



CaixaBank Index for Business Internationalisation: CIBI 2019

Clàudia Canals

Javier Ibáñez de Aldecoa

Josep Mestres

CaixaBank Research

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CaixaBank Index for Business Internationalisation (CIBI - ICIE)



- ▶ The **CIBI** is an **index** that **ranks foreign countries** according to their **internationalisation potential** from the perspective of **Spanish Companies**
- ▶ CIBI helps business to decide where to internationalise



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CIBI and Brexit

CaixaBank Index for Business Internationalisation (CIBI - ICIE)



- ▶ Aim CXBK Research spread Economic knowledge within and outside the organization

Help business (customers)

- ▶ Already exporting, importing, investing ... but want to diversify geographically
- ▶ Small businesses that need to give the first step abroad

How could we help?

- ▶ Internationalisation Index from the Spanish perspective



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The objective of the CIBI (ICIE) is to help companies choose in which country it is best to internationalise



Description of CIBI pillars and subpillars

Pillars (weight in %)

Subpillars

1. Accessibility (26%)	1.1 Distance, communications, and agreements with Spain
	1.2 Infrastructures
2. Ease of operating (18%)	2.1 Easiness of operating a business
	2.2 Labour conditions
	2.3 Investment relations with Spain
3. Commercial attractiveness (36%)	3.1 Purchasing Power
	3.2 Similar tastes to Spain
4. Financial environment and innovation (15%)	4.1 Credit and financial development
	4.2 Innovation capability
5. Stability (5%)	5.1 Institutional
	5.2 Macroeconomic

Source: CaixaBank Research.



1. Accessibility

- **Distance, communications, and agreements with Spain**
 - ✓ The country has a land border with Spain
 - ✓ Spanish is the official language
 - ✓ Direct flight and flying time
 - ✓ Transit time between two main ports
 - ✓ Trade and tariffs agreements
- **Infrastructures**
 - ✓ Aviation, rail and maritime transportation: annual volume of carried goods measured in millions of tones (*Source: World development indicators*)
 - ✓ A variable capturing the level of country's connectedness with global shipping routes (*Source: Global Competitiveness Report*)
 - ✓ Penetration of the Broadband technology (*Source: International Telecommunication Union - UTI*)



2. Ease of operating

- **Easiness of operating a business**

- ✓ Number of procedures to start a business (*Source: Doing Business Rank*)
- ✓ Number of days to officially register a business
- ✓ Cost to register a business
- ✓ Effective tax rate on corporations

- **Labour conditions**

- ✓ Labour productivity (*Source: ILOSTAT*)
- ✓ Workers with university education
- ✓ Minimum wage
- ✓ English proficiency
- ✓ Spanish workers' flow to the country (*Source: INE*)

- **Investment relations with Spain**

- ✓ Spanish direct investment flows in the country (*Source: DataInVex*)
- ✓ Gross direct investment position of Spanish firms in the country (*stock*)



3. Commercial attractiveness

- **Purchasing Power**

- ✓ Gross Domestic Product at current prices in U.S. dollars (*Source: IMF*)
- ✓ GDP per capita in U.S. dollars
- ✓ Inflation
- ✓ Level of inequality: Gini coefficient (*Source: World Development Indicators*)

- **Similar tastes to Spain**

- ✓ Imports of goods in euros carried out by Spanish firms (*Source: DataInVex*)
- ✓ Exports of goods in euros carried out by Spanish firms



4. Financial environment and innovation

- **Credit and financial development**

- ✓ Credit from Spanish banks to physical and legal residents in the country
(Source: Bank of international settlements)
- ✓ Outstanding domestic credit balance and average interest rate on credit to the private sector (Source: Global Financial Development – World Bank)
- ✓ ATMs and bank branches per 100,000 adults
- ✓ Currency convertibility in Spain

- **Innovation capability**

- ✓ Total early-stage entrepreneurial activity rate (Source: Global Entrepreneur Monitor)
- ✓ Innovation capability (Source: World Economic Forum)



5. Stability

- **Institutional**

- ✓ Corruption level (*Source: Worldwide Governance Indicators*)
- ✓ Government effectiveness
- ✓ Political stability and absence of terrorism
- ✓ Level of trust in the regulatory framework
- ✓ CESCE credit coverage

- **Macroeconomic**

- ✓ Rating (*Source: Fitch*)
- ✓ Non-performing loan rate
- ✓ Regulatory capital over total assets.
- ✓ Exchange rate volatility (*Source: Thomson Reuters Datastream*)
- ✓ Correlation between the main stock index and the IBEX35



THREE STEPS TO OBTAIN THE CIBI INDEX:

