

SWISSQUOTE

FINANCE AND TECHNOLOGY UNPACKED

TRANSPORT
High-speed
China

FASHION
New clothes
upstaged by
second-hand
finds

TRAINING
A day at
IPO school

DOSSIER

COVID-19 THE WORLD AFTER THE PANDEMIC

Exclusive interview with Marc Bürki, CEO of Swissquote Bank
Society goes digital in a blink
Oil industry in crisis

ISSN 2296-3278



► ZOOM ► SALESFORCE ► SERVICENOW ► WORKDAY ► ABB ► SCHRÖDINGER ►



CLASH DE *Cartier*



A very special edition



By Ludovic Chappex
Editor-in-chief

Dear readers,

The issue you are currently holding is unique in a number of ways. One reason is the theme, which was simply unavoidable. Our focus tends to be more long-term, but the unprecedented nature of the crisis at hand gave us no choice but to direct our attention, this time, to more pressing issues. Another reason, which surely hasn't escaped your notice, is that this issue's interview is with none other than the CEO of Swissquote Bank.

We were looking for someone who could decipher recent events from a financial, economic and political standpoint, and if possible an executive at a listed company with a firm grasp of the realities on the ground. Someone who could provide our readers with exclusive insight. Sometimes the answers we seek are much simpler than expected,

and before long we realised that the person we were looking for was right before our eyes... In his **interview**, Marc Bürki explains why the current crisis is incomparable with any other and what measures need to be taken to overcome it.

p. 26

Our dossier also features a long article on the **digital tools** that we have adopted, in many cases irreversibly, because of coronavirus. Examples include homeworking, virtual healthcare, the use of robots in factories and, more worryingly, data surveillance.

p. 18

Despite these troubled times, we are delighted to share some good and encouraging news with you: our readership defied current trends among press outlets, rising more than 7% last year to 104,000 readers. Thank you all for your support.

Happy reading!

ALPINE EAGLE

With its pure and sophisticated lines, Alpine Eagle offers a contemporary reinterpretation of one of our iconic creations. Its 41 mm case houses an automatic, chronometer-certified movement, the Chopard 01.01-C. Forged in Lucent Steel A223, an exclusive ultra-resistant metal resulting from four years of research and development, this exceptional timepiece, proudly developed and handcrafted by our artisans, showcases the full range of watchmaking skills cultivated within our Manufacture.

Chopard

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SCANS

automobile
RENAULT SHIFTS
TO GREEN IN CHINA



Renault is already selling the City K-ZE, a 100% electric crossover car, in China.

Four years after launching a state-of-the-art factory in Wuhan, Renault is recognising its failure on the Chinese market. On 14 April, the French manufacturer announced that it was abandoning traditional internal combustion vehicles in China, where it will now only offer electric models. The diamond brand is ending its joint venture with its Chinese partner Dongfeng, which will take over the Wuhan factory. A radical decision, but one driven by the numbers: in 2019, Renault sold only 180,000 traditional cars in China, compared to 217,000 the previous year. By switching to electric, Renault is betting on the future: with 860,000 electric vehicles sold in 2019, China is by far the largest electric market in the world. Electric vehicles are forecast to account for 25% of the Chinese market by 2030. — RND



“All organizations developing advanced AI should be regulated, including Tesla”

Elon Musk, founder and CEO of Tesla, in a tweet from February



Presentation of the Samsung Galaxy Z Flip on 11 February in San Francisco

communication
SMARTPHONES: IT'S TIME FOR FOLDING SCREENS

The iconic mobile flip phones from the new millennium have made their big comeback this year – but with one notable difference: this time, their screens fold as well. After the Fold model failed, Samsung is launching the Galaxy Z Flip. Priced at around 1,500 Swiss francs, the model is already facing criticism. In the same price range, Motorola is launching an updated version of its legendary Razr with a retro design. Some critics are disappointed that the technology doesn't merit the high price. Huawei has also announced the launch of its Mate Xs – an improved version of the Mate X – equipped with a gigantic 8-inch screen. It's a technological showcase for the brand, but it comes with a staggering price tag of 2,500 Swiss francs. — 005930 — 0992

KYODO/NEWS.COM

chemistry
2020: A YEAR OF ACQUISITIONS FOR GIVAUDAN



A Givaudan employee at the firm's perfume research centre in Dübendorf (Zurich).

KEYSTONE

After growth failed to meet expected targets in 2019, the Geneva-based flavour and perfume specialist is hoping to expand its production capabilities. In February, Givaudan acquired US company Ungerer, a flavour specialist, and in March will acquire the cosmetics division

of Italian group Indena, which produces and distributes plant-based products. Indena will continue its partnership with Givaudan, which includes ingredient manufacturing alongside other aspects. The cost of the transaction has not been made public. — GIVN

transport

CLIMATE PUTS THE BRAKES ON AIRPORT EXPANSIONS

In late February, the Court of Appeal in England blocked plans to expand London Heathrow Airport. This was a landmark ruling, as it was the first time that climate change has been used in a legal judgement to block the development of airport infrastructure. “This ruling shows that governments, companies and investors must now urgently re-evaluate their plans to ensure they comply with the 1.5°C limit established in the Paris Agreement,”

declared Farhana Yamin, international environmental lawyer and UN negotiator. This decision could be used to dispute other infrastructures. Around the world, 376 airport expansion projects are recorded. Among them are the highly controversial Paris Roissy-Charles de Gaulle expansion led by the Aéroports de Paris (ADP) group, the Zurich Airport expansion by Flughafen Zurich and the bi-national platform EuroAirport Basel Mulhouse Freiburg. — FHZN — ADP



+8.4%

The increase in online sales in Switzerland in 2019, to 10.3 billion Swiss francs. A total of 8.3 billion francs in online purchases was generated by Swiss e-shops and 2 billion by foreign sites.

RANKING

COMPANIES THAT SPEND THE MOST ON R&D (as of 2018)

1. amazon	\$22.6 BN
2. Alphabet	\$16.2 BN
3. VW	\$15.8 BN
4. SAMSUNG	\$15.3 BN
5. intel	\$13.1 BN

Source: Statista

THE MOST COMPETITIVE COUNTRIES

1. SWITZERLAND
2. UNITED STATES
3. SINGAPORE
4. SWEDEN
5. DENMARK

Source: The Global Talent Competitiveness Index 2020

THE MOST POPULAR SOCIAL NETWORKS (by number of active users in January 2020)

1. facebook	2.5 BN
2. YouTube	2 BN
3. WhatsApp	1.6 BN
4. facebook Messenger	1.3 BN
5. WeChat	1.15 BN

Source: Statista



“This year, the United States could ramp up its campaign against Huawei, but I don’t think it will have a significant impact on our business”

Ren Zhengfei, founder of Huawei in Davos

dating

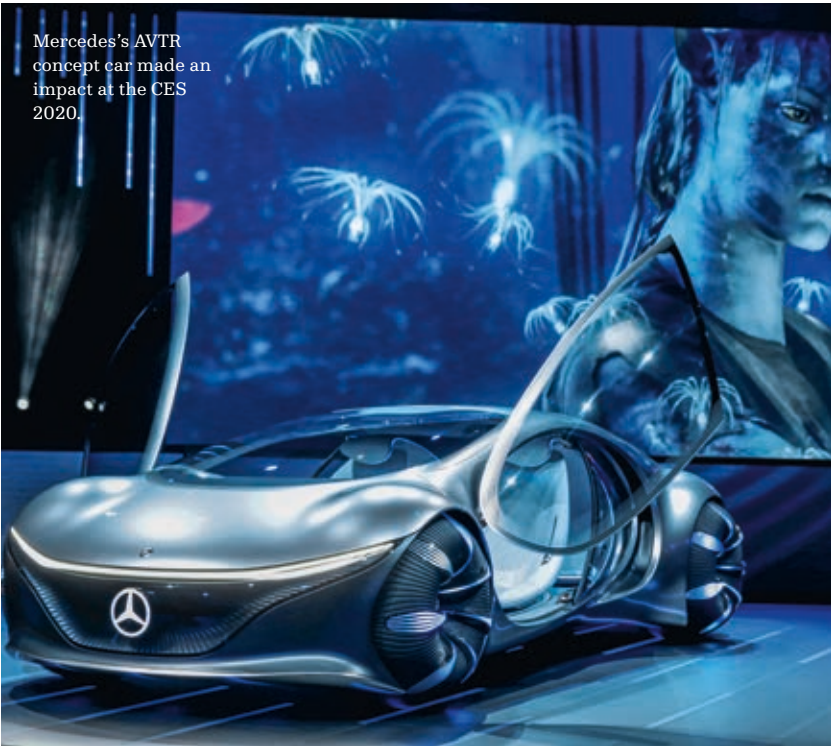
AN SOS BUTTON FOR DATING APPS

Uber already has an emergency button. Now Tinder is integrating the same safety feature in the United States. Clicking the button will send a signal to 911 with geolocation data. This innovation is the result of a partnership with smart security platform Noonlight, whose investors include Match Group – the owner of Tinder and many other dating apps, including Meetic,

PlentyOfFish and OkCupid. The US company can celebrate the struggles of its new rival Facebook Dating, which was blocked in Europe this February. The Irish Data Protection Commission determined that Facebook Ireland had not taken all the necessary data protection measures. Facebook has delayed the launch of this service in Europe indefinitely. — MTCH — FB

automobile

THE AVATAR MERCEDES

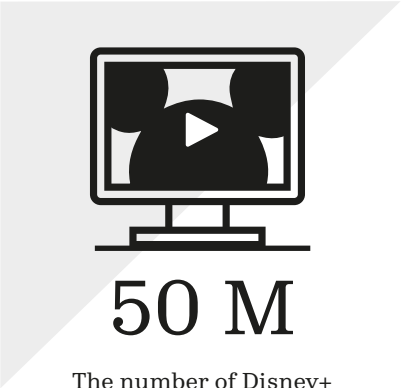


Mercedes's AVTR concept car made an impact at the CES 2020.

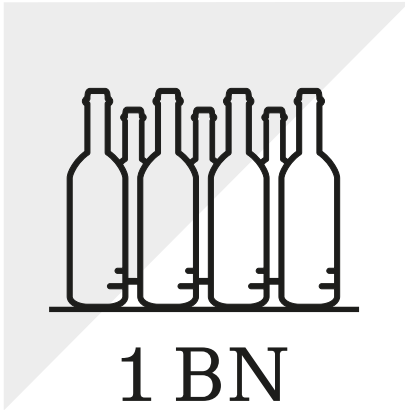
STEVE MARCUS / REUTERS

Straight out of the Avatar film universe, the new Mercedes concept car was one of the most talked-about innovations at CES 2020 in Las Vegas. Named Vision AVTR, it was designed with help from Avatar producer James Cameron’s teams. While this model will probably never be available for sale, it does encapsulate the future of cars in three words: autonomous, electric and smart.

The Vision AVTR doesn’t even have a steering wheel or pedals. The concept is intended as a fusion between humans and nature: all the materials used to build the car are sustainable, including the 100% recyclable battery based on graphene rather than rare earth metals, and the vegan leather used for the seats. — DAI



The number of Disney+ users as of 8 April 2020, according to figures provided by the company.



In litres, the volume of extra wine on the European market, due to the decline in consumption in China, “Trump taxes” and the coronavirus.



“The number of Swiss banks will likely decrease”

Mark Branson, director of FINMA, the Swiss financial markets authority, is expecting consolidation to continue in the Swiss financial markets.

media

FACEBOOK PARTNERS WITH REUTERS TO FACT-CHECK ITS CONTENT



The Indian agency Boom is partnering with Facebook to fact-check content. Here, a company office in Mumbai (March 2019).

FRANCIS MASCARENHAS / REUTERS

The press agency Reuters – known for vigorously fact-checking the content it publishes – set up a new division dedicated to fact-checking in partnership with Facebook in February. The entity, known as Reuters Fact Check, will verify the authenticity of factual content posted on Facebook and Instagram in the United States. With the upcoming US elections, the social network is under pressure and has a duty to remove fake news from its platform. This new division of Reuters is one of seven other verification platforms that are already working with Facebook, including Associated Press and Agence France-Presse. Thomson Reuters is a company to watch, as its share price has increased 60% over one year. — TRI

KICKSTARTER



GLAMOS

GLAMOS, THE KINECT FOR POWERPOINT PRESENTATIONS

Designed by former Samsung engineers, Glamos is a tiny device that creates an invisible touchscreen on the surface of any screen (TV, projector screen, tablet, PC monitor, etc.). Presenters can flip through slides during a presentation with a swipe of their hand or play mobile games on their TV. Glamos works like Microsoft’s Kinect in that it uses a laser technology called Lidar, which detects how far away objects are, but this technology requires large sensors that use lots of energy. What makes Glamos innovative is the way that this technology has been miniaturised – the device is smaller than a computer mouse (37 × 27 × 34 mm). According to the designers, it is the smallest lidar ever built.

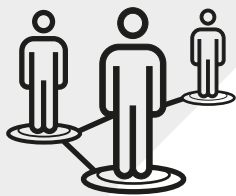
FUNDS RAISED
\$400,986

AVAILABLE
JULY 2020



“Rather than having year-to-year challenges, I’ve tried to think about what I hope the world and my life will look [like] in 2030”

Mark Zuckerberg, on his Facebook page



33

The number of German companies that have launched a procedure to operate their own 5G network, including heavyweights Volkswagen, BMW, Bosch and BASF.

pharma

VIFOR PHARMA LAUNCHES IN THE CHINESE MARKET



Drug production at the Vifor factory in Fribourg.

KEYSTONE

Swiss group Vifor Pharma and German company Fresenius Kabi are joining forces. The two announced the creation of a joint company in China that will focus on marketing and market access for iron-based intravenous products, one of Vifor Pharma's specialities. The Swiss pharma group will also bring its expertise in the nutritional supplements

sector, while Fresenius Kabi will share its access to Chinese patients. Fresenius Kabi already has many factories and 6,000 employees in China and it sells all over the country. The two companies are used to working with each other, as they founded a joint company in 2010 – Vifor Fresenius Medical Care Renal Pharma – specialising in kidney diseases. — GNHAF — FRE

cryptocurrency

VISA PARTNERS WITH COINBASE

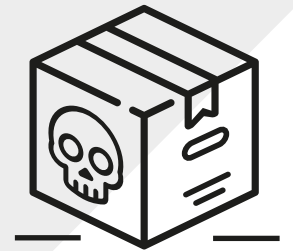


DR

Launched last year in the UK, the Visa card from renowned US cryptocurrency platform Coinbase is now available in 29 European countries. Cardholders can pay for online purchases with cryptocurrencies and use their card at any payment terminal that accepts Visa.

