

CORONNAVIRUS, FEAR OF THE UNKNOWN

2020



INTELLIGENCE REPORT.

Worldwide Social Problems

TWCI

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BACKGROUND INFORMATION

The focus of the infection would be in a seafood and fish market, and it will have happened in December 2019 in Wuhan, province of Hubei in China.

According to data from the National Institute for the Control and Prevention of Viral Diseases, the research carried out by the Experts of the Chinese Centre for Disease Control and Prevention, successfully identified 33 positive cases to the new coronavirus of 585 samples of wild animals sold in a Wuhan market.

There are several theories about the origin of this new virus. However, the most consolidated is the one that says coronavirus would have originated in the natural reservoir of bats that in turn would pass it to the deer and this to the human being.

The new coronavirus was spreading through other Chinese cities, Southeast Asia, North America and to Europe, and although it arrived later in the Persian Gulf, the death rate in Iran is quite high right now comparing with countries outside China.

In Latin America, no one infected with the new coronavirus had been registered until quite recently. Although there are just a few cases, probably due to the lack of airports directly connected to China.

The first case was registered on March 26 in Brazil. It refers to a 61-year-old man who was in Italy and on his return trip stopover in Paris.

The impact repercussion of this virus for China is still in the air. However, we must analyse all the factors and associated risks that may compromise the consolidation of the country and its commercial and diplomatic relations with the world, considering that the Asian country is the second world economic power. In addition to being one of the leading countries in technology, automobile, luxury companies, pharmaceutical companies and airlines markets.

It should also be noted its role as a *world engine* in production and supply.

1. WHAT IS CORONNAVIRUS?

The set of viruses that have different conditions from a common cold to more serious diseases is called coronavirus.

Many citizens from different parts of the world develop this pathology and it is not uncommon for anyone to know who it has, considering that it depends on the seriousness that the patient presents. That is, this virus is much more usual than it seems.

The strain identified in this coronavirus is characterized as a severe respiratory disease -viral pneumonia- associated with a new infectious agent.

The most common symptoms are fever, although cases without the presence of it were identified, and breathing difficulties (in some cases in a very serious state).

The etymology of the acronym for this virus, nCoV19, arises from its novelty, hence, contains the letter "n" corresponding to *new*, "CoV" is the abbreviation of coronnavirus and "19" regards to the year it was discovered.

Before this strain there were two others that originated two coronnavirus. The first, in 2002 called SARS that was distinguished from the current one because of its high mortality rate -10% of infected people-. On the other hand, in 2012 the MERS emerged in Saudi Arabia and nowadays still active and is even more lethal.

1.1. THE INFECTION

The main puzzle of scientists with the new virus is that they don't know how virus spread behaves. That is, it is unknown if the probability of infection is worse through someone with mild or severe symptoms.

The nCov19 can be transmitted to people through animals and spreads through the air over short distances, also through food or by direct contact with an infected.

The researchers believe that each infected person pass on the nCoV19 approximately two other healthy people.

According to data from American, French and Chinese researchers, the number of cases declared by the Chinese government would be 10 times lower than the actual values of the epidemic (information from January 22).

1.1.2. FORMS OF INFECTION

- √ Aerial transmission to short distance;
- √ Recently contaminated objects or substances (flu-like behaviour);
- √ Through droplets that are generated when an infected person coughs or sneezes, by droplets of saliva or secretions from the nose.

1.2. SYMPTOMS

- √ Fever
- √ Dry cough
- √ Sore throat
- √ Distress
- √ Fatigue
- √ Dyspnoea (difficulty breathing)
- √ Catarrh

One of the atypical symptoms, compared with previous coronnavirus is that not all infected have fever. Furthermore, tomography tests identified infection symptoms in only half of those infected.

1.3. INCUBATION PERIOD

Up to 24 days -not 14 as previously stated-.

In one of the studies being carried out in 1099 patients this period is reduced to 3 days.

2. RESEARCH

The **American pharmaceutical company Gilead** is the one that for now would have the investigation of nCov-19 in a more developed phase and had the necessary prior authorization to carry out clinical trials with the antiviral drug “remdesivir” -antiviral in phase of clinical trials for the Ebola treatment and recently was also published a new favourable work for the treatment of MERS coronnavirus-.

Other companies that are in the queue to be the discoverers of the effective treatment of this strain is **Regeneron Pharmaceuticals**, although it is still in phase 1, carrying out tests with a monoclonal antibody antagonistic to the virus. Or also the start-up **Vir Biotechnology** that its shares value constantly improves.

The **pharmaceutical Janssen** tries to find a vaccine against nCov19, drawing upon of its advanced R&D resources (AdVac and PER.C6). Likewise, based on their experience and success in other diseases such as Ebola or HIV, they investigate from the histological and structural perspective to find similarities with other viruses, paying attention to medications that already exist; the same action is being carried out by the European Medicines Agency (EMA).

Vergara-Alert affirms that the new coronnavirus is closely related to SARS-CoV (1770) and less with MERS-CoV that infected approximately 2,500 people of which 850 died, reaching a mortality of 35%.

The Catalan researcher says that genets and hens could be reservoirs of this new virus, although there may be other responsible animals.

The National Health Commission declared that the average time from when a patient shows symptoms until the disease is diagnosed is 4.95 days.

COVID-19 is so resistant that it can kill young people, and apparently healthy, and it is unknown what side and adverse effects, both in the short, medium and long term will have for those who overcome it.

The World Health Organization did not consider that nCoV19 had extremely high infection values until February 27 that the level of risk was increased due to the last infections.

China shared a research document based on 44,000 infected individuals that will allow experts to analyse the profiles of each patient in a more objectively and real way.

94% of those infected are in Wuhan.

It is considered **superpropagator** when an infected person passes on the virus to more than one recipient their disease.

Until now, there is no accuracy in the maximum established number that a virus carrier can infect to healthy people. So much can infect one, as well as three or none.

The use of antibiotics for the treatment of nCoV19 is ruled out, according to the information available as of February 24.

The profile of the infected human is undefined. Although the observable and analysed data demonstrate a greater incidence in the elderly and suffering from diseases such as heart disease, diabetes or asthma.

Regarding pets, according to WHO data, there is no scientific evidence so far, indicating that they can be infected with this coronavirus strain.

The virus can spread with a maximum distance of approximately one meter away.

The nCoV-19 cannot be spread through mosquito bites.

The risk of becoming infected with the new coronavirus (2019-nCoV) by contact with objects, such as coins, bills or credit cards, is very low, albeit there are still no real probabilities about it.

A 38-year-old farmer who lives in the municipality of Codogno, province of Lodi in Lombardy, is the "zero patient" who will have spread the virus in Italy. However, it is still unknown how he got it.

Brazilian and British researchers seem to have discovered the complete genome sequence of the coronavirus, through the first infected in Brazil. However, it corresponds to the SARS strain, specifically the severe acute respiratory syndrome of type 2 (SARS-CoV-2).

In the opinion of Professor Van Ranst, a Belgian scientist, a medicine discovered in 1934 and very cheap. The chloroquine is effective against SARS coronavirus, and at the time when they discovered this there were no more cases to continue testing it. But everything was protocolized if will be necessary to use it in the future. So much so that the Chinese authorities went to look for such information when the nCoV19 broke out and it seems that they would be using it. Finally, Dr. Van Ranst is surprised by the lack of prudence of WHO, having not yet declared a pandemic state.

According to the latest research conducted by Chinese scientists, there are two distinct strains of nCoV19. One more aggressive that is present in 70% of cases and the other behaves less harmful and affects the other 30% of the infected population.

LAST MINUTE: a positive case of nCoV19 in a 4-year-old girl was identified in Madrid. Although it presents quite mild symptoms such as mainly catarrh. (March 4)

In Europe, 6 children have been identified per one thousand infected.

In Spain, the few cases of children were infected in their family environment and reveal very few symptoms such as cough or low fever. In addition, it should be noted that there are no cases of children in serious condition or deaths caused by nCoV19.

MORTALITY RATE (ESTIMATED): 2.3% until a few days ago and is currently between 2-4% in Wuhan and 0.7 out of the city, according to WHO data.

Case report: 50-year-old man who died in January in China (Fifth Medical Centre of the PLA General Hospital in Beijing) by nCoV19; scientists found that the nCoV19 caused lung damage like outbreaks of SARS and MERS coronavirus.

The virus manifested out-of-control in just two weeks, leaving the victim more and more breathless.

Blood tests showed an overactivation of a type of cell that fights the infection that represented part of the severe immune injury he had.

3. QUARANTINES

√ **Spain:** dozens of Chinese citizens residing in Spain make voluntary quarantine after returning from the Chinese New Year in China.

Approximately 200 Chinese students enrolled in Spanish universities remain in their homes and residences in voluntary quarantine as a “preventive measure”, after returning recently from China.

The H10 Costa Adeje Palace hotel in Tenerife has subjected its 1000 clients to sanitary controls, due to the two positive cases of Italian tourists who were staying at the hotel. And later, on February 25, two other infected were confirmed.

An Italian woman tested positive in Barcelona and apparently her symptoms are mild, although as a precaution her entire environment will be quarantined for 14 days.

LAST MINUTE: large companies such as the banking sector, have started to activate preventive protocols in case they have to enter quarantine. One of these measures is being in contact with their employers to certify their internet connections work right so that they can work from home.

√ **Italy:** 13 days ago, that in Lombardy (where there are more infected people), Veneto and Emilia Romagna had activated the quarantine protocol in colleges and universities. However, the country decides to close all schools/colleges and universities in all the country until mid-March (announced on March 4).

√ **China:** quarantine extended to 200,000 rural communities (only residents can enter the villages and there is only one person per family authorized to go out and buy the products necessary for their livelihood);

- ✓ **Russia:** 548 Chinese citizens quarantined in medical centres in the far eastern regions of Russia;
- ✓ **South Korea, and more recently Iran and Italy** are applying contingency measures to prevent the spread of the virus, applying isolates procedures in many suspected cases or in cases that were in contact with infected people.

3.1. BUILDINGS IN QUARANTINE

DISTRICT	NAME OF THE BUILDING	DATE OF END OF THE HOME QUARANTINE
Tsuen Wan	Tin Po Building, 74 Hau Tei Square	25/02/2020
Southern	Block E, Minor Staff Quarters, The University of Hong Kong, 13-21 Pokfield Road	26/02/2020
Sham Shui Po	Chiu Nan Building, 212 Tai Nan Street	26/02/2020
Kowloon City	Sheung Ching House, Kai Ching Estate	26/02/2020
Islands	Block 5, Seaview Crescent	26/02/2020

List of buildings with confirmed cases visited from 2 days before onset of symptoms or non-residential buildings with 2 or more confirmed cases visited during incubation period or after onset of symptoms.