1. Normalising variables and subpillars

- Transformation of the original variables based on their cumulative distribution function (CDF)
- The resulting variables do not depend on their actual units but are scaled between 0 and 1
- For each variable (X) there is data on 67 countries for the period 2000-2018

$$\mathbf{X} = (x_{11}, x_{12}, \dots, x_{1t}, x_{21}, x_{22}, \dots, x_{2t}, \dots, x_{pt})$$

2. Determining a subpillar's weight

Weights are allocated based on the explanatory power obtained in the regression

$$\#Emp_{pt} = \alpha + \sum_{j=1}^5 \sum_{k=1}^S \beta_{jk} SP_{jk,pt-1} + \varepsilon_{pt}$$

$\#Emp_{pt}$ – denotes the number of Spanish exporters of goods in period t and country p

SP_{jk} – denotes the value of subcolumn $j.k$

A subpillar's weight is the % of the R-Squared explained by the subpillar in the above estimation

3. Obtaining the CIBI index: multiply subpillar values with their respective weights



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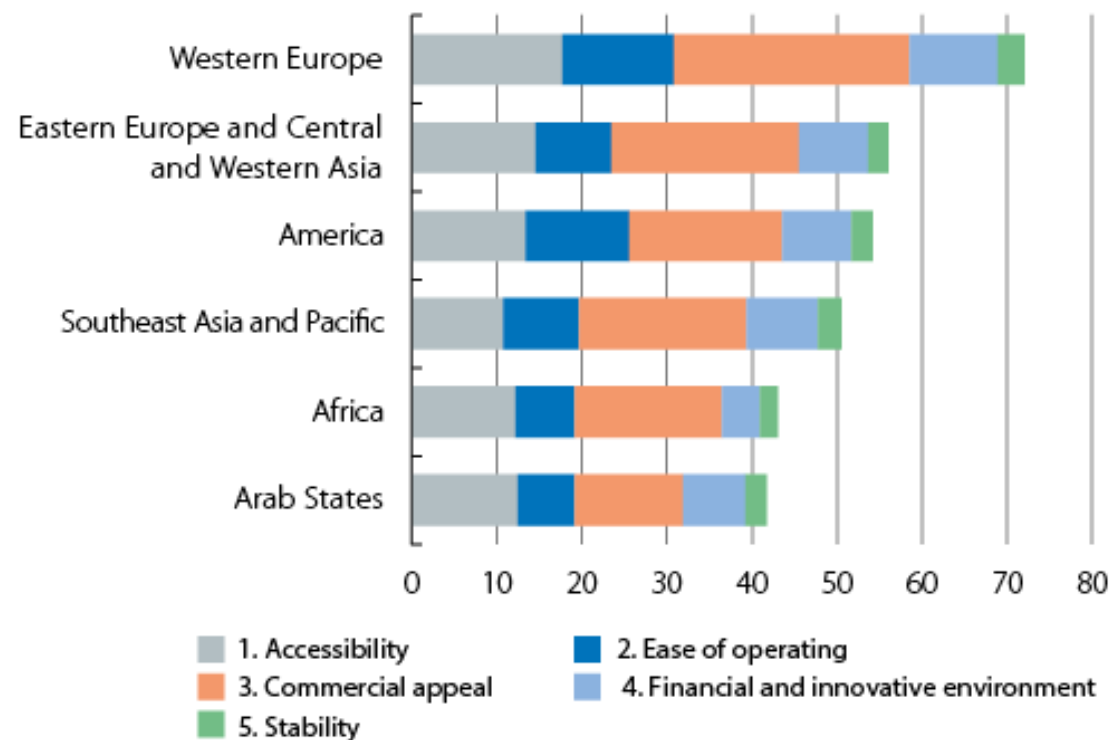
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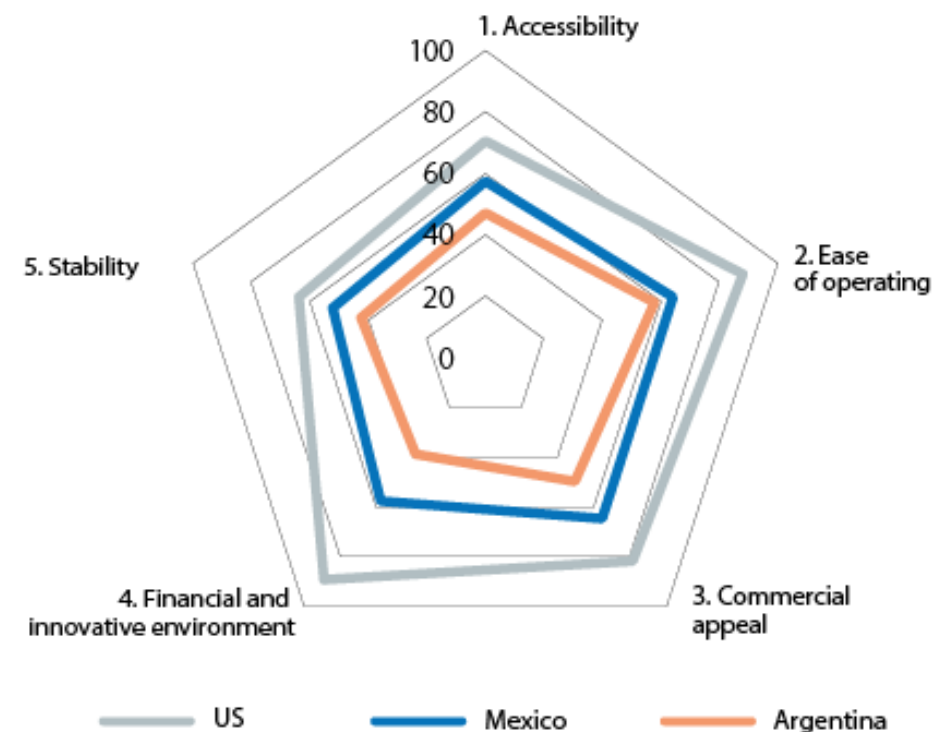
CIBI and Brexit

