

## Market view

### Pandemic triggers market turbulences, harsher political measures, and new VT scenarios & price targets

#### Finally, it's a pandemic

On 11 March, the WHO finally declared the global viral outbreak to be a pandemic, which, in our view, came at a rather late point in time. The WHO mentioned that "pandemic is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death". While it is unclear to us, on what basis the WHO made the pandemic call, it appears correct that the word "pandemic" should not be used lightly. Just a few hours after the announcement, the US closed its borders to most of Europe and stock markets plummeted. But, also, the WHO was wrong in believing that people would give up. On the contrary, it sparked much harsher implementation of containment and mitigation measures in Europe and the US.

#### Healthcare systems put to the test

Harsher containment and mitigation measures are also needed, to avoid healthcare systems from collapsing, as we are witnessing in Italy. While these measures are not aimed at stopping the pandemic – it is too late for that – they should at least spread the outbreak over a longer period of time. In this way, the number of patients needing a hospital bed can potentially be accommodated with the healthcare system capacities of each individual country. Our analysis reveals that the situation does not look very accommodating.

#### Spring fever – likely not too much of it this year

According to our interview with a key opinion leader (KOL), the harsher containment and mitigation measures put in place make it more difficult to call a peak for the pandemic. However, the KOL renewed his view that seasonality will likely only have a minor effect on the outbreak – too many people have no immunity providing an optimal environment for the virus to continue to spread. The only way to get in control again is to have a vaccine. Novel methods of vaccine development fuel hopes that one will be available in 12-18 months. While we are also hopeful, we also want to caution that these novel methods have thus far never brought forward a human vaccine. And, should it actually work, we assume a 12-18-month timeline is plausible only if everything falls just into place perfectly.

#### For the investor

We have again updated our table on the relevant stock market trigger points as we see them. While most of the negative ones have already triggered, the potential positive ones are difficult to call from a timing perspective. In addition to our pandemic scenario of a V-shaped recession addressed in our last Market view (26-02-20), we also add a new scenario where we assume a U-shaped recession. We have again spoken with the companies we cover to get their latest views on how the pandemic is affecting their businesses and present our respective findings along with our thoughts.

#### New Vontobel price targets

For the companies we cover, we provide a table that, among other, depicts our new price targets based on an increase of the equity risk premium equivalent to half a V-shaped recession and adjusted for the companies' specific beta. Because of the very high degree of uncertainty and volatility due to the current crisis, there is also a high degree of (downside) risk to our estimates.

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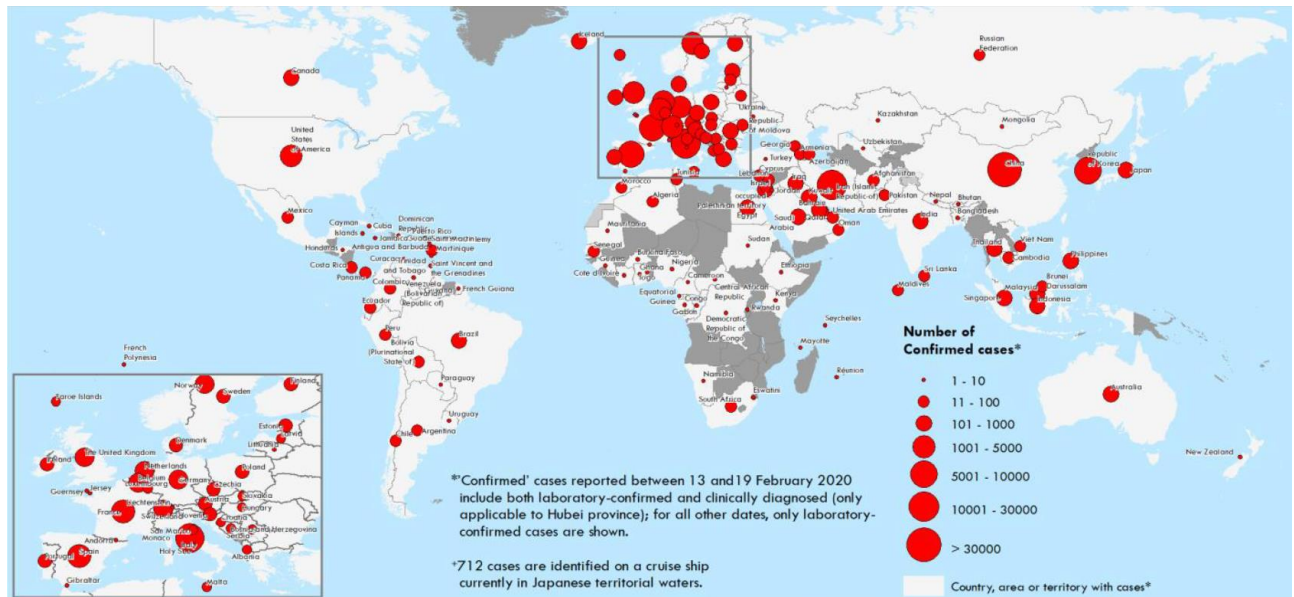
## Our perspective

### Transmission on the loose

Since our last Market view report published on 26-02-20, numbers related to the spread of COVID-19 have continued to rise sharply: 1) the number of globally reported cases is rapidly

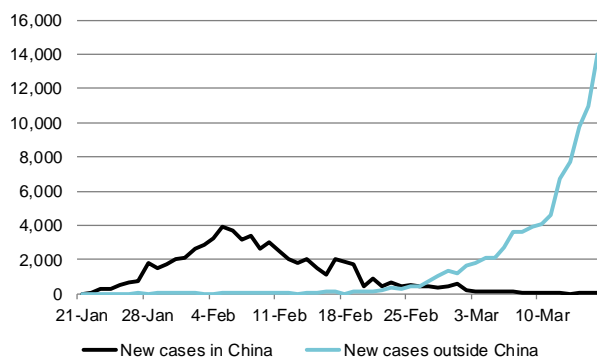
approaching 200,000; 2) the number of cases outside China has surpassed the number of cases in China; 3) the number of daily reported cases outside China has increased to more than 14,000 per day and is increasing rapidly; and 4) the number of countries that have reported cases now exceeds 150.

### Distribution of COVID-19 cases as at 17 March 2020



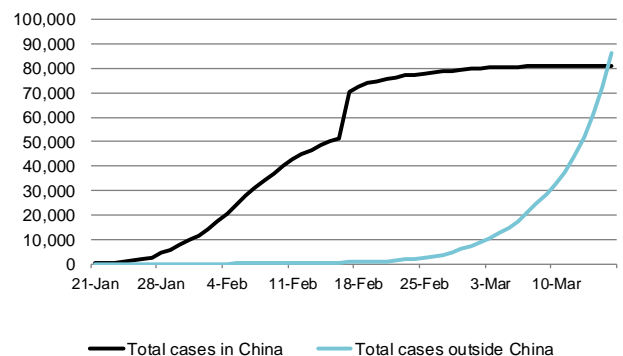
Source: WHO; COVID-19 situation report 56

### Number of daily confirmed new cases



Source: WHO; COVID-19 situation report 56

### Cumulative number of confirmed cases



Source: WHO; COVID-19 situation report 56

### Finally – the WHO declares a pandemic

On 11 March, the WHO finally officially declared the global outbreak to be a pandemic, which, in our view, came at a rather late point in time - see our Market view dd. 26-02-20. The WHO apparently no longer followed its own pandemic phases and did not indicate on which basis it had made the pandemic call. From WHO's regular media briefings, it appears that, as long as there is a chance that an outbreak can be controlled, it cannot be a pandemic. In addition, the WHO mentioned that "pandemic is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death". So, without guidelines and more information, it is unclear to us, whether the WHO's decision

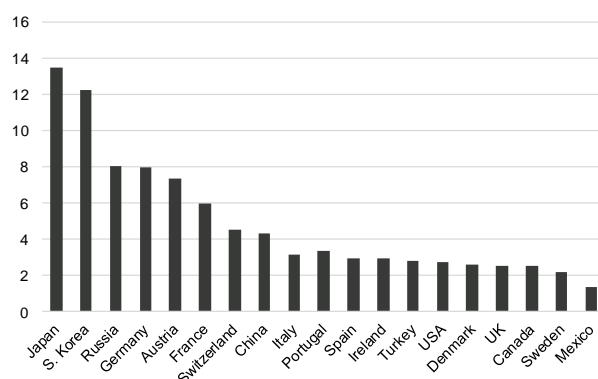
was based on loss of control and/or trying not to scare the world in its effort to still get control of the virus. At least, it appears that their assessment was right: the word "pandemic" should not be used lightly. Just a few hours after the announcement, the US closed its borders to most of Europe and stock markets plummeted.

### Healthcare systems put to the test

Switzerland has about 4.5 hospital beds per 1,000 inhabitants at an occupancy rate of 82%. This means there are 0.8 hospital beds available per 1,000 inhabitants. This compares to 1 and 0.6 available hospital beds for 1,000 Americans (US) and Italians, respectively. Italy has been hit very hard – presumably

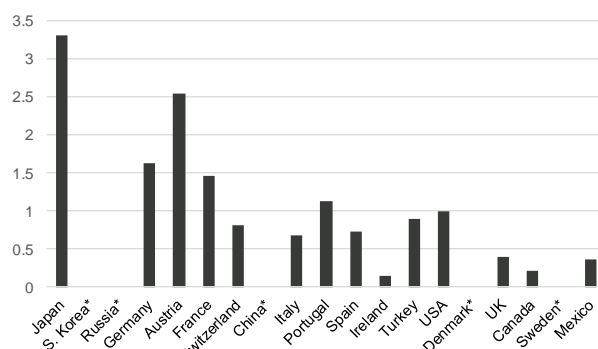
due to the many Chinese tourists who triggered a disproportionately high number of transmission chains in January. However, in our view, the country reacted promptly and decisively. Nevertheless, as we all know, the Italian healthcare system is currently being tested beyond its limits. While the number of available hospital beds is slightly higher in Switzerland and the US than it is in Italy, Switzerland gave up following transmission chains very early on and the US started testing for the coronavirus at a very late stage. The measures to stop transmission are not as stringent in either of these two countries as they are in Italy. Consequently, we would not be surprised to see the Swiss and US healthcare systems tested. The same is true for many other healthcare systems globally.

#### Hospital beds available per 1,000 inhabitants



Source: OECD Health Statistics 2018

#### Free hospital beds per 1,000 inhabitants



\*No occupancy rate available for S. Korea, Russia, China, Denmark, Sweden

Source: OECD Health Statistics 2018

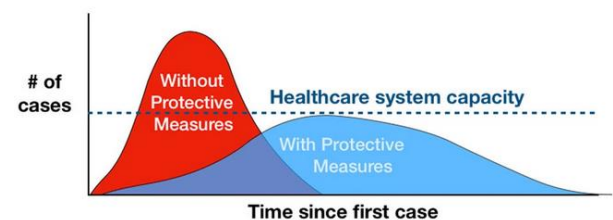
#### Why containment and mitigation efforts should be continued

While the WHO appears to have hesitated to declare the outbreak a pandemic because it did not want to distract from containment and mitigation efforts, in our opinion, the opposite has happened. The political will to implement harsher measures only followed once the WHO had declared a pandemic. Moreover, the WHO linking its pandemic call to a fight that is lost seems problematic to us as it continues to reiterate that containment and mitigation measures must continue.

But, why is this so important if the battle is actually already lost? It is now no longer a matter of preventing the outbreak, but about delaying it for as long a period as possible. There are several advantages to this. First and foremost, healthcare

systems can only hospitalize a certain number of patients at a time. In Switzerland, for instance, a total of close to 40,000 hospital beds are available. These beds are primarily occupied by patients who are not suffering from the coronavirus. We assume that 20% of the Swiss population will be infected during the first year of the pandemic, an assumption that the key opinion leader (KOL) suggested in one of our interviews. Latest statistics indicate that about 10-20% of infected people seek medical assistance. Based on the assumption that the hospitalization rate is 15%, 255,000 coronavirus patients would need a hospital bed in Switzerland in the first year. The challenge differs considerably if these beds have to be provided all at once or if they need to be provided over a period of 12 months. Trying to keep the number of patients within a healthcare system's capacity at any given time is the reason why containment measures are still being rolled out and tightened.

#### Flattening the coronavirus transmission curve



Source: WSJ

#### How long will it take until it gets better?

During our previous interview with the KOL on 24 February, it was said that the pandemic could take 2-3 months to reach a first peak, which could then be followed by a second towards winter. We consulted with the KOL again on 13 March to get the latest insights into the ongoing pandemic. Regarding the possible timelines of this pandemic, the answer seemed rather more difficult this time as many countries have only just started implementing harsher containment and mitigation measures in an effort to change the course of the disease. Probably the best way of assessing how successful these measures could be would be to compare developments with those in countries where the outbreak is more advanced and where comparable measures have been implemented.

Having applied quite drastic containment measures, reaching peak contamination levels in China and South Korea appears to have taken about one and a half months. Europe was hit a bit later, but not much. The virus was imported and there appears to be a positive correlation between the number of Chinese visitors flying in and the number of transmission chains started. As we outlined in our last coronavirus Market view (dd. 26-02-20), about two thirds of infected people who flew out of China were not detected by the destination countries. As a tourist hotspot, about double the number of Chinese visitors flying into Europe arrive in Italy compared to Germany. This could at least partly explain the faster onset and more difficult task of containing the spread in Italy than in Germany and other European countries. Nevertheless, with transmission now ongoing within Europe, we believe the delay in onset between the two countries is only about 10-14 days. Other European countries are therefore just about on the verge

of the visible exponential phase – with only harsh containment and mitigation measures potentially delaying the onset.

Compared to China or South Korea, however, not all European countries have tried to uncover transmission chains swiftly and thoroughly (e.g. Switzerland, the UK) and containment measures have been implemented hesitantly and more timidly than in some Asian countries. Given the US's long reluctance to test for SARS-CoV-2, it is difficult to make any predictions. But, according to our KOL interview, there is quite hard evidence that transmission spreads can already be traced from the East to the West Coast and, as such, we also expect that the US healthcare system will be put to the test. Consequently, although we estimate that the onset of the outbreak is just 2 to 3 weeks behind China, the time it will take to peak will very most probably be significantly longer. Making an estimation is difficult as the extent of the containment and mitigation measures are currently a daily moving target.

#### **Spring fever – we do not expect too much of that**

With winter slowly transitioning to spring, many are hopeful that we will see an easing of the outbreak. This hope is likely fed by the endemic influenza virus and coronaviruses (OC43, HKU1, 229E, NL63) that cause seasonal epidemics of flu and cold, respectively. However, we are now facing a new virus, SARS-CoV-2, on its way to becoming endemic in the world's population, it is very speculative to assume it will simply behave in the same way as more well-established viruses.

Several factors determine whether and to what extent the current outbreak will show a seasonal pattern. As we already outlined in our last coronavirus Market view (dd. 26-02-20), the KOL we interviewed is of the opinion that it would not be surprising to see two peaks during the first year of the pandemic. Thus, the KOL assumes that there will be at least some seasonal effect once the weather gets warmer, but that the spread will accelerate again towards year end.

