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

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5. Reflections on the case of Spain.

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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 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 those 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

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

Apple IPAD 2 Air

YOGA Lenovo Dual

NEW BMW Series 7 2015

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The Knowledge Content of Processes and Business Models
E-commerce
Collaboration platforms

Uber

Airbnb

BlaBlaCar
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.
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”


“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

Physical and Tangible Wealth

Intangible Wealth

Intellectual Capital

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
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.

**Components of S&P 500 Market Value**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tangible Assets</th>
<th>Intangible Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>1985</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>1995</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>2005</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>2010</td>
<td>20%</td>
<td>80%</td>
</tr>
</tbody>
</table>

*Source: Ocean Tomo*
Innovation Tree

PRESENT (Value Extraction)

Future (Innovation)

TANGIBLE

INTANGIBLE

Financial results

Expected financial results

New indicators

New structural Capital

New relational capital

New human capital

New key success factors

Human Capital

Relational Capital

Structural Capital

Expected financial results

New process B

New process C

New process D

New process A

© Intellectual Capital Management Systems

© 2010 José M. Viedma Martí
Interrelationship among Data, Information, Knowledge and I.C.

Data & Ideas

Information

Organized data

Knowledge explicit and tacit

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**

- **Human Capital**
  - Knowledge, skills, experiences and abilities of the employees

- **Structural Capital**
  - R&D activities, organizational routines, procedures, systems, databases and intellectual property rights of the company

- **Relational Capital**
  - All resources linked to the external relationships of the firm with customers, suppliers, R&D partners, etc.
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?

Composition of wealth by income group

<table>
<thead>
<tr>
<th>Per cent</th>
<th>Low Income</th>
<th>Middle Income</th>
<th>High Income OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>59%</td>
<td>68%</td>
<td>80%</td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>80%</td>
<td>26%</td>
<td>13%</td>
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</tr>
<tr>
<td>70%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td>16%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>50%</td>
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<tr>
<td>40%</td>
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<tr>
<td>30%</td>
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<td>20%</td>
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<td>10%</td>
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<td></td>
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<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: oil countries excluded

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

David S. Landes

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.

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 themselves. 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.

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.

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 Institute
http://www.austriancenter.com/hi/the-austrian-school/
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.”
**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 constraints** (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).
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.

Theoretical Foundations
Strategic Focus

Micro Level (Enterprises)

- Resource Based View
- Open Innovation
- Knowledge Based View
- Dynamic Capabilities Based View
- Customer-Centric View

Macro Level (Cities, Regions, Nations)

- Austrian School of Economics
- New Institutional and Evolutionary Economics (I&E)
- Cultural and Social Economics (C&S)
- Knowledge Based Development (KBD)
- Triple Helix (TH)
- Regional Science (RS)
- Systems Theory (ST)
- Systems and Innovation (SI)

Incas, ICBS (OICBS, IICBS), SCBS.

Cadic, CICBS, RICBS, NICBS
Wealth Creation in the Knowledge Economy

Macro dimension

- Free Market economy
- Knowledge based economy
- Liberal democratic political systems
- Inclusive political, and economic institutions

Micro dimension

- Entrepreneurial and Business Excellence
- High quality people

Indicators:
- Heritage Foundation Index of economic freedom
- KEI K4D ISB Global Innovation index (GII)
- Global entrepreneurship and development index. GEINDEX
- Freedom House Global democracy ranking Democracy index
- WEF Institutions GCI
- World Justice Project Rule of Law Index
- WEF The human capital report

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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 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

Innovative Enterprises

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.

**Basic requirements**
- Institutions
- Infrastructure
- Macroeconomic environment
- Health and primary education

**Efficiency enhancers**
- Higher education and training
- Goods market efficiency
- Labor market efficiency
- Financial market development
- Technological readiness
- Market size

**Innovation and sophistication factors**
- Business sophistication
- Innovation

**Key for**
- **factor-driven economies**
- **efficiency-driven economies**
- **innovation-driven economies**
IC community frameworks.
IC community contributions.