CIBI 2019 by region

(Min 0 – Max. 100)



Zoom-in: America



Analysis for a total of 67 countries grouped in 6 regions

TOP-15 countries

	ICIE-2019 (2018)		ICIE-2019 (2016)		Rank change
	Score	Ranking	Score	Ranking	
France	84.3	1	83.7	2	↑ 1
Great Britain	83.9	2	84.4	1	↓ -1
United States	81.5	3	81.5	3	→ 0
Netherlands	80.9	4	80.6	4	→ 0
Germany	80.0	5	80.1	5	→ 0
Portugal	79.6	6	79.2	6	→ 0
Italy	78.4	7	78.2	7	→ 0
Switzerland	77.5	8	76.5	8	→ 0
Belgium	72.8	9	73.9	9	→ 0
Ireland	71.6	10	73.0	10	→ 0
Canada	70.5	11	68.7	15	↑ 4
Sweden	69.9	12	70.5	12	→ 0
Poland	69.9	13	71.1	11	↓ -2
China	68.6	14	68.8	14	→ 0
South Korea	68.1	15	66.2	18	↑ 3

BOTTOM-15 countries

	ICIE-2019 (2018)		ICIE-2019 (2016)		Rank change
	Score	Ranking	Score	Ranking	
Uruguay	39.1	53	40.3	51	↓ -2
Kazakhstan	38.2	54	36.3	57	↑ 3
Lebanon	37.7	55	37.1	56	↑ 1
Oman	35.5	56	37.3	54	↓ -2
Bahrain	35.3	57	33.6	60	↑ 3
Venezuela	34.6	58	37.3	55	↓ -3
Kuwait	33.7	59	32.1	61	↑ 2
Cuba	33.4	60	33.8	59	↓ -1
Bangladesh	32.4	61	31.5	62	↑ 1
Azerbaijan	32.0	62	31.3	63	↑ 1
Senegal	30.5	63	30.9	64	↑ 1
Jordan	29.6	64	34.0	58	↓ -6
Equatorial Guinea	27.7	65	30.2	65	→ 0
Angola	27.6	66	30.2	66	→ 0
Sri Lanka	22.7	67	23.4	67	→ 0