Overall, several factors influence the contagiousness of SARS-CoV-2:

- 1) The weather can have an impact, as for instance seen with influenza that transmits more easily during the wintertime when the air is colder and less humid. However, while these conditions favor transmission of influenza, they are not essential, as the flu is also a risk in the tropics. To our knowledge, no related studies have been conducted regarding coronavirus. The current outbreak is affecting more than 150 countries at the same time, covering just about all climate conditions. In short, we do not know.
- 2) Behavior is also a crucial factor that influences the course of contagion. During wintertime, people tend to spend more time indoors in close quarters. This fosters a potential seasonal pattern. It also explains why current measures by the Swiss and other governments are currently related to social distancing.
- 3) A host's immune system is also believed to be more up-to-the-task during summertime. This is the reason why people tend to take extra vitamins during the wintertime. There are also other scientific explanations, e.g. levels of melatonin vary with the light/dark cycle or the synthesis of

vitamin D, which has been shown to help prevent acute respiratory tract infections, depends on UV light exposure.

- 4) Immunity has a large impact on how an outbreak develops. That is why even outbreaks that are not seasonal have peaks, ease off to then peak again. The less immune a population is to a virus, the better the outbreak propagates ( $R_0 > 1$ ). As the outbreak progresses, more and more people recover from the infection and return with at least some immunity. Then, the virus can no longer infect everyone; it has a harder time spreading and  $R_0$  (ease of spread; see our Market view dd. 14 Feb 2020) will eventually drop below 1.

It is believed that immunity and the three more seasonal factors (1-3) play together and determine  $R_0$  of an outbreak. As, however, in the first year, the novel coronavirus finds a perfect host in every person as nobody has immunity, the non-seasonal factor 4 could be dominant. As over time more and more people build up immunity by having had the disease or been vaccinated, the number of hosts without immunity declines. This is the time when the virus is likely to also require seasonal factors to trigger an epidemic. According to the view of the KOL we interviewed, it could take 2-3 years until 50% of humans have built up immunity and the pandemic starts moving into the background.

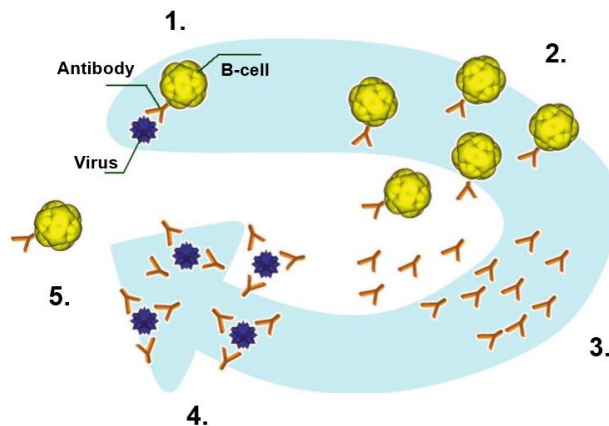
#### **Immunity – key to overcoming the pandemic**

Immunity to SARS-CoV-2 means that people can resist an infection by the virus. As no one has previously been exposed to this virus, they have no immunity and are susceptible to COVID-19. As outlined above, there are two ways of acquiring immunity: A) going through the infection or B) getting a vaccination, which unfortunately is not yet available.

##### **A) Building up immunity by going through a SARS-CoV-2 infection**

Following infection with SARS-CoV-2 (or any other virus), the immune system recognizes that something foreign has entered the body and needs to be neutralized. B-cells that can bind the virus subsequently amplify and neutralize the virus by releasing antibodies. Some of these B-cells, so-called memory cells, are stored by the body, ready in case the virus attacks again. These memory cells allow a much faster defense and result in milder or no symptoms.

### How our immune system works



Antibody-mediated immune response: 1. Virus carries antigens on its surface that are recognized as foreign by the body; 2. B-cell amplifies and 3. releases antibody; 4.

Antibodies bind the antigen and neutralize the virus; 5. The body keeps some B-cells, so-called memory cells, in case the virus returns

= immunity.

Source: [www.eduhk.hk](http://www.eduhk.hk)

### B) Building up immunity through vaccination

In principal, vaccination aims at the same effect to the immune system as an infection does: synthesize memory cells that allow a faster response to a second infection with the same virus.

Unfortunately, no vaccine against SARS-CoV-2 is currently available and producing one is not an easy task. Contrary to drugs, vaccines are preventative and, as such, are given to a very large number of healthy people requiring them to be very safe.

There are generally two types of vaccine: 1) the more traditional vaccines that consist of attenuated live virus or recombinant proteins, and 2) nucleotide-based vaccines, a novel and faster way of producing a vaccine, that, however, has so far not resulted in any approved human vaccine.

#### 1) Traditional vaccines

The traditional way of producing a vaccine requires laboratory work with virus samples, which is cumbersome and takes time. From start to finish, it takes about 15 to 20 years to bring a

vaccine to the market. Thus, this is not the way forward during the currently ongoing pandemic.

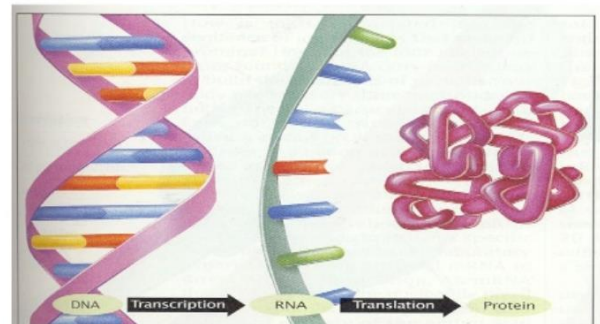
#### 2) Nucleotide-based vaccines

Nucleotide-based – DNA and mRNA vaccines – are currently at the center of interest as this kind of vaccines can be designed directly from the genetic sequence of the desired protein and be produced quickly by generic manufacturing processes.

DNA is the genetic material that is found in the nucleus of cells – it is a double-stranded helix. Genes are certain stretches on the DNA that harbor the genetic code for proteins. When a protein is produced, the cell produces a single-stranded copy of the gene, so-called messenger RNA (mRNA). This is then translated into the protein and thereafter destroyed again.

#### Protein synthesis

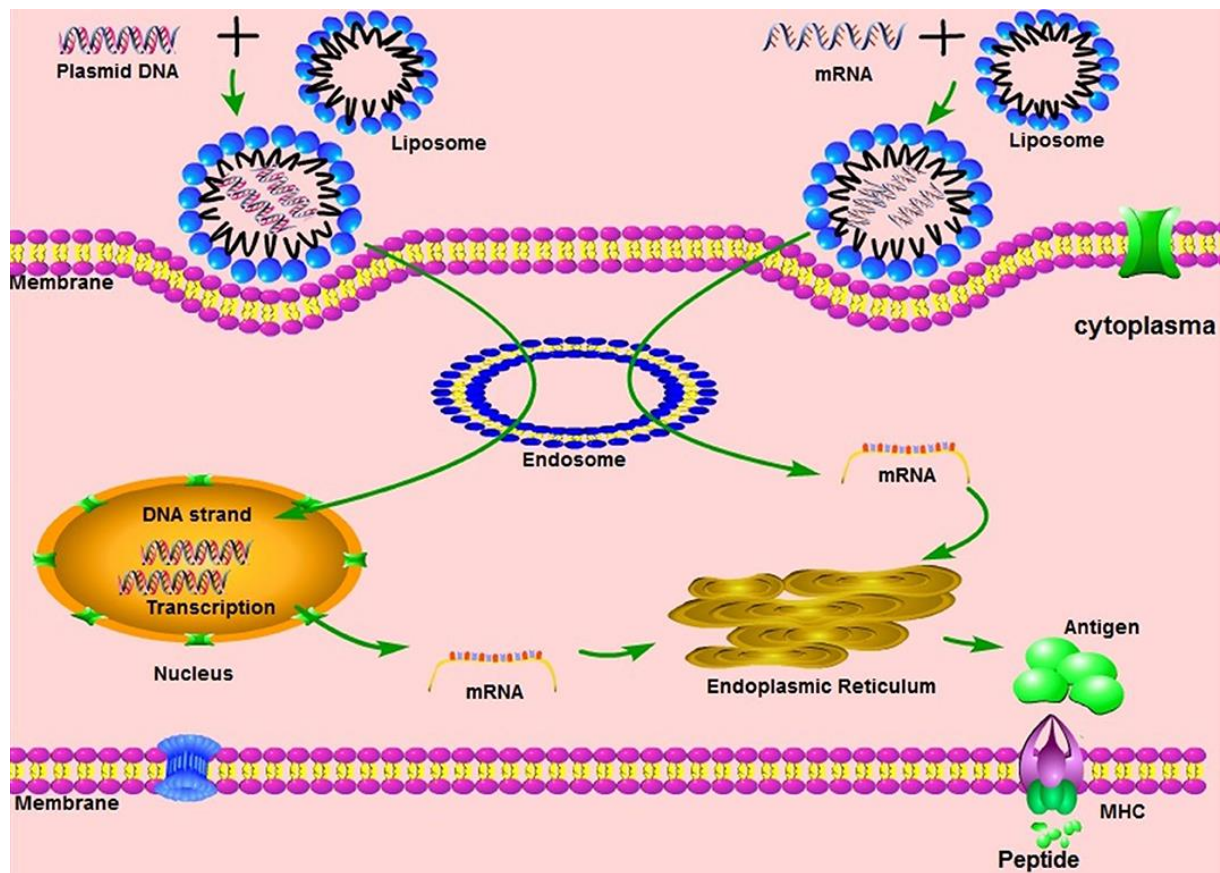
DNA → mRNA → Protein



Source: [slideshare.net](http://slideshare.net)

DNA and mRNA vaccines harbor the genetic code of a viral gene. This information is then injected into the muscle of a person, where the genetic information is then translated into the viral protein (antigen) by the respective human machinery. The antigen in itself has no activity, but is recognized by the immune system and the resulting immune reaction produces the desired memory cells.



**Nucleotide-based vaccines – mechanism of action**

Source: frontiersin.org

Currently, the hope is that these type of vaccines will enable a vaccine to be developed that can be deployed in the current coronavirus outbreak. Innovio Pharmaceuticals with its DNA vaccine candidate INO-4800 and Moderna Inc. with its mRNA vaccine candidate mRNA-1273 are at the forefront. Innovio plans to start clinical trials in the US, South Korea, and China in April with results to be presented this fall. The company plans to have 1 million doses of vaccines produced by the end of 2020. Moderna, at a new record pace, has just dosed the first person on 16 March with its mRNA-1273 vaccine. The trial is expected to conclude on 1 June with patients being followed for one year.

This all sounds encouraging, especially given the current pandemic situation. However, we should caution that: 1) nucleotide-based vaccines have been under development since the 1990s and, so far, none has been approved for human use. 2) In the current emergency situation, no animal testing is planned and vaccine candidates are fast-tracked to clinical testing. 3) Instead of extensive testing in clinical trials encompassing phases 1 to 3, only a phase 1 trial is planned. 4) Approval by the regulatory authorities is not a certainty considering that the vaccine will be given to a large number of healthy people. 5) Should 1 million doses of the vaccine really be available by year end, the question will be how long it will take to scale-up manufacturing to produce billions of doses.

**Stock market relevant trigger points**

Since we issued our list of stock market relevant trigger points, most of them have already triggered. The good news is that most of the negative trigger points have been released and most of the positive ones still have not been. But, the bad news is that the positive trigger points have no specific timeline. The timeline for trigger point 7 is likely the most important, as we consider that a vaccine as the only way of speeding up a return to normality, i.e. the end to mitigation and containment

measures. However, as discussed in this report, the availability of a vaccine in 12-18 months is a best-case scenario with many unknowns having to fall into place. We remove the earlier timeline of 2-3 months for the pandemic to peak as we have seen both hesitant implementation of containment measures in Europe and the US, and highly variable efforts to follow-up on transmission chains. We also include a trigger point 9, which is simply that individual countries manage to gain control of the virus. Here again, depending on the country and its respective efforts, such a win could come at an earlier or later stage.

**Potential stock market relevant trigger points from the coronavirus outbreak**

#	Trigger point	Time frame	Reliability	Equity market implication
1	Loss of control in countries without reported cases and with underdeveloped healthcare systems	Triggered (Iran, 21 Feb)	Data reliability	Negative
2	Undetected transmission in countries with developed healthcare systems	Triggered (Seattle WA, 3 Mar)	Reliable	Potentially positive
3	New cases ramp-up in countries outside China that have already reported cases	Triggered (Italy, 21 Feb)	Reliable	Negative
4	Countries with developed healthcare systems stop tracking individual cases	Triggered (Switzerland, 06 Mar)	Reliable	Negative
5	Turning point of new cases in China c. 2-3 weeks following returning to work	Triggered (6 Feb)	Data reliability	Negative
6	Mortality rate based on extensive serology tests	April/May (likely from China)	Reliable (there can be geographic differences)	Negative or positive
7	Progress/availability antiviral & vaccines	Progress any time; Availability April/May (AV) and beg-/mid-20 (vaccine)	Reliable (data needs to be clinically supported)	Positive
8	Pandemic having peaked	Unknown	Many influencing factors (mitigation & containment measures, transmissibility, weather)	Positive
9	Individual countries getting in control of viral outbreak	Unknown	Many influencing factors, but mainly depending on countries' mitigation & containment measures	Positive

 Triggered

Source: Vontobel Equity Research

## Not ABC but V, U, or L

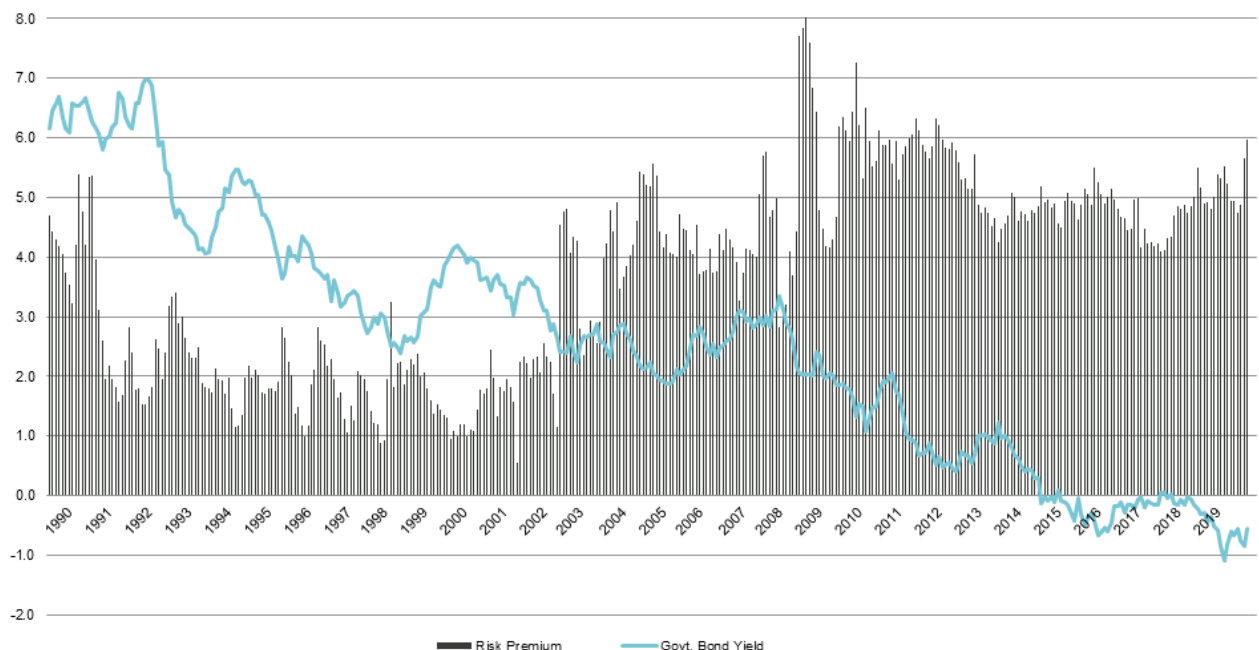
### Building from our previous scenario

In our second coronavirus report dated 26 February 2020, we introduced a pandemic scenario. We launched this scenario based on our view that at least two negative trigger points we had previously described had been reached on 21 February – the situations in Italy and Iran (see Trigger points table). In the meantime, more points had been triggered. We built our

scenario on the assumption that the Swiss market Equity Risk Premium (ERP) would rise by about 100bps in a V-shaped recession compared to an average of about 200bps in a fully-fledged recession. At the time, the scenario implied a substantial V-shape shock, followed by a fast recovery driven by pent-up demand. This was going to take the ERP from about 480bps on 25 February to about 580bps, resulting in a potential downside of about 21% to around 10,000 for the SPI or to about 8,800 for the SMI.