In February, the credit card giant granted Coinbase principal member status, a first for an entirely crypto company. This trust means that Coinbase will be able to offer more features to cardholders and provide access to more markets.

— V



66%

The percentage of products purchased online via sites like eBay and Amazon that do not comply with EU safety legislation, according to the European Consumer Organisation (BEUC). Some of the observed faults include toys containing illegal toxic substances and USB chargers that give users electric shocks.

THE FLOP

The “demo effect” hits Microsoft

Every big company has paid the price after a disastrous presentation or a bug that ruins everything, such as the iPhone 4 not connecting to WiFi or the broken windows of the Tesla pick-up truck. In February, bad luck struck Microsoft during the first presentation of its Surface Duo, an Android-based tablet with two screens connected by a small

hinge. In front of a room full of developers, two Surface Duo tablets, one after the other, were unable to display Google Maps on the two available screens and proceeded to shut down abruptly. The Richmond company quickly replaced the video of the presentation with a video in which the tablets were working properly.

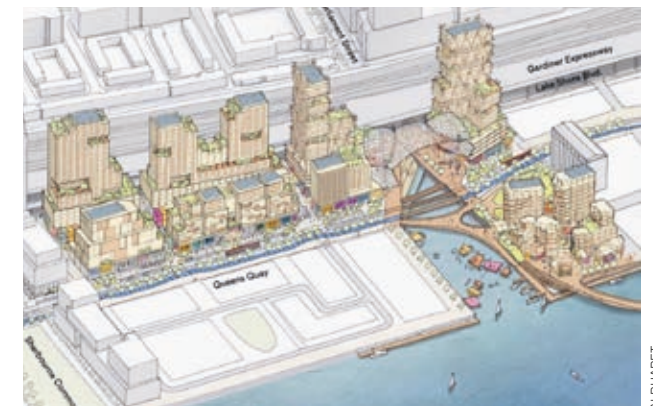
— MSFT

waste

USING ARTIFICIAL INTELLIGENCE FOR RECYCLING

31 December 2017: China stopped taking the world's waste. This industrial upheaval forced the recycling industry to reinvent itself and many companies are now proposing new solutions. Sidewalk Labs, a subsidiary of Alphabet, has launched a pilot recycling project in Toronto. In partnership with Colorado start-up AMP Robotics, which has developed an object recognition AI and a robotic autonomous manipulation system, Sidewalk Labs will analyse the waste from an apartment building for three months and help residents optimise their recycling. Investors should also keep an eye on Norwegian company Tomra, the largest supplier of reverse vending machines, which is also developing innovative sensors for recycling.

— TMR — GOOGL



ALPHABET

SCANS



“Europe missed the first wave, or lost the first battle, which was the battle for personal data”

Thierry Breton,

European Commissioner for the Internal Market, on the subject of Artificial Intelligence, during a press conference on 19 February



\$155 BN

The amount of money earned by developers on the App Store from its inception until 2019.

mobility

THE STRANGE SEGWAY-NINEBOT POD



A demonstration stand for the “S-Pod”, a reclined – or lazier – version of the Segway.

DAVID MCNEW / AFP

US company Segway, which has been owned by Chinese group Ninebot since 2015, has unveiled an electric vehicle that can reach speeds of up to 40 km/h. Dubbed “S-Pod”, it is designed for seated travel over short distances in a closed environment, such as university campuses and airports. The

S-Pod uses the same gyroscopic system as a traditional Segway, but drivers steer with a joystick on the side of the seat. Segway-Ninebot also revealed the Kickscooter Air T15, an electric scooter that is capable of reaching up to 20 km/h and recharges its battery every time the scooter slows down.

THE IPO

A CHINESE PODCASTING UNICORN ON THE NASDAQ

With a starting price of \$11 per share, Lizhi, a Chinese app specialising in podcasts and audio content (books and livestreams), went public in New York. Lizhi stands out from its competitors Ximalaya and Dragonfly by offering user-produced content as well as recording tools. The company announced it had approximately 46.6 million users in Q3

2019, of whom 5.7 million generated content. It is expected to use funds from the IPO to develop its AI, which will improve the personalisation of content and offer features to refine audio recordings. Lizhi has also agreed a partnership with Chinese internet giant Baidu to be associated with Baidu’s Xiaodu smart speakers.

— LIZI — BIDU



“BEAUTY LIES IN THE DETAILS OF THE GRANDEST STRUCTURES, AND THE FINEST.”

ORAÏTO,
CREATOR OF SHAPES, WEARS THE
VACHERON CONSTANTIN PATRIMONY.

VACHERON CONSTANTIN | ONE OF NOT MANY.
GENÈVE



ARVIND KRISHNA

A cloud specialist at the helm of Big Blue

Position
CEO of IBM

Age
57

Nationality
American

In early April, Arvind Krishna became the new CEO of IBM. He replaced Virginia "Ginni" Rometty, who was CEO for eight years and who is now Chair of the board. The US group chose an internal candidate for the position: Krishna is a 57-year-old Indian-American engineer who started working at IBM in 1990. Before becoming CEO, he was senior vice-president of Cloud and Cognitive Software. According to IBM, it was Krishna who oversaw the enormous acquisition of open-source leader Red Hat in late 2018 for \$34 billion. He is the fourth Indian American to lead a giant tech company, alongside Satya Nadella at Microsoft, Sundar Pichai at Alphabet/Google and Shantanu Narayen at Adobe.

Population
108.1 m
(July 2019
estimate)

GDP per capita
\$772 (2018)

Growth
+6.8% (2018)

**Main economic
industries**
agriculture,
value-added
agriculture
(horticulture and
bee-keeping),
textile industry,
tourism

sance Dam, which will become Africa's biggest hydroelectric plant. Construction is expected to finish in 2022.



The country
ETHIOPIA

The future China of Africa

The second most populous country in Africa is facing a demographic challenge: 59% of its residents are younger than 24 years old, according to the 2019 CIA World Factbook. To tackle the issue, the Ethiopian government is planning to create 20 million jobs by 2030, primarily by creating industrial parks. Ethiopia already has nine such parks – seven public and two private – and plans to have 30 in total by 2025.

The strongest potential for growth is in the manufacturing sector and the textile industry. The government is offering many tax breaks for the industry, and foreign companies are attracted by the cheap labour. A textile worker in Ethiopia earns approximately €23 per month – making them the lowest paid workers in the global clothing industry, far behind Bangladesh. This cheap workforce has already brought in Guess, Decathlon, Huajian, H&M and Calvin Klein. For the time being, the construction industry remains the primary driver of job growth in the country, with projects including the Grand Ethiopian Renaissance Dam, which will become Africa's biggest hydroelectric plant. Construction is expected to finish in 2022.



At CES 2020, Taiwanese manufacturer MSI presented the first laptop with a mini-LED backlight panel.

Innovation
MSI CREATOR 17

Company
MSI

Launch
15 April (US)

Projected cost
\$1,799

The first laptop with a mini LED screen

In January, MSI unveiled a 17-inch laptop equipped with a 4K mini-LED monitor, offering significantly better display quality than a traditional LCD screen. With a resolution of 3,840 × 2,160 pixels, the monitor has 240 independent dimming zones. MSI claims that this technology

can reach a contrast of 100,000:1 – while 1,500:1 is already considered an excellent contrast for a laptop. The brightness will also be improved, reaching 1,000 cd/m², whereas a good brightness level is generally around 400 cd/m² currently. With this new machine, MSI is clear-

ly targeting creative types, but this mini-LED technology could also revolutionise the world of laptops in general in the same way that OLED technology revolutionised smartphone screens. The MSI Creator is available from 15 April in the United States.

A worker disinfects a building to halt the spread of the coronavirus on 1 April in Prague, Czech Republic.

DOSSIER

THE WORLD AFTER THE PANDEMIC

As the pandemic paralyses the global economy, speculation about the aftermath is rife.

BY BERTRAND BEAUTÉ

Entire populations confined to their homes, bars and restaurants closed, aeroplanes grounded, hospitals at saturation point, production lines shut down, borders closed, daily death tolls... The arrival of SARS-CoV-2 has brought the world economy to its knees, with people staying at home and governments churning out recovery plans without a second thought for public debt.

The situation is unprecedented in recent history and there is now just one question on everybody's lips: what will happen when the pandemic is over? "The storm will pass, humankind will survive, most of us will still be alive – but we will inhabit a different world," says historian Yuval Noah Harari, in a piece published in the *Financial Times*. "Many short-term emergency measures will become a fixture of life. That is the nature of emergencies. They fast-forward historical processes." An opinion that is shared by all the specialists we asked.

But what will this new world be like? Here, opinions diverge giving rise to broad speculation. For those expecting the worst, known as collapsologists, a major crisis is on the way, with widespread company closures, a huge increase in unemployment, the introduction by states of increasingly security-conscious and liberty-restricting measures, and an end to democracy. At the other end of the spectrum, utopians see this pandemic as the beginning of a better world, where there will be less inequality and where caring for the environment will become a priority.

At times of crisis, anxiety provides a fertile breeding ground for the imagination, which can come up with no end of radical scenarios for change. In this issue of *Swissquote Magazine*, we have chosen to steer away from more ideological and speculative predictions to focus on the real changes brought about by the coronavirus crisis, which will stay alongside us once the pandemic is over.

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- 24. The crisis in figures
- 26. Interview with Marc Bürki, CEO of Swissquote Bank
- 32. Crisis talks
- 34. Oil, a ticking time bomb
- 37. Coronavirus, the climate's saviour?

BARRYBARRY / VERNON / NEWS.COM

Dossier prepared by Bertrand Beauté, Ludovic Chappex, Martin Longet and Julie Zaugg

COVID-19

a stimulus to the digital economy

Companies, countries and civil society will come out of the coronavirus crisis economically weaker but much more digitised than before. Seven cases prove it.

BY BERTRAND BEAUTÉ AND JULIE ZAUGG

TOBIAS SCHWARZ / AFP



A technician assembles a “medical robot” on 11 March in Hunan province, China. Capable of taking temperature, recording health data and disinfecting hands, these machines have helped to relieve medical staff and reduce labour costs in the fight against COVID-19.

Virtual leisure

COMPANIES TO WATCH

Activision Blizzard (video games), Amazon (e-commerce), Blue Apron (meal deliveries), eBay (e-commerce), JD.com (e-commerce), Match Group (online dating), New York Times (media), Slack (instant messaging), Zoom (video conferencing), Zynga (online games).

On 25 March, Lina celebrated her 33rd birthday. She broke open a bottle of champagne and was toasted by her loved ones, all via screens. Due to the lockdown, Lina was forced to organise remote birthday drinks, using a video conferencing app such as Skype, Zoom or Instagram. “I didn’t want to celebrate my birthday alone,” says Lina. “Obviously this isn’t as good as seeing everyone in person, but we did the best we could.” And

she is not the only one. Thanks to the COVID-19 crisis, virtual aperitifs are the latest trend, known by names including “coronapéro”, “e-apéro” and “skypero”, from the French abbreviation apéro.

Amazon announced it was recruiting 100,000 people to manage its logistical chain

“We’ve moved on from a time when digital was one option among many to a time when it is the only possible option,” explains Olivier Glassey, a sociologist specialising in digital

trends at the University of Lausanne. “Being forced to embrace digital has accelerated the public’s learning process and made using digital tools the new norm. We now see grandparents, who were previously reluctant, talking to their grandchildren on video conferencing platforms. And once people have learned to do it and it has become normal to do so, it is highly unlikely they’ll stop using these digital solutions.”

All kinds of leisure activities are going virtual, from yoga and dance classes to a museum visit from the comfort of your sofa. The list is endless. Of course, the activities which are lesser substitutes for real social activities will disappear once the crisis is over. “E-aperitifs, for example, are important to people now, but I can’t see them lasting once the bars and cafés reopen,” says Glassey.

However, the apps which have really shown their worth will remain. “The crisis will reinforce the trends which we were already seeing in society,” explains Julien Leegenhoek, an equity analyst specialising in the tech sector at Union Bancaire Privée. “Netflix is a very good example. Many people didn’t really know much about video streaming, or hadn’t taken the time to subscribe. However, with the lockdown, they have taken the plunge, and now they have started, it is unlikely they will close their account when the pandemic is over. In this way, the crisis is going to speed up the disruption of traditional television.”

The same applies for e-commerce. Fearful of catching the virus at the supermarket, consumers have rushed instead to online shopping sites. In March, in Switzerland, LeShop.ch,

coop@home and Digitec Galaxus saw an unprecedented leap in orders which led to unheard-of delays in delivery. Amazon announced it was recruiting 100,000 people to manage its logistical chain, an increase of 12.5% of its total workforce.

“That’s huge,” says Leegenhoek. “In many sectors, such as video and music streaming (see the March 2020 issue of *Swissquote Magazine*), e-commerce and video games, the pandemic will bring about a massive increase in the public’s use of digital services. The market was right to invest in these sectors, as these shares here have held up better against the stock market crash than others.” One example is Netflix, whose shares were valued at \$325 at the beginning of January and had reached \$395 by 14 April. To help monitor this type of stock, in February the American

investment company MKM Partners created the “Stay at Home Index”, a stock index listing approximately 30 companies that are benefiting from the lockdowns taking place around the world.

Rapid robotisation

COMPANIES TO WATCH

ABB, Midea (owner of Kuka), Fanuc and Yaskawa Electric, which all make industrial robots.

While part white collar workers have been able to continue working during the lockdown, the same can’t be said for manual workers, the majority of whom have found themselves furloughed due to factory closures. On 26 March, this was the case for

nearly 570,000 employees in Switzerland, 11% of the country's workers.

"Business owners have realised that they can't risk another halt in production if they want to keep their place in the supply chain," says Duncan Turner, a robotics expert at HAX, an accelerator based in Shenzhen. The result: the crisis will be a trigger for an increase in the robotisation of industrial sites, in particular in "the world's factory", China.

"We have received a record number of calls to tender for new projects"

Emil Hauch Jensen, VP of sales in China for the Danish company Mobile Industrial Robots

The concept is simple: if there are no humans, there is no risk of a factory's business being interrupted during a health crisis. In 2018, Swiss company ABB installed 11 robots in the Shanghai factory belonging to the American group Hella Electronics, to make keys for electric cars. Eike Christian Meuter, an ABB spokesperson, has proudly stated how this production line was able to continue operating throughout the COVID-19 epidemic with virtually no human intervention required.

In the coming months, sales of robots will rocket. "We have received a record number of calls to tender for new projects," says Emil Hauch Jensen, VP of sales in China for the Danish company Mobile Industrial Robots. Even before the epidemic, China was well on its way to automation, in particular in the electronics, auto-

mobile and logistics sectors. China alone was responsible for 39% of new industrial robot installations in 2019.