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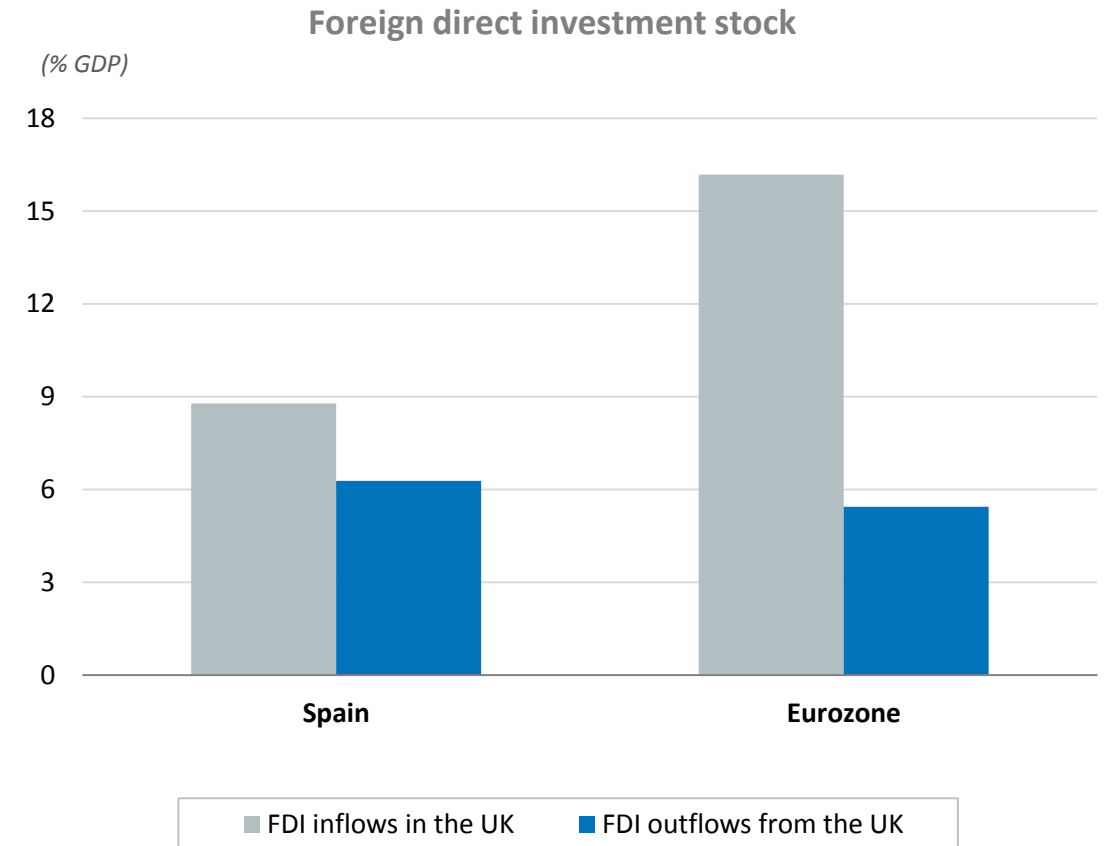
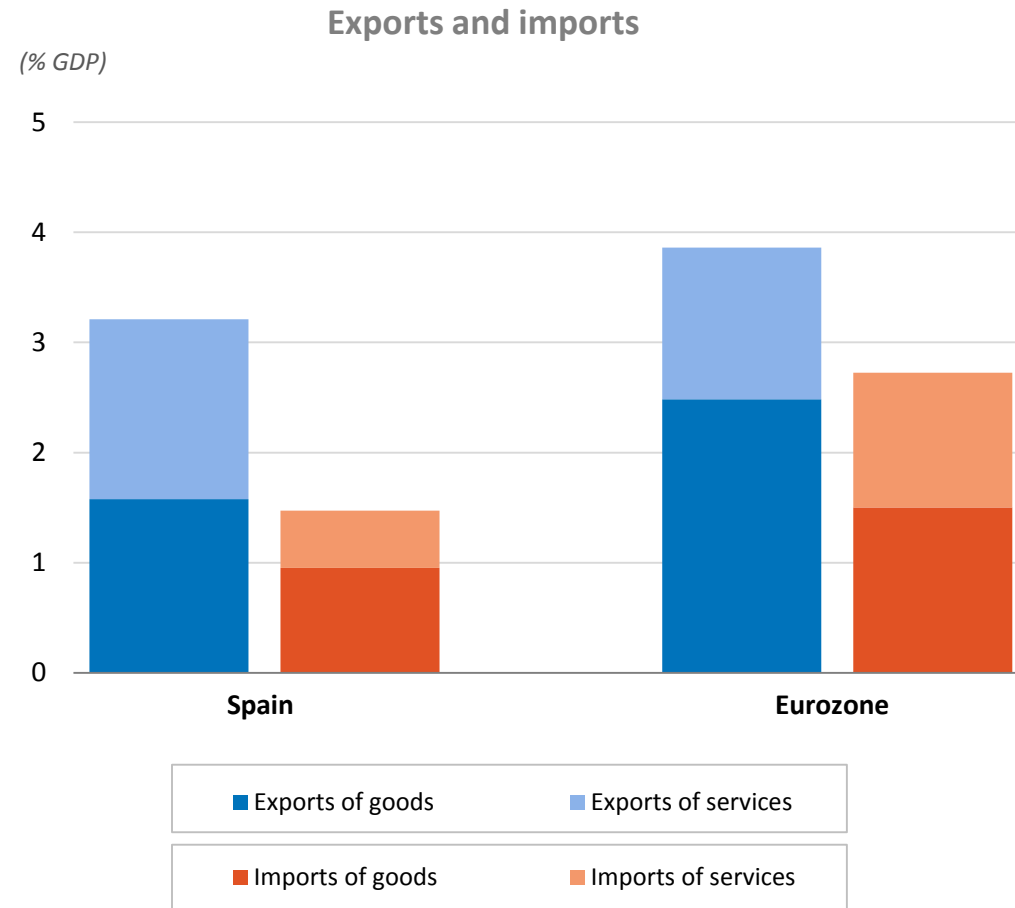
