5.500.000
1.500.000

47.000.000

Spain

C, A, S, I
Population:47 millions

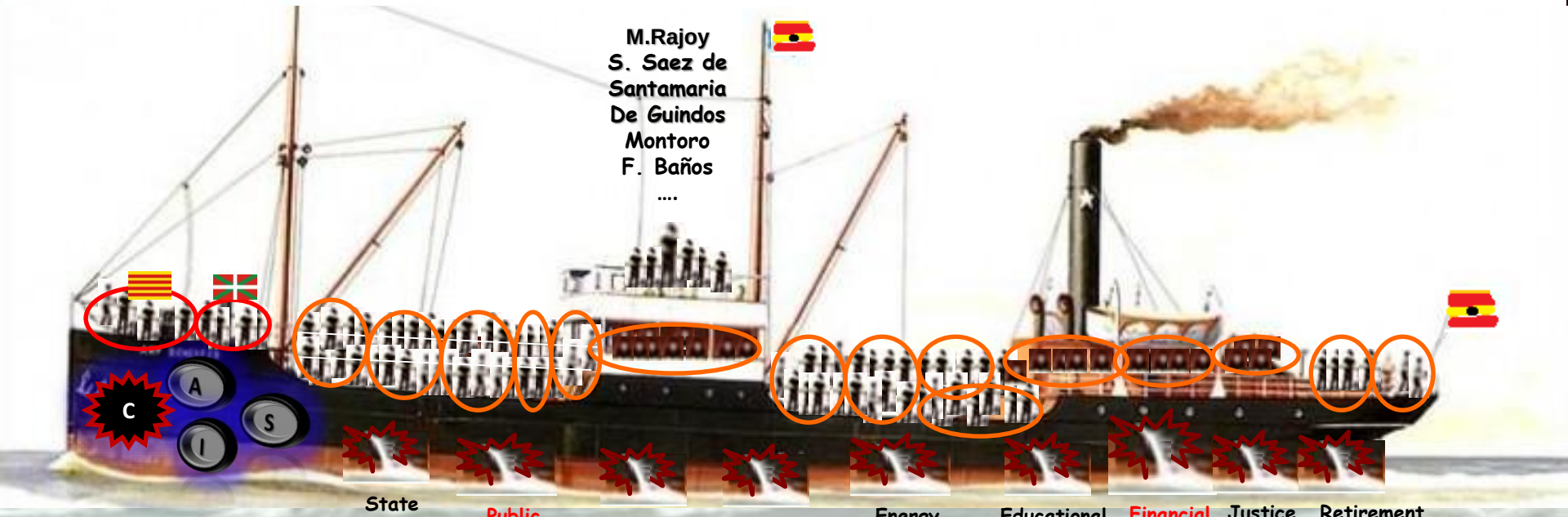
17 autonomous regions

Spain

C, A, S, I
Population :47 millions
17 autonomous regions

Real state bubble

Spain



C A S I
Population:47 millions
17 autonomous regions
Real State bubble

2008 | 1.667.865 ltd companies
2011 | 1.455.255 ltd companies
(-20%)

Underground Economy 20-25% GDP
23% Unemployment (49.6% youth unemployment)

Foreign debt= ± 1.670.000 millions €
Total debt= ± 3,300,000 Millions €
Net external debt= 970.000M € (90% GDP)

