

Impact of the Coronavirus Crisis. Weekly Update

Ignacio de la Torre, Ph.D. – Leopoldo Torralba – Joaquín Rivera – Diego Mejía April 3, 2020

Arcano Economic Research has been monitoring the crisis since the outbreak of the virus

Date	Título	Type of report
Jan 31,2020	Coronavirus: Potential Consequences?	Premium
Feb 28, 2020	The Implications of Coronavirus for the Economy	Premium
Mar 9, 2020	How to Analyse Coronavirus: The Epidemic	Premium
Mar 11,2020	How to Analyse Coronavirus: Economic, Political and Market Impact	Premium
Mar 12, 2020	Coronavirus' Impact on Spain	Premium
Mar 16, 2020	Situation Update: Coronavirus	Premium
Mar 17, 2020	Daily Situation Update: Coronavirus (March 17, 2020)	Premium
Mar 18, 2020	Daily Situation Update: Coronavirus (March 18, 2020)	Premium
Mar 19, 2020	Daily Situation Update: Coronavirus (March 19, 2020)	Premium
Mar 20, 2020	Spain: Economic Impact from Coronavirus and Measures We Recommend	Premium
Mar 20, 2020	Impact of the Coronavirus Crisis.Weekly Update	Public
Mar 24, 2020	Impacts of the Coronavirus Crisis: Update (March 24, 2020)	Premium
Mar 24, 2020	Coronavirus: Medical Situation Update (March 24, 2020)	Premium
Mar 26, 2020	Impacts of the Coronavirus Crisis. Update (March 26, 2020)	Premium
March 31, 2020	Impacts of the Coronavirus Crisis. Update (March 31, 2020)	Premium
April 1, 2020	Will the Coronavirus Crisis Compromise Spanish Banking Solvency?	Premium
April 2, 2020	Impacts of the Coronavirus Crisis. Update (April 2, 2020)	Premium
April 2, 2020	Coronavirus: Medical Situation Update (April 2, 2020)	Premium

I. Medical update

2. Economic and political impact

3. Markets

Medical update

Medical update (i)

- Logarithmic growth of new cases is the best way to see if the virus' progression is accelerating or decelerating. Globally, growth rates are lower this week than last
- The number of deaths reflects the number of cases eight days prior, which is why the former is a better indicator
- Countries that have gone into lockdown later (India) or haven't at all (Sweden) are seeing high spreading rates. Those that announced measures earlier (Italy on March 9, Spain March 15) are seeing success in the form of slower spreading
- The number of official cases doesn't reflect the real number of people infected with the virus, which is why fatality rates vary so widely. A rigorous study by The Lancet pegged the rate at 0.66% in China and 0.9% in Spain. If we divide the official fatality rate by the 'real' rate, we can get a multiple for the 'real' (unofficial) number of cases. Of these, a third could be asymptomatic
- •Arcano Economic Research has developed an epidemiological model to project the future of COVID-19 in Spain in number of cases, deaths, recoveries, ICU supply and demand. We believe that this weekend we will see how the worst of the medical situation in Spain is behind us

Medical update (ii)

- •An epidemic is under control when the effective reproductive rate (Re) is less than 1. The number of active cases (net of deaths and recoveries) then begins to drop
- Once the number of new daily cases is less than 100, the situation can be considered under control
- •Governments may opt for total or partial confinement, from three weeks of confinement (Denmark) to nine weeks (Hubei, China) or intermediate (Italy, six-seven weeks). Key to balance the medical risks with the economic fallout
- •Once total confinements have been lifted and shift to partial confinement, it is very important to have an exit strategy (massive testing, tracking the health of the population with apps) and reconstruction policies. We will soon publish a report analysing how to lift confinement measures
- •Studies are underway with thousands of patients to prove with statistical significance that the treatment combination of hydroxichloroquine and zhitromax