### Swiss Equity Risk Premium

(Earnings yield less Government bond yield\*)



\*Earnings yield calculated with 12-month forward-looking PEs (since January 2002), current value for Government bond yield

Source: Vontobel Equity Research

Much has changed in a very short period since our last coronavirus report. The ERP has expanded to currently 591bps, thus slightly higher than our pandemic scenario. Based on intraday data, the ERP substantially overshot our assumption of 580bps.

The central scenario of our economists has recently changed from a technical V-shaped recession to a short U-shaped recession. This change, in their view, is the result of an initially assumed recession caused by a supply shock to which a demand shock has now been added. The supply shock has been driven by interruptions in logistic chains initially from China, while the demand shock has been triggered by (more) draconian measures introduced by governments in Europe and to some extent overseas. The length of the downturn will depend on many factors, which are currently difficult to quantify, as many of them are moving targets.

In this context, it is somewhat encouraging, in our opinion, to observe that the willingness of governments to fight the virus itself as well as its economic impact has finally increased over the past few days. The experiences from the global financial crisis (GFC) in 2008/9 might help to a certain degree, as many governments have at least some experience of how to tackle a crisis that is taking them into uncharted territory. This might

yet be another event when measures of “whatever it takes” are needed, given that both consumer and business confidence will shape consumer demand and business investments in the mid-term, but will also decrease the risk of a financial meltdown.

From a financial markets’ perspective, we believe it is particularly important that investors are soon able to see a light at the end of the tunnel. Factors that could contribute to this would obviously be a marked slowdown and ultimately a peak of new infections in Europe and the US. Furthermore, a gradually visible normalization of (economic) life in Asia/China would show that draconian measures do work and could give a substantial boost to confidence as a result.

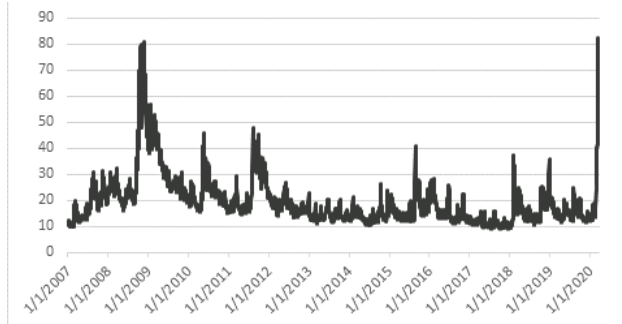
### What are the biggest risks?

By far the biggest risk, in our opinion, would be a financial meltdown that would be difficult to stop once started. While we can certainly say that the financial system (banks) are in better shape than at the time of the global financial crisis, there is no guarantee that investors will keep their confidence in banks’ solidity. One risk in this context is volatility. Measured by the VIX, as of writing, it spiked close to levels seen at the very peak



during the GFC. The other element is the level of debt in the non-banking sector, which substantially exceeds levels at the start of the GFC.

#### VIX volatility index



Source: Bloomberg

#### How do we reflect this crisis in our models/what is discounted by the market so far?

It is very difficult to accurately reflect the full impact of such a crisis into bottom-up models at this early stage. It takes time to reflect the impacts on each company in a consistent way. We have thus chosen two approaches. On the one hand, we decided to increase, for now, the ERP by 50bps over the entire period of our models. We adjust this with a company specific risk (Vontobel Beta) for each company (see table below). At the same time, we have sent out questionnaires to all the companies in our coverage universe in order to get a better picture of the impact, wherever possible. This will help us adjust our bottom-up estimates over time, reflecting short- and long-term impacts.

Furthermore, we extend our table below with a scenario of a full-blown recession. Historically, the impact was an increase in the ERP of about 200bps. Given the severity of the disruption, we view such a scenario as possible. This would result in double the impact of our Scenario 1 (see table below for both) from the “undisturbed” level on 25 February, taking the SPI and the SMI down to about 7,920 and 6,600, respectively. The impact would be different for each company, depending on how strongly they will be affected. We continue to give an estimated risk factor with respect to this crisis, which we started with our first “coronavirus report” ranging from 1 (lowest) to 5 (highest). Our analysts reviewed these ratings, based on a pandemic scenario. We then modelled these scenarios as follows.

#### VT estimated risk factor

Risk factor	1	2	3	4	5
<b>ERP impact</b>					
V-shaped recession	0.50%	0.75%	1%	1.25%	1.50%
U-shaped recession	1%	1.5%	2%	2.5%	3%

ERP: Equity Risk Premium

Source: Vontobel Equity Research

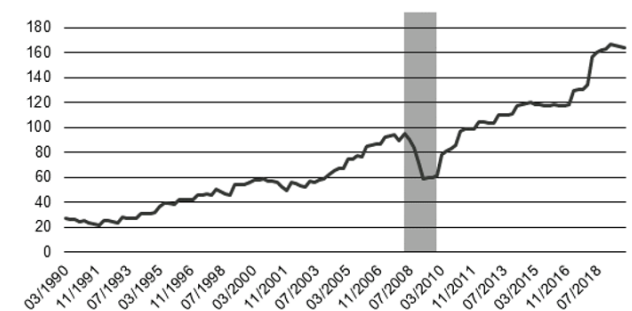
We incorporated these changes in ERP into the DCFs for the stocks we cover to estimate the impact on our price targets in such scenarios. The results are depicted below. We should, however, make some comments:

- These scenarios reflect our best guess, in a V-shape (100bps) and a U-shape (200bps) recession.
- The impact on individual stocks is amplified by any significant net debt (negative) or net cash (positive)
- Given that the above is a scenario with a lot of unknowns and uncertainties attached, we have only incorporated an increase of 50bps into our current target prices as we no longer believe we will have already reverted to normal in 12 months from now.
- Investors with a low risk tolerance might still chose to reduce their exposure to Swiss equities (and risky assets in general) in order to align their risk appetite with the increase in prevailing risk.

#### How long do earnings estimates fall – what is the impact?

One major difference that we can observe in the current downturn when we compare it the GFC, is the speed at which it is affecting stocks. This should also mean that analysts would cut their bottom-up estimates for companies a lot more quickly than during the financial crises. Based on quarterly data, it took about one year, from the end of 1Q08 to the end of 1Q09 for estimates of the S&P 500 to find a bottom (we chose to take the S&P 500, given that better data is available for this broad index than for the SMI or SPI). It took another year for estimates to rise substantially. However, the bottom of the S&P 500 concurred almost exactly with the bottom of the earnings estimates. If the GFC can help us as a guide, we should take some courage, once estimates start bottoming out, which might well concur with a stabilization of the reported COVID-19 cases in the US and major European countries.

#### S&P 500 EPS estimates



EPS: earnings per share

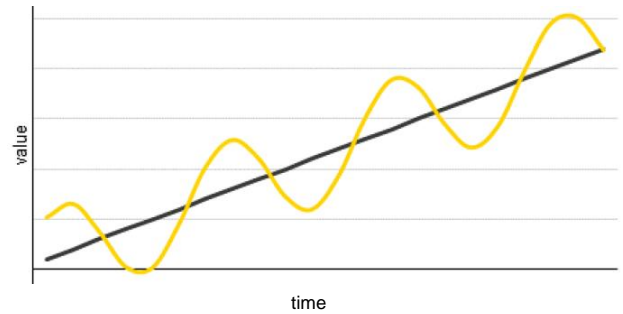
Source: Bloomberg

### What would we buy in this crisis?

It is always very difficult to redeploy valuable cash during a major crisis and market disruption. For those able and willing to invest, we would point out three criteria when looking at what to buy:

- 1) We would strongly focus on companies with strong balance sheets. We would define this as companies with relatively little or no debt that can continue to invest into their business. Furthermore, one should also consider the liquidity of the balance sheet. We would define this as balance sheets with much of the equity in assets, which are cash-like.
- 2) We like strong business models and very strong (niche) positions. During and post crisis, we are convinced that the strong will get stronger while the weak will get weaker. We generally do not believe in mean-reversion of companies, least so during times of major economic turmoil and disruption.
- 3) Companies that create value, i.e. have the ability to invest at returns exceeding their cost of capital over the long-term. The big advantage with these companies is that, by consistently generating (shareholder) value, their intrinsic value increases over time. This is generally a good thing and what companies should be all about, but it also takes some pressure off to find the “perfect” timing to buy, as time should be on the side of investors in the longer term.

### Companies that create value - perfect timing not essential, as time is on the investor's side



Source: Vontobel

## ALL COMPANIES (EX. FINANCIALS &amp; REAL ESTATE)

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	Net debt (+) / cash (-) FY19	Net debt (+) / cash (-) FY20E	Net Debt / EBITDA FY19	Net Debt / EBITDA FY20E	Net debt / Op. CF before NWC FY19	Net debt / Op. CF before NWC FY20E	Net Debt FY19 / Avg. Op. CF FY2018-22E	LT Issuer Rating (S&P/ Fitch/ Moody's)
ABB	USD	15.56	0.80	5.1%	5,666	-1,997	2.0x	-0.5x	2.5x	-0.7x	2.9x	A / A- A2
Adecco	EUR	33.55	2.50	7.5%	398	550	0.4x	0.7x	0.5x	1.0x	0.7x	BBB+ / Baa1
Alcon	USD	45.60	0.19	0.4%	2,998	2,498	2.4x	1.6x	3.1x	2.1x	4.2x	BBB / Baa2
ALSO	EUR	136.80	3.25	2.4%	148	55	0.8x	0.3x	1.1x	0.4x	0.9x	- / -
ams	EUR	9.19	0.00 *	0.0%	1,582	1,172	2.6x	1.6x	2.5x	1.8x	4.7x	- / -
Arbonia	CHF	7.21	0.22	3.1%	181	147	1.4x	1.0x	1.8x	1.1x	12.7x	- / -
ARYZTA	EUR	0.43	0.00	0.0%	1,639	1,955	5.9x	NM (neg. EBITDA)	6.5x	38.2x	37.7x	- / -
Ascom	CHF	4.90	0.00	0.0%	22	11	21.8x	0.4x	3.2x	0.5x	2.9x	- / -
Autoneum	CHF	58.30	0.00	0.0%	659	652	4.0x	3.5x	6.1x	3.6x	15.9x	- / -
Bachem	CHF	158.80	3.00	1.9%	86	120	1.0x	1.2x	1.1x	1.4x	18.6x	- / -
Barry Callebaut	CHF	1,860.00	26.00	1.4%	1,172	1,118	1.5x	1.3x	2.2x	1.8x	2.8x	BBB+ / Baa3
Belimo	CHF	4,920.00	150.00	3.0%	-159	-162	-1.0x	-1.0x	-1.2x	-1.2x	-1.6x	- / -
Bell Food Group	CHF	225.00	5.50	2.4%	674	689	2.4x	2.3x	2.7x	2.7x	16.4x	- / -
Bobst	CHF	37.64	1.50	4.0%	59	37	0.5x	0.3x	1.1x	0.5x	NM (neg. avg. FCF)	- / -
Bossard	CHF	99.90	4.00	4.0%	188	142	1.7x	1.3x	1.9x	1.6x	3.1x	- / -
Bucher	CHF	258.60	8.00	3.1%	-215	-267	-0.6x	-0.7x	-0.7x	-0.9x	-1.4x	- / -
Burckhardt *	CHF	159.80	6.00	3.8%	37	16	0.5x	0.2x	0.6x	0.2x	0.8x	- / -
Calida Group	CHF	25.30	0.80	3.2%	33	31	0.7x	0.8x	0.7x	0.7x	1.0x	- / -
Cicor Technologies	CHF	29.50	1.50	5.1%	17	13	0.7x	0.5x	0.9x	0.6x	2.4x	- / -
Clariant	CHF	16.00	0.55	3.4%	1,130	82	2.5x	0.1x	2.7x	0.2x	4.7x	BBB+ / Baa1
Comet *	CHF	86.40	1.00	1.2%	37	35	0.9x	0.6x	1.2x	0.8x	1.9x	- / -
Datwyler	CHF	137.40	3.00	2.2%	93	38	0.5x	0.2x	0.5x	0.2x	1.1x	- / -
DKSH	CHF	47.06	1.90	4.0%	-313	-343	-0.8x	-0.8x	-1.0x	-1.0x	-	- / -
dornakaba *	CHF	436.00	16.00	3.7%	644	589	1.4x	1.4x	1.8x	1.9x	2.8x	- / -
Dufry	CHF	21.46	4.00	18.6%	7,507	7,285	3.6x	3.0x	3.5x	3.1x	-	BB / WD / Baa2
Emmi	CHF	765.00	12.00	1.6%	101	-6	0.3x	0.0x	0.3x	0.0x	0.5x	- / -
EMS-Chemie *	CHF	561.00	20.00	3.6%	-457	-513	-0.7x	-0.7x	-0.8x	-0.9x	-0.9x	- / -
Feintool	CHF	38.85	1.00	2.6%	141	146	2.1x	1.9x	2.9x	2.1x	7.3x	- / -
Flughafen Zurich	CHF	95.45	7.10	7.4%	1,123	1,168	1.7x	1.9x	2.1x	2.2x	12.8x	AA+ / -
Forbo	CHF	1,134.00	23.00	2.0%	-178	-172	-0.8x	-0.8x	-0.9x	-1.0x	-1.2x	- / -
Galenica	CHF	64.15	1.75	2.7%	557	548	2.1x	2.0x	2.3x	2.2x	3.1x	- / -
Geberit	CHF	394.30	11.30	2.9%	409	444	0.5x	0.5x	0.5x	0.6x	0.7x	A+ / -
Georg Fischer	CHF	576.00	25.00	4.3%	232	136	0.6x	0.3x	0.7x	0.4x	1.3x	- / -
Givaudan	CHF	2,807.00	62.00	2.2%	3,651	3,938	2.9x	2.7x	3.1x	3.0x	3.7x	A- / Baa1
Huber+Suhrner	CHF	48.65	1.60	3.3%	-190	-189	-1.7x	-1.8x	-1.9x	-2.0x	-3.0x	- / -
Idorsia	CHF	21.24	0.00	0.0%	-160	365	NM (neg. EBITDA)	NM (neg. EBITDA)	NM (neg. Op. CF before NWC)	NM (neg. Op. CF before NWC)	NM (neg. avg. FCF)	- / -
Implenia	CHF	33.00	0.75	2.3%	-273	-274	-1.5x	-1.3x	-2.1x	-2.7x	-12.8x	- / -
Infincon	CHF	527.00	18.00	3.4%	-50	-73	-0.7x	-0.9x	-0.8x	-1.0x	-1.0x	- / -
Interroll *	CHF	1,386.00	23.00	1.7%	-52	-69	-0.5x	-0.7x	-0.6x	-0.7x	-1.0x	- / -