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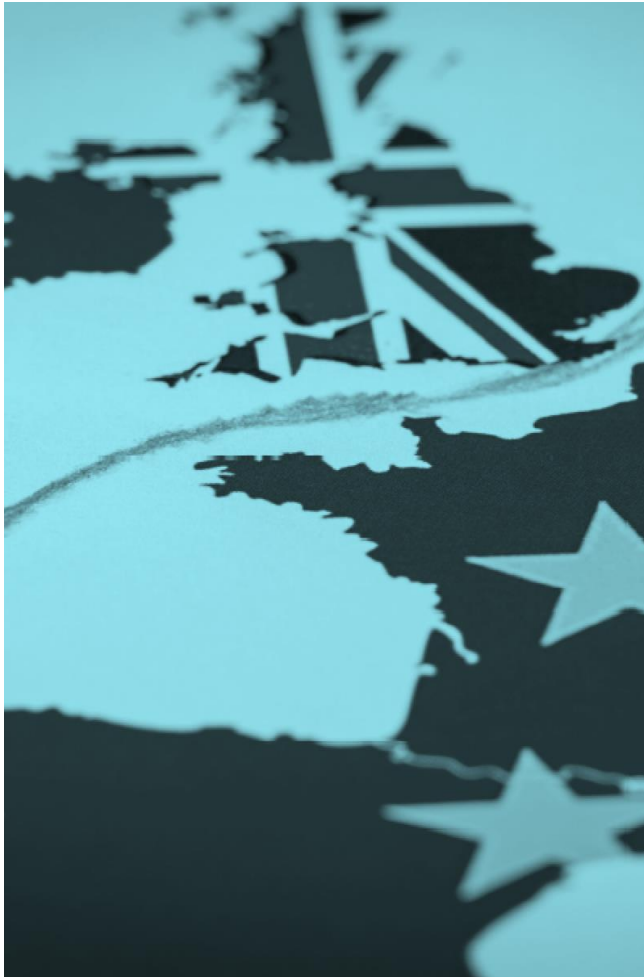