Progression of the virus

Growth of new cases and deaths versus last week

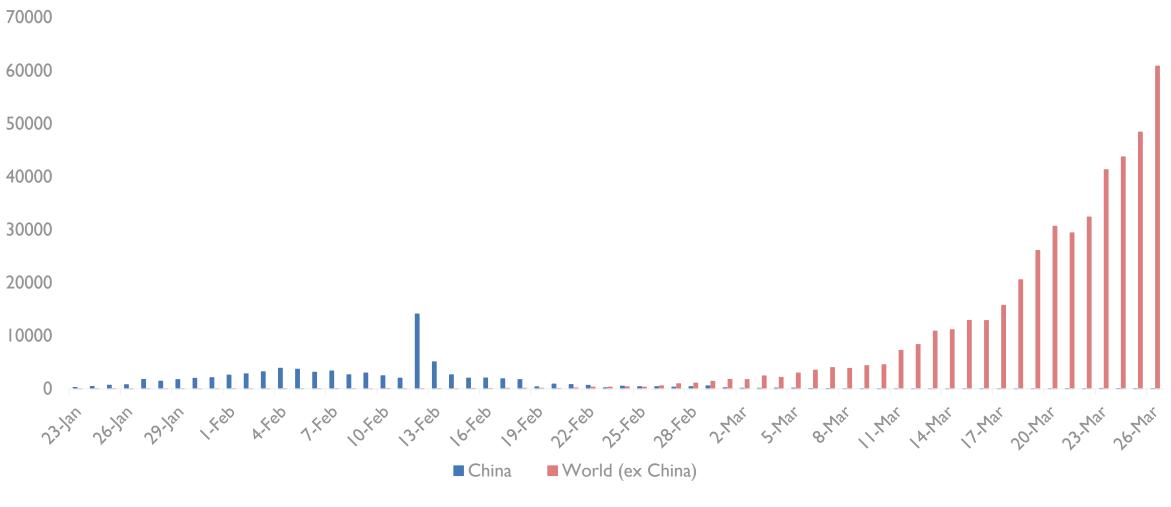
	Apr-2	Last week average		
	Cases	Deaths	Cases	Deaths
Global ex China	9%	14%	15%	17%
US	4%	19%	27%	35%
Italy	4%	6%	9%	12%
Spain	8%	10%	17%	24%
Sweden*	13%	29%	9%	32%

*Without confinement

Source: WorldMeters, Ministerio de Sanidad, Arcano Economic Research

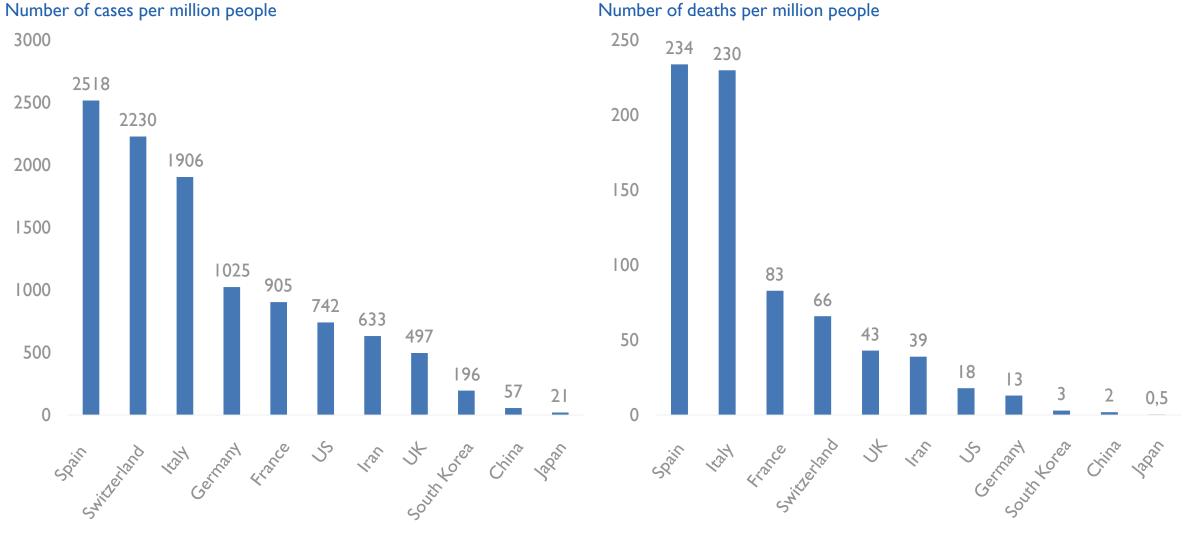
The number of new cases outside China are on the rise, whereas the situation has stabilised in China and presents a brighter outlook

New daily cases, China vs world (ex China)