National Intellectual Capital
A Comparison of 40 Countries
<table>
<thead>
<tr>
<th>Human capital index</th>
<th>Market capital index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled labor#</td>
<td>Corporate tax#</td>
</tr>
<tr>
<td>Employee training#</td>
<td>Cross-border venture#</td>
</tr>
<tr>
<td>Literacy rate</td>
<td>Openness of culture#</td>
</tr>
<tr>
<td>Higher education enrollment</td>
<td>Globalization#</td>
</tr>
<tr>
<td>Pupil–teacher ratio</td>
<td>Transparency#</td>
</tr>
<tr>
<td>Internet subscribers</td>
<td>Image of country#</td>
</tr>
<tr>
<td>Public expenditure on education</td>
<td>Exports of goods</td>
</tr>
<tr>
<td><strong>Process capital index</strong></td>
<td><strong>Renewal capital index</strong></td>
</tr>
<tr>
<td>Business competition environment#</td>
<td>Business R&amp;D spending</td>
</tr>
<tr>
<td>Government efficiency#</td>
<td>Basic research#</td>
</tr>
<tr>
<td>Intellectual property rights protection#</td>
<td>R&amp;D spending/GDP</td>
</tr>
<tr>
<td>Capital availability#</td>
<td>R&amp;D researchers</td>
</tr>
<tr>
<td>Computers in use per capita</td>
<td>Cooperation between universities and enterprises#</td>
</tr>
<tr>
<td>Convenience of establishing new firms#</td>
<td>Scientific articles</td>
</tr>
<tr>
<td>Mobile phone subscribers</td>
<td>Patents per capita (USPTO + EPO)</td>
</tr>
</tbody>
</table>

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

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
Wealth Creation in the Knowledge Economy

MAIN AGENTS

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

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)

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Wealth Creation in the Knowledge Economy

Intangible Capital

Entrepreneurial and Business Capital

Economic Institutions Capital

Political Institutions Capital

ITT and Knowledge Capital

Social Institutions Capital

Human Capital

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5. Reflections on the case of Spain.
Spain
Europe’s economies

European Union countries’ currency status

- Euro area
- Currency pegged to euro
- Floating currency

Playa isla de la Toja, Galicia

Turismo rural

Turismo cultural
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

Telecommunications
- 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

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

Population
40.000.000
5.500.000
47.000.000
1.500.000

Construction
Primary Sector
Services
Industry

© José María Viedma Martí 2015
Spain

Population: 47 millions

17 autonomous regions

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Spain

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

Real state bubble

© José María Viedma Martí 2015
Spain

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)

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Spain

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 companies: 13 mil (40mil)
R+D Investment: 7 billions (14 billions)
Underground economy: 20-25% GDP
26% Unemployment (55% Youth unemployment)
Foreign debt: ± 1.670.000 millions €=
Total debt: 4.000.000 Millions €

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Spain

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

Supervises

C A S I

Population: 47 millions
17 autonomous regions
Real State bubble
-20% limited companies
Innovative companies 13 mil (40mil)
R+D Investment 7 billions (14 billions)
Underground economy 20-25% PIB
26% Unemployment (55% Youth unemployment)
Foreign debt ± 1.670.000 millions €=
Total debt 4.000.000 Millions€
Rule of Law Index

Spain

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

<table>
<thead>
<tr>
<th>Factor</th>
<th>Score</th>
<th>Regional Rank</th>
<th>Income Rank</th>
<th>Global Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraints on Government Powers</td>
<td>0.69</td>
<td>17/24</td>
<td>25/31</td>
<td>26/102</td>
</tr>
<tr>
<td>Absence of Corruption</td>
<td>0.69</td>
<td>15/24</td>
<td>24/31</td>
<td>25/102</td>
</tr>
<tr>
<td>Open Government</td>
<td>0.62</td>
<td>17/24</td>
<td>25/31</td>
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<td>0.78</td>
<td>15/24</td>
<td>18/31</td>
<td>19/102</td>
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<td>Order and Security</td>
<td>0.8</td>
<td>19/24</td>
<td>25/31</td>
<td>33/102</td>
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<tr>
<td>Regulatory Enforcement</td>
<td>0.62</td>
<td>15/24</td>
<td>24/31</td>
<td>26/102</td>
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<tr>
<td>Civil Justice</td>
<td>0.64</td>
<td>17/24</td>
<td>24/31</td>
<td>24/102</td>
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<tr>
<td>Criminal Justice</td>
<td>0.62</td>
<td>19/24</td>
<td>26/31</td>
<td>26/102</td>
</tr>
</tbody>
</table>

Legend:
- Spain
- EU + EFTA + North America
- High income group
- Trending up
- Trending down
- Low
- Medium
- High
### Rule of Law Index: Spain