## ALL COMPANIES (EX. FINANCIALS &amp; REAL ESTATE) cont.

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	Net debt (+) / cash (-) FY19	Net debt (+) / cash (-) FY20E	Net Debt / EBITDA FY19	Net Debt / EBITDA FY20E	Net debt / Op. CF before NWC FY19	Net debt / Op. CF before NWC FY20E	Net Debt FY19 / Avg. Op. FCF 2018-22E	LT Issuer Rating (S&P/ Fitch/Moodys)
Jungfraubahnen *	CHF	100.20	2.90	2.9%	4	44	0.0x	0.4x	0.1x	0.5x	3.2x	-/-/-
Kardex	EUR	113.60	4.50	4.0%	-134	-117	-1.9x	-1.8x	-2.5x	-2.4x	-4.7x	-/-/-
Klingelberg *	EUR	9.60	0.00	0.0%	14	9	NM (neg. EBITDA)	NM (neg. Op. CF before NWC)	NM (neg. Op. CF before NWC)	NM (neg. Op. CF before NWC)	2.6x	-/-/-
Komax	CHF	163.40	1.80	1.1%	106	93	2.9x	2.4x	4.0x	2.9x	9.1x	-/-/-
Kudelski	USD	3.20	0.10	3.1%	436	415	10.7x	5.3x	17.3x	5.6x	12.8x	-/-/-
Künne + Nagel	CHF	133.00	4.00	3.0%	1,444	1,279	0.8x	0.7x	1.0x	0.8x	1.3x	-/-/-
LafargeHolcim	CHF	31.48	2.00	6.4%	10,115	8,238	1.7x	1.3x	2.4x	2.0x	3.7x	BBB/BBB/Baa2
Lalique Group *	EUR	24.60	0.50	2.0%	20	15	1.3x	0.7x	1.5x	0.8x	5.2x	-/-/-
Landis+Gyr *	USD	57.55	3.20	5.6%	8	15	0.0x	0.1x	0.1x	0.1x	0.1x	-/-/-
LEM	CHF	912.00	46.00	5.0%	-22	-10	-0.3x	-0.1x	-0.3x	-0.2x	-	-/-/-
Lindt & Sprüngli	CHF	6,975.00	1,750.00	25.1%	423	257	0.5x	0.3x	0.5x	0.3x	0.9x	-/-/-
Logitech	USD	34.54	0.73	2.1%	-605	-652	-1.8x	-1.8x	-1.7x	-1.6x	-1.9x	-/-/-
Lorza	CHF	330.80	2.75	0.8%	3,035	2,728	2.0x	1.7x	2.3x	2.0x	5.1x	BBB+/-/-
Metall Zug *	CHF	1,380.00	70.00	5.1%	-165	-132	-2.0x	-1.1x	-2.5x	-1.4x	-2.5x	-/-/-
mobilezone	CHF	8.20	0.60	7.3%	131	115	1.9x	1.7x	2.4x	2.1x	3.7x	-/-/-
Nestlé	CHF	93.83	2.70	2.9%	26,901	31,430	1.3x	1.6x	1.7x	1.9x	2.1x	AA-/AA/Aa3
Novartis	USD	73.94	2.95	4.0%	15,938	18,515	1.1x	1.1x	1.2x	1.2x	1.2x	AA-/AA/A1
OC Oerlikon	CHF	6.08	1.00	16.5%	-331	-13	-0.8x	0.0x	-1.0x	0.0x	-2.5x	-/-/-
Oriol	CHF	76.00	2.32	3.1%	150	155	2.5x	2.3x	2.9x	2.7x	4.0x	-/-/-
PIERER Mobility *	EUR	28.80	0.33	1.0%	395	410	1.6x	2.0x	1.5x	2.2x	12.2x	-/-/-
Richemont *	EUR	51.18	2.10	4.1%	-3,311	-3,570	-1.2x	-1.1x	-1.4x	-1.4x	-1.9x	AA+/-/-
Röche	CHF	88.65	4.50	5.1%	-162	-150	-1.3x	-2.6x	-0.1x	-3.3x	-10.6x	-/-/-
Roth	CHF	299.20	9.00	3.0%	2,505	-2,346	0.1x	-0.1x	0.1x	-0.1x	0.1x	AA/AA/Aa3
Schindler	CHF	203.20	4.00	2.0%	-2,211	-2,635	-1.4x	-1.7x	-1.9x	-2.1x	-2.2x	-/-/-
Sensirion	CHF	28.55	0.00	0.0%	-50	-58	-3.6x	-2.2x	-2.5x	-2.5x	-4.4x	-/-/-
SFS	CHF	62.55	2.00	3.2%	-69	-116	-0.2x	-0.4x	-0.3x	-0.4x	-0.4x	-/-/-
SGS	CHF	2,060.00	80.00	3.9%	1,406	1,266	1.1x	0.9x	1.2x	1.1x	1.5x	-/-/A3
Siegfried	CHF	370.00	2.80	0.8%	366	316	3.4x	2.2x	3.1x	2.5x	7.4x	-/-/-
SIG Combibloc	EUR	12.42	0.38	3.1%	1,332	1,214	2.8x	2.4x	3.8x	3.1x	6.8x	BBB/-/-
Sika	CHF	143.40	2.30	1.6%	3,418	2,880	2.5x	1.8x	3.1x	2.2x	3.4x	A/-/-
Sonova *	CHF	157.55	3.20	2.0%	697	902	0.9x	1.1x	1.1x	1.2x	1.2x	-/-/-
Straumann	CHF	616.40	5.75	0.9%	235	56	0.5x	0.1x	0.5x	0.1x	0.8x	-/-/-
Sulzer	CHF	54.80	4.00	7.3%	347	157	0.8x	0.3x	1.1x	0.4x	1.3x	-/-/-
Sumise	CHF	76.30	4.40	5.8%	1,377	1,396	2.3x	2.0x	2.9x	2.4x	6.5x	-/-/Ba2
Swatch Group	CHF	166.40	8.00	4.8%	-1,348	-1,748	-0.9x	-1.1x	-1.1x	-1.4x	-1.8x	-/-/-
Swisscom	CHF	527.20	22.00	4.2%	9,159	8,490	2.1x	2.0x	2.4x	2.1x	5.5x	A/-/A2
Tecan	CHF	275.00	2.20	0.8%	-266	-331	-2.2x	-2.6x	-2.6x	-3.0x	-3.1x	-/-/-
Temenos	USD	106.60	0.85	0.8%	1,022	796	2.8x	1.8x	2.6x	1.9x	2.6x	-/-/-
u-blox	CHF	53.00	0.60	1.1%	8	25	0.2x	0.4x	0.1x	0.4x	6.2x	-/-/-
Valora	CHF	156.00	12.50	8.0%	1,373	1,408	4.6x	4.6x	4.9x	4.7x	8.1x	-/-/-
VAT Group	CHF	107.65	4.19	3.9%	144	148	0.9x	0.8x	1.1x	0.9x	1.0x	BB-/Ba2
Vifor	CHF	102.05	2.00	2.0%	99	-226	0.2x	-0.4x	0.2x	-0.4x	0.2x	BBB-/BBB/-
Ypsomed *	CHF	112.00	0.20	0.2%	165	182	2.8x	2.2x	2.9x	2.4x	NM (neg. avg. FCF)	-/-/-
Zehnder	EUR	34.90	1.00	2.9%	-26	-38	-0.4x	-0.6x	-0.4x	-0.7x	-1.2x	-/-/-

Figures in mns (except Share Price and Dividend per Share)

\* Not reported FY19 until 17.03.20, Vontobel estimates

Source: Vontobel Equity Research

**BANKS**

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	CET1 Ratio FY19	CET1 Leverage Ratio FY19	LT Issuer Rating (S&P/ Fitch/ Moody's)
BCV	CHF	725.00	36.00	5.0%	17.1%	6.3%	AA/-/ Aa2
Cembra	CHF	80.15	3.75	4.7%	13.8%	11.7%	A-/ -/ -
Credit Suisse	CHF	6.80	0.28	4.1%	12.7%	4.0%	BBB+/-/ Baa2
EFG International	CHF	4.12	0.30	7.3%	14.0%	4.1%	-/ A/ A3
Julius Baer	CHF	25.80	1.50	5.8%	14.0%	2.8%	-/ -/ Aa2
St. Galler KB	CHF	364.00	16.00	4.4%	16.2%	6.8%	-/ -/ Aa1
UBS	USD	7.76	0.73	9.4%	13.7%	3.9%	A-/ -/ -
VZ Holding	CHF	267.00	5.10	1.9%	27.7%	13.6%	-/ -/ -

**ASSET MANAGERS**

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	Net Cash FY19	Tangible Equity FY19	LT Issuer Rating (S&P/ Fitch/ Moody's)
GAM	CHF	1.74	0.00	0.0%	316	162	-/ -/ -
Partners Group	CHF	554.00	25.50	4.6%	1,034	2,219	-/ -/ -

Figures in mns (except Share Price and Dividend per Share)

\* Not reported FY19 until 17.03.20, Vontobel estimates

Source: Vontobel Equity Research

**INSURANCE**

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	Asset Leverage FY19	Solvency Ratio FY19	LT Issuer Rating (S&P/ Fitch/ Moody's)
Baloise	CHF	122.10	6.40	5.2%	9.0x	200%	A+/-/ -
Helvetia	CHF	80.10	5.00	6.2%	9.4x	209%	A/-/ -
Swiss Life	CHF	280.70	20.00	7.1%	10.8x	>200%	A/-/ -
Swiss Re	USD	58.42	5.90	10.1%	4.6x	230%	AA-/ A/ Aa3
Vaudoise *	CHF	412.00	18.00	4.4%	4.0x	292%	-/ -/ -
Zurich Ins. Group	USD	277.70	20.00	7.2%	5.7x	>220%	AA-/ -/ Aa3

Notes:

Asset leverage is defined as Investments as a multiple of shareholders' equity. Investments are defined as insurance assets, excluding third party/unit-linked assets, including cash. Shareholders' equity included unrealized gains and excludes minorities. Solvency ratio is SST ratio, preliminary figures as of FY 19 or our estimates.

Zurich: Solvency ratio is our estimate, Z-ECM at FY19 was 129%. Swiss Re: solvency ratio is our estimate. We estimate the asset leverage will decline to around 4.0x after the sale of ReAssure. Helvetia: Solvency ratio is our estimate. Vaudoise: Solvency ratio is our estimate.

\* Not reported FY19 until 17.03.20, Vontobel estimates

Figures in mns (except Share Price and Dividend per Share)

Source: Vontobel Equity Research

**REAL ESTATE**

Company	Curr.	Last Price	Dividend FY19	Div. Yield FY19	Equity ratio FY19	Equity ratio FY20E	LTV FY19	LTV FY20E	FY20-23E development pipeline in % portfolio FY19	LT Issuer Rating (S&P/ Fitch/ Moody's)
Allreal	CHF	179.60	6.75	3.8%	49.4%	48.0%	44.8%	43.4%	4.0%	-/ -/ -
HIAG Immobilien	CHF	75.00	0.00	0.0%	41.3%	41.2%	51.4%	52.2%	13.4%	-/ -/ -
Investis *	CHF	73.60	2.35	3.1%	47.0%	47.8%	39.9%	39.0%	1.7%	-/ -/ -
Mobimo	CHF	247.50	10.00	4.0%	44.4%	44.5%	48.3%	46.0%	16.9%	-/ -/ -
PSP Swiss Property	CHF	105.50	3.60	3.4%	55.4%	55.2%	32.3%	31.7%	6.8%	-/ BBB+/ A3
SF Urban Prop.	CHF	88.50	3.60	4.1%	46.5%	46.9%	44.6%	43.9%	2.4%	-/ -/ -
Swiss Prime Site	CHF	105.40	3.80	3.6%	44.4%	45.9%	45.7%	44.4%	8.8%	-/ -/ -
Zug Estates	CHF	1,940.00	44.00	2.3%	54.7%	55.5%	36.1%	34.2%	12.2%	-/ -/ -

\* Not reported FY19 until 17.03.20, Vontobel estimates

Figures in mns (except Share Price and Dividend per Share)

Source: Vontobel Equity Research



## Will the world go back to “normal”?

We believe that things will ultimately go back to “normal”. This is based on the view and hope that the end of the crisis can, to a certain degree, be foreseen. Either society and politics cannot get ahead of the curve, in which case the spread of the virus cannot be controlled or slowed, or, with some delay and at a slower pace, the western world manages to do what China and some other Asian countries successfully managed. In the first case, the economic downturn is likely to be violent, but relatively short lived, with likely human tragedy. In the second scenario, the cost to human life will probably be much lower, but the economic downturn is likely to be longer, but the impact on the economy also more contained.

However, while things might go back to “normal”, we do not believe that things will necessarily go back to the way they were. We have started to look out for change that could be more permanent and potentially affect some Swiss companies’ business models. The table below aims to provide very early input and food for thought from our analysts. Where the analysts believe that there is potential to create new winners, they have given a bit more depth to their thoughts.

### Telecommuting/Home Office infrastructure providers

The coronavirus outbreak and the various efforts taken by governments and companies have already changed how and where people work with increased usage of telecommuting and virtual meetings as well as conferences/roadshows via live webcasts and interactive telepresences. The measures taken by corporates to decentralize work forces with increased home office work could profoundly change the work culture of the future (i.e. Sunrise’ introduced 80/20 office/home work by 2020) with additional measures taken to improve disaster recovery procedures as hardware and network infrastructures already come to their limits. Both trends are expected to result in increased infrastructure spending in both broadband and wireless networks, resulting in higher lines/subscriptions for high-speed connections globally. We see e.g. China planning ambitious “new infrastructure” projects (incl. accelerating construction of 5G networks and data centers) to offset the economic impact of COVID-19. This marks a turn of infrastructure spending more into high-tech field. The introduction of 5G – supported by fiber and antenna/small cells densification - with its high bandwidth and low latency will make remote work and virtual meetings even more convenient (no delays of video signal). Consequently, we see the Swiss telecom operators **Swisscom (+)** and **Sunrise (+)** as well as network equipment suppliers **Huber + Suhner (+)** and installers (**Burkhalter, not covered**) as long-term beneficiaries.

### Video collaboration/Home Office hardware and service providers

The video collaboration market is still in early days with only about 3-5% of meeting rooms being video equipped. Benefits of video collaboration include reduced travel costs, less travel-related CO<sub>2</sub> emissions, and increased productivity and creativity through promotion of small team collaboration. We are convinced that the effects of the coronavirus outbreak and in particular travel restrictions and massive increase in home office usage will not only drive short-term demand for video conferencing equipment and platforms but will accelerate the adoption of video collaboration in the mid to long-term. With 62% market share in USB enabled video collaboration hardware by revenues, and 42% market share by number of equipped rooms (source: Synergy Research), **Logitech (+)** is a clear beneficiary from this trend. Furthermore, we believe that many companies and individuals are about to make use of home office for the first time. This will likely lead to increased demand for keyboards, mice, displays, laptops, headsets and webcams, which most certainly benefits Logitech. Due to higher demand for virtualization and streaming used for remote work and video collaboration, we also believe that **ALSO Holding (+)** could be a beneficiary as it offers such novel services but also the hardware and software required in its Supply activities as well as cloud-based software applications in its Service activities.