Note: the buildings will remain on the list for 14 days since the last date of residence of the cases.

Quarantines are registered in the following areas/districts:

Central and Western	7 cases
Eastern	28 cases
Southern	2 cases
Tuen Mun	4 cases
Wan Chai	12 cases
Yuen Long	2 cases
Kwun Tong	9 cases
Sai Kung	3 cases
Sham Shui Po	2 cases
Yau Tsim Mong	1 case
Islands	1 case

Source: Ministry of Health of Hong Kong.

Updated on 3rd March 202

4. LIST OF FLIGHTS / TRAINS / SHIPS / VEHICLES WITH CONFIRMED CASES OF COVID-19

Flight/Train/Ship	Departure & Arrival	Date of travel	Suspicious/confirmed cases
Diamond Princess	Yokohama, Japan → Hong Kong → Yokohama, Japan	Since 20/01/2020	Case 14, 71, 78, 79, 80, 81 and an outbreak reported by the Japanese health authority ** 4 deaths (02/02/20)
MS Westerdam	Hong Kong → Cambodia	01/02/2020- 13/02/2020	Non-local case
Taxi JW9897	N/A	25/01/2020- 16/02/2020	Case 68
Taxi	Yun Mei House, Yau Mei Court→Kwun Tong Community Health Centre	19/02/2020	Case 69
Taxi	1. Choi Tin House, Hing Tin Estate→ Kwong Tin Shopping Centre 2. Kwong Tin Shopping Centre→Choi Tin House, Hing Tin Estate	18 & 20/02/2020	Case 72
Taxi	1. Block 3, Grand Yoho→Pok Oi Hospital 2. Pok Oi Hospital→ Block 3, Grand Yoho	21/02/2020	Case 75
Taxi	Fly Dragon Terrace, 26-32 Tin Hau Temple Road→Pamela Youde Nethersole Eastern Hospital	22/02/2020	Case 70
Taxi	Maylun Apartments, 1- 25 Shu Kuk Street→Pamela Youde Nethersole Eastern Hospital	22/02/2020	Case 74
Flight CX250	London→Hong Kong	28/02/2020	Case notified by Guangdong Provincial Health Commission
Ferry 3A109	SkyPier→Shekou	28/02/2020	Case notified by Guangdong Provincial Health Commission

Updated on 03rd March 2020

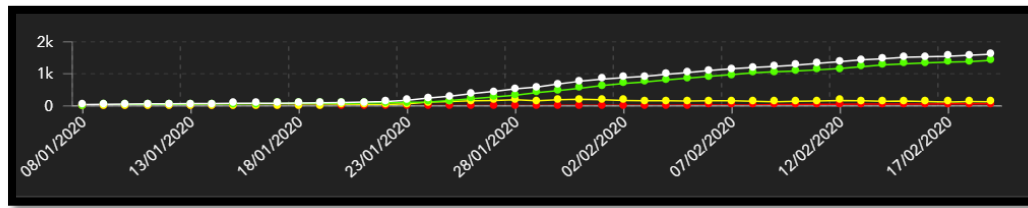
Sources: WHO, Guangdong Provincial Health Commission, Taiwan Disease Control Centres and other international health agencies.

5. KNOWN DEATH PEOPLE

- ⇒ Doctor Li Wenliang was 34 years old and was a specialist in Ophthalmology who tried to alert his colleagues and the authorities about a new disease. However, he was repressed by the government for allegedly "spreading rumours"; it seems that his results of nCoV19 were negative in several times and suddenly "apparently" died infected by this.
- ⇒ Movie director Chang Kai, 55, who passed away on February 14 in Wuhan. His sister and his parents also died infected by the virus in the previous days.
- ⇒ Doctor Liu Zhiming, director of Wuchang Hospital in the Chinese city of Wuhan passed away on February 18 with 50 years.

6. DATA ANALYSIS

FIRST CASES OF nCoV19 IN HONG KONG



Confirmed cases

Discarded cases

Hospitalized cases for investigation

Cases that meet the established criteria of the report

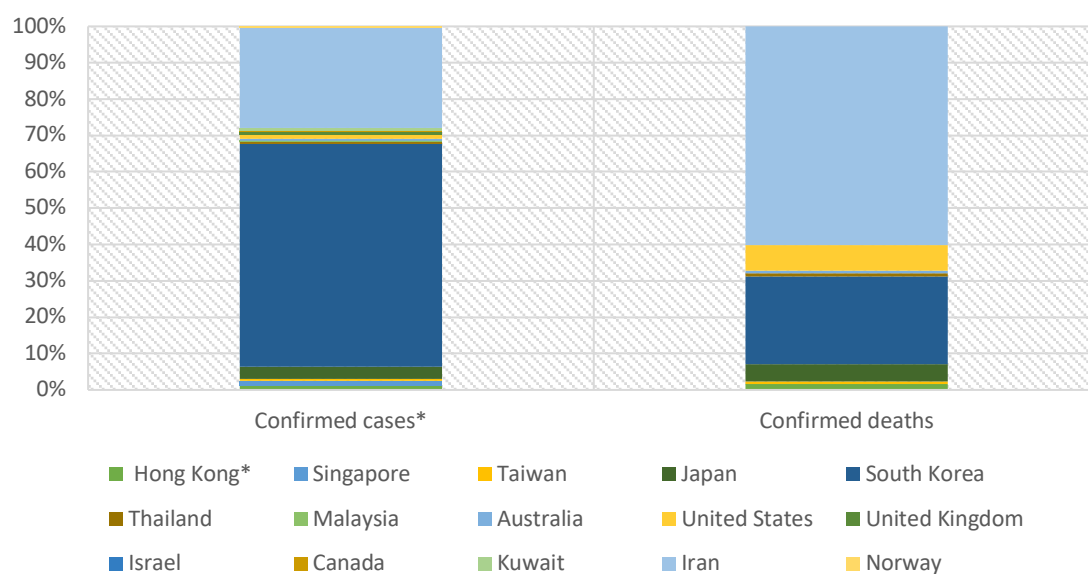
Notes: does not represent asymptomatic cases (14 in Japan and 2 in Germany).

IN CHINA

CHRONOLOGY	DEATHS	TOTAL/NEW CASES	LOCATION
	/NEW CASES (ascending)	(ascending)	
03/03/20 (last update) ¹	2948/5	80303/152	Mainland China
03/03/20	2943/228	80151/2087	Mainland China 30004 still in treatment 6806 in serious condition
26/02/20	2715/123	78064/914	Mainland China
24/02/20	2592/150	77150 /214	915 in serious condition in Mainland China
22/02/20	2442/206	76936/1471	915 in serious condition in Mainland China
20/20/20	2236/465	75465/3965	11633 in serious condition in Mainland China
		655 in other countries	
17/02/20	1771/404	71500	70553 in Mainland China
13/02/20	1367/351 (aprox.)	-----	242 in Hubei
11/02/20	More then 1016/908	42638	31 Chinese provinces
10/02/20	108/---	-----	103 in Wuhan 1 in Peking 1 in Tianjin 1 in Heilongjiang 1 in Anhui 1 in Henan

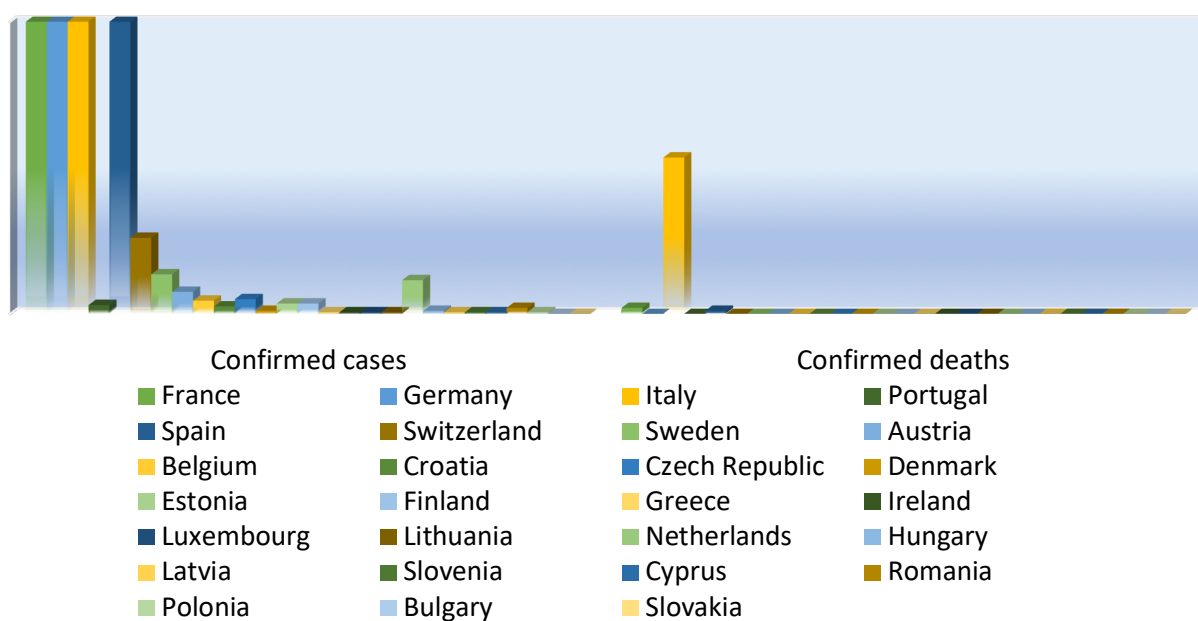
¹ Data from the Infographic Department. Source: El País.