Source: Worldometers, Arcano Economic Research

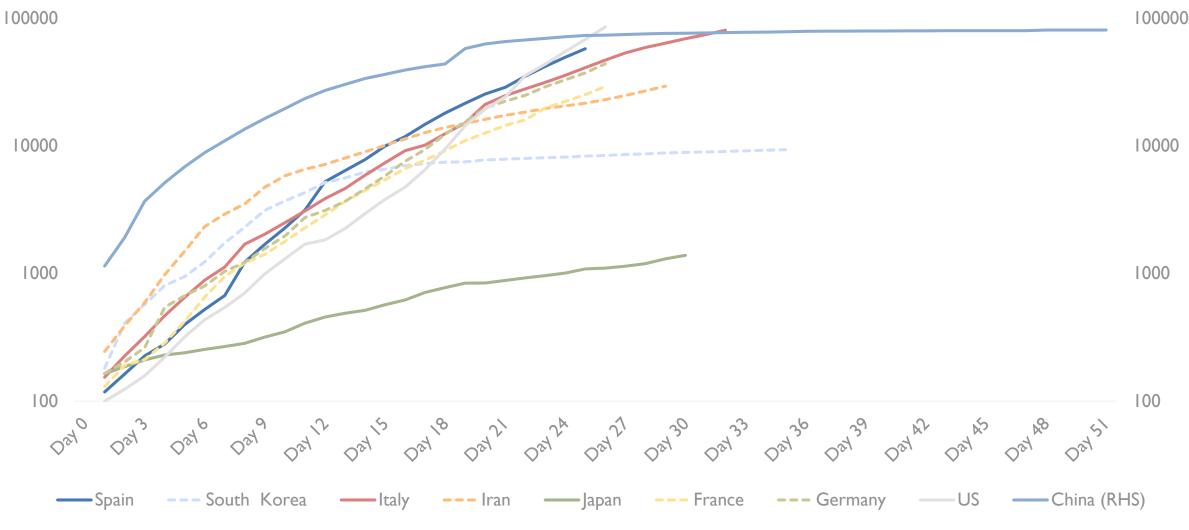
Spain is the most affected country, with figures increasing still



Source: Worldometers, Arcano Economic Research

The slope of the curve of new cases in Spain continues to mirror that of Italy, where it is starting to flatten. The trend in the US is steeper than in Europe

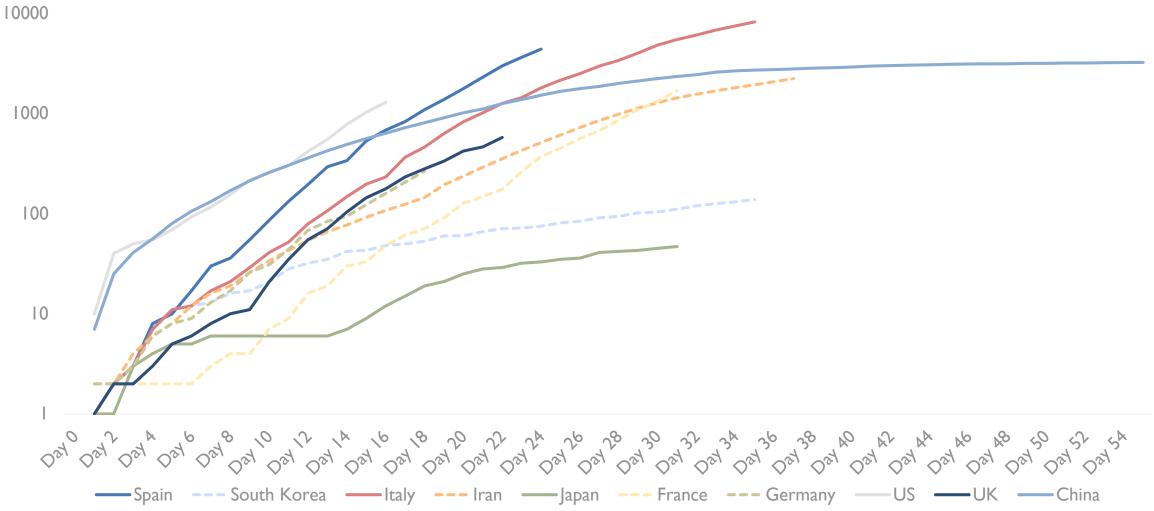




Source: Worldometers, Arcano Economic Research

The trend remains upward in Spain, and it has overcome China in number of deaths seven days earlier than Italy did. The US, 10 days earlier