"In China, they have an ageing population, salaries are rising and young people don't want repetitive jobs on assembly lines," says Jenny Chan, a sociologist from Hong Kong specialising in the Chinese manufacturing sector. "This is forcing Chinese companies to turn to automation." Foxconn, one of Apple's main suppliers, says it has already replaced 400,000 workers with robots.

ABB dominates the sector, alongside German company Kuka, Fanuc and Yaskawa Electric in Japan, and a horde of Chinese start-ups. In 2019, the Swiss group began construction of a new factory in Shanghai which will produce intelligent robots capable of making decisions autonomously, detecting anomalies in production and collaborating with humans.

However, the epidemic itself has also created new opportunities for robot manufacturers. Robots made by Pudu Technology, a start-up in Shenzhen, are being used in around a hundred hospitals in China, Hong Kong and South Korea. "They can give medicine or food to patients, avoiding contact between humans and therefore the spread of the illness," says Ben Zheng, the company's marketing director. That also frees up healthcare staff, who can be assigned to more crucial tasks.

Turner also highlights Youibot and iSmart, two more start-ups located in Shenzhen which have created robots that can disinfect a room and sterilise hospital floors using an extremely powerful ultraviolet light. Other companies have developed machines which can take patients' temperatures or take samples from the throats of those suspected to have the virus, ready for testing.

Many of these firms hope to continue to capitalise on these advances after

the epidemic. Youibot has already signed a contract with a manufacturing group in Suzhou, near Shanghai, which wants to use their robots to disinfect its factories. As for Pudu Technology, it hopes to sell its robots to restaurants, marketing them more hygienic than human waiting staff and able to fill in during staff absences.

The home office becomes the norm

COMPANIES TO WATCH

Alibaba, Alphabet, Adobe, Amazon, Everbridge (crisis management), IBM, Microsoft, Oracle (company software), Sage (software), Salesforce (software), SAP (software), ServiceNow (software), Shopify (e-commerce for companies), Workday (software).

"Until now, working from home has been the exception rather than the rule in companies, however, the coronavirus crisis is going to change that," says Olivier Glassey. "If home-working proves to be effective during the lockdown, it could suddenly seem a lot more interesting to bosses."

"This kind of decentralised organisation is going to increase after the crisis, as it is more flexible, less expensive and more efficient"

Julien Leegenhoek, equity analyst specialising in the tech sector at Union Bancaire Privée

Julien Leegenhoek, equity analyst specialising in the tech sector at Union Bancaire Privée, agrees: "Once the pandemic is over, companies will ask themselves what they would do if that was to happen every year. Companies need to transfer all their activities onto the cloud, as experts have been advising for the last five years. Homeworking version 1.0, i.e. having a computer at home, is not enough. All software needs to be available online. This kind of decentralised organisation is going to increase after the crisis, as it is more flexible, less expensive and more efficient."

An opinion shared by Arturo Bris, professor of finance at the IMD and an expert in digital transformation: "The crisis will make people realise they can work from anywhere. In the long term, the very concept of a headquarters will become obsolete."

This migration will obviously benefit cloud giants such as Amazon Web Services, Microsoft Azure and Google Cloud, but they are not the only ones. The many companies developing dedicated software, such as Salesforce

(sales and CRM software), Workday (human resources and finance) and ServiceNow (IT) should all benefit too. "In the United States alone, there are more than 150 companies active in the field of cloud computing," says Leegenhoek. "Their combined capitalization exceeds that of the CAC40, the flagship French stock market index, which is enormous."

Virtual medicine finally prescribed

COMPANIES TO WATCH

Schrödinger (digital chemistry), Teladoc Health (virtual healthcare), NextGen Healthcare (virtual healthcare).

It has been a giddy rise. Between 1 January and 31 March, Teladoc Health's share value increased by 100%, from \$80 to \$160. The largest virtual healthcare company in the United States, this New York-based company offers the possibility of consulting your doctor online and obtaining a prescription without getting up from your sofa. Due to the increased risk of spreading coronavirus

that comes with visits to the doctor's surgery, the number of appointments which took place on Teladoc's platform in the second week of March was up by more than 50% year-on-year, with as many as 15,000 visits requested per day. And the same is happening in virtual healthcare services around the world.

In France, the number of consultations that took place on the Doctolib platform was 100 times higher on 30 March than on 5 March, and in Switzerland, several start-ups are stepping into the breach. These include Bern-based eedocors, which has extended the use of its virtual doctor's surgery to family doctors, hospitals and other health centres.

"Virtual healthcare isn't new, it is a subject that has been cropping up since the mid-1990s," says Julien Leegenhoek, equity analyst specialising in the tech sector at Union Bancaire Privée. "Until now, both patients and doctors were reticent about the idea of doing consultations online. The crisis has shown that in fact this can relieve physical health services and reduce the risks of spreading the virus.

According to a survey conducted during the lockdown, between 15 and 24 March by Columbus Consulting, 80% of Swiss people would like to telework more in the future. Working from home could therefore become the norm once the crisis ends.

OLIVIER DOULIERY / AFP



What is more, virtual consultations are possible 24/7.”

This move towards virtual healthcare is unlikely to slow down after the pandemic, as healthcare systems are largely in favour of this type of service, which reduces health costs. “Because of coronavirus, we’re going to leap forward 10 years in the development of virtual healthcare,” predicts Doctor Jean Gabriel Jeannot, writing in *Le Temps* newspaper.

Healthcare systems are largely in favour of this type of service, which reduces health costs

Elsewhere in the scientific domain, Schrödinger, a company which offers a platform allowing virtual testing of the therapeutic effectiveness of a molecule by bringing together physics-based modelling and machine learning, is also benefiting from the crisis. Its technology allowing virtual clinical testing should accelerate the rate at which medicines are developed.

The adoption of blockchain

CRYPTOCURRENCIES TO WATCH

EOS, Ethereum, Cardano, Neo, XRP, Stellar Lumens and all the cryptos that facilitate smart contracts and decentralised applications.

The digitisation of work and leisure brought on by the coronavirus crisis is likely to lead to the adoption of blockchain technology, in companies and in society more generally. “The decentralisation of exchanges makes it necessary to be able to carry out secure remote transactions, which is exactly what blockchain offers,”

explains Arturo Bris, professor of finance at the IMD and co-author of *Block change! How to survive the crypto economy* (2018, TROI Studio/IMD). “When two companies or two individuals do business online, blockchain technology allows each party to be sure that the other will honour their obligations, without requiring third party certification. With the increasing digitisation of society, the use of blockchain solutions is going to accelerate.”

Surveillance becomes widespread

COMPANIES TO WATCH

Apple, Alphabet, Alibaba, Baidu (internet), IBM, iFlytek (facial recognition), Hikvision (video surveillance), Dahua Technology (video surveillance).

At the end of February, the Chinese authorities – in partnership with digital giant Alibaba – rolled out powerful digital tools to help stop the epidemic. Locating individuals via the GPS tracking system on their smartphones, using facial recognition cameras and carrying out obligatory temperature checks allowed the Chinese authorities to quickly detect coronavirus carriers, as well as identifying those with whom they had been in contact, drastically and rapidly shortening the chain of infection.

“It is clear that these technologies can help in the fight against coronavirus,” says Arturo Bris, professor of finance at the IMD. “They have been used well to help halt the epidemic in China, Singapore and South Korea” – a strong incentive for countries around the world to follow suit. In Switzerland at the end of March, the Confederation asked Swisscom to identify locations where there were 20 or more SIM cards in a 100 m x 100 m space, in order to ensure that people were respecting

A Tunisian police robot patrols the streets of Tunis on 1 April to enforce containment measures.



FETHI BELAID / APP

the rules of the lockdown. Data provided by telephone operators has also been used in Italy, France and Great Britain. “I’m surprised by the amount of data collected and stored during this epidemic, but we need to go further in its analysis,” continues Bris. “Investments in artificial intelligence and big data analytics are going to increase after the pandemic, in order to improve how this data can be used.”

Many countries, including France, Belgium and Spain, have also used drones to ensure people are respecting the lockdown rules and to disperse anyone not adhering to them. So far, the cameras used in Europe have not made it possible to identify individuals in real time using facial recognition, but that is not the case in China.

“With each crisis we redefine what is considered as acceptable,” explains Olivier Glassey. “We are currently

living in an extraordinary time and the authorities are expanding the limits of what is considered acceptable in terms of surveillance. The question is whether this Pandora’s Box will be closed again, once the crisis is over.”

However, history tells us that emergency measures tend to become the norm. “Even when infections from coronavirus are down to zero, some data-hungry governments could argue that they need to keep the biometric surveillance systems in place because they fear a second wave of coronavirus, or because there is a new Ebola strain evolving in central Africa,” warns Yuval Noah Harari, in a piece published in the *Financial Times* on 20 March. “The coronavirus crisis could be the battle’s tipping point. For when people are given a choice between privacy and health, they will usually choose health. [But] this is a false choice. We can and should enjoy both privacy and health.”

5G restored to favour

COMPANIES TO WATCH

Ericsson, Cisco, Nokia, Samsung, ZTE, all active in the rollout of network infrastructure.

The news caused a stir: at the end of March, at the request of the European authorities, YouTube (Google) and Netflix reduced the bandwidth usage of their services, and entertainment giant Disney saw the launch of Disney+, its video streaming platform, delayed in France, also at government request. The aim was to reduce pressure on the network in order to avoid saturation. “While China and the United States are competing to win the 5G race, Europe has fallen behind,” says Arturo Bris, professor of finance at the IMD. “The crisis has made the old continent realise that the 4G network

was reaching saturation point and that we needed this technology. Its rollout is going to be sped up after the pandemic.”

Indeed, the uproar originally provoked due to the alleged harmful effects of 5G has died down, replaced in public debate by the pressing need to put in place a more robust network (see the July 2019 issue of *Swissquote Magazine*).

“The crisis has made Europe realise that the 4G network was reaching saturation point”

Arturo Bris, professor of finance at IMD

So much so that Beijing is sparing no efforts in trying to persuade western governments to adopt Huawei’s 5G networks. Targeted by American sanctions, the Chinese company has offered more than one million face masks to Spain, 800,000 to the Netherlands, 200,000 to Italy and 12,000 to Poland. “We won’t forget the countries who helped us,” was the response of Italian Foreign Affairs Minister Luigi Di Maio. Huawei is also telling European hospitals it can improve their connectivity, at a time when their current networks are overloaded.

However, in a blog, Josep Borrell, high representative of the European Union for foreign affairs, warns: “We must be aware there is a geo-political component including a struggle for influence through spinning and the ‘politics of generosity.’”▲

THE CRISIS IN FIGURES

\$5,000 BN

The amount that will be injected into the global economy to counter the impact of the pandemic, according to the G20 announcement on 26 March.

10 M

The number of people who applied for unemployment benefit in the United States in the last two weeks of March – an unprecedented amount. According to Oxford Economics, 20 million jobs could be lost due to the pandemic in the United States.

-27%

The fall in the SIX between 20 February and 16 March. Over the same period, Germany's DAX index dropped 36% and the CAC 40 fell 39% – the biggest slump since the Parisian index was created in 1987.

+127 %

The increase in the number of transactions recorded by the SIX in March – up to 17.4 million. In value, the volume traded jumped 80.9% over one month to 293 billion francs.

-7,5%

The fall in GDP for the 19 countries of the euro zone in 2020, according to IMF forecasts. Globally, the economy is expected to contract by 3%. A drop without precedent since the Great Depression of the 1930s.

2,000

The number of fraudulent websites created per day about coronavirus, according to Kaspersky.

-25%

The voluntary reduction in Netflix streaming data volumes in Europe. This decision, made on 19 March for a duration of 30 days, is intended to prevent overloading the internet.

€1,000 BN

The total value of various emergency measures agreed by the European Central Bank (ECB).

3.4 BN

The number of people on lockdown to varying degrees in the world as of 30 March, or 43% of the world's inhabitants.

500 M

The number of people around the world at risk of falling below the extreme poverty threshold due to the pandemic, according to Oxfam.

+135%

The increase in revenue for sex toy brand Womanizer in Canada as of late March 2020 compared to yearly forecasts. The company has also seen increased revenue in the United States (+75%), Hong Kong (+71%), Italy (+60%) and France (+40%).

\$252 BN

The probable loss of earnings in the airline industry in 2020 due to the pandemic – a 44% drop in revenue compared to 2019.

CHF 180

The maximum amount that the health insurance system will reimburse in Switzerland for the cost of the SARS-CoV-2 novel coronavirus diagnostic test as of 4 March.

3.6

The number of acute care hospital beds per 1,000 residents in Switzerland, which places the country at 14th in the OECD ranking, far behind the top three: Japan (7.8 beds per 1,000 residents), South Korea (7.1) and Germany (6).

INTERVIEW

"WE ARE NOW AWARE OF OUR COLLECTIVE VULNERABILITY"

Marc Bürki shares his thoughts on the current crisis. Interview via videoconferencing.

BY BERTRAND BEAUTÉ AND LUDOVIC CHAPPEX
PHOTOS: NICOLAS RIGHETTI

An exceptional situation requires an exceptional response. The Swissquote Bank CEO, and editor of *Swissquote Magazine*, gave us a lengthy interview for this rather special issue. Given the health measures currently in place, the interview was carried out using video conferencing in the company premises. While shedding a human light on the situation, Marc Bürki criticises the Confederation's lack of communication to companies in the early stages of the crisis. As all eyes turn towards the United States, he also attempts to anticipate what the world will look like after the crisis.

The unique nature of the current crisis seems to defy all forecasts. Are there precedents we can look to?

The world has never seen anything like this. When looking at financial

markets, many people are tempted to compare the current situation with what happened in 2008, but the starting scenarios are very different. In 2008, the crisis was structural and related to the fundamental functioning of the economy.

"The United States by and large hold the fate of the global economy in their hands"

This time, the shock came from an outside event. In 2008, the bear market lasted two years with a gradual decline. This time, however, we have seen an extremely sudden and brutal market crash. I don't think this can be compared to other crises.

Without a point of comparison, how do you envision the months to come?

It's very difficult to answer that question, because there are many unknowns. At the moment, no one knows when the pandemic will truly end. And we cannot discard the possibility that the virus may come back in a few months. The only way to definitively overcome this crisis is to reduce the number of new infections to zero or to find a vaccine, but when will it be available? In the meantime, the only thing we can do is hypothesise.