INCIDENCE OF CORONNAVIRUS IN THE REST OF THE WORLD



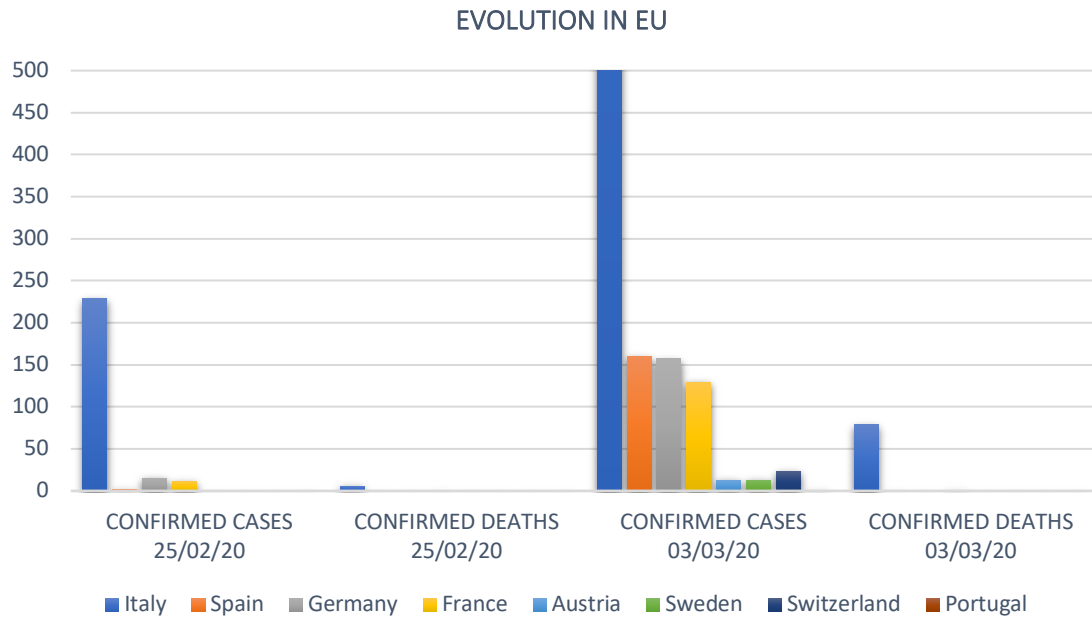
*Chinese independent territory since 1997 and previously was from the United Kingdom.

PRESENCE OF COV-19 IN EUROPEAN UNION



REST OF HE WORLD	Hong Kong*	Singapore	Taiwan	Japan	South Korea	Thailand	Malaysia	Australia	United States	United Kingdom	Israel	Canada	Kuwait	Iran	Norway
Confirmed cases*	101	110	42	289	5186	43	36	40	106	51	10	24	56	2336	32
Confirmed deaths	2	0	1	6	31	1	0	1	9	0	0	0	0	77	0

Data updated on March 5 at 5 o'clock (sources: different online newspapers)



Source: Civil Protection of Spain, Ministry of Health of Hong Kong.

While the number of cases have decreased in China based on the values they have been declaring, in South Korea the cases continue to increase, 5186 infected and 31 deaths, and also in Iran that registered on March 03, 2336 infected and 77 deaths.

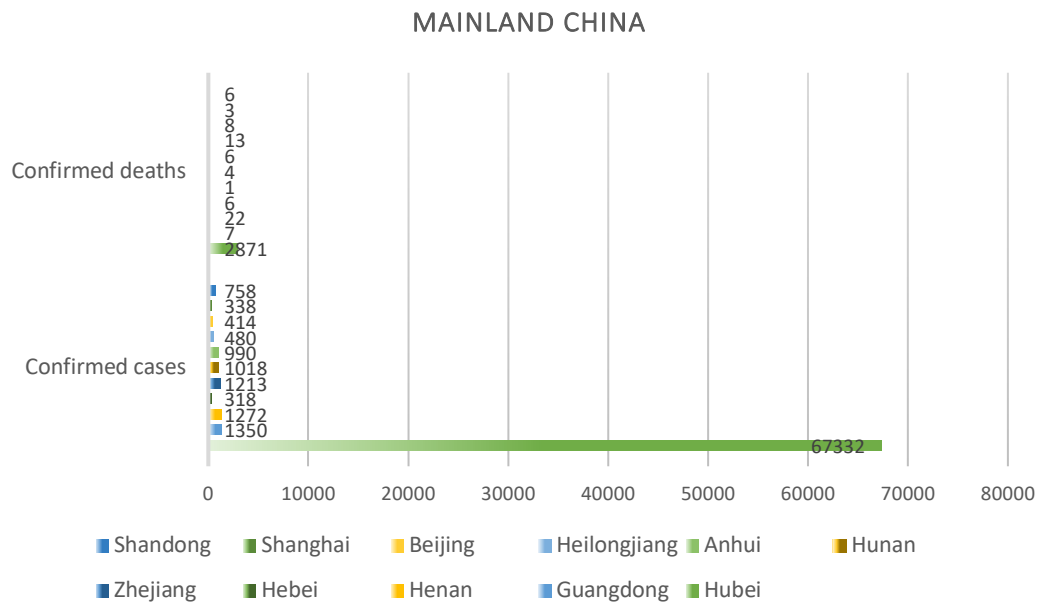
The current concern is in Italy, where the cases detected already amount to 2500 and 79 certificated deaths, which leaves us a little bewildered considering that WHO considers Italy as the 2nd most efficient country in the world in Health.

Lombardy (Italy), records 55 of the 79 killed by ncOV19.

It seems that the preventive measures are not working concerning decision making by high positions management of the Ministry of Health so that the new coronavirus is spreading with so much incidence in a population of a first world country.

In Spain the number of cases also continues to increase, although less pronounced. However, taking into account that Spain is considered the 7 country in the world with the health system more efficient, according to data from WHO published in September last year, it is hoped that the number of fatal cases may be lower than in most countries.

On March 3 it is made public by the Valencian Community that on February 18, a 69-year-old man who had recently been in Nepal died with coronavirus in Valencia.



Sources: WHO, Guangdong Provincial Health Commission, Taiwan Disease Control Centres and other international health agencies. Data updated on March 4 at 2am.

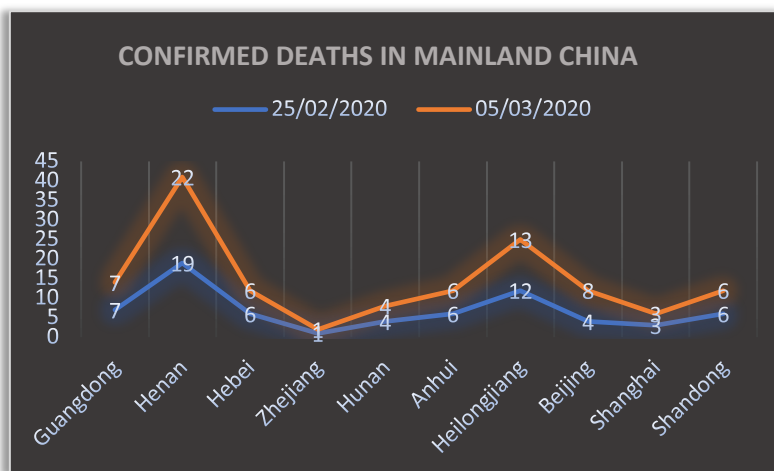
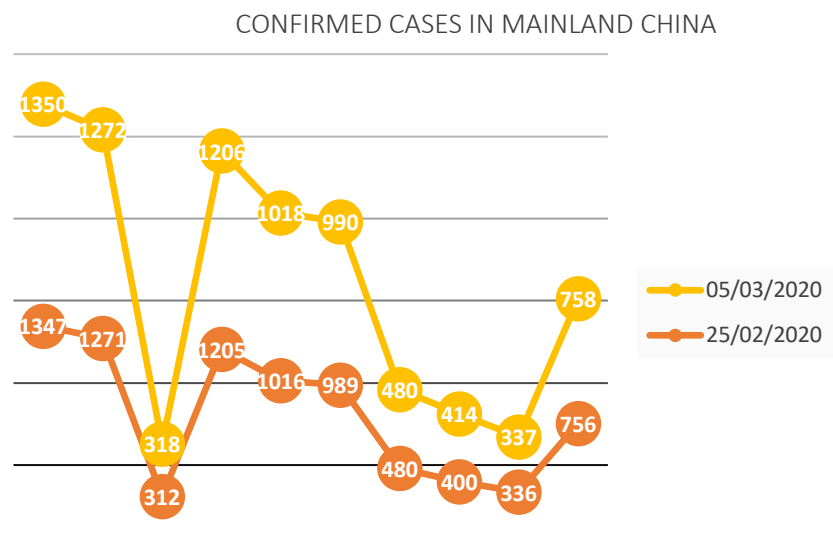
The cities where more positive cases of nCoV19 were registered in China are Hubei (its capital is Wuhan, epicentre of infection), Guangdong, Henan, Zhejiang and Hunan, contrary to Shanghai and Hebei,

In Hubei is where there are more deaths with difference, 2871 on March 4. In Zhejiang is where less, with one death declared.

25/02/2020	Guangdong	Henan	Hebei	Zhejiang	Hunan	Anhui	Heilongjiang	Beijing	Shanghai	Shandong
Confirmed cases	1347	1271	312	1205	1016	989	480	400	336	756
Confirmed deaths	7	19	6	1	4	6	12	4	3	6

03/03/2020	Guangdong	Henan	Hebei	Zhejiang	Hunan	Anhui	Heilongjiang	Beijing	Shanghai	Shandong
Confirmed cases	1350	1272	318	1206	1018	990	480	414	337	758
Confirmed deaths	7	22	6	1	4	6	13	8	3	6

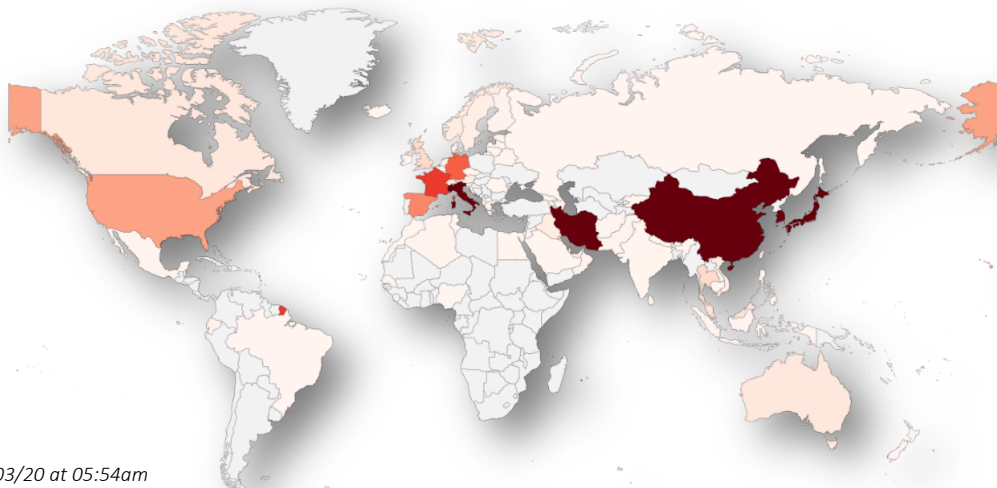
For about a week, we can observe very little variation in the increase in new cases and deaths. In addition, in many cities the values remain almost equal on February 25 and March 3. Like, for example, Heilongjiang or Shanghai.