Weight of the UK-Spain and UK-Eurozone bilateral relations



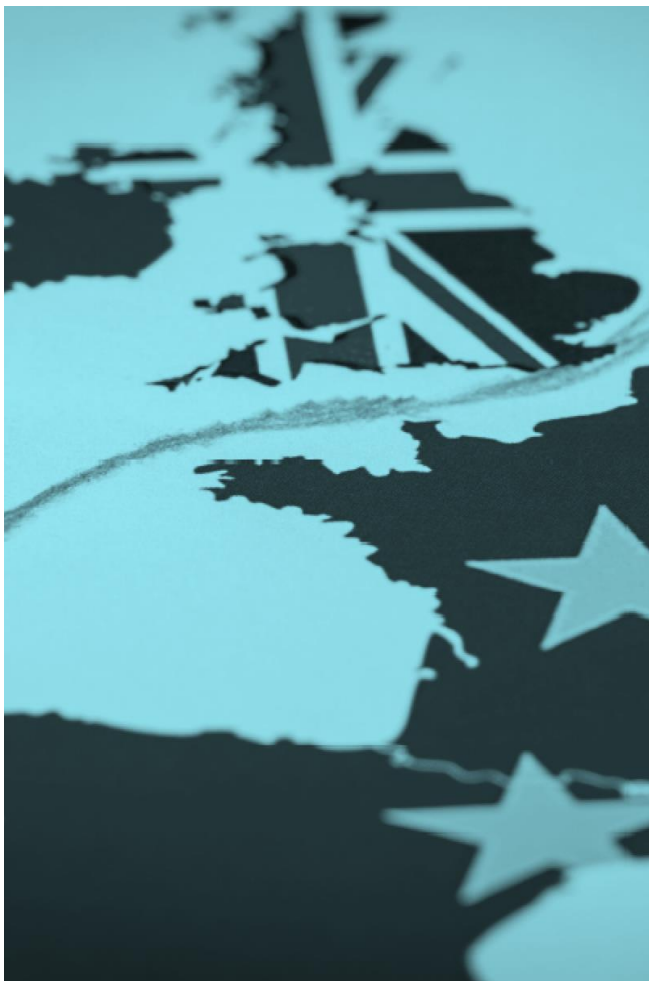


Summary of assumptions for each brexit scenario



	Deal scenarios		No deal, no transition scenarios	
	Close bilateral relation	Less close relation	Disruptive scenario	Disorderly scenario
Trade in goods and services	<ul style="list-style-type: none"> Not tariffs nor custom checks applied. Barriers to non-financial services emerge. 	<ul style="list-style-type: none"> Not tariffs nor custom checks applied. Barriers to non-financial services emerge. 	<ul style="list-style-type: none"> EU applies Common Custom tariff. UK reciprocates. Custom checks on trade. Goods barriers: the EU does not recognise UK standards. Services barriers: Revert to WTO terms. 	
Financial services	<ul style="list-style-type: none"> Financial services lose passporting rights. 50% is mitigated by symmetric regulation. 	<ul style="list-style-type: none"> Financial services lose passporting rights. 25% is mitigated by symmetric regulation. 	<ul style="list-style-type: none"> Financial services lose passporting rights. 	
New trading arrangements	<ul style="list-style-type: none"> The UK retains access to existing FTA between EU and third countries. No disruptions recorded at the border due to a full adaptation to the new regulatory framework during the 2 year transition. 		<ul style="list-style-type: none"> The UK retains access to existing FTA between EU and third countries. Some delays at the border. 	<ul style="list-style-type: none"> UK loses access to FTA between EU and third countries. Severe disruptions at the border.
Macroeconomic uncertainty	<ul style="list-style-type: none"> Uncertainty moderates by the end of 2019. 	<ul style="list-style-type: none"> Uncertainty moderates by the end of 2021. 	<ul style="list-style-type: none"> Uncertainty rises to a similar level of that seen around the EU referendum. 	<ul style="list-style-type: none"> Uncertainty rises to a level only exceeded in the financial crisis.

Summary of impacts for each brexit scenario

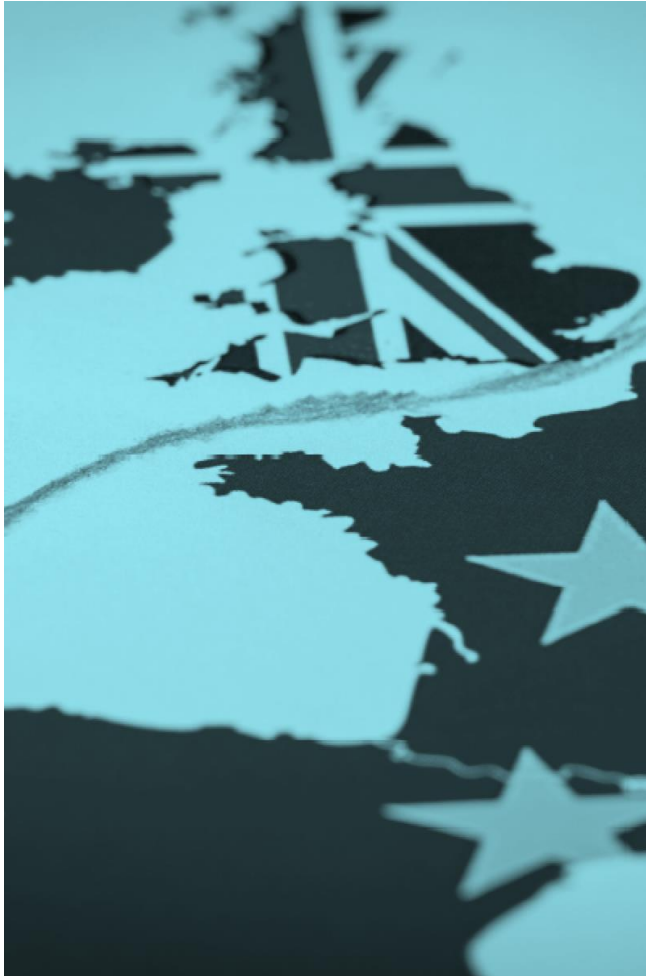


	Deal scenarios		No deal, no transition	
	Close bilateral relation	Less close relation	Disruptive scenario	Disorderly scenario
Spanish exporting firms	-2,0%	-9,0%	-15,0%	-15,0%
Exchange rate	-	-	-15,0%	-25,0%
Pilar 1: Accessibility				
Free Trade Agreement	Sí	Sí	No	No
Pilar 2: Ease of operating				
Spanish workforce in the UK	-23,1%	-23,1%	-33,9%	-54,0%
FDI flow	-1,3%	-3,8%	-20,0%	-20,0%
FDI Stock	-0,5%	-1,4%	-7,4%	-7,4%
Pilar 3: Comercial appeal				
GDP per capita	-1,3%	-3,8%	-7,8%	-10,5%
Exports	-2,0%	-9,0%	-15,0%	-15,0%
Imports	-2,0%	-9,0%	-15,0%	-15,0%
Pilar 4: Financial and innovative enviroment				
Domestic credit ratio (<i>p. p.</i>)	-0,2	-0,6	-1,2	-1,6
Interest rate (<i>p. p.</i>)	0,25	0,5	1,5	2,5
Banking assets in the UK	-0,5%	-1,4%	-7,4%	-7,4%
Pilar 5: Stability				
Rating Fitch (<i>value</i>)	-	-	AA-	A
NPL ratio (<i>p. p.</i>)	0,4	1,2	2,5	3,3
Exchange rate volatility (<i>value</i>) *	-	-	5,2	8,7