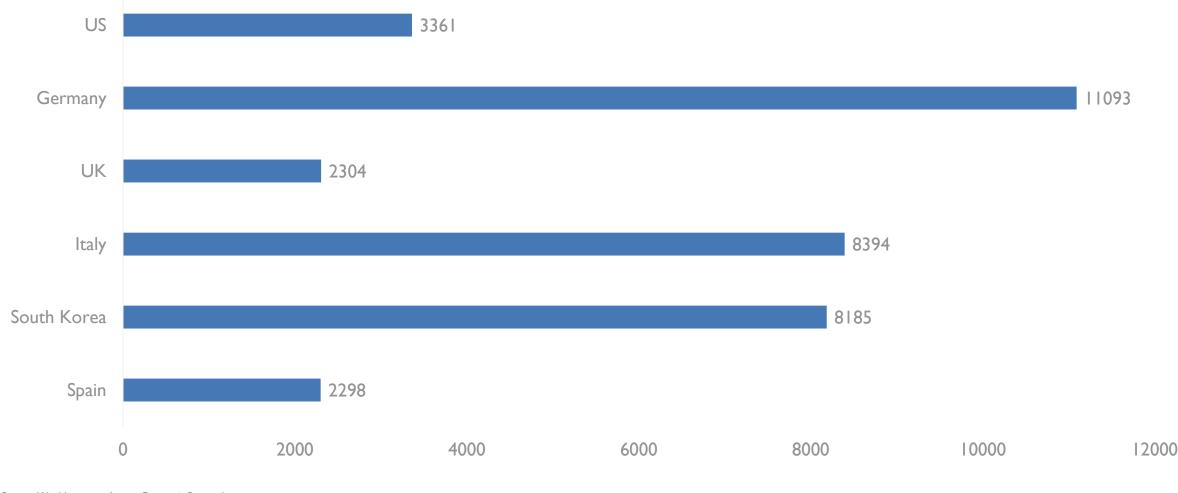
Total deaths (logarithmic scale), several countries



Source: Worldometers, Arcano Economic Research

Spain is still not conducting enough tests

Number of tests performed per million inhabitants



Source: Worldometers, Arcano Economic Research

Economic and Political Impact

- •OCDE countries will see quarterly GDP drops higher than those expected in China (10%) given the higher relative weight of the service sector, which is suffering more than the industrial sector in this crisis
- Even though China is recovering in march, the situation is far from normalised (possibly only one third of lost activity has been regained in March) because of the falling demand from the rest of the world. Public enterprises receive financing, SMEs will have it more difficult
- •OCDE countries will see slower recoveries than in China given the higher weight of the service sector and SMEs on GDP. The intensity of GDP drops will depend on the lifting of confinement measures and fiscal response
- In Spain we are estimating a significant fall in GDP as we defended in our report: <u>'Spain: Economic Impact from</u> <u>Coronavirus and Measures We Recommend'</u>. We have also analysed the impact of the crisis on the solvency of the Spanish banking sector "<u>Will the Coronavirus Crisis Compromise Spanish Banking Solvency?</u>", as well as the measures to implement to avoid a depression in Spain in a report soon to be published

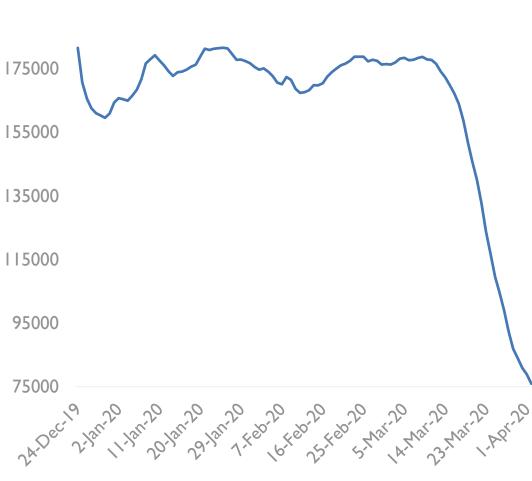
Reaction by the authorities (fiscal)

- •Fed: Opens dollar swaps for US bonds with all central banks... good if you have reserves (China, India), bad if you don't and your debt matures in dollars (Turkey)
- •Yield control policies (massive bond purchases to stabilise yields) are necessary, Japan is already implementing this, as is the US (unofficially, through unlimited QE). Europe will have to eliminate its limit on QE (920 billion)
- •USA: fiscal package worth 13% of GDP. Includes 450 billion dollars for financing investment grade companies and 300 billion for SMEs, with 10 million of SME debt forgivable if it is used to pay fixed costs like salaries. The rest are bullet loans at 0.5%. Private equity firms are excluded (not Venture Capital)
- Euro area: direct stimulus of 2-3% of GDP (insufficient) and indirect (guarantees) of 10-15% o GDP (sufficient). The ESM will not be able to execute fast Eurobonds... it is easier to make direct loans worth 2% of national GDP with conditions