Regarding the number of deaths, we observe that in Guangdong, Hebei, Zhejiang, Hunan, Anhui, Heilongjiang, Shanghai and Shandong the values remain the same, which demonstrates greater control of the situation in terms of treatment

**** These data are not considering the values of Hubei, due to the disproportionality of values that exist between this city and the others.**

MAP OF CONFIRMED AND DEATHED CASES BY nCoV-19



Updated 03/03/20 at 05:54am

Sources: AGENCIES, ECDC / WHO, NHC PRC / CHP HK, JHU CSSE.

7. TREATMENT vs CURE?

Although treatment with corticosteroids is not often recommended for pneumonia related to nCoV19, the pathological findings of doctors about pulmonary oedema and injury suggest that it may be useful for severe patients, avoiding an irreversible breathing crisis.

In Shanghai, a research group has begun using plasma therapy at COVID-19 successfully.

For now, there is no cure for this new strain of coronavirus, but it is being investigated through artificial intelligence how to inhibit it and possible vaccines are being studied.

Chinese experts have reported based on clinical trials that chloroquine phosphate has a certain curative effect on nCoV19, contemplating the possibility that it is currently being applied in admitted patients.

An advantage is that to date there were no adverse effects in the sample of patients who are part of the clinical trial.

Until now, no specific medication is recommended to prevent or treat infection caused by the new coronavirus. However, in recent days at the Virgen del Rocío Hospital in Seville, a drug used for HIV prevention was used successfully, which was previously utilised in Wuhan. But objective results are still lacking.

7.1. PROFILES OF RISK

- Old people
- Chronic patients: diabetes and high blood pressure (increased probability of infection)
- Male gender (gender may also influence, although they are first-time studies)
- Sanitary (approximately 3,000 infected workers and many have died)
- Population of cities with high air traffic
- In Hong Kong, it is considered that, as happened with SARS, leaks in drains of a building cause new cases of propagation of nCoV19

8. GENERAL PREVENTION

- o Use of masks (for risk patients)
- o Use of tissues to cover nose and mouth when coughing or sneezing
- o Avoid contact with animals or wear protection
- o Wash your hands frequently
- o See a doctor if symptoms are identified
- o Cook all animals well (recommendation of the Chinese government)

8.1. RECOMMENDATIONS

- Frequent hand washing (at least 20 seconds): before eating, after using the bathroom, and blowing your nose, coughing or sneezing; use soap and water or disinfectant with a minimum of 60% alcohol;
- Do not touch the eyes, nose or mouth with your hands;
- Clean and disinfect objects and surfaces that are often touched with a household cleaning product;
- Avoid contact with animals (alive or dead);
- Cook the meat well;
- Avoid the consumption of raw or undercooked animal products;
- Use disposable tissues;
- Ultraviolet lamps should not be used to sterilize hands and other parts of the body, because they can cause erythema;
- Do not apply alcohol or chlorine in the body, because that will not kill viruses that are already inside the body;
- Avoid close contact with people who have acute respiratory infections;
- Do not eat hunting meat (recommendations of the Hong Kong Department of Health);
- Avoid visiting wet markets, live agriculture or farms (recommendations of the Hong Kong Department of Health);
- Avoid shaking hands (recommendations of the Hong Kong Department of Health);
- Avoid crowded places (recommendations of the Hong Kong Department of Health).

8.2. WHEN TO USE MASK (full information from the WHO website)

- ✓ *If you are healthy, you only need to wear a mask if you see someone who is suspected of being infected by 2019-nCoV.*
- ✓ *Also wear a mask if you have a cough or sneeze.*
- ✓ *The masks are only effective if they are combined with frequent hand washing with a hydroalcoholic solution or with soap and water.*
- ✓ *If you need to wear a mask, learn to use it and dispose of it correctly.*

8.2.1. HOW TO PUT ON, WEAR, TAKE OFF AND DISCARD A MASK

- ✓ *Before putting on a mask, wash your hands with an alcohol-based disinfectant or soap and water.*
- ✓ *Cover your mouth and nose with the mask and make sure there are no spaces between your face and the mask.*
- ✓ *Avoid touching the mask while wearing it. If you do it, wash your hands with an alcohol-based disinfectant or with soap and water.*
- ✓ *Change your mask as soon as it is wet and do not reuse single-use masks.*
- ✓ *To remove the mask: remove it from behind (do not touch the front of the mask); discard immediately in a closed container; and wash your hands with an alcohol-based disinfectant or with soap and water.*

8.3. GENERAL MEASURES TAKEN BY CHINA

- √ Own hospitals and clinics created and adapted to treat only patients with these symptoms; the largest hospital was built in 10 days;
- √ Closure of markets suspected of being related to the virus;
- √ Stoppage of public transport services;
- √ Request to citizens to try stay at home if it is not absolutely necessary to leave (outside the Wuhan area);
- √ On February 17, 1200 military doctors arrived for the new hospital with the goal of treating approximately 700 infected people;
- √ More than 34,000 civil and military medical professionals were sent to the affected area;
- √ On February 17, the Chinese government decreed as a preventive measure, new restrictions on movement to about 24 million more people in the province of Hubei;
- √ Shanghai authorities have ordered on February 17 to drivers and passengers of buses and taxis to wear facial masks to help control the spread of nCoV19; passengers who do not wear masks are prohibited from taking buses and taxis;
- √ In order to reduce contact from person to person and avoid possible infection, passengers are encouraged to use electronic payment platforms;
- √ Local taxis cannot offer trips outside the city -government ordered transport companies not to send to drivers any service in the affected regions-;
- √ Postponed the meeting of the Standing Committee of the National People's Congress in the Chinese Parliament, which would be at the end of February;
- √ Of the latest measures of the Chinese government as a prevention of infection, was to shave the hair of the health personnel who are in contact with the infected people.

8.4. SECURITY MEASURES OF THE CHINESE GOVERNMENT

Chinese police have arrested the influential Chinese dissent Xu Zhiyong during a coronavirus prevention check in homes of friends and supporters of the activist in Canton (*source: local newspaper 'South China Morning Post'*).

The 47-year-old activist had been hiding since last December, when dissidents Ding Jiaxi, Dai Zhenya, Zhang Zhongshun and Li Yingjun were arrested after a meeting in Fujian on "democratic transition in China."

8.5. AUSTERITY MEASURES

The Chinese government moved quickly to counteract the economic consequences of coronavirus.

The People's Bank of China cut a key interest rate and injected large amounts of cash into the markets to help relieve pressure from banks and borrowers.

The Chinese authorities will also make effective tax exemptions and subsidies to help consumers. However, China is also more vulnerable to a crisis than 17 years ago when SARS broke out, due to the debt incurred and commercial tensions as with the United States.

Central banks in neighbouring countries, including Sri Lanka, Malaysia, Thailand and Philippines have lowered interest rates in recent weeks.

Debt levels have skyrocketed in the United States, Japan and European countries of power, limiting fiscal capacity.

The coronavirus epidemic could damage global economic growth this year, according to the expert opinion of the IMF chief.

In its January update of the World Economy Perspectives, the IMF reduced the global economic growth forecast in 2020 by a percentage point from 0.1 to 3.3 percent.

9. CHINESE ECONOMY

China has a unique ability to react quickly and efficiently to critical situations.

In 2003 since the outbreak of the SARS coronavirus that the giant began producing the iPhone brand and boosted the demand for oil and copper; its GDP in that year was 4% of the world value. Currently, the country represents 16% of world production.

Economists assured a little over a week ago that the current level of disruption of services and industry is manageable. Although with the increase of infected in recent days this idea should no longer be valid.

If the number of new cases of coronavirus begins to decrease and factories in China resume activity, the negative effects will be smoother and would be reflected only in global growth. Otherwise the damages can be perpetuated over time.

Mohamed El-Erian, Allianz's main economic advisor (ALIZF), warns of possible economic effects in cascade.

Hong Kong, which has been protesting for months, now faces a significant lack of basic supplies for the home and kitchen.

The People's Bank of China (BPC), the central bank, decided to lower interest rates to help the economy.

According to data from the Ministry of Commerce, about 9% of the imports made by Spain arrive from China (equivalent to 27,000 million until November 2019) and 2% of exports, around 6300 million euros, are destined China.

9.1. EPIDEMIC vs PANDEMY

Economists have difficulty calculating the potential costs of epidemics due to their unique characteristics. Nevertheless, diseases can be much more harmful than natural disasters such as hurricanes or other unpredictable events known as "black swans."

According to a study by the World Bank, a severe pandemic could cause economic losses equivalent to almost 5% of world GDP, being able to exceed \$ 3 billion.

Losses caused by a weaker flu pandemic, such as the 2009 H1N1 virus, the world GDP can fall by 0.5%.

A pandemic is defined by experts as an epidemic disease that spreads out into many countries or that attacks almost all citizens of a locality, region or geographical area.

For now, Wuhan's coronavirus, nCoV19, has not been declared a pandemic by the World Health Organization, although their latest statements speak of a "very high" state of alertness.

Preventive awareness must prevail to avoid losses in organizations, and companies must have stipulated reaction policies, custom protocols for each department and specific charges so that risks and the devastating impact of the new virus can be mitigated. In addition, the latest statements of the various governments of the world already talk about preparing for this health situation.

9.2. ECONOMIC FORECASTS

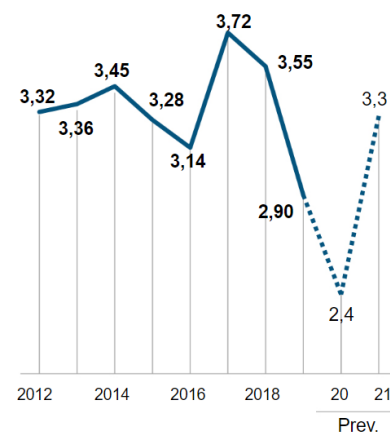
According to the Organization for Economic Cooperation and Development (OECD) the most critical scenario is currently being assessed that the growth of the world economy could be affected by up to 50% in the current year, advancing the danger of recession in Europe and Japan. Notwithstanding the situation is still uncertain.

For China, for now, the OECD expects a decrease of eight tenths compared to the forecasts for the beginning of the year.

The latest data point to a GDP growth of 2.7% in 2020 for the G20 countries (a decrease of 5 tenths) and the eurozone of 0.8% (decrease of three tenths).