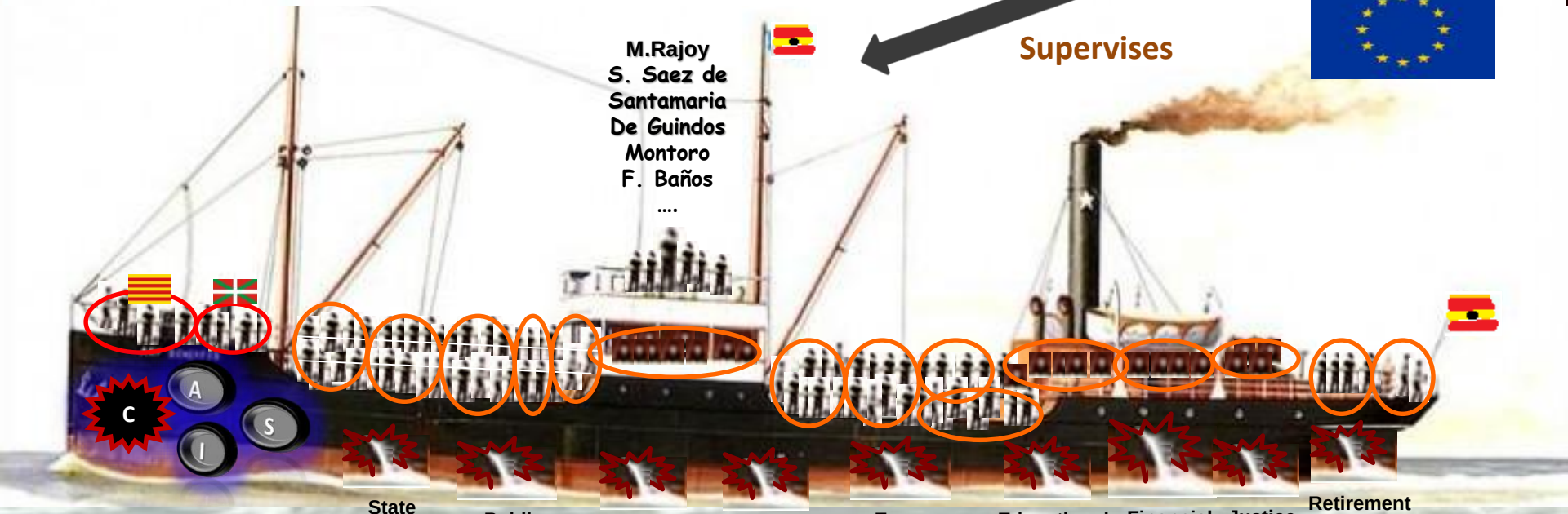
Innovative companies = 13.000 (should be 40.000)
R+D Investment= 7 billions (should be 14 billions)

Spain

Fondo Monetario Internacional

EUROPEAN CENTRAL BANK

Supervises



C A S I

Population:47 millions
17 autonomous regions
Real State bubble
-20% limited companies

Innovative companies13 mil (40mil)

R+D Investment 7billions (14 billions)

Underground economy 20-25% GDP

26% Unemployment (55% Youth unemployment)

Foreign debt ± 1.670.000 millions €=

Total debt 4.000.000 Millions€

Spain

Fondo Monetario Internacional

EUROPEAN CENTRAL BANK

Supervises

M.Rajoy
S. Saez de Santamaria
De Guindos
Montoro
F. Baños

B A S I

State Model

Public debt and deficit

Labor Reform

Current account balance deficit

Energy System

Educational System

Financial System

Justice

Retirement Pensions

C A S I

Population:47 millions
17 autonomous regions
Real State bubble
-20% limited companies

Innovative companies13 mil (40mil)

R+D Investment 7billions (14 billions)

Underground economy 20-25% PIB

26% Unemployment (55% Youth unemployment)