•Fed and ECB relax regulatory standards for banks to extend more credit

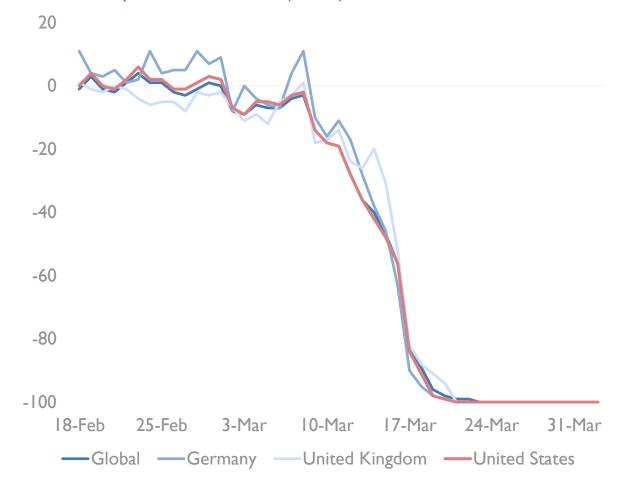
The importance is the speed of action not necessarily its size... Europe is lagging

Globally economic activity has come to a standstill



I. Number of flights tracked per day (7-day moving average)

2. Meals at OpenTable restaurants (YoY, %)



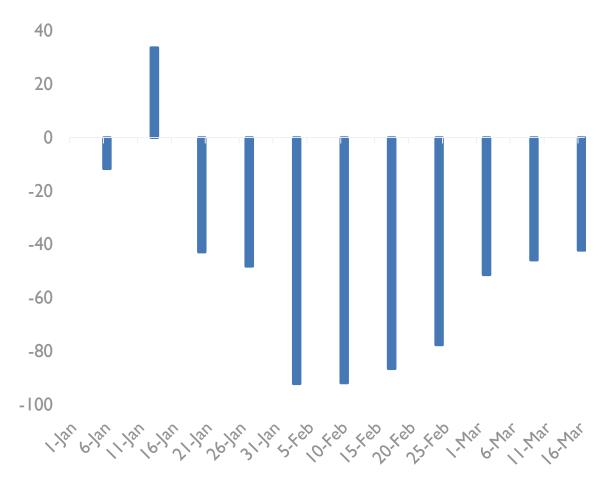
Source: OpenTable, Arcano Economic Reserch