The president of the Eurogroup believed, more than a week ago, that the impact of the new coronavirus will be of a "temporary" nature on European growth.

The European Commission assured that the nCoV19 is a risk for the Eurozone economy, although it maintains the estimated values before the



Source: OCDE

Updated on 03/03/20

outbreak, because they consider soon to measure the economic impact.

In Renta 4, an entity specialized in investment and publicly traded services since 2007, considers that the virus could lower the GDP from 1 to 2 percentage points this year, which would affect up to 30 local banks, 17 of them to the point of declaring bankruptcy.

The CAAM (China Association of Automobile Manufacturers), estimate that sales would not fall more than 10% if the situation of the coronavirus is controlled before April 2020.

With the latest data on the health and economic impact of nCoV19, mainly due to infection in Italy, mostly in northern Italy, world GDP would be more affected as expected a few days ago. Many of the affected areas in Italy correspond to almost 40% of the national GDP and 6% of the world GDP, responsible for industries and production, as comments Gilles Moëc, chief economist at Axa Investment Managers.

The Minister of Economy of Spain values as "insignificant" the effect of nCoV19 on Spanish accounts to date.

9.3. WORLD STOCK MARKETS (*February 24, 2020*):

WALL STREET:

- Dow Jones falls 3,6%
- S&P falls 3,3%
- Nasdaq goes down 3,7%

SPANISH STOCK EXCHANGE:

Falls 4,03%, the biggest crash since June 2016 by the Brexit referendum.

- IBEX 35: -4,07%

Mib ITALIAN

Colapses in -5.43%

Dax GERMANY

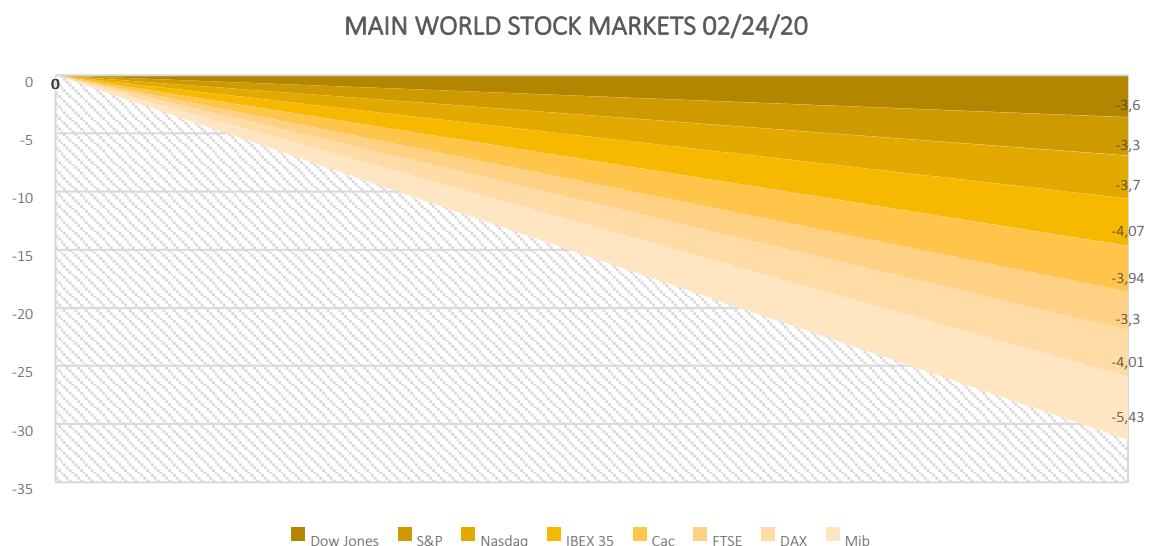
Down -4,01%

Cac FRENCH

Falls -3,94%

FTSE BRITISH

Falls -3,3%



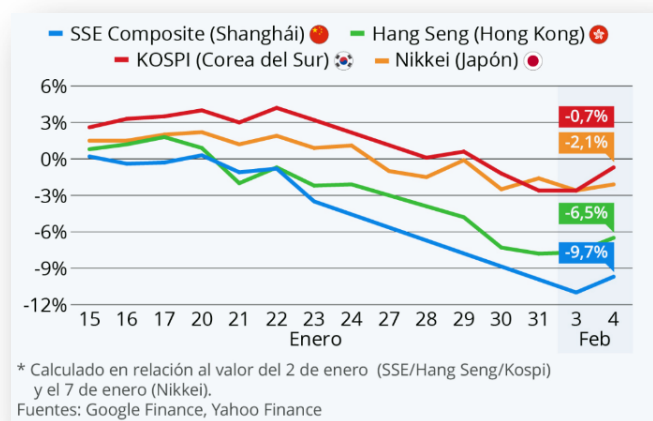
- ∠ The euro falls against the dollar, specifically 0.2%;
- ∠ Brent (type of oil mostly from the North Sea) falls almost 4%;
- ∠ Gold rises more than 2%;
- ∠ The drop in crude oil affected basic resources by -5.88%;
- ∠ Automotive sector, was affected by 5.52%;
- ∠ Real estate sector, falls -1.84%;
- ∠ Telecommunications falls -2.29%;
- ∠ Technology fall, -2.99%;
- ∠ The biggest drop since 2011 in the world stock exchanges in the last week (more than 10% according to data from February 27);
- ∠ On March 2: the price of unleaded gasoline rises 3.88%; gold is devalued by -1.23% and the euro rises 0.85% against the dollar;
- ∠ The WB will mobilize 12 billion dollars to support countries affected by nCoV19 (March 3).

9.3.1. PERFORMANCE OF THE STOCK EXCHANGES

A stock index measures the performance of a segment of the stock market that involves three major needs: obtaining financing from companies that participate with their shares in exchange for cash, facilitate the possibility of investing and make financing available to the State by bonds. This whole process is closely connected to world capitalism.

In Asia, the main indexes are the Shanghai Stock Exchange of China and Nikkei 225 of Japan.

Asian stock exchanges suffered a fall in prices in January.



Summary of relevant data:

- SSE Composite (from the Shanghai stock exchange) gained 1.84% (02/02/20);

- Nikkei gained approximately 0.34% (02/02/20);
- Apple stabilizes again on Wall Street (02/02/20);
- People's Bank of China (PBoC) has reduced its interest rates in reference to loans from 4.15 to 4.05%;
- Financial instability in South Korea due to the increase in cases of nCov-19;
- Gold and palladium show peaks and oscillations, where gold reached maximum values of the last 7 years, reinforcing its value;
- Subsidiaries of the Chinese conglomerate HNA Group (participation in 14 airlines, manages 16 airports and retains a flora of approximately 900 aircraft) shot up on February 20 on the stock market, because the Chinese government declared that it would assume its financial problems that already amounted to 72 billion dollars in summer last year;
- The shares of IAG -matrix of Iberia and British Airways- have yielded more than 7% in January and those of Lufthansa more than 15%;
- OPEC (Organization of Petroleum Exporting Countries) and its allies, value in Vienna the limit on their crude supply.



IBEX 35: 8.741,50 (0,21% on 02/03/20 at 5:38pm).

The black week of the world stock market registered its biggest fall on Friday 28. However, on Monday, March 2, they recovered.

The IBEX35 picked up slightly with a discrete

↑ 0.21%.



Dow Jones: empieza la semana con una subida de 5,09%, después de los valores del pasado viernes, 25.409,36.



NASDAQ 100, también se recuperó el lunes con un 4,92%.



9.4. UNEMPLOYMENT

One of the main collateral damages of this epidemic that will directly affect most of the population is unemployment.

The labour law contemplates austerity and protection measures for the employer in situations of crisis, catastrophe, supervening circumstances, epidemics, pandemics that allow them to reduce or suspend free employment contracts in which the employee will be unprotected. However, the jurisdiction of each country and related jurisprudence must be analysed.

For now, cases of employees who became ill with the new strain of coronavirus and that the employer has not covered their medical leave were made public. Something that generates different social and economic problems, because before this in precarious situations the employee can omit his symptoms and go to his place of work, increasing the probability of infection and epidemic bias.

10. AFFECTED COMPANIES IN CHINA

In relation to the most exposed companies to the collateral effects of nCoV19, manufacturers of automobile components stand out, a very important sector in the province of Hubei, the epicentre of the epidemic. In addition to textile, energy, airlines and hotel companies.

Among vulnerable Spanish companies, we have the case of **Gestamp**.

The vehicle component manufacturer has 11 plants, one of them in Wuhan; The company invoices almost 1 in 10 euros of its business in China and has 4,500 employees in the country.

Other manufacturers related to the automobile industry such as **Grupo Antolin** (18 plants) and **CIE Automotive** also have a strong presence in China.

In terms of transport, **Iberia** is already suffering. It has had to temporarily cancel its direct route Madrid-Shanghai (three flights a week), while **British Airways** -also from **IAG group**-, has cancelled all flights to and from Mainland China until further notice.

Similar situation is living dozens of airlines such as **Air France**, **American Airlines**, **Delta**, **EgyptAir**, **Lufthansa**, **SAS**, among many others.

Iran has banned flights from its territory to China.

Some of the cancellations of trips are due to the shortage of demands to China for fear of infection.

According to data from the INE², until November 2019, almost 700,000 Chinese travellers had visited Spain leaving 1.6 billion euros for the country, pursuant to the Spain China Tourism Association.

Amazon has restricted travel to and from China to its employees, except for “critical reasons,” until further notice.

On the other hand, there are the side effects that the outbreak may have on the Spanish tourism companies present in the country. The Meliá hotel chain manages five establishments in China and admits they are almost empty.

All have contingency plans in case the situation worsens, and the firm has informed that it will not charge for cancellation of reservations. In any case, it provides a “very limited” economic impact if the situation does not get worse.

² INE – Spanish National Employment Institute.

The Spanish bus company **Alsa**, for now hasn't ruled on the damage that may have generated the nCoV19.

Restrictions on movement and activity, a consequence of the quarantine in Wuhan, led to **Inditex** having to close the seven stores it has there (four Zara, two Pull & Bear and one Bershka).

Mango has also closed its 26 stores and the logistics centre it has in the country, *a priori* until March 9.

In the food industry, the president of the **Embutidos Fermín** says that orders are being delayed due to lateness in administrative procedures at customs.

While **Telefónica** and **Repsol** do not have great representation in China, **Siemens Gamesa** in return does suffer, since it has two factories and 1320 employees in the country.