Foreign debt ± 1.670.000 millions €=

Total debt 4.000.000 Millions€

Deutchland

Netherland

Denmark

UK

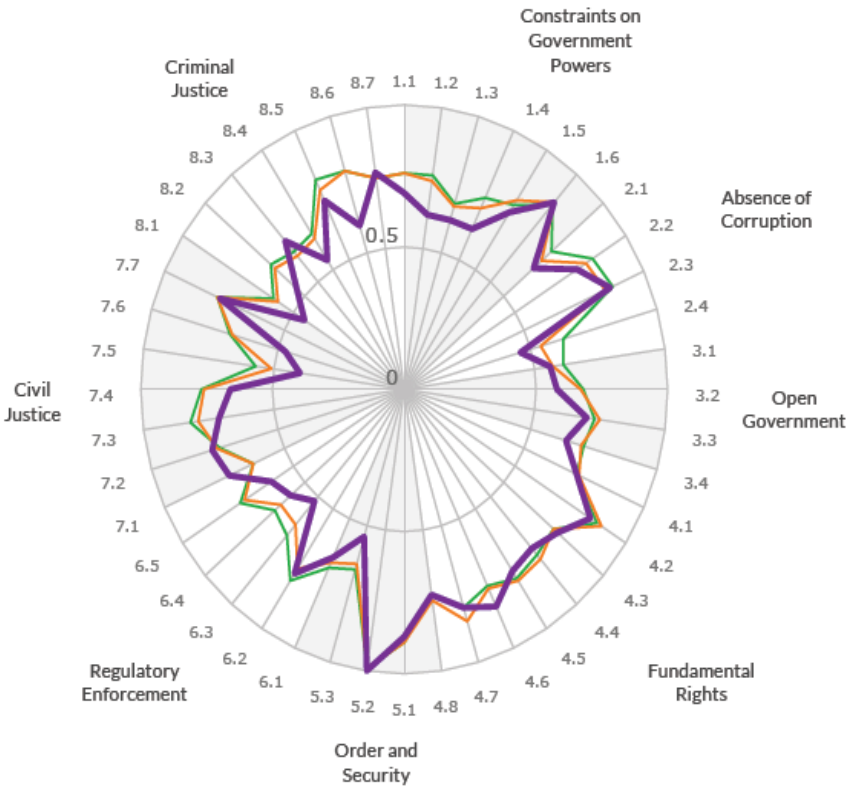
USA

Rule of Law Index

Spain

Madrid, Barcelona, Valencia

Region: EU + EFTA + North America | Income group: High income



Overall Score	Regional Rank	Income Rank	Global Rank
0.68	17/24	24/31	24/102

	Factor Trend	Factor Score	Regional Rank	Income Rank	Global Rank
Constraints on Government Powers	—	0.69	17/24	25/31	26/102
Absence of Corruption	—	0.69	15/24	24/31	25/102
Open Government	—	0.62	17/24	25/31	26/102
Fundamental Rights	—	0.78	15/24	18/31	19/102
Order and Security	—	0.8	19/24	25/31	33/102
Regulatory Enforcement	—	0.62	15/24	24/31	26/102
Civil Justice	—	0.64	17/24	24/31	24/102
Criminal Justice	—	0.62	19/24	26/31	26/102

Spain — EU + EFTA + North America — High income group

▲ Trending up ▼ Trending down Low Medium High

Rule of Law Index
Spain

2016 Index of Economic Freedom

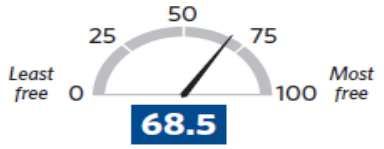
World Rank: **43** Regional Rank: **20**

ECONOMIC FREEDOM SNAPSHOT

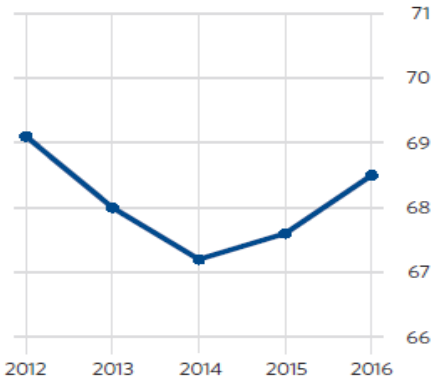
- 2016 Economic Freedom Score: **68.5 (up 0.9 point)**
- Economic Freedom Status: **Moderately Free**
- Global Ranking: **43rd**
- Regional Ranking: **20th in Europe**
- Notable Successes: **Open Markets and Monetary Freedom**
- Concerns: **Management of Public Finance and Labor Freedom**
- Overall Score Change Since 2012: **-0.6**