### Investment in the de-globalization of the supply chain

The global market has benefited from cost-efficient production in China for a very long time. Already with the intensifying Sino-American trade dispute, companies started to rethink their production footprint and the COVID-19 outbreak has further demonstrated the risks of the globalized supply chain and logistics. The world’s huge dependency on China has revealed that the global supply chain is very fragile and overly dependent on a single country. This, in some cases, also has national security implications (e.g. active pharmaceutical ingredient sector is excessively reliant on China). We anticipate that companies will be looking to take a more decentralized and localized approach and will reassess China’s role in the global supply chain. According to the South China Morning post, 28% of US companies are considering or are already setting up alternative supply chains outside China. While shifting supply chains creates opportunities for logistics providers such as **Kühne+Nagel (+/-)**, the de-globalization trend, as pundits refer to it, is generally unfavorable for said companies. De-globalization has several important effects. Firstly, companies are likely to invest in new manufacturing plants, warehouses, and distribution centers in new locations closer to end consumers (South East Asia, but also Europe & the US). Secondly, these new locations may be considered less efficient (i.e. lack relevant infrastructure or human capital) and will most likely be more expensive (i.e. higher cost of real estate and wages). To mitigate the impact on profits, companies are likely to adopt a higher degree of automation and standardization globally. This should enable efficient production and sourcing of the same products simultaneously from at least two locations

at all times. The substantial incremental investment needed will also require efficient and standardized solutions to reduce plant footprint and energy costs. **Kardex (+)**, which supplies standalone dynamic storage machines, and **Interroll (+)**, which makes conveyors, sorters, and pallet handling equipment, offer small, but key, elements to making de-globalization work. Their

products are mostly industry-agnostic and they have been benefitting from similar decentralization/localization trends in the online distribution & postal service segment for a number of years. The segment is likely to see additional demand boosts due to the positive effect the COVID-19 outbreak is likely to have on e-commerce.

### Positive/Negative trends and their impact on Swiss companies

Long-term changes	Description	Affected companies	Extent
<b>Positive</b>			
Increasing awareness that drug manufacturing should not be overly exposed to China and India and that western, high quality manufacturing can add value – even for generics, where price pressure is higher	After several problems with drug manufacturing in Asia and consequently a shortage of various drugs, regulatory requirements and consumer expectations have increased regarding the availability of high quality drugs and ensuring a reliable supply	- Lonza - Siegfried - Bachem	- Lonza generates around 25% of group revenues, or CHF 1.7 bn, with drug substance or drug product (Capsugel) solutions related to small molecules - Siegfried probably generates 99% of group revenues, or CHF 825 mn, with drug substance and drug product solutions related to small molecules - Bachem, global leader in peptide drug manufacturing, generates 100% of revenues with these drugs, but Chinese competition is much less and the upside more limited. Only supplies comes from China and AmbioPharm is partly based in China.
Awareness that diagnostic testing capacity needs to be increased quickly and thoroughly to gain better control of the next pandemic – which is more a question of “when” than “if”	Diagnostic tests and vast testing capacity are key to possibly gaining control of a viral outbreak. During the SARS-CoV-2 outbreak, regions where stringent testing procedures were put in place managed to control the epidemic more swiftly than others	- Roche - Tecan	- Molecular diagnostic, a Roche Diagnostics business area, accounts for about 3.5% of Roche Group revenues. We expect this to increase in the aftermath of the pandemic - Around 60% of Tecan revenues go into regulated diagnostics (90% of Partnering business). Tecan has already received additional instrument orders from China and South Korea, and demand for consumables and reagents is also likely to increase
Inceased use of home office/video conferencing technology	Companies will have experienced that working from home and video conferencing work and actually make them more efficient in certain cases, help cut costs, and improve their carbon footprint; more home-office use will also create demand for PC peripherals	- Logitech* - ALSO Holding*	12% of revenue in Video Collaboration at above average margins 42% of revenue in PC peripherals (mice, keyboards, webcams)
Increase telco network usage from increase of telecommuting and spare capacity for disaster recovery	The massive sudden increase in home office/telecommuting has already pushed networks at their limits with service quality being impacted. Network expansions likely intensified also with help of 5G to support this and increase in disaster recovery backup communication lines.	- Huber + Suhner* - Sunrise* - Swisscom*	Swiss telcos: Mobile and broadband service subscriptions increase. Huber + Suhner: Fiber investments up (broadband and 5G network).
De-globalization will lead to more localized logistics and warehouses	Already the trade conflict started to negatively impact globalization, the virus outbreak is expected to accentuate the trend towards more localized supply chains and logistics services.	- Kardex* - Interroll* - Kühne+Nagel*	Kardex and Interroll generate majority of sales with logistics services and expected to see increase demand K+N benefits from supply chains shifts and complexity but de-globalization is adverse
Improvements of HVAC systems to improve health conditions and reduce spread of viral diseases	Regulating critical indoor air factors including humidity, air temperature/exchange and fresh air content helps to improve health conditions/immune systems and reduce spread of viral diseases	- Belimo - Zehnder - Sensirion	Both are leaders in their respective fields for air/water flow regulation and ventilation systems Sensirion supplies related sensors
<b>Negative</b>			
Less business travel	Business travel could become considerably less important for travel retail than private holiday travel given that companies are likely to experience that working from home and video conferencing work and actually make them more efficient in certain cases, help cut costs, and improve their carbon footprint	- Dufry	88% of sales generated at airports

\* highly exposed to a strong trend

Source: Vontobel Equity Research

## Swiss company exposure to the pandemic, V- and U-shaped scenarios, including company comments on current pandemic effects on the business

In the table below, we provide an overview of Vontobel Equity Research analysts' review of the exposure of the stocks in their coverage universe to the SARS-CoV-2 pandemic. Note: this is contrary to the working assumption in our last coronavirus Market view published on 26-02-20 in which we assumed a potential pandemic. With the help of a questionnaire sent to individual companies, we rate every company's economic business exposure to the ongoing global pandemic and quantified its impact on the price target for every stock. The values also offer insight into individual stock's sensitivity to the outbreak, which is amplified in specific cases by any significant net debt (negative) or net cash (positive). In order to support investment decisions, we apply a risk scale of 1 to 5 in an attempt to quantify individual company's economic exposure relative to the pandemic. Depending on the course this

pandemic takes, we will have to bear a V- or U-shaped recession (see chapters above). Thus, we sketched out both these scenarios and present the finding in the table below.

It is very difficult to accurately reflect the full impact of such a crisis into bottom-up models at this early stage. It takes time to reflect the impacts on each company in a consistent way. We have thus decided to increase, for now, the equity risk premium by 50 bps – equaling half the V-shaped scenario. We adjust this with a company specific risk (Vontobel Beta) for each company (see table below). Thus, below, we provide new Vontobel price targets that reflect all the aspects we consider to rate a stock, incl. our current view on how the pandemic will affect the companies in our coverage universe.

### Vontobel risk scale used to quantify the economic exposure to a pandemic

Risk	Explanation	V-shaped recession scenario*	U-shaped recession scenario*
1	No or very little economic exposure / impact	0.50%	1.00%
2	Expect some economic impact with limited impact	0.75%	1.50%
3	Economic exposure is medium and we expect moderate impact	1.00%	2.00%
4	High economic exposure that clearly impacts the business	1.25%	2.50%
5	Highest economic exposure with most significant business impact	1.50%	3.00%

\*values represent the assumed increase of the market risk-premium across the time scale in our DCF model

Source: Vontobel Equity Research

## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
ABB	More difficult in Europe, normalization in China	Alternatives in place. Certain shortages expected	Not yet, but short-cycle and project business will likely be impacted	Yes, Home office, travel restrictions	Guidance prior to outbreak. Short-cycle business will clearly be impacted with project delays resulting in lower orders/sales recognition. New PT also impacted by FX	4	-6.9%	-21.2%	Hold	15.6	26	22	-33.4%
Adecco	Not applicable	Not applicable	Sharp economic slowdown will affect temporary staffing	Presumably, but likely to vary by country	Adecco has limited exposure (<10%) to most affected sectors such as tourism, transport, retail, catering, but we nonetheless assume a significant temporary revenue drop of up to 30% in 2Q20	5	-11.4%	-27.3%	Hold	33.6	61	44	-45.2%
Alcon	No	No	Demand for eye surgeries is likely to be lower. Other business rather unlikely	Yes, for various sites and processes	See comments to the left	2	-5.1%	-16.3%	Reduce	45.6	53.5	49	-16.8%
Allreal	No	No	Negative	NA	No significant risk in terms of re-letting; 1.6% FY20 and 5% in FY21&22E. While the P&D division pipeline is full (almost 2-year workload), a recession would hit the business and profitability. The FY19 equity ratio of 49.4% was strong	1	-6.1%	-10.9%	Hold	179.6	196	184	-6.7%
ALSO	No	Higher inventory than usual in preparation of outbreak	Retail down but e-tail up. Cloud/business positive. No material impact	Yes, home office except logistics (split teams)	Limited impact and 2H more important than 1H. Likely beneficiary from increased home office/cloud/virtualization	3	-8.2%	-21.5%	Buy	136.8	220	202	-16.3%
ams	No constraints	Not seeing any significant impact	No material changes so far	Yes, BCP in place for production and admin	1Q guidance re-confirmed. 2Q likely with severe European demand impact. New PT also reflects higher finance risk and ex-rights trading	4	-11.8%	-33.6%	Buy	9.2	70	45	-65.4%
Arbonia	The company prefers not to provide this information at this point in time	The company prefers not to provide this information at this point in time	No impact so far	The company emphasizes that it adheres to all mandatory rules	We assume that Arbonia's production close to Milan is negatively impacted and we also expect some negative demand impact in the coming weeks	2	-6.6%	-20.0%	Reduce	7.2	10.5	8.5	-42.8%
Aryzta	Not for the time being, factories running at full capacity	Not for the time being	QSR, Foodservice likely to be affected, but offset by Large Retail	Yes, initiated six weeks ago	90% of sales in North America and Europe. Out-of-home consumption will be heavily impacted. Large Retail will offset somewhat.	5	-24.4%	-64.4%	Reduce	0.43	0.75	0.45	-60.0%
Ascom	No	No but logistics from China a slight issue	Projects postponed, increased device demand	Yes	Device demand hospitals but projects delayed. Overall, limited impact, but likely more positive outcome long-term	3	-7.6%	-20.3%	Hold	4.9	9	8	-53.4%
Autoneum	Cap constraints & demand are correlated. Margins could be under pressure	Materials sourced locally. Transportation done only locally & not an issue	Shortfall only in China so far. COVID-19 likely to have impact on global demand	NA	Autoneum likely to slow down substantially if the COVID-19 spreads globally. It has a broad global manufacturing footprint with 50 factories. High fixed cost base and high leverage makes Autoneum very sensitive to the pandemic	5	-31.6%	-80.3%	Hold	58.3	115	76	-49.8%
Bachem	No	No. Dual-sourcing and manufacturing partly aboes possible in-house.	No	Yes, for various sites and processes	See comments to the left	1	0.0%	-20.9%	Hold	158.8	145	148	2.6%

## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Baloise	NM	NM	Too early to tell	Yes, e.g. home office, video conferencing	So far, no impact on insurance business. Sales might decline if situation remains unchanged	1	9.4%	-1.6%	Buy	122.1	198	143	-30.2%
Barry Callebaut	Not for the time being	Not for the time being - security of stocks provided	G&S hit in Asia, more to come	Yes	Overall, limited impact likely. G&S delivering hotels, restaurants, etc. hugely impacted. The business is highly profitable, but represents only 10% of volume (20% of sales)	4	-10.4%	-27.8%	Hold	1860.0	1900	1700	-13.0%
BCV	The bank's daily business is not impacted, despite home office etc.	NA	Slowdown in Trade Finance. Too early to say on other products and services	Yes, mix team shifting, home-office, travel ban, etc.	P&L impact depends on depth & length of potential recession. Contrary to most other cantonal banks, BCV is active in Trade Finance that will likely suffer. BCV is very well capitalized (17.1% CET1 ratio, 6.3% CET1 leverage ratio)	2	-6.0%	-16.0%	Hold	725.0	760	722	-8.2%
Belimo	Not so far	No major issues so far	Only in China so far	Yes	Given its very strong balance sheet and intact structural growth drivers, we believe will Belimo manage the current economic crisis very well	3	-9.8%	-24.3%	Hold	4920.0	6000	5330	-32.5%
Bell Food Group	No	No	+/-	Yes, restrictions in travel/meetings etc.	Retail with higher demand, but food service declining	2	-7.0%	-20.9%	Hold	225.0	270	215	-14.1%
Bobst	Currently no significant impact, but could become more problematic	Currently no significant impact, but could become more problematic	Field services impacted, mitigated by remote ordering/maintenance	Yes, home office, travel ban	Order backlog helping, but weak demand accentuated and projects on hold, delaying revenue recognition from 1H into 2H and 2021	4	-17.0%	-43.3%	Hold	37.6	52	43	-33.2%
Bossard	Not relevant since no parts produced	No details. It has global footprint could be impacted by COVID-19.	Weak demand indicated by low PMIs which are now impacted by COVID-19	NA	Bossard is a cyclical company that will react disproportionately to weak global macro environment. It has a global footprint and its supply chain could be impacted by coronavirus. We see above average risk due to COVID-19 pandemic	4	-11.4%	-29.8%	Hold (old: reduce)	99.9	130	114	-42.8%
Bucher	No	No, mostly up and running (maybe some smaller issues in Italy)	Negative	Yes	Demand for investments goods should remain intact overall. Some interruptions at Wuhan site (offline) at Municipal and e.g. a project delay at Erhart Glass/Sanjin. Bucher had a strong net cash position of CHF 214.6 mn in FY19	2	-5.8%	-15.2%	Hold	258.6	310	290	-23.9%
Burckhardt Compression	NA	NA	Negative	NA	The interruptions on the China business (35%) were limited. But we expect some delays in deliveries (from CH), which are likely to impact FY19/20 sales (close year at end of March). BC has a small net debt position of CHF 37 mn in FY19/20E	3	-8.4%	-21.4%	Hold	159.8	300	230	-39.7%
Calda Group	No	Partly, supply from Asia in Outdoor division	Neg.	Yes	Stores closed in Switzerland/Germany/France; supply for Calda is mainly in Hungary, Autade in Tunisia and Furniture in France, only outdoor division with supply from Asia	3	-4.0%	-15.1%	Hold	25.3	36	33	-31.3%
Cembra	So far everything is running as usual, no unusual waiting times in customer service	NA	No comment as per today	Yes. Comprehensive crisis management plans are in place	P&L impact depends on depth & length of potential recession. During the last financial crisis, loan losses increased slightly, not massively. Cembra is well capitalized (13.8% CET1 ratio, 11.7% CET1 leverage ratio).	2	3.0%	-10.0%	Buy	80.2	136	112	-24.4%
Cicor	No material impact. New SAP system would help with smooth relocation	Difficult supply of electronic components. Main issue is transportation	Delays possible, but no cancellations	Continuity plan in place (HO, travel restrictions, rules for personal contact)	Cicor sees limited impact now, but is suffering from a shortage of some electronic components. We see strong near-term impact from COVID-19 pandemic and high risk. While short-term delays are likely, the long-term picture looks positive	4	-2.4%	-21.3%	Buy	29.5	80	62	-50.3%



## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Clariant	No material headwinds likely, other than temporary outages in China	Possibly only temporary delays, but no material headwinds likely	Yes for industries like auto and construction. Also likely to be hit by low oil prices	Yes, for various sites and processes	See comments to the left	3	-35.2%	-42.6%	Buy	16.0	28	27	-25.9%
Comet	We expect no major constraints, but some constraint not ruled out	We expect no major constraints, but some constraint not ruled out	Possible delays in fab projects	Likely	We expect see delays in fab ramp-ups that may shift recovery of semi equipment demand into 2H20	4	-15.9%	-34.1%	Buy	86.4	159	137	-29.5%
Credit Suisse	NA	NA	NA	Yes, including staff splitting, home office, travel restrictions	CS management might provide some guidance at a conference on Thursday, 19 March 2020. We believe most P&L items will be impacted negatively, with the exception of transactional revenues. CS continued to buy back shares during the week of 9 March.	5	15.0%	-11.0%	Hold	6.8	13	8	-48.1%
Datwyler	Low capacity constraints at the moment	No problems with raw materials, problems with logistics from China to the US	Positive: Health Care, Neutral: F&B, Negative: Automotive, Oil & Gas	Home office for most admin work, travel restriction in place, shifts are split	Datwyler faces minor limitations now. It took proactive steps at an early stage. The key concerns are limited China-US logistics and soft demand in key markets not completely offset by strong healthcare. COVID-19 impact not in the outlook.	3	-9.5%	-24.4%	Hold	137.4	196	160	-26.3%
DKSH	NA	No, mostly up and running	Negative	Yes, (home office if possible, travel restrictions)	DKSH mostly has products for daily needs, limiting risk. On the negative side, we believe high-margin luxury and lifestyle items (e.g. Chinese tourists to Thailand), as well as the Technology. DKSH had a strong CHF 313 mn net cash position in FY19	3	-6.3%	-16.3%	Hold	47.1	58	54	-10.7%
dormakaba	So far only in China, but the situation there is improving again	No major impact so far, but development has to be monitored	Lower China demand & impact on Italian Key Systems business	Comprehensive crisis management. Business continuity plan	dormakaba's industry is generally rather late-cyclical	3	-11.6%	-29.4%	Hold	436.0	570	500	-37.0%
Dufry	Yes, closure of airports	Products available, but stores closed	Initial impact in Asia (15% of sales), now Europe (44%) and US (22%)	Yes, actions (cost savings, less capex) already initiated	Closure of airport stores worldwide, liquidity as main issue: FY19 cash of CHF 0.5 bn and undrawn credit lines of CHF 0.7 bn	5	-13.4%	-33.4%	Buy	21.5	115	60	-77.7%
EFG International	NA	NA	NA	Yes, including split: /home office, temperature controls, travel restrictions	We believe most P&L items will be impacted negatively, with the exception of transactional/trading revenues. EFG's life insurance portfolio might experience additional maturities, resulting in a benefit for EFG from the current situation.	4	6.0%	-16.0%	Hold	4.1	6.2	4.4	-35.5%
Emmi	No material impact	Only some minor issues	+/-	Yes, detailed plan in place	Retail with higher demand, but food service declining	2	-7.7%	-19.8%	Hold	765.0	850	780	-9.2%
EMS-Chemie	Not so far. Even in China, all plants are fully operational	No problems so far. More inventories built-up to remain flexible.	No yet. Going forward auto demand could collapse temporarily	3,500 different business continuity plans in place since several weeks	Automotive end customer demand is likely to hit EMS heavily for at least 1-2 quarters, but EMS is well-prepared to overcome any difficulties	4	-14.0%	-28.1%	Hold	561.0	650	570	-11.9%
Feintool	No constraints now, China back on track. New product ramp-ups are limited	No problem with suppliers and transportation so far	Demand is low but at an acceptable level. Further deterioration likely	Continuity plan in place (HO, travel restrictions, rules for personal contact)	Feintool sees currently bit lower demand and expects the situation to deteriorate further. It is taking proactive steps but it is likely to be impacted by COVID-19 pandemic. Its FY20 outlook doesn't take into account the global pandemic	4	-14.8%	-15.4%	Hold	38.9	62	46	-37.1%

## Swiss company exposure to a pandemic coronavirus scenario; incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Flughafen Zürich	NA	NA	Negative	Yes, wherever possible, employees are asked to work from home	Business is temporary/ heavily impacted due to capacity cuts by airlines. We expect a temporary dip in 1H20E in airport traffic stats followed by a sequential recovery and rebound in FY21E.	5	-15.3%	-30.3%	Buy	95.5	210	150	-46.0%
Forbo	So far, only production in China was impacted for a limited time	Probably less of an issue	It is fair to assume that demand is negatively affected in both divisions	Yes with various elements	We expect demand for Forbo's products to be negatively impacted in the coming months, but the company is likely to weather the storm thanks to its strong balance sheet	3	-6.9%	-17.7%	Buy	1134.0	1750	1550	-31.2%
Galenica	No capacity constraints; Galenica operates only in Switzerland	Shortage of face masks and hand sanitizers; other products delivered so far	Massive increase in demand for healthcare products	Home office & Pharmacies remain open	Galenica is currently experiencing increased demand for some of its products which will level out later in the year when it expect less demand as patients use up their stockpiles	1	-2.2%	-11.9%	Hold	64.2	53	47	7.2%
GAM	NA	NA	NA	Yes, e.g. home office wherever possible	Weakened investor sentiment and a risk-off environment are likely to hit GAM's business. Potential P&L impact from net outflows and lower fee margins in risk-off environment, lower net fee income on lower AUM	4	35.0%	19.0%	Hold	1.7	3.5	2.0	-37.9%
Geberit	Production was down only at the two sites in China for two weeks	Only one component for the production of the Mera shower toilet was missing	A negative demand effect of CHF <10 mn is expected in 1Q20	Yes	We believe Geberit still has a too optimistic view, as many plumbers will probably be unable to carry out their jobs like they did before the spread of the virus	3	-10.1%	-25.2%	Hold	394.3	480	425	-27.4%
Georg Fischer	Has global production setup. Depends on region	Utilizes global supply chains. Depends on region	Active globally. Depends on region	Continuity plan in place (HO, travel restrictions, etc.). ExCom updated twice a day	GF has a broad global setup that is exposed to COVID-19 pandemic. Probably more than we previously anticipated. Soft demand in car and the oil & gas markets is likely to impact performance negatively. GF is proactive in managing its risks	4	-10.3%	-25.9%	Buy	576.0	1100	970	-41.4%
Givaudan	Not for the time being	Not for the time being	No - some products with huge demand	Yes	Factories at full capacity, some issues with logistics. Admin employees working from home, production employees at work. Global travel ban. Multinational companies performing better than local/regional	4	-10.8%	-29.0%	Buy	2807.0	3400	2900	-7.4%
Helvetia	NM	NM	Too early to tell	Yes, e.g. home office, video conferencing	No impact, so far	1	58.8%	44.4%	Hold	80.1	151	125	-41.4%
HIAG Immobilien	No	No	Negative	Yes	Potential default of tenants in B&C locations in commercial segment (HIAG 35.8% industrial). More cautious assumptions by valuation companies would mean HIAG has a comparably weaker balance sheet with an equity ratio of 41.3% in FY19.	1	-5.0%	-10.0%	Hold	75.0	115	98	-30.6%
Huber+Suhrner	Limited issues; China back on track; Europe & the US could face challenges later	No problems, but transportation capacity is limited. Italy causing problems	No general rule. There is an impact, but hard to quantify at this point in time	Continuity plan in place (HO, travel restrictions, staff splits)	Impact is so far limited, but H+S expects further deterioration in Europe and the US. FY20 outlook only reflects some impact in China. While it faces higher near-term risk, it is likely to be a longer-term beneficiary of telco trends post COVID-19	4	-9.7%	-22.2%	Buy	48.7	81	72	-36.7%
Idorsia	Not applicable	Not applicable	Not applicable	Yes	Idorsia's ongoing clinical trials could experience delays; no impact expected for daridorexant (insomni). Idorsia's 2020 guidance does not include any pandemic considerations	1	-3.7%	-12.0%	Hold	21.2	33	28	-29.1%
Implemia	Construction activity is still running at normal levels so far	No constraints so far, but this will probably happen at some point in time	No impact so far, as projects are rather long-term in nature	Yes: home office, travel restrictions, staff splitting	Overall, we expect a rather limited negative impact, at least in the short term	1	-5.1%	-16.2%	Hold	33.0	40	35	-15.9%

## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Inficon	No meaningful constraints so far, but could change depending on developments	No meaningful constraints so far, but could change depending on developments	Demand has remained rather robust so far, in particular from Asia/China	Yes; team splitting, remote work, travel restrictions broadly in place	We expect demand in most end-markets to slow temporarily	4	-10.8%	-26.3%	Hold	527.0	727	630	-31.4%
Interroll	Disposes of flexible global production system. Some limitations likely	Probably limited due to dual sourcing. Transportation could be problem	There could be short-term negative impacts	NA	Interroll's business model is robust all around and we expect limited COVID-19 impact. It is likely to cope better than some other industrial firms. We forecast more automation demand and growth in the e-commerce market post the COVID-19 pandemic	2	-7.1%	-18.5%	Hold	1386.0	2200	1800	-36.3%
Investis Holding	No	No	Neutral	Yes. Crisis management in place	Almost entirely residential in attractive region. Value creation through ongoing refurbishment of existing properties in order to catch up with market rent, which is 14% above investis on average. We turn more cautious on the Services segment valuation.	1	-4.5%	-9.0%	Buy	73.6	84	82	-9.4%
Julius Baer	No problems coping with larger volumes. No impact from travel restrictions	NA	Increased demand for advice represents great opportunity for JB	Yes, experience at Asian operations (affected in Jan) helped prepare elsewhere	We believe most P&L items will be impacted negatively, with the exception of transactional/trading revenues. Julius Baer continued its share buyback at increasing volumes last week	4	13.0%	-8.0%	Hold	25.8	44	30	-48.3%
Jungfraubahnen	Closure of touristic railways and winter sports from 15 March to 30 April	No tourists anymore	Visitor numbers -2% until February	Yes	No tourists anymore; closure of Top of Europe until end-April; public transportation continues, but minor part of business, most important months are May-Sept.	5	-7.8%	-30.8%	Hold	100.2	165	130	-39.3%
Kardex	Limited impact. Everything depends on production in Germany	Suppliers and transportation not an issue at the moment	There is an impact but it is hard to quantify now	Yes, but not specified	Kardex is facing an uncertain situation. So far, the impact has been limited, but it is not immune to COVID risk and its production is located only in Germany. We are confident in its strong H future, likely benefiting from the de-globalization trend	3	-8.9%	-22.2%	Buy	113.6	177	158	-30.3%
Klingelberg	No. Production running. No. of shifts increased, to reduce employee contact	No	Negative. Order backlog is at an all-time low anyway	Yes	Key issue is the shipment of machines, likely to drag further on FY19/20E sales. Given weak/negative FCF, we expect Klingelberg's net cash position of EUR 22.3 mn in FY18/19 to change into net debt	3	-9.6%	-24.6%	Hold	9.6	25	22	-60.7%
Komax	Implemented short-term work due to soft demand. Could easily be reversed	No problem with suppliers at the moment. Travel restrictions pose severe limitations	Demand down. Deliveries and services limited substantially by travel restrictions	Continuity plan in place (HO, travel restrictions, staff splits)	Komax will react disproportionately if automotive demand drops sharply. Lower automotive production means that customers need fewer new machines. Margins could be impacted much more by lack of growth and strong CHF. Risk for Komax is high	5	-14.8%	-36.3%	Buy	163.4	228	182	-30.9%
Kudelski	All production outsourced. Not seeing any impact	Supply chain constraints, mainly for Skidata products expected	Company expects negative impact	Yes. BCP in place. Staff splitting, home office, and travel restrictions.	Pay-TV subs likely to stabilize amid lockdown, whereas demand for Skidata (event/traffic driven) affected	3	-20.7%	-55.0%	Hold	3.2	5.2	4.2	-44.3%
Kühne + Nagel	NA	NA	We expect reduced freight volumes in the short-term	Likely	We expect a significant reduction in trade volumes short term. K+N benefits from supply chains shifts and complexity, but de-globalization and more localized supply chains are adverse	4	-11.0%	-27.1%	Hold	133.0	150	132	-18.5%

## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
LafargeHolcim	Production affected only in China, especially in Hubei province	No constraints so far	Normalization expected in China by April/May. No impact in RoW	Yes: travel restrictions, staff splitting, home office, rotation	1Q20 will not be a good quarter, also because of currency headwinds, but the company has a stronger balance sheets than its peers	4	-13.8%	-33.9%	Buy	31.5	61	48	-41.4%
Lalque Group	Only minor impact with production in France	Minor impact so far	Negative due to store closures (53% of sales in Europe)	Yes	Store closure; less tourist demand, gastronomy in France also impacted	5	-11.5%	-23.1%	Hold	24.6	33	26	-36.6%
Landis + Gyr	No significant impact	No impact experienced	Not at this time	BCP processes have been activated (travel ban, telecommuting)	Less affected given that demand is government driven. Sales might be impacted by fewer installations, resources, but not by supply limitations	3	-6.2%	-18.3%	Hold (old: reduce)	57.6	78	69	-42.9%
LEM Holding	No constraints now. China back on track. LEM ensures same quality globally	Problem is mainly intercontinental transport (esp. air freight)	There is an impact, but it is hard to quantify at this point in time	Continuity plan in place (HO, travel restrictions, etc.)	LEM has a high exposure to China, which is getting back on track, but the situation is deteriorating in RoW. We expect soft industrial & automotive demand (incl. Green Cars). It faces high risk to COVID-19, but will benefit from strong H structural trends	4	-12.1%	-29.1%	Hold	912.0	1400	1170	-36.0%
Lindt & Sprüngli	Not for the time being	Not for the time being	Too early to assess - probably limited impact	Yes	Admin employees working from home, production employees at work. Global travel ban	4	-10.0%	-25.1%	Hold	6975.0	7500	6800	-7.2%
Logitech	Production primarily in China is expected to ramp again	Possible supply chain constraints	Increased demand for Video Collaboration and PC peripherals	Yes	We expect Logitech to be one of the main beneficiaries of this crisis as increased telecommuting and travel restrictions will increase demand for video collaboration. Increased home-office activity increases demand for PC peripherals	3	-8.0%	-20.0%	Buy	34.5	50	45	-24.6%
Lonza	No, operations running. Sites are not in quarantined areas. Staffing is ensured	No meaningful constraints so far. CN: longer raw mat. supply in some areas	No	In place since December 2019. Plan is updated frequently	We do not expect material headwinds for Lonza. The chemical LSI segment might be hit a bit (automotive, aerospace, electronics industry), but the most important LPBN segment is unlikely to see any headwinds	2	-5.3%	-21.3%	Buy	330.8	390	375	-6.3%
Metall Zug	No impact on production at this stage, the but situation can change daily	Not at the moment, but border controls will cause supply constraints	We clearly expect this to happen in the very near future	Staff splitting and home office wherever possible. Limit travel	We clearly expect Metall Zug's operations to be impacted this year, but its strong balance sheet is likely to help the company weather the current storm	3	-7.6%	-19.7%	Reduce	1380.0	1850	1650	-36.7%
Meyer Burger	Suspended	Suspended	Suspended	Suspended	Suspended	Suspended	Suspended	Suspended	Suspended	0.1	Susp.	Susp.	-66.3%
mobilezone	Closure of stores in Switzerland; Germany mainly online	Partly, supply of mobile phones still okay so far	Lower frequencies due to store closures	Yes	Closure of stores in Switzerland (26% of sales, 46% of EBIT); in Germany leading e-commerce operator	4	-8.7%	-24.0%	Hold	8.2	10.0	9.2	-24.5%
Mobimo	No	No	Negative	Yes	Mobimo mostly has fixed rate rents in place, posing limited risk from turnover based contracts (Retail 10%, Hotel 9%). Risk is on potential B&C location defaults and lower demand. Mobimo had an equity ratio of 44.4% in FY19	1	-4.8%	-9.7%	Hold	247.5	290	280	-14.2%