But once the virus is controlled, the fundamentals should recover as the economy restarts and consumption gradually picks up. That's what we're already seeing in China and Hong Kong in particular. But consumption cannot simply be switched on or off. When it resumes, it will be cautiously. ▸



THE SOUL OF A PILOT

An approachable boss and close to his employees, Marc Bürki has been in the driving seat of Swissquote Bank for almost 25 years. The company he set up in 1996 with Paolo Buzzi – the current CTO of the group – established itself as the undisputed Swiss leader in online banking services. Listed on the Swiss stock exchange since 2000, it today employs over 700 people. In 1990, the two friends had already set up Marvel Communication, a company specialising in software and web applications dedicated to the world of finance, thus creating the foundations of the current company. Outside the hours spent at work at the company in Gland (canton of Vaud), Marc Bürki has also been on the ETH Board since 2017. Passionate about planes, he owns a Pilatus PC-12 aircraft that he has been flying himself for many years. One way of satisfying his curiosity and quenching his thirst for adventure, both as strong as ever.

What will the Swiss economy look like at that time?

According to the latest projections by the State Secretariat for Economic Affairs, dated 11 April, gross domestic product in Switzerland has already fallen by 1.5% and the most plausible scenario assumes an annual recession of around 7%. However, I believe that the economy will rebound strongly once the crisis is over. There will be a catch-up effect, which is quite common in this kind of situation. It should also be noted that the health sector is supporting the economy even during this period of crisis. Investment in hospitals is generating an economic boom in the sector. There is a demand for beds, medicines, various products. Infrastructure needs to be developed. Hiring is on the rise. So the economic boom in this sector partly compensates for the downturn.

"The markets worked as intended. The system did not fail."

However, there is another, gloomier scenario with a health crisis that extends into the third quarter and a decline in GDP of around 10% for the year as a whole. Something not seen since the oil crisis of 1974.

What impact will the situation in the United States have on these forecasts?

As the leading global power, the United States by and large hold the fate of the global economy in their hands. Everyone is now looking to them to see what will happen. If the US is unable to contain the expansion of the virus in the coming weeks, we will be heading for a very serious and long-term crisis, with a global annual GDP in significant recession. But after a period of denial, Donald Trump seems to have understood the gravity of the situation, which is promising.

To avoid worst-case scenarios, countries are setting up extremely expensive recovery plans. Will countries that are already deep in debt be able to pay for these plans?

You're right, the numbers are very high. The enormous amounts of money injected into the system should in theory be paid back. But in my opinion, any debt associated with the virus will be handled separately, without the usual control measures. For the European Union, the eternal problem is that northern countries do not want to pool debt. So while the ECB will not be issuing eurobonds (or coronabonds), it will nevertheless purchase debt from states and companies, while the EU will set up major recovery plans. In the long term, it's sort of the same thing. In Switzerland, we will repay debts over a period of 25 years using profits from the government, according to the Federal Council.

Is there a risk that this massive support for companies will artificially prop up the economy?

There are good and bad ways to use fiscal stimuli. The bad way would be to bail out certain companies in hopes of winning elections in the future. That would be catastrophic, of course. The correct way is to use resources responsibly, focusing on the sectors of the economy that are most affected by the crisis.

In Switzerland, this problem will not occur. We will not play electoral politics using public funds. I think the money put into the system will be used wisely, and we will likely see the same in Europe. But the real gamble is the United States, where the current political climate is so divisive that anything can happen. That said, the current virus situation is so out of the ordinary that even the most unpredictable politicians tend to become more reasonable.

After the pandemic, will there be changes in the way our economies are organised?

Respecting social distancing, the interview with Marc Bürki (centre) was conducted by Ludovic Chappex, the magazine's editor-in-chief (left), and Bertrand Beauté, deputy editor-in-chief (right) via videoconferencing.



Some people are already predicting the end of capitalism. Those predictions were made in 2008 and then time passed and capitalism remained in place. I don't think that a global change will occur after this crisis, but we will reconsider how we handle supplies and lean manufacturing. It has become clear during this pandemic the extent to which the entire global factory has ground to a halt following the stay-at-home measures that have been imposed essentially everywhere. It's also clear just how dependent we are on China as a production workshop.

We don't want to be caught unprepared a second time and find ourselves once again in a situation where governments need to scramble around the world to buy masks... This will lead to a reflection on the autonomy of the healthcare system and, more broadly, on the stocks of

strategic parts in the industry. In the future, we will probably produce certain products locally, even if doing so is a bit more expensive.

Isn't that an ideological victory for proponents of sovereignty?

Only on the surface. National borders didn't stop the virus from spreading. And let's not forget that Switzerland has a very large number of foreign-born healthcare professionals in our country, particularly from Germany and France. Without all of these people working in Switzerland, we would be in a very bad spot.

The Italians felt abandoned by Brussels at the height of the crisis. Do you think that the European Union will survive the pandemic?

I think so, yes. Europe has always survived crises. If you think about it, sometimes it's at its very best under

"Companies were largely left out of communications from the Swiss government"

pressure. Faced with the threat of the EU disappearing, politicians will always find the necessary resources to continue. But some serious consideration will have to be given regarding the centralisation of efforts in times of crisis. And that's not unique to the European Union. In the United States, individual states took more initiative than the federal government. The same was true in Switzerland, where the cantons were the first to make strategic health decisions.

So far, have Swiss health authorities adequately responded to the crisis?

When we write the history that we are living through today, this crisis will always be in every economic and cultural history book. The 2020 virus will remain in public memory much like World War II has. At that point, we will be able to retroactively analyse the errors that were made in how the crisis was managed. It's obviously much easier to do so after the fact.

In Switzerland, the authorities have acted in a calm and determined manner despite everything. Let's not forget we were the first country in Europe to ban gatherings of over 1,000 people. These significant actions probably saved many lives. But at the time it seemed crazy. Cancelling the Geneva Motor Show seemed surreal. At that time, Italy ▶

hadn't yet banned football matches, even though the progression of the disease was more advanced in Italy at that point than it was in Switzerland. After that, there was a moment of hesitation. Companies were largely left out of communications from the Swiss government. We received very few guidelines about what we were supposed to do. There was lots of communication addressed to citizens but next to nothing for companies.

Are you saying that as CEO of a bank, you had no contact with the SECO or FOPH, those types of institutions?

Not officially. Companies took common-sense action individually in the beginning. I was in a rather privileged situation: as I'm on the ETH Board, I'm in contact with several people in Bern and was therefore able to get an idea of the action that needed to be taken.

After that, the situation improved somewhat. As for the bank, the umbrella organisation, the Swiss Bankers Association, started to provide information about the loans set up by the Swiss government, the much-discussed COVID-19 loans worth 500,000 Swiss francs. There were communication efforts, and fairly quickly FINMA took action to secure capital for companies.

Do you think the economic measures that Switzerland has taken are appropriate for the situation?

Partial unemployment is a proven method that works well. It's the equivalent of helicopter money in states where the social safety net is weaker or there isn't another way to help citizens. In the United States, the government is supplying a \$1,000 cheque for each American and up to \$3,000 per household. Switzerland will end up distributing a lot more money per person on average, since the government will be paying salaries, rather than companies having to do so. In terms

of support for businesses, the concept of a COVID-19 loan has been replicated in other countries based on the Swiss model. The loans are made to companies that had a healthy business model before the crisis. The system is efficient: the Swiss government gives banks the responsibility to determine which companies weren't already struggling. Banks are playing along.

"We are now aware of our collective vulnerability"

It's a very pragmatic approach, very Swiss in fact...

We do things urgently, but we do them well. But the damage could be significant for micro- and mono-enterprises that aren't structured as a public limited company [SA]. These companies are in serious danger. Those that were in a precarious situation before the crisis will likely collapse. Once this crisis is over, individuals need to support small businesses and shop locally, as these businesses are essential to our economy.

Will the crisis motivate companies to become more responsible overall?

I think so, yes. We are now aware of our collective vulnerability. Previously, when we talked about climate change, for example, it was still kind of theoretical, despite everything. We saw icebergs melt, we said it's going to be catastrophic, but in 50 years... everyone said: "We have time." The crisis wasn't incredibly urgent. But now we know just how vulnerable we are to our environment. We must hope that this serves as a lesson and that we realise that we cannot simply abuse the environment indefinitely. Social overcrowding and pollution are concepts that we will have to tackle head-on.

Public freedoms seem incredibly threatened. Are you concerned about generalised surveillance of the population?

Absolutely. As soon as health is involved, we lower the bar when it comes to freedoms. When faced with two threats, we focus on the most immediate danger. It doesn't matter that the government is monitoring us if our lives are in danger every time we go outside... That's why we need a vaccine quickly. The alternative is permanent tracking of individuals.

This is already in place in China, where each person is colour-coded to determine if they are safe to no longer self-isolate. In the west, these measures won't be accepted long-term.

What is your opinion on wide-spread remote working?

The home office is a phenomenal success. One reason is that it's possible to work relatively comfortably from home now that internet speeds are fast enough. Can you imagine what it would have been like if the pandemic had hit in 2005? At that time, download speeds meant it wouldn't have been possible for all employees to work from home.

At Swissquote, we already offered options to work remotely before the crisis, to reduce the issues and loss of time related to commuting. We were lucky because we were prepared, and we were able to send 90% of employees home to work remotely, from all sectors of the company.

Now that we know remote working can be successful, do you think it will become more widespread in the future?

There will be some takeaways from this experience. But I do think it's important to physically be in the workplace. We are social beings, we need physical contact with other people. We need proximity. That is currently impossible and it's heartbreaking. A system where our professional interactions

are limited to videoconferences would lead to lots of depression in the long term. That's not a model that our society should follow. A balance between remote working and physically being in the office seems like a good compromise to me.

The market has fallen significantly during the crisis. What roles did robots play in the crash?

They amplified the phenomenon, as they always do. Most stock market players are algorithms now. There are very few human players. But now that's practically a part of the market.

Wouldn't it make sense to reduce the power of the algorithms to limit the amplification effect?

The number of products processed on the market has become so enormous that humans alone simply cannot process everything. An overview is no longer possible. We need machines to help us organise the market. Of course, it makes sense to establish limits for these machines, including via circuit-breaker systems like they have in the United States.

That said, neither management via algorithms nor even the often-discussed high-frequency trading are responsible. In this case it wasn't a flash crash, but rather an exterior event that sent the markets into freefall. Everyone contributed to the price drops: humans and machines.

In this case, wouldn't it have made sense to close the market and wait until everyone was back on their feet? That idea was floated.

Thankfully no-one's talking about that any more – it would have been catastrophic. This debate is tied to the emotions and fear that arise in the face of volatility. Faced with these continuous losses – sometimes more than 10% of the value of the indices – some people think it's better to stop everything and pause

to take a breath. But if you close the market, then you are faced with the problem that you have to re-open one day, and that's an enormous leap into the unknown.

Furthermore, catastrophes could happen while the market is closed. Companies that need cash need to be able to sell their assets. If there's no exchange for them to do so, then you're just compounding the initial problem with a liquidity crisis. The economy really needs an exchange system during times of crisis. And even though volatility was very high in this crisis with truly brutal drops, the markets worked as intended. The system did not fail.

"We need proximity. That is currently impossible and it's heartbreaking."

Now that prices are low and several countries have passed the peak of the epidemic, is now a good time to purchase shares?

There are a few gems on the market. The stock prices of extremely solid companies have been battered by the crisis. One such case is Apple, which, for example, has an incredible war chest. Personally, I purchased shares in ABB, assuming that the industrial sector will take off again. I also don't think this is the end of commercial aviation. The big airlines will certainly be saved. There are real opportunities out there and I'm not alone in that thought. We are currently drowning in requests to open accounts: nearly 1,000 per day, compared to 100 to 200 at the end of last year.

Many of these new clients thought that the market was too high over

the last three years. People would say the same thing to me over and over again: I don't want to enter the market now because I'm afraid it will undergo a correction. We can now say that the correction has occurred... Many people believe that now is the moment to get involved, and that explains some of the success that we're currently experiencing.

What are the industries and companies that will emerge from the crisis as winners?

Given that the market is oversold, all sectors will be positively impacted as soon as the economy picks up again. Post-crisis, industries such as pharma and more generally those linked to healthcare will record growth. And of course, the company that produces the vaccine will be one of the big winners.

Is investing in cryptocurrencies a good option?

We give cryptocurrencies a hard time, but they do have a role to play. The fact that they aren't disappearing after the crisis is proof of that. When bitcoin started to fall, everyone said right away that this was the end, that only a nation state could keep a currency afloat. But gold also fell significantly during the crisis. In actual fact, it was the sudden need for liquidity from many investors that drove the cost of these assets down.

I imagine that this is the most unexpected crisis that you've had to manage in your career...

I would never have imagined that such a thing would happen to us. It's a nightmare. And even now when I wake up in the morning, I sometimes struggle to believe it's happening. But I tell myself that all crises have an end. Despite everything, we have lots of data that shows that this type of infection is controllable. After a stagnation phase, the virus will subside. This crisis will end and we will be able to go back to our lives interacting with people, going out and having parties. That gives me hope. ▀

CRISIS TALKS

World leaders have become aware of the scale of the crisis. From anxiety to war-like tones, their statements also reveal the ongoing geopolitical struggle.