SPAIN

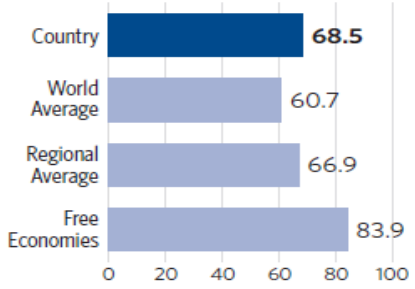
Economic Freedom Score



Freedom Trend



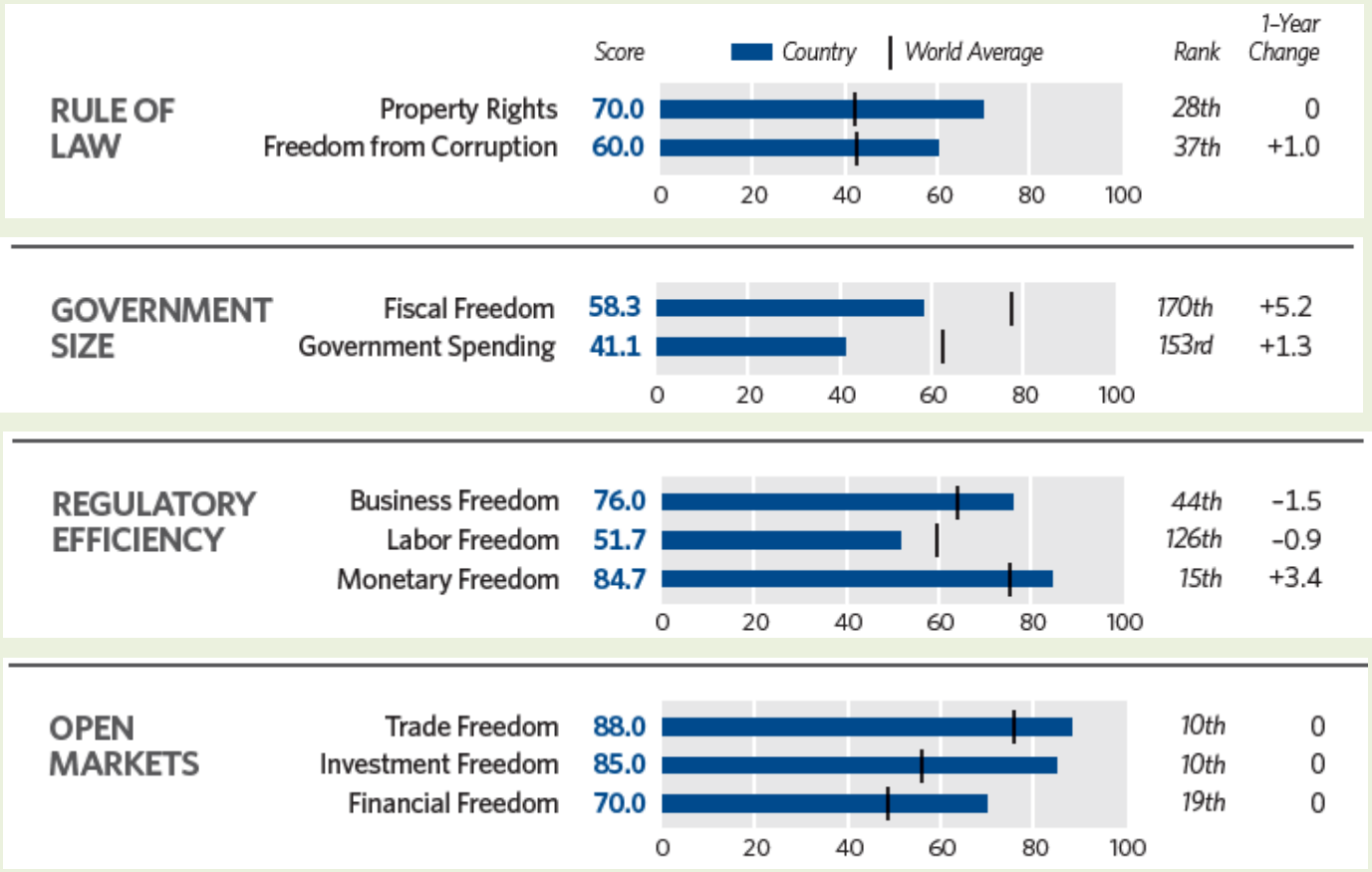
Country Comparisons



2016 Index of Economic Freedom

SPAIN

THE TEN ECONOMIC FREEDOMS



Spain

Europe

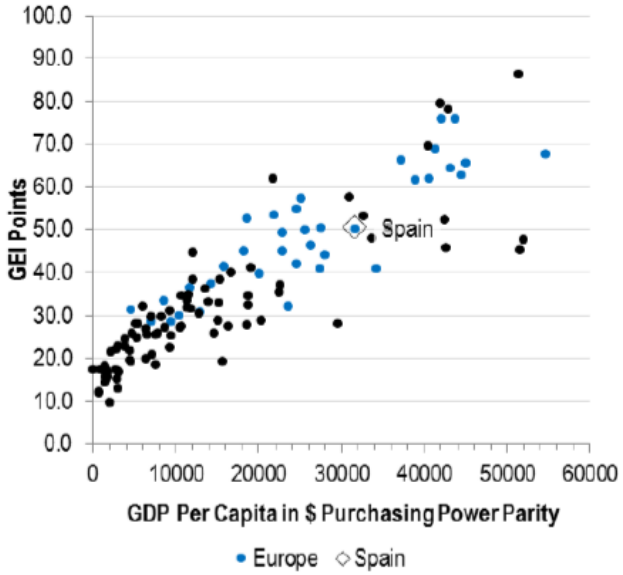
GLOBAL ENTREPRENEURSHIP INDEX

World Rank	32 of 132
Regional Rank	20 of 40

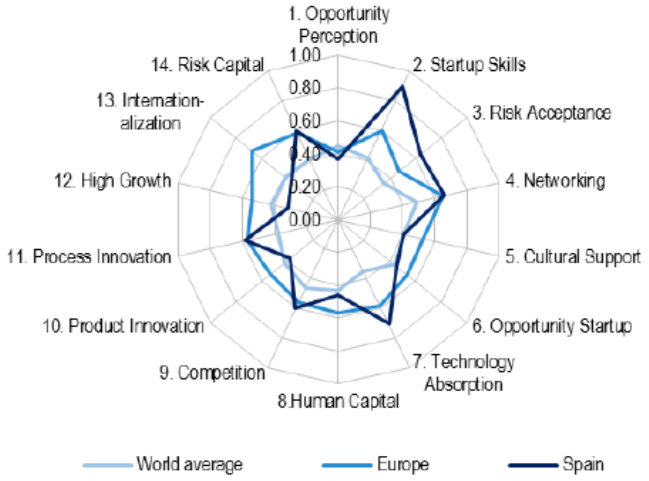
Factor Driven	Efficiency Driven	Innovation Driven

Overall GEI Score	50.2
Individual Indicators	53.3
Institutional Indicators	76.7

Global Entrepreneurship Index



14 Pillar Comparison



General Indicators

Population	46.4 million
GDP per capita PPP	$31,596
Rank in Doing Business Index 2014	33/189
Rank in Global Competitiveness Index 2014-2015	35/144
Rank in Economic Freedom Index 2014	49/178

Spain

Europe

GLOBAL ENTREPRENEURSHIP INDEX
powered by GEDI

World Rank	32 of 132
Regional Rank	20 of 40

Pillar scores from worst to best		Percentage of total new effort for a 10 point improvement in GEI score
High Growth	0.32	21%
Internationalization	0.36	17%
Opportunity Perception	0.37	17%
Product Innovation	0.38	16%
Cultural Support	0.40	13%
Opportunity Startup	0.46	8%
Human Capital	0.46	8%
Process Innovation	0.58	0%
Risk Capital	0.60	0%
Competition	0.60	0%
Risk Acceptance	0.64	0%
Networking	0.66	0%
Technology Absorption	0.70	0%
Startup Skills	0.90	0%

The Economist Intelligence Unit's Democracy Index 2015

Main Factors

1.- Electoral process and pluralism
2.- Functioning of government
3.- Political participation
4.- Political culture
5.- Civil liberties