ARCANO Economic Research

Source: FlightRadar24, Arcano Economic Research

China is bouncing back, but remains vulnerable. Its economy has been badly hit

I. Car sales (period average, YoY, %)



2. Citi Economic Surprise Index

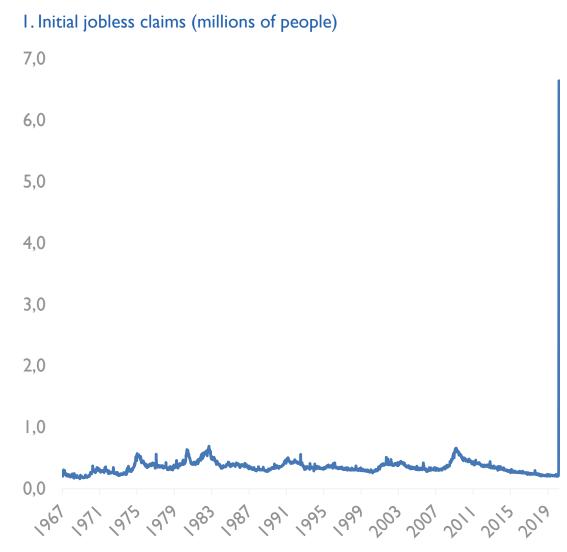


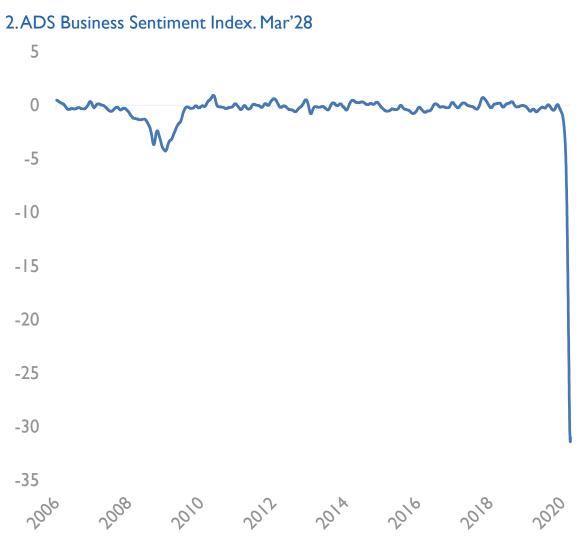
Source: China Passenger Car Association, Arcano Economic Research

ARCANO Economic Research

Source: Macrobond, Arcano Economic Research

Strong deterioration in the US begins to show...





Source: Federal Reserve Bank of Philadelphia, Arcano Economic Research

Source: US. Department of Labor, Arcano Economic Research

... as in Europe



Source: Eurostat, Arcano Economic Research

Market Impact

Markets (i)

Sovereign bonds: certain normalisation in the US and the Euro area. 85 countries seek Help from the IF, which estimates a minimum demand for 2.5 trillion dollars, with only 800 billion to lend...

Money and interbank markets: stabilisation in the US, Euro area and China

Inflation-linked bonds: continue discounting controlled inflation (1-2%) five years out

•Currencies: with the Fed's measures the dollar scarcity disappears. Weakness in emerging market currencies and the pound continue

Credit: normalisation in investment grade, improvement in high-yield, still trading with historically high spreads (but below 2009 levels)

• Equities: slight improvement but volatility still 3x normal levels

Real estate: problems in mortgage markets in the US. China home sales have rebounded. In Spain the situation in 2020 is very different form that of 2008, as we will discussed in a report soon to be published

Markets are not at Great Recession levels, but remained stressed

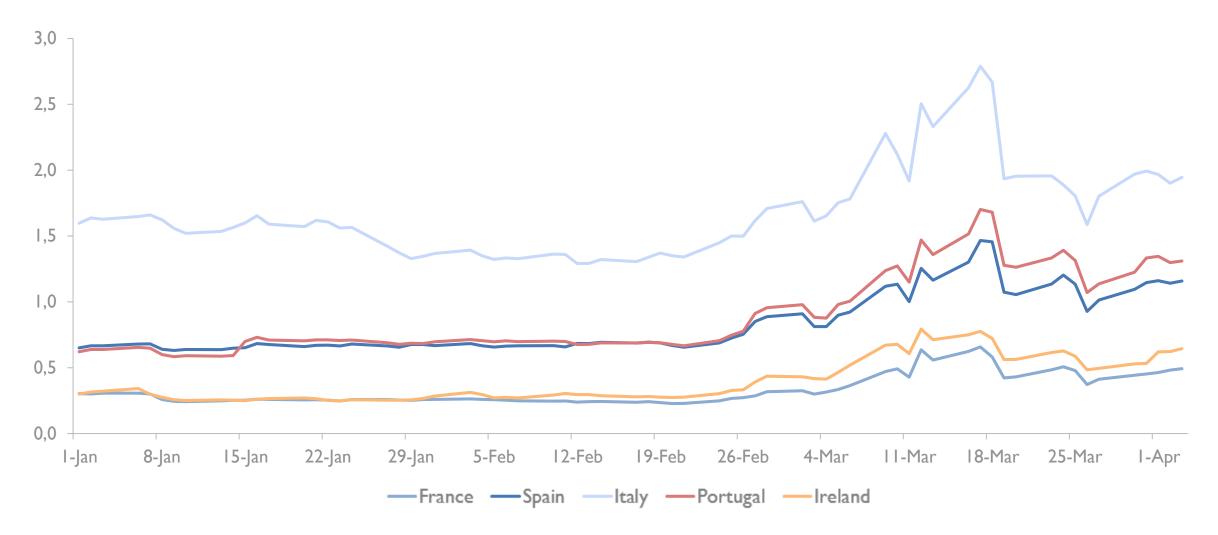
Financial market data (stress indicators)

	2008-2012 Maximum	Minimum	COVID Maximum ~March 15	One month ago	April 2	April 3
Libor - OIS' (pb)	364	6	138	3	137	136
Spain risk Premium (pb)	633	3	147	68	128	4
CDS BBVA (pb)	825	12	444	233	352	353
CDS Santander (pb)	732	12	408	206	299	299
VIX S&P ' (%)	83	11	83	15	51	51
VIX STXX (%)	88		86	16	50	48