#### Constraints on Government Powers

<table>
<thead>
<tr>
<th>Constraint</th>
<th>EU + EFTA + North America</th>
<th>High Income group</th>
<th>Trending up</th>
<th>Trending down</th>
<th>Low</th>
<th>Medium</th>
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<tr>
<td>1.1 Limits by legislature</td>
<td></td>
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<td></td>
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<td>0.69</td>
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<td>1.2 Limits by judiciary</td>
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<td>1.3 Independent auditing</td>
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<tr>
<td>1.4 Sanctions for official misconduct</td>
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<td>0.62</td>
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<td>1.5 Non-governmental checks</td>
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<td></td>
<td></td>
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<td>0.74</td>
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<tr>
<td>1.6 Lawful transition of power</td>
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</table>

#### Absence of Corruption

<table>
<thead>
<tr>
<th>Absence of Corruption</th>
<th>EU + EFTA + North America</th>
<th>High Income group</th>
<th>Trending up</th>
<th>Trending down</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 No corruption in the executive branch</td>
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<tr>
<td>2.2 No corruption in the judiciary</td>
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<tr>
<td>2.3 No corruption in the police/military</td>
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<tr>
<td>2.4 No corruption in the legislature</td>
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#### Open Government

<table>
<thead>
<tr>
<th>Open Government</th>
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<th>Trending down</th>
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<tbody>
<tr>
<td>3.1 Publicized laws and government data</td>
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<td>3.2 Right to information</td>
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<td>3.3 Civic participation</td>
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<td>3.4 Complaint mechanisms</td>
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#### Fundamental Rights

<table>
<thead>
<tr>
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<th>Trending down</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Equal treatment / no discrimination</td>
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<td>4.2 Right to life and security</td>
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<tr>
<td>4.3 Due process of law</td>
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<td>4.4 Freedom of expression</td>
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<td>4.7 Freedom of association</td>
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#### Civil Justice

<table>
<thead>
<tr>
<th>Civil Justice</th>
<th>EU + EFTA + North America</th>
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<th>Trending down</th>
<th>Low</th>
<th>Medium</th>
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<td>0.73</td>
</tr>
<tr>
<td>7.2 No discrimination</td>
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<td></td>
<td>0.76</td>
</tr>
<tr>
<td>7.3 No corruption</td>
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</tr>
<tr>
<td>7.4 No improper gov. influence</td>
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<td>0.66</td>
</tr>
<tr>
<td>7.5 No unreasonable delay</td>
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</tr>
<tr>
<td>7.6 Effective enforcement</td>
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<tr>
<td>7.7 Impartial and effective ADRs</td>
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#### Order and Security

<table>
<thead>
<tr>
<th>Order and Security</th>
<th>EU + EFTA + North America</th>
<th>High Income group</th>
<th>Trending up</th>
<th>Trending down</th>
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<th>High</th>
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</thead>
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<tr>
<td>5.1 Absence of crime</td>
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#### Criminal Justice

<table>
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<tr>
<th>Criminal Justice</th>
<th>EU + EFTA + North America</th>
<th>High Income group</th>
<th>Trending up</th>
<th>Trending down</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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</thead>
<tbody>
<tr>
<td>8.1 Effective Investigations</td>
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<td></td>
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<td>8.2 Timely and effective adjudication</td>
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<td>0.54</td>
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<td>8.3 Effective correctional system</td>
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<tr>
<td>8.4 No discrimination</td>
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<td></td>
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<td>0.54</td>
</tr>
<tr>
<td>8.5 No corruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.73</td>
</tr>
<tr>
<td>8.6 No improper gov. influence</td>
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<td></td>
<td></td>
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<td>0.6</td>
</tr>
<tr>
<td>8.7 Due process of law</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>0.77</td>
</tr>
</tbody>
</table>
2016 Index of Economic Freedom

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
## 2016 Index of Economic Freedom