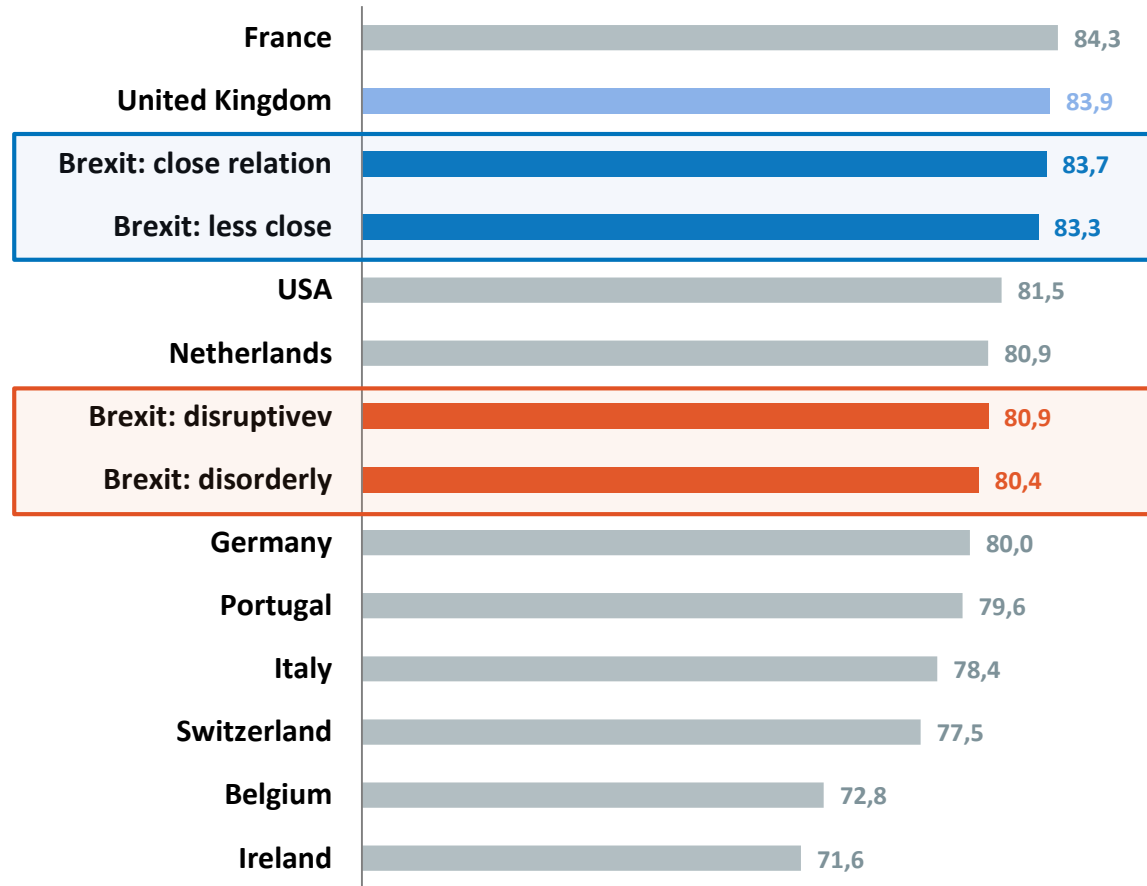
Notes: * A rescaled (multiplied by 100) Pearson Coefficient is used as a measure of volatility.

Source: CaixaBank research, based on data from England, B. O. (2018). EU withdrawal scenarios and monetary and financial stability: A response to the House of Commons Treasury Committee.

UK CIBI Rank 5 years after brexit (4 different scenarios)