'Difference between Libor 3 months (average interest rate at which the most relevant banks lend each other 3-month dollars) and OIS (Overnight Investment Swaps, the rate at which they lend overnight) The higher the spread, the greater the tension

European risk premia remain relatively stable, supported by the ECB

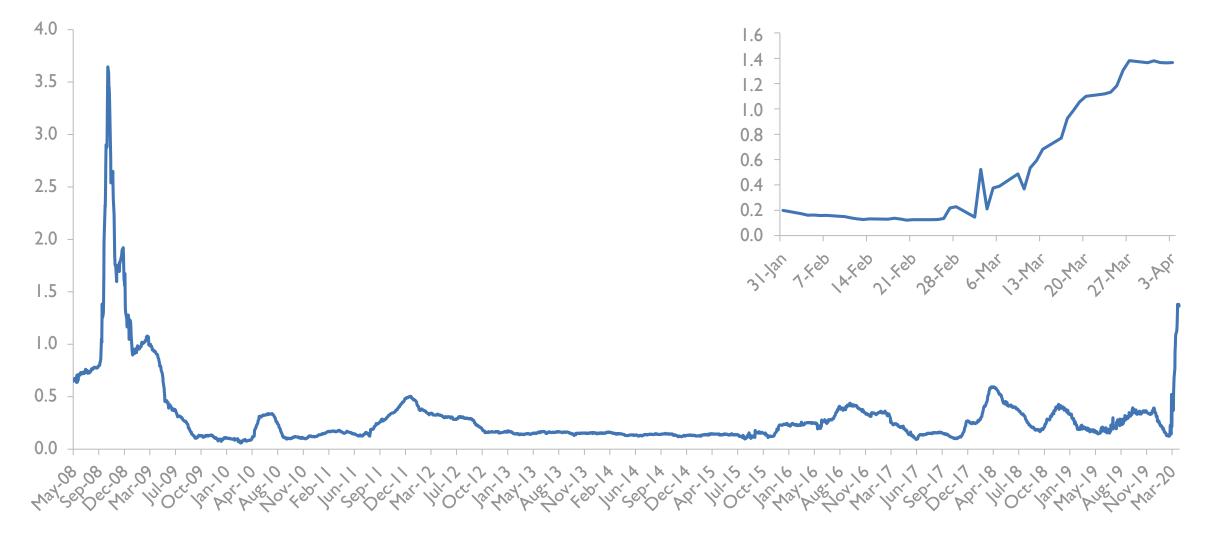
Risk premia, 10-year bond (%)



Source: Bloomberg, Arcano Economic Research

Interbank markets stabilise at levels not seen since the banking crisis, but far from maximum levels

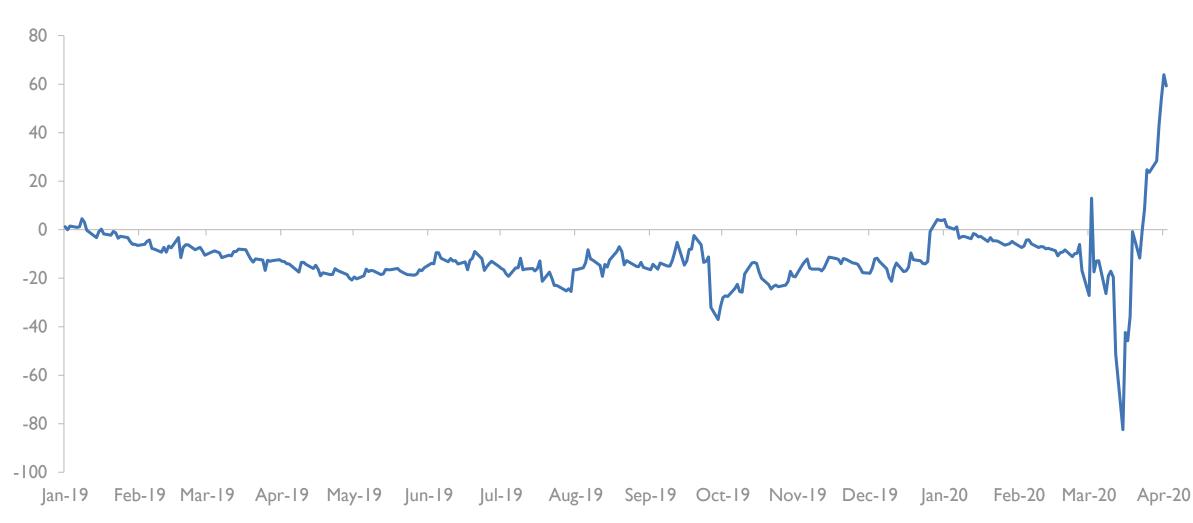
3-month LIBOR and OIS (Overnight Indexed Swap) spread. Data since the crisis (bottom) and from 1-01-2020 (top). 2008 – Mar'20