"Coronavirus is the worst international crisis since the UN was founded"

António Guterres, United Nations secretary general, 31 March



"The Federal Council is helping companies, employees and the self-employed who are fighting for their existence. It is ensuring that salaries can be paid and that companies obtain credit. More than CHF 40 billion is now available, quickly and without bureaucracy"

Simonetta Sommaruga, president of the Swiss Federation, 21 March



"The day that follows will not be like the day before. We must rebuild our national and European sovereignty"

Emmanuel Macron, French president, 31 March



"Our main concern is the very long-term damage caused by the sudden halt of the world economy, which risks causing a wave of bankruptcies and job losses. Not only could that undermine the recovery, it could also affect the very foundations of our societies"

Kristalina Georgieva, managing director of the International Monetary Fund (IMF), 27 March



"I call on my African colleagues to act together. Africa must not be the new focus of the disease"

Macky Sall, president of Senegal, 12 March



"This is an extraordinary situation, we will do everything necessary (...) we will do it to get us out of this situation, and afterwards we will see what that has meant for our budget"

Angela Merkel, German chancellor, 11 March



"If Europe does not rise to meet this unprecedented challenge, the entire European edifice risks losing, in the eyes of its own citizens, its *raison d'être*"

Giuseppe Conte, Italian prime minister, 28 March



"Nearly 50% of Swiss hotels will struggle to pay their bills in April"

Andreas Züllig, president of Hotelleriesuisse, 30 March



"For a temporary period, a large part of the economy is being switched off. As a result, economic activity across the euro area will decline considerably"

Christine Lagarde, president of the European Central Bank, 19 March



"I defend the idea that everyone should go to work. The virus is here, we are going to have to fight it, but like men, not kids. We are all going to die one day"

Jair Bolsonaro, Brazilian president, 29 March



"The European Union must be there for all its citizens, but at the beginning many wanted to be there, above all, for their own citizens"

Ursula von der Leyen, president of the European Commission, 26 March



"The pandemic is a threat to all of us. This is the moment for solidarity and to help those in need"

Juan Antonio Fernandez, deputy director of communications for the Cuban foreign ministry, 28 March



"We won't forget the countries who helped us"

Luigi Di Maio, Italian foreign affairs minister, 10 March



"Don't forget that this situation will come to an end, it is temporary"

Nick Hayek, head of the Swatch Group, 19 March



"China and the United States must unite to fight coronavirus"

Xi Jinping, Chinese president, 27 March



"We've been hit by an invisible enemy, and we've been hit hard"

Donald Trump, US president, 26 March



"Issuing Eurobonds is crossing the line towards a transfer union, debt mutualisation, and we do not want that"

Mark Rutte, prime minister of the Netherlands, 27 March



"The EU must learn lessons from the past and not fail its citizens again (...) The European response must be united and targeted at the most vulnerable"

Pedro Sanchez, Spanish prime minister, 27 March



"It is clear that this is the worst crisis the car industry has ever faced"

Eric-Mark Huitema, director general of the European Automobile Manufacturers' Association, 21 March



"Nearly 50% of airlines find themselves at risk (...) They are asking for government help, like the banks did in 2008"

Alexandre de Juniac, director general and CEO of the International Air Transport Association (IATA), 24 March

"OIL HAS BECOME A TICKING TIME BOMB"

Global surplus and plummeting demand have driven oil prices way down. And the outlook for the sector is hardly reassuring.

BY ANGÉLIQUE MOUNIER KUHN

INTERVIEW

A historic agreement. Under pressure from the United States, the Organization of the Petroleum Exporting Countries (OPEC) and other major producers of black gold, including Russia, agreed on Sunday 12 April to a record reduction of 10 to 15 million barrels per day starting from 1 May. The partners thus hope to raise oil prices, which have fallen to their lowest level for nearly two decades, in the midst of a global pandemic and against the backdrop of a price war between Moscow and Riyadh. The drop in prices has been particularly hard on the oil majors and shale oil producers in the United States, who have been forced to trim down their operating costs.

"Great deal for all," boasted U.S. President Donald Trump on Twitter. "This will save hundreds of thousands of energy jobs in the United States." An optimism that is not shared by Laurent Horvath: "The coronavirus pandemic has spread throughout the world, causing an unprecedented slowdown in mobility and freight transport. Although historic, this drop in production appears insignificant when compared to the collapse in demand caused by the crisis," says the energy geo-economist. And it remains to be seen whether all partners will really honour their promises to reduce production." Interview.

Are oil prices falling because of a demand shock or a supply shock?

Both. The COVID-19 pandemic has wiped out a portion of demand. According to estimates, in just a few weeks demand fell by 25 million barrels a day out of a total consumption of 100 million, a drop of 25 to 30%.

This unique situation in the history of oil is forcing producers to stockpile their production. According to Rystad Energy, more than 75% of the world's storage capacity is already being used and, at the current rate of overproduction, it could soon be filled to the brim. Ocean tankers are also used for storage, and shipping prices have consequently shot up. What will happen when storage capacity is all used up? In the worst-case scenario, some producers could be forced to sell oil below zero, in other words, pay to get rid of their production. Other scenarios have crude prices stabilising around \$10 or \$20, as Goldman Sachs predicts.

"Some producers could be forced to sell oil below zero, in other words, pay to get rid of their production"

How long can Russia and Saudi Arabia hold out with oil prices so low?

Saudi Arabia and Russia could each hold out for a few years. Both have sovereign funds. Russia's is worth \$150 billion. Extraction costs are very low there, and the country needs a price per barrel of \$42 to balance its budget. Saudi Arabia's sovereign fund is worth

\$500 billion, and extraction costs in Saudi Arabia are also very low, around \$5 to \$10 a barrel. But the Saudis would need a price per barrel of \$80 to balance their budget. With their sovereign fund, they could hold out for one or two years.

How are things looking for the big oil companies?

Major companies such as ExxonMobil and Chevron in the US, Shell in the Netherlands, BP in the UK and Total in France have already started cutting operating costs, announced lay-offs and halted certain investment plans. They have also announced a suspension of their share buyback programmes. But they are doing everything they can to maintain their dividends in order to hold on to investors. Chevron, for instance, planned to distribute \$75 billion over the next five years. It is unlikely that the company will follow through with that commitment. In February, these companies were counting on a price per barrel between \$60 and \$70 to finance exploration, new projects and dividends. Since then, everything's fallen to pieces.

What about smaller shale-oil producers, whose fast growth has helped the US regain its position as the world's leading oil producer?

They're really struggling, but the problem really started back in 2019: 42 of those companies went bankrupt last year, with 37 occurring in the fourth quarter. The oil they produce is expensive, with an estimated average cost of \$52 a barrel. It is also poor quality, so refineries buy it at a discount of between \$5 and \$20 a barrel. With the price per barrel at \$25, those companies are losing a lot of money. And they are especially vulnerable because they have to repay \$40 billion of debt this year. ▶

If the shale bubble were to burst completely, the effects would be felt around the world. But the White House is set to launch a stimulus plan to bolster the sector by injecting \$2 trillion into the US economy. It remains to be seen who the lucky ones will be and whether the production of 9.3 million barrels a day can be maintained.

“With the composure of a skilled chess player, Russia decided it was time to challenge the energy dominance of the US”

Some commentators believe the Russians wanted to wipe out US shale oil...

That's totally plausible. America's energy-dominance policy allows the US to hinder production in Venezuela, Iran and Russia. The last straw was certainly the new US sanctions against Rosneft Trading, the Swiss subsidiary of the Russian oil company Rosneft, which sells Venezuelan oil. With the composure of a skilled chess player, Russia decided it was time to challenge the energy dominance of the US.

In that case, why did Russia make a 180-degree turn, finally agreeing to reduce its production?

Because of pressure from the United States. Donald Trump must preserve oil jobs in the USA, which led him to open talks with Vladimir Putin. Negotiations between the two countries undoubtedly went beyond the oil framework and an exchange in other areas must have

Supertankers are used to store oil, while prices rise. Here in Kuwait.



BARRYBARRY / VERSION / NEWS.COM

taken place, such as a loosening of the sanctions against Moscow.

Once the health crisis is over, will the economic recovery cause global demand to rise again?

Once the pandemic is under control, it'll take a few months to absorb the current production surplus and rebalance stocks. During that initial phase, prices will likely remain low and will help the global economy get back on its feet. During phase two, assuming that the global economy picks up again, and that US shale oil production is considerably reduced, or that many producers are considerably

weakened, prices could quickly skyrocket. But if shale oil production picks up again, prices will go back to where they were in 2019.

Such extreme up-and-down movement is highly destabilising for investors and governments alike. Not even the biggest companies are spared. In five years, ExxonMobil lost over half of its market value. Oil has become a ticking time bomb, and, looking more than 18 months down the line, investment risks will remain very high and ill-defined. The resilience of the biggest companies should provide a good indication of how the sector will fare. ▲

CORONAVIRUS, THE CLIMATE'S SAVIOUR?

The lockdown measures introduced to slow the spread of coronavirus have led to an unprecedented fall in greenhouse gas emissions. But this decline is only likely to be temporary.

BY BERTRAND BEAUTÉ

The satellite images published by NASA at the beginning of March were seen around the world. They showed that air pollution above Wuhan had all but disappeared, thanks to the draconian lockdown measures introduced by the Chinese government to curb the spread of the SARS-CoV-2 virus. “This is the first time I have seen such a dramatic drop-off over such a wide area linked to a specific event,” marvels Fei Liu, a researcher at NASA specialising in air quality.

According to the Centre for Research on Energy and Clean Air, a Finland-based research institute, greenhouse gas emissions in China fell by 25% between 3 February and 1 March compared to the same period in 2019, equivalent to a reduction of 200 million tonnes (Mt) of CO₂ released into the atmosphere, the amount released in Switzerland in four years.

Since then, the pandemic has spread across the planet, with experts now expecting to see a historic decline in greenhouse gas

emissions around the world during 2020, of around 1,000 to 5,000 million tonnes of CO₂ on the 43 billion tonnes released in 2019. By comparison, the 2008 economic crisis led to a much more modest reduction in greenhouse gas emissions of around 500 million tonnes.

So, is this good news for the climate? Inger Andersen says not. “Visible, positive impacts – whether through improved air quality or reduced greenhouse gas emissions – are but temporary,” explains the executive director of the United Nations Environment Programme (UNEP), writing on 5 April. “Any positive environmental impact...must therefore be in changing our production and consumption habits towards cleaner and greener.

Because only long-term systemic shifts will change the trajectory of CO₂ levels in the atmosphere.” The charity Greenpeace agrees: “The drop in air pollution and the likely decrease in carbon emissions seen recently are misleading and simply the side-effects of our entire economy

and society having been put on hold.” So, what will happen when factories reopen? Following the international financial crisis of 2008, the economic measures taken by states led to an increase of 5% in CO₂ emissions, and the same thing could happen again. “It is justifiable to fear that we will see a rebound in emissions if recovery plans target economic growth at any cost,” warns Greenpeace. Particularly as oil prices, at a historic low, could compromise the transition towards clean energy.

Many environmental NGOs are demanding that the public aid being given by governments to companies in order to survive the impact of the pandemic be subject to accepting stricter environmental regulations. Inger Andersen continues: “In the aftermath of the crisis...there is a real opportunity to meet that demand with green packages of renewable energy investments, smart buildings, green and public transport, etc. With respect to the disease itself, part of the challenge ahead is understanding where such diseases come from.” ▲

IPO school

Twelve Swiss companies are attending an IPO training course organised by Euronext. Swissquote sneaked into a class to give you an inside look.

BY BERTRAND BEAUTÉ

Will Vaud-based start-up NetGuardians, which sells anti-fraud banking software, soon go public? The company believes so. Along with 132 other tech start-ups, the company is currently enrolled on a pre-IPO training course created by Euronext, called TechShare. The year-long course, taught in modules in Zurich and Geneva and complemented by sessions in various European cities, allows companies to discover and better understand the intricacies of capital markets (see also the inset on p. 40). Swissquote Magazine joined a class at the “IPO School” and attended one of the eight modules designed specifically for Swiss companies.

The class was held at Mirabeau Bank, Geneva, on a winter's day, with about twenty people in the small conference room. Frédéric Crettenand, CFO of fintech company NetGuardians, told us before the class: “Our growth is accelerating and we need capital to grow. To raise money, an IPO is a

possibility we're considering. We're also looking at raising private capital or obtaining a bank loan. Given our rapid expansion, we need to consider different financing options.”

“If one company from this training programme goes public, that would be good, if two of them go public, that would be amazing”

Frédéric Rochat, partner at law firm, Kellerhals Carrard

We heard similar thoughts from Gondola Medical, a Ticino-based medtech that is developing a device to treat symptoms of Parkinson's disease. “With this training course, we're preparing for the future,” said CEO Francesco Cecchini. “At the end of the programme, we'll have a better sense of what the best option is for us: whether to go public or not.”

On today's syllabus is a course on governance. “Companies ask a lot of questions. They ask, for example, how an IPO will change their management,” said Frédéric Rochat, one of the day's speakers and a partner at law firm Kellerhals & Carrard. “Many are afraid they'll lose control, especially because of the need to introduce a number of independent members to the board of directors. The course participants are all very intelligent, but they naturally have some knowledge gaps when it comes to legal matters. They know that they can't manage all the legal aspects of an IPO by themselves.”

The entrepreneurs willingly admit their shortcomings: “I have 25 years of experience in corporate management and finance,” said Cecchini. “So I'm qualified to manage Gondola Medical, but to grow you need a much stronger structure. Having the opportunity to benefit from the skills and experience of the experts involved in the programme is undoubtedly an added value for us.” In addition to ➤

lecture-style classes, companies also receive individual coaching.

In the conference room at Mirabaud Bank, discussion breaks out between students and professors. The conversations are cordial, almost friendly. “The biggest advantage of this training programme is networking,” said Crettenand. “We get to meet high-level experts in every domain (human resources, finance, legal, investment banking, communication, etc.), but also colleagues from other companies that are tackling the same problems we are. Whether or not we go public, the community created here will be very beneficial to us in the future.”

In Switzerland, the training is delivered by Euronext and assisted by local partners such as PwC, Kellerhals Carrard, Baker McKenzie and Mirabaud Bank. “For us, as a law firm used to dealing with IPOs, it’s interesting to establish contact with all these companies,” said Rochat of Kellerhals Carrard. “If they take the next step and decide to start the IPO process, we’ll be well positioned to support them, and a pre-established trust.”

ADVERTS FOR EURONEXT
The TechShare programme, which is free for the companies that participate, also has benefits for Euronext. “Euronext is advertising to Swiss tech companies,” said an IPO expert. Indeed, the pan-European market operator is increasingly interested in Swiss start-ups. The group, which manages stock exchanges in Paris, Lisbon, Amsterdam, Brussels, Dublin and Oslo, opened a Zurich office in September 2017. One year later, the TechShare programme opened its doors to young Swiss companies for the first time. As a result of these investments, the European group was able to convince Zurich-based biotech Sequana Medical to go public on Euronext Brussels rather than on the SIX in February 2019.

Any possible competition between SIX and Euronext is dismissed by Søren Bjonness, head of Euronext for Switzerland: “For tech SMEs, it is almost impossible to go public on the Swiss exchange because it is so selective.” Lawyer Frédéric Rochat agrees: “If a company has under 80 million in revenue, it’s difficult for it to be listed on the SIX. Euronext positions itself as

an alternative for tech companies that have high potential, but not enough revenue yet.”

“For a company, it’s always easier to sell than to go public. But selling is not always the best solution”

Søren Bjonness, head of Euronext for Switzerland

That idea is confirmed by recent IPOs: of the seven IPOs on the SIX in 2019, six were from companies that were already very mature, such as Stadler Rail (1.2 billion Swiss francs in revenue in 2019), SoftwareOne (6 billion), Alcon (7.3 billion) and Medacta (300 million). As a result, “small Swiss companies that are risky but have high potential grow via private capital, and then tend to get sold too quickly and too cheaply. This is happening in the United States and increasingly in China,” said Bjonness. “Here, tech IPOs are not perceived favourably due to strong risk aver-

MANY COMPANIES ENROLLED, FEW IPOs

A total of 132 tech companies from nine European countries – including 12 from Switzerland – were chosen by the European market operator Euronext to participate in the fifth edition of the TechShare training programme.