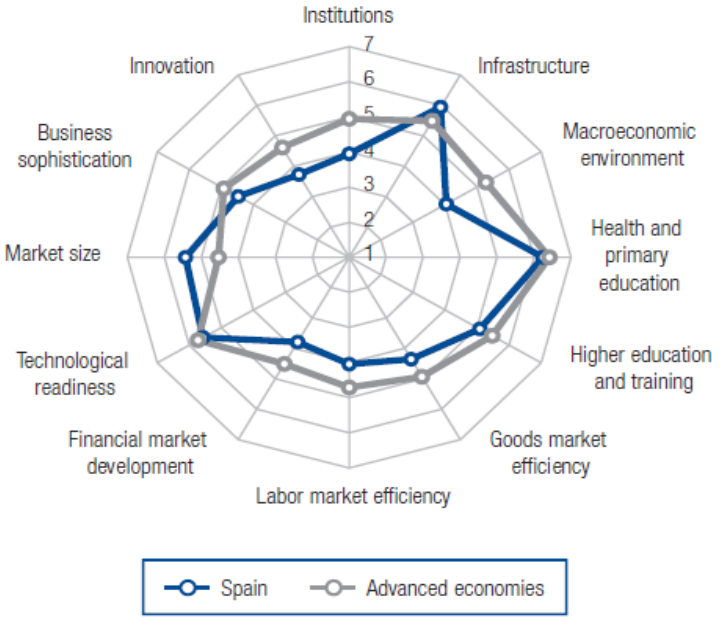
Democracy Index 2015

	Rank	Overall score	Electoral process and pluralism	Functioning of government	Political participation	Political culture	Civil liberties
Full democracies							
Norway	1	9.93	10.00	9.64	10.00	10.00	10.00
Iceland	2	9.58	10.00	9.29	8.89	10.00	9.71
Sweden	3	9.45	9.58	9.64	8.33	10.00	9.71
New Zealand	4	9.26	10.00	9.29	8.89	8.13	10.00
Denmark	5	9.11	9.17	9.29	8.33	9.38	9.41
Switzerland	6	9.09	9.58	9.29	7.78	9.38	9.41
Canada	7	9.08	9.58	9.29	7.78	8.75	10.00
Finland	8	9.03	10.00	8.93	7.78	8.75	9.71
Australia	9	9.01	9.58	8.93	7.78	8.75	10.00
Netherlands	10	8.92	9.58	8.57	8.89	8.13	9.41
Spain	17	8.30	9.58	7.14	7.22	8.13	9.41
Colombia	=62	6.62	9.17	7.14	3.89	4.38	8.53

WEF.Global Competitiveness Index. Spain

Global Competitiveness Index

	Rank (out of 140)	Score (1–7)
GCI 2015–2016	**33**	**4.6**
GCI 2014–2015 (out of 144)	35	4.5
GCI 2013–2014 (out of 148)	35	4.6
GCI 2012–2013 (out of 144)	36	4.6
Basic requirements (20.0%)	**40**	**5.0**
1st pillar: Institutions	65	3.9
2nd pillar: Infrastructure	10	5.9
3rd pillar: Macroeconomic environment	116	4.0
4th pillar: Health and primary education	32	6.2
Efficiency enhancers (50.0%)	**29**	**4.7**
5th pillar: Higher education and training	30	5.1
6th pillar: Goods market efficiency	62	4.3
7th pillar: Labor market efficiency	92	4.0
8th pillar: Financial market development	77	3.8
9th pillar: Technological readiness	25	5.6
10th pillar: Market size	15	5.4
Innovation and sophistication factors (30.0%)	**35**	**4.1**
11th pillar: Business sophistication	31	4.5
12th pillar: Innovation	37	3.7