10.1. SUMMARY BY SECTORS

LUXURY: Chinese consumers represent 90% of the growth in 2018 and their purchasing power has already deteriorated in the Chinese New Year including travel; large luxury companies such as LVMH, Burberry or Kering were affected between 2 and 5%.

LEISURE: it is feared that the decline in Chinese customers will seriously affect Macau's casinos; tourists from Mainland China have fallen 80%.

THEME PARKS: Great Wall of China, Beijing Olympic Stadium, Forbidden City have closed.

HOTELS: Hilton, Accor, Marriott, Airbnb and Intercontinental assumed the cancellation costs of their clients until February 8.

CRUISES: Royal Caribbean and Carnival had cancelled many trips.

The Italo-Swiss company MSC Cruises is applying strict controls for passengers and crew such as the ban on boarding people who have been in Italy in the last 14 days.

FOOD SERVICE SECTOR: Starbucks has closed approximately 2000 establishments in China (half of its representation) and McDonald's closed completely in and around Wuhan.

CINEMA: thousands of inactive picture theatre in China.

AIRLINES: Iberia, United Airlines, Delta, Finnair, American Airlines and British Airways cancel their flights to Shanghai.

Turkish Airlinesha cancels the route to four Iranian cities and decreases the frequency of the Istanbul-Tehran connection, in principle until February 27.

EasyJet and Ryanair fear drop in the number of passengers.

Latam Brasil cancels its flights between São Paulo and Milan from Monday, March 2 until April 16 if there are no significant changes that compromise the well-being of citizens.

BANKS: the company's central plants remain open, but preventive measures will be taken whenever possible with telework and reducing business trips.

CARS: Wuhan is a fundamental piece in the production of this sector where there are companies such as Honda, PSA, Nissan, General Motors, Renault and Geely.

The car plants in China remained closed after the Lunar New Year holidays and others are still without activity; car production is estimated to be affected by 15% in the first quarter.

Chinese citizens with high purchasing power invest in luxury products, cars and tourism.

The manufacturers of luxury goods, which depend on Chinese consumers such as the British brand Burberry was forced to close 24 of its 64 stores in Mainland China.

Dozens of global airlines have reduced flights to and from China.

Even more worrying is the threat to global supply chains. Qualcomm, the world's largest smartphone chip maker fears the uncertainty caused by the new virus.

The shortage of auto parts has already forced Hyundai to close plants in South Korea and conditioned on Fiat Chrysler having contingency plans to prevent the same from happening.

Although many high-tech industrial parks such as Shenzhen are manufacturing again, they do not have their employers, considering that many of the workers are in quarantine.

10.2. NATIONAL AND INTERNATIONAL ECONOMIC CONSEQUENCES

⇒ IBEX closes the day in negative several days since January;

⇒ Cancellation of the Mobile World Congress (MWC); some affected companies are selling their products through a digital platform.

Their economic losses would reach more than 540 million euros (5 in subsidies) and 14100 temporary jobs.

Mercabarna: 20% less invoicing (30 of its restaurant supply companies are affected by their billing between 8-20%).

Controversy by companies such as **Sony**, **Cisco** and **Intel**, who withdrew from the Mobile World Congress in Barcelona, but have attended to an image and sound fair in Amsterdam. Others, like **LG**, seem to have refrained from attending both appointments.

Companies that cancelled their presence: **Ericsson**, **Vodafone**, **Amazon**, **Sony**, **Facebook**, **Orange** and other 26 major technology companies.

2000 companies did not cancel and will request compensation from GSMA (Global System for Mobile Communications), the event's organizing company.

Meat, hotel industry and services companies injured.

Insurance coverage contracted through the Willis Towers Watson international brokerage -which now belongs to Lloyd's company- **does not include pandemics**.

If the GSMA is overwhelmed by the millionaire claims of one and the other, the foreseeable thing is that it ends up litigating against the insurer adducing the causes of force majeure.

The Catalan Federation of Associations of Restoration and Musical Activities (Fecasarm), estimated 120 million euros of losses (275 euros per person).

Agreements cancelled between companies, mainly in 5G (telecommunications and large networks affected). However, attempts will be made to redirect business closures at other events.

The MWC rejected coverage that included the pandemic status. But still its policy is valued at 100 million euros.

POLITICAL CLASH

Many businessmen and politicians are sceptical of the real reasons why the MWC was finally cancelled. Mainly the town hall president Ada Colau, and more due to the manifest of the president of the community of Madrid, Isabel Ayuso, where she declared her intentions to take the event to Madrid.

⇒ LIQUEFIED NATURAL GAS PRICE REDUCTION - it is affecting the world gas market, wreaked havoc because traders rush to find alternative locations for Chinese buyer charges that reject shipments.

⇒ DOWNFALL OF OIL AND GAS SALES IN CHINA; China's main LNG buyer, China National Offshore Oil Corporation (CNOOC) declared "force majeure" in some immediate LNG deliveries with several suppliers.

ISSUE: LNG consuming countries are looking for places for unwanted merchandise such as India that has room for purchases, although due to pipeline infrastructure problems it is currently restricted. Apple was the last and said on February 17 that it would not meet quarterly revenue expectations due to limited iPhone production.

The Alibaba group (one of the largest e-commerce platforms in the world) expect millionaire losses if the virus spread continues. However, it has been predisposed to offer 2860 million dollars for loans to Chinese companies located in Hubei harmed by the virus with zero interest in the first three months. It will also help merchants, restaurants and supply chain companies.

Companies such as Nestlé, Pernod Ricard, Kraft Heinz, Nissan or PepsiCo declare that their current income is already being affected.

Fiat had to suspend production in Serbia due to lack of components imported from China.

Volkswagen estimates that it currently has losses of around 11% in the Chinese market.

The British pharmaceutical company AstraZeneca, the Schindler lifts and the American toy company Mattel have also considered losses, although the real figures are not yet known.

11. REPUTATIONAL DAMAGES vs. SOCIAL CONFLICTS

The WHO established relationships of common interest with the social networks Twitter, Facebook, Tencent and TikTok to “suppress” the alleged erroneous information circulating since the end of 2019.

Some of the measures carried out by the WHO IT services were related to SEO positioning with keywords related to coronavirus. They were also collaborating with Facebook to achieve more remote populations with the aim of knowing their health status better.

Some small crimes of false testimony, mainly of adolescents who in search of social recognition said they had the virus, have also been investigated.

Racism and discrimination problems are accompanying the outcome of this disease, seriously damaging not only local businesses such as relationships between peer groups, neighbours and social. Many of these prejudiced opinions are supported by much misinformation and fake news in the technological media.

Already outside the country, the United States stood out for its attitudes and behaviours accused of racists with Chinese citizens in the country.

A positive aspect of social networks is the possibility of risk monitoring acting preventively in health controls, thus avoiding a greater transcendence of nCoV19.

Xi Jinping, Chinese president, declares that nCoV19 is the most serious health crisis in China since the founding of the People's Republic in 1949.

At the meeting that took place in Riyadh, Saudi Arabia, of the Group of 20, common efforts to monitor risks in situations such as the new coronavirus were recorded.

According to their estimates, China would lower its growth by 0.4 percentage points from the estimate at the beginning of the year. On the contrary, the IMF has a blacker perspective for China and the world, stating that the impact will be permanent in the global economy.

11.1. THE REPRESSION

There are several testimonies from Wuhan citizens about the repression, censure and intimidation they would be receiving from the national security forces.

There are some videos on the internet of citizens who denounce the situation, and Manuel's video (pseudonym to safeguard the safety and integrity of the complainant) calls special attention, because he could record several bodies in the space of 5 minutes in a hospital and in a van parked

outside that was open; this citizen was arrested twice by the police because of the videos he spread on the internet.

In one of the attempts to stop him, the policemen will have impersonated doctors, according to what he explains in social networks.

Some citizens who disappeared after uploading a video or images on social networks with complaints about how infected cases are being treated. An instance of this, are the testimonies that tell us that there are no beds in hospitals and people die at home, or others that show images of corpses covered in the ground outside hospitals and enabled clinics.

It is thought that these citizens who denounce would be arrested.

12. SITUATION POINT IN DIFFERENT COUNTRIES

✓ **Spain:** Spain had no active cases of coronavirus, since on February 14 the only two patients registered in the national territory, a German admitted to La Gomera and a British in Palma de Mallorca were discharged. However, on February 24 an Italian doctor infected with nCoV19 was diagnosed in Tenerife, who is currently in good health, although in isolation at the Candelaria hospital.

- A young man with mild respiratory symptoms of coronavirus was also admitted on February 24 at the University Hospital of Valladolid, after traveling to Milan.

- Two suspected cases of coronavirus in Malaga and Avila that tested positive for Influenza A are ruled out on February 24.

- A neighbour of Avilés with suspicious symptoms of the coronavirus was admitted to the Central University Hospital of Asturias.

- The health protocol was also activated by two patients admitted to the National Microbiology Centre of Carlos III Health Institute of Majadahonda in Madrid.

- Valencia has recommendations for those who may have traveled to Milan available to citizens on the website of the Generalitat Valenciana.

- Many faithful of the evangelical churches of Torrejón de Ardoz and Leganés (Madrid) were admitted on suspicion of infection.

- For now, the Spanish Ministry of Health has not decreed a new alert status, although it does not rule out declaring it shortly in Madrid and in País Vasco.

- In the Canary Islands a new positive was registered at the end of March 2.

- In País Vasco so far 10 cases are registered and in Catalonia two new cases on 02/03.

- Diagnosed the first case in Galicia (03/04/20).

- For now, 8 of the patients are in serious condition in the ICU.

- As of last week, Spain began to register new cases throughout the country.

LAST MINUTE:

- 1 deceased in Viscaya (an 82 years-old-man with previous pathologies);
- 228 cases identified in Spain (information from the newspaper El Mundo, updated on 04/03/20 at 9pm).

Madrid	76* (7 imported; 7 linked to Torrejón); 2 in ICU	* other sources indicate 70
Catalonia	15** (imported) + 1 (?); 1 in ICU	** other sources indicate 24
Valencian Community	19 (imported)	
País Vasco	17 (2 without confirmed origin)	
Andalusia	13 (2 doctors + 1 discharge); 1 in ICU	
Cantabria	10 (imported)	
Canarias	7 (1 discharge)	
Castilla y León	11 (1 policeman); 1 in ICU	
Extremadura	6 (imported)	
Castilla-La Mancha	12 (1 in ICU)	
Baleares	5 (1 discharge)	
Navarra	3; 1 in ICU	
Asturias	2; 1 in ICU	
La Rioja	7 (1 doctor)	
Galicia	1	

Source: Spanish Ministry of Health (updated 03/04/20 at 6:00 p.m.)