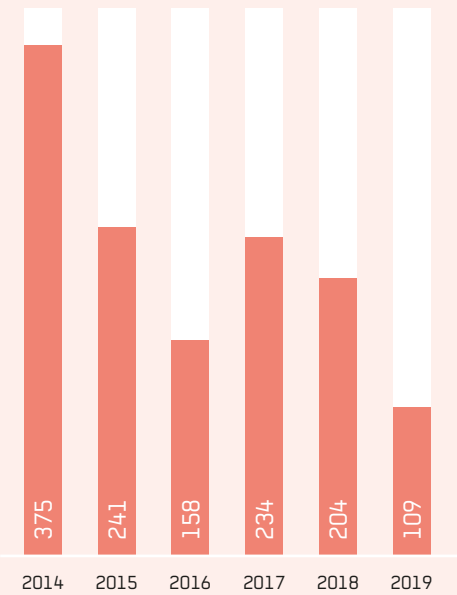
The selection criteria include financial data (revenue, growth perspectives, successful financing rounds, number of employees, etc.), but also more subjective information such as the personal

motivation of the management team. On average, companies chosen by Euronext have turnover of €11 million, have raised €19 million in private capital and employ 80 people. Some of them prefer to hide the fact that they are taking part in the programme.

Of the 12 Swiss companies that participated, only eight revealed their names: CreditGate24 (fintech), NetGuardians (fintech), Deon Digital (software), Gondola Medical

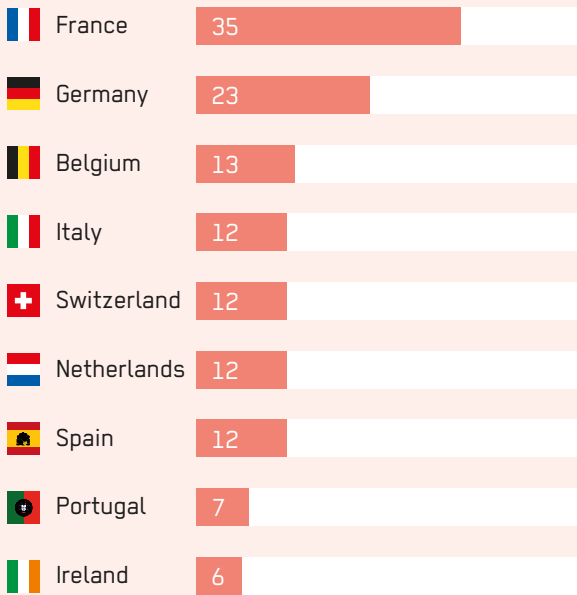
(medtech), inSphero (biotech), Legacy Healthcare (biotech), Nomoko (digital services) and Green Motion (cleantech). Since the launch of TechShare in 2015, of the 275 alumni companies, only five companies have gone public: multi-service wi-fi network operator Osmozis, handling trolley robotisation specialist Balyo, biopharmaceutical company Theranexus, e-commerce site creation platform Oxatis and the mobile services company, CM.com.

Fewer and fewer IPOs in Europe



SOURCE: PWC AND EURONEXT

Companies in the 2019/2020 TechShare training programme



sion. But if Swiss companies want to remain Swiss, they cannot sell themselves out. They need to remain independent.”

Symetis is an excellent example of this. In 2015, the Vaud-based company, which specialises in cardiac valves, announced to the press that it was planning to go public on the SIX. But plans didn’t go much further than that. The IPO was deemed too risky. So the company turned to Euronext and started the process. But in March 2017, only a few days before the IPO, Symetis announced it was abandoning the IPO, as it was being acquired by US group Boston Scientific for \$457 million – a 30%-40% bonus for shareholders compared to what the IPO would have paid out. Was it successful? In late 2019, Boston Scientific decided to move its production to Ireland, effectively terminating the 125 employees at Symetis’s Eclubens location. At the time of

writing, employees and employer are currently before an industrial tribunal in Lausanne.

Needless to say, Symetis was not one of the case studies mentioned in the class we were attending. Instead, we heard about market success stories such as Takeaway, a Dutch company that has become the European leader in home food delivery services. “For a company, it’s always easier to sell than to go public. But selling is not always the best solution,” said Bjonness. “We’re trying to change that mentality.” In Europe, the number of IPOs is decreasing year on year, and experts don’t know if it’s a temporary slowdown or a serious change in the nature of capitalism (see infographic above).

“If one company from this training programme goes public, that would be good,” said Rochat. “If two of them go public, that would be amazing.” Since the launch of TechShare in

2015, only five companies from the programme have gone public out of the 275 alumni. But this figure will increase, according to Bjonness: “These things take time. The programme trains companies with a medium-term perspective. Companies can then go public two or three years after the end of the training.”

It’s a prospect that seems fairly distant for today’s participants: “To be honest, we haven’t decided anything yet,” admitted Crettenand of NetGuardians. “And if one day we have an opportunity to go public, we will think about what the best platform for us is. That could be Euronext, but not necessarily. It could also be SIX or elsewhere. We’re open to the whole world.” In the meantime, the head of Euronext Switzerland is continuing to seek out hidden gems: “I travel all over Switzerland looking for new companies and I’m already recruiting for the next training course.” ▲

Women still struggle to break the glass ceiling

While companies have everything to gain with greater gender equality on their management teams, many obstacles nonetheless remain all over Europe. In Switzerland, the glass ceiling is particularly hard to break.

BY ANGÉLIQUE MOUNIER-KUHN

When Isabelle Kocher left the Engie management team on 6 February, her departure was felt far beyond the stuffy world of Parisian capitalism. Of course, there were notorious strategic differences between the Chair of the Board and the CEO of the French energy giant, and rumours of an eviction were rampant. But that didn't stop commentators from denouncing the hints of sexism behind the organisational change: Isabelle Kocher was the very first woman to become CEO of a CAC 40 company, but was only in her position for less than four years.

The misfortune suffered by the former Engie CEO is an example of the difficult path women face as they seek corporate management positions. While there is an overall awareness of gender equality, obstacles remain to various degrees practically everywhere in Europe. And in Switzerland, the challenges are the most difficult to overcome.

This is despite the fact that many studies show that the more women are represented at the top of the management pyramid, the better the company does overall. For example, in 2019, the International Labour Organization (ILO) published the results of a study conducted in 70 countries. The study showed that companies led by women and/or companies that have policies to actively favour gender equality are more likely to see increased operational revenue, productivity and profits. These companies can also attract more talent and retain them better, and are more creative, innovative, and open-minded.

In a study published in January 2020, European Women on Boards (EWOB), an association supported by the European Commission, examined every company on the STOXX Europe 600, the stock index of the 600 largest capitalisations in Europe. "Significant progress has been made in increasing the share of women on boards. However, gender diversity at other levels of corporate governance is still a mirage," according to EWOB.

Year after year, Switzerland remains at the bottom of the Glass Ceiling Index alongside countries like Japan and Turkey

While the average percentage of women on executive boards is around 33%, only 16% of operational executive positions are held by women. Of all the companies listed on STOXX Europe, only 28 are led by women.

Switzerland is bottom of the class, with the lowest percentage of women in executive management or on boards of directors. Of the bottom 20 companies in the EWOB ranking, nine are publicly listed in Zurich. What's more, there is only

one woman CEO among the 50 or so Swiss companies listed on the index: Magdalena Martullo-Blocher, CEO of EMS-Chemie, is the only exception.

This study is just one of many that demonstrate that women have more difficulty breaking the glass ceiling in Switzerland than elsewhere. And so, year after year, Switzerland remains at the bottom of the Glass Ceiling Index, a ranking from *The Economist* magazine, alongside countries like Japan and Turkey, where women have to choose between a career and family life. The Schilling Report, the national benchmark study, recognises the positive trend that has been under way for several years. But even though some improvements have been made, the percentage of women on executive boards (23%) or on management teams (10%) at the top 100 employers in Switzerland is still paltry.

So is the Swiss business world chauvinistic? "It is particularly true in some industries such as technology, construction and finance," admits Dominique Faesch, CEO of Cercle Suisse des administratrices, a Swiss association for women board members. "But as young female graduates enter the job market, we are starting to see positive change."

"We are aware of the problem," said Marco Taddei, head of the Swiss Romandy and international employer policy divisions of UPS (a union of Swiss employers' associations). A group of regional and industry employers' associations, UPS only has two women out of a total of 15 members on its executive board. According to Taddei, Switzerland's



Isabelle Kocher, victim of blatant machismo? The ex CEO of the French energy group Engie was removed from her post in early February, less than four years after her appointment. Here at the shareholders' meeting on 3 May, 2016.

delay is due to its unique integration of women into the labour market, as the vast majority of women do not work full-time. "There is also an element of tradition at play," adds Taddei, "as people tend to hire someone that they know."

"We are aware of the problem"

Marco Taddei, head of the Swiss Romandy and international employer policy divisions of UPS (a union of Swiss employers' associations)

"Companies set aside lots of money to recruit executives, but hiring board members is still a secretive process. Although this process is gradually changing within large companies, many executive boards still prioritise

big names that are involved in many other strategic organisations and have a big network," says Faesch. "We realised that increasing the percentage of women on executive boards is in the best interest of the economy," says Taddei, describing initiatives taken in recent years by UPS, an ardent devotee of self-regulation. Some of these initiatives include a code of conduct for HR consulting firms, as well as recommendations to encourage female representation on executive boards. The goal is for every board to have at least one woman by 7 February 2021, the date of the 50th anniversary of women's suffrage in Switzerland.

This ambition is modest at best. Elsewhere in Europe, the percentage of women on executive boards is significantly higher: 42% in France, 39% in Norway and 33% in Germany, three countries that have mandatory

quotas. But even without mandatory quotas, countries such as Sweden and the Netherlands have reached impressive percentages of 38% and 34% respectively.

In Switzerland, after the National Council, the Council of States voted last year to include "indicative values" in the new legal definition of a public limited company: 30% of women on executive boards and 20% in management. These are non-binding recommendations, though an executive board will be required to explain why those percentages have not been reached.

"Things aren't going to change overnight just because we put a number in a charter or a law," says Faesch. "But now that this new law has passed, it will spark discussions in economic circles as people seek change." ▴

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A high-speed China

China has the largest, most modern network of high-speed trains in the world, and the line connecting Shanghai and Beijing has just gone public.

BY JULIE ZAUGG, IN HONG KONG

The high-speed train of the 2022 Winter Olympics on a technical visit to a maintenance station in Beijing.

In late December, the new high-speed train between Beijing and Zhangjiakou, a city at the foot of mountains that will welcome the Winter Olympic Games in 2022, made its inaugural voyage. Equipped with thousands of sensors and reaching speeds of 350 km/h, it is entirely autonomous – a first in the world.

This new line is the cherry on top for a high-speed rail network that already has 35,000 km of railways, with an additional 10,000 km planned by 2030. Built in record time, this is now the largest train network in the world. Comparatively, Japan and France have only 3,000 km and 2,800 km of high-speed rail lines respectively.

The Chinese rail network is not only the longest, but also the most technologically advanced in terms of big brother surveillance. “Passengers buy tickets on their mobile phones, then go through security checks in just a few seconds via the facial recognition portals installed at the entrance of train stations,” said Lesley Liu, analyst at HSBC.

It all started in 2008, at the dawn of the last Olympic Games held in China. A few days before the start of the Games, the country’s first high-speed rail line was inaugurated between Beijing and the coastal city of Tianjin. It was then followed by a frantic expansion that connected all the major cities in China.

“Following the 2008 financial crisis, the Chinese government introduced a recovery package worth 4 trillion yuan (555 billion Swiss francs) to finance the development of the rail network,” said Zhu Pengyu, a transport expert at the Hong Kong University of Science and Technology.

These funds were used to lay thousands of kilometres of rail lines and improve the rolling stock. “Chinese high-speed trains were largely inspired by technology invented by engineers in Japan, Germany and

France,” said Mark Smith, a British railway expert.

Starting in 2004, a series of co-enterprises were created with Kawasaki, Siemens and Alstom. In exchange for access to the giant Chinese market, these companies shared their expertise with their Chinese partners. And the student quickly became the master: the newest generation Fuxing train, made entirely in China, is one of the most advanced trains in the world and is far ahead of its counterparts: the Shinkansen in Japan, the ICE in Germany and the TGV in France.

The newest generation Fuxing train, made entirely in China, is one of the most advanced trains in the world

The Chinese network is also one of the least expensive railways in the world: it cost between \$17 million and \$21 million per kilometre, which is two-thirds of the average price spent in other countries, according to a report from the World Bank. The network is owned by China Railway, a state-run company that separated from the Ministry of Railways in 2013. China Railway has several subsidiaries in charge of rolling stock and specific lines. Some of these entities are very profitable.

The high-speed train between Shanghai and Beijing, which transports nearly 200 million passengers per year, generated 10.3 billion yuan (1.4 billion Swiss francs) in profits in 2018, up 13% over one year, which is equal to a rate of return of 33%.

“Demand will continue to grow,” predicts Liu of HSBC. “Currently, the number of annual train trips

per passenger in China is only two – compared to 12 in Spain, 25 in Germany, 64 in Switzerland and 73 in Japan. So there’s very high potential for growth.” According to Liu, the number of train journeys in China will go from 3 billion in 2017 to 5.5 billion in 2022, an annual increase of 13%.

Competing with planes High-speed trains have also succeeded in taking market share away from air and car travel, according to the World Bank report. “For trips under 900 km, trains have exceeded air travel,” said Zhu Pengyu. Similarly, many commuters are now choosing to live more than 100 km away from large cities, counting on high-speed trains to reach the city in less than 30 minutes.

Overall, the profitability rate of the network is estimated at 8%, according to the World Bank. But this number hides a large disparity of cases. >

THREE FIGURES

\$568 billion

The amount that China invested in its rail network from 2016 to 2020.

2,000 km

The length of the high-speed railways that China will build in 2020, bringing the country’s total to 35,000 km.

7 billion

The number of high-speed rail journeys taken in China over the last decade. It would take Japan 50 years to reach 11 billion trips.



A Fuxing high-speed train being inspected in a hall in Hubei Province (3 January, 2020).

Certain lines, particularly those connecting secondary cities far from the coast, are not profitable. The section between Guangzhou and the mountainous province of Guizhou must pay 3 billion yuan (415 million Swiss francs) per year to pay off interest on its debt. This is three times what ticket prices bring in in revenue. Similarly, the line between Lanzhou, the capital of Gansu, and Xinjiang only has 8 trains per day, whereas it was built for a capacity of 320.