### SPAIN

### The Ten Economic Freedoms

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Score</th>
<th>Country</th>
<th>World Average</th>
<th>Rank</th>
<th>1-Year Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rule of Law</strong></td>
<td>Property Rights</td>
<td>70.0</td>
<td></td>
<td></td>
<td>28th</td>
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<tr>
<td></td>
<td>Freedom from Corruption</td>
<td>60.0</td>
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<td></td>
<td>37th</td>
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<tr>
<td><strong>Government Size</strong></td>
<td>Fiscal Freedom</td>
<td>58.3</td>
<td></td>
<td></td>
<td>170th</td>
<td>+5.2</td>
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<tr>
<td></td>
<td>Government Spending</td>
<td>41.1</td>
<td></td>
<td></td>
<td>153rd</td>
<td>+1.3</td>
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<tr>
<td><strong>Regulatory Efficiency</strong></td>
<td>Business Freedom</td>
<td>76.0</td>
<td></td>
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<td>44th</td>
<td>-1.5</td>
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<tr>
<td></td>
<td>Labor Freedom</td>
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<td>126th</td>
<td>-0.9</td>
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<td>Monetary Freedom</td>
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<tr>
<td><strong>Open Markets</strong></td>
<td>Trade Freedom</td>
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<td>Investment Freedom</td>
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<td>Financial Freedom</td>
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<td>19th</td>
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</table>
### Pillar scores from worst to best

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Score</th>
<th>Percentage of total new effort for a 10 point improvement in GEI score</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Growth</td>
<td>0.32</td>
<td>21%</td>
</tr>
<tr>
<td>Internationalization</td>
<td>0.36</td>
<td>17%</td>
</tr>
<tr>
<td>Opportunity Perception</td>
<td>0.37</td>
<td>17%</td>
</tr>
<tr>
<td>Product Innovation</td>
<td>0.38</td>
<td>16%</td>
</tr>
<tr>
<td>Cultural Support</td>
<td>0.40</td>
<td>13%</td>
</tr>
<tr>
<td>Opportunity Startup</td>
<td>0.46</td>
<td>8%</td>
</tr>
<tr>
<td>Human Capital</td>
<td>0.46</td>
<td>8%</td>
</tr>
<tr>
<td>Process Innovation</td>
<td>0.58</td>
<td>8%</td>
</tr>
<tr>
<td>Risk Capital</td>
<td>0.60</td>
<td>0%</td>
</tr>
<tr>
<td>Competition</td>
<td>0.60</td>
<td>0%</td>
</tr>
<tr>
<td>Risk Acceptance</td>
<td>0.64</td>
<td>0%</td>
</tr>
<tr>
<td>Networking</td>
<td>0.66</td>
<td>0%</td>
</tr>
<tr>
<td>Technology Absorption</td>
<td>0.70</td>
<td>0%</td>
</tr>
<tr>
<td>Startup Skills</td>
<td>0.90</td>
<td>0%</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>Overall score</th>
<th>Electoral process and pluralism</th>
<th>Functioning of government</th>
<th>Political participation</th>
<th>Political culture</th>
<th>Civil liberties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>1</td>
<td>9.93</td>
<td>10.00</td>
<td>9.64</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
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<tr>
<td>Iceland</td>
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<td>10.00</td>
<td>9.29</td>
<td>8.89</td>
<td>10.00</td>
<td>9.71</td>
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<tr>
<td>Sweden</td>
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<td>9.45</td>
<td>9.58</td>
<td>9.64</td>
<td>8.33</td>
<td>10.00</td>
<td>9.71</td>
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<tr>
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<td>9.29</td>
<td>8.89</td>
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<td>9.38</td>
<td>9.41</td>
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<td>9.29</td>
<td>7.78</td>
<td>8.75</td>
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<td>10.00</td>
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<td>8.30</td>
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<td>7.14</td>
<td>7.22</td>
<td>8.13</td>
<td>9.41</td>
</tr>
</tbody>
</table>
World Economic Forum pp.328
The most problematic factors for doing business

- Access to financing: 18.9
- Tax rates: 17.3
- Inefficient government bureaucracy: 15.9
- Restrictive labor regulations: 14.7
- Insufficient capacity to innovate: 10.0
- Corruption: 7.4
- Complexity of tax regulations: 4.4
- Inadequately educated workforce: 4.0
- Policy instability: 3.5
- Poor work ethic in labor force: 1.9
- Inadequate supply of infrastructure: 1.3
- Poor public health: 0.6
- Foreign currency regulations: 0.3
- Crime and theft: 0.0
- Government instability/coups: 0.0
- Inflation: 0.0

* 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.

World Economic Forum pp.328
In summary: there is a need for transforming Spain into a more competitive, innovative and knowledge-intensive economy.
6. Conclusions.
NICBS

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

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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