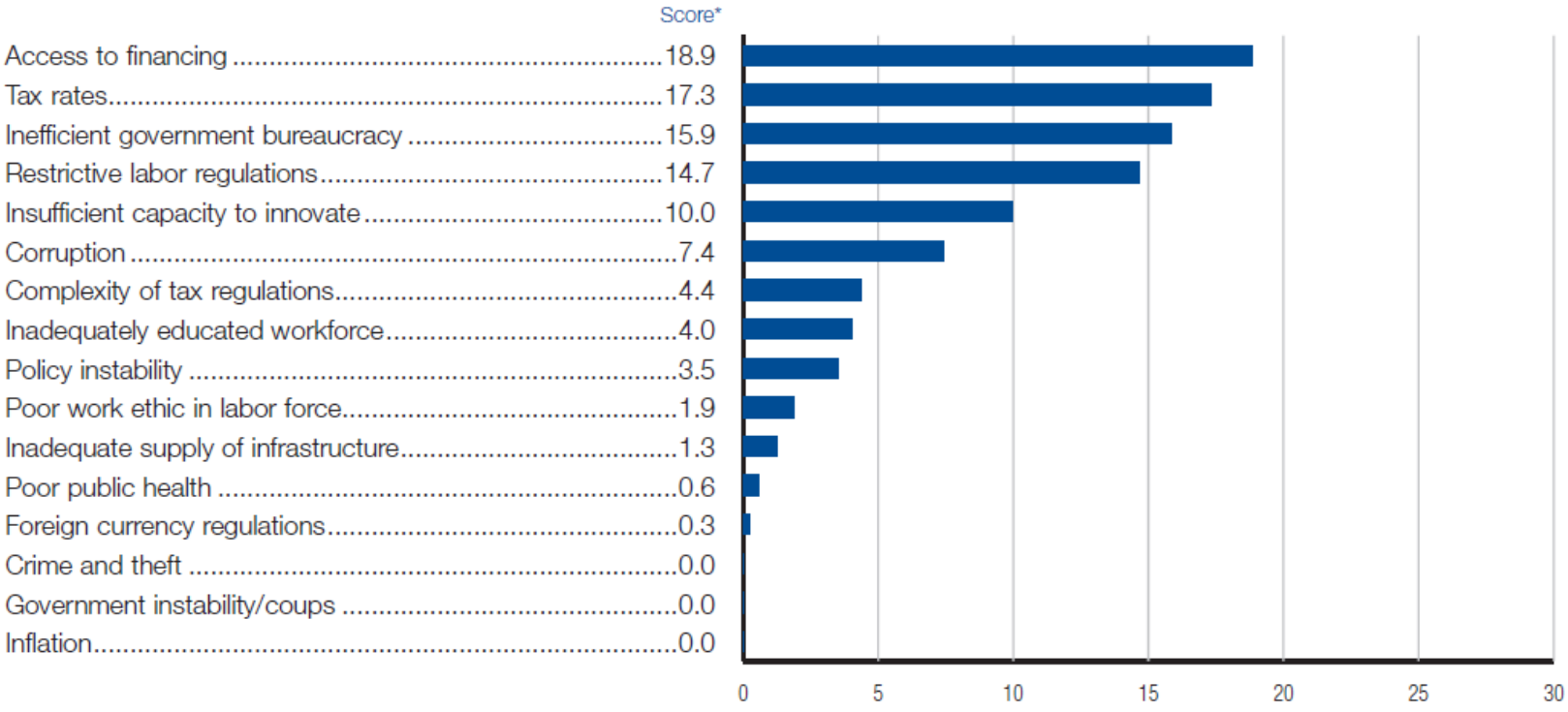


Stage of development

Source:The Global Competitiveness Report 2015-2016
World Economic Forum pp.328

WEF.Global Competitiveness Index
Spain

The most problematic factors for doing business



* From the list of factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The score corresponds to the responses weighted according to their rankings.

Source:The Global Competitiveness Report 2015-2016
World Economic Forum pp.328

SPAIN

ASSETS

- First class infrastructure
- Health and primary education
- Tourism economic sector (1°pillar)
- Construction, real estate and infrastructure (2° pillar)
- Full member of the EU and Euro zone
- Some first class multinationals but not enough
- Higher education and scientific system
- Free market economy
- Democratic political system
- Financial sector reform
-