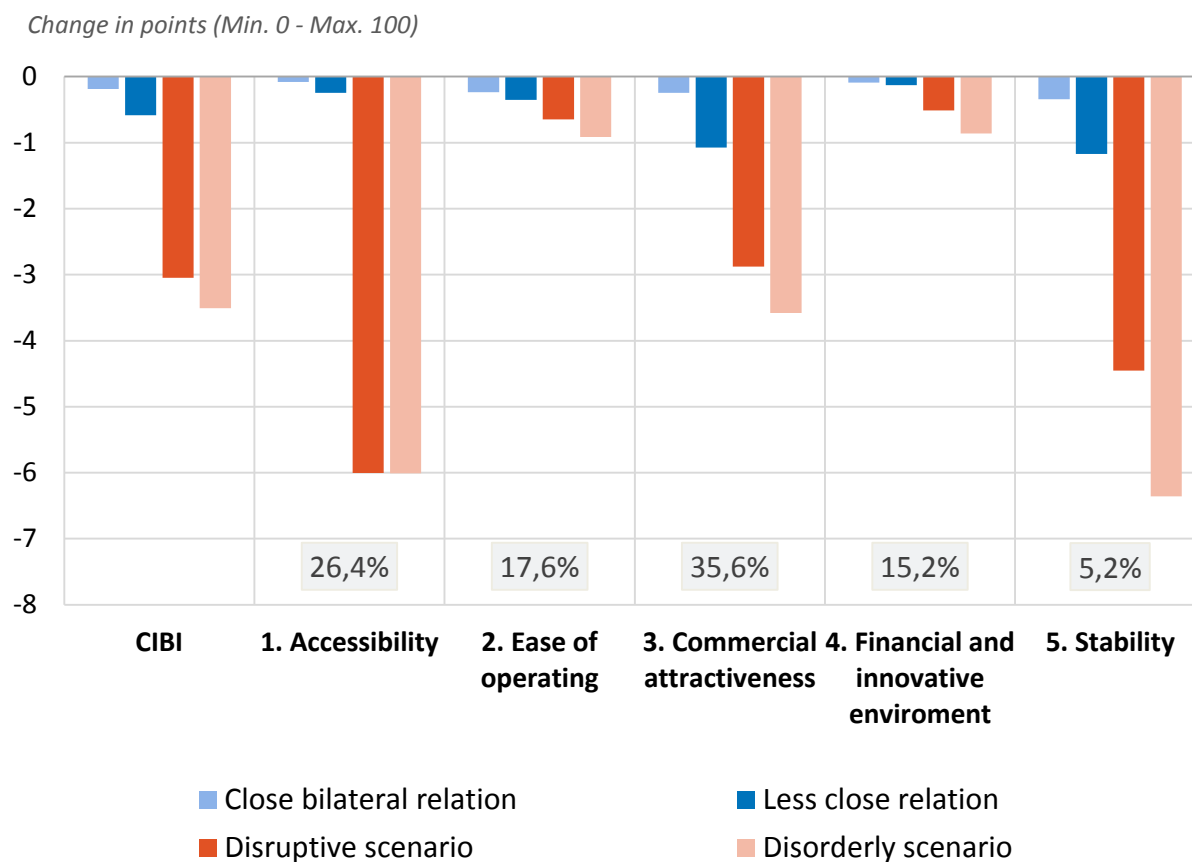
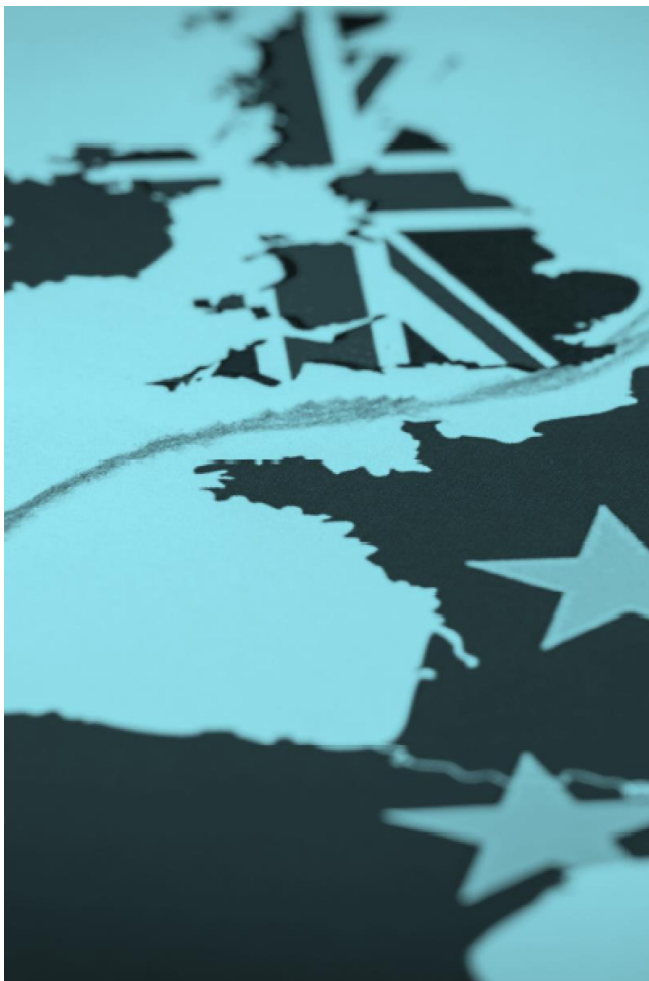
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Notes: Scenarios based on England, B. O. (2018). «EU withdrawal scenarios and monetary and financial stability: A response to the House of Commons Treasury Committee.»

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CIBI: impacts on the different pillars by scenario



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Source: CaixaBank Research.

Thank you



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