## Swiss company exposure to a pandemic coronavirus scenario; incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Nestlé	Not for the time being	Not for the time being	Mixed picture: some products with huge demand, some lower	Yes	Nestlé is naturally hedged in terms of both product categories and geographies	4	-8.9%	-22.6%	Buy	93.8	116	100	-10.5%
Novartis	All manufacturing sites and major suppliers operational. Sufficient stock	No supply chain disruption anticipated; safety stock & dual sourcing strategy.	No	Among other, home office and international travel restrictions in place	Novartis' 2020 guidance does not include any consideration of the coronavirus outbreak, but we currently do not expect a major impact	1	-1.3%	-9.6%	Hold	73.9	88	80	-19.5%
OC Oerlikon	Potentially reduced capacity at some coating centers	Possible constraints, but no major disruption expected	Likely to see slowdown in demand across surface solutions end-markets	Yes	We expect most of the impact to be seen in the Surface Solutions business, while demand in Manmade Fiber is less impacted due to the long-term project nature. Short-term delivery constraints are possible	4	-9.8%	-24.6%	Buy	6.1	9.7	8.5	-46.5%
Orior	No, except for Casualfood	No impact	Not in food, but in airport catering	Yes	Food business continues with less food service, but retail growing. Casualfood (airport caterer in Germany: 10% of sales) impacted by airport closure	3	-7.5%	-25.0%	Hold	76.0	90	80	-15.1%
Partners Group	NA	NA	Too early to tell	Yes, BPC entails staff splitting, home office, travel restrictions, etc.	Potential P&L impact from lower performance fees (fewer exits at lower multiples); EBIT margin impact from stronger CHF (vs EUR); higher redemptions of semi-liquid products (approx. 20% of AUM)	3	1.0%	-22.0%	Buy	554.0	1010	710	-37.6%
Pierer Mobility	No, but 2-week production pause in April due to likely shortage of components	Not yet, but expected due to suppliers in Italy	Not so far as Jan/Feb were very solid	Yes, home office, production on temporary break	Already reacted to potential component shortages in the coming weeks with 2-week production break. European demand affected as most stores closed	3	-12.2%	-32.3%	Buy	28.8	74	60	-46.7%
PSP Swiss Property	No	No	Negative	Yes	There will be delays in the production pipeline (e.g. Lugano Paradiso). However, the pipeline is comparably smaller and characterized by a high pre-letting rate. Very strong balance sheet: equity ratio of 55.4% in FY19	1	-5.0%	-10.0%	Hold	105.5	137	127	-21.0%
Richemont	Production possible, but will start short-time work	Not much of an impact	Negative due to store closures	NA	Closure of stores worldwide; no tourists anymore; Feb. sales around -50% (Asia -80%) and March probably even worse, e-commerce could benefit	5	-8.9%	-22.1%	Buy	51.2	84	68	-32.7%
Rieter	No. Production running. No. of shifts increased, to reduce employee contact	No major impact so far	Negative	Yes, depending on the location (different for China, India, or Europe).	At the moment production is not severely affected. Shipment issues between Europe and Asia have been visible since February. With a CHF 162 mn net cash position in FY19, Rieter still has plenty of financial means	3	-4.2%	-10.4%	Hold	88.7	130	125	-35.8%
Roche	No, Roche expects no production constraints	No	High demand for cobas 6800/6800 & China has approved Acemira for COVID-19	Home office, no travel for non-critical functions, and a business continuity plan	Roche's 2020 guidance does not include any pandemic considerations, neither does the company see a reason to change its guidance at this point in time	1	-2.6%	-10.4%	Buy	299.2	367	343	-4.7%



## Swiss company exposure to a pandemic coronavirus scenario; incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Schindler	Factory shut-down in China in February (slowly ramping up again) and Ticino	Suppliers often source components from China or Northern Italy	Projects in China and South East Asia delayed. Europe starting to be affected	Individual action plans for every single location and for corporate in place	Resilient business model and strong balance sheet, but high China exposure	4	-10.4%	-25.0%	Hold	203.2	235	220	-17.5%
Sensirion	No production capacity constraints at this point	No meaningful supply chain constraints	Increased demand for sensors used in medical ventilators	Yes, staff splitting, home office, travel restrictions	Diversified end-market exposure with stability expected in medical business	3	-9.1%	-22.8%	Hold	28.6	36	32	-30.5%
SF Urban Properties	No	No	Negative	Yes	Short term some risk related to the 11% gastronomy and 8% retail rental income. As with other smaller real estate players with a certain exposure to B/C locations, we see the potential risk of tenants defaulting (27% office exposure). Equity ratio of 46.5% in FY19 is in line with the peer group average	1	-4.9%	-10.0%	Hold	88.5	104	100	-10.2%
SFS	No constraints now. In China production ramp-up is close to complete.	Only very limited so far. Distribution & Logistics is impacted the most right now	Business flat at group level so far. Global impact of COVID-19 is still unclear	Continuity plan in place (HO, travel restrictions, staff splits, personal hygiene)	SFS is exposed to the auto & electronics markets that are likely to decline due to supply chain disruptions caused by COVID-19. Rising CHF could push costs upward. SFS faces high risk of COVID-19 pandemic, which is not reflected in the guidance	4	-9.2%	-22.7%	Hold	62.6	88	78	-32.8%
SGS	Not significant at this stage	SGS has a very diversified supplier base - limited risk	Yes, especially in China in Feb. Europe and ROW will follow in March	Yes	Overall, SGS will be affected. However, goods and services have to be tested/certified/inspected. Most certainly slower activities for a few months. We note that SGS test prototypes	4	-9.2%	-25.2%	Buy	2060.0	3000	2300	-22.3%
Siegfried	Extended shut-down of Nantong facility, but operational again	Delays of certain raw materials from China. Under observation	We expect lower revenues due to the spread of the coronavirus	Plans with various measures already activated on 23 January 2020	We expect a slight headwind due to the coronavirus, but drug demand should remain unchanged and thus we do not expect this to become material	3	-12.5%	-25.3%	Hold	370.0	423	367	-21.1%
SIG Combibloc	Not significant at this stage	Not significant at this stage	Fresh products are impacted	Yes	Feedback from consumer goods companies is that fresh products, especially fresh dairy, is heavily impacted. There will be a negative impact on SIG	4	-14.2%	-35.0%	Hold	12.4	14	12	-19.7%
Sika	No constraints so far	No constraints so far. Construction is very local with few cross-border shipments	China is gradually improving. In Italy, reduced demand is expected to last 6-8 weeks	Yes, e.g. staff splitting in production, no travelling	In the short-term, we expect Sika to see lower demand, but governments will probably approve new infrastructure programs to fight the economic downturn	3	-10.2%	-26.3%	Hold	143.4	190	165	-21.1%
Sonova	No, not at this point in time	Not aware of any supply chain constraints at this point in time	Changes in consumer behavior (elderly people). CI also affected	Plan includes various measures and is continuously adapted	Temporary headwinds are likely given that customer demand is much lower. Danish peer Demant has already issued a profit warning. However, we do not expect any longer-term headwind due to the coronavirus outbreak	3	-7.9%	-18.4%	Reduce	157.6	200	190	-28.9%
St. Galler KB	NA	NA	Some requests by corporate clients for additional credit lines (liquidity)	Yes, including home office, no travelling abroad, cancellation of external events	P&L impact depends on depth & length of potential recession. SGK is very well capitalized (16.2% CET1 ratio, 6.8% CET1 leverage ratio), notably after the capital increase executed in 2019	2	0.0%	-11.0%	Hold	364.0	465	414	-19.2%

## Swiss company exposure to a pandemic coronavirus scenario; incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Straumann	No	No	Slow pick up in China, but effects in Europe and the US still outstanding	Yes, for various sites and processes	In our view, surgery delays are likely with implant placements, clear aligner treatments etc. typically not absolutely necessary. This has already become visible in China. But no long-term impact expected	4	-15.0%	-32.2%	Buy	616.4	1045	900	-35.1%
Sulzer	No	Partially (has backup plan in place)	Negative	Yes	Sulzer's China operation is up and running again (at 80%). But the depressed oil price is certainly a drag. BP and Saudi Aramco have announced potential capex cuts. Liquidity is not likely to be an issue (Net debt/EBITDA at 0.8x incl. Renova cash FY19)	4	-10.9%	-26.0%	Buy	54.8	125	95	-49.3%
Sunrise	No impact. Stock built-up ahead of outbreak	Limited, only consumer devices	B2B demand up, retail hardware and roaming down	Yes	One of the least affected companies. Higher margin mobile services is increasing. Likely long-term beneficiary of the crisis	1	-4.1%	-12.0%	Buy	76.3	88	86	0.3%
Swatch Group	Production possible, but will start short-time work	Not much of an impact	Negative due to store closures	Yes	Closure of stores worldwide; no tourists anymore; Feb. sales around -50% (Asia -80%) and March probably worse	5	-7.5%	-17.5%	Hold	166.4	250	200	-38.4%
Swiss Life	NM	NM	Too early to tell	Yes	No impact so far	1	45.7%	30.7%	Hold	280.7	518	454	-42.2%
Swiss Prime Site	No	No	Negative	Yes	Direct impact on Jelmoli, closed until 19/4, and losses likely to expand further. Total retail exposure of 26% is highest among peers. Driven by the Titanum deal, SPS's balance sheet will be strengthened and the equity ratio will improve to VT e 45.9%	1	-5.4%	-10.9%	Hold	105.4	115	104	-5.8%
Swiss Re	NM	NM	Too early to tell, potential slow-down in sales in China	Yes	No meaningful impact so far	2	57.6%	44.7%	Buy	58.4	106	95	-46.3%
Swisscom	Working hours increased due to higher demand	Logistic challenges for supply from China	More demand for service capacity	Yes	One of the least affected companies. Supply from China primarily relates to HW. Demand is increasing. Likely long-term beneficiary	1	-4.3%	-12.4%	Hold	527.2	510	500	2.8%
Tecan	No	No. Supply is stable and monitored daily	Slightly softer demand from academia. Additional orders from CN and SK	Yes, for various sites and processes	In our view, Tecan could be one of the winners of the situation and has already received some additional orders. We would expect this to be stronger than the headwind from academia. More positives might come.	1	0.0%	-10.8%	Hold	275.0	247	260	1.1%
Temenos	NA	NA	At this stage none; expect long-term digitalization trends to benefit post-pandemic	Offices all operational, non-essential business travel restrictions	We expect to see possible delays in deal signings and project implementations; FY20 guidance does not include an impact	4	-14.0%	-33.7%	Buy	106.6	226	178	-30.4%
u-blox	No constraints so far	No supply constraints	Regions differ and stabilize each other overall. Good project flow	Yes, home office, split teams, web meetings	Not affected so far as active in three regions, but demand will likely be impacted in 2Q due to Europe/US	4	-13.1%	-32.9%	Reduce	53.0	52	45	-45.8%
UBS	NA	NA	NA	NA	UBS's CFO might provide some guidance at a conference on Wednesday, 18 March 2020. We believe most P&L items will be impacted negatively, with the exception of transactional revenues. Impact depends on depth & length of potential recession	5	10.0%	-12.0%	Buy	7.8	14.5	10.0	-36.5%

## Swiss company exposure to a pandemic coronavirus scenario: incl. Vontobel risk-assessment (cont.)

Company	Production capacity constraints	Supply chain constraints	Demand affected (positive or negative)	Business continuity plan in place	VT comments	VT pandemic recession risk (1-5)	Upside-/ Downside from new PT to pandemic Scenario 1 (V-shaped recession)*	Upside-/ Downside from new PT to pandemic Scenario 2 (U-shaped recession)*	VT rating	Price (17 Mar 20)	PT (old)	PT (new)	YTD
Valora	No	No, only a few issues with hand sanitizing material	Slightly negative	Yes	Kiosks still open, but fewer consumers in public transportation, impact in airport stores, but small share	3	-6.5%	-24.0%	Hold	156.0	270	230	-42.2%
VAT Group	No major disruption expected due to dual production CH/Malaysia	No critical supply chain disruptions expected at this point	Some delays in customers' fab capacity expansions	Presumably	We expect see delays in fab ramp-ups that may shift recovery of semi equipment demand into 2H20	4	-15.9%	-33.3%	Hold	107.7	140	132	-34.2%
Vaubise	NM	NM	NA	Yes, home office operations in place	-	1	32.7%	27.1%	Hold	412.0	569	536	-28.0%
Vifor Pharma	Operations and all warehouses are unaffected; sufficient raw materials stock	No	Too early to tell; impact likely as access to HCP's in affected regions is becoming limited	Home office is strongly recommended wherever possible.	Vifor's 2020 guidance does not include any pandemic consideration	1	-6.3%	-18.5%	Hold	102.1	161	152	-42.2%
VZ Holding	NA	NA	NA	Yes, including splitting teams, home office, travel restrictions	Potential P&L impact from lower fee & commission income on lower AUM. VZ Holding is one of the best capitalized banks (27.7% CET1 ratio, 13.6% CET1 leverage ratio) in our coverage universe, with one of the lowest-risk balance sheets	1	-12.0%	-25.0%	Buy	267.0	370	350	-10.6%
Ypsomed	For the time being, no disruptions expected	For the time being, no disruptions to the business expected	Mostly in B2C Diabetes Care (Ypsopump ramp-up)	Yes, for various sites and processes	While the non-core metal processing business and to some degree also the Ypsopump ramp-up might be affected, we do not expect any longer-term headwind. Diabetes needs are ongoing and drugs need to be delivered	2	-6.9%	-22.6%	Buy	112.0	179	159	-14.5%
Zehnder	Production was running normally in Europe until last week	There have been limited effects on the supply chain so far (e.g. slight delays)	The impact on demand is currently difficult to estimate	Avoiding business travel, personal distance in the office etc.	Zehnder's strong balance sheet will help the company master the current crisis	3	-8.2%	-20.8%	Hold	34.9	50	44	-23.5%
Zug Estates	No	No	Negative	Yes, Home office, split teams, flexible work time	The impact will be i) on the Hotel/Gastro segment and ii) fewer frequencies at Metalli shopping. Thanks to successful re-letting of space and high-pre letting rate at Saurisioff, limited risk on the portfolio side. The equity ratio of 54.7% is also clearly above peers	1	-5.0%	-10.0%	Hold	1940.0	2200	2100	-16.7%
Zurich	NM	NM	Too early to tell	Yes, home office, video conferencing, etc.	No impact so far	2	28.8%	17.1%	Hold	277.7	423	376	-30.1%

\*In the case of banks there were major adjustments of Beta, which can lead to some Scenarios not being comparable; VT: Vontobel; PT: price target; YTD: year-to-date share price performance

## Disclaimer & Disclosures – Equity Research

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### 1. Analyst declaration

This Vontobel Report has been produced by the organizational unit responsible for investment research (Research unit, sell-side analysis) of Bank Vontobel AG. Bank Vontobel AG is subject to supervision by the Swiss Financial Market Supervisory Authority (FINMA). The authors listed on page 1 confirm that this report gives a complete and precise reflection of their opinion of the analyzed company and that they have neither directly nor indirectly received compensation for their assessment or opinion. The compensation of the authors of this report is not directly related to the investment banking volume generated between Vontobel Group and the analyzed company.