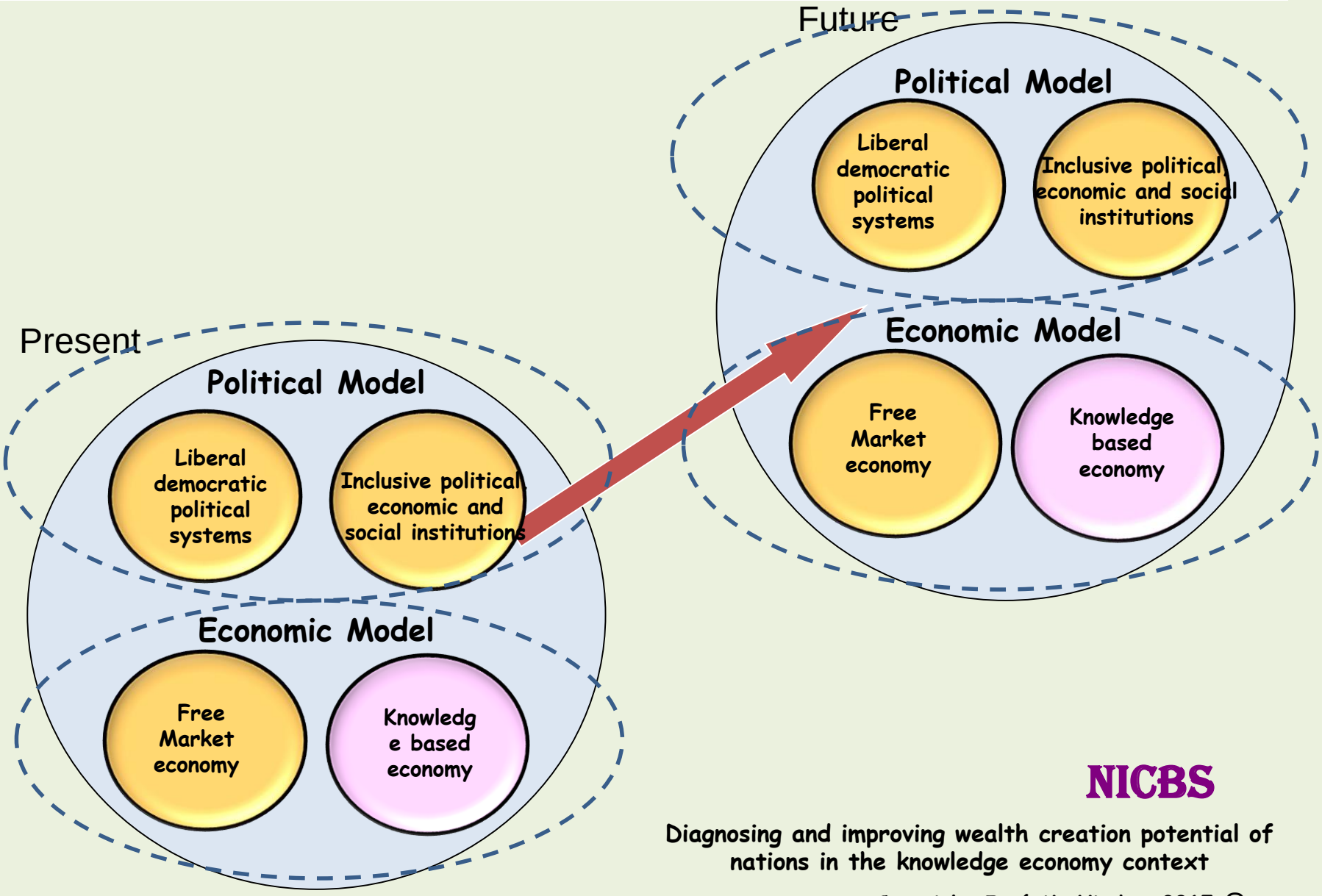
LIABILITIES

- No economic model
- Not enough competitive companies
- Not enough knowledge intensive companies.
- High rate of unemployment
- The three bubbles(financial, real estate ,and state)
- Growth without technological change
- Government budget deficit
- Government debt and private debt.
- Total debt and net debt.
- English as a second language
- Labor market reform
- State model(state bubble not yet burst)
- Innovation systems
- Public trust in politicians
- Judicial independence and efficiency.
- Wastefulness of government spending
- Corruption.(transparency international)
- Too small manufacturing sector
- Big underground economy

In summary : there is a need for transforming Spain into a more competitive, innovative and Knowledge intensive economy

6. Conclusions.

STRATEGY PERSPECTIVE



NICBS

Diagnosing and improving wealth creation potential of nations in the knowledge economy context

Conclusions

1. There is no established body of wealth creation theory in the Knowledge Economy context at the macro level .

2. The existing body of theory in mainly based on the Austrian School of Economics theory, and the contributions of other relevant theories such as Endogenous growth, New Institutional economics, Systems and Innovation, Competitiveness, and KBD .

3. Based on these bodies of theories we try to formulate principles of wealth creation in the KE context. Unfinished work.

4. There are two sets of practical methodologies or frameworks for diagnosing and improving wealth creation potential of nations in the KE context:
   a) Competitiveness frameworks
   b) IC community frameworks

5. NICBS methodology or framework is proposed as a more comprehensive alternative for diagnosing and improving wealth creation potential, because is mainly inspired on the principles of wealth creation that have been mentioned in point 3.

6. Finally strategic management of intangibles or IC at the macro level is considered the best way to improve wealth creation potential of nations.

Many thanks for your attention