- √ **Italy:** since Sunday 23rd that the country activated the quarantine status for approximately 50,000 people in 11 communities (10 in Lombardy and 1 in Veneto).
- All cultural and sporting events and manifestations are suspended. The museums are closed. Also, the schools and universities in Lombardy, Veneto, Emilia Romagna and Piedmont (02/03/20).
 - They try to locate all the people who have recently been in Lombardy and Veneto to perform tests to identify the virus, due that these are the 2 most affected provinces of the 5 identified.
 - The Vaticano cancels some events scheduled in closed places.

- √ **South Korea:** on February 21, 100 new infected were identified, 85 of them related to the Church of Jesus Shincheonji, located in Daegu, 4th largest Korean city.
A woman belonging to this Christian sect, apparently unaware of her state of health, would have infected the virus; 120 faithful are infected.
 - The highest incidence of cases was registered in Daegu, one of the two zones declared "special sanitary zones", next to Cheongdo;
 - The Catholic newspaper that organized the trip, Catholic Times, based in Daegu, has closed its offices in this city and Seoul and its workers are in quarantine (02/22/20).
- √ **Iran** announced on February 23 that it would close all its schools, educational centres and universities in Qom (for two days) and Arak (for a week), where at least 12 people died.
 - The Deputy Minister of Health, Iraj Harirchi, is infected by nCoV19.
 - It seems that there may be a problem of transparency in the actual death toll from the new coronavirus. The government declared on the 25th of February 12 deaths in the country, while a Qom deputy insisted that the number will have risen to 50.
- √ **Australia, the United States** and countries such as **Thailand** are carrying out medical checks for passengers coming from China that mainly consist of measuring body temperature.
- √ **United States:** more than 300 Americans were rescued from an isolated cruise ship in Yokohama (Japan) and returned to their country, where they will be another two weeks in quarantine.
14 of the passengers would have contracted the disease.
Some of the more than 350 Americans who were aboard this cruise did not accept to be repatriated.
- √ **Australia** and **Italy** announced their intention to evacuate their citizens, as well as **Hong Kong** (330 Hong Kong); **Canada** made the same decision for about 250 Canadians.
- √ **Hong Kong**³, **Doha** (Qatar) and **Heathrow** (United Kingdom) have reinforced medical controls.
- √ **Singapore:** three days ago announced the creation of a healthcare service valued at 800 million Singapore dollars to fight against the coronavirus and 5600 million Singapore dollars destined to impact on employment and the cost of living.
Finance Minister Heng Swee Keat announced that he will not increase taxes on goods and services in 2021.
- √ **Vietnam:** did not organize sporting events in February, so matches in the group phase of the AFC Cup were played outside.
- √ **Sweden** has recommended that its citizens avoid any "non-essential" trip to China, apart from Hong Kong and Macao.

³ In 2047 it will be finished integrating with China, but it still has its own powers and autonomy.

- ✓ **Germany:** on February 17 a German family with nCoV19 recovered and was discharged, discarded as a source of infection.
- ✓ **Philippines** also announced on Monday 17 that it would repatriate 531 crew members and seven Filipino passengers who were on the Diamond Princess cruise.
- ✓ **France,** main sources of coronavirus infection identified in Oise and Haute Savoie.
 - Prohibit events with more than 5000 people.
- ✓ **Ukraine:** logistically supported the evacuation of five Ecuadorian students from Wuhan who are quarantined in the country.
- ✓ **Japan** apologizes for allowing the landing of an infected woman from the Diamond Princess.
- ✓ **Austria:** On February 23, the authorities suspended all rail traffic with Italy, because a train from Venice had two passengers with typical symptoms of nCoV19.
On February 24, a bus with Spanish passengers bound for Vienna had symptoms compatible with the new coronavirus. In addition, the bus crossed Italy before arriving in Austria.
- ✓ **Turkey, Afghanistan, Iraq, Armenia and Pakistan:** their borders are closed with Iran (02/24/20).
- ✓ **Oman, Kuwait, Jordan and Saudi Arabia:** block the arrival of people coming from the Islamic Republic (02/24/20).
- ✓ **Mongolia:** cancels air connection with South Korea, *a priori* it was until March 2, although there is no new news about it.
- ✓ **Armenia:** closes land access with Iran and restricts flights.
- ✓ **Algeria:** the first case appears in the country. Until February 25 there was no record of any case in North Africa.
- ✓ **Switzerland, Austria and Croatia:** confirmed on February 25 the first positives to nCoV19.
- ✓ **Israel** bans the entry of South Korean citizens into its country for fear of the spread of nCoV19 (02/02/20).
 - The results are positive for 18 of the 36 pilgrims from Jeju who went to the country.
 - They leave 200 South Korean tourists in quarantine.
 - Announce that they will put the Spanish people who arrive in the country in quarantine.
- ✓ **North Korea.** They declare not to have cases of coronavirus, nevertheless the lack of transparency and secrecy that characterizes the country raises doubts in these information. And even more because of the great efforts they are putting into investigating the nCoV19.
- ✓ **Morocco** registers its first case on March 3 of a citizen of Moroccan nationality, but who lives in Italy; For now, the government did not activate any protocol.
- ✓ **United Arab Emirates:** will proceed to evacuate its citizens who are in Iran to quarantine them.
- ✓ **Netherlands:** an infected was declared on February 27.
- ✓ **Nigeria:** an infected in Lagos declared, after returning from Milan on February 25.

- ✓ **Tunisia:** an infected person who tested positive on February 27.
- ✓ **Brazil:** 61-year-old man from São Paulo who visited Lombardy and a second case who was also in Italy.
 - The government is investigating approximately 201 individuals with apparent symptoms of coronavirus.
- ✓ **Ecuador:** 6 positive cases identified.
- ✓ **New Zealand:** an infected, declared on February 27; the patient is in isolation in Auckland and three of his relatives too.
 - The government is investigating where it will have been infected.
- ✓ **Mexico:** for now, the Mexican Ministry of Health confirms 5 positive cases, although the number of suspected cases amounted to 29 on March 1.
- ✓ **Colombia:** changes the level of risk from moderate to high (03/02/20), nevertheless they have not yet identified cases.
 - Decide not to close its borders.
- ✓ **Russia:** Moscow submits subway passengers to medical checks to measure fever.
- ✓ **Senegal:** registers its first infected case of a French citizen living there (03/02/20).
- ✓ **Portugal:** confirms on March 2 its first two cases of nCoV19 in Porto. One of the individuals is a 60 years old man and a doctor; he was in northern Italy on vacation.

The second case is a 33-year-old doctor who presented the first symptoms on February 26 after traveling to Valencia for work matters.

The health status of both is "good" (03/03/20).

 - 2 new cases detected (04/03/20).
- ✓ **European Union:** will co-finance the repatriation of Diamond Princess passengers, which will be done with Italian flights.
 - Change the level of risk from moderate to high (03/02/20).

12.1. INSTITUCIONAL ORGANIZATIONS

EUROPEAN COMMISSION

- ∠ Does not recommend closing the borders of the 26 to avoid infection/contagion;
- ∠ On the 24th a meeting was held to apply preventive measures towards new outbreaks such as that of Italy.

WHO

- ∠ Decide to send scientific commissions to Italy and Iran to try to stop infection in analogy with the application of containment measures;

- ∠ To the present day, the *state of Pandemia* has not yet been declared, but with the available data everything indicates that there is little left.
- ∠ Tedros Adhanom Ghebreyesus, WHO director, stated that nCoV19 is less deadly than SARS and MERS. He has also stood out that 80% of those affected are out of danger and will recover;
- ∠ Exempt from danger of contagion the receipt of packages and letters from China;
- ∠ The level of alert drops in China with the decrease in the number of deaths in Hubei;
- ∠ Masks, including flat clinical masks and N95 filter masks, should not be reused.

13. COLLATERAL DAMAGES

13.1. SPORT EVENTS

- Postponed Rugby World Series to seven from Singapore and Hong Kong (scheduled for April 4, 5, 11 and 12);
- Beijing Motor Show (biennial event April 21-30 that will be postponed);
- Formula 1 Chinese Grand Prix in Shanghai cancelled (it would be on April 19);
- LPGA (Professional Women's Golf Association), cancelled two golf events in Thailand and Singapore last week;
- Honda LPGA Thailand 2020 (scheduled February 20-23) in Pattaya, cancelled;
- HSBC 2020 Women's World Championship (scheduled from February 27 to March 1) in Singapore;
- Blue Bay 2020, Golf Championship (scheduled for March 05-08) on Hainan Island (southern China);
- Indoor Athletics World Championships (scheduled for March 3 to 15 in Nanjing -540 kilometers from Wuhan-);
- Cycling Tour of Hainan cancelled;
- China badminton masters cancelled;
- Ski World Cup cancelled;
- Winter X-Games that would be held in China postponed;
- Suspended the Asian Futsal Cup, scheduled to be played between February 26 and March 8 in Turkmenistan;
- Cancellation of the Taipei Cycle Show - cycling fair in Taiwan by TAITRA (Taiwan External Trade Development Council) -; In principle it will be done in May instead of March;
- Pro-League Hockey matches between China and Australia, scheduled for March 14 and 15 in Changzhou have been cancelled;
- The popular Tokyo Marathon is suspended;

- The Inter Milan-Ludogorets match played behind closed doors due;
- Furusato Festival in Tokyo cancelled;
- Setagaya and Bunkyo Plum Festival in Tokyo cancelled;
- Sumo tournament in Ōsaka cancelled;
- Various rugby, baseball and soccer events in Tokyo cancelled;
- Party Darussafaka-Virtus Bologna postponed;
- Several football and basketball games will be played behind closed doors, such as Valencia and Atalanta, Getafe and Inter Milan, and Valencia Basket-Olimpia and Girona-Venice, respectively;
- The Tokyo Olympics are likely to be cancelled.

13.2. CULTURAL/LEISURE EVENTS

- Artistic festival in Hong Kong suspended;
- China International Fashion Fair (postponed without due date) -would take place from March 26 to April 2-;
- Chanel has announced the postponement of a parade scheduled in May in Beijing due to nCoV19;
- Postponed the 48th edition of the Geneva International Exhibition of Inventions to September 16-20, which was initially going to be done from March 25 to 29;
- Suspended on February 24 the filming of the movie “Mission Impossible 7” in Venice;
- Carnivals of Venice cancelled;
- Closed-door parade of Giorgio Armani;
- In Tokyo was cancelled: The Washi Candle Garden, Taiwan Festival in the Tokyo Tower, Floating Doll Festival, Anime Japan;
- Osaka cosplay event cancelled (Tokyo);
- Various theatre events, concerts and tours cancelled in Tokyo;
- Paris World Tourism Exhibition cancelled;
- The International Agriculture Exhibition of Morocco (SIAM) has been cancelled;
- Paris Book Fair cancelled;
- The Louvre Museum is closed from Sunday, March 1.