Zhao Jian, an urbanist at Beijing Jiaotong University, estimates that only 5,000 km of high-speed rail lines, located primarily near large cities, are actually profitable. As a result, China

“Other IPOs will follow,” promised China Railway CEO Lu Dongfu in early January

Railway's debt has grown exponentially. It has now reached 5.4 trillion yuan (748 billion Swiss francs). To rectify the situation, the conglomerate decided that its most profitable entities would go public. In mid-January, the Shanghai-Beijing line took the first step towards being listed on the Shanghai exchange, raising 30.7 billion yuan (4.3 billion Swiss francs). These funds will be used to acquire a series

of unprofitable lines in Anhui and bring in revenue for the parent company. “Other IPOs will follow,” promised China Railway CEO Lu Dongfu in early January.

Another strategy is exporting expertise. Beijing began building high-speed rail lines in countries along its new Silk Road. “China is doing what Britain did in the 19th century, when they built a railway network in their colonies,” said Smith. Some of the most ambitious projects include a line connecting Kunming (southern China) to Bangkok through Laos, as well as a railway between Jakarta and Bandung in Indonesia, and another from Kuala Lumpur to Singapore. ▴

The rest of the world: six giant projects



HS2: a contentious project under construction

High-speed rail line HS2, which will link London, Leeds and Manchester in northern England, is the largest rail construction project in Europe. It was approved by Prime Minister Boris Johnson, despite opposition from environmental groups and some Members of Parliament who disagree with the cost of the project, estimated at £56 billion (70 billion Swiss francs). The first trains are expected to start running between 2035 and 2040.



The first high-speed train in India

India has begun construction on its first high-speed rail line. It will connect Mumbai and Ahmedabad, 500 km away. The journey will take less than three hours and should help relieve congestion in the country's economic capital. This project, which is based on technology developed for Japan's Shinkansen, will cost \$14 billion and is expected to be completed in 2022.



An ultra-fast train in the country of cars

In late 2019, Virgin Trains USA revealed that it was developing a high-speed train project connecting southern California and Las Vegas, Nevada, for \$4.8 billion. The group, a spin-off of UK company Virgin, has already completed a 113 km route in Florida, between Miami and West Palm Beach. This isn't the first time that California has considered high-speed trains: a colossal project connecting Los Angeles and San Francisco was drastically scaled down last year due to overspending.



A railway for northeast Europe

Named Rail Baltica, this ambitious railway project will link Finland and Germany, crossing Poland and the Baltic countries. The goal is to create an economic corridor for northeast Europe with 1,000 km of high-speed rail. The cost is estimated at €5.8 billion.



Cross the desert at lightning speed

A futuristic train running at 1,000 km/h in a vacuum tube: that's the slightly crazy project envisioned by the United Arab Emirates. The Hyperloop project will connect Dubai and Abu Dhabi in 12 minutes, compared to 90 minutes currently. A prototype is currently being tested and a 10 km test track is expected to be completed this year.



Trans-Siberian 2.0

Russia will soon start construction on a high-speed train running 772 km between Moscow and the city of Kazan, further east. This section will eventually be integrated into a mammoth project that will link Moscow and Beijing, opening a new route from China to Europe.



FASHION

New clothes
upstaged by
second-hand finds

ISTOCK

The online second-hand clothing market is booming, particularly among younger generations. Traditional brands are trying to fight back.

BY ANGÉLIQUE MOUNIER-KUHN

It's no longer a fringe activity; it's now a major trend. In the United States, the second-hand clothing industry has grown 20 times faster than the new clothing market over the last three years. Moreover, it is expected to double in volume to reach \$51 billion in 2023. By 2028, it is thought that the second-hand sector will be worth 1.5 times more than fast fashion. These numbers come from a GlobalData report commissioned by ThredUp, a US second-hand clothing platform which claims to be the "world's largest online thrift store".

associated with shopping – which the second-hand industry clearly benefits from.

In just three clicks, you can buy the second-hand dress or trainers of your dreams, and with just a little more effort, you can also sell your own clothes

A sign of the times, US-based RealReal, another consignment platform focused on luxury goods, was the very first company in the industry to go public in May 2019. The second-hand market is booming on this side of the Atlantic as well. In an article published in August 2019, *Aftonbladet* stated that the "flygskam" – flight shaming – phenomenon was slowing down. But for people in Sweden, a new trend was taking over: "köpskam" – shame

Shame or no shame, the second-hand clothing ecosystem is already well-established. In the UK, the shopping social network Depop has become extremely popular for young people under 26. In continental Europe, the platform of choice is Vinted. The company, which was created in Vilnius, Lithuania in 2008, got off to a slow start, but has since opened offices in Berlin, Warsaw and Prague. It is already active in ►

Thomas Plantenga,
CEO of Vinted, and
Mantas Mikuckas,
COO.



VINTED

12 countries in continental Europe and boasts more than 25 million users, with about 10 million in France, its largest market. Its secret? An aggressive marketing strategy and very easy-to-use app. In just three clicks, you can buy the second-hand dress or trainers of your dreams, and with just a little more effort, you can also sell your own clothes. In November 2019, the start-up, which was still in the red, raised €128 million, becoming the first Lithuanian “unicorn” with a valuation estimated at more than €1 billion, the fundraising will finance its technological investments and continue its expansion.

ON INSTAGRAM TOO

While Switzerland doesn't (yet) have its own platform specifically for second-hand clothing, savvy Swiss shoppers are participating in the trend. “It is possible to sell and shop on the site Ricardo.ch, but people usually sell their clothes on

Instagram accounts. Transactions are usually completed in person and paid in cash,” explained Anna, a 17-year-old from Geneva who has been hooked on second-hand clothing since she was 13. “When I started, people made fun of me, but now, second-hand clothes are everywhere,” said Anna, who only buys new clothes once or twice a year. “Thrifting is not just for trendy older people looking for deals. It has been legitimised by society and getting a good deal on a platform is now part of the consumption model,” said Elodie Juge, research engineer for the Trend(s) chair at University of Lille in France.

Like most of its competitors, Vinted uses the ethical, responsible angle to its advantage and claims to want to “make second-hand first choice around the world”. This “mission” is seen as a response to the environmental and social damage caused by fast fashion. The United Nations

regularly stresses how much pollution the fashion industry creates: alone, fashion produces more CO₂ than air transport and maritime shipping combined. The industry consumes more than 93 billion cubic metres of water and releases 500,000 tonnes of microfibres into oceans every year. As for social responsibility, there are multitudes of reports denouncing awful labour conditions for people working in textile factories. “Buying second-hand is a way for me to address my concerns about the dignity of human beings,” said Anna. “But my purchases are mostly motivated by finding cool clothes that are cheap.”

ADDICTED TO BUYING AND SELLING

In reality, this market may not be as virtuous as it seems. In her thesis on the subject, Juge severely critiques the second-hand trend. “The industry is essentially made up of fashionistas who become addicted

to buying and selling. By using the internet to sell their excess clothes, these consumers have found a way to update their wardrobes even more quickly and easily than before, while also making some money on the side. In fact, an application such as Vinted is an excellent business school: many of these ‘buyer-sellers’ develop very advanced entrepreneurial skills.” For a growing number of NGOs, the idea of second-hand clothing as a circular and responsible alternative to fast fashion is largely deceptive, because consumers are still stuck in a hellish cycle: buy, sell, buy, sell...

Brands such as Levi's, North Face and Patagonia have also launched their own second-hand lines

Faced with this trend, traditional brands, whose profits have been falling slightly each year, are now seeing the potential of second-hand shopping. On both sides of the Atlantic, many brands now have a section of their shops dedicated to vintage clothing, or partner with one of the big consignment platforms. The challenge is attracting young consumers who wouldn't otherwise be shopping in their aisles.

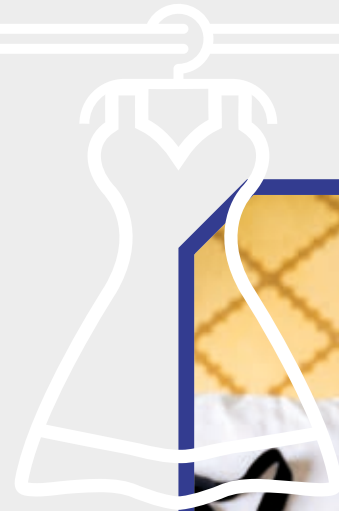
In the United States, Gap has partnered with ThredUp to allow customers to sell their used clothing on the platform in exchange for credits that can be used in Gap stores. Large retail chain Macy's, mismanaged for years on the stock market, generated disappointing results last year, with sales down 2%. In summer 2019, it also partnered with ThredUp to sell second-hand

clothing in approximately 40 stores. Brands such as Levi's, North Face and Patagonia have also launched their own second-hand lines. UK luxury brand Burberry has partnered with RealReal.

In France, clothing brands Camaïeu, Cyrillus and Kiabi, among others, are also offering second-hand clothing. More recently, Auchan did a three-month test of stocking second-hand clothing in five of its supermarkets.

“These brands had no choice but to try and enter this market that was taking off without them,” said Juge. “But they're all running a bit

behind.” And many fear that these new consignment offers will eclipse their traditional business. Amidst the uncertainty, Swedish retailer H&M is on the offensive. It took a majority stake in the platform Sellpy and for the past year has been selling its own second-hand clothing to Swedish customers under the brand & Other Stories. With the start-up YCloset, H&M recently began testing a strategy in China in which users pay for a subscription service to rent clothing from its COS brand that will then be sold as thrifted items. Whether second-hand or rented, anything goes to curb “köpskam”. ▴



VITTA GALLERY / WESTEND61 GMBH / NEWSCOM

A seller photographs
her items laid out
for sale.

CRYPTOCURRENCIES: THE LATEST ADDITIONS

Swissquote now offers 12 cryptocurrencies on its platform.
Find out more about their advantages.

swissquote.com/cryptos

THE 5 PIONEERS



BITCOIN (BTC)

The market king

The king and forefather of cryptocurrencies. Created in 2009 by a person known as Satoshi Nakamoto, Bitcoin rules over the digital currencies market, making up more than half of the capitalisation. For the time being, the share prices of altcoins still fluctuate based on Bitcoin. Supporters view the currency as digital gold, whose value will only increase over time.



ETHEREUM (ETH)

The smart contract platform

Created in 2015 by prodigy Vitalik Buterin, Ether has caused quite a sensation ever since. It is currently the second most important digital currency in terms of capitalisation. Ethereum allows for the creation of smart contracts that can self-execute automatically, which makes third-party intervention unnecessary. Many companies and developers are experimenting with this token.



XRP (XRP)

The cross-border payment champion

This token, created in 2012 by California-based company Ripple, is primarily used to accelerate international financial transactions and reduce costs. XRP acts as a "bridge currency" in the exchange between two currencies that can be used to carry out the entire transaction (send, exchange and receive money) in just a few seconds. XRP holds third place out of all cryptocurrencies, just behind Ethereum.



BITCOIN CASH (BCH)

Bitcoin revisited

This token, created on 1 August 2017, is the result of a hard fork with Bitcoin. It is based on the same blockchain as Bitcoin but is faster and allows for less expensive transactions. Bitcoin Cash ranks as the world's fifth-largest cryptocurrency.



LITECOIN (LTC)

Faster than Bitcoin

This top 10 cryptocurrency is inspired by Bitcoin's technical foundations but offers faster transactions. With Litecoin, blocks are created every two minutes and thirty seconds, whereas Bitcoin creates a block every 10 minutes. Mining is also easier and transaction fees are substantially lower.

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THE 7 NEWCOMERS



CHAINLINK (LINK)

Decentralised information

Operating on the Ethereum blockchain, this token has taken off in the past two years, while the market has virtually all but collapsed. ChainLink derives from the notion of integrating "off-chain" information, i.e. information not included on the blockchain, to serve the entire ecosystem. Information is more reliable when based on multiple sources. The project benefits from many partnerships and marks an important step towards decentralised finance.



STELLAR (XLM)

Limitless payment

Started in 2014 by the co-founder of Ripple, Stellar is based on the same protocol. However, while Ripple and its XRP token are focused primarily on financial institutions, Stellar targets the peer-to-peer payments market for transferring small sums of money. This token has grown admirably over the past few months and is solidly in the top 20.



OX (ZRX)

Decentralised exchange

This Ethereum-based ERC20 token aims to facilitate decentralised exchange on the Ethereum blockchain. Its designers have developed a protocol that enables the peer-to-peer exchange of ERC20 tokens. The ICO in 2017 was a success. Ox then spiked in value and has since come back down, but Ox still ranks in the top 50.



ETHEREUM CLASSIC (ETC)

The purists' choice

Historically, this is Ethereum as it started. This cryptocurrency emerged from the hard fork within the community after Ethereum was the victim of a major hack in 2016. While most developers wanted to start over as if the incident had never happened, a handful of diehards chose to move on and accept the situation. Although less popular with developers than Ethereum, Ethereum Classic can recover features implemented on the Ethereum blockchain.



TEZOS (XTZ)

The "Ethereum Killer"

The creators of Tezos are quite happy with the cryptocurrency's nickname "Ethereum Killer". Like EOS, the token is based on the principle of delegated proof of stake. In other words, stakeholders can earn more Tezos rewards for creating and validating blocks on the blockchain. The cryptocurrency offers a slightly faster and more secure environment than Ethereum. Its governance model also has the advantage of avoiding forks. Tezos has joined the top 10 and is currently one of the best performing tokens on the market.



AUGUR (REP)

Decentralised peer-to-peer protocol

Built on the Ethereum blockchain, Augur allows token holders to bet on the likelihood that an event will occur. Simply put, users can buy shares of probability. Prices are adjusted in line with supply and demand, similar to the principle of sports betting. But with Augur, the outcome of an event is not validated by a central authority. Users themselves verify results, making any manipulation impossible.



EOS (EOS)

Competition for Ethereum

Referred to as third-generation blockchain technology, EOS is based on a concept similar to that of Ethereum with the development of fully decentralized applications (dApps). But unlike Ethereum, EOS uses a delegated proof of stake system, which uses "block producers" to validate transactions. This choice significantly increases the speed and number of transactions. After a record-breaking ICO completed in 2018, in which it raised \$4 billion, the token has grown impressively to seize a spot in the top 10.

ADVANTAGES OF CRYPTOS

- High volatility, unlocking unprecedented opportunities
- Round-the-clock market, 24/7

INSIDE THE MIND OF AN INVESTOR

A joint project conducted by the universities of Zurich and Basel in partnership with Swissquote focuses on the personality traits of investors. Volunteer participants will receive detailed individual feedback. Sign up today!