Source: Bloomberg, Arcano Economic Research

The dollar scarcity has been answered with interventions in the swap markets. Greater stability is expected in the currency markets

Cross Currency Swaps



Source: Bloomberg, Arcano Economic Research

•Logarithmic growth in new daily cases begins to improve in Europe, not the case in emerging markets

•The debate begins on how and when to partially lift confinement measures... the risk of new outbreaks must be weighed against the economic damage (unemployment)

•The economic impact is the most severe since the Great Depression. The situation can only be confronted with aggressive monetary and fiscal policy geared especially towards SMEs. Europe is lagging the US in speed and size.

•Although there has been somewhat of a stabilisation in markets, the situation will continue to be volatile. There is a deep need for cash, and liquidity in secondary markets remains low and the volume generated by algorithmic trading (robots) will continue generating volatility in this environment



Ignacio de la Torre Chief Economist +34 91 353 2140

+34 91 353 2140
@ idelatorre@arcanopartners.com



Leopoldo Torralba Sr. Deputy Economist

+34 91 353 2140
ltorralba@arcanopartners.com



Joaquín Rivera Jr. Economist

+34 91 353 2140
jrivera@arcanopartners.com



Diego Mejía Analyst +34 91 353 2140 @ dmejia@arcanopartners.com



Disclaimer

This document is strictly confidential and the views expressed in it reflect the personal views of the undersigned lead analyst(s) about the subject issuer and the securities of the issuer. In addition, the undersigned lead analyst(s) has not and will not receive any compensation, fees or remuneration whatsoever for providing a specific recommendation or view in this report.

This document has been prepared by Arcano Alternative Markets S.L.U. ("Arcano"). Arcano is a limited liability company incorporated under the laws of Spain by means of a public deed granted before the Notary of Madrid, Mr. Carlos Pérez Baudín on the 26th May 2008, under number 1.769 of his notary records; registered with the Spanish Commercial Registry of Madrid under Volume 25.699, Book 0, Page 1, Section 8, Sheet M-463208. This document is provided for information purposes only and must not be considered as an offer to sell, a guarantee, or a solicitation of an offer to buy, invest or divest from any financial instrument or to participate in any particular trading strategy. In addition, this document shall not serve as basis to enter into or execute any agreement, contract or commitment whatsoever. Accordingly, recipients should take their own independent decisions not based upon the content of this document and where applicable, seek for and obtain independent professional advice. The information contained herein has been compiled from sources believed to be reliable, but while all reasonable care has been taken to ensure that the information contained herein is not untrue or misleading at the time of publication, we make no representation or warranty with regard to its accuracy, completeness, thoroughness, truthfulness or integrity and it should not be relied upon as such.

All opinions and estimates included herein constitute the current judgement of the author as at the date of this report and are subject to change without notice. Arcano has no obligation or commitment to update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.

Arcano' research reports contain a certification stating that they reflect the authors' own opinions. Arcano may from time to time perform services for or solicit business from any company mentioned in this report. Neither Arcano nor any other person accepts any responsibility or liability whatsoever for any direct or consequential loss or damage arising from or in connection with any use of this report or its contents. This report may not be reproduced, distributed, disclosed or published by any recipient for any purpose.



ARCANO



MADRID C/ José Ortega y Gasset, 29, 4th floor 28006 Madrid. Spain Tel: +34 91 353 21 40 Fax: +34 91 353 21 41 arcano_sp@arcanopartners.com



BARCELONA

Plaça Francesc Macià, 2, 1°1ª 08021 Barcelona. Spain Tel: +34 93 506 69 62 Fax: +34 93 218 01 01 arcano_sp@arcanopartners.com



NEW YORK 477 Madison Avenue New York, NY 10022. US Tel: +1 646 599 9600 Fax: +1 646 599 9599 arcano_usa@arcanopartners.com