14. COMPANIES BENEFITTING FROM CORONNAVIRUS

According to the data of Cofares, a leading cooperative in the pharmaceutical distribution market in Spain, mask sales have increased 77% compared to the same period of 2019. This represents an increase of more than 10,000 units at the end of January. This is the case of a company from Alcalá la Real that began manufacturing masks a year ago and has now had to take turns. It is also the only manufacturer in Spain, because until now it did not compensate to have the production of masks in Spain.

In Angers, France, is located the company's factory, Kolmi Hopen, which produces an item that has suddenly become one of the most requested in the world, the surgical mouthpiece.

The factory normally produces about 170 million surgical mouth covers annually, but in the last fortnight it has received orders for the staggering 500 million.

Self-filtering respiratory protection masks have some utility to protect themselves from the virus by air (however they do not protect the eyes).

FFP1 offers 78% efficiency, FFP2 92% and FFP3 98%.

The World Health Organization (WHO) recommends the use of masks with a filtration efficiency of at least 95% for particles of 0.3 or more microns in diameter before isolation procedures or with possible generation of infectious aerosols.

Here, in Spain, the company in charge of producing them is the Climax company, manufacturers of personal protective equipment.

The last balance indicates that they invoiced more than 16 million euros.

The Marketplace of PromoFarma, specializing in *parapharmacy* and personal care that has more than 1000 pharmacies attached, has reported an increase in mask sales of 500% (02/02/20).

The sale of antiseptics rose 300%, compared to January last year.

ADVANTAGE FOR SOME: the main buyers in Japan and South Korea, such as KOGAS and JERA, could benefit, since they can take advantage of the demand of public utilities.

Food delivery courier companies. Although they have had to implement security measures to their messengers because they can be carriers of the virus, they also wear masks.

There are other companies that apply “contactless shipping” forms in Wuhan.

The French company Novacyt, involved in the research carried out for the identification test of coronavirus nCoV19, in a period of one month and a half has been revalued by more than 1000%.

OPPORTUNITIES FOR OTHER COUNTRIES: Panama, Tunisia or Morocco are hosting productions, mainly from multinationals looking for fast, cheap and safe options. Apart from the prospecting of new virgin or under-exploited markets that will graft fast money to their economies in countries such as Bangladesh, Kyrgyzstan, Tanzania, Morocco or Turkey, among others.

Giants such as Inditex, H&M, Mango, Tendam or Desigual would be in the phase of identifying new suppliers due to the losses they already register, despite the lack of transparency, mainly from Inditex contrary to the policies practiced by H&M.

15. PROSPECTIVE INTELLIGENCE ANALYSIS

a) METHOD DELPHI

EVENTS														
HYPOTHESIS	EXPERT 1			EXPERT 2			EXPERT 3			EXPERT 4			TOTAL	AVERAGE PROBABILITY
	PROBAB.	KNOWLEDGE	TOTAL	PROBAB.	KNOWLEDGE	TOTAL	PROBAB.	KNOWLEDGE	TOTAL	PROBAB.	KNOWLEDGE	TOTAL		
1	The new coronavirus continues to affect the population, spreading to new geographical areas. In this way, WHO declares the pandemic situation in the coming months which will lead to a global recession, considering that China is the second world economic power.	0,5	5	4,5	0,3	4	4,3	0,8	4	4,8	0,9	4	4,9	
2	The Chinese government, thanks to its high capacity to respond and apply preventive measures, manages to control the epidemic of nCoV19 and reduces the death rate, also reducing new cases of the disease in the world.	0,5	4	4,5	0,8	4	4,8	0,5	4	4,5	0,4	5	5,4	0,550
3	The economic forecasts for 2020/2021 in China are of great uncertainty, although economists are optimistic in case the nCoV19 can be controlled in the short term. However, national and world GDP ends up being affected quite negatively, mainly in the sale of oil and liquefied natural gas.	0,7	5	4,7	0,6	4	4,6	0,6	4	4,6	0,8	4	4,8	0,675
4	An effective vaccine against the new strain of coronavirus is found in the coming months before the economy and social welfare as the coexistence between the native population and Chinese resident immigrants is harmed, preserving bilateral relations between countries.	0,4	4	4,4	0,7	4	4,7	0,8	4	4,8	0,7	5	5,7	0,650

b) METHOD OF CROSSED IMPACTS, SMIC

EXPLORATION, UNDERSTANDING AND CONCEPTION OF THE SYSTEM

i. EVALUATION

	EVENT 1	EVENT 2	EVENT 3	EVENT 4
EVENT 1	0,625	0	3	-2
EVENT 2	0	0,550	-3	2
EVENT 3	4	0	0,675	0
EVENT 4	-1	4	-2	0,650

MATRIX OF IMPACTS, PAPIC

ii. DESCRIPTION OF THE MOST LIKELY SCENARIO

Matriz de Impactos		Matriz de Probabilidades	
	Nº Esc.	Probabilidad	P.acumulada
1	1	0,2103013	0,2103013
2	7	0,2084059	0,4187073
3	10	0,1644686	0,5831758
4	3	6,765681E-02	0,6508327

The event 3, “The economic forecasts for 2020/2021 in China are of great uncertainty, although economists are optimistic in case the nCov19 can be controlled in the short term. However, the national and world GDP, ends up being affected quite negatively, mainly in the sale of oil and liquefied natural gas.”, is the most likely to occur based on the opinion of 4 experts in the field from the TWCI team.

CONCLUSIONS

- ✓ The coronavirus which originated in Wuhan is a new strain of this type of severe respiratory disease. It was called nCoV19;
- ✓ The most common symptoms are fever and shortness of breath, although there have been positive cases without these symptoms;
- ✓ Contagion or infection is very easy, mainly by human contact, or by air over distances not exceeding one meter;
- ✓ The symptoms are very similar to other diseases such as the flu;
- ✓ The incubation period can go up to 24 days;
- ✓ The infected human profile continues without being identified, notwithstanding Brazilian and British researchers seem to have approached to understand better the genome of nCoV19, since they discovered a SARS strain;
- ✓ It is known that the probability of infection is higher in older people with diseases such as heart disease, diabetes or asthma;
- ✓ There are very few cases identified in the younger population and they have very mild symptoms, such as catarrh;
- ✓ Higher incidence of infection in men;
- ✓ The degree of mortality has changed in the last week, and is between 2-4% in Wuhan and 0.7% outside;
- ✓ Several countries are carrying out quarantines, including cruises that tested positive for nCoV19, and in homes;
- ✓ There was a Chinese doctor who tried to alert the Wuhan government of the possible virus, but was ignored and suffered reprisals from the Chinese dictatorship at that time for not having *founded official suspicions*;
- ✓ There are many Chinese citizens who report on the social networks the situation of lack of control in the number of deaths and lack of beds. Many of them "have disappeared", according to the information available in internet from their family and friends;
- ✓ Although in the epicentre of the disease the cases have finally been reduced, in Iran and Italy the number of infected and deaths continues to increase. However, the record of infected is maintained in South Korea;
- ✓ The reaction capacity of the health systems of the various countries is currently being challenged due to the high number of deaths. Mainly in Italy considered in 2019 by WHO as the second country in the world with the most efficient health system;

- ✓ Positive cases have already been registered in Latin America at present, but the number of cases is still not very significant in analogy with other countries;
- ✓ There are no official data on the presence of nCoV19 in North Korea, although these data raise questions due to the lack of transparency that characterizes the country. In addition to its geographical location so close to China, bordering with the second most infected country, South Korea, and to its right is Japan.

Their interest in investigating nCoV19 is also striking.

- ✓ For now, research organizations have not yet found a vaccine for this new strain, even so several treatments that may be effective in combating nCoV19 such as those used for HIV are being considered;
- ✓ The face, eyes and mouth should not be touched with the hands, and the hands should be washed frequently for at least 20 seconds;
- ✓ The use of masks is very relative, since it can also be spread through the eyes. However, the most effective are FFP1 with 78%, FFP2 with 92% and FFP3 would have 98%;
- ✓ Places with large crowds should be avoided;
- ✓ China demonstrated a rapid response capacity once the presence of the new disease was detected, highlighting the building speed of mobile hospitals and clinics. However, relating to prevention, the same cannot be said;
- ✓ More than 3,000 health workers were infected helping in the fight against nCoV19;
- ✓ According to international organizations and governments, one must be prepared for the new eminent state of pandemic;
- ✓ All sectors of services, industry, production, among others, have already noticed losses, mainly in supply companies in the automobile, textile and hotel industry;
- ✓ Several sporting and cultural/leisure events, in addition to technological events such as MWC were cancelled or postponed, resulting in large losses for SMEs, middle markets, large companies and multinationals;
- ✓ World stock markets have fallen in January but collapsed on February 24 with the latest numbers of infected by the nCoV19, mainly in Italy.

The worst fall in world stock markets was on February 28, precisely due to the large increase in infected in Italy and other countries. Although on Monday March 2 they recovered slightly;

- ✓ The People's Bank of China (PBoC) has reduced its interest rates in reference to loans, in addition to other banks and governments that will try to mitigate the effects of nCoV19 with fiscal measures;
- ✓ Unemployment will be the social indicator that will most affect the world population, worsened by the mandatory quarantines that are harming many companies. As the situation

perpetuates, companies may be forced to close. In addition, in Spain there are already large companies that begin to have prepared their preventive protocols for teleworking;

- ✓ Airlines are being strongly affected by the economic consequences of the virus;
- ✓ There were companies that managed to benefit from nCoV19, specifically those that produce masks, disinfectants and in the field of research;
- ✓ Many countries closed their borders, initially only to citizens from Wuhan, and now to countries that present positive cases of nCoV19, such as Israel is doing with Spanish citizens;
- ✓ In Spain two deaths have already been recorded;
- ✓ The sale of oil and liquefied gas has decreased, while gold is valued;
- ✓ Chinese GDP will most likely suffer this year, and will affect cascading effects to other countries and, consequently, to world GDP;
- ✓ The countries with the greatest danger of infection are China, South Korea, Italy and Iran, respectively.



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Report updated on March 4 and part of the morning of March 5 in the most important data and aspects.