For the first time ever, a research project combining psychology and neuroimaging will examine the personality traits of a wide range of traders in order to better understand the decision-making processes that form part of investing. Swissquote clients have the opportunity to take part. Thorsten Hens, finance professor at the University of Zurich and one of the directors of the research project, tells us more.

What does your study involve?

For this project, we are looking for investors who have an online trading account. The study is conducted jointly by the universities of Zurich and Basel, and is funded by the Swiss National Science Foundation. It has been approved by the ethics committees of those cantons. The goal is to study the personality traits that influence financial decision-making, or in other words, the role of the investor's personality.

Thanks to neuroimaging, we also hope to learn to what extent brain physiology influences those decisions. This is the first time that these different approaches have ever been combined

in a large-scale study. It is important to note that all of the files to which the researchers have access are entirely anonymous. The scientists are given an identification number only, and don't know who the data belongs to. As a partner, Swissquote will have access to the study results in an aggregated and completely anonymous format.

How is your research conducted?

There are two parts to the study. The first takes place online and includes personality tests, participation in financial market simulations, and socio-demographic questions. Each participant can complete the first part online at their own pace. The second part takes place at the neuroimaging lab at the University of Zurich, and will begin once the coronavirus epidemic is over. This second phase allows activity in certain areas of the brain – such as fear and pleasure centres, which are involved in decision-making – to be identified. If you don't have enough time to complete the entire study, or if you can't undergo the MRI scan for health reasons, you can still participate in the study. Our goal is to have a pool of 500 participants.

What can participants hope to gain from this experience?

Besides contributing to scientific progress by helping us better understand decision-making processes, participants will receive detailed individual feedback on their main personality traits, trading style and brain profile. That information will help them learn more about themselves, become better investors and identify the causes of poor decisions, for instance.

What conditions do participants need to meet to sign up?

You just have to have an online trading account with Swissquote and be aged between 18 and 75. The tests will be conducted in German or English only, but people from French-speaking Switzerland are welcome to participate. ▲



SIGN UP AT:
bit.ly/2JVatKl

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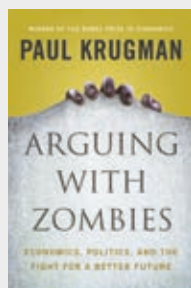


Harvard University
Press, 2019
CHF 30.-

THE CIGARETTE: A POLITICAL HISTORY

By Sarah Milov

Before being gradually banned from public spaces, tobacco was extremely popular in the West, particularly in the United States where doctors even recommended certain brands of cigarettes... This golden age of smoking really took off at the end of World War II as a result of a unique alliance between government authorities and tobacco companies, as Sarah Milov demonstrates in *The Cigarette: A Political History*. Her work also retraces the complicated relationship between cigarettes and civil society, and how the latter was finally able to conquer the powerful tobacco lobby.



W. W. Norton &
Company, 2020
CHF 20.-

ARGUING WITH ZOMBIES: ECONOMICS, POLITICS, AND THE FIGHT FOR A BETTER FUTURE

By Paul Krugman

In his new book, Nobel Prize winner in economics Paul Krugman decided to tackle what he calls “economic zombies”, the eternal misunderstandings about economics that refuse to die. Inspired by Krugman’s articles in the *New York Times*, *Arguing with Zombies* covers many popular subjects such as healthcare, real estate bubbles, tax reform and social security, all with clarity and accuracy. The book is quite helpful for readers to understand complex timely issues at stake, especially with the United States presidential election this year.



Google Play,
Free

BARRE

EXERCISE IN A TUTU

While there are many workout apps, *Barre* stands out for being completely free. Marketing itself as an original blend of yoga and ballet, the app offers a variety of exercises that focus on balance, flexibility and endurance. The app also works offline, which is rare these days.



Google Play,
App Store,
Free

ABLO

CHAT WITHOUT BORDERS

Google named *Ablo* the best application in Google Play in 2019. It is a throwback to the chat days of yesteryear with an added bonus: thanks to an integrated automatic translator, the app allows users to converse with people all over the world via text or video with no language barriers. Unlike its predecessors and competitors that often devolve into tools for unsavoury behaviour, *Ablo* is working hard to block and ban inappropriate conduct.



Google Play,
App Store,
CHF 10.-

DUET DISPLAY

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Duet Display is one of the best mobile apps on the market that can duplicate your screen. The app can turn your smartphone or tablet into a second monitor, connected either via cable or wirelessly with the least possible delay. Developed by a team of former Apple engineers, *Duet Display* is incredibly effective, offering remarkable performance and image quality.



Google Play,
App Store,
One month free
trial, then monthly
subscription

FLUENT FOREVER

LEARN A LANGUAGE SERIOUSLY

Unlike the “gamification” of learning languages, in which apps use rewards and video game design to motivate learners, *Fluent Forever* takes the serious route. Its original method focuses on memorising pronunciation as a key to success. The app currently offers courses in French, German, Italian, Korean, Portuguese, Russian and Spanish.



AUVERNIER



CRANS-MONTANA – SPORT CLUB RÉSIDENCE



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AUTO

Estate cars are ready to rumble

BY RAPHAËL LEUBA

Largely ignored in the midst of the SUV epidemic, estate cars fell behind. But the Volvo V60 Cross Country, the flagship model of this forgotten car type, is fighting back on all fronts to bring them back to the road.



VOLVO V60 CROSS COUNTRY T5

ENGINE:

IN-LINE 4-CYLINDER, TURBO, 1,969 CM³

POWER:

250 HP AT 5,500 RPM

ACCELERATION:

6.8 S TO GO FROM 0 TO 100 KM/H

PRICE:

STARTING AT CHF 66,750.–

Ever since the PV 445 Duett model was released in 1953, the estate car has been an institution for Volvo. However, the Scandinavian manufacturer has also embraced the SUV trend. Today, these two types of vehicle, both practical and family-friendly, coexist at Volvo. The crossover between them? The V60 Cross Country. The line of all-wheel-drive estate cars began in 1997, well before the XC90 and XC60 came on the scene and their taller frames eclipsed the smaller estate cars. But now it may be time for them to fight back.

First, the estate car's smaller shape is appealing at a time where tall designs can seem commonplace.

The roof rack is no higher than 1.50 m, despite the vehicle's higher ground clearance (21 cm). The size (4.78 m long and 1.89 m wide) makes the vehicle quite easy to park. Balanced proportions give the Cross Country a feeling of elegance

The V60 Cross country avoids the stiff feeling that many large SUVs have

and energy, matched by the interior, which is luxurious with smooth leather, light wood and console buttons inspired by jewellery. The dashboard is similar to other Volvo models, but the "clean" aesthetic is quite attractive. The universal touchscreen is reactive and the menus are well-organised. The digital instrumentation adapts to four driving modes (eco, comfort, dynamic and off road) that are useful rather than just for show. One minor issue is that the indicator stalk also contains the fog light buttons, which can sometimes get switched on by accident. While not large enough to replace a moving lorry, the V60 does have a sizeable boot, with a 529 L capacity that can extend up to 1,441 L, which is just a bit more than the XC60 SUV (483-1,410 L). Clever features include a motorised tailgate, dividing wall, headrests that can be folded down remotely, and a removable hitch that can tow 1,800 kg.

Comfort and control

The mid-level driving position between a saloon car and an all-terrain SUV allows for great peripheral vision, which is accompanied by 360° cameras. Sized for large passengers, the interior has ample rear seating. And as usual with Volvos, the seat ergonomics bring you closer to the sky. But let's get back to earth and cover the joys of driving. Setting aside the diesel D4, we chose the powerful T5 petrol version (250 hp and 350 Nm), certainly the most capable of demonstrating excellent road handling and the comfort of this luxurious estate car that weighs nearly 1.9 tonnes empty. Very well-equipped with the 8-speed automatic transmission, the 4-cylinder 2 L is smooth and powerful, and its distant rumble is reminiscent of heavy-duty engines. The sound isn't even just for show because the vehicle accelerates well!

When increasing the speed, the V60 Cross Country, though not as

THE COMPETITION



AUDI A4 ALLROAD

The major competition for the V60 Cross Country, the Audi A4 Allroad easily outshines the Opel Insignia Country Tourer and the VW Passat Alltrack in the raised 4x4 estate car segment. It comes equipped with a turbo 2 L petrol engine with torque (370 Nm) and a 7-speed dual-clutch transmission. Decent weight (1.7 tonnes for 4.76 m long) and plenty of top-level performance (6.1 s to go from 0 to 100 km/h). It has a sporty feel and options galore.

45 TFSI QUATTRO 245 hp. **Starting at CHF 61,100.–**



MERCEDES E ALL-TERRAIN

Luxury all-terrain estate car (5 m long), competing with the V90 Cross Country. The vehicle shape is typical of the model, though this unique offer comes with a diesel engine and a 9-speed automatic gear box. Elevated tractable load (2.1 t) and 640 L boot. Standard air suspension with variable ground clearance.

220 d 4MATIC 194 hp. **Starting at CHF 73,200.–**

graceful as a ballerina, avoids the stiff feeling that many large SUVs have. Perfect braking stability with controlled handling for turns that can be felt under the seat, the V60 has true suspension comfort. The assistance comes naturally, with no exaggerated means necessary. More good news: the average test fuel economy of 8.5 L/100 km matches

the stated numbers and is quite modest for a petrol vehicle of that weight and performance level. Volvo has announced a similar rate for the XC60 B5 petrol AWD, but that is equipped with mild hybrid systems. If it was to inherit this new motorisation, the estate car could make some further improvements on its CO₂ footprint and definitively win the battle. ▲

BOUTIQUE



A LA CARTE ELECTRIC BIKE

Weighing 19 kg with a quick recharging time, a 100 km range, and an HD screen built into the handlebars, the Coleen smart electric bicycle is the Tesla of bicycles. With its original design (which won the Red Dot Award), the Biarritz-made e-bike can now be entirely personalised, including the saddle, frame, brake system, luggage rack and gear shift.

coleen-france.com
From CHF 6,500.-



A COACH IN YOUR SOCKS

Equipped with sensors connected to a mobile app, these smart socks from US start-up Heapsylon record runners' number of steps, as well as calories burned, distance, altitude, cadence, body weight distribution, and type of stride. The socks help prevent injuries and even alert the wearer when it is time to buy a new pair of shoes.

sensoriafitness.com
CHF 195.-



CHERISH YOUR WATCH

A lover of beautiful watches, Parisian trunk-maker Fred Pinel created a series of winders in the colours of the most emblematic Rolex models. Equipped with a front face inspired by the Submariner, GMT and the Cosmograph Daytona, the cases in the Twin collection are powered by a motor designed by SwissKubiK. The rotation cycles can be customised via Bluetooth.

pineletpinel.com
From CHF 1,490.-



WINE AND CHOCOLATES

Launched this winter, My Swiss Moment brings together two worlds for an unexpected taste of Swiss wine and chocolate. Wines from various French-speaking regions and confections by Claude Périsset, a master chocolatier based in Estavayer-le-Lac, are expertly paired by Camille Gariglio, the chief sommelier at the Hôtel de Ville restaurant in Crissier, Vaud, which has three Michelin stars.

my-swiss-moment.ch
From CHF 93.-



COMPOST WITH FLOWERS

Recycle right at home and feed your plants at the same time: this is the concept of the composting pot designed by French start-up Transfarmers. The pot is made up of two pieces that communicate with each other, and the autonomous ecosystem transforms vegetable peelings into water and nutrients thanks to a small army of earthworms. The waste produced is then passed to the flowers and other plants through the perforated panel. Each pot can transform the food waste of approximately two people.

transfarmers.fr
CHF 213.-



THE MOTORBIKE HELMET FROM THE FUTURE

Developed by a Japanese start-up, the CrossHelmet X1 is a motorbike helmet with never-before-seen features. A wide-angle camera on the back of the helmet and a screen placed under the visor allow wearers to see behind them while riding. The screen can also display navigation information. It is also equipped with a customisable sound reduction system that can filter interference noise (motor, wind, etc.) on demand.

crosshelmet.com
CHF 1,777.-



A SLEEP COMPANION

Designed in partnership with the European Sleep Centre, the Terrailon Dreamer offers two settings to help users fall asleep: cardiac coherence, which uses light and breathing exercises, or "sunset mode", which emits light that goes from orange to red so that users can drift off peacefully. With a rechargeable USB battery, the compact portable device has a battery life of one week.

terraillon.com
CHF 59.90.-

TRIED AND TESTED

GAMING IN
THE NAME
OF SCIENCE

BY GÉRARD DUCLOS

Swissquote Magazine takes the controls of a useful video game, in other words, how to advance scientific research while having fun.

Being shut up at home for a period of time inevitably leads you to ask some existential questions. What can you do in response to this unprecedented feeling of emptiness and powerlessness? You are stuck at home, you have played all your video games, and meanwhile the entire world faces the worst pandemic of the century. What if you could help by playing useful video games, games intended to help advance scientific research by using motivation and reward mechanisms commonplace in classic video games?

This old-school and dreaded category brings back painful childhood memories of well-meaning parents replacing entirely legitimate entertainment such as Doom or Wolfenstein 3D with awful educational games on CD-ROM, games in name only. But where is this category now, in 2020, after 30 years of uninterrupted IT development?

The first thing I see is that the market for useful video games is fairly limited. No AAA title – with the notable exception of *Assassin's Creed Origins*, which asks players to

decode some hieroglyphics – aims to get gamers to push the boundaries of science. Logically, this type of game usually comes from universities or science faculties.

The view of the average gamer is that *Foldit* is aimed at a public already in-the-know

One of the oldest and most well-known of its type is *Foldit*, developed in 2008 by the University of Washington. Entirely based on research into proteins, the game – a quickly downloadable executable file – involves solving 3D puzzles which simulate the “folding” of proteins, the idea being that the human brain, motivated by classic gaming mechanisms such as scores and ranking, will manage to find the optimal configurations that computers have struggled to find. While during the last 12 years, thanks to Foldit, a sizeable number of public

discoveries have been published in esteemed scientific reviews, the view of the average gamer is that *Foldit* is aimed at a public already in-the-know, for whom folding proteins is a distraction in between solving differential equations.

Another significant title in the domain of scientific research is *EyeWire*, a browser game developed by the famous MIT, focused on research into neurones. Like *Foldit*, the aim is essentially to solve 3D puzzles in order to help scientific research. In the same category comes *EteRNA*, based on the “folding” of RNA molecules, a highly topical area of research in the context of the current crisis.

If puzzles are not your cup of tea, the website zooniverse.org is home to approximately 20 projects, some more fun than others, in various disciplines such as the arts, languages and natural sciences. Plenty to keep your brain ticking over, with the added thrill of knowing that while you are having fun you are also contributing to scientific progress. I'll be right back, promise, after just one more go on *Doom Eternal*... ▲

DR

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