The author(s) of this document owns securities in the analyzed companies: Barry Callebaut, Bell Food Group, Lindt & Sprüngli, Lindt & Sprüngli, Nestlé, Swatch Group, Swatch Group, Roche, Valora, Datacolor, Jungfraubahnen

The document was not submitted to the analyzed companies before publication or distribution

### 2. Disclosure of conflicts of interest

As an internationally active company, Vontobel Group is subject to a number of provisions in drawing up and distributing its investment research documents. The maker and distributors of this financial analysis point out the following potential conflicts of interests: The author and its associated companies

- will or are attempting to generate investment banking business with the analyzed companies within the next three months,
- conduct transactions with securities of the analyzed companies from time to time
- have participated in capital market transactions/the issue of securities of the following analyzed companies in the last 12 months: Credit Suisse, Julius Baer, Arbonia, Orior, PIERER Mobility, Helvetia, Siegfried, HIAG, Investis, Swiss Prime Site, Zug Estates, Galenica, Temenos
- have been active as Market Maker in equities of the following analyzed companies in the last 12 months: PIERER Mobility, Huber+Suhner
- have provided other publicly known Investment Banking services for the following companies mentioned in this report in the last 12 months: Investis, Temenos
- have received compensation for products and services outside Investment Banking from the following analyzed companies: Helvetia
- hold mandatory disclosable (%) of the voting rights of the following analyzed companies: None
- have executives who are members of the board of the analyzed companies: Helvetia (1), Swiss Life (1), Mobimo (1), Swiss Prime Site (1) and
- have executives who are members of the board of Bank Vontobel AG or affiliated companies: Helvetia (1), Swiss Life (1), Swiss Re (1), Swiss Prime Site (1)
- have no significant financial interest in the analyzed companies and
- have reached no agreement with the analyzed companies regarding this financial analysis.

### 3. Research rating history

The Ratings and/or Rating Outlook of the analyzed companies were last changed as follows:

BCV[BCVN.S] was last changed from Buy to Hold on 25-02-11  
 Cembra[CMBN.S] was last changed from NA to Buy on NA  
 Credit Suisse[CSGN.S] was last changed from Restricted to Hold on 19-06-17  
 EFG International[EFGN.S] was last changed from Buy to Hold on 24-04-15  
 Julius Baer[BAER.S] was last changed from Reduce to Hold on 23-07-13  
 St. Galler KB[SGKN.S] was last changed from Buy to Hold on 17-02-10  
 UBS[UBSG.S] was last changed from Hold to Buy on 04-11-09  
 Clariant[CLN.S] was last changed from Hold to Buy on 07-01-20  
 EMS-Chemie[EMSN.S] was last changed from Suspended Coverage to Hold on 23-05-19  
 Givaudan[GIVN.S] was last changed from Hold to Buy on 19-09-17  
 Arbonia[ARBNO.S] was last changed from Hold to Reduce on 24-09-18  
 Belimo[BEAN.S] was last changed from Buy to Hold on 04-08-16  
 Bossard[BOS.S] was last changed from Reduce to Hold on 04-03-20  
 Forbo[FORN.S] was last changed from Hold to Buy on 15-03-10  
 Geberit[GEBN.S] was last changed from Buy to Hold on 04-12-18  
 Implenia[IMPN.S] was last changed from Reduce to Hold on 28-03-19  
 LafargeHolcim[LHN.S] was last changed from Hold to Buy on 30-06-16  
 Sika[SIKA.S] was last changed from Buy to Hold on 11-07-19  
 Zehnder[ZEHN.S] was last changed from Buy to Hold on 19-01-15  
 Cico[CICN.S] was last changed from Hold to Buy on 19-12-17  
 Comet Holding AG[COTNE.S] was last changed from No Rating to Buy on 17-04-13  
 dormakaba[DOKA.S] was last changed from Reduce to Hold on 09-09-16  
 Landis+Gyr[LANDI.S] was last changed from NA to Reduce on NA  
 LEM[LEHN.S] was last changed from Reduce to Hold on 28-09-18  
 SENSIRION[SENSI.S] was last changed from No Rating to Hold on 15-11-18  
 GAM[GAMH.S] was last changed from NA to Hold on NA  
 Partners Group[PGHN.S] was last changed from Hold to Buy on 19-01-15  
 VZ Holding[VZN.S] was last changed from Hold to Buy on 16-05-18  
 ARYZTA[ARYN.S] was last changed from Under Review to Reduce on 12-10-18  
 Barry Callebaut[BARN.S] was last changed from Reduce to Hold on 11-12-18  
 Bell Food Group [BELL.S] was last changed from Buy to Hold on 24-02-14  
 Emmi[EMMN.S] was last changed from Reduce to Hold on 13-04-10  
 Lindt & Sprüngli[LISP.S] was last changed from Buy to Hold on 11-07-18  
 Lindt & Sprüngli[LISN.S] was last changed from Buy to Hold on 11-07-18  
 Nestlé[NESN.S] was last changed from Hold to Buy on 11-12-13  
 Orior [ORON.S] was last changed from Buy to Hold on 28-02-17  
 Datwyler[DAE.S] was last changed from Buy to Hold on 10-01-20  
 SIG Combibloc[SIGNC.S] was last changed from NA to Hold on NA  
 Alcon[ALC.S] was last changed from No Rating to Reduce on 11-04-19  
 Sonova[SOON.S] was last changed from Hold to Reduce on 24-06-19  
 Straumann[STMN.S] was last changed from Hold to Buy on 17-01-14  
 Tecan[TECN.S] was last changed from Buy to Hold on 03-10-11  
 Ypsomed[YPSN.S] was last changed from Suspended Coverage to Buy on 08-01-20  
 ABB[ABBN.S] was last changed from Buy to Hold on 27-10-16  
 Autoneum[AUTON.S] was last changed from Restricted to Hold on 08-03-19  
 Bobst[BOBNN.S] was last changed from Buy to Hold on 01-03-19  
 Bucher[BUCN.S] was last changed from Buy to Hold on 29-04-12  
 Burckhardt Compression[BCHN.S] was last changed from Reduce to Hold on 05-06-12  
 Feintool[FTON.S] was last changed from Suspended Coverage to Hold on 16-05-17  
 Georg Fischer[FIN.S] was last changed from Suspended Coverage to Buy on 17-05-17  
 Inficon[IFCN.S] was last changed from Reduce to Hold on 11-07-17  
 Interroll[INRN.S] was last changed from Buy to Hold on 28-03-17  
 Kardex[KARN.S] was last changed from Hold to Buy on 16-05-19  
 Klingelberg[KLIN.S] was last changed from Buy to Hold on 16-10-19  
 Komax[KOMN.S] was last changed from Suspended Coverage to Buy on 16-05-17  
 Meyer Burger[MBTN.S] was last changed from Hold to Suspended Coverage on 12-03-20  
 OC Oerlikon[OERL.S] was last changed from Restricted to Buy on 11-07-18  
 PIERER Mobility[PMAG.S] was last changed from Hold to Buy on 04-10-17  
 Rieter[RIEN.S] was last changed from Buy to Hold on 30-10-14  
 Schindler[SCHP.S] was last changed from Buy to Hold on 22-04-10  
 Schindler[SCHN.S] was last changed from No Rating to Hold on 21-10-13  
 SFS[SFSN.S] was last changed from Buy to Hold on 10-03-17  
 Sulzer[SUN.S] was last changed from Hold to Buy on 12-07-17  
 Flughafen Zürich[FHZN.S] was last changed from Hold to Buy on 03-03-14  
 Kühne + Nagel[KNIN.S] was last changed from Buy to Hold on 20-01-11  
 Baloise[BALN.S] was last changed from Hold to Buy on 03-09-19

Helvetia[HELN.S] was last changed from Buy to Hold on 13-03-17  
 Swiss Life[SLHN.S] was last changed from Buy to Hold on 31-08-19  
 Swiss Re[SRENH.S] was last changed from Hold to Buy on 08-06-18  
 Vaudoise[VAHN.S] was last changed from Suspended Coverage to Hold on 05-07-19  
 Zurich Insurance Group[ZURN.S] was last changed from Buy to Hold on 17-10-12  
 Calida Group[CALN.S] was last changed from Buy to Hold on 24-07-15  
 Laliq Group[LLQ.S] was last changed from Restricted to Hold on 11-07-18  
 Metall Zug[METN.S] was last changed from Hold to Reduce on 12-02-20  
 Richemont[CFR.S] was last changed from Hold to Buy on 01-11-13  
 Swatch Group[UHR.S] was last changed from Buy to Hold on 19-01-15  
 Swatch Group[UHRN.S] was last changed from Buy to Hold on 19-01-15  
 Bachem[BANB.S] was last changed from Buy to Hold on 27-08-18  
 Idorsia[IDIA.S] was last changed from Buy to Hold on 05-03-18  
 Lonza[LONN.S] was last changed from Hold to Buy on 11-10-18  
 Novartis[NOVN.S] was last changed from Buy to Hold on 23-11-15  
 Roche[ROG.S] was last changed from Hold to Buy on 24-03-05  
 Roche[RO.S] was last changed from Reduce to Buy on 24-03-05  
 Siegfried[SFZN.S] was last changed from No Rating to Hold on 22-10-10  
 Vifor[VIFN.S] was last changed from Restricted to Hold on 02-06-17  
 Allreal[ALLN.S] was last changed from Reduce to Hold on 31-10-17  
 HIAG[HIAG.S] was last changed from Buy to Hold on 08-11-16  
 Investis[IREN.S] was last changed from Hold to Buy on 15-05-19  
 Mobimo[MOBN.S] was last changed from Buy to Hold on 10-03-10  
 PSP Swiss Property[PSPN.S] was last changed from Buy to Hold on 10-05-16  
 SFUP[SFPN.S] was last changed from NA to Hold on NA  
 Swiss Prime Site[SPSN.S] was last changed from Buy to Hold on 20-06-17  
 Zug Estates[ZUGN SW] was last changed from No Rating to Hold on 16-07-12  
 Dufry[DUFN.S] was last changed from Hold to Buy on 18-02-16  
 Galenica[GALE.S] was last changed from NA to Hold on NA  
 mobilezone[MOZN.S] was last changed from Restricted to Hold on 23-05-18  
 Valora[VALN.S] was last changed from Buy to Hold on 02-08-18  
 Adecco[ADEN.S] was last changed from Buy to Hold on 12-02-15  
 DKSH[DKSH.S] was last changed from Buy to Hold on 17-07-19  
 SGS[SGSN.S] was last changed from Hold to Buy on 11-10-19  
 ALSO[ALSN.S] was last changed from Hold to Buy on 02-06-16  
 ams AG[AMS.S] was last changed from Hold to Buy on 29-01-14  
 Ascom[ASCN.S] was last changed from Buy to Hold on 15-11-19  
 Huber+Suhner[HUBN.S] was last changed from Hold to Buy on 04-11-19  
 Kudelski[KUD.S] was last changed from Buy to Hold on 25-02-11  
 Logitech[LOGN.S] was last changed from Hold to Buy on 24-07-14  
 Temenos[TEMN.S] was last changed from Restricted to Buy on 26-04-19  
 u-blox[UBXN.S] was last changed from Hold to Reduce on 28-08-18  
 VAT Group[VACN.S] was last changed from No Rating to Hold on 24-05-16  
 Sunrise[SRCG.S] was last changed from No Rating to Buy on 16-04-15  
 Swisscom[SCMN.S] was last changed from Reduce to Hold on 20-01-06  
 Jungfraubahnen[JFN.S] was last changed from Buy to Hold on 27-04-05

#### 4. Global rating breakdown

	VT Research universe	VT Research universe	Share of VT IB clients in rating category
	No.	As %	As %
Buy	34	31	29
Hold	69	63	17
Reduce	6	6	0

The table above is revised at the beginning of each quarter, i.e. it currently reflects the status as at 31 December 2019.

#### 5. Rating plotter charts

The data used for the share price and/or price target chart may have to be adjusted to reflect corporate actions undertaken by the company.

Not Rated: Currently Restricted, Suspended Coverage, or no rating assigned to company due to e.g. advising of analyzed company in a capital market transaction, temporary suspension of analyst coverage or a similar reason.

For company specific disclosures, such as Research rating history or Rating plotter charts, please refer to the most recent company specific information provided by Bank Vontobel under "<https://research.vontobel.com/en/disclaimers/companies>" and/or contact Bank Vontobel for further information.

#### 6. Methodology/Rating system

Bank Vontobel's financial analysts apply a variety of valuation methodologies (e.g. DCF and EVA modelling, 'sum-of-the-parts', break-up and event-related analysis, peer group and market multiple comparisons) to their own financial projections for the companies they cover. Overall, our investment recommendations take into consideration an assessment of the company in its entirety and of the sector to which it belongs ("bottom-up approach"). Price target calculation is based on a number of factors, observations and assumptions, including but not limited to: key business performance indicators and ratios, public and private valuation multiples, comparison with one or more peer groups of comparable companies, overall equity market valuations, and with the company's own history and track record.

The stock recommendations published by Vontobel's research team are defined as follows:

Rating	Definition
SMI/SLI (ex SMI)	Swiss Market Index/Swiss Leader Index stocks
Buy	Price target (when set) implies 10% or more upside on a 12-month horizon
Hold	Price target (when set) implies 0-10% up/downside on a 12-month horizon
Reduce	Price target (when set) implies 10% downside on a 12-month horizon
SMIM	Swiss Market Index Mid stocks
Buy	Price target (when set) implies 15% or more upside on a 12-month horizon
Hold	Price target (when set) implies 0-15% up/downside on a 12-month horizon
Reduce	Price target (when set) implies 10% downside on a 12-month horizon
Other	All other Swiss stocks
Buy	Price target (when set) implies 20% or more upside on a 12-month horizon
Hold	Price target (when set) implies 0-20% up/downside on a 12-month horizon
Reduce	Price target (when set) implies 15% downside on a 12-month horizon
Restricted	Coverage is temporarily restricted (no price target)
Suspended Coverage	Coverage is temporarily suspended (no price target)



Analysts are required to review their recommendations under the following conditions:

Buy: When upside to price target falls below: 5% for SMI/SLI stocks for 30 calendar days; 10% for SMIM stocks for 30 calendar days; 15% for all other stocks for 45 calendar days.

Hold: When upside to price target reaches or exceeds: 10% for SMI/SLI stocks for 30 calendar days; 15% for SMIM stocks for 30 calendar days; 20% for all other stocks for 45 calendar days; or

when downside to price target reaches or exceeds: 10% for SMI/SLI stocks for 30 calendar days; 15% for SMIM stocks for 30 calendar days; 20% for all other stocks for 45 calendar days.

Reduce: When downside to price target reaches or falls below: 5% for SMI stocks for 30 calendar days; 10% for all other stocks for 45 calendar days.

We reserve the right to waive repeated changes of recommendation during periods of unusually high equity market or specific stock price volatility

Share prices used in this financial report are closing prices on the date given. Deviations from this rule are disclosed. The underlying figures of a company valuation, i.e. the profit and loss statement, capital flow and balance sheet are estimates based on date and thus bear certain risks. These may change at any time and without prior notice if other, different models, assumptions, interpretations, and/or estimates are applied.

The use of the valuation methods does not rule out the risk that the stock fails to achieve the "fair value" within the projected period. Numerous factors influence share price performance. Unforeseen changes can arise from the emergence of competitive pressure, from a change in demand for the products of an issuer, technological development, from macroeconomic activity, exchange rate fluctuation or from a shift in society's moral concept. Changes in taxation law or supervisory regulations can often have a grave, unforeseen impact. This discourse on valuation methods and risk factors does not claim